

A In the high water stage 75 to 80 second feet has been turned to the Factory Race. During the intermediate stage we have to grade down in proportion to the flow of the river with the other canals and also the city canals.

Q Has that been a practice since that race has been in operation and the mills are using the water?

A While I have had anything to do with it it has.

Q And when a division is made of water by the court commissioners the water then used by the Mill Race is as you have testified to during the low water stage?

A The exchange necessary between the farmers then takes place. Probably not all at the first stage, that is, over three hundred second foot stage.

Q And when you say the farmers you mean the farmers that use water for irrigation under the Provo City system?

A Yes sir.

Q Now, in regard to the use of water of City Race, has the Provo Foundry and Machine Company had a continuous stream during the low water season?

A No sir, they have not enough to run their machinery.

Q They have not sufficient?

A No sir.

Q When there is sufficient in the system what quantity of water is allotted to that industry?

A I think about twelve second feet, they can run very nicely.

Q And during the low water season?

A During the low water season when the turn goes above which is the last two days in the week and Sunday, they are way short, when the lower ditches end and transfers above, and to make it better for them we put all the Sunday time, as much as we could at the upper end, so as not to interfere with power purposes. We tried in every way to make the best use of the water we could.

Q Now, since you have been acquainted with the Provo City water system and the water that has been used by it under the Morse

decree as distributed by the court commissioners, I will ask you whether during any of the years that you have made observations as an officer of the city you have observed scarcity of water for irrigation purposes as well as for mill purposes, have you? A. Yes sir.

Q What years?

A I think the scarest year, I remember of was in 1901.

Q How?

A 1901 or '02, I wouldn't be certain.

Q What persons using water for irrigation during that year do you know of having insufficient water to grow their crops?

A The residents at the lower end of our ditches were the principal sufferers especially on the East Union and the County Infirmary, it was impossible to get water to them, they were all so anxious for it above.

Q Now, for how many years do you know of the water having been used by Provo City in the manner in which you have described for irrigation purposes?

A I have been personally acquainted with it for ten years during that time.

Q In your official capacity? A. Yes.

Q How many years have you had knowledge of the water being used by Provo City?

A For forty-two or three years.

Q What would you say as to the quantity being used now being more or less than was used then?

A I think there is more used now than there was then.

Q Do you know about what the population of the city was forty years ago?

A No, I don't.

Q Do you know of the lands that are now within the platted portion of the city, were many of them then used for farming?

A Yes sir, they were.

Q Then your judgment would be that the city necessities require

more water now than at that time? A. Yes sir.

Q And that use has been constant from the time you have known it down to the present time? A. Yes sir.

Q Are you acquainted with what was known at the Blue Cliff Canal Company right mentioned in the complaint of the plaintiff in this action?

A I am not acquainted with their rights.

Q Well, do you know what was known as the Blue Cliff Canal?

A Yes sir, I know the canal.

Q How long have you known that canal?

A Thirty-two or three years, ever since it started.

Q Ever since it was started?

A Ever since the beginning.

Q You say began about that many years ago?

A Yes sir, somewhere near that.

Q How many years?

A Thirty-five years ago.

Q How?

A Thirty or thirty-five years ago.

Q Have you been familiar with that canal from that time down to this?

A Off and on, yes.

Q Do you know of any water that was ever used through that canal, and when? A. Yes sir.

Q When?

A After they constructed it out on to the bench.

Q About what time was that?

A I think that was about 1901 or 1900, I wouldn't be certain.

Q What water was conducted through that canal at that time?

A The water of Provo River.

Q Was that the first time it was ever taken out upon the lands, for irrigation of the lands?

A Yes sir,

Q Prior to that time and before they turned in the high water in

that canal what water was flowing in it, if any?

A There was some springs running into it all along the side hill, seeping through the bottom of the ditch.

Q How?

A And seeping through the bottom of the ditch, or into the bottom of the canal.

Q Were those springs utilized by anybody after running into that canal?

A Not at that time, no.

Q What was done with them?

A Most of them have been taken into the city water works since.

Q Was there any considerable quantity or considerable water that run in those springs? A. Yes.

Q I am speaking of the Blue Cliff Canal now, was there any considerable water in those springs that run into that canal, if you know? A. Yes.

Q About how much water?

A Probably a second foot and a half in my judgment.

Q For how long -- what was done with the water if you know?

A During the high water it was mingled with the waters of the river.

Q When the canal took out the high water, before they took out the high water what became of the water from the springs?

A It run back into the river, seeped back, or was turned out at a certain place.

Q Before the canal was constructed --

A Yes sir.

Q -- where did the water from those springs go?

A It sank and percolated through to the bottom of the canyon or river, some places it was connected direct with the river.

Q Are you acquainted with what is known as the Steele ranch in Provo Canyon? A. Yes sir.

Q How long have you known that ranch?

A Forty years. It was not known as Steele ranch at that time,

Steele located there after that.

Q What has it been generally known, what ranch?

A The Steele place.

Q Steele place?

A Steele place.

Q How many years has it been known as the Steele ranch?

A Twenty-five or thirty years.

Q Do you know of any springs of water that was used for the irrigation of that ranch? A. Yes sir.

Q On which side of Provo River is that ranch situated?

A On the north side.

Q And how far north of the river?

A It butts right on to the river.

Q Runs down to the river? A. Yes sir.

Q What is the contour of the country there at that point where the ranch is situated?

A It is sloping.

Q Where to?

A Towards the river.

Q Is it a general slope or steep?

A Well, it is rather steep for a ranch.

Q And these springs that were used for the irrigation of those lands, where are they situated?

A They are situated a little higher up, that is, little farther north of where the residence was.

Q On the ranch?

A On the ranch.

Q I will ask you what became of the water after it had been applied to that land?

A It would naturally percolate back to the Provo River.

Q Have you observed those springs in recent year?

A Yes sir.

Q Are they still used on that land?

A Yes sir, I believe they have been using them lately on the land.

Q Does the seepage water still continue to seep into the Provo

River?

A Yes, and run direct to the river bed.

Q What would be the effect if the water from those lands or those springs is taken from the lands and diverted by the plaintiff from the springs without the irrigation of those lands?

MR. JACOB EVANS: Wait a moment, we object to that because the witness has not shown himself competent to testify as an expert.

MR. A. C. HATCH: The witness has already testified that the water after irrigating the lands percolated down into the Provo River, must have an absolute knowledge of it, possibly the objection is not well taken.

MR. CORFMAN: Read the question.

(Question read)

Q What would be the effect of the diversion of the water from those springs without applying it to the irrigation of the lands?

A The flow of Provo River would be decreased.

Q To the amount of the flow of those springs?

A Except evaporation probably.

Q Are you acquainted with the lands in what is known as the South Fork of Provo Canyon? A. Yes sir.

Q Do you know whether or not considerable acreage of farming land is irrigated in that canyon? A. Yes sir.

Q Throughout each irrigation season? A. Yes sir.

Q What effect does the irrigation of those lands have upon the flow of Provo River during the low water stage if any?

A Used in high water to increase the flow. during the low water of Provo River.

Q Why?

A Through percolation and seepage coming back from the South Fork Creek and running into Provo River.

Q Mr. Goddard, I will ask you if the return of the water by seepage to the natural channel of the South Fork Creek is a quick return of the waters applied to those lands? A. Yes sir.

Q Now, are you acquainted with what is known as the Wright estate

water claimed by the plaintiff in this action? A. Yes sir.

Q Have you observed the use of the water upon the Wright estate?

A I have.

Q And after the water has been applied to the lands comprising the Wright ranch or estate, what becomes of the water after it is used upon these lands?

A It percolates back to Provo River.

Q Is that a quick return to the river after the application of the water? A. Yes sir.

Q If that water was diverted by the plaintiff directly into the natural channel of Provo River and recaptured at its diversion dam at the mouth of Provo Canyon what effect would that have upon the flow of the river during the low water stage?

A It would decrease it to that extent.

Q Is that quite true of the water that is applied to the lands in Summit County and Wasatch county? A. Yes sir.

Q As well? A. Yes sir.

Q Now recurring to the Blue Cliff --

MR. JACOB EVANS: Let's see if we understand that. You say the water turned in Wasatch and Summit Counties would return quickly to the Provo River by seepage?

A Would return to Provo River.

MR. JACOB EVANS: He asked you if the other waters would return quickly, you said yes, then he asked if the same conditions applied to the water in Summit and Wasatch counties.

A Some of the waters would return as quick, but others would not. In both Summit and Wasatch counties all find its way back into Provo River.

Q It would have the same effect upon the stage of the river during the low water season as the other tributaries?

A Yes sir.

Q Now, going back to the Blue Cliff Canal and the springs that you say flowed into that canal after its construction, you testified that they mingled with the high water when the canal

commenced carrying the high water and was carried out and used upon the lands? A. Yes sir.

Q Now, during the low water season, what became of the springs?

A They were turned out.

Q Why by?

A By a committee representing the canal company.

Q Were you part of that committee?

A I was.

Q Did you personally attend to the taking of the water from the canal? A. Yes sir.

Q Where was it turned to?

A Turned back to the Provo River.

Q As a part of the flow of Provo River,

A Yes sir.

Q During the low water season, and then it was diverted and used by whom?

A By the decreed parties holding decreed water in Provo River.

Q Under what decree?

A Under the Morse decree.

Q Was any part of it distributed to the Blue Cliff Canal Company?

A Not at that time.

Q At what time was the water distributed to the Blue Cliff Canal?

A After the Chidester decree was granted.

Q You spoke of having taken into the water works system numerous springs? A. Yes sir.

Q Where do these springs arise?

A In the bottom of the canyon, close to the bottom from the Bridal Veil Falls bridge south to Heiselt's land as far as we have connected up now on both sides of the canyon.

Q South of the Telluride flume?

A Below the Telluride flume.

Q And after those waters were taken into the water works system was it used by the city? A. Yes sir.

Q And I will ask you whether that water was charged up to the city as a part of the water awarded to the city under the Morse

decree??

A It was.

Q And has been in practice since they were taken into the water works system? A. Yes sir.

Q Now, are you acquainted with what has been called here in the trial of this case the Maple Spring?

A I never knew them by that name.

Q Do you know what spring is referred to by that name now?

A I do now, yes.

Q And as I understand you have taken that water into your --

A No sir.

Q -- system? A. No sir.

Q What has been done with respect to the taking of that spring?

A Still running into the river.

Q And you have constructed a pipe line for the purpose of taking that into the water works system?

A Noo sir, that is another spring above.

Q Still above? A. Yes sir.

Q Now, the Maple spring at this time is flowing into the Provo River? A. Yes sir.

Q What you understand is the Maple Spring? A. Yes.

Q And there is still another spring above that?

A Yes sir.

Q About how far distant?

A Four hundred yards.

Q Have you taken that spring into the pipe line? A. Yes sir.

Q Have you used it this season? A. Yes sir.

Q And was that charged to Provo City as a part of the water being awarded under the Morse decree?

A If the water works was charged at all, why that was charged with it, I guess, although we took that in later in the summer, after the city engineer gave the water commissioner the amount in the water system.

Q You testified as ^{to} a tabulation having been made by yourself,

P. C. Thompson, the city water master and Mr. Stewart?

A Yes sir.

Q Representing the plaintiff in this case? A. Yes sir.

Q Of the acreage under the Provo City water system?

A Yes sir.

Q And in that tabulation you speak of certain water being used below the tail race for irrigation purposes?

A Yes sir.

Q What tail race do you refer to in that tabulation?

A Tail race of the woolen mills.

Q Not the tailrace of the Smoot Investment company?

A No sir.

Q The canal known as the mill race divides immediately below the plant of E. J. Ward & Sons Company? A. Yes sir.

Q What is the purpose of the division of the canal or race at that point?

A That is the beginning of the Smoot Investment head race that leads to their mill and the old race is their waste way, where they turn it off when they are not using it.

Q That runs directly south?

A South.

Q And is that water that runs through that channel utilized for irrigation purpose, or any part of it?

A Yes sir, in the old channel.

Q What land is irrigated from that water?

A The lands of Elizabeth Stubbs, portion of the lands of John Strong and Joseph Strong and First Ward pasture.

Q Were those lands included in the tabulation that you have testified to?

A Except the First Ward Pasture.

Q All except the First Ward? A. Yes sir.

Q You have testified that Provo City, in your judgment, is now using some more water than it was years ago?

A Yes sir.

Q How do you account for a greater use at this time than was used

in former years?

A The population is greater, more use for culinary and domestic purposes and having connected with the sewerage system, more is used that way, and I think various -- I know there is a little more acreage taken in since the early day.

Q And from your knowledge of the growth of Provo City, would you say that in future years still more water would be required for beneficial use by the inhabitants of Provo City?

MR. A. C. HATCH: If the court please, we object to that question as being immaterial, irrelevant and incompetent. I understand, if the court please, that our Supreme Court has determined that matter -- since the discussion had this morning I have a different understanding what the rule might be with regard to that.

THE COURT: You refer to the case in the 37th Utah?

MR. A. C. HATCH: Yes, your honor, it is not what they may use or what they may eventually think they will want to use, but the rule is laid down hard and fast their rights extend only to the water they have actually applied to a beneficial use.

THE COURT: I don't so remember that case. The objection is overruled, however, pro forma, and that may be argued later.

MR. A. C. HATCH: Note out exception.

A Yes sir.

Q Mr. Goddard, have you in the use of the water under the Provo City water system for irrigation purposes -- is there any water used for the irrigation of trees that are planted in the streets of the city? A. Yes sir.

Q Will you explain to the court how that water is applied and used for that purpose?

A It is turned out of our main ditches running principally north and south, runs on to the side streets east and west where an irrigation ditch doesn't run. I might explain these marks

representing irrigation ditches.

Q Running north and south?

A Running north and south and also the laterals that lead into the lots. Now, we have taken into consideration the shade trees that extend beyond this along the sidewalk and along blocks where there is no irrigation ditch, they have to be irrigated and we have not took into consideration blocks where there has been no trees where there is no irrigation. These were just the actual trees as near as we could get at them.

Q Have you tabulated the blocks and streets showing the use of the water for that purpose?

A I marked them on the map with the water master Mr. Thompson, and we have Mr. Demings tabulation.

Q I now hand you map marked defendants offer No. 68, and ask you to state whether that is a map showing the blocks that contain trees upon which water is used for the irrigation of the trees? A. Yes sir.

Q And on this map those blocks are indicated by red marks?

A Yes sir.

MR. RAY: Have you checked this map as to its correctness, Mr. Goddard?

A Yes sir, we marked it, me and the water master Mr. Thomas, to the best of our knowledge.

MR. COREMAN: Have you any objection to it?

MR. JACOB EVANS: It has not been introduced.

MR. A. L. BOOTH: As we understand he says those red lines represent rows of trees running east and west where they whave to turn water from the main laterals, but those ditches are not used in the irrigation system?

A And north and south, there are two or three streets north and south.

MR. COREMAN:
Water is turned on these blocks for the purpose of irrigating trees?

MR. A. L. BOOTH: But in ditches not used for general irrigation purposes.

THE WITNESS: No, sir.

MR. COREMAN: Some are and some are not. We asked it this way, all these ditches indicated on this map, they do irrigate the trees. We wanted to get the balance those ditches did not supply. That is our evidence.

Q There are blocks that are not supplied --
that

A Trees are not supplied, there are a number of blocks that have no shade trees on them, we did not take into consideration at all. Of course we claim water for them as fast as anyone puts in trees.

MR. COREMAN: We now offer defendant's Exhibit No. 68 for the purpose of showing those blocks.

THE COURT: It may be received.

Q Now, I hand you defendant's offer No. 69, and ask you to state whether that is a form of contract used by the city, entered into by the city and the water users residing outside of the city limits taking water from what is known as the old water system?

A I don't know, it seems to me something lacking here, that is that it may be shut off at any time.

MR. JACOB EVANS: Down at the bottom?

A Yes, down at the bottom, may terminate this contract.

Q Is that a contract entered into with that class of water users?

A That is the contract, as near as I remember it is a copy of the original contract.

MR. COREMAN: Now offer that as defendant's Exhibit No. 69 and ask it may be admitted in evidence.

MR. RAY: We object to it as incompetent, irrelevant and immaterial, not upon the ground it is an unexecuted copy, but that it is a form of contract which a city under the Constitution of the State of Utah has no right to enter into.

THE COURT: The objection is overruled on that ground pro forma. That does not preclude you from any argument based on that position later.

Q Now, speaking of the lateral ditches --

MR. JACOB EVANS: Can we ask one question in connection with this. I want to ask how many services they have under this form of contract.

A I think there is seventy-seven outside of the city limits.

MR. JACOB EVANS: And do you give anybody a service who desires it outside of the city and will sign this contract with the city ?

A We have so far, yes.

MR. JACOB EVANS: You have never turned any of them off or told them under that provision --

A Not that signed that contract, to my knowledge.

Q Now, defendant's Exhibit No. 68 shows the laterals from the main ditches that they use for the purpose of irrigating trees on either side of the street? A. Yes sir.

Q And are those laterals in constant use or only occasional use?

A Occasional use.

Q Used occasionally for what purpose?

A For irrigating the shade trees.

Q About how often?

A About once a week.

Q And the remainder of the time those laterals are not used for containing water? A Yes sir.

Q As to the laterals that have been testified to for irrigation purposes, are they used constantly? A. No sir.

Q Only as occasion requires?

A As their turn comes around to use water.

Q And the balance of the time they don't contain water?

A No sir.

Q About what portion of those laterals are used constantly?

MR. JACOB EVANS: Doesn't the map show.

A The main ditches running north and south and probably extending east and west a block.

Q Are all the main ditches running north and south used constantly?

A No.

Q About what proportion of them are?

A Eight tenths of them probably.

Q About what proportion of them, of the laterals running east and west are used constantly, if any?

A Quite a number of them, I couldn't say, small laterals, there is one nearly on every block.

Q How many of them are used constantly, if any of them, that contain water all the time during the irrigation season?

A I don't think there is any of them that contain water all the time. As the turn comes above them they are shut off.

CROSS EXAMINATION by Mr. Thurman.

Q You say, Mr. Goddard, more water is used now than in former years? A. Yes sir.

Q Is there more water used now than there was when you were water master or City Councilman in '98 and '99?

A There is for culinary and domestic purposes, I believe.

Q Where did you get it since that date?

A Provo River.

Q Is it Class B water or Class A water?

A Class A water.

Q Class A water, and you have taken it up since '98?

A Taken it up?

Q Well appropriated it since '98?

A We took it out of that portion which was decreed to Provo City.

Q Well, I am asking -- you say you have used more water since '98 than you ever did before, and I ask you where you got it, and want to know how you got it; did you get it by appropriation.

A No, we made different uses of it.

Q Did you get it by going to the river and taking more water than you had used before '98?

A No, I don't think we have since '98 taken more water.

Q I am asking you about '98; now you used more water since '98 than you did before?

A I would put it this way, since 1902 we have used the same quantity of water.

Q I am talking about '98 when you were a member of the City Council connected with the water committee and was acquainted with the water and its use; now if you had used more water since that time, I want to know where you got it and how you got it and what class it belongs to?

A We have less water than we had in '98.

Q Then you want to correct your statement a while ago.

A Yes sir, the decree cut the city down.

Q How?

A The decree cut the city down from what they claimed before that.

Q What do you mean by telling me then that you use more water now than you did in '98?

A I didn't understand the question. I was meaning we used more for domestic purposes than we did at that time.

Q Didn't you tell your own counsel that you used more water since then?

A Not since that time, no.

Q Well then as a fact you are getting along then with less water than you had in '98?

A Not what we claimed in '98.

Q I am not talking about what you claimed, I am talking about what you used; are you getting along now with less water than you had in '98?

A Yes sir, I think we are.

Q The city's growth then, and future, does not necessarily require more water does it?

A It does.

Q Requires less don't it?

A No.

Q You get along with less -- aren't you getting along with less?

A We are changing the use of it probably.

Q Ain't you getting along with less water in the aggregate than you have in '93? A. Yes.

Q Then you can get along with less as the city grows larger?

A As I understand, we have a reserve over and above the actual means at that time when the decree was granted.

Q Did you state that before the decree was rendered you had a reserve, you were not needing; remember whether you made any such statement to the court at that time?

A No, I don't.

Q How? A No.

Q You are trying to keep a reserve now, aren't you, in your testimony and evidence in this case?

A Yes sir.

Q Your evidence and meaning of your testimony is to cover more water than you need, is that right?

MR. THOMAS: Object to that as assuming something the witness has not stated.

MR. THURMAN: I am asking him if that is right.

THE COURT: I don't think it assumes anything.

Q Is that right?

A Yes, in a way.

Q Now, how much are you claiming now as a reserve for the future?

A I couldn't say.

Q Is it considerable quantity?

A We are aiming to put all we have to some beneficial use.

Q How?

A We are aiming to put all we have at present to some beneficial use, use it the best way possible.

Q I know, you are aiming to spread it out everywhere, aren't you?

A Yes sir.

Q But the purpose and object in view is to get more than you need ain't that right, answer.

A Yes sir.

Q So we understand the nature of your testimony, can't you tell

us how much more you are claiming than you now need?

A I think the city is entitled to a little reserve for future needs.

Q I am not disputing that.

A I couldn't say as to how much.

Q Haven't you some judgment how much you are claiming now more than you need?

A I would say three or four second feet.

Q Now, is that in the water works or in the ditches?

A It is in Provo City's portion of the river.

Q In Provo City's portion of the river. You do think that you could get along at ^{the} present time comfortable with three or four feet less than you are claiming?

A Not in the water system, we could not.

Q Well in the whole portion to Provo?

A No, I think not, we could put it to a beneficial use at present, but we might change that use to other purposes.

Q Anyway in your estimate, and in your testimony, the purpose is to claim something you don't need for future use?

A We are simply claiming what the Morse decree gave us.

Q Isn't that what you said, you are claiming something for future use that you don't now need?

A I think the Morse decree took that into consideration.

Q I am not talking about the Morse decree; the Morse decree does not concern the plaintiff particularly in this case; can you answer the question now without regard to the Morse decree?

A State the question.

Q Read the question.

(Question read)

A Certain seasons of the year we do need it.

Q Certain seasons of the year?

A Other parts of the year we could get along without it.

Q Get along without it. Now you were a member of the City Council in '98 and '99, there was just as much dissention over

the water question ~~am~~ then as there is now, wasn't there?

MR. THOMAS: Object to that as improper cross examination, incompetent and immaterial as to what occurred then.

THE COURT: Objection is overruled.

MR. THOMAS: Exception.

Q There were dissensions at that time.

Q Fully as much as there is now, or has been in the last few years, wasn't there, Mr. Goddard?

A Yes sir.

Q And yet you had more water then than you have now, didn't you?

A Provo City did not.

Q I am talking about Provo City.

A Provo City had more water then than they have got now.

Q And there was more quarreling over it then there is today?

A Between Provo City and the other canals, quarreling amongst themselves, yes.

Q There was more complaint about scarcity of water then right in Provo City, wasn't there, than there is today or has been in recent years?

A No, I think not.

Q What?

A Not to my knowledge.

Q Now, when you were water master, what year was that?

A The year 1900 to 1903 inclusive.

Q And were you the general water master or superintendent, whatever they called it over the whole city system?

A I was city water master, yes sir.

Q You had general charge?

A Yes sir, under the directions of the council.

Q And how many deputies did you have?

A I had one,

Q Now, in as general water master what were your special duties?

A To see that every citizen got their portion of the water according to their time and according to their acreage.

Q Well --

A And the mills get their portion.

Q What was the duty of the deputy water master?

A He was to take orders from me, and distribute water under my direction.

Q What did he do. What did you instruct him to do, you say it was your duty to see that every citizen got water.

A I take it that he and I are one.

Q Your duties were the same then? A. Yes sir.

Q Did you see that every citizen got water?

A As near as I could, yes.

Q Did you visit all the water users every day?

A Oh, no.

Q How? A. No sir.

Q Did you visit them every week, all the water users?

A No. Anyone made a complaint, of course we attended to that.

Q You sometimes didn't visit them for -- every water user for a month, I assume? A. Yes sir.

Q How?

A That is right.

Q But you undertake to say that in all this vast system, vast in a comparative sense, there was no waste water; how do you know that?

A None ever came under my personal observation.

Q Never was any waste water during the time you were water master?

A I may have seen a flush or two for a little while run through the ditches at the lower end.

Q Did you ever see the streets flooded?

A Yes sir.

Q Ditches over running the streets? A. Yes sir.

Q Is that waste?

A It is waste, but it is waste that cannot be helped under the conditions that Provo City was in.

Q You said you never saw any waste water. I take it that you admit --

A I wouldn't call that altogether waste. It saves sprinkling

when the streets are flooded.

Q That is a sort of economic use, and that is one of the ways that Provo sprinkles its streets ain't it?

A Sometimes.

Q Quite frequently, ain't it, so frequent that you don't think you call that waste is that right?

A Well, it is waste, but the conditions were such it is unavoidable.

Q How?

A Conditions are such in the city it is unavoidable, our little ditches are not like large canals. We have small culverts crossing streets, children play up and down them, they throw things in the ditch, sticks get cross-ways, catch paper and brush, and it goes over in the street and take fifty men to guard Provo City to prevent it.

Q So you think that the flooding of the streets by which water is wasted is one of the natural consequences of the system that you have in use, is that right?

A Yes sir.

Q You don't know of any way of improving that system?

A Not unless at a great expense.

Q How?

A We could improve it at a great expense.

Q You have seen water running in the ditches below the persons who were entitled to it, haven't you? A. Yes sir.

Q And have you seen where that water went to? A. Yes sir.

Q At all times?

A I wouldn't say at all times.

Q When you have seen water going by the person who was entitled to use it, but was not using it, have you followed ^{it} up generally to see where it went?

A When I have been around in that locality, yes.

Q Now, as a fact of necessity in view of these conditions, there is a great deal of that kind of occurrences, ain't there, great many?

A Quite a number. Quite a number that don't use the water every year, maybe this year and not next year.

Q There are many city lots here that don't irrigate at all, aren't there?

A Quite a number, yes.

Q Covered with houses and corrals, yet they have a ticket given to them? A. Yes sir.

Q To take their turn, they take no turn, that water goes on?

A May go on, or may be taken above, depends on what they do with their ticket.

Q You distribute enough water to that lateral, do you not, to supply all of those holdings tickets?

A Supply all the reasonable needs, yes.

Q How? A. Yes sir.

Q Now, if you supply a lateral with water, to supply all of the owners of lots lying adjacent to that lateral, and 25% of those lots don't take water at all, where does that 25% of the water go?

A The other parties use it.

Q Who uses it.

A Parties that do use water.

Q The others on that lateral have their turns, take the water and turn it off, don't they? A. Yes sir.

Q Where does that 25% go if there is that much?

A Lots of times they don't have sufficient to irrigate their grounds and get other turns to finish up, catch waste water.

Q Who do they get it from?

A Anyone they can.

Q Get it around among one another?

A Yes sir.

Q And you don't know whether they take it or not, but if they don't take it, then where does that water that was allotted to persons that don't use it go?

A Someone below would catch it. Sometimes might run to waste a little while or run below.

Q There is a probability under those circumstances of some running to waste, isn't there?

A I stated that in the testimony before , I believed at times there was occasionally.

Q I understood you to say in your testimony you never knew of any water going to waste at all?

A No.

Q How? A. No.

Q Didn't say that? A. No sir.

Q That is the impression I got from your answer?

A I said certain times there was a flush, someone not take their turn.

Q I am not talking about flushes, I am talking about the regular flow of water down a lateral, and there is a large percentage of the lots never take water at all, yet they hold tickets and water is distributed in the laterals to furnish those tickets, BUT while that water goes on, you say it sometimes goes to waste.

A Yes sir, a man may be --

Q Don't you think under a system of that kind that it is highly probable that the custom would be for it to go to waste rather than the exception-- the rule would be for it to go to waste ?

A We cannot regulate those conditions. We cannot keep a man there every minute. He takes his turn when his turn comes.

Q Can't you find out in the beginning? A. No sir.

Q OF the season? A. No sir.

Q By inquiring of men on the lot and finding out who is going to take water that year? A. No sir.

Q Couldn't you find out who has no crops in, don't put any in, got his houses and corrals over the lot?

A Because they don't know what they are going to do one week to another.

Q In the first place why do you issue a certificate to a man that has got nothing to irrigate on his lot?

A Because that lot is entitled to that turn.

Q Well, but if he is not going to use the water why do you --

A We are not supposed to know whether he is or not.

Q You never inquire, you don't inquire do you, of the individual whether he is going to take the water or not?

A No sir, it would be impossible for us to inquire.

Be impossible, require a little effort wouldn't it?

A Yes, more than we would have and attend to the regulation of the water.

Q They pay a tax?

A They do.

Q And you think they are entitled to have the water turned to them whether they use it or not?

A Yes sir, it is their water.

Q It is their water no matter if some other parts of the country here where there are crops are garden stuff growing that need water, you turn water to that lot that is not going to take it and could not use it if it had it just because you think they are entitled to it; is that the system you work here?

A Within the city if the water master resolved there was quite a number of lots that ^{they} were not going to irrigate, he might regulate his ditch and would regulate, give water enough to that ditch and take the other and put it elsewhere where it would be used more beneficial, but nearly every lot has trees or orchard on even if there is no one cultivating it. Generally water them off and on through the season to keep them alive.

Q Have you given attention where you distributed water to those laterals, not only to see whether or not they are wasting water by the means I refer to, but more water is being put on the land than is necessary.

A No sir, I don't remember during my term I took that into consideration. I left that to the judgment of the farmer.

He used it in his time, used what he wanted during that time.

Q Now, some of these lands require more water than others, don't they? A. Yes sir.

Q Some of them require twice as much, don't they?

A Yes sir, I think they would.

Q D^o you distribute the water in that way, giving to one man twice as much as you do another?

A That is the rule, I believe, that the water master takes into consideration the needs and necessities in a certain ditch as much as he can, and runs probably a little larger stream in that ditch than he would in a ditch --

Q Do you know whether that conditions occurs at times under the same ditch?

A Yes, I think there is some cases of it.

Q Take, for instance, the East Union, get out into the farming lands; are the farming lands there all about the same as to their requirements for water, or are there some lands under the East Union ditch that requires more water than other lands under that ditch?

A There is some lands require more than others.

Q Now, do you know if they get more?

A I think they do.

Q Well now --

A Yes sir, they do.

Q Like you to be positive if you know, you ought to know?

A Yes sir.

Q Are the tickets different, ^{as} to time?

A No ticket issued on the Union.

Q No ticket issued?

A No sir, the water master gives a turn out direct to the farmer and he uses water.

Q Does he give each farmer the same length of time?

A No sir.

Q Per acre? A. No sir.

Q Have you in mind some farmers under the East Union ditch that get more time, or more water per acre than other farmers; if so we would like to have their names.

A Yes sir, I believe I can name some. There is Heddenburg, Olif Heddenburg.

Q Does he require more water or less than his neighbor?

A Portion of his land he does require more.

Q Do you know what the portion of his land there is that requires more?

A I should say nearly half of it, one third at least.

Q Now, in that, in his case, how much more water does he get per acre for his bad lands than for the other?

A I couldn't say as to that, how much more.

Q And is it given to him in extra time or in extra quantity?

A Extra time.

Q Extra times? A. Yes.

Q Haven't you any judgment as to the extra time he gets on account of those lands?

A The way we give out the time on the Union if a man was careful and used due diligence, the water master lets him have it until he finishes his irrigation.

Q You don't give him-- simply because where the man lives--

A It has been taken away from him and given to another.

Q You don't then give each man on the East Union so many hours or fractions of an hour as the same may be per acre?

A No sir.

Q For his land? A. No sir.

Q You tell him to take it and get through?

A Yes sir.

Q And then does he turn it down or do you see that it is turned to the next man, what is your system?

A It is turned to the next man, or it may be the man above comes to take the turn.

Q As a rule do you commence above and run down or commence down and go back above, or do you --

A No regular routine to that. They ask for turns as they need it and if the water master things --

Q You say they ask for turns?

A Yes, they ask the water master for turns, and if the water

master has no former engagements their turns come in succession.

Q You don't then have a system --

A No sir.

Q By which you fix turns of a man based upon his acres or the kind of land and issue to him a ticket so that he may know when his turn comes.

A Not on the Union.

Q So a man who misses his turn there may get it?

A Yes sir.

Q Upon application? A. Yes sir.

Q It is a kind of a free and easy system, is it not?

A It is a system of saving water.

Q It is a system of saving water? A. Yes sir.

Q Do you know at the different stages of the river how much water in second feet it distributed to the East Union ditch, take your stage at 18000 minute feet, do you know what the East Union ditch would get?

A No, I wouldn't be certain about that.

Q Do you know what percentage of the river ^{it} would get or what percentage of the water awarded to Provo or Provo City it would get, have some knowledge of that.

A I think somewhere near twenty second feet, I wouldn't be certain.

Q How much?

A About twenty second feet, twenty to twenty-five second feet.

Q That is when the stage is at 18000 minute feet?

A I don't know, I think it would be lower than that. I wouldn't be positive as to that though. The carrying capacity of that ditch is somewhere near thirty second feet.

Q Mr. Goddard, as water master during the period of three years or four, don't you remember what proportion of the waters the city controlled, is distributed to the East Union ditch?

A No sir, that was left to the judgment of the water master who made that division.

Q You were the water master?

A Yes, at that time, but I don't recollect now what it was.

- Q Can't you approximate the quantity?
- A I should judge somewhere eighteen or twenty second feet.
- Q Eighteen or twenty second feet? A. Yes.
- Q Do you know how many acres of land were irrigated under the East union ditch by that water?
- A Yes sir.
- Q How many?
- A 956 acres.
- Q 956?
- Q 956 acres.
- Q You say the ditch carries about thirty second feet, did I understand you?
- A Yes sir, that is generally what they have in it during high water.
- Q Maximum capacity? A. Yes.
- Q Now, is this that you are giving me, 956 acres or the 18 or 20 second feet, is that the low water stage or the medium or what is it?
- A That is the beginning of the low water stage I would call it.
- Q Would the waters of the river at that time be down to 300 second feet?
- A Just about.
- Q And at that stage the East Union gets 18 or 20?
- A Best of my knowledge now.
- Q Get down then to a duty of about 50 do you not?
- A I have never figured that out.
- Q 956 acres for about 18 or 20 second feet?
- A Besides that there are 791 city lots that are irrigated out of that 20 second feet.
- Q Let's see how many?
- A Seven hundred ninety-one city lots or 356 acres.
- Q Seven hundred ninety-one city lots?
- A Yes sir, and ninety lots or ninety acres are our in the farm.
- Q Is that what you call farm lots?
- A Farm lots.

Q That is 90 acres?

A 1402 acres irrigated from the Union.

Q Now, that 791 city lots that is in addition to the 956 acres?

A Yes sir.

Q Does 791 city lots get, each lot get as much as an acre?

A That is the way we always used to figure it, but the city lot requires --

Q You know about how you used it, I want to know so as to distribute this water, there are --

A Somewhere near as much as an acre having to be watered once every week, and small streams we had in our city ditches.

Q Lets see--

A It would take nearly as much to water the lot, the whole lot as it would an acre.

Q There was 791 city lots. We will call them acres for the purpose of applying the water, then you say there are 91 farm lots?

A 90 farm lots.

Q Ninety?

A No, 200 farm lots or 90 acres.

Q Oh, 200 farm lots. Now, do each of these lots get as much as a city lot?

A Those farm lots?

Q Yes.

A They are entitled to it once every week. I should judge they would get as much or more.

Q Get as much or more, then we have, for the purpose of figuring the duty here, we have 791 city lots which is equivalent to that many acres for irrigation purposes; 200 farm lots which added to this gives us 991 lots and 956 acres that is watered by the East Union ?

A. Yes sir.

Q And watered at the stage of about 300 second feet in the river, that is irrigated by 18 or 20 second feet?

A Yes sir. Mind you, all that wouldn't be a constant flow at 20 second feet. There would be an exchange with the mills and

and it would principally come out of the East Union.

Q Well, you mean by that that the East Union wouldn't get that much constantly? A. No sir.

Q It would be still less water? A. Yes.

Q Now, do you think they make an exchange with the power companies when it is at the 300 foot stage?

A They begin to I think at that time.

5:00 P.M., Recess to 9:30 A. M. June 21, 1916.

HENRY J. W. GODDARD - - - - -

CROSS EXAMINATION by Mr. Thurman continued.

Q The system you described yesterday with relation to irrigation of city lots under the East Union, I assume is the same throughout the platted area, isn't it?

A Yes sir.

Q You issue tickets? A. Yes sir.

Q To every lot owner? A. Yes sir.

Q Whether he irrigates his lot or not? A. Yes sir.

Q How far west in the platted area does the East Union canal water irrigate?

A It irrigates First West partly. There is two blocks, parts of blocks on the northern tier here on Fifth North that irrigates from the Factory Race on First West Street.

Q The East Union ditch practically covers the platted area east of the Factory Race, don't it, everything east of the Factory Race ?

A With the exception of five or six blocks in the north end from Fifth North down to the woolen mills.

Q Is that irrigated by the Factory Race? A. Yes sir.

Q So those are some of the lots you testified to yesterday that were irrigated above the woolen mills?

A Yes sir,

Q Then are some on the west side of the Factory Race also that is irrigated from the Factory Race above the woolen mills?

A Yes sir.

Q That water for the irrigation of those lots is taken out of the portion allotted to that race? A. Yes sir.

Q Does that race connect directly with the river, Factory Race?

A Yes, it is connected in this way, that all the water runs to a certain point, and divided from there to the Pressed Brick Company.

Q All of the waters of Provo City? A. Yes sir.

Q That is a gauging station, is it, or measuring point?

A They are not measured above the Pressed Brick Company.

Q I say they are measured about opposite the Pressed Brick?

A Yes sir, except Banner's race.

Q Now, does the Factory Race water also furnish power for the Pressed Brick Company? A. Yes sir.

Q Are there any other power plants on that race above the woolen mills? A. Yes sir.

Q What is it?

A Provo Ice & Cold Storage Company.

Q They all use the same water power?

A Yes sir, I might explain that the Pressed Brick Company uses the City Racewater and the Tanner Race water and also Little Dry Creek water.

Q Now, are there some -- do you know how many lots are irrigated by the Factory Race, platted lots, I think you gave it yesterday, but I don't have it in mind.

MR. RAY: Eighty-six city lots.

A There are eighty-six lots.

Q You call city lots?

A What we call city lots.

Q Are there any farm lots?--

MR. RAY: That is above the woolen mills?

A That is above the woolen mills, water taken out above the woolen

mills.

Q Any farm lots above the woolen mills?

A There is twenty farm lots above.

Q Then there are some lots watered below the woolen mills from the Factory Race? A. Yes sir.

Q How many are those, the platted lots?

A Fifty-five platted lots and fifteen farm lots.

Q And any farm acres?

A Yes sir, 98 farm acres below.

Q I don't know as I asked you, are there any farm acres watered above the woolen mills from the Factory race?

A Yes sir.

Q How many?

A Twenty-seven.

Q Have you got the total of those lots, city farm acres on the Factory Race, haven't you there?

A No, I haven't the lots totaled.

Q Don't take the trouble, Mr. Goddard.

MR. RAY: I can give you that, Judge, if you want it.

THE WITNESS: One hundred six above, seventy-five below.

Q That is lots? A. Yes sir.

Q I assume that the lots, both city and farming are considered acres each an acre for the purposes of distribution of water?

A That is the way the water masters used to figure it, and I don't know but they do now. It takes nearly as much water to irrigate a farm lot as it does an acre.

Q You understand that to be the --

A No a farm lot but a town lot, includes all of them.

Q The East Union canal diversion point is the highest on the river, ain't it, on the Provo River?

A Yes sir.

Q Provo City water, I speak of? A Yes sir.

Q Then which diversion point comes next, coming down the river.

A The factory Race is the next.

- Q And then the City Race?
- A And then the City Race.
- Q Then the Tanner Race? A. Yes sir.
- Q The four canals, East Union, Factory Race, City Race, Tanner Race are the means that supply water to the city under the city jurisdiction? A. Yes sir.
- Q There is no separate water works? A. No sir.
- Q Now, this water is measured at some point opposite and near the Provo Pressed Brick Company's plant? A. Yes sir.
- Q Are they all measured, do they all flow down to that point together?
- A In low water, yes sir.
- Q In low water are they all put in the one channel?
- A Above there, yes.
- Q What channel are they put into?
- A Known as the City Creek.
- Q City Creek? A. Yes sir.
- Q Does East Union go in that too?
- A It does.
- Q All of them? A. Yes sir.
- Q Are the four points of diversion there out of City Creek?
- A No sir.
- Q You make different measurements? A. Yes.
- Q Each canal has its weir? A. Yes sir.
- Q Do you know about what portion of the provo City supply is awarded to the Factory Race say when the East Union has its eighteen or twenty second feet, which I think you said was the case when the waters of the river receded to about 18000 minute feet or 300 second feet, do you know at that time about what proportion is awarded to the Factory Race?
- A I think we estimated about 25 second feet constant stream as a constant for the Factory Race.
- Q 25 second feet as a constant? A. Yes.
- Q That would be when you would be getting in the East Union eighteen to twenty?

- A The East Union would be more than that constant.
- Q I am talking about when the water gets down to 18000 minute feet.
- A So am I.
- Q I understood you last night to say eighteen or twenty second feet in the East Union. I was trying to get that.
- A I did, but I said in the day time, there was an exchange in there.
- Q All right.
- A Of Factory water night water for day.
- Q How much more would you get at night?
- A We would get about 41 second feet in the Union at night.
- Q In the Union at night; how would you put it into the Union?
- A Head gate.
- Q How would you crowd it into a 30 foot capacity ditch is what I want to get at?
- A The average capacity of the Union taking it the whole length, would be about 30 feet, but the head of it will carry close to 50 feet.
- Q So that is what you mean, then you don't mean to say that the capacity of the Union ditch is only 30 feet.
- A No, that would be the average entire length. There is there is ditches and irrigated farms taken out immediately below the measuring device and our town ditches all across the head of town is taken out, some twelve or thirteen ditches.
- Q So you would have an average, would you say of about 27 or 28 second feet in the East Union?
- A Somewhere about 30 I should judge.
- Q If you add 20 at night? A. Yes sir.
- Q That would be equivalent to ten for the day and night, wouldn't it?
- A I didn't understand that.
- Q That would be the equivalent of a continuous flow for the whole day of 10, if you take 20 for twelve hours?
- A No. we trade 16 second feet of the Union water in the day time

for about 20 at night, of the Factory water 18 to 20, I think.

Q That is what I say. A. Yes.

Q You would have ten feet added for the twenty-four hours would be equivalent to twenty feet for twelve hours?

A Making an average flow of about 30 feet in the Union.

Q 28 to 30 according to your testimony last night?

A Along there, depends on the flow of the river. I might explain right there that that is about the time the change is from intermediate to the low water, and Provo City and the lower canals seldom get their proportion at that time. For two or three days they are tightening up their dams and the commissioner is busy above regulating, and we seldom get our amount, and the river is falling pretty rapidly at that time.

Q Now let the court and counsel know about what the stage of the river is at that point where the intermediate is blending or merging into low water, what is the flow of the river?

A I would say the intermediate entered about the 18000 minute foot stage.

Q So your testimony stands about the same as it did as far as that is concerned? A. Yes sir.

Q As you gave it yesterday 18000 minute feet is what you call the beginning of the low water? A. Yes sir.

Q And that is about the time you make this change you speak of?

A Yes sir, before that the commissioner has hardly been necessary except in extreme cases. There is plenty of water for most of them.

Q Now, is there a time ordinarily in most -- nearly every season, when the power plant don't take water at all for short periods, either day or at night?

A Holidays I think they shut down.

Q And Sundays, of course?

A And Sundays.

Q Well, is there a time when they yield to the agricultural interests even when it is not Sunday or holiday, have you ever known that to occur?

A No sir, unless some arrangements are made with the irrigators.

Q Well, I asked you if you ever knew it to occur that they closed down entirely, I didn't ask you to --

A I don't know, I have heard of it, I don't know for myself.

Q Well, it is quite commonly understood that they have done that, don't you know that?

A I have heard of it, I say.

Q When it comes to an emergency, very low water, the city has claimed the right to do that, hasn't it?

A Not unless they made some exchange with them.

Q You never knew of Provo City to claim the right to take that water in extreme low water?

A No sir, I don't know of it.

Q Never knew of any such claim?

A No sir, I never seen one. I have heard.

Q You were a member of the City Council in 1898, weren't you?

A Yes sir.

Q And 1899? A. Yes sir.

Q How long were you in, for two years?

A Two years that time, yes sir.

Q Two years at that time?

A Two year terms, and I was in two terms in succession.

Q And while a member at that time you know of no such claim?

A I don't remember of any.

Q Of the city. Well, did you yourself ever make arrangements?

A No sir.

Q While you were in the city?

A I did.

Q When was that?

A It was either in 1900 or 1901 that the water was very low, and we could not spare my town ditches enough to let them run, and I made arrangements with them to have enough to turn their wheels three days in the week and the farmers to have the whole race four days, including Sunday. That was only for that year.

Q The farmers --

A And for about a month, I think, during that year.

Q The farmers would give up three days, is that the idea?

A Yes, part of their water.

Q And the factory would give it all up four days.

A Yes sir.

Q Do you remember what part you gave up, the farmers?

A We took it principally out of the Union which was not a time ditch, and some out of the Tanner Race.

Q The Union generally had water to spare, didn't it?

A No sir.

Q Do you remember how much you had in the Union at the time you gave up an amount ?

A I don't, no sir.

Q What is the lowest water, least quantity of water with which the factory can run and do business?

A I don't know myself, but I have heard that it was 45 second feet,

Q It takes that to furnish --

Q That enables them to develop some power and the Hoover mills can run and all the other mills.

Q It takes more for the woolen mills than either of the others?

A Yes sir. the woolen mills can use 85 to 80 second feet.

Q Did you say 45 for all the mills or the woolen mills?

A 45 for all of them, that is, one after the other, they use the same water over.

THE COURT: As I understood the statement was when the woolen mills could run and they had a quantity to enable ^{them} to run, all the others could run because they could run on less water.

Q You don't include the foundry?

A No, that is on a different race.

Q Is that the only one that is on a different race, the only one of the power plants that have been mentioned here?

A That is the ~~was~~ only one been mentioned and Mr. Poulson has one on the Union, I don't know whether he has abandoned that or not.

He has a mill there yet and runs it a little every year, I

believe, but it don't require very much water.

Q Now, I don't believe I asked you this, I want to follow that up with all the rest, what quantity does the Factory Race get for all purposes, power and irrigating lots and lands when the East Union is getting 18 to 20 in the daytime.

A They get 45 second feet.

Q 45 second feet?

A Aim to keep it up to about that stage, I would say, forty to forty-five.

Q You mean that much measured to it at the measuring gate?

A Yes sir.

Q Well, it has to irrigate these lots? A. Yes sir.

Q And lands out of that above the foundry,--above the woolen mills?

A Well, I am not certain how they do that now, whether they have more or not for that irrigation.

Q If the 45 feet was measured there and something over two hundred acres was watered above the woolen mills, then the woolen mills must be able to run with less than 45 feet?

A It would be in that case, yes.

Q You cannot say definitely just how that is?

A No sir, I have not had the turning of the water since I was water master,

Q Now --

A Somewhere in that neighborhood.

Q Now, take the City Race at this same stage of the river, about what quantity is apportioned or measured to the City Race when there is 18 or 20 to the East Union and 45 to the Factory, about what does the City Race get?

A About 20 or 21.

Q 20 or 21?

A Yes sir -- 22.

Q 22? A. Yes sir.

Q You now have 45 and 18 and 20, say 20, 65, and 22 is 87, what is the Tanner Race?

A We make a little exchange with the Tanner Race water and Factory

Race, they carry 12 second feet in the day time.

Q In the Tanner 12 second feet in the day time?

A Yes sir.

Q Then do they yeild it at night?

A They do, they get an increase at night up to 20 second feet.

Q That is, the farmers do?

A Nights and Sundays, yes sir.

Q Well then, you get an average of six for the twenty-four hours from the Tanner Race?

A About 16 an average.

Q Let me see if I get that clear, Mr. Goddard, you have had how much as a constant in the Tanner Race?

A Constant would be about 16, I think.

Q During the day do you have 16?

A No, we make an exchange, we have 12 in the day time.

Q You have 12 in the day time?

A And got that 12 at night or 20 at night.

Q You get 20 at night?

A Making 32, half of 32 is 16 wold be the average.

Q How many acres of land do you water with that, city lots and farm lots?

A 314 acres, 239 platted lots and 20 farm lots.

MR. RAY: Total of 430.5, isn't it?

A 430.5 acres, yes.

Q Now, is that all that is done with the Tanner Race water, to irrigate these lands, or does it also furnish power?

A Not now, that is all that is done with it to irrigate. There are some culinary uses and domestic.

Q I am still a little in doubt as to the average of that race, you have 12 in the day time? A. Yes sir.

Q And 20 at night? A. Yes sir.

Q Which is equivalent to ten for the twenty-four hours?

A No, sixteen.

Q But you have 20 in all? A. Yes sir.

Q You are right then, I get your idea. You were right, you have

about sixteen?

A Yes sir, on an average.

Q And with that 16 feet your irrigate this four hundred and odd acres in city lots? A. Yes sir.

Q Now, what kind of lands generally are under that race?

A Lands under the Tanner Race are the hardest lands to irrigate we have.

Q What is the general nature of the soil and the subsoil?

A They are a sandy loam or silt, gravelly, underlaid with loose gravel formation and boulders.

Q About what is the depth of the soil, the average depth of the soil?

A It varies from two or three inches to two feet, two and a half, maybe some part of it is three feet.

Q Do you know the method employed by the farmers in irrigating those poorer lands, thin soil?

A Yes sir, I have watched them irrigate.

Q What is the method used?

A Their method is to confine the water as much as possible in the stream, and flood it over as quick as possible. If they scattered it very much it would run forever on that kind of land.

Q I guess that is right.

A Like a sieve.

Q About how are the length of runs?

A They vary from six or eight rods to twenty four or five. I don't think on that very gravelest land though that they run over twelve to fifteen rods, some of them five or six.

Q Do you know about how many irrigating streams they divide that 16 constant in watering that land, or, I will put it another way. About what size irrigating stream so they use on that land?

A Two and a half to three second feet, maybe four sometimes in the night time when they have a good stream they would use four probably.

Q They could even use more than that with profit, couldn't they?

A Yes sir, if they had it they could make better advantage with it.

Q If they put it into different turns they could all get more use of the water, couldn't they, even if they don't have so many streams?

A No, our town lots irrigated from the Tanner Race, I think there is three -- about five town ditches.

Q Five town ditches?

A Yes, five or six, I wouldn't be certain, and the balance is used for acreage.

Q Do those town ditches take each over about a second foot?

A One of them does. We have that double time, two streams, two garden streams, probably second foot each, but under that it also waters a few acres and they have the whole stream.

Q Well, that would leave you about ten second feet for the farm lands?

A. Yes sir.

Q Couldn't that be handled more profitably by making two streams of it, and have turns together and the farmers get it over that land quicker?

A I think we do have it -- we have it in three streams any way part of the time, I believe in two, I wouldn't be certain as to that.

Q That is probably when it gets lower?

A I think there is one small farm ditch ends and then it is doubled up into two.

Q Did you give the distribution of the water much attention last year?

A I went around quite often over the whole system. It was my duty to do so, and made several trips.

Q You, I believe, are the commissioner that is in charge of that department?

A. Yes sir.

Q Of the city business Mr. Wentz was the commissioner?

A Yes sir.

Q I understood you to say yesterday that you never knew Mr. Wentz had taken away a portion of the city's water last year until

you heard him testify on the stand?

A No, I didn't hear him testify to that, I saw it in his report.

Q That is the first you knew of it?

A That is the best of my recollection now.

Q You didn't know it at the time?

A No sir.

Q You didn't miss it in the flow of the water, business went on--

A I don't know as I did.

Q Business went on just the same?

A I believe the water master reported that.

Q But you didn't notice any difference?

A I didn't know of it.

Q In the water?

A I think the water master reported it and wrote Mr. Wentz a letter about it.

Q I understood you to say you never heard of it until you saw it in his report?

A I recollect now that the water master did speak about it and also wrote a letter, if I remember right.

Q But you noticed no difference in the flow of the water yourself?

A Myself I didn't no.

Q How?

A I didn't notice any myself. It would be hard to detect that in all our distributing systems.

Q Wouldn't you notice a loss of about 14 second feet of water?

A If you noticed where it goes. I don't think we had a loss of 14 second feet.

Q How?

A I don't think we had a loss of 14 second feet.

Q I understood that was what Mr. Wentz took from the Provo City system. I may be mistaken about it. In any event, whatever it was, you didn't yourself miss it although you were in charge of that department of the city's business, was looking out for the city's interests, didn't notice it, did you?

A No, I don't remember of noticing it.

Q Didn't notice it in the character of the crops raised or the facility for supplying other municipal wants, is that right -- the reporter can't get your nod.

A No, I say I didn't notice it particular. I don't think there was that reduction.

Q You don't think there was that reduction?

A No sir, I would have noticed fourteen second feet or four or five second feet.

Q If there was a reduction your supply was such that you didn't feel the need of it, is that true?

A If there was such a reduction it was taken from the Factory Race.

Q I I don't care where it was taken from?

A And we protested against it.

Q You did protest against it?

A The water master did, yes sir.

Q Did you know that he was protesting at the time?

A He told me that he had written to the commissioner.

Q When did you think of that, Mr. Goddard?

A Just a few minutes ago.

Q You didn't think of it when you told Mr. Corfman yesterday that the first you ever knew it until you heard it from Mr. Wentz or got it from his report, you didn't think of that at that time, that you heard of it last year?

A I think the question came up different there, whether I heard Mr. Wentz testify, I said no.

Q Didn't he ask you if you -- when you first learned that Mr. Wentz had taken some of the city's water last year, isn't that what he asked you?

A I don't think so.

Q Didn't you say you never heard of it until he reported it?

A The water master reported it.

Q Now, you wouldn't miss that if some of the water^{you} had last year was some of this water that you said you had been claiming and having for future use, not for present needs, that might account

for your not missing that quantity, might it not?

A If you will allow me to explain something there I might make that clear to you. After the Morse decree was rendered we were allowed a certain amount of water, certain portion of the river. At that time we took that and put it to the best use we could, divided it up amongst the different canals and Factory Race and shortly after we started to take in more water for our water system, which at that time only carried five second feet, and at the present time it carries eight.

Q How did you get this additional water for your water system?

A We took it out of our irrigation system I might have called it an excess or surplus, or something that way, it wasn't what I meant.

Q You took it out of your irrigation system, such as the East Union and others?

A And others, we took it out of the whole amount of the city's portion.

Q And you found they could spare it all right?

A They did spare it.

Q They got along --

A And they are using it only in a different manner running through the pipe line instead of through the irrigation ditches. for lawn sprinkling.

Q I know, but the farms were reduced even before the Morse decree, the farms were reduced some, weren't they?

A I didn't understand that question.

Q I think probably my question is not proper. The Morse decree doesn't give to the East Union Canal so much?

A No sir, gives it to the city.

Q So the city just shifted from one canal to another?

A Yes sir.

Q From the canal to its pipe? A. Yes sir.

Q And then in addition to that has gone up the river and taken in new springs?

A Those springs were always part or feeder of Provo River, and they

were counted in against the city in their proportion.

Q Whatever springs you take into the pipe line is a part of the percentage of water to prove? A. Yes sir.

Q And taken from the irrigation company? A. Yes sir.

Q Or the irrigation canals?

A Taken from the city's portion, yes, what we have.

Q So that the way you supply your pipe and increase from time to time is simply by taking from the agricultural and power interests?

A And domestic use, that water is used for all purposes.

Q You take from these other necessities within the city to supply the city water works? A. Yes.

Q Now, as a fact, Mr. Goddard, I will ask you if you know that the city, after the Morse decree in 1902, went through the form of appropriating water by posting notices or making application to the State Engineer's office or in some form of appropriation? A. Yes sir.

Q They did that? A. Yes sir.

Q That is, for your pipe water? A. Yes sir.

Q Now, those you didn't take from the agricultural interests within the city, but you were getting that by appropriation from a public stream?

A No sir, that amount we counted in with our decreed water.

Q Why did you appropriate it in that way, why did you go through that formality?

A I don't know why we did it, there is some stipulation entered into, I believe, after we filed on it.

Q Somebody connected with the city thought it was necessary to make the appropriation in the usual form and under forms of law instead of taking merely from the farmers within the city, didn't they?

A It seems like they did, yes, thought something to that effect, they done it anyway.

Q That is the basis of at least a considerable addition to your

present city supply, isn't it?

A No sir, it is in the city supply at the present time.

Q How?

A They are in the city supply at the present time.

Q Well, it was an addition to the city supply you had had before then?

A Yes, still a part of the decreed water.

Q After posting these notices you then extended your pipes to the springs where the notices were posted and took them in?

A I never saw the notices posted, I don't know where they were posted, I have seen the appropriation or record.

Q But you know they took the springs in? A Yes sir.

Q How much, if you know, has been subtracted from the agricultural canals, canals used in supplying farms and lots, how much has been subtracted from those on account of the water the city has taken into its pipes?

A I think it would be taken in proportion all over the whole town, whole irrigation system.

Q Well, do you know?

A No sir, I don't.

Q You don't know?

A The whole portion wouldn't be taken from any ditch.

Q How many second feet have you subtracted from the agricultural interests to supply this additional quantity to the pipes?

A You mean from the first taking of the water into the city pipes?

Q Say since the Morse decree?

A Well, it would be different amounts different seasons of the year, taking it in the spring, early spring, our springs are very low in the winter months and the highest along in July and August. Then they begin to fall, fall gradually until the next raise.

Q Do you know if the city arbitrarily took that water from the supply for the farmers and lot owners, or did it enter into some arrangement with them like it did with the factory people?

A No arrangements.

Q Just took it?

A Yes, they looked on that as part of the water used for domestic and culinary purposes here, I suppose.

Q Well, they took it without arrangement as you understand it?

A Yes sir, I never heard of any arrangement being made with anyone as to that.

Q In other words they took from the city and the farmers, settlers, water through their water works because the farmers had therefore had it through these ditches for culinary purposes?

A Part of them.

Q And then charged the farmers for --

A Running it through the pipe lines.

Q -- the water they furnished?

A That's it.

Q That is thrifty business.

A Business.

Q You don't know whether any charge has been made against the the city in, entire system for the spring taken last year and if so, how much?

A Any charge made against the city?

Q You say these needs are charged against the city. I take it what you mean by that is --

A Charged to our account, yes.

Q If the city takes a new spring the entire system under the Morse decree charges that against the city's portion?

A That is the way it should be.

Q I see that it is included? A. Yes sir.

Q But you don't know whether any entry of that --

A I don't know whether the commissioner ever measured the water of the city or not, or just took the city engineer's word on the amount of the flow which probably at that time it was only eight feet at the time the engineer reported to Mr. Wentz the water commissioner.

Q Do you know whether the city has been charged with that particula
spring last year and if so how much?

A I don't.

Q Well, are you one of the commissioners now?

A Yes sir.

Q You still at the head of the water service?

A Yes sir.

Q But you don't pay attention to matters of that kind, I suppose?

A Well, I don't know.

Q Taking in of a new supply of water?

A Yes, I have charge of ~~xx~~ that, superintendent of the water works,
that was under me did the work.

Q I didn't understand definitely yesterday by what right you
claimed to take that spring that is in dispute with the Blue
Cliff Company.

A By the right of the Chidester decree decreeing all springs below
Bridal Veil Falls to the city, and below the flume of the
Telluride Power Company. That was the reason we took it in.
It was not decreasing the flow of the river or injuring any
other party, because that amount would be charged up against
the city.

Q As the head of the water department of the city you are familiar
with that decree more or less, aren't you?

A Yes sir.

Q That portion of the decree to which you refer is simply a
stipulation between the power company and others, and does
not include the Blue Cliff at all, isn't that true. That is,
the Blue Cliff is not a party to that stipulation?

A Maybe not to the stipulation, but they are to the decree. In
fact, the Chidester decree, initiation of it, or starting of
it, was based on the Blue Cliff rights and those high water
canals that were taking out water at that time or beginning to.

Q But that provision in ~~that~~ the decree, the Chidester decree
simply recites that it is stipulated between two of the parties,
don't it?

A. Yes sir.

Q And the Blue Cliff is not one of those parties, is it?

A Not in that stipulation, I don't think, but the Blue Cliff had a stipulation with the Timpanogos Canal Company to let so much water go over their flume to supply the Timpanogos Canal, and if those springs were taken they would have to furnish that much more over their spill way to supply the Timpanogos. That was the reason they stipulated with the Telluride.

Q Did you know at the time you took that spring that the Prove Reservoir Company, the plaintiff here, claimed it?

A No sir, I did not.

Q By virtue of its rights? A. No sir.

Q Didn't know they claimed it, what is the answer?

A No sir.

Q Don't you know that Mr. Evans here, A. J. Evans and J. R. Murdock and others met with you and discussed that very matter, asserted a claim for the plaintiff?

A They did after we had started work on it.

Q They did it before you took the spring, didn't they.

A No, I think we took it as soon as we started work on it.

Q How?

A I think we took it as soon as we started work on it, as I understand it.

Q Didn't have it in your pipe?

A But we were preparing to put it in the pipe and develop^{ing} the spring.

Q You knew at that time that they claimed it as a Blue Cliff right, didn't you?

A When we met with them, yes.

Q You went up there and entered upon lands that did not belong to the city as trespassers in order to take it, didn't you?

A We didn't know that and we fixed that, got the right of way from Mr. Heiselt.

Q What?

A We purchased a right of way from Mr. Heiselt as soon as he

returned from California, got a right of way under the railroad grade, railroad track, everything was perfectly straight and legal, I believe.

Q At the time you took it you attained the right of way?

A No, Mr. Heiselt was in California, but he told, I think he told Mr. Snow, the superintendent, they could fix it all right previous to that.

Q That was done after the commencement of this suit, wasn't it?

A Yes, I think so.

Q You took it across the Blue Cliff Canal, didn't you?

A Yes sir.

Q Did you have a right of way --

A Old abandoned canal.

Q How?

A The old abandoned canal.

Q Did you have a right of way from the Blue Cliff canal to go and take water it claimed, not only water it claimed but cross its canal with it?

A I didn't know the Blue Cliff owned any land there except the right of way which had been abandoned, and I thought Heiselt -- that it went back to him, which I think it is yet.

Q Did you report to the Water commissioner Wentz that you had taken that spring in, and the amount of it, and for him to charge it against Provo City supply, or did you take that little quantity whatever it was, in addition to what you had been getting from the commissioner?

A I don't remember of ever reporting to Mr. Wentz, but Mr. Wentz is not in the habit of measuring all these little laterals when he can go to the weir and measure the whole thing at once. He could have measured the water works at any time he asked if he had measured it.

Q This spring comes in below your measuring device, don't it?

A No sir, we have a measuring device at Gillespie -- James Gillespie, I think his name is, on the hill, where you go down the hill

into the bottom of the canyon.

Q That is open to the commissioner to measure, is it?

A No, we keep that locked.

Q Keep that locked? A. Yes sir.

Q He could not have measured it without measuring it at that point?

A He could have applied to us for the key.

Q How?

A He never asked us for the key to measure it.

Q Probably he didn't imagine that you would be turning any other water there?

A He knew that, he passed up and down the canyon there daily, or very often.

Q I omitted one race, I want to get that record, the City Race, how much water is distributed to the City race when the other races you have mentioned have the quantity at the beginning of the low water or 18000 minute feet period?

MR. COLEMAN: He answered that.

A 22.4 second feet and at night time 25, means that for the night turn divide that factory here among them.

Q Now, you can give us briefly the acres watered, ^{under} that, calling lots city lots and farm lots an acre.

A 960 I make it.

Q 560?

A 960.

Q That is including lots, city and farm lots?

A Yes sir.

Q What system is used on the city race to notify users of water of their turn?

A Written notice, that is, time card for the season.

Q Is it a time card made up for the entire season?

A Yes sir.

Q In the beginning of the season? A. Yes sir.

Q Does that commence right in the beginning of the irrigation season? or when the water recedes to a point where regulation

is imperative ?

A It commences in the beginning of the irrigation season, usually take them from the first of April, sometimes the don't start until the middle of April or later, and may start before.

Q That notice indicates the time when each user will take the water from the beginning of April until the end of the season?

A Yes sir.

Q And ~~what~~ what is the average time for the farm, same as the East Union, every two weeks?

A Every two weeks, that is their time, every two weeks.

Q And the lots once a week?

A Once a week.

Q The tickets so indicate? A. Yes sir.

Q So on that side of the city, that part of the city, there is a system entirely different from that on the East Union?

A Yes sir.

Q Now, is the system you speak of supplied by the City Race the same in the Factory Race? A. Yes sir.

Q Tickets and notice, season tickets?

A Except to Mr. Stubbs below the Smoot tail race or Smoot mill.

Q Why the distinction there?

A Because they have to depend on the Smoot Lumber Company to get any water through in the low water season. Might shut the race off perfectly dry, there is no depending on it.

Q When they shut the race off entirely dry Smoot Investment Company, where does the water go to?

A Goes into their tail race, back into the Factory race at the junction by the First Ward Pasture.

Q And that could not reach --

A That is too low to get any water out for irrigation purposes, their tail race.

Q About what quantity of water is in that tail race that is not available for irrigation purposes?

A I don't know, the whole Factory stream when it would be in there or the water that was within the race.

- Q Who, if you know, gets the balance of the factory water at night, you have given us the East Union Portion, who gets the balance of the factory water at night when the factory is not running?
- A The ditches that are timed on it, Third West Ditch, Watson Ditch, First West and Stubbs. The First Ward Pasture Company, ^{have} had their water through that, of course, that has to run through that race.
- Q Does the First Ward pasture contribute to the city or compensate the city for furnishing this water the same as the others, or have you anything to do with that?
- A No, they don't only in a way, they conduct their water from their land through the pasture into the lake.
- Q Do you furnish -- you say Stubbs are not deducted, do they pay?
- A They do, yes sir.
- Q They contribute?
- A Yes sir, some.
- Q Which of these lands within the city jurisdiction require the most water?
- A The lands as a rule under the Tanner Race and also City Race portion; very rock gravelly land under the city race south of town.
- Q Do you know if those lands which are heavily watered or have exceedingly low duty the way you have described here, whether the seepage from those lands reach the river above other lands in this Provo River system?
- A No sir, they don't. There is one district though that the seepage supplies in the southwest corner of town, quite a district in there that can run wholly on seepage.
- Q Is it below these lands? A. Yes sir.
- Q So the seepage perhaps would be available for the irrigation of those lands?
- A It would.
- Q You don't undertake to say whether the seepage does rise above those lands, that is, the seepage from this City Race and Tanner Race lands?

A I didn't understand that thoroughly.

Q Do you undertake to say positively that this seepage water which irrigates the lands you spoke of is seepage water from this City Race and Tanner Race lands?

A From Tanner Race down there, yes.

Q How do you determine that, that it is that seepage water?

A Why, taking the district where Mr. Peay lives, the ranch he farmed, the Scott, the spring just after the irrigation there inside of a day or two increased in size. I have seen that myself.

Q Seems to be clear to your mind it is the result of the heavy irrigation of these upper lands?

A Yes sir, partly so. There is natural springs there but they increase directly after watering.

CROSS EXAMINATION by Mr. Ray.

Q Mr. Goddard, do you know what number of wheels the Provo Woolen Mills now have?

A Two wheels, I think two wheels.

Q Only two?

A I think that is all.

Q How long have they had two wheels?

A I am not certain as to that now, I didn't examine that closely, they used to have three wheels.

Q How long did they have --

A Whether they are using all three or not, I don't know.

Q How long did they have three wheels?

A Well, I couldn't say as to that, for a great length of time.

Q Well, what length?

A Oh, probably fifteen or twenty years, maybe more than that, I couldn't say.

Q Now, what is the capacity of each wheel?

A I don't know, I never figured that out.

Q How many wheels --

A I could not if I wanted to, I guess.

Q How many wheels have they used during the past ten years?

A I know they used two if not three.

Q Two all the time?

A The woolen mills, I think two years they were not operating.

Q What amount of water does the next largest mill below as to capacity of the woolen mills require to operate its wheels?

A Below the woolen mills, you mean?

Q I mean in size, what is the next largest?

A The next largest mill, I suppose, would be Hoover Brothers or Smoot Lumber.

Q What does it require to operate the Hoover Brothers Mill?

A They tell me it requires about 45 second feet to operate that effectively.

Q Have you any personal knowledge of that?

A Only from what they tell me.

Q You know as a matter of fact that during the last several seasons their supply has been as low as 35, don't you?

A Yes sir.

Q Do you know whether they have successfully operated on 35?

A They have not.

Q How do you know that?

A They told me so and I have seen part of their machinery idle.

Q During what years was the Provo Woolen Mills out of operation?

A I think it was in 1910 and '11.

Q What became -- I will withdraw that -- what mills are below the Provo Woolen Mills?

A E. J. Ward and the Smoot Investment Company mills.

Q The Smoot Investment Company is on a smaller branch of the Factory Race, is it not?

A No, it is on a race, they dug those from the main race.

Q The whole race doesn't go through the Smoot Investment Company plant, does it? A. Yes.

Q All of the race?

A Not during the high water, not when we have a fullhead in the ditch, but in the low water they take practically all of it.

Q What does it require to operate the Smoot Lumber mill?

A I could not say positively as to that.

Q Any idea?

A It would all depend on what work they had to do, I suppose, they have lotsef machinery there.

Q What does it take to run their machinery?

A I could not say that, I am no machinist, I don't know.

Q What does E. J. Ward & Sons use?

A E. J. Ward is the smallest user, I believe, on the race, requires less water.

Q During 1910 and '11 what became of the water in the Factory race below the factory when the woolen mills were not operating?

A It was used by E. J. Ward and Smoot Investment.

Q All of it?

A In the low water season, yes sir; that is, by the Smoot Investment except what was used for irrigation. There is two -- one irrigation ditch and then the Stubbs and First Ward Pasture below that.

Q You refer to 1900 and 1901 as being a year when the lower end of the East Union had a scarcity of water? A. Yes sir.

Q Do you know what the river flow was in 1900 and 1901?

A I don't remember. I think though it got down to somewhere close to 10000 minute feet, the way the commissioner measured it at that time, if I remember it correctly.

Q They had the same system of irrigation on the East Union then they have now, did they?

A About the same, yes sir.

Q Do you know what water was given to factory during 1901 and '02, when the south end of the East Union was suffering for water?

A I think about the same proportions it is at present, as I have testified to here.

Q I may have misunderstood you, Mr. Goddard, but I understood you

to say in answer to Judge Thurman there was some arrangement made that year because of the drought where the factory shut down three or four ~~ix~~ days a week?

A There was, yes sir.

Q Then they did not receive the same they are receiving now?

A Well, I don't know how that would work out, of course, all the canals was short in proportion.

Q Well, what was the size of the flow in the Factory Race during the three days that they did run in 1901 or '02, when you had a scarcity of water?

A I think it was between 40 and 45 second feet.

Q And they then ran just during the day time, did they?

A Yes sir, about ten hours, ten to eleven hours. Take an hour for noon.

Q And the East Union and the other canals had the water ~~are~~ stopped for thirty-six hours during the week?

A Yes.

Q Now, do you know of any other years to your knowledge that was the custom?

A No, I don't know positively.

Q Did you ever have any years since you have been closely connected with the city when there was the same necessity for water?

A Only at very short period, few days.

Q And then would you make the same arrangement?

A No.

Q Make some arrangement, wouldn't you?

A No, I don't think we did for the few days only in that exchange of night water for day water through the week.

Q And that usually began when the river approached or dropped below the 18000 minute stage? A. Yes sir.

Q And you curtailed their right from then on to the extent of your necessity, didn't you?

A Well, I wouldn't call it curtailing their right, we give them back, they could not have done a thing with their water if we

had not exchanged with them.

Q But they didn't have a flow during -- didn't have a constant flow during those low periods and comparatively low periods that would run their factories at all, did they?

A No sir.

Q Any year?

A Not unless an exchange would be made with them, would be made with them.

Q Did you ever see any other years in your experience as water commissioner as dry as 1901 and '02?

A I was water master, I thought it was the driest season we had.

Q It was considerably the driest season, was it not?

A No, I don't know, we have had as dry seasons, but I was not in a position to judge or find out.

Q So far as your observation is concerned it was considerably the driest season you remember? A. Yes sir.

Q Still you got a higher proportion of the waters of the Provo River prior to the Morse decree than you did after, didn't you state that yesterday? A. Yes sir.

Q So you had a higher proportion than you did last year?

A Yes sir.

Q And it was a considerably worse year than last year for drought?

A No, I think last year our river kept up more uniform stage than it did in 1900 and 1901.

Q Yes, last year was a considerably better year?

A Yes.

Q Provo City got along a good deal better?

A Except one or two little places.

Q Didn't get that answer.

A Except one or two little intervals.

Q There was no such condition as there was on the south end of the East Union? A. No sir.

Q Now, you said ~~that~~ that Provo City you understood complained that it was not getting its proportion in 1914 or '15?

Q 1915, yes sir.

Q You didn't make any complaint?

A No, the water master made the complaint to the commissioner.

Q What was the highest flow of the springs in your pipe line in 1915?

A The engineer has those measurements.

Q Well, approximately?

A I would say between ten and twelve second feet is the highest.

Q The highest was about twelve feet, wasn't it?

A Somewhere near that.

Q That is your memory? A. Yes sir.

Q You knew it because you heard of the measurements that were taken at the time?

A Yes sir.

Q Do you know what Mr. Wentz was charging the city with as per the pipe line?

A Only as to his report.

Q Did you know at the time?

A No, I didn't.

Q So that you didn't know when the water master complained but what everything was all right?

A Only from the reports of the water master.

Q You didn't make any investigation on your own account?

A No, I told the water master to look after it, see that we got our proportion.

Q So far as you had observed things were going along all right?

A I think I myself went and had a talk with Mr. Wentz.

Q So far as you observed things were going on along all right?

A Yes, but they could have been better, I think.

Q If they had not been all right, you, as city commissioner in charge particularly with the management of the water would have investigated it and seen what was wrong, wouldn't you?

A That was done by the water master.

Q But you thought that the water master was getting treated all right or you would have seen that he was, wouldn't you?

A No -- well, excuse me.

Q As the head of the water department and charged with that, wouldn't you have considered it a part of your duty to see that Provo City had a sufficient supply of water if it was entitled to it?

A When we made our protest to him, I think that was enough.

Q You didn't make any protest, did you?

A Through the water master, yes.

Q Why, you testified yesterday that you didn't know.

A I didn't remember it at that time.

Q If there was any shortage it was so insignificant that you forgot it?

A It was called to my attention.

Q If there was any shortage it was so immaterial you forgot it until something called it again to your attention?

A It slipped my mind, yes.

Q The areas in Provo City, so far as you observed were well irrigated last year?

A No, there was some of it that were not.

Q Good many people missed their turns last year, didn't they, as they had in the years before?

A During one period along the Union Ditch the grain suffered for want of water.

Q What period was that? Just state to me, if you know?

A About the month of May that there was quite a shortage here, cold snap stopped the melting snows and the reservoir company had a full head in when we were way down.

Q Whose grain suffered, whose grain did you observe suffered for want of water in the month of May?

A There is Robert Thomas, it was on his farm, I think he had a renter there. I believe Warren Strong was the renter.

Q Do you know whether or not he had applied to the water master for water?

A He told me so.

Q He told you that he had?

A Yes, watermaster told him he could not get around to him, been promised at the head and so on until it come to his turn.

Q Do you remember in Mr. Wentz' report that he stated, made some reference to the internal troubles on the East union?

A No sir, not on that East Union.

Q Except in the month of May did you notice any shortage.

A No, I heard of several complaints, Mr. Goodwin --

Q Did you know, I didn't ask you that at all, Mr. Goddard, if you will listen to the question, did you notice yourself any shortage except in the month of May?

A No, not particularly.

Q After that little short time of three or four days in May you didn't notice any shortage, did you?

A Yes, I think the crops could have been better than they were if they had had water at that time and later.

Q Was there any more complaint last year to you than there has been every year since you have been city commissioner and water master and city councilman?

A I think there was a little more complaint.

Q A little more? A. Yes.

Q Do you know when this complaint which you say you filed took place?

A It was immediately after that.

Q Immediately after that?

A Yes, about that time.

Q As a matter of fact, if you read Mr. Wentz' report you will observe that there was no complaint made until the 30th day of June, won't you?

A I don't remember that.

Q And that there was no complaint made as to any shortage in the month of May?

A Mr. Wentz in his report mentions that, that shortage.

Q I am talking about the complaint which you say that the city

water master made.

A I say that he made a complaint to Mr. Wentz.

Q Not about any shortage in May, did he? A. Yes sir.

Q That is your memory of the complaint? Now, Provo City lands require more water in the early season, do they not?

A I think all lands do.

Q And Provo City lands are like other lands in that respect, considerably more water or waste is necessarily more in the application, isn't it? A. Yes sir.

Q The waste is more in the ditches? A. Yes sir.

Q Your system after it has gone a while gets along good deal better?

A They do.

Q You tax every lot for water?

A We have.

Q And it is your idea that taxing it it is entitled to have a ticket?

A That is right.

Q You make no inquiry from any man as to whether he intends to use water on his lot during the irrigation season?

A Not unless we have occasion to find someone that wants to use that water.

Q You make no general inquiry? A. No sir .

Q To ascertain the amount of acres that are going to be irrigated?

A No sir.

Q That would not be very difficult, would it, Mr. Goddard?

A Be quite difficult to go over Provo City and inquire of every taker.

Q Well now, you get the acres, square acres of land irrigated every year, don't you, square yards?

A We have that on record year after year. Unless some party increases their lot or decreases that we don't remeasure.

Q You have to go around to find out whether he has increased it or decreased it, don't you?

- A Well, we are around town all the time for that purpose.
- Q Yes, and while you are around town for that purpose if a lot is out of irrigation for a great many years you might observe that too, might you not?
- A We might observe it, yes.
- Q But your water supply has been so sufficient that you have not found any necessity for cutting out the lot which had nothing growing on it and no necessity for irrigation, have you?
- A We have no right to cut out any lot, we don't know what year a man may not farm his lot and what year he may farm it.
- Q Is there any night watering in Provo City of the city lots?
- A Yes sir,
- Q Over what area?
- A Over the whole town.
- Q During what periods?
- A Well, all night through irrigation season they have their turn.
- Q Have you ever made observation to see how regular they avail themselves of those night turns?
- A Yes, I know lots of them that use it during the night turn.
- Q And lots of them don't, lots of them who don't?
- A There may be some.
- Q Quite a few, aren't there?
- A I don't know as to that how many, there may be some.
- Q You know there are some, don't you?
- A Yes, I believe there is some.
- Q Know there are a great many, don't you, Mr. Goddard, who don't?
- A No, I don't know of a great many.
- Q So far as you know are there a great many?
- A We have aimed to give the watering turns at night on lots that have orchards or grass where they can turn it on and don't have to irrigate it like they do vegetables or anything that way, taking that into consideration in making up our time cards.
- Q Just what time do you give for a city lot when you put it on the night turn?

A We give the same time, hour and a half to a city lot.

Q But you give it to the lots where they can turn it on, let it run and go to bed?

A Yes, and the next morning take it when his time it up.

Q And if he doesn't take it, what becomes of it.

A We have considerable acreage below most of our city ditches that the farms will catch it. In fact there is some land tined under those ditches. Take south of First and Second East, Third East, there is 25 or 30 acres in there that is watered from those town ditches at night. The same way further west, west of Fourth West.

Q Those people have turns, haven't they?

A They have at night through those ditches.

Q Regular turns? A Yes .

Q Same as everybody else? A. Yes.

Q And they have the amount of water turned to them whether any goes to waste, haven't they?

A They do, yes, but they have their turn in the night, it is meadow and alfalfa and pasture land .

Q Is that land in the city limits?

A Yes sir.

Q Figured as farm lots?

A No sir, figured as acreage.

Q D^o you know whether the night waste from the city lot irrigation is sufficient to irrigate at all times those 20 or 30 acres down there?

A It is not.

Q Does it furnish some of the supply?

A It might.

Q Does it ?

A I think it does a little, yes. Below that is the First Ward Pasture, that catches what comes down and assists that. They have several ditches besides what is taken out of the Factory Race across their pasture. The City Ditch runs through the

pasture and they take care of it too.

Q How many miles of streets have you?

A In Provo City?

Q Yes.

A Some seventy-one or two.

Q And how many sprinkling carts have you?

A We have five, I think.

Q How many have you that confine themselves to the city and don't go out on the county roads at all?

A County roads and city, these don't sprinkle beyond the city limits, none of them.

Q You have five wagons? A. Yes sir.

Q How many do you run in the day time and how many at night?

A We run all of them in the day time and all of them at night, change shifts and run the same sprinkler.

Q All night long?

A Eight hour shifts.

Q How many eight hour shifts do you have?

A Two in the daytime and one at night. Through the hottest part of the summer we have heretofore put on another shift one or two seasons.

Q What seasons were they?

A I think 1913 and '14 and may have done it in 1915. I never took any particular notice of that. When they cannot keep the dust down of course they have to put on another shift, maybe not with the whole of them, but one or two extra sprinklers to keep it up.

CROSS EXAMINATION by Mr. Bagley.

Q Do you know how many acres of land there are in the First Ward Pasture?

A No, I don't, very close to six hundred.

Q And what proportion of that is irrigated?

A I would say close, ^{to} four hundred acres of it.

Q There are other pastures similar to the First Ward Pasture

under the city irrigation system, aren't there?

A There are some, yes.

Q South --

A South meadow and south pasture.

Q Did you include all the acreage in making up the city's acreage embraced within those pastures, or did you exclude portions of it like you did in the First Ward pasture?

A We didn't take those into consideration at all in our tabulation in our acreage of Provo City, although some of them do use water from the Fifth West ditch, and James George lands irrigate some from that and lands that belong to Thomas Vincent.

Q You didn't include those as irrigated lands?

A No sir, we have not included them. They don't pay any water tax to the city although they help clean the ditch to other lands for what waste water they can catch.

REDIRECT EXAMINATION by Mr. Coffman.

Q Mr. Goddard, going back thirty or forty years in the history of Provo, I will ask you whether there were more waters used for irrigation and less water for culinary purposes than now?

A There was more water used for irrigation and less for culinary purposes.

Q And that has been quite true as the city was built up?

A Yes sir.

Q And inhabitants of the city increased? A. Yes sir.

Q And the irrigation rights have been reduced and the culinary rights have been increased. A. Yes sir.

Q And when you mentioned that you were taking water from the Provo system and irrigation and putting it into the water works, it was to furnish the needs of the inhabitants for water for culinary and domestic purposes?

A Yes sir.

MR. A. C. HATCH: Just a moment, I object to this line of questioning, counsel making the record and the witness

verifying it is beyond all rules.

MR. THURMAN: It is the testimony of counsel being filtered through the witness.

MR. COREMAN: Is it leading or not?

MR. A. C. HATCH: Kind of leading, yes sir.

MR. COREMAN: Very well, I will desist.

Q Now, in regard to the use of the water of the Mill Race you spoke of turning, exchanging some water with the East Union?

A Yes sir.

Q Did you mean any exchange or distribution of that water to the other canals of the system? A. Yes sir.

Q What?

A We have done.

Q What?

A We have given in the night time small portions to the Tanner's Race and to --

Q I am asking you about the Mill Race, whether you give all the water that is taken from the Mill Race during the night time and give it to the East Union?

A Not all of it, no sir.

Q How do you distribute that water?

A We give part to the Union, major part, and balance to the other canals and part down the Factory Race, never take all of it out.

Q Why do you let some of the water run down the Factory Race?

A For irrigation purposes.

Q And who uses it?

A Provo City for irrigating lots, or the irrigators of the city.

Q How?

A The irrigators use it, lots and farm lands,

Q Yesterday you spoke in answer to a question given you by Mr. Thurman, that the city was claiming more water than it needed. What had you in mind at that time?

A I didn't think we were claiming any more, I didn't understand his question.

Q What did you understand by his question?

A I understood that he was using all the water that he had decreed to us at that time.

Q What time?

A In 1902.

Q What do you mean by that?

A That we were.

Q You were using all the water at that time?

A Yes sir.

Q And your answer had reference to what time?

A To 1902, just after the Morse decree was rendered.

Q That you were using more water than than the city needed?

A No.

Q What time did your answer ~~api~~ apply to when you answered Mr. Thurman in that way, when you said that the city was claiming more water than it needed, what period of time did you have reference to?

A Right at that time.

Q Were you awarded more water than you needed under the Morse decree, is that what you mean to say?

A No sir.

Q What do you mean to say?

A I mean that we were put into practical use of the water the Morse decree awarded us and that we changed uses of it as the demands for culinary purposes demanded. That we took part of that water and put in our water mains two or three years years afterwards.

Q And prior to the rendition of the Morse decree, how much water did you have in the water mains?

A Five second feet ~~whh~~ was what they were measured at. That is what was allowed, I believe, all the time.

Q And since that time the quantity of water in the water mains has been approximately how much?

A About an average of nine, probably last year.

Q That varied?

- A It varies from seven to twelve, I should judge.
- Q Now, in the distribution of the water under the Provo City water system and the quantity of water that has been turned to you by the court commissioner, has the quantity of water turned to the East Union or the Factory or the Mill Race or Tanner Race been arbitrarily fixed any one season/
- A No sir.
- Q How has it been distributed?
- A The judgment of the water master as to ^{the} needs in the different canals.
- Q Then I understand you the distribution of the water has been variable according to the years?
- A And the flow, yes sir.
- Q In the several districts of the city?
- A Yes sir.
- Q And it has been regulated and controlled in that way?
- A Yes sir
- Q The particular spring that has been talked of here that you took into your pipe line recently, I will ask you whether or not that has been a tributary to Provo River?
- A I should say yes.

RE-CROSS EXAMINATION by Mr. Thurman.

- Q From your testimony I take it some of these lands are vastly more difficult to irrigate than others ?
- A Yes sir.
- Q That is the same, I assume with some city lots, take more water?
- A I think so yes sir.
- Q On the East Union Ditch you explained that the method-- in view of that fact that they distribute the water to the lands according to their needs? A. Yes sir.
- Q That is the lands more difficult to water?
- A Yes sir.
- Q They give them more time, is that right?

- A Yes sir.
- Q On city lots, you give city lots an hour and a half?
- A Yes sir.
- Q Without regard to the refractory nature of the soil?
- A That is the custom.
- Q You don't make any difference then.
- A No sir.
- Q Between the bad city lots and the good city lots as to time?
- A No.
- Q And how is it on the west side farming lands under the city race that you say --
- A They are all timed.
- Q They are timed in the beginning of the season without regard to the difference in the character of the land, aren't they?
- A The water master regulates that in the flow of water to a great extent.
- Q Does he give, in making out his ticket for the season, does he give some classes of land more time? A. No sir.
- Q Than he does others? A. No sir.
- Q No difference.
- A No.
- Q Makes no distinction as between good lands and bad lands on that side of the city?
- A No, he does in the water in his judgment.
- Q In the quantity of water?
- A There is no specific amount of water attached to any time card.
- Q There is no specified amount of water?
- A No.
- Q But how can he increase or decrease the quantity of water without interfering with the other streams?
- A That is left to his judgment. If it is necessary, some ditch is short or doesn't have enough he can turn more in from another one, or from several others, divide it up.
- Q Sometimes he increases the size of the stream, but he don't

increase the time, is that right?

A That's the idea.

Q Some men may have a small piece of land, bad land, he has got to take an increased stream over that bad land.

A Yes sir.

Q Small piece as it is they are all charged the same amount per acre, aren't they? A. Yes sir.

Q Yet some of them get a good deal more water than others?

A They do.

Q That is according to the discretion of the water master?

A Yes sir.

Q Do you know of any specific acreage under the city race in which some one man that you can name gets a larger quantity of water than some other man, acre for acre?

A I can name myself.

Q You get more water?

A I water under --

Q You get more water do you?

A Than some other lands, yes.

Q Is that due to your being the head of the water department?

A I think so.

Q And water master too?

A Yes sir

Q And member of the City Council, I think that will account for it?

A We ought to take advantage of it.

CROSS EXAMINATION by MR. A. C. Hatch.

Q I understood you to say that you took that 20 second feet of water from the Factory Race for the East Union Canal, and 8 second feet for the Tanner Race at night during the low water season?

A Yes sir.

Q I also understood there was only 25 second feet in the Factory Race, I further understood you to say to Mr. Thurman that the

excess of water from the Factory Race over and above what was taken in the East Union Ditch and in the Tanner Race was allowed to flow on down the Factory Race to the lands of those who irrigated below. I cannot understand those different propositions, and if I am in error I wish you would correct me with regard to them.

A There was some water taken from the Factory Race at night that did belong to the Union before, part of the Factory flow also was taken. You see, it replaces what the Union was entitled to with a little addition of the Factory water.

Q You made it 20 second feet at night additional?

A Yes.

Q Or average continuous flow of 16 second feet?

A Yes sir.

Q In the East Union ditch when the 20 second feet was taken from the / Factory Race and the 8 feet taken, I can't understand how there would be any water left to flow down the Factory Race, when there was only 25 second feet in it at the beginning?

A There was 45 in the beginning, 20 feet of the Union water.

MR. JACOB EVANS: Depends on what portion of his testimony you take as to the water in the Factory Race.

Q You say the factory could not run with less than 45 feet?

A Not efficiently to accomplish any results.

Q But it has that during the lowest water season of every year, has it?

A It may run under that, depends on what the stage of the river is; if it should go down very low they would fall in proportion.

Q Now, I wish you would distribute that factory water in the record here as you did it. Give to each of the several canals in second feet the quantity of that Factory Race water that was distributed?

A Exchange of Factory water, Factory would have 45 second feet at the 300 second foot stage, East Union would have 20 second feet in the day time, City Race would have 22, Tanner Race 12,

water works 5 and the Cluff & Dixon one. I am speaking of the time I was water master in 1900 to 1903. That is the reason there was only five second feet allotted to the water works.

Q I was asking you as to last year?

A Well, the water master can answer that better than I can. I didn't keep track of it.

Q I understood you answered as to that?

A No, I was questioned in regard to the time I was water master and made the distribution.

Q When the 45 feet was taken from the Factory Race, how was it distributed?

A There was 12 feet still left in the race, 40 to 41 was placed in the Union, 25 in the City Race and 20 in the Tanner race.

Q You don't understand my question or else you are not answering it.

A Maybe not.

Q 45 feet of water in the Factory Race? A Yes.

Q Now, to what canals was that 45 feet distributed?

A I just read the canals. The East Union would get 20 second feet back of that, 20 to 21, the City Race would get three, the Tanner Race six to eight.

Q How much?

A Six to eight feet, and Cluff & Dixon, probably they would have about the same, and water works would be the same, be no change in that. That takes the 105 minute feet -- no, the 1800 minute feet makes a hundred and five second feet or 1800 foot stage.

MR. RAY: You mean that is Provo City's proportion?

A Yes sir, at that stage.

Q How much was left in the Factory Race?

A From ten to twelve second feet.

Q What became of that?

A That went to irrigate town lots and acreage both above and below the mill and the First Ward Pasture.

Q About two hundred acres and a fraction?

MR. BAGLEY; 147.

A 147 in the pasture and some 98 below the mills, I don't just recall the lots.

Q I don't understand it yet, but it is probably my fault. I would like to know the distribution that was made of that 45 second feet of factory water?

MR. THOMAS: In 1915, Judge?

MR. A. C. HATCH: At any time.

MR. THOMAS: You can ask the witness until you are satisfied.

MR. A. C. HATCH: I have asked him three times and I don't understand it.

THE COURT: I think the answer was plain.

MR. A. C. HATCH: It may be, I will get the reporter to read it over to me an hour or two this afternoon.

MR. RAY: Prior to the calling of the next witness, if I may be indulged I would like to call the court's attention to the matter of the order of proof. Upon the complaint the next defendant in order would be the school district out here which Judge Booth says will come in later and then the Provo Bench which I represent. We have been hearing a good deal about the power rights in connection with Provo City and I have suggested to Mr. Corfman I thought it would be more orderly method of procedure to take the power rights and complete them at the close of the Provo City testimony, and I think Mr. Corfman agrees with me in that suggestion.

THE COURT: Are there power rights independent of the city claims?

MR. RAY: The power rights are independent parties and have independent answers here and they will have certain independent proof.

THE COURT: Do I understand they contend that the rights of the individual power users are different from that which has been stated by these witnesses for the city?

MR. CORFMAN: No, your honor, that proof will be practically the same as to the use, manner in which the water has

been used.

THE COURT: The reason I asked that was this. I may have gotten the wrong impression and wrong construction of the evidence of your witnesses with reference to these power rights. The substance of the evidence as I take it and Mr. Goddard and Mr. Swan would be that the power companies have no right whatever to this water, except as they derive it through the city, and that the city is holding entirely -- that all these rights the entire water is with the discretion in the city as to whether they would give this water to the companies, and if they do what part of the water received by the city is to be given to them. That is the substance of the evidence of your witnesses. Do the power companies contend that is not the case?

MR. CORFMAN: I think the position of the power companies and city with respect to the right to control the water is simply this. The power companies claim the right they must be allotted the use of the water as they have heretofore had it and has been testified to, the city has not got the right to take that use away from them.

THE COURT: They have exercised that right.

MR. CORFMAN: By arrangement with the mill owners and exchange.

THE COURT: No, the evidence of both Mr. Swan and Mr. Goddard was to the effect that the water commissioner was to be directed by the city council and by the city commission to exercise his discretion with reference to distribution of the water between the power companies and irrigators. Now, the reason I suggest this is so that I may apply the evidence as it comes from the other parties as to your contention. They are all parties to this suit, and as between themselves they will be bound by the decree that the court enters, and if the court should enter a decree along the lines of the testimony, the effect of the testimony of Mr. Goddard and Mr. Swan, the Knight Woolen Mills and Ward & Sons Company and Smoot Investment Company would

have no right except as the discretion of the city officers might give them, and they would be bound by it in this decree.

MR. CORFMAN: The discretion as heretofore testified to, your honor, has been that during the high water season the mills have been supplied, the race has been supplied with full capacity. Then down to the low water stage there is a certain right accorded to the mills and sufficient for to turn their wheels and when the city concedes the mills are entitled to that and the mills claim they are entitled to it, whenever it has been necessary to take from the mills any less quantity than is necessary for them to use it is around 45 second feet, then that arrangement has been made with the mill owners and agreed to, that the water might be taken under mutual arrangements between the power users and the city. We think we understand each other, and that is mutually agreeable as between the mills, but the mills will claim the inherent right to have that water go through their wheels regardless of how scarce the water may be in other portions of the city.

THE COURT: And the city conceded that right, does it?

MR. CORFMAN: But of course, as the river goes down the mills are reduced proportionately to the irrigation rights and then the interchange comes for their mutual interests.

THE COURT: well, that would be of course, if the city concedes that to be true that would be somewhat contrary to the evidence of Mr. Goddard. I took this down, I may not have got it in the exact language of Mr. Goddard. I think I got the substance of it, the distribution of the water to the several districts and users including the power users, has been in the discretion of the water masters. That was practically what he said. I understand you to contend now that the power companies insist that is not the case.

MR. CORFMAN: That is with respect to the irrigators. The mill claims a right for the minimum flow in the race to operate its wheels and they go down from the full capacity of their

race down to that stage as the water recedes in the river, and all the parties are cut down in the use.

THE COURT: I was merely asking whether you, representing the city as attorney for the city on behalf of the city, concedes that the claims of the power company as you have now stated them are correct?

MR. COREMAN: I think the city concedes that.

THE COURT: Of course, if there is a concession made here $\frac{1}{2}$ -

MR. COREMAN: Is that not right, Mr. Goddard?

MR. GODDARD: I think so.

MR. JACOB EVANS: What is the concession now?

THE COURT: I understand the concession to be now the city does not have the right, and it is not in the discretion of the water master to regulate these matters, and that the power company has vested rights and have in 45 second feet of this water.

MR. COREMAN: The power company has its vested rights that the city cannot interfere with without mutual arrangements with the power owners.

THE COURT: Mutual arrangements always can be made. With reference to the vested rights that they have no rights whatever to interfere with the quantity of water that the power company has.

MR. THOMAS: I think one phase of the statement of Brother Corfman has been a little in excess of the understanding I have had. in reference to the arrangement between the power interests and the city. The Understanding I have is the understanding the court has obtained from the evidence, and I am taken a little by surprise, because I may have misunderstood our own theory.

THE COURT: probably we had better not consider there is any concession made and we can proceed with the evidence. The reason I asked this question was so that I might understand

whether there was any difference at all between the city and these parties. The decree of course will bind all parties, they are parties to the action. Of course, if the court determines the right of these parties they are all bound by it. Now, I think the suggestion made by Mr. Ray is a good suggestion if it meets with your approval, gentlemen.

MR. THOMAS: I don't want to be understood as saying anything to reflect upon Mr. Corfman, because I think we have had through a thorough understanding as to the rights of both parties and the city recognized the power rights and the power rights recognized the right of the city.

THE COURT: Possibly, gentlemen, you may be able to agree upon the language that may be used in any decree that may be rendered in this case as to the rights of the power company and city with reference to each other.

MR. THOMAS: I am sure of that.

THE COURT: Of course, that will obviate the necessity of the court making any finding. However, I think the suggestion made by Mr. Ray is a very excellent one, it will be better to depart from the order of proof agreed upon and take up the rights of these parties who hold under the city or with the city, or whatever you may call it, before the Provo Bench takes up their case.

MR. A. C. HATCH: By reason of the remark of the court as to their probably being no necessity for determining whether or not these are separate power rights or city rights, I think we are entitled to have that question absolutely determined, that is, the irrigators, not the plaintiff alone, but all the irrigators. If there are any power rights, under our law they are secondary to irrigation rights. Of course, irrigation rights are made secondary to rights for culinary and domestic purposes. If a city acquires water for its purpose purely municipal it may condemn even irrigation rights under the power of eminent domain. If the irrigators require water that is used for power purposes then they condemn and close the mills

and use the water for irrigation, and we think that a time has come when these power rights may be supplied with a cheaper element than water that runs down through Provo City and if they have rights that we may supply them with other power and divert the water for irrigating purposes.

THE COURT: I didn't intend to say, Judge Hatch, there would be no finding upon that subject, but I intended to merely to say the finding probably would follow the stipulation or agreement between the parties what their rights were.

MR. A. C. HATCH: I understood the court to refer only to the city and power company. That is why I spoke at this time because I think we are interested in what those power rights are.

THE COURT I don't know whether the others are or not, possibly they may be, as to whether the city controls the distribution or whether the power company can dictate what it has, I don't know whether the other parties are interested. They may be. If they are, of course, I will consider their position in relation to it.

MR. JACOB EVANS: I suggest right now they will have some difficulty in stipulating before they get through.

MR. THOMAS: That is a very pleasant suggestion. I suppose the court appreciates it since Mr. Evans was city attorney for a long time.

THOMAS E. THOMPSON, called by the defendant Provo City, being duly sworn, testifies as follows:

DIRECT EXAMINATION By Mr. Thomas.

Q State your name?

A Thomas E. Thompson.

Q Where do you reside?

A Provo.

Q What is your age?

A I will be sixty this fall.

Q How long have you resided in Provo?

A Since 1886.

Q Have you any official connection with Provo City?

A I am the water master at the present time.

Q How long have you occupied such position?

A Three years.

Q The last three?? A. Yes sir.

Q That is counting this present year first one?

A Yes sir.

Q You began in the year 1914? A. Yes sir.

Q State what your duties as water master are?

A To regulate the water and get out the water time, and then regulate it through the season, the irrigation season.

Q When you say getting out the time, just what do you mean by that?

A That is where they have written time.

Q By that you mean preparing the certificates?

A Yes sir.

Q And water notices? A. Yes sir.

Q And delivering them to the water users?

A Yes sir.

Q That I understand to be your meaning of getting out the time?

A Yes sir.

Q Just what part of the Provo System do your duties cover?

A The whole system.

Q Does that include the water works?

A No sir.

Q Then--n you have only to do with the irrigation system?

A That is all.

Q And the power system?

A And the power, yes sir.

Q And all the lands that are irrigated under the system controlled by Provo City? A. Yes sir.

Q That includes the ditches which have been described heretofore?

A Yes sir.

Q Now, I want to direct your attention, Mr. Thompson, to the East Union ditch, you are familiar with all of those ditches of course? A. Yes sir.

Q What water runs through, what amount of water runs through the East Union ditch?

A Somewhere about eighteen second feet through the day and about 40-- 35 to 40 at night.

Q During what part of the season?

A That is after the 300 foot stage of the river.

THE COURT: That is below the 300?

A Starting at the 300 foot stage.

Q Have you, or do you make any measurement of the river -- strike that out -- do you make any measurement of the canals to determine the amount of water that runs through the canals prior to the 300 foot level, or 300 foot stage? A. Yes sir.

Q What water runs through the East Union canals during what you call the high water season?

A I keep it about 35 second feet.

Q During the day.

A Day and night.

Q Day and night? A. Yes sir.

Q Is that about the capacity of the canal?

A No, it will carry about 50.

Q Through the entire length,

A No, it would not carry it, it would carry it down about two miles.

Q From the head of it?

A No, it wouldn't carry it two miles, it would carry it mile and a half, because all these town ditches take out of it. When you get down about two miles it wouldn't carry only 25 second feet, about 25.

Q What is the capacity of the East Union Canal near the end of the system?

A Well, it would not be over ten second feet right at the end.

Q Now, during the period between the high water season and the 300 foot stage on the river, what water runs through that canal?

A At the lower end?

Q No, through the entire canal? How much do you turn in?

A About 35 second feet I keep in constant.

Q Are you familiar with the -- I withdraw that -- how long a period does your 35 feet of constant flow run through that east Union canal?

A Until they commence measuring the water 300 foot stage.

Q Until the commissioner takes charge of the stream?

A Yes sir.

Q And then you run through in the dry time, I understood you to say, eighteen feet?

A Eighteen to twenty feet.

Q And a larger quantity at night?

A Yes, we double it at night.

Q Are you familiar with the character of the soil under the East Union ditch? A. Yes sir.

Q How many acres are under the East Union Ditch?

A I cannot tell you off hand.

 MR. JACOB EVANS: I take it that would be the same as Mr. Goddard testified.

A Just the same exactly, yes sir.

 MR. JACOB EVANS: Then I submit there will be no use repeating it.

 MR. THOMAS: We won't press it.

Q What water goes -- what is the character of the soil under the East Union ditch?

A There is all classes nearly under the Union Ditch, of soil.

Q Beginning at the head describe the character of soil.

A At the head the top is a clay loam.

Q How deep is it?

A I judge about a foot perhaps a foot and a half, eighteen inches, the depth.

Q What is the character and depth of the subsoil?

A I have never went to the bottom of the subsoil, but that is a kind of a white clay, the subsoil.

Q And over what area does that character of soil extend?

A Well, between a quarter of a mile and a half, somewhere along in there.

Q And then does the character of soil change?

A Yes sir.

Q And what is the character of soil then?

A Then it is a black loam on top.

Q About what is the depth of that surface soil?

A Well, it changes so much, in some places six inches, some places three or four feet, keeps changing.

Q Are the changes marked?

A Yes, as a wule you can see it right on top of the soil, the changes.

Q And what is the character of the subsoil there under that black loam?

A It is a gravelly subsoil.

Q Loose?

A Not so very bad up in there, next to it, not so very loose.

Q What portion of the land under the East Union Canal is represented by that character of soil?

A About 30 per cent, I would judge, take the upper part there and that go up about 30 per cent I should judge.

Q Going down toward the end of the ditch state if the character of soil changes?

A That is very gravelly.

Q It does change, does it? A. Yes sir.

Q Is the surface gravelly? A. Yes sir.

Q Describe it please?

A Well, it is a loam gravel right on top, good part of it, and under it is a very loose gravelly subsoil.

Q What portion of the land under the ditch is represented by

that character of soil?

A About 25 per cent of that class of soil that is, right about.

12:00 Noon, Recess to 2:00 P. M.

THOMAS E. THOMPSON - - - - -

DIRECT EXAMINATION by Mr. Thomas continued.

Q Mr. Thompson, what per cent of the portion of the land under the East Union would be represented by that clay loam, the first you described?

A I think up there that in that part there is about 60 to 75 acres in there, about 60 acres of that class up in the north part of town. I think there is 60 acres in there in that class of soil.

Q How many acres are there under the whole of the ditch -- 900 is it?

A Somewhere about that, 1400, lots and all.

Q What has already been in.

MR. RAY: 1406.

Q Now, let us go down the canal still further, what is the character of the soil below that that you described before the noon recess?

A Below the clay, you mean?

A No, you spoke of the black loam and then of the gravel.

A The gravel part is mostly at the south end of the canal coming up.

Q Is there any difference in the application or the amount of water that is applied in the upper part as contrasted with the lower part of the canal?

A Yes sir.

Q Who has charge of that distribution?

A I have, sir.

Q In what way do you distribute the water.

A As I think they need it.

Q You may state if your judgment is based upon an examination of the soil and conditions there?

A Yes sir, I travel the canal every day in the irrigation season and watch the crops.

Q What is the amount of water that you give to that upper portion of the land?

A Oh, I would say they get about a 65 acre duty up there.

Q And then going down, what duty do you give to the next division?

A They go about 60 somewhere, that is the black loam there, they go about 60 acre duty, I would judge.

Q Then as you come to the gravelly condition.

A They would get a 40 down there.

Q You may state if in your judgment that amount of water is necessary to produce a crop?

A Yes sir, on that soil down there.

Q You may state if any less amount of water would produce a crop?

A No sir, I think not on that ground.

Q I didn't ask you at the beginning if you were a practical irrigator?

A. Yes sir.

Q What experience have you had in irrigation?

A I have been irrigating since about 1874 when I commenced irrigating.

Q Forty years. Now, take the next stream or next canal that you have jurisdiction over. Which is the next one down from the East Union?

A That would be the Factory Race would be the first.

Q How do you distribute the water under that race?

A That is given out on time written notices.

Q Do you have -- do you distribute water in the factory race in any way different from the manner you distribute from the East Union?

A Yes, little different, because they have a set time for the whole season.

Q Do I understand then you have not a fixed time for the whole season on the East Union?

A No sir, we cannot have it.

Q State why you cannot have it?

A Because it is all night watering in the summer, no day watering whatever is irrigated by the farmers.

MR. THURMAN: What is that?

A It is all night irrigation in the summer time, when the water is scarce they don't get no day light to irrigate with.

MR. THURMAN: You mean they don't irrigate in the daytime?

A There is no water for that, no sir.

Q Can't you arrange, or don't you arrange the watering turns regularly during the night?

A Yes sir, as near as we can, but it is so uncertain. Some nights we have more water than others.

Q Then what do you do when you have that fluctuating quantity, how do you dispose of it?

A Why, sometimes I may catch up on the Union, then I give it to the west end of town. If I am behind I will ask my deputy, who takes care of the west end, if he can't spare me some water, and then I will switch it into the Union and go forward and back as get need of water.

Q What I am trying to get at is this, just how do you let your night water user under the East Union know when his turn or turns is to come?

A I go and notify him.

Q Personally? A. Yes sir.

Q Just before each irrigation? A. Yes sir.

Q Usually how much time do you give him?

A That depends on how much water I have in the canal.

Q And notice may be short or long?

A May be short or long, yes sir.

Q Now then the disposition of the water on the Factory Race is in a more regular way than that, I understand you to say?

A Yes sir.

Q Is this one of the races to which you give the farmer written

notice? A. Yes sir.

Q Fixing their time from one seasons end to the other?

A Yes sir.

Q The Factory Race is the race upon which the power users are,
is it not ? A. Yes sir.

Q There was some lots above the first power house?

A Yes sir.

Q And there was some lots below? A. Yes sir.

Q Now, take the lots that are above the power houses or factories--

A Yes sir.

Q What is the character of soil there?

A Above it is pretty good soil.

Q Will you describe it, Mr. Thompson?

A Why --

MR. BAGLEY: You don't mean above the factories, you mean by the woolen mills.

MR. THOMAS: I said above the factories but I meant --

THE WITNESS: Up above the Hoover's mill.

MR. THOMAS: Just a moment, Mr. Thompson. It is above the woolen mills.

MR. THURMAN: He says above the Hoover mills, which do you mean?

MR. THOMAS: He said Hoover, but I had in mind when I said Factory, I meant the woolen mills. I will reframe the question.

Q How many lots are there above the woolen mills irrigated from the Factory Race?

MR. JACOB EVANS: I suggest that has been testified to.

THE COURT: We have it tabulated.

MR. THOMAS: I was just about to ask him if he had a copy of the tabulation, just simply to aid the witness.

Q The list, ^{is} as given by Mr. Goddard twenty-seven?

A Yes sir.

Q You have already gone over with Mr. Goddard that tabulated list?

- A Yes.
- Q You are the T. C. Thompson referred to who assisted Mr. Goddard and Mr. Stewart in tabulating the list?
- A Yes sir.
- Q Now, directing your attention to that 27 acres of land, please describe it as to its character?
- A I would call that kind of a black loam.
- Q Have you made any investigation to determine the depth of that surface soil?
- A No, but there is a pretty good depth of soil in there.
- Q Do you know anything about the subsoil there?
- A It is pretty good subsoil right there.
- Q What amount of water is given under your distribution to those twenty-seven acres?
- A They are given an hour to an acre once a week, which makes it two hours to an acre every two weeks. They can have it -- they all use it every week up there.
- Q What is the character of crops they raise?
- A Well, this year most of it up there is pasture and grain, this year. They have nearly always had it in beets, but this year it is pretty much all in grain and pasture.
- MR. RAY: Pardon me, an hour per acre per week doesn't mean anything unless we know the size of the stream.
- MR. THOMAS: That is what I am going to get at.
- Q Reducing that to cubic feet or acre feet, what is the amount of water that is given to those lands?
- A They^{get} about two and a half second foot.
- Q At what time .
- A In the ditch.
- Q At what period of the irrigating season do they get that amount of water?
- A They commenced this year, they have irrigated it twice, about the tenth of May I think they irrigated first time this year.
- Q Is that amount of water reduced at any time?
- A Yes sir.

Q When does that reduction occur?

A As quick as it gets down to the town lots I reduce it some.

Q And do you reduce it on these twenty-seven acres?

A Yes sir.

Q When do you reduce it then upon those acres?

A Whenever the water is reduced that the commissioner gives us.

Q This two and a half second feet then would be the high water duty?

A. Yes sir.

Q What would be the duty that you would allow that land during the irrigating season, that is when the --

A I let it go down to about a second foot and a half to the stream.

Q Now, reducing that to acre duty, what would be the duty of that water to that land in the high water season?

A About 55, I guess, taking the lots and all together there.

Q I am referring now to that twenty-seven acre tract, there is twenty seven acres of farm?

A I have never figured that in there, just what the duty would be on it.

Q Can you state now approximately?

A No.

Q Then have you figured the duty upon that land during the low water season?

A. Yes.

Q Months of July and August?

A. Yes.

Q What would be the duty there?

A About a 65.

Q Now, coming down to the city lots that is what you reach next, isn't it?

A. Yes sir.

Q There are 86 city lots and 38.7 acres, now what would be the duty to that land?

MR. THURMAN: Is that below the woolen mills?

MR. THOMAS: No, Judge, that is above the woolen mills.

MR. JACOB EVANS: Some of those lots are irrigated above and some below, are they not?

MR. THOMAS: Yes, but these lots are above.

A They take a much lower duty per lot.

Q For what reason?

A It is gravelly down in there; part of it gravelly subsoil.

Q What do you say as to the surface soil, does it differ from the other tract that you have just mentioned.

A Yes sir.

Q Is it poorer or richer soil?

A It is poorer soil and gravel among it on top.

Q What has been the character of crops raised there generally?

A It is nothing but garden.

Q Truck garden?

A Truck garden, yes sir.

Q How frequently is the water applied there?

A Once a week.

Q In your judgment is that a necessity?

A Yes sir.

Q Was the character of crops raised there taken into consideration when you made out your certificates for the season with reference to this tract?

A No, not particular, no more than any of the rest.

Q The duty to those lots would be what?

A It would go about a 45.

Q Is that in the high water season or in the irrigating season?

A That would have to go all the way through.

Q You say in your judgment there could be less there than that amount?

A No sir, because I have to go and open the gates many a time to give them more water so that they can get their lots irrigated.

Q Going down still farther, there are twenty farm lots nine acres in area, above the woolen mills, what kind of soil is that, does it differ in any way from the other you have described?

A Is that below the woolen mills?

Q No, Mr. Thompson, this is above the woolen mills. Have you got it in mind; if I show you this compilation would it aid you any?

A I cannot think where they are -- oh well, that is in lots.

Q Farm lots?

A That is different, I could not figure that nine acre tract of land.

Q You have that in mind now, have you ?

A Yes sir.

Q Now describe that?

MR. JACOB EVANS: Whereabouts is it,

MR THOMAS: It is above the woolen mills.

A It is right in there by the Utah Timber, that tract in there, those farm lots in there, that is the same as the other lots.

Q Gravelly?

A Gravelly, yes sir, the majority of it. The brick in the soil is right there, it is then where the gravel commences and where the good soil ends.

Q What is raised upon those acres?

A Some of those lots are pasture.

Q What portion of it would be pasture lands?

A I think there is about two acres in there that is pasture land, an acre to two acres, something like that.

Q What else is raised upon it?

A Garden truck.

Q What duty of water do you allow for that acreage?

A Well, that would go about the same, 40 to 45 acre duty in there.

Q That is during the months of July and August?

A Yes, if we have the water that is what they get.

Q You may state if in your judgment that amount of water is necessary to produce crops upon that land?

A Yes, for garden crops it is necessary.

Q And this same land, or this land is irrigated once a week?

A Yes sir.

Q As the other tracts under that ditch?

A Yes sir.

Q Let us take up the lots below the Provo Woolen Mills. There is 98 acres under the Provo Woolen Mills? A. Yes.

Q What character of soil is that?

A what is a gravelly subsoil.

Q What is the character of the surface soil?

A Why, I don't hardly know how to classify it, whether it would be just a loam or a clay. I believe though, it is a kind of a clay loam, I am not right positive on that down in there.

Q You would say there was a clay mixture with the sand?

A Yes sir, I think there, is, yes sir.

Q Is it a good substance?

A What there is of it, yes sir.

Q Is there much of that good land in the 98 acres?

A There isn't very deep, the top soil, it is shallow, most of it.

Q And the subsoil you said was --

A That is loose and porous.

Q What crops are raised upon that land?

A Different kind of crops.

Q Garden truck?

A Some, not a great deal. There is some alfalfa and beets and mixtures down there.

Q What water have you allotted to that tract of land?

A On the same basis be about a 55 acre duty down there.

Q That is during the irrigating season?

A That is under the 1800 --

Q 18000 minute feet?

A Eighteen thousand, yes.

Q Stage of the river has been reached?

A Yes sir.

MR. RAY: Is that a 98 acre tract or the city lots?

M. THOMAS: This is the 98 acre tract.

MR. JACOB EVANS: The Stubbs tract is a part of that.

Q I will inquire, is the Stubbs tract of land, from which the samples of soil were taken, part of these 98 acres?

A Yes sir.

Q And is it within this tract of land that so far as -- or do you

know anything about the experiments that Mr. Swan conducted?

A No sir.

Q Now direct your attention to the city lots under the factory race and below the Provo Woolen Mills, fifty-five in number, 24.7 acres, what is the character of that soil.

A There is -- it is pretty fair soil in there. It has gravel under though.

Q What is the character of the surface soil?

A About the same as the other, it is a kind of a clay loam.

Q A thin surface clay loam?

A Yes, Well, I think the surface there would be about 18 inches.

Q A little deeper?

A Yes sir.

Q Is it a little richer soil?

A Little better soil I think part of it, and part is not. There is some gravel there in the top.

Q I wish you would describe that a little but bit more fully, you say there is some gravel to the top in some?

A Yes sir.

Q Describe the general character of that division there little more fully?

A It is very hard to do because I may have three by twelve that is all gravel, my neighbor may have a three by twelve and nice clay loam. Have to go down there. Mr. Barney has a piece down there that is all gravel nearly right to the top of the surface, and man below, Coss, has a piece that is good average soil and that is the character of the soil right in there.

Q Then it is extremely variable?

A Yes sir.

Q In depth and in quality through there?

A Yes sir.

Q What duty, or what crops are raised there largely, same character of crops as upon the other lots described?

A Yes.

Q What is the duty of water that you allow to that tract?

- A Why, about the same as the rest of the town, they all get about the same on a forty to forty-five acre duty would be through the town.
- Q Is the same true as to the other farm lots on the same race?
- A Yes sir, on the same basis.
- Q What character of soil is that?
- A Well, it changes, the soil here, that is hard to describe one from the other, so changeable, the soil is under our system. One man has a five acre piece of first class soil, the next man has a rocky piece of soil joining right on to it.
- Q What duty of water do you allow there?
- A On the farm --
- Q On the farm lots?
- A They get about the same all the way through, 40 to 45 acre duty.
- Q In your judgment is that amount of water necessary?
- A Yes sir.
- Q To produce a crop upon that land? A. Yes sir.
- Q Let us direct our attention to the Tanner Race, you are familiar with that of course ? A. Yes sir.
- Q There are 314 farm acres? A. Yes sir.
- Q Describe the character of that soil ?
- A The greater part of that soil is rocky, very light top soil, and loose gravelly bottom under it.
- Q There are under that Tanner Race 430 $\frac{1}{2}$ acres?
- A Yes sir.
- Q Does that description apply to the whole of that?
- A We have some right at the south end of it that is better land, different class of land.
- Q Higher grade?
- A Yes, wouldn't take near the -- wouldn't need near the duty of water that the other would.
- Q What duty would that better grade of land require under the Tanner Race?
- A Because it is --

Q I say what duty?

A Oh, at the lower end.

Q At the lower end of the Tanner race?

A That would be all right on a 60 acre duty.

Q About how many acres are there of that approximately?

A Oh, there isn't very much, probably twenty or thirty acres, something like that in there.

Q And the rest of the land is of that extremely porous kind that you have described?

A Nearly all of it, yes sir.

Q What duty of water do you allow to that land?

A We try to never go above the 50 acre duty on that land.

Q What is the greatest quantity of water that you have found necessary to put upon that land to produce a crop?

A Well, we tried last year on a 60 acre duty, and had to drop it quick and go back to our about 45 or 50.

Q What crops were raised there?

A Well, beets and grain and alfalfa and we have quite a lot of garden truck raised under the Tanner Race.

Q Orchards?

A Not very much, some. Berries, quite a number of berries raised there.

Q The berry crops mature early?

A Yes, along in July.

Q What crops are raised after they are harvested?

A They don't raise any crop.

Q Just care then for the plants.

A That is all, yes sir.

Q Now, let us direct your attention to the city race, above the power plant. There are 185 farm acres?

A Yes sir.

Q What is the character of that soil?

A The upper main soil, the Bean tract is the upper part of the City Race, that is very porous soil, shallow surface. It is a black, kind of a black clay loam.

Q Surface? A. Yes sir.

Q How deep is it?

A Oh, I don't think it would average over a foot.

Q On the whole tract?

A On that whole tract, I doubt whether it would average a foot.

Q When you say the whole tract you don't mean merely the Bean tract alone?

A Yes sir, I am speaking now of the Bean tract.

Q The Bean tract? A. Yes sir.

Q What do you say as to the whole of that 185 acres, would the soil there average more than a foot in depth?

A Oh, yes, the Clark land in there is different class of land altogether.

Q You find the same variability between the lands there as compared with the other lands of the city?

A Yes, only the upper part has to take a very high duty or low duty, I should say.

Q That is a large quantity of water? A. Yes sir.

Q What duty do you put upon that upper land?

A That goes about 45 to 50 acre duty up there.

Q What are the character of crops raised there?

A That is alfalfa and great deal of garden truck, potatoes.

Q You are speaking of the Bean tract now?

A Yes sir, and pasture lands, and some orchard, he has orchard too on it.

Q Are there any other land owners there besides Bean in that acreage?

A There is other~~s~~ bought some there yes sir, some of the Bean Property.

Q Does your description of the Bean property cover the description and conditions of the other property?

A Yes sir.

Q On the same tract? A. Yes sir.

Q And is it -- have you found it a necessity to give them, the

other tracts and other land owners there the same duty of water you gave to Bean? A. Yes sir.

Q In the tabulation there are 345 city lots above the Power plant taking water from the city race? A. Yes.

Q Amounting to 155.2 acres? A. Yes.

Q What is the character of that soil?

A It is mostly up above there, the greater part is clay loam.

Q What is the depth of that surface soil?

A I have never examined that down on the lots.

Q Have you ever examined the soil there to determine the character of the subsoil?

A I have not, not on the lots.

Q Would you say it was of the same or similar character to the Bean tract?

A No, no, it is --

Q Better?

A Better.

Q Better soil? A. Yes sir.

Q What duty of water have you given to that tract?

A Well, they get just the same, about 40 to 45 on those lots, acre duty.

Q In your judgment is that amount of water necessary for them?

A Yes.

Q There are forty farm lots amounting to eighteen acres, is that similar or dissimilar to the lands you have described?

A It is about the same class of soil in there.

Q Have you made any investigation at any time to determine the depth of the surface soil there?

A No, not on the city lots, no sir, I have not, not up there.

Q These are the farm lots?

A Well, they go --

Q As city lots?

A As city lots, I have not.

Q What is the character of crops raised there?

A Different kinds, mostly truck farms, some pasture in there,

couple little pastures in there.

Q What is the duty of water that you have allowed to those tracts?

A About 40 to 45, same as the balance of the city has.

Q Now, direct your attention to the lots below the power plant that are irrigated from the City Race, total of 365.2 acres, as you have tabulated? A. Yes.

Q There is 345 farm acres, what is the character of that soil?

A That is pretty good soil down in there.

Q Just describe it?

A It is a clay loam as near as I remember down in there.

Q And the subsoil?

A It is gravelly.

Q Is that a pretty even character or does that vary?

A It is pretty fine down there, most of it.

Q And what duty do you allow to that land?

A About 55 acre duty on the farm land down there.

Q You raise the duty then as compared with the other tracts, Tanner Race and the other? A. Yes sir.

Q Don't give them so much water?

A I don't give them as much water, they don't need it.

Q In your judgment the amount of water which you have given that tract of land is sufficient? A. Yes sir.

Q To mature crops? A. Yes sir.

Q Is the same true, of the 239 city lots under the -- no, not 239, 439 lots under the City --

A They get there 40 to 45 acre duty the same as the rest of the city lots.

MR. THURMAN: Which are those, Mr. Thomas?

MR. THOMAS: Those are city lots taking water from the City Race, below the power plant.

MR. A. L. BOOTH: Below the Provo Foundry.

Q There are two farm lots also on that stream?

A Yes.

Q Below. Are those, that land similar to the land you have described? A. Yes sir.

- Q Of the same general character? A. Yes sir.
- Q And you give it the same duty, that is about 55 acre duty?
- A They get more time just for the lot than they do on the acreage. They will have the same amount of water for the lot, but a longer time granted to them for lots. They get the water on these lots every week and the farm land only gets it every other week.
- Q Now, in this tabulation have you included all of the city lots here that are within the platted district of Provo City?
- A Yes sir.
- Q Do you have -- you may stated if you have charge of the lateral system within the city? A. Yes sir.
- Q All of those ditches come under your immediate supervision?
- A Yes.
- Q I wish you would please explain how the water is diverted from the channels into the city?
- A There is four ditches right here, first No. one on First -- No. 2 on First East, No. 1 on Second, No. 2 on Second East, they all come out the one place at the Post mill.
- Q From what ditch?
- A From the Union.
- Q The East Union? A. Yes sir.
- Q Now, describe how this, how the water is diverted into the laterals and into the lots?
- A At the head where I take it out I have a gate with a lock and key. The gate is three feet six inches wide. I keep the pressure as near as I can at 12 inches. I have a place for the water to go through not quite three inches, about two and three quarter inches, and that, with a 12 inch pressure, I figure gives me about five second feet of water for the four ditches. Then it runs south until it divides on Eighth North. There I have some cement gates, that is cement siding with steel gates and rocks on them so that it is made on a level that it divides itself there. Half of it runs west

and half of it runs east, and divides again. Locks and keys on gates.

A Do you follow that system throughout the city?

A Yes. Then on Third East I have a Keeler gate there with a lock and key. On 5th or on 4th East, I have no key on that, but it is a cement siding with a plank raised up four inches above the bottom of the canal. Then I have driven in there a two by six so that no one can move it, and left a space there of about two inches, so that there can't only just about, little below a second foot of water go through.

Q That is the rule that you have followed throughout the city?

A Yes sir. On 5th East I have a cement gate with ~~walk~~ lock on it.

Q After the water then is diverted into these laterals it goes what distance?

A It runs to the south end of town and waters back.

Q Now, by watering back, just explain what you mean by that expression?

A Well, if I owned a lot in the farther end of town, I would have an hour and a half. I had seventy-two square rods, I would have an hour and a half, and my time is ended, my neighbor above me, north of me, would put his gate in and he would take it and so on up the lateral, until we get to the top.

Q You begin irrigating at the extreme end of the ditch?

A Yes sir.

MR. JACOB EVANS: Then that is repeated each week?

MR. THOMAS: Let me examine please, and I will get along.

Q How frequently is the system adopted and when?

A That is changed every Sunday night, comes back every Sunday night to the lower end.

A And begins again? A. Yes sir.

Q And that is followed through all the laterals in the city?

A Yes sir.

Q The same system applies to all the water users?

A Yes sir.

Q Do you personally attend to the distribution of the water from the laterals into the provo lots? A. No sir.

Q Who does that?

A The private person.

Q The parties to whom you have heretofore given the tickets?

A Yes sir.

Q And does the duty devolve upon them to see that they get their own water at the time it is allotted to them?

A It depends on me to see the water is in the ditch, and it is up to them to go and get it.

Q Suppose an individual does not use his water, what becomes of it?

A His neighbor below him may grab it.

Q State what proportion of the users along these various laterals fail to use their water?

A Well, that depends all on the season of the year. If water is scarce there will be very few, very few, there wouldn't be over ten per cent at the very most. I don't think be over five per cent that would not use it.

Q Would that percentage hold good throughout the entire irrigating season? A. Yes sir.

Q And what do you say as to that percentage being correct through the terms of your office last three years?

A It has been about the same. Of course this year we have not got to scarcity of water, I cannot say what will happen this year.

Q Are you at this time under a restricted quantity of water?

A No.

Q The water has not yet been measured to you by the commissioner?

A No.

Q At this time? A. No, sir.

Q You have plenty, sufficient water then at this time?

A Yes sir.

Q Mr. Thompson, what water have you seen wasted at the end of these various laterals in the city?

A Depends all on what time of the year.

Q Let us begin at the beginning of the irrigating season, what water have you seen wasted in the streets passing out of these laterals, street laterals?

A Well, we have about seventy-two culverts besides individuals on every street that runs through the town. We have about three thousand children making boats and they -- I may pass a culvert, everything is all right. I am called there in ten minutes, there is a boat in it or a stew pan, of course it floods the street for a little space of time until I can get there and get it out.

Q What waste have you seen at the end of the laterals after it has passed all the headgates?

A Oh, take it at the present time I don't suppose you could hardly find a ditch in town but what there is some water going through the town right along all the time.

Q Some water that is not being used now?

A Yes sir, right at the present time I think you would find some in all the ditches. There may be an exception, of course.

Q Where does that water go?

A That ~~is~~ goes down what is -- on the east side here, goes on Mr. Loose's land, and Mr. Whitehead's land, and a part of it would go on the railroad lands, Mr. Strong's land, down in there.

Q What becomes of the water then from the west end of town?

A That goes right down onto the farm lands, nearly all of it.

Q Then am I to understand from what you say, this water after it leaves the street laterals is being put to beneficial use upon other lands?

A Hardly this time of the year, while it is so plentiful.

Q And what is the condition in your experience after the water has been measured when the low water season begins?

A When it gets down to the 300 foot there will be no waste water going through that lateral, very little, if any.

Q If any?

A. Yes.

A Depends all on what time of the year.

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Q And what is the condition in your experience after the water has been measured when the low water season begins?

A When it gets down to the 300 foot there will be no waste water going through that lateral, very little, if any.

Q If any? A. Yes.

Q What has been your experience as to that during the past three

years?

A Two years.

Q Two years of low water season, that is correct.

A Those fellows at the south below town has their gates set all the time for their pasture and their hay lands, and if there is any should pass by night or day, their gates are set, it goes on to their land, and they move that gate down as they get to irrigating.

Q During the low water season I understand you then there is no appreciable waste of water on any lateral?

A I had to go and furnish Mr. Loose water direct from the Union last year, he couldn't water on the time that was allotted. I had to turn extra water down to him to raise his crop of hay in his pasture.

Q Now, in these city lots you stated that you allowed on an average of about a forty-five acre duty?

A From a forty to a forty-five.

Q From a forty to a forty-five acre duty?

A Yes sir.

Q Now, do I understand that applies in a general way to all of the lots within the platted area? A. Yes sir.

Q Of provo City? A Yes sir.

Q You may state if, in your experience, that has been sufficient to raise the crops and to irrigate the trees here in the city?

A On a forty acre duty I think perhaps, I think it would.

Q On a 45 acre duty?

A No sir, it is not enough.

Q What experience have you had in that particular?

A Last year.

Q What experiences did you have?

A The people suffered for water.

Q In this city? A. Yes sir.

Q Now, state the particular instances that have come to your mind and to your notice, rather, where there has been suffering by reason of a lack of water in 1915?

A Well, there is J. B. Keeler for one complaint.

Q Who is J. B. Keeler?

A J. B. Keeler, yes sir.

Q Who is J. B. Keeler?

A Professor Keeler, Joseph B. Keeler.

MR. THURMAN: Counsel asked you to name those who suffered, not those who complained.

A Well, his garden needed water.

Q Let me ask if this Professor J. B. Keeler is one of the officers of the plaintiff company?

A I don't know whether he is an officer or not, no sir, I don't know.

Q Did you have any conversation with him relative to the amount of water that was being furnished him last year?

A Yes sir.

Q State what that conversation was?

MR. JACOB EVANS: Just a moment, object to it as incompetent.

THE COURT: Objection is sustained.

Q What complaint did you receive from Mr. Keeler relative to the failure, to your failure to furnish water last year?

MR. JACOB EVANS: Object to that for the same reason.

THE COURT: The fact he received complaints from him, he may state, but the statement of facts by the party would be incompetent. Mere fact there was complaint is as far as he can go. If there are any facts you desire to prove you will have to bring Mr. Keeler to prove them.

Q What water did you allow to Mr. Keeler for use upon his land?

A The same as the balance, three-fourths of a second foot.

Q During what term of the year?

A That was in July and August.

Q Of last year? A Yes sir.

Q State, if to your knowledge any more water than that amount was turned into the lateral used by Mr. Keeler?

A Yes sir.

Q During what term of the year?

A That was in July and August.

Q Of last year? A. Yes sir.

Q State if to your knowledge any more water than that amount was turned into the lateral used by Mr. Keeler?

A Yes sir.

Q By whom?

A Mr. Keeler.

Q How was that water turned in?

A He had a key to the gate.

Q Do you know what amount of water he did turn in?

A Just another quarter of a second foot was all he turned in. He just turned it to the second foot mark.

Q How much land had Mr. Keeler he was irrigating from that second foot of water.

A About a four by five, about twenty square rods I would judge. There may be a little more or may be a little less, but I think that is about the amount.

MR. RAY: What was the time allowed on that?

Q Just answer that question, what was the time allowance given Mr. Keeler?

A An hour and a half.

Q Did you receive any other complaint? A. Yes sir.

Q From whom?

A Nels Johnson.

Q Who was he?

A He lives on 5th South and 5th East.

Q Have you received any great number of complaints?

A Yes sir.

Q From various parts of the city?

A Yes sir, from all parts.

Q Without enumerating each one, could you state approximately the number of complaints that you received?

A Oh, perhaps forty or fifty.

Q During the entire season?

A Yes sir, from the city here.

Q Within the city lots, I am speaking about? Were there any complaints received from any other water users in the system last year? A. Yes sir.

Q Taking the system as a whole? A. Yes sir.

Q Can you approximately state how many complaints you received?

A They came in from everywhere, I could not state.

Q Do I understand there were a great number of them?

A Yes sir.

Q Did you keep any account of the number?

A No I did not.

Q Did they come with frequency during the week, during the day, every day?

A Yes sir, every day.

Q And from different parts of the city? A. Yes sir.

Q What did you do when these complaints came to you?

A I had to at one time last year shut the mills down for two days until we caught up.

Q State if you made any personal investigation of these complaints?

A Yes sir.

Q What what findings did you -- what was your conclusion after making an investigation?

A I knew I had to get water from somewhere to save their crops.

Q And state what you did toward the supplying of the demands which they made on you?

A The mills had to close down for two days until I got caught up so that they could save their crops.

Q That is the mills of the Factory Race?

A Yes sir.

Q State just what you did with that, now, you say the mills closed down, do I understand you took the water out of the Factory Race?

A Yes sir.

Q Where did you divert that water?

A I put part of it in the Union, part of it in the Tanner Race,

part of it in the City Race.

Q You were then acting as water master?

A Yes sir.

Q And what use did you put that water to?

A Irrigation.

A Did you divide it among the various farms, various ditches as they needed it?

A Yes sir.

Q State what you did to determine their needs before you turned the water into the respective ditches?

A I had been over their ground every day, knew their condition of the crop, knew that the amount of water I had I never could save them so I had to get water from somewhere.

Q How long did that condition last, more than two days?

A Just two days until I got caught up.

Q What time was that?

A That was in May.

Q Of last year? A. Yes sir.

Q Can you fix the time a little more definitely?

A I cannot, I have forgotten just the day.

Q Was it during the latter part of May, would you say?

A I think it was, but it was in May, I had the dates, but I don't remember when it was. I have it.

Q Now, Mr. Thompson, I wish you would -- let me ask you if you made any record as to what lots suffered here in Provo City for want of water during 1915.

A I have the names of some of them in mind, yes sir.

Q Did you make a record of the lots that suffered?

A Not necessarily, no, I made no written of it.

Q Have you any other record now than a remembrance of having had complaints filed with you?

A No, I have not.

Q Did you make any personal visit to those people when they made complaints to you to determine whether or not they were suffering

- for want of water? A Yes sir.
- Q What did you find?
- A I found they were.
- Q State what you did to relieve them of their trouble at that time?
- A If there was anywhere where I knew the people were not using the water I would tell them be an hour and a half there they could out in to help them out.
- Q Did you follow that rule throughout the entire system?
- A Yes sir.
- Q How frequently would you visit the lots in the city?
- A Every day nearly.
- Q You don't mean to say you would make a visit to each lot every day?
- A I would be on every street every day, that is, on this east part from Academy Avenue out to 7th East. I would go there through every street every day.
- Q Making your inspection? A. Yes sir.
- Q Was the same true of your general inspection of the whole city? A. Yes sir.
- Q To what particular tract did you give your immediate attention aside from the city, do you understand the question?
- A No.
- Q To what particular tract of land, under what canal did you immediately --
- A The Upper East Union.
- Q The Upper East Union?
- A Or the East Union, I should say, not the Upper East Union.
- Q East Union? A. Yes sir.
- Q Who had charge of the other ditches?
- A Mr. Peay.
- Q Is he the deputy you refer to? A Yes sir.
- Q What water is used to irrigate the lots, if you know, from the artisian wells in this city?
- A Doesn't amount to anything in my part of the town, only Uncle

Jesse, he has one. That is about the only one that does any irrigating.

Q Can you state from memory how much land Mr. Knight has?

A He irrigates about sixteen square rods, I guess, with that flowing well.

Q Does he have in addition to this flowing well a right to irrigate from the ditches? A. Yes sir.

Q How much land does he irrigate from the ditches?

A He has an eight by ten square rods.

Q In addition to that which you have just described?

A No, that is included, that sixteen square rods is included, but he has a city right for an eight by ten. That is 80 square rods he has a right for.

Q During your term of office as commissioner we the mills closed down at any other time than when you have just mentioned in 1915?

A Not closed right down, no, they could not use the machinery all of that up near.

Q I want to direct your attention to the amount of water that you received from commissioner Wentz in 1915, you may state if the amount of water you received was less or equal to what you had received in 1914?

A It was less.

Q Can you now tell how much less?

A No, I could not, it was a great deal less.

Q When did you first become aware of the fact that you were receiving less water under Commissioner Wentz in 1915 than you had in 1914?

A Right in the very beginning of the irrigation season, because it was not in the river.

Q What did you do to advise Mr. Wentz of the fact that you were not receiving the amount of water that you had heretofore had?

A We talked it over nearly every day and I sent him a written notice two or three times.

Q Was the amount of water which you received in 1914 less than

what had been received by Provo City in 1913, state if you know.

A I wouldn't know, I don't know anything about that.

Q Now, what water was -- let me put it this way, You may state if the water which you had diverted to you through the Commissioner's orders, ^{was} in anywise interfered with as to flow during the year 1915?

A It was for a time.

Q State the circumstances and time?

A Well, in the early part of the season he didn't have control of all the water users, he could not get them under control, and he got the gates all locked and got straightened up we got along much better.

Q Now, when were you, when was your water cut off then by reason of that?

A Oh, it was cut off quite often.

Q Was any complaint made by you to Mr. Wentz?

A Yes sir.

Q Did you make complaint to Mr. Wentz of those facts?

A Yes sir.

Q How many times if you know?

A Oh, I couldn't tell. He would get up in the night and rustle water for me and in the days.

Q In making your distribution of water, Mr. Thompson, each year, state if you take into consideration the fact that some water may not be used by certain water users in the city lots?

A No sir.

Q What becomes of the water if it be not used?

A It will be used.

Q By the men to whom, persons to whom it will be allotted?

A The other fellows use it.

Q Well, state how that is done?

A Well, if they go by the fellows below them, if they see water coming they put their gates right then and get it. They don't

allow it to get very far.

Q Do you know whether or not tickets are sometimes interchanged or exchanged?

A Yes sir, they do that.

Q And whether or not the use of water is bargained for?

A Yes sir, they do that very often.

Q Do you ~~it~~ take that into consideration?

A I have to, yes sir.

Q How much water is allotted to this block?

A Six hours.

Q And do you know how much water is allotted to the block from the water works system?

A I don't.

Q Can you state whether or not the water that is allotted to this court house block is put to beneficial use?

A I think so, yes sir.

Q Would you say there is any water wasted upon this block ?

A No sir.

Q In your experience you would say no water was wasted?

A Not on this block, no sir.

Q You believe it is put to beneficial use? A, Yes sir

Q How much water is allowed to run through the streets for the purpose of irrigating the trees in different parts of the city?

A There is no allotment made for that. When I water those trees like last year, when water was scarce, I would get up in the night and irrigate those trees to keep them from dying.

I was two nights on Academy Avenue there in the night watering trees.

Q Trees on the street. A. Yes sir.

Q And those are trees that are not on laterals that carry water to lots where there is land to be irrigated?

A There is no land irrigated from them.

Q So these trees that are being watered are trees that are away from the laterals carrying water to the regular city lots?

A Yes sir.

Q Do you know about how much water has been used for that purpose ?

A No, there isn't a great deal of water for that purpose.

Q Any of that water wasted?

A Because we have it arranged so that the ^{waste} water that runs off from the people's lots, a great deal of it takes care of those trees, but on Academy Avenue there is no waste water to take care of them.

Q DO I understand that you do make provision through ditches to catch waste water and carry it to the trees ^{upon} ~~above~~ the streets?

A Yes sir.

Q That they may be irrigated? A. Yes sir.

Q And by that means then you reduce to the minimum the waste of water? A. Yes sir.

Q That is the way we understand it? A. Yes sir

Q Is that the policy and plan you are following throughout the city? A. Yes sir.

Q Do you know whether or not that plan was followed by your predecessors?

A I don't.

Q That is the plan which you are following?

A Yes sir.

Q You don't turn the same amount of water, do you, down all the streets, Mr. Thompson? A. No sir.

MR. A. C. HATCH: Just a moment, I would like the reporter to read the question where he stated into the record to the plan by which the waste was reduced ^{to} a minimum, I didn't get the full question.

(Question read)

MR. A. C. HATCH: Now, if the court please, I move that question and answer be stricken out. It is the worst kind of pra-ctice, I think, to allow counsel to make a record of that kind knowingly and apparently purposely. I did not get the substance of it right at the time.

THE COURT: The motion will be denied. I will say,

Judge Hatch, it does not accomplish anything ordinarily to strike out evidence of this kind, because then it merely requires the change of the question, and asking the witness what was done, and he repeats it usually.

MR. A. C. HATCH: Of course the ordinary witness would never --

THE COURT: While of course subject to the objection you make, yet not having objected to it at the time it may remain in, because it will merely necessitate going back and having the witness make the statement now.

MR. A. C. HATCH: Since he has been told how to do it, he would no doubt do it.

MR. THOMAS: You are only emphasizing ^{the lesson} to the witness if that is what you are seeking to get.

THE COURT: You may proceed.

Q What provision is made to water street trees on cross streets, Mr. Thompson, crossing the laterals?

A We don't have any provision anymore than we have a ditch along and catch the water as much as we can. There is some of them that water on their time. If they haven't got but very little garden and have trees, they use their time to water those trees.

Q Just a moment, that is not quite clear to me, the water is allotted, certain amount of time is given to each lot?

A Yes sir.

Q Do I understand now that there are instances where the trees on the streets are irrigated by individuals?

A Yes sir

Q Out of their lot time, is that what I understand?

A Yes.

Q Well, state what is done, or let me put it this way, state if the full time is consumed by irrigating the trees on the street that is otherwise assigned to the lots?

A Not the full time, no.

Q What becomes of that water?

A They will have perhaps seventy-two rods and only have perhaps twenty rods in garden, perhaps only ten rods in garden, ten square rods, and the extra water they water their shade trees with.

Q During the time that is allotted to that lot?

A Yes sir.

Q Before I was interrupted I started to ask you a question as to the amount of water that was turned down the street, is the same amount of water turned down each of the streets?

A No sir.

Q Wherein is there a difference?

A There is 3rd East and 4th East has --

MR. A. C. HATCH: May I ask whether the question means the water they turn down the water septs or water channels, or that with which they flood the streets?

MR. THOMAS: I suggest that is a little too leading for the witness.

MR. A. C. HATCH: I am asking counsel.

MR. THOMAS: That is too leading for me. If you want me to testify I will testify. I don't think you do.

MR. A. C. HATCH: The question is did he turn the same amount of water down each of the streets and he has been testifying to turning water to irrigate the trees with. Either this witness or another said that they filled the ponds along the side of the streets, that is the excavations made in grading the streets, and I think my question is proper question to ask counsel, whether he means that with which they fill the ponds in the streets or that with which they irrigated the city lots and water system.

THE COURT: The question would include both I take it. It is broad enough to include both, and probably on cross examination you can elicit from the witness which character of water he testifies about.

Q Now, I will go back to the question of the water, or what streets have a greater portion of water turned to their territory than others?

A 3rd East and 4th East.

Q State if there are laterals running down those streets?

A Yes sir.

Q Now, why do you turn a larger portion of water through those laterals in the streets that you have mentioned than any other?

MR. A. C. HATCH: I object to the question, the witness is not stating he turned it in laterals, but he turned it down the street. Counsel is assuming he turned it in laterals.

MR. THOMAS: Now, if counsel is seeking to be facetious, and captious I would like to have notice served, if we are trying to make sport of the court let us understand that.

MR. A. C. HATCH: If the court please, I am very much in earnest in the question and counsel would not answer my question which I asked which I considered a proper question. I asked it in good faith for information and he made light of it. I did not resent it because I can stand a little bit of humor even from my opponent. I am in earnest about this, I take it as a serious matter.

Q With that explanation I shall ask in all seriousness, Mr. Thompson, if, when you turn water into the street you turn it at large in the street proper?

A I turn it in a ditch.

Q And when you say you turn it down a certain street, what do you mean by that?

A Down ~~a~~ the ditch.

Q That runs in that street?

A That runs on the side of the street.

Q That runs on the side of the street? A. Yes sir.

Q Do you want it understood that at any time when you say you are turning water in a certain street that you are turning it over the street at large? A. No sir.

Q But only through the laterals at the side of that street?

A That is what I mean.

Q Why do you turn more water down the laterals in the streets you

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have designated?

A Because there is a greater area and they get less time.

Q Greater area of --

A Lots, land.

Q To be cultivated?

A To be irrigated.

Q To be irrigated, is the soil of any different character?

A Not particularly, no sir.

Q Merely a larger area to be cultivated and irrigated?

A Yes sir.

Q What size stream do you turn down those streets?

A A second foot and a half on the ditch on 3rd East.

Q And on the other?

A Second foot and a quarter.

Q Mr. Thompson, are you familiar with the lands which lie about half a block north of the Brigham Young University ground on the west side of Academy Avenue. Let me ask if you were in court here the day Mr. Wheelon was testifyin?

A No sir.

Q As to the place he took his samples? A. NO sir.

Q Do you know the territory from which Mr. Wheelon took his sample which is designated as Sample No. 1?

A No.

Q Do you know where the Goodmanson place is?

A Yes sir.

Q What do you say as to the character of soil there?

A It is clay on top with a dandy subsoil.

Q Do you know at what depth the water plane is found?

A No, it would be quite deep.

Q What would you say as to the depth of the water plane in the territory near the, or on the west side of Academy Avenue near the Brigham Young University, would it be near the surface or reasonable depth?

A I would judge about six or seven feet.

Q Are you familiar with the character of soil there?

A Yes.

Q What would you say the character of that soil is?

A Subsoil is gravelly.

Q And the surface soil?

A I guess probably clay loam.

Q What would be the duty water would you say should go to that land that I have last described near the Academy and on the west side of Academy Avenue?

THE COURT: Now, speaking of the Goodmanson land?

MR. THOMAS: No, your honor, I located the first sample now.

THE COURT: The Goodmanson land was No. 2.

MR. THOMAS: Yes.

THE COURT: Now, you are asking about No. 3?

MR. THOMAS: No. No. 1. I have located No. 1 in Mr. Thompson's mind now.

Q What in your judgment would be the duty of water to that land?

A In acreage or lots?

Q Yes, in acreage.

A Oh, that land in there would stand about a 55 acre duty.

Q Now, going to the Goodmanson place, what would be the duty of water there?

A That will take just as high a duty there, that land.

Q About 55? A. Yes sir.

Q Do you know where Mr. Corfman's lot is in this city?

A Yes sir.

Q Are you familiar with the soil there?

A Yes sir.

Q What would you say would be the duty of water to that lot?

A That would take a greater duty there than it would the other places?

Q Why?

A The sand I think is little nearer the surface there, anyway, I know it takes an awful duty in there for water. It is almost

impossible to get water over that ground.

Q Because of the character of the soil?

A Yes sir.

Q And not because of the character of the occupant?

A Both, I guess.

Q What duty would you say?

A About a 40.

Q Did I understand you to say the ground was sandy?

A Yes sir.

Q What as to the subsoil?

A Well, part of it is all rock and part of it is sandy.

MR. THOMAS: I want to go back to this, your honor, there are two other points No. 4 and No. 5 which was taken by Mr. Wheelon, the notes of which are incomplete here. I can get them after recess.

MR. JACOB EVANSL Maybe we can give them to you.

MR. THOMAS If you can I would appreciate it.

THE COURT: No. 4 was in the street.

MR. THOMAS: That is on 5th North and 7th West as I have it.

THE COURT: No. that is No. 10 is 5th North and 7th West.

MR. THOMAS: That was the fifth sample, I think, taken by Mr. Wheelon.

THE COURT: Possibly that is true.

MR. RAY: The forty fourth is corner of 4th East and 4th South street, an auger hole.

Q 4th East and 4th South, are you familiar with the land in that territory? A. Yes sir.

Q You may state if there are lots there that are being irrigated under the Provo System? A. Yes sir.

Q State what is the duty of water to that land?

A About 40 acre duty there.

Q You may state if you have seen water applied to that land?

A Yes sir.

Q And to all these other places I have mentioned here?

A Yes sir.

Q And what would you say would be the duty of water to those just as you have given them, 40 and 55 as you have given them here? A. Yes sir.

Q Now, the fifth?

MR. A. J. EVANS: That is inside of the First Ward Pasture, just inside of the fence.

Q That is out of the city, the First Ward pasture is out of the city? A. Yes sir.

Q Now, Mr. Thompson, you took some soil samples, didn't you?

A Yes sir.

Q To hasten examination I will ask you to check these that you were present at?

A I think I was present at all of them, I don't know of any that I was not.

Q I was misinformed, I understood you were not present at some of them.

A The last two is all.

Q You were present when the soil was taken from the Fred Stubbs place? A. Yes sir.

Q And the Bruce Reese place? A. Yes sir.

Q And the Cox place? A. Yes.

Q The Thomas Evans land? A. Yes sir.

Q And from the Taylor and Roberts land? A. Yes sir.

Q Those samples have already been described here in evidence?

A Yes sir.

Q Were you present at the Durant land when the sample was taken?

A Yes sir.

Q Are you familiar with the soil there?

A Not --

Q Do you remember the sample that was taken from that?

A No.

Q Do you remember making an examination of the soil? A. Yes.

Q What would you say the soil was? What kind of a top surface did it have?

A Gravelly.

Q What was the depth of the surface?

A I don't remember, I never looked it up since we took it.

Q What was the character of the subsoil?

A I don't remember that.

Q Do you remember the examination made at the John Sampson place?

A No, I don't.

Q Do you remember the soils, as to their character and depth at any of the places that you took samples from.

A Yes.

Q Do you remember the Peay place? A. Yes.

Q W. B. Peay. A. Yes.

Q Remember the character of soil there?

A Yes, two different classes there.

Q What was it.

Q The first was, I think, a sandy loam on top that went down, as near as I remember about two feet to gravel, as near as I remember, this was long ago, I never looked it up since and the other was all gravel from the surface as near as I can remember.

Q Do you remember the Merriweather place?

A Yes sir.

Q What is the character of soil there?

A That is nearly all gravelly soil, the Merriweather ground.

Q What was the character of the top soil?

A Top soil is a sandy loam, if I remember.

Q Do you remember the Pierpont place? A. Yes.

Q Remember taking a sample there? A. Yes sir.

Q The investigation of the soil there? A. Yes.

Q What would you say was the character of that soil?

A Well, it is, it is about the same as the Merriweather, perhaps part of it is not quite as good as the Merriweather, not quite

as deep, top soil.

Q Under what ditch is that Merriweather land?

A Tanner Race.

Q You have more difficulty then in carrying water over that land than any other? A. Yes.

Q Do you remember the Pierpont place? A. Yes sir.

Q Remember the character of soil you found there?

A It is about the same as the Merriweather place only perhaps the top soil is not quite as deep, as near as I remember a year ago.

Q Have you any data, or did you make any notes at that time?

A No more than what we made and put in the sacks with the dirt.

Q But you made no notes apart from that?

A No sir.

Q Except the samples of soil?

A That is all, about the depth of the top soil and deep as we went in the subsoil.

Q Who was with you when these samples were taken?

A Mr. Swan and Mr. Goddard, some of them, and Me and Mr. Goddard the balance.

Q Could you, if you were to see the notes that were made of these this soil samples refresh your memory and be able to describe a little more fully the character of the soil you took?

A Yes sir.

Q I will hand you these notes and ask you if you recall when they were made?

A Which one?

THE COURT: I will ask Mr. Thompson a question so that I may compare his evidence with Mr. Wheelon's. When you state the duty of water upon these several pieces of land about which Mr. Wheelon testified -- you remember he testified?

A I never heard him, I didn't know he testified.

THE COURT: You were asked a few minutes ago to fix the duty of water upon Mr. Corfman's land.

A Yes sir.

THE COURT: And other pieces of land in the immediate neighborhood there?

A Yes sir.

THE COURT How long a period of irrigation did you include in this computation to fix this duty, how long a period, what is the irrigation season that you had in mind when you gave the duty at 55 acres?

A That is for the whole irrigating.

THE COURT How many is that, one hundred and fifty days?

A Last year it went for one hundred and eighty-three.

THE COURT: That is what I want to get at so that can I make a computation and compare your evidence with Mr. Wheelon's, because he did not give the duty of water in acres, merely gave the duty of water in acre feet, that is the depth of the whose season upon land, and you did not give the depth upon the land, but you gave the acreage one second foot would cover. Now, of course, the length of time that you have that second foot running would make a very material difference.

MR. A. L. BOOTH: How long did he say?

A One hundred and eighty-three days last year.

THE COURT Did you mean that the duty of water as you have applied it to these particular pieces of land would contemplate an irrigation season each year of one hundred and eighty-three days, or what would it?

A No, that is the extreme year, last year, about one hundred and fifty an average.

THE COURT: About one hundred and fifty?

A yes sir.

THE COURT: We may compute it safely upon the basis of one hundred and fifty days?

A I think so, yes sir.

THE COURT: That is all I wanted, to have a basis of computation for your estimate.

Q Do you remember that?

A I remember it.

Q Do you remember that? A. Yes.

Q Mr. Thompson, who was present with you at the time you made the examinations of these various samples of soil?

A Mr. Swan part of them and Mr. Goddard and myself were present at all times.

Q Please state your method of conducting the examination?

A We would dig down to the end of the top soil and dig down and get the next layer and then down, see how deep that one was.

Q Then what else did you do?

A That would be -- probably dig down there --

Q I have reference to the method of recording your finding?

A When Mr. Swan wasn't along I classified the dirt ~~as~~ and Mr. Goddard wrote it down as I classified it.

Q Then what did you do with those notes?

A We put each one in the sack that the dirt was in.

Q Then what did you do with the notes, these notes that you made, these notes that you made of the examination?

A Mr. Goddard put it on his book and also in this slip in the sack, he put it in his book and in the sack both at the same time.

Q Then what did you do by way of making a record of it?

A We had Mr. Swan, when we got up here, make out a record according to the sample.

Q From your statements and Mr. Goddard's notes?

A From Mr. Goddard's note book.

Q Was that done in your presence by Mr. Swan?

A No, not all of it, Mr. Goddard was there all the time giving it to him.

Q And state if ~~the~~ a typewritten copy of these notes was made?

A Yes sir.

Q I will ask you if these that I hand you is such type written copy and compilation of the notes which were made of your investigation of the soil?

A Yes sir, I have compared them while we have had recess, with the original.

Q And state if you got the original?

A Mr. Goddard has it in his book.

Q The original notes?

A The pencil written notes.

Q And this typewritten copy is correct, is it?

A Yes sir.

Q And contains a correct statement of it? A. Yes sir.

Q Now, I will direct your attention, passing the first five, which were already referred to --

MR. THURMAN: We object to his reading from the typewritten notes, not made by him,

MR. THOMAS: I have explained the method, they were made in his presence.

MR. THURMAN: Let me ask a question. You took notes yourself?

A No sir.

MR. THURMAN: Never took any notes yourself?

A No sir, never took a note.

MR. THURMAN: Notes were taken by Mr. Goddard?

A Mr. Goddard took the notes, I classified them.

MR. THURMAN: This is a copy of his notes?

A Yes sir.

MR. THURMAN: I object to it.

THE COURT: Object to what?

MR. THURMAN: Object to his reading from them.

THE COURT: He has not been asked to yet, the question was passing these by, and then you interrupted, I don't know what Mr. Thomas was going to ask him.

MR. THURMAN: Alright, I will let my objection apply to what is coming.

THE COURT: You may ask the question and then apply Judge Thurman's objection to it.

Q Now, passing the first five, I will ask you to describe the

character of soil noted there upon that paper, beginning with the -- I will withdraw that question -- I will ask you to describe the Arthur Durant land or the soil samples taken from the Arthur Durant land?

MR. THURMAN: I object to it if he is going to read from the paper.

THE COURT: Yes, I don't think you have established a situation where the witness can read the paper at this time. Possibly without reference to the paper he may be able to answer your question.

MR. THURMAN: I asked him a while ago and I understood he could not recall.

MR. THOMAS: Before recess, your honor, I asked that question and for that purpose I am asking now with these notes to assist his memory.

THE COURT: Mr. Thomas, as I understand it, these notes were taken by Mr. Goddard.

MR. THOMAS In the presence of Mr. Thompson.

THE COURT: Why is it you cannot prove the correctness of these notes from Mr. Goddard, then I take it there will be no objection to these notes being part of the record so that they might be -- we might all have access to them.

MR. THOMAS There is absolutely no reason why it cannot be done.

THE COURT: This witness is not competent to testify with reference to these notes, but if Mr. Goddard took them and he should testify as to their correctness and correctness of their being transcribed --

MR. THOMAS: Under the theory, your honor, he was present, did the dictating, afterward was present when they were transcribed and then corrected as they, checked them over with the original notes, I assumed he was the original note maker.

THE COURT: Possibly that might be true --

MR. THURMAN: Aren't these notes in evidence now from Mr. Swan's testimony?

MR. THOMS: No, only five samples, I will not press this matter because Mr. Goddard has the original notes.

THE COURT: Then the court will admit these if it appears they are copies.

MR. THOMAS: I can qualify Mr. Goddard as to that and get the same thing before the court. I believe that is all, you may take the witness. Just a minute.

Q Where have you done your farming, Mr. Thompson?

A Most of it here under Provo River Irrigation District.

Q For how many years?

A Been under provo regulation since 1886.

Q Where else have you farmed?

A Spanish Fork.

Q Any other place?

A Yes, I farmed some in Carbon County, irrigated in Carbon County.

Q Any other place in Utah County than at Spanish Fork?

A No, Spanish Fork and Provo.

Q Have you ever farmed what is called the Mapleton Bench country, ever farmed on the Mapleton Bench?

A No, they call it the spanish Fork Bench where I was farming. It would not be on the Mapleton, it would be Spanish Fork Bench.

Q Is there two tracts of land there called the Spanish Fork and Mapleton benches? A. Yes sir.

Q Are they of the same character?

A About the same character, yes sir.

Q Are you familiar, state if you are familiar with that territory which is now under the Strawberry Reclamation Service over in the Spanish Fork Country?

A No, not the new part they have taken in, the new land they have taken in, I don't know anything about the land there.

Q Of your own knowledge can you state whether any considerable portion of the land that is now under the Strawberry Reclamation Service was cultivated and farmed before that land was irrigated?

A Which part of the system, the one running north or the one going south?

Q I don,t know, I was talking of the district you are familiar with.

A That is the part going north on the Mapleton Bench, that was dry land farmed before it got there, greater part of it.

Q Had been farmed for how many years?

A Some of it been farmed for thirty years, dry land.

Q state whether or not crops have been raised successfully there?

A Well, it was not -- probably average from ten to fifteen bushel to the acre would be all.

MR. THURMAN: That is grain?

A Yes, mostly rye.

CROSS EXAMINATION by Mr. A. L. Booth.

Q Mr. Thompson, have you ever had any other experience in testing the duty of water except this one series to which you have testified? A. Yes.

Q Where?

A On the Timpsnogos Canal.

Q Did you do the measuring of the water on the Timpanogos Canal?

A I read the gauge every day, sir.

Q When?

A In 1908 and 1909.

Q How many minute, or how many second feet of water were there in the Timpanogos Canal during the time that you made these tests?

A Mr. Thomas he would tabulate it, I would just read the gauge.

Q Mr. Thomas would give you --

A Hyrum Thomas, he was river commissioner at that time.

Q And you were water master?

A I was water master, yes sir.

Q How many acres were there in the Timpanogos Canal?

A Under it?

Q How many acres under the Timpanogos Canal?

A Why, somewhere about eight hundred acres.

MR. BAGLEY: I object to this as not cross examination.

MR. A. L. BOOTH: This is going to the credibility of the witness.

THE COURT: Yes, the witness has expressed his opinion as an expert witness as to the duty of water upon certain lands, this is merely asking his experience in making tests to determine duty of water.

Q Did you answer the question how many acres there were?

A About eight hundred.

Q And how many second feet of water were there in the canal during the time of this test?

A We were not particularly testing it no more than I have here. I have not given any test any more than ~~an~~ just simply figured it out and when I would get so far I would get too low, have to go back again and give them more water. I haven't made no particular --

Q Did you do that on the Timpanogos?

A We just had there what the commissioner would give us, I could not divide there, just one straight canal.

Q Then you didn't actually make any test on the Timpanogos Canal as to the duty of water, did you, you just took the stream of water and irrigated the land as well as you could?

A Yes sir.

Q Do you know what the duty of water was under the Timpanogos Canal during that time?

A No, somewhere about 60 acre duty, I think,

Q Was the land under the Timpanogos similar to the lands in Provo City that you have tested?

A It is a little better land than the Timpanogos.

Q You mean better to hold water? A. Yes sir.

Q Have you tested any other place besides provo City?

A I have not tested -- as far as that, I have not tested any more than I know when I get so many second feet in the canal I could not irrigate the land with it, and would have to raise the

amount of water.

Q When you say that the Corfman lot requires a duty of about one second foot for 40 acres. A. Yes sir.

Q Do you mean that comes from actual testing in your case or just from your judgment in the matter?

A Just my judgment in the matter.

Q What is your judgment based on how in relation to the Corfman lot?

A I have not measured it.

Q You have not measured it?

A No sir, just the class of soil and I have my own lot right close by and know about what it takes there.

Q Have you ever turned a stream on the Corfman lot?

A No sir.

Q And tried how long it takes to water that lot?

A No sir.

Q With a certain size stream?

A No sir, I have not.

Q Have you ever done that with any piece of ground?

A Only my own.

Q Have you measured the water on your own lot?

A Yes sir.

Q What size is that?

A There is one piece there -- that is not mine but I have been using it for four years, there is one piece there four by twelve, another piece there four by eleven.

Q How much water have you put on that?

A Now, last week I used the water in the night on the four by eleven. There was a second foot and a quarter in the ditch, I figured I would lose a quarter of a second foot so I just figured it at a second foot that would be on the land. I commenced at twenty minutes after eight to irrigate that. It was furrowed and in beans. I kept that water on there to ten minutes after twelve before I got that through.

Q How many rows did you let the water run in down?
A I just took a few feet at a time.
Q Do you know how many rows that was?
A No, I don't, I haven't counted the rows, they are there to be counted though.
Q Now, did you find out what quantity of water there was?
A Why, there is --
Q You measured it?
A There is a gate there that you can measure by.
Q You measured it?
A There is a gate there that you can measure by.
Q Did you measure it?
A No, I cannot measure water any more than the gauges.
Q Then you don't know whether you had one second foot or three quarters of a second foot?
A Yes sir, I do.
Q How do you know?
A Because my eye tells me.
Q Yet you cannot measure a second foot; how can your eye tell you?
A I can measure it with the looks of the stream.
Q Then all of your testimony that you have given before the court in relation to the duty of water is based merely on your judgment and not on any measurement, is it?
A Not altogether, sir, we have gates that measure correctly.
Q Do you know they measure correctly?
A Well, the Keeler gates, I don't know, we have tested them out in the suppressed weir.
Q Do you have a Keeler gate at your land?
A Not on 4th East, no sir.
Q This land that you tested last week of your own, did you have any method of knowing how much water you were turning on your lot?
A Anymore than just the looks of the stream.

- Q That is what I say, and isn't that the case with most of these tests to which you have been testifying when you say it requires about a 45 acre duty or 40 acre duty or a 50 acre duty?
- A We have had the ditches here measured and I keep the same stream of water. I have gates so that they cannot change them, they run the same stream continually.
- Q Yes, but if have you turned the water on those premises?
- A No sir, I have not.
- Q Not on any of them except your own?
- A That is all, yes sir.
- Q And that is the experience upon which you base your judgment for this testimony as to the duty of water?
- A Yes sir.
- Q On all these tracts of land?
- A Yes sir, that is all.
- Q Do you know what depth of water will ^{be} put on a piece of ground in one hundred and fifty days on a duty of 40 acres to the second foot?
- A No, I don't exactly.
- Q Would you say that it would take seven and half feet of water on a piece of ground to properly irrigate it in Provo during the hundred and fifty days? A. Yes sir.
- Q You think that you could not raise a crop successfully with less water than seven and a half feet?
- A It would take that in the length of time, yes sir.
- Q I mean in one hundred and fifty days?
- A Yes sir.
- Q Are you acquainted with the Stubbs tract down here?
- A Yes sir.
- Q How does that compare with the Corfman tract?
- A Well --
- Q As to requiring water?
- A Corfman tract will take a great deal more, more duty.
- Q How much more?
- A Oh, nearly double the Corfman would than the Stubbs.

Q Now, do you think that the Corfman could get along with double what the Stubbs could?

A He could with his house and everything on the place, yes.

Q I am talking now about the actual amount of water rod for rod, how much more would the Corfman tract require if it were acreage than the Stubbs tract requires during this hundred and fifty day irrigation period?

A Just about double I think would be all right.

Q You could think that the Corfman tract could get along with double what the Stubbs tract would take?

A Yes sir, I would say it could, yes.

Q If the Stubbs tract could get along with less than two acre feet per season then you would think that the Corfman tract would take about four acre feet, would you?

A Yes.

Q Now, do you know what four acre feet would mean in relation to the duty of water for the one hundred and fifty days?

A No, I don't.

Q If ~~as~~ it would mean about seventy-five acres then would you change your testimony in relation to the Corfman tract?

A What?

Q Suppose that putting four acre feet on the Corfman tract meant a duty of about 75 acres to the second foot, would ~~you~~ you say then that the Corfman tract requires a duty of 40 acres to the second foot?

A Yes, I would ^{still} say it, it is a 40 acre duty up there.

Q Notwithstanding the Stubbs tract will get along with ~~less~~ than two acre feet?

A It cannot get along at the upper end there, it cannot get along with two acre feet.

Q Have you heard Mr. Wentz testimony?

A No, I have not.

Q And seen his report?

A I have read his report, yes sir.

Q Haven't you read that the Stubbs tract requires -- took less than two acre feet?

A It may as a whole, I don't know as a whole.

Q How many feet in depth during the one hundred fifty days would you say your lot ought to have in order to raise a crop successfully?

A Well, it wouldn't need only a foot if you could hold it there, but it will take ten to raise a crop on it.

Q Is ten enough?

A It will crowd it. I have seen as high as seventeen put on.

Q Seventeen acre feet? A. Yes.

Q Now, suppose that you doubled the size of that stream, could you get over it in a great deal less time?

A Yes sir, if you could handle it, but you could not handle it on these little tracts.

Q You could handle it on the whole piece, patch four by eleven, couldn't you? A. No sir.

Q How did you run it, the long ways or the short ways?

A The long way.

Q Your rows were eleven rods long?

A Yes sir.

Q Which way do they run?

A North and south.

Q You mean to say that you could not handle a four rod tract in width with a stream of water?--

A Not with two and a half second feet, I couldn't do it. I would flood the whole thing, I couldn't possibly handle it, no sir, I could not.

Q Do you know how much depth it would give you to water your lot once a week the way you said you did the other day, the other night?

A No, but of course that was the first irrigation, it doesn't mean that it would take that each week.

Q You wouldn't think it would take that much each week?

A I know it won't.

Q How much less will it take?

A Next irrigation perhaps would water that tract in an hour and a half, same amount of water easy enough.

Q How many hours did you say you had it this time?

A I had it twenty minutes after eight and had it until ten minutes after twelve.

Q That was three hours and fifty minutes?

A Three hours and fifty minutes, yes sir.

Q Now then an hour and a half would be little over a third of that?

A Yes, I would say you could water it very nicely in an hour and a half next time irrigated.

Q And so on throughout the whole season?

A yes sir, so on throughout the whole season.

Q Do you know how much water that would put on your lot during the season? A. No sir.

Q That would put eight feet, would you say that would -- that your lot requires that much?

A Yes sir, that took eight feet to get it over, I would say it took eight feet to irrigate it.

Q To raise a crop?

A To raise a crop, yes sir.

Q Going up now to the East Union system, you stated that there was some nine hundred acres of farm land, I believe?

A Yes.

Q And seven hundred city lots? A. Yes.

Q And two hundred farm lots? A. Yes.

Q Or thereabouts, making a total of 1950? A. Yes.

Q How many second feet did you say you have flowing in the East Union?

A In the daytime we have, when the water gets down, scarcity of water, we have about seventeen to eighteen in the day time.

Q That, I understood you to say that you didn't water under the East Union in the day time?

A That is for the city purpose here, for these laterals for the

City.

Q You mean on these city lots?

A Yes sir.

Q But you do irrigate the farm lands?

A No sir, there is those lots out there that is marked farm lots, they have to have water once every week, and the asylum has about twenty acres of garden stuff that has to have water every week, so it takes twelve second feet for the city, very little left for the farms.

Q Now, do I understand you you do water the farm lands in the day time, or don't water the farm lands in the day time?

A We don't. As a rule there is a little left and we use it of course.

Q And so you take that water on the platted portion of the city and on these farm lots in the day time?

A Yes sir.

Q And then out on the farming land at night?

A Yes, use it at night and day here in the city.

Q You said you began down at the lower end of the line of the blocks?

A Here in the city, yes sir.

Q Each week? A. Yes sir.

Q And go from 6th South to 8th North during the week?

A Yes sir.

Q Then that is one stream waters one tier of blocks, does it?

A Yes, some places has to water more than a tier of blocks.

Q You said you had two streams on 1st East, I believe?

A Yes sir.

Q And two streams on 2nd East?

A Yes sir.

Q Then one stream on 3rd East? A. Yes.

Q And one on 4th? A. Yes sir.

Q What is the size of these two streams on 1st East?

A On 1st East?

Q Yes.

A At the present time they are about a second foot to the stream.

Q Where do you use those two streams on 1st East?

A You mean the No. 1 waters everything between Academy Avenue and No. 1 ditch on 1st East comes around down around here on Center Streets and irrigates down below here.

Q Mean Academy Avenue?

A Yes sir, and goes on down and waters parts of the Stubbs, ^{waters} what they call the Stubb Addition part of it down there.

Q Does the water from either of those streams go to any land east of 1st East?

A This first ditch doesn't water any only land -- only the Stubb land and then the lots in Stubbs Addition.

Q Do you have that running all the time?

A Yes sir, on this ditch here.

Q Night and day?

A Night and day, yes sir.

Q How many lots are there in the Stubbs Addition, if you remember?

A I don't remember.

Q Have you any judgment?

A No, there is 11 1/4 lots under this ditch.

Q 11 1/4 lots? A. Yes sir.

Q And you give an hour and a half to the lot?

A Yes sir.

Q Then how many lots are there under stream No. 2, if that is what you call it, on 1st East?

A I think it is 98 under that, 98 lots.

Q And you give that the same time per lot?

A Yes sir, same time per lot.

Q What do you do with the water for the difference between nine-eight lots and 11 1/4 lots in those two streams?

A We have land here at the south that uses that at night.

Q South of where?

A Right in there by the railroad, in there in that ground in there.

Q North or south of the railroad track?

A North of it and south of it too, it comes across there, crosses

under west of the old depot there.

Q Don't you have some springs come up under the hill there that goes -- the water of which goes to the land south of the railroad.

A It cannot take care of them.

Q Take care of what?

A That land, the springs.

Q How much acreage do you water with this stream south of the railroad?

A I don't remember just exactly what it is.

Q But you do keep two streams going on 1st east so as to take care of the tier of blocks between 1st East and Academy Avenue and Stubbs addition and this land that is below the railroad that you mention?

A The stream No. 2 on 1st East waters the other tiers of blocks on the east side of 1st East.

Q Then what does the stream, what do the two streams on 2nd East water?

A On 2nd East?

Q You said you had two streams on 2nd East, as I understood you?

A Yes, that starts about the lower end of 2nd East waters back up until it comes to 8th North, it ends there. After it waters that block and then takes care of the lots on what we call the Canyon Road ditch.

Q Does that water any ground between 1st and 2nd East?

A Yes sir, that comes down on the Ed Loose ground in there.

Q Between 1st and 2nd East? A. Yes.

Q I thought you said that the stream No. 2 on 1st East took care of all the blocks on the east of 1st East of that tier?

A Not all of them, there is 98 there under that ditch.

Q How many does this on 2nd East take care of ~~me~~ of the tier between 1st and 2nd East?

A Oh, there isn't very many until you get up here in the upper end. I forget exactly the number there is there but not any-

where -- say there is fifty or sixty, something like that.

Q Then, as I understand it, the stream on the east side of 1st East and the stream on the west side of 2nd East together take care of 98 lots and about 50 or 60, is that right?

A No, because that stream takes care of all that ground above north of 8th North. Ditch No. 1 on 2nd East takes care of all that land up north of 8th North.

Q How much is there there?

A I don't know, there is about twenty acres in there that it takes care of that is in lots, somewhere about that.

Q Twenty acres in lots?

A Somewhere close around that. I don't know just exactly, probably only fifteen.

Q When you said that these lands in here required a duty of about 40 acres to the second foot then in another place of your testimony you said that a lot was equal to an acre, did you mean that the duty on Mr. Corfman's lot ~~per~~ for instance, of 40 acres to a second foot meant forty lots to the second foot or 40 acres actually?

A I haven't said that.

Q I understood you to say at one time that a lot, city lot, was about equal to an acre of ground in the requirements of the water?

A I don't know what you understood me, but I haven't said it.

Q Then you didn't mean to say that a lot requires more under the system of irrigation, a lot requires more than $72/160$ of an acre of farming land?

MR. THOMAS: He didn't testify to that.

MR. A. L. BOOTH: When he said an acre duty, or a duty of water was 40 acres to the second foot whether he had reference to the lots as they were or to the acreage as acres.

A I meant it on lots as they are.

Q That is, that one lot is $45/100$ of an acre?

A I meant a lot, not taking a large field, I meant the lot.

Q Certainly.

A Yes sir.

Q Now, you said also when people did not water their land or their lots in their turn, that somebody below would take the water?

A Yes.

Q You also said that you used that water that people did not use on their lots for irrigating the trees in these -- on these cross streets, as I understood you? A. No.

Q Didn't you say that the people taking that water sometimes when a man doesn't water his lot he will turn it on his trees?

A His own water, yes sir.

Q That water is used for that purpose then?

A Yes sir, that is, if he doesn't take all his time on his lot, he turns perhaps half of his stream on his lot and the other half around to water his trees.

Q Now, does the city water any trees that are not -- does the city turn the water on any trees that are not watered by the streams naturally or by the owners themselves?

A Just one place, just Academy Avenue where they water trees that is direct from their ditches.

Q Have you ever seen Exhibit 68 before?

A I didn't know what the number was, but I helped get it up.

Q Did you help make the red marks on here?

A I didn't make the red marks, but I was there and dictated where the tree rows were, there was no ditches, that have to have water.

Q Do these trees have to have water?

A Yes sir.

Q How often?

A Whenever they can get it, they won't live without it, they have got to have it.

Q Can you tell when the row of trees on the south side of Fourth North and right west of Academy Avenue was watered right north of the Melldrum lot?

A Yes, it is not very long ago.

- Q I mean clear over as far as the trees go?
- A I didn't follow it up whether it went, watered through or not, I wouldn't say as to that.
- Q When were those trees watered last if you know?
- A There by the old man Melldrums, you mean?
- Q On the north side of old man Melldrums lot?
- A I think it was night before last or night before that, it was choked up there and the water went right down in there.
- Q Flooded over you mean? A. Yes.
- Q Can you tell when the trees on the north side of that same street and south of the old McAdam home where Will Boyden lives were watered on the north side of 4th North? and between 1st and 2nd West?
- A That would be there by the Mill Race?
- Q No, on 1st West, that is right immediately west of 1st West on the north side of 4th North. You know where McAdam used to live, don't you? A. Yes.
- Q Right on the south side of the McAdam lot, do you know when those trees were watered?
- A No, I don't.
- Q Do you know the trees on the south side of 2nd North Street immediately opposite Mr. Evans residence from Academy Avenue east to 1st East on the south side of 2nd North that is opposite the Fourth Ward meeting house?
- A Opposite?
- Q On the south side of the street?
- A Right opposite the meeting house?
- Q That whole block?
- A You mean the school house and that?
- Q Opposite the school house block on the south side of that street?
- A The ditch goes right through there and they water quite often there, them people that live there, they have a few trees, they don't have any garden but have a few fruit trees inside the lot.
- Q Isn't it a fact there isn't any ditch at all along the north side

of that street?

A But the ditch goes right across, all they have to do is stop it and it will run each way. It is on the west end -- east end, I should say.

Q Now as a matter of fact, you got up this Exhibit 68 and took in every part of every block where there wasn't a cross ditch, whether there were trees or not, didn't you?

A No sir, you don't find none of Jake Evans, do you, in front of it, in front of Mr. Evans residence?

Q Do you say there are trees along the whole block on the south side of the street opposite Fourth Ward meeting house?

A No, I didn't say there were trees all along there.

Q And I will ask you if there is a red mark there on this tract that is on 2nd North between Academy Avenue and 1st East?

A Which block do you mean?

MR. JACOB EVANS: Block 29.

A Is there a red mark along the north side of that?

Q Looks like a red mark on both sides of that.

A Well yes.

Q Are there trees along the bothsides of that on the south side?

A No, there isn't any all along, no sir, there is not.

Q Then we do find a place whe-re you have marked them and there is no trees?

A There is no trees there all the way, there is part ways, but not all the way.

Q We do find a place ~~we~~ you have marked on there where there is no trees, don't we?

A Yes, there is a place there.

Q You said we wouldn't find it, didn't you?

A No, I didn't say -- I said you wouldn't find any in front of Mr. Evans residence.

Q Aren't most of these trees where you have marked red marks irrigated by the ditches that irrigate the lands inside of the lots?

A Yes sir, most of them is.

- Q And still you are putting that in as extra, as an extra requirement for city water?
- A No, that wasn't the way I understood it. The way I understood it was that just to show that the waste water was used, a great part of it, to irrigate those trees.
- Q What do you mean by waste water?
- A Water that runs off from the lot, you can't irrigate a lot and stop off right the minute at the lower end.
- Q Is there one of those lines on the north side of the block that is irrigated by waste water?
- A On the north?
- Q Yes, on the north side of any block there in that whole map, is there any row of trees that is watered by waste water?
- A There might be some.
- Q Can you tell one?
- A On the north side?
- Q Yes. A. Yes.
- Q Where is it?
- A There is one right down here, I don't need to go any farther than the general hospital, as far as I need to go.
- Q Where does the waste water come from ~~the~~ to irrigate that row of trees?
- A The hospital turns that themselves and when it is their ~~time~~ time they turn it down, it is not waste water from them particularly, they turn it down there on the north side of their's.
- Q On the north side of their what?
- A General hospital down here.
- Q There isn't any row of trees on the north side of the general hospital, is there?
- A Isn't there?
- Q Is there?
- A I thought there was.
- Q The general hospital is on the south side of the block, isn't it?
- A It is on the north side of the street and south side of the

block, but on the north side of the street.

Q I am asking you about a row of trees on the north side of the block, there are rows of trees that run along the south side of the street and along the north side of the street generally, aren't there? A. Yes.

Q Now then, those rows that are on the south side of the street would be on the north side of the block? A. Yes.

Q Is there any instance in town where the waste water runs across the street from any lot and waters the trees on the south side of the street from that block?

A No, not that I know of, no.

Q Then at least half of these running east and west would not be watered by waste water, would they?

A No, not necessarily waste water, no.

Q As a matter of fact, until this suit came up you never had any thought of watering these trees by city water except incidentally, did you?

A I could not say because the suit was started long before I was here, I don't know anything about that.

Q Do you do the measuring of the water as between the different ditches coming into the town? A. No sir.

Q The water commissioner does that? A. Yes sir.

Q After it gets into your main canal then does the commissioner go and measure it into the East Union and Factory Race and Tanner Race?

A He measures it at the head what I have in each canal.

Q Where is the division of your main canal?

A One is right at the brick yard, for the Union, little bit east, little south of the Pressed Brick up there. The Factory Race is south of it, but the tail race, the Union takes out before they use the water, before the Pressed Brick Company use the water.

Q After you get the water into these main ditches the commissioner doesn't do any measuring, does he?

A No sir, does not.

Q You and your deputies do the turning of the water?

A Yes sir.

Q Into the city laterals? A. Yes sir.

Q Do you have any way of measuring or comparing the streams that you give to the different ditches?

A Yes, some.

Q You try to get about a second foot, I think, in a ditch, you said?

A On these four here, yes sir.

Q That is during the low water period?

A No, when it gets down like this last year we only had half a second foot in these ditches here.

Q You never have more than about a second and a half then in any of the ditches going through the town?

A That would be as much as we generally have, yes sir.

Q You don't do any actual measuring, however?

A No, actual measuring.

Q You just judge?

A That is right, yes sir.

Q As to the size of the streamⁱⁿ? A. Yes sir.

Q And turn that down?

A Yes sir, only on the Keeler gates where he has got them to work I can set the mark and test them out with a weir and are satisfied they are correct.

Q You have only one Keeler gate, have you not?

A Two.

Q Two? A. Yes sir.

Q You put them in last year? A. Yes sir.

Q They are up in the northeast part of town?

A One and the other is in the southeast part.

Q Previous to that you had no measuring device for these small ditches?

A Anymore than just the cement gates with locks on them is all.

Q But did you have anybody do the measuring on the streams?

A The engineer has once in a while measured them, that is all.

Q When you take the water out of the Mill Race nights and

Sundays, who measures it out? the quantity that is to go to the East Union and quantity that is to go to the Tanner Race and quantity that is to go to these other places?

A I do.

Q You do the measuring?

A Yes sir.

Q Or do you do it by judging?

A No sir, Mr. Wentz has got gauges there, I know just where I am at by reading the gauges.

Q So you know when you turn in twelve feet into the East Union?

A I know when I have got 35 and 40, whatever it is, yes sir.

Q And you know when you have less than 35 and down to how low?

A Oh, about twelve, I think, is about as low as Mr. Wentz has figured it out for me.

Q You take the water how far down on the East Union?

A Oh, half a mile anyway, if not a little better, south of the infirmary.

Q Then you have a waste ditch, do you not, for that?

A Right at the infirmary we have one.

Q There is a good deal of water goes to waste through that waste ditch, isn't there, during the year?

A There is right now, yes.

Q There is every year, isn't there?

A In high water.

Q I don't mean in low water, but there is a good deal of water goes to waste out of the East Union Waste ditch every year, isn't there?

A In high water, yes sir.

Q So that you bring more down and take it around the East Union than you need when the high water is on?

A Yes sir.

Q Always?

A Not always, no.

Q I say always when the high water is on?

A Not always, no.

Q Mr. Roberts been complaining to you for about a week, hasn't he, there is too much water down there now?

A Yes, but it wasn't our water.

Q I say, he has been complaining to you, hasn't he?

A Yes.

Q And there was one time when he sought to make damages for flooding his land, wasn't there?

A I don't know nothing about that, not a thing.

MR. THOMAS: I object to that.

MR. A. L. BOOTH: It is merely to show they don't take care of the water.

THE COURT: He says he doesn't know anything about it.

Q I believe you said that you went and irrigated some of these trees in the night time.

A On Academy Avenue, yes sir.

Q That is the only place where you do any watering of those trees?

A Yes sir, only place ever I done any.

Q Do you know whose water was taken to irrigate those trees?

A It belonged to all the farmers. I had to go to the head and turn some more down to do that.

Q You did it in the night time?

A I did, sir, only time I could do it.

Q Then whenever the city needs any more water you either take it from the farms or from the machine interests, is that right?

A Well, I took really the water away from the city last year, and give to the farmers.

Q You took the water from the factories too, did you not, and gave it to the farmers?

A Only in May.

Q In May? A. Yes.

Q Later in the season then the mills just took their proportion of the water all the time?

A No, they didn't get quite their proportion.

Q Where did it go?

A It went to the farms.

Q Who took it?

A I took it.

Q Did you ask the mills for it?

A No, not when I could get anywhere near to what they ought to have.

Q No, but when you did take any from the mill did you ask the mills for it?

A No. I did when I shut them off dry for two days, I notified them I would have to do it.

Q Did you do it under a claim of right or did you do it by their permission?

MR. THOMAS: Object to that as calling for a conclusion of the witness, improper cross examination and immaterial.

THE COURT: Objection is overruled.

MR. THOMAS: Note an exception.

A Why, we just agreed to it, I explained the situation I had to have it to save the farmers crops and they kicked a little about it and then we agreed to it.

Q Wasn't it been a fact that has been done all during all these years?

A I couldn't say.

Q That the city has taken the water from the mills when it needed it, and the mills protested in words but have never done anything more than that?

A I couldn't say.

Q Now, going west of Academy Avenue, how many -- before I go to that Mr. Evans reminds me did you find it necessary to turn the water away from the mills more than once during the year 1915?

A Not all of it, no sir.

Q Not all of it? A. No sir.

Q 1915 was a very scarce year, wasn't it?

A Yes sir.

Q And in reality the river got lower in May than it had been ever before so far as measurements were, didn't it?

A I believe it did, yes sir.

Q It was in May you turned it off the mills, wasn't it?

A Yes sir.

Q After that then you didn't find it necessary to turn all the water away from the mills?

A Only at night, that is all.

Q I mean while they were running in the day time?

A No sir, no sir.

Q There was less rain also during 1915 than there had been any other season that they have any record of as far as you know, wasn't there; I mean during the irrigation season?

A We had a pretty good rain the first of June, I think.

Q Pretty good rain?

A I think there was a pretty good rain about the first of June, as near as I remember.

Q Would you say there was more than 65/100 of an inch of rain fell in June last year in Provo?

A No, I don't know there was.

Q There was eighty-seven days without rain, wasn't there?

A I believe there was.

Q And that was during June and July and August; then wouldn't you say there was less rain during the irrigation season last year and particular June, July and August than there had been during any other year that you know of in Provo?

MR. THOMAS: The witness stated he wasn't in charge of the water system at that time.

MR. A. L. BOOTH: I am talking about the rain, I don't know what difference that would make about being in charge of the water system.

A I don't remember whether -- 1904 was about as dry, I think 1915.

Q I am speaking now about the month of May, June, July and August.

A I don't remember.

Q But last year was an unusually dry year, wasn't it?

A Yes sir, it was.

Q Now then, going west of Academy Avenue how many streams of water do you have coming into the city from the north and west of Academy Avenue?

A Into the city?

Q Yes, for irrigating the city lots?

A There is a ditch on 1st West that crosses over the Mill Race and waters the west side of 1st West and couple blocks on the other side of the Mill Race and there is one ditch comes right down through the north part that takes care of four ditches.

Q That puts you over to 5th West?

A Yes sir. Then we have the main City Creek down 5th West and also a ditch on the east side of 5th West. Then we have another ditch that takes out right there on 5th North and 5th West, takes care of quite a number of blocks in there.

Q Now, taking this ditch on 1st West and the ditch going through the north part that you say takes care of four other ditches --

A That divides there -- no, it don't either, it is only one, just goes through the block there for a ways and takes care of three down through the town.

Q Those ditches take care of all the lots from 5th North to 6th South, do they?

A From 5th North to --

Q 6th South. A. yes.

Q And between Academy Avenue and 5th West?

A Yes, that is for the ditch on 1st West.

Q Do you start at the south end of the system the same way that those tiers of blocks were put, described on the east of Academy Avenue. Just answer, he can't put your nod in the record? A. Yes sir.

Q Now the city is not platted north of 5th North and west of Academy Avenue and east of 5th West, is it?

A The what?

Q The city is not platted, I say, north of 5th North and between

Academy Avenue and 5th West? A. NO sir.

Q So that the lands above there with the exception of small portions are farming lands are they not.

A Yes sir, they are.

Q You also have some ditches running out of the Factory Race?

A Yes sir.

Q Going down to take care of some of these lots in this neighborhood, don't you? A. Yes sir.

Q Taking the schedule and beginning Sunday night, is it, that you begin your irrigation for the week?

A Yes, all of them here on the east. Not all on the west.

That is we may mix up, we have to straighten them out.

Q There would be for one tier of blocks eleven blocks, wouldn't there between 6th South and 5th North? A. Yes.

Q And there are eight lots in a block? A. Yes sir.

Q And then there was an hour and a half given to each lot, you say? A. Yes sir.

Q That would be eighty-eight plus forty-four hours that it would take to irrigate between 6th South and 5th North on the one tier? A. Yes sir.

Q That makes 126 hours, doesn't it?

MR. RAY: One hundred thirty-two.

Q Yes, one hundred and thirty-two hours.

A Yes.

Q Now, what was done with that water during the balance of the week of one hundred and sixty-eight hours?

A We have plenty of use for that down in the fields south. They are all dry in that field south of there.

Q You said, however, you begin Sunday night?

A We may start way down pretty near to the lake and work back up until the time is put on, we don't necessarily stay right there.

Q Don't you have a race from 5th West going down and irrigating a lot of that land south of there?

A The ~~wish~~ which?

Q From 5th West, doesn't the race from 5th West go into those

south fields?

A Yes, that takes care of that part, good part of that down the southwest part of town, yes sir.

5:00 P. M. Recess to 10:00 A.M., June 22, 1916.

THOMAS E. THOMPSON - - - -

CROSS EXAMINATION By Mr. A. L. Booth continued.

Q I don't remember, Mr. Thompson whether you said you dug some holes up there on the Goodmanson lot and Corfman and some of these other places that are watered under the East Union, did you dig the holes?

A Not on the lots, no sir.

Q You did dig them down on this other ground in the southern and southwestern part of town, did you?

A Yes, down out of the city limits, that is, out of the city corporation proper.

Q How then did you determine your judgment as to the duty of water required on these lots where you did not dig into them?

A By observing the amount that it takes to irrigate them.

Q But you said yesterday that you never had irrigated them yourself except your own lot?

A No, I have not irrigated them myself only I seen the amount of water that goes on, that is all.

Q When you went down below then and dug the soils up there, how did you determine the duty of water upon those lands?

A By the soil.

Q Without turning any water on?

A Yes sir, without turning any water on.

Q Have you ever taken any subsoil as you found in any of these holes that you dug and experimented with it as to the amount of water required for its irrigation?

A Yes sir.

Q Where?

A On the Smith, Abe . Smith field. I was there once when they irrigated all the way through the irrigation when they made the test on it.

Q And which other lands does the land of Abe Smith correspond to in quality?

A It and the Bean land is about the same, and there is quite a lot of the same class of soil on the Tanner Race.

Q How does it compare with the Stubbs land?

A It is a great deal worse land than the Stubbs land.

Q Is the soil deeper or shallower?

A Shallower, it takes a much lower duty of water than the Stubbs land would take.

Q How much lower?

A Oh, I would judge nearly double the amount of water, I believe.

Q Is that Smith peice the only one that you actually experimented on?

A No, not the only one.

Q I mean with an irrigation where you watched it all through from beginning to end?

A No, I watched on the Clark piece when they irrigated.

Q Is the Clark piece similar to the Smith piece, or similar to the ~~Smh~~ Stubbs piece or different from both of them?

A It is different from both.

Q Would it take more or less than the Smith piece?

A It would take a little less than the Smith piece.

Q Between the Stubbs and the Smith then? A. Yes sir.

Q Is that the only one other that you experimented on, the Clark piece and Smith?

A I never stayed with the rest clear through one irrigation.

Q Then your judgment on all these others is without having experimented on them or having experimanted on any soil similar to them, is it?

A I have not experimented on any.

Q I say your judgment -- A. Yes.

Q Is without having experimented either on them or any soil similar

to any of them except the Smith and the Clark?

A Yes.

Q Referring now to your own lot again, you don't distribute to your lot any more water than you do to other lots in Provo, do you?

A. No sir.

Q Have you ever had for the irrigation of your lot more than an hour and a half to irrigate except for this one time when you experimented with it?

A Why, I have a little more time than that. I take it right in the night time and always allow a little more at night on lots than we do in the day time.

Q How much more?

A Oh probably two hours to a lot in the night where you have to get up in the night, ten and twelve o'clock at night.

Q Is that the rule all over the city where you water at night?

A Pretty much so, yes sir.

Q Have you ever had on your own lot any more than two hours regular to water it?

A. No.

Q How have you got along in the past since you have owned the lot as to maturing --

A It is not my own lot, I just worked it for four years, it is not my own lot, it is Tom Leonard's lot, but I have raised garden stuff on it for four years.

Q Where is it?

A It is right by my own home.

Q Up here in the fifth Ward?

A. Yes sir.

Q How long have you known of the lot, the Leonard lot?

A Oh, I have known the property for thirty years anyway.

Q Have you ever known it to receive more than two per lot for watering per week?

A No, I don't think so.

Q Have you noticed the crops on it during the time you have lived by it?

A Ever since I have lived by it I have used it myself, I most surely have noticed the crops.

- Q That is only four years? A. Yes sir.
- Q Did you know it before the four years?
- A I knew it when old man German had it in to wheat.
- Q Did you notice the wheat crops on it?
- A Yes sir.
- Q It didn't receive any more water than other lands in the neighborhood, did it?
- A I don't know anything about what it received at that time.
- Q Is that particular lot different in quality from the land immediately adjoining it on any side?
- A Yes sir.
- Q Different from your's?
- A Yes sir.
- Q And different from the lot on the other side from you?
- A Not different from my own lot, but different from the lot across the street south, different class of soil.
- Q So far as you know there never has been a failure of the crop on that ground for want of water, has there?
- A There was last year, yes sir.
- Q Last year? A. Yes sir.
- Q Is that the only year you have known of it being a failure?
- A Yes sir
- Q Previous to that time then you have never known of a crop failing for want of water on this lot you experimented with?
- A No sir
- Q How do you account for that? if you could not get the water over it in less than four hours last year?
- A Yes, I had about five for the two pieces.
- Q I say, how do you account for the crops not failing for want of water if it has not had more water than the surrounding lots, and it takes nearly four hours to water it with the stream that you tried it with?
- A They all suffered last year in town, everybody.
- Q That is not my question, Mr. Thompson, you say, as I understand you that there never has been a failure of crops for want of

water on this lot until 1915?

A Not that I know of, it has not been while I had it.

Q Did you have ~~any~~ more water in 1914 or '13 or '12, than you did in '15? A. Yes sir.

Q More than you put on at this watering?

A At which watering?

Q This watering where you said it took you nearly four hours?

A Oh no, no, sure not.

Q Then how did you get the water over it at these other times?

A I could not get it over it in 1915, that is the reason.

Q How did you get it over in 1914?

A Because there was ample water to get over.

Q How much more did you have on it in '14 than '15 ?

A In '14 we had a second foot of water or better in the ditch.

Q Didn't you say you had about a second foot in '15?

A In '15 I had about a half a second foot, was all I could stand for the ditch.

Q I understood you, I may have been mistaken, to say you had about a foot and a quarter and reckoned you would lose a quarter of a foot?

A That was last week when I irrigated.

Q That was when you experimented?

A Yes, that was last week, I wasn't experimenting, only wanted to see, you know, how long it would take me to irrigate that lot.

Q Now, don't you think if you had turned the water in half the number of rows that you did turn it in it would have gone over it twice as soon?

A Yes, but I would have flooded everything and could not have grown anything because it is a heavy clay, never would have come up, I could not have done a thing with it.

Q How deep is the clay on it, do you know?

A About eighteen inches, foot to eighteen inches.

Q Do you know whether the city claims the right, or has claimed the

right in the past to take the water from the Mill Race when it needs it regardless of whether the mill owners consent or not? I will ask you if you know whether the city has claimed that?

A In the past --

MR. THOMAS: Just a minute, object to that as not proper cross examination.

MR. A. L. BOOTH: He said he took the water away from the mills.

THE COURT: Objection overruled.

Q Do you know whether the city claims this right regardless of the consent of the mill owners?

A At the present time when I took it or before that?

Q At any time.

A Why, I went and consulted with them before I took it and told them I would have to have it.

Q Now, suppose they had refused, what would you have done?

MR. THOMAS: Object to that as entirely improper cross examination.

THE COURT: Yes, I think that is improper. I think, however, you are ^{entitled} to have an answer to the former question.

Q Yes, I want to know whether you know whether the city claims the right or the right to take this water from the Factory Race regardless of protests from the mill owners?

A I would have done it just the same as with the farmers, I would have took it.

Q That doesn't answer the question. I say do you know whether the city claims the right to do that if the mill owners refuse to consent?

A No, I don't know.

Q You don't know?

A No, I don't know.

Q What is the answer that I want. You said, however, that you would have taken it? A. Yes sir!

Q Did the city commissioners give you any instructions on that?

A No, they didn't.

Q BY what authority would you have taken it?

A I felt it was my duty.

Q Where would you get that feeling from?

MR. THOMAS: Object to this as entirely improper.

THE COURT: Objection sustained.

CROSS EXAMINATION by MR. RAY.

Q Mr. Thompson, when you were describing the land under the East Union I understood you to say that from a quarter to a half a mile down there was a heavy clay loam and there there was about sixty acres of it, sixty or so acres of that?

A Yes, it runs just about a quarter, I guess, along the Union.

Q Well, it is south -- or east, westerly directly direction then it is south.

Q Then the soil changes and about thirty per cent of the canal was a black loam underlaid with gravel? A. Yes.

Q And then 25 per cent was a gravelly loam underlaid with coarser material? A. Yes.

Q That only accounts, Mr. Thompson, for fifty-five per cent of the canal plus sixty acres? A. Yes sir.

Q What is the rest of it?

A Part of it would be ~~best~~ between the best and the worst and then part of it would stand a pretty high duty of water.

Q You have taken the extremes, and it grades off between those?

A Yes sir.

MR. THOMAS: The witness said a pretty high duty of water, do you mean a large quantity of water or low duty?

A I mean it wouldn't take very much water, that is what I mean when I say a high duty.

Q So that at least the illustration which you have given here would meet the requirements of all of the classes of land under it?

A Pretty near it, yes sir.

- Q Now, you have been water master here, this is your third year?
- A Yes sir.
- Q How do you get about the city, how do you make your trips around the city?
- A With a horse and buggy.
- Q Horse and buggy? A. Yes sir.
- Q It keeps you moving pretty lively, doesn't it?
- A Sixteen hours a day, sir.
- Q There is a good deal of work and good deal of responsibility?
- A I don't do much work.
- Q Well, you do a good deal of mental work?
- A Yes sir.
- Q That is a class of energy that is used anyway?
- A Yessir.
- Q That is the cause of the intricacy of the system? That is, that you have to serve so many people, isn't it?
- A Yes sir, it is on account of we have no -- we cannot give them ~~an~~ no specific time on the East Union, so much fluctuation.
- Q It is impossible in a system of this sort to so distribute the water that everybody will be just satisfied with it, isn't it?
- A I believe I have satisfied them pretty well.
- Q Well now, you have had some complaints, haven't you?
- A Yes sir, last year I had quite a number.
- Q You had quite a number the year before, didn't you?
- A Not very many in '14, no sir.
- Q Had some?
- A Once in a while one would say it was his turn, that was all, never amount to anything.
- Q You had some complaints in '14, didn't you?
- A In '14, not until the ~~part~~ latter part of August and September I had some a littlewhile.
- Q You always had some complaint whether there was any ground for them or not?
- A Oh yes, we have that all oger whether they have the time or not.

- Q Now, when you had complaints you felt it your duty to make some investigation of them?
- A Always did, yes sir.
- Q What did find growing on this Keeler place when you went to examine it after the complaint?
- A Why, he just had garden stuff of all kinds, carrots, beets and some corn.
- Q And you found that was suffering, did you?
- A I didn't think it was suffering so very bad, but it needed water all right. The corn was, leaves was shriveled some.
- Q It was in the average condition of the crops around the city, wasn't it? A. Yes.
- Q It was in the condition which you found the crops of most of the people who complained? A. Yes sir.
- Q Now, Mr. Keeler had had three-quarters of a second foot of water for his twenty square rods?
- A Yes sir.
- Q Was there actually twenty square rods under cultivation in that garden?
- A I don't know, I never measured it, somewhere close.
- Q And he had three-quarters of a second foot and you found he had raised the gate and taken a full second foot?
- A He come and told me he was the one that did it.
- Q Do you know how often Mr. Keeler took a full second foot for that lot?
- A He just did it that once.
- Q That is so far as you know?
- A I knew he didn't any more because I noticed the minute I had crossed the ditch it had increased.
- Q Now, three-quarters of a second foot of water he had once a week running for an hour and a half on that lot, didn't he?
- A Yes sir.
- Q That would give him a depth of nine inches each seven days on his land, would it not, Mr. Thompson?
- A I have never figured what the depth would be on it, that is the

tige he had and the water. He had the upper end of the ditch nearly.

Q Assume that it would give him, for the purpose of the inquiry, nine inches in depth on his twenty rods once a week?

A Yes sir.

Q He would not have very long runs on a four by five tract of land?

A It is only four rods, I think, about a four rod run.

Q About a four rod run, and have nine inches of water once a week to cover it?

A. Yes sir.

Q He had that last year, didn't he?

A That was last year, yes sir.

Q And if he watered that for one hundred and fifty days he would get a depth of 15 $\frac{3}{4}$ feet of water upon that lot, wouldn't he?

A Yes sir, about that.

Q Don't you consider that rather an adequate supply for lands of the character of Mr. Keeler's?

A It is gravelly subsoil and just drops right out of sight.

Q Even on a four rod run?

A Yes, there is men here nearly out that on allready this year.

Q Mr. Thompson, you have testified to a duty of 40 as being an awful duty in this city on Mr. Corfman's land?

A Yes sir.

Q Duty of 40 would not be anything like 15 $\frac{3}{4}$ feet in depth, would it?

A No, but I am taking the city as a whole.

Q But you were nottestifying as to the city as a whole when you said a duty of 40 was what Mr. Corfman's lot needed, were you?

A I testified to take it all over the city, I classed that in with the balance, taking the whole of it.

Q Well, but you stated, did you not, the land, character of Mr. Corfman's would take a duty of 40?

A. Yes.

Q Is Mr. Corfman's land any worse or better than Mr. Keeler's?

A It is really worse.

- Q And still Mr. Keeler's land requires 15 3/4 acre feet in depth to properly irrigate a crop there?
- A Well, I don't know whether he would need that much or need less. That is what he has had.
- Q And his crops still suffered in your opinion?
- A At that time it needed water.
- Q Do you know how long since it had received water?
- A No.
- Q Don't know anything about whether he had missed his turn or not?
- A The week before I couldn't say.
- Q Do you know whether any of these people whom complained to you had just missed their turn?
- A Oh yes, some of them had not.
- Q And some of them may have done?
- A May have done, yes.
- Q When you were classifying the land here you gave to the city lots a duty of 40 to 45 throughout the city?
- A About 40, I think, on the city, 40 acre duty.
- Q I understood your testimony to be a duty of 40 to 45 repeatedly.
- A That was on the Tanner Race.
- Q Wasn't that on all the lands?
- A I think there is -- no, not on all the lands, no.
- Q As an average?
- A No, not all over the Provo City system, no.
- Q I don't mean each particular lot, but under the different canals did you not testify that you gave as a regular duty 40 to 45?
- A No sir, not under all the canals.
- Q But you gave on the farming lands a duty of 50 to 60 to 65, didn't you? A. Yes sir.
- Q Now last summer what was the amount of water turned to the Factory Race in the month of June?
- A I don't remember.
- Q It never did exceed 19 second feet as an average flow, did it, after the low water?
- A By doubling, no.

Q It never exceeded 19 second feet?

A It might have done for a day or so, but then it would not amount to anything. I hardly think they ever got to the 38.

Q Now, in May you took it away from them?

A Yes sir.

Q Because you needed it? A. Yes sir.

Q Never took it away from them again, did you?

A No sir.

Q Because you didn't need it?

A I needed it but didn't take it.

Q Didn't need it as badly as in May?

A No, I did not.

Q Now, under the Factory Race when you get an average flow of about nineteen second feet there are in the city 127 acres of land including farm acres, city lots and farm lots which are irrigated by the water which runs the wheels are there not?

A Yes, I think that is it.

Q So that water does double duty? A. Yes sir.

Q Runs the wheels and irrigates those lands?

A Yes sir.

Q So that if you have 2760 acres of land as a total and you have 127 which are watered out of the Factory Race you would have about 2633^{acres}, is all you would have to draw new water for, isn't it?

A Yes, 2600.

Q And in the city acreage there is about 33 acres of lawn that are watered from the hose?

A I don't know anything about that.

Q Assume there is, it would leave you about 2600 acres to irrigate through your irrigation system of city lots and of farm land, would it not?

A I have never figured it.

Q We will assume that to be correct, and it can be verified if you gave a duty of 40 to all of the city lots and a duty as low as 50 to the farm lands, have you ever calculated how much

water it would take upon that basis to supply the necessities of

Provo City?

A No, I have not.

Q Do you not know as a matter of fact, upon that basis every week as an average last summer, 1915, Provo City had a quantity of water which would more than supply the duties which you have fixed in your testimony? A. No sir.

Q You don't know whether it has or not?

A I know we didn't have enough water.

Q Well, I didn't ask you that question, I asked you if you didn't know that taking your duty as you testified to it as the basis there was not always available under the duty water turned by the commissioner more than sufficient to satisfy the duties which you have fixed as correct duty?

MR. THOMAS: I submit the witness has answered that question by saying there wasn't enough water.

THE COURT: No, that is not an answer. Do you understand that is an answer to this question.

MR. THOMAS: As I understand this question.

THE COURT: It doesn't answer this question at all. Read the question so that Mr. Thompson may understand it.

(Question read)

A We did not always receive our share of the water.

Q That is not the question, not talking about share, I am talking about what was turned to you and what you did receive. The amount that you did receive.

A Well, that is what I say, we didn't get what the commissioner intended that we should have.

Q Why?

A Because he didn't have control of the people above us, they got away with the water.

Q Now, that was largely the source of your early trouble, wasn't it, that the water turned by the commissioner didn't come down to you?

A Part of our trouble, yes sir.

Q And after you had gotten all of those upper gates locked you went through the month of August without trouble, didn't you?

A No, we didn't.

Q Comparatively?

A No sir, the town was short of water all through August.

Q Didn't you finish your schedule in the month of August a little ahead of time? A. No sir.

Q Didn't you?

A Our schedule?

Q Yes, your irrigation schedule? A. No sir.

Q Have you any record of that to show whether you did or not?

A Yes, I got the testimony of the ~~farm~~ farmers.

MR. THOMAS: Mr. Ray asked you if you have any record.

Q We have the written time given people.

Q Didn't you get through, didn't the farmers on that written time get through their schedule ahead of time in the month of August last year?

A Not on my part of the city.

Q Did they on the west side?

A I couldn't say.

Q Do you know whether they did or not?

A My deputy had charge of that.

RECROSS EXAMINATION by Mr. A. L. Booth.

Q I should like to ask two or three more questions before the re-direct. You stated, I think, in your direct examination that you made some protest to the commissioner Wentz?

A Yes sir.

Q How many times did you protest to him?

A Two or three in writing, but verbally I made quite a number.

Q Do you remember when you made these protests in writing.

A No, I don't, but there is copies of them, he has a copy of them.

Q Do you remember whether it was in May or in the latter part of the season in August?

A I think perhaps one would be in May, and seems like there was one in August or July, I could not state positively.

Q This protest in May brought forth the fixing up of these head-gates up the river, didn't it, as you testified to?

A No, they were not fixed, I think, until along in August.

Q Then it was not the protest in May, nothing was done so as to give you the water that you needed?

A No.

Q Did you know that during the whole of the season practically the commissioner was not turning as much water to the city as the Morse decree gave the city?

A About the same thing, I think.

Q You didn't know you were getting less?

A If we had got what he intended we should have on that stood about the same basis.

Q But you heard Mr. Wentz testify, didn't you?

A No, I didn't.

Q Then you didn't know really that he was not turning all that the Morse decree gave to the city?

A There was times he turned more than it allowed us and other times we were a little short of water that the decree would give us.

Q Well, but did you know this, when it was short, did you know you were not getting as much as the decree called for?

A Not until afterwards when I had figured it up.

Q You didn't know that until after you saw the commissioner's report, did you?

A Oh yes, I knew it before.

Q You say, however, you protested, if you remember, three times in writing?

A I think it was three times.

Q What did Mr. Wentz tell you when you protested?

MR. THOMAS: Object to this as not cross examination, not the best evidence.

THE COURT: Objection overruled.

MR. THOMS: And hearsay. Exception.

A I don't remember but one he gave me and his record was open for investigation. He had received my letter and his record for investigation and that is the only one. The others were a little longer explanation that he gave, but I don't remember.

Q Did you get any more water when you protested?

A Why, he tried to give us some more, yes sir.

Q Didn't he tell you if you needed more water to go and take it from the Factory Race?

A No sir, he did not.

Q Didn't Mr. Wentz tell you during the low season whenever you needed more water he would take it from the Factory Race and give it to you. A. No sir.

Q Never did tell you that? A No sir.

Q Nor anybody else for him tell you that? A. No sir.

Q Do you know whether he told your deputy or not, or the City Commissioners?

A I don't know.

Q You spoke about this lot of Leonard's being watered to the extent of four by eleven rods? A. Yes.

Q And you spoke of Mr. Keeler's lot being watered to the extent of about four by five rods?

A I think that is about it.

Q Do those two lots, taking them as an average represent about the average proportion of the lots throughout the city that are watered?

A No, I wouldn't hardly think so.

Q Would it be more or less than that?

A I think in the south part of town here most of it would take less water than they would.

Q I mean as to the area of the lot, what part of the lots are actually irrigated?

A Oh, there is -- well, the two I guess would pretty near make an average take it through the town.

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Q I mean as to the area of the lot, what part of the lots are actually irrigated?

A Oh, there is -- well, the two I guess would pretty near make an average take it through the town.

Q That would make then about 32 rods out of each 72 rods of the city lots that would be irrigated, if you compare 44 to the 24 and add them together and divide by 2, that would give you an average of 32, would it not? A. Yes.

Q That would be a little bit less than half of the area of the lots throughout the city that are actually irrigated?

A I suppose that would be pretty near an even thing.

REDIRECT EXAMINATION by Mr. Thomas.

Q There are two questions that I overlooked asking. If there is no objection I should like to ask them.

MR. A. L. BOOTH: That is all right.

Q The direct questions that I desire to put, one, Mr. Thompson, are you familiar with the lawns surrounding the State Mental Hospital? A. Yes sir.

Q Have you ever measured them?

A Yes, have to measure them.

Q What is the acreage of the lawns?

A There is about five acres and a half of flowers and lawn.

Q Do you know from what source the water is received that irrigates those lawns? A. Yes sir.

Q What is it?

A Provo City water works.

Q Are you familiar with the drain that is called the east drain and the land that it drains? A. Yes sir.

Q What do you say as to the character of the land that this East Drain drains?

A It is nearly all a clay.

Q State whether or not that requires irrigation in the early season?

A That all, nearly every bit of it requires irrigation the whole season.

Q Under what ditch is that?

A The Union.

Q When it is not irrigated what is the effect or what is the

result?

A It burns up.

Q To what use is the land put?

A Mostly pasture land.

Q Would you say, Mr. Thompson, referring to the last question which you answered Mr. Booth, that 32 rods of ground would constitute a fair average of the cultivated area of the lots in Provo City?

A 32 rods --

Q That is a piece 6 by 6?

A 2 by 12, 32 rods out of 72 that is what I understood he meant.

Q Would that be in your judgment an average?

A It would be right here in the city, I think, that is, in the east part, I know it is about right.

Q What would you say as to the west part?

A I don't know so much about the west part, I spend my time here in the east part of town.

Q In answer to Mr. Ray you referred to the water in the Factory Race as doing double duty & is that true as to the lots above the Knight Woolen Mills? A. No sir.

MR. RAY: I didn't take those lots at all in the computation.

MR. THOMAS: I understood you did.

MR. RAY: No.

MR. THOMAS: You had reference only to the lots below.

MR. RAY: 127 acres below the mill.

Q And that was what you understood? A. Yes sir.

RECROSS EXAMINATION by Mr. A. L. Booth.

Q In your lawn sprinkling you never have run short, have you?

A I don't know.

MR. THOMAS Mr. Thompson stated he had nothing to do with the water system.

MR. A. L. BOOTH: You asked him about the lawn at

the State Mental.

MR. THOMAS: Yes, but he has nothing to do with the water system.

MR. A. L. BOOTH: He says that was sprinkled from the water works, and I wanted to know whether he was short.

MR. THOMAS: He said he had nothing to do with it.

MR. A. L. BOOTH: I remember that part of it, if he knows whether there was a shortage.

MR. THOMAS: He says he knew nothing about it. If you care you can ask him again.

MR. A. L. BOOTH: No, I don't care to ask him again. That is all.

MR. THOMAS: Your honor, Mr. Stewart, the plaintiff's witness, is present and desires to be examined, and I think the order of the court was that he should be examined when he was brought back, as to certain measurements.

THE COURT: I didn't make any order. If anyone desires they may examine him.

SCOTT W. STEWART recalled.

DIRECT EXAMINATION by Mr. A. C. Hatch.

Q Mr. Stewart, in your examination the other day giving the area of the lands under irrigation or that what had been under irrigation in what is known as the North Field in Wasatch County, and under the defendant North Field Irrigation Company's irrigation system, you gave the total area and referred to what was known as what you termed the fringe as shown on Exhibit 56 which was introduced in evidence. Now, I will ask you whether or not any portion of that area shown as what you term fringe in your survey was irrigated or had anything upon it to show that it had ever been irrigated?

A I intended to convey the idea that the west limit of my line which showed the irrigated area leaves out a tract of timber and brush land between that irrigated area and the river, which is not irrigated unless it may be overflowed from the river during high water periods and possibly covered at some period by high water that run off of the irrigated land, but there is no system of ditches and these lands are not irrigated so far as I was able to tell.

Q Do they or do they not show any indication of ever having been irrigated by any seats and ditches?

A They show no evidence of having been irrigated by any system of ditches.

Q And do you know the approximate area of that class of land?

A I may a very rough approximation of it, it could be determined more accurately from the map with a planimeter, but I had no planimeter at hand and made a rough approximation at 185 acres.

Q 185 acres?

A Yes sir, between the irrigated area and the river.

Q Did you make any estimate whatever as to the area within your survey of those lands that is covered by creek beds and running streams?

A No sir, I made no estimate of the area. There are creek beds and there are small tracts which are covered with willows and brush within this area which I did not investigate. They are scattered and in small tracts and the roads were not excluded either.

Q And about how are the roads in that area located, what is the average distance between the roads and width of the roads, if you can say?

A Well, that would be an approximation only, I really did not investigate that very thoroughly, I traveled over some of the roads. It would be very rough approximation I could give on that. The main road runs northerly through the eastern portion of the tract and is probably three rods wide.

Q And cross roads leading from that across the field each way?

A There are some cross roads, yes sir .

Q And I will ask you if you noticed the road leading northward between what is known as Spring Creek and the river through the tract?

A I show on the map portions of some of the roads in the southern part of the North Field, and those are the only ones that I would be competent to say anything about.

Q What have you to say as to them, their width and length?

A The east road seems to be marked 30 feet wide, is marked 30 feet wide, the others are not marked but they are not quite so wide as that.

Q Now, did you make computation of the area irrigated under the Spring Creek system of the Provo, Utah County lands irrigated from the Provo River?

A Yes sir, I made a computation of the lands under what is known as the Spring Creek Ditch. I plat that ditch after it goes to a certain point and call it the Lake Bottom Ditch. They seem to -- the Spring Creek Ditch runs into the Lake Bottom ditch.

Q What is the area of land irrigated under that ditch or canal, Spring Creek and Lake Bottom?

THE COURT: This is not the same Spring Creek or Sagebrush?

A No sir.

MR. A. C. HATCH: No, I refer to it as the Spring Creek and Lake Bottom in Utah county.

THE COURT: I understand, I had a note.

MR. A. C. HATCH: The other was in Wasatch County, between what is known as the Spring Creek and Provo River.

A Did you wish this area to be given in the individual names or as a total only?

Q Have you a tabulation of the different owners?

A Yes sir.

Q And the area owned by each?

A As I found it.

Q What is the total?

A The total is 348.54 acres.

Q You have the names, you may read them.

A Amos Carter 3 acres;
Lafayette Carter 4.55;
David Carter 4.38;
Eliza Carter Aston, 9.52;
Mary E. Davis, 1.05;
Arthur Tanner, 35;
Esthma Tanner 50.67;
James Bonnie, 6;
Arthur Clyde 3.50;
Monson -- I don't know his name.

MR. A. L. BOOTH: I think he spells his name S-j-u-r.

A Five acres.

Jane Williamson 8.88;
Mary E. Davis, 11
J. F. Clyde, 17.25;
Evan Williams, 3.51;
Provo Pressed Brick Company 2.70;
Isabel West, 4.36;
Fred Pulham, 2;
Leslie Syms, 5;
M. H. Greer, .50;
Wallace Baum, 8;
A. B. Forsyth, 24.69;
Steven Jones, 6.65;
Mary A. Brown 13.12;
Albert Snider, 10.42;
Maggie P. Brown, 1.62;
Louisa A. Brown, 7.50;
Wilmirth H. Brown, 2.45;
Joseph M. Brown, 7.03;
Charles H. Davis, 8.59;
Fred Davis, 14.30;
Davis Johnson, 7.30;

Marian A. Spencer, 1.22;
J. Joseph Johnson, 4.85;
E. D. Partridge 5.05;
Franklin D. Spencer, 0.24;
Alice Smith, 5
Ashted Taylor, 9.13;
Arthur N. Taylor 13.32;
R. V. Giles, 10.19;
E. V. Vincent, 10.

Q Now, calling your attention to Exhibit 56, and to the lands irrigated under the Spring Creek Sagebrush Canal, there seems to be some misunderstanding as to the area of the lands irrigated from the Spring Creek Irrigation Company's canal and the extension of it called the Sage Brush Canal. What did you give as the total area irrigated from those two canals?

A I show the area irrigated by those two canals at 1200 acres, which includes 100 acres in the area marked swamp on the map.

Q Which would leave 1100 acres irrigated?

A Well, I have also 100 acres of the swamp area as receiving irrigation.

Q That would be 1200?

A 1200, yes sir.

Q There was an area of land that you testified was below the Charleston Irrigation Company's canal, what did you say about that?

A There is an area in Section 1 which is irrigated from the Spring Creek proper?

Q Not the Spring Creek canal?

A No sir, the Spring Creek.

Q How much of that is there?

A I show in that tract 138.5 acres of which 30 acres was included under the North Field, leaving 108½ acres.

THE COURT: That is the way I have it from his former testimony.

Q That would be by a private ditch and not come under any of the canals of the North Field system?

A That is as I understand it.

THE COURT: Let me see, the first statement here with reference to the area of land irrigated under the Wasatch -- under the Spring Creek and Sage Brush does not exactly as I had it the other day -- I may have got it wrong -- I had the total amount 1337 acres of which 137 acres was swamp land?

A Yes sir.

THE COURT: Leaving 1200 acres irrigated?

A Irrigated.

THE COURT: That was irrigated. Now, I understood you to say this 1200 acres includes a hundred acres of swamp which was taken from it.

MR. A. C. HATCH: No, I so understood him, but he corrected that and said it was irrigated, included hundred acres of swamp that was irrigated and excluded 137 acres which was not irrigated. Is that right?

A Yes sir.

THE COURT: That left the ~~hundred~~ net amount irrigated at 1200 acres?

A Yes sir.

THE COURT: To which there was added 108.5 from the creek proper, making 1308½ acres irrigated from the canal and Spring Creek proper together?

A Yes sir.

THE COURT: That is the way I had it the other day.

Q The hundred eight and a half acres it was that one hundred eight and a half acres that was irrigated from a private ditch from spring Creek that ditch is taken out above or below the Charleston canal?

A Below.

Q And by a private ditch? A. Yes sir.

MR. A. C. HATCH: It was to clear that up. That is all.

THE WITNESS: I wish to say in connection with the Spring Creek the Spring creek in Utah county, Spring Creek ditch here.

Q Lake Bottom Canal?

A Yes, adjoining the Lake Bottom or running into the Lake Bottom ditch that some names given here are different from those which I understand are in the complaint.

Q When you say given here you mean given by you in your testimony as to the owners of the lands irrigated?

A Yes sir, read into the record. The present owners were given in the reading right now as near as we were able to tell them.

Q Some of the lands have changed hands, I understand since the commencement of this action?

A. Yes sir.

CROSS EXAMINATION by Mr. Thomas.

Q I want to ask a question pertaining to the former examination. Mr. Stewart, I want to direct your attention to the computed areas which you and Mr. Goddard representing Provo City have prepared?

A. Yes sir.

Q Was that tabulation made to total the amount that is actually irrigated?

A The tabulation was made to show the amount actually irrigated outside of the platted portion of Provo City. Within the platted portion of Provo City the total area only was given, as I have never made any investigation of the actual land irrigated within the platted portion.

Q So that as to Provo City platted, that is, the platted portion, you have made no examination to determine what part of the acreage that you have given was irrigated?

A No sir, we gave that as a total area only.

Q But as to the other portion under the Provo System outside of the platted portion you have made investigation?

A Yes sir.

Q And the tabulation which you and Mr. Goddard arrived at

shows the lands actually irrigated?

A. Yes sir.

Q And entitled to water? A. Yes sir.

Q MR. THURMAN: Move to strike out "entitled to water."

THE COURT: I should think that should go out.

MR. THOMAS: We have no objection to that because I don't mean to establish by this witness that this land was entitled to water against any other party, I disclaim any notion as to that. That is all.

CROSS EXAMINATION by Mr. McDonald.

Q I was not in, your honor, when the first question or two was asked, I would like to ask the witness what area he computed in what he calls fringe of the North Field, how much?

A As I stated before, I made you a rough approximation of that area at 185 acres.

Q What portion of that is irrigated for pasturage purposes?

A No portion of it, so far as I am able to tell, is irrigated except from flood waters.

Q What does the flood water include?

A There is ordinarily a high water in the river which irrigates part of this on the surface and part by sub-irrigation.

Q So that the entire amount which you call fringe, except the bed of the river then is irrigated?

A Only as I say, there is no system or irrigation, no ditches, and it is not irrigated as the tract to the east is irrigated. If it receives any irrigation it is promiscuous.

Q Isn't that true of the whole North Field system?

A I am unable to say.

Q Then why do you say it is not irrigated the same as the balance of the North Field?

A I say that because there was no system of ditches covering that area, no system of ditches or laterals.

Q Well, that is true of a very great portion, isn't it, of the North Field, in fact, threefourths of it?

MR. A. C. HATCH: Just a moment, if the court please, I don't understand what counsel means by that, whether there was no ditches on the other portion of the North Field by which they convey the water for irrigation or whether it is that the whole North Field is sub-irrigated or irrigated by flood waters.

THE COURT: I may not have understood it correctly, but I understood the question to refer to the former answer, that is, the immediate answer preceding this which was to the effect that there were no ditches, and then this question is that is true with reference to the greater portion of the North Field, meaning there was no ditches to convey water to it.

Q Isn't the system of the North Field such that water here and there is taken from natural ditches that run through the field?

A There appears to be somewhat that way, yes sir, natural ditches portions of it.

Q And a great deal of it is irrigated by subirrigation, is it not, or don't you know?

A I couldn't say.

Q Well, what I want to get at is, you don't know whether this fringe is irrigated or whether it is not irrigated, do you?

A My judgment is that it is not irrigated systematically as the other tract which I had have admitted as an irrigated area, and if it is irrigated it is by flood waters and sub-irrigation from the river directly.

Q So that you wouldn't say it is not irrigated?

A I think my --

MR. JACON EVANS: I submit he has answered that as well as he can, he has given his judgment, and object to this question on the ground that it has been answered.

MR. MACDONALD: I shall not follow it further.

Q Now, I didn't get the figures just right, and there are some more of us here that did not, as to the source from which the water is taken to irrigate the one hundred and eight acres and

a half you speak of in connection with Spring Creek in Wasatch county.

A Taken directly from Spring Creek.

Q To irrigate that one hundred eight acres and a half?

A Yes sir.

Q And that one hundred eight acres and a half is under, as I understand you, the Charleston Canal, is that right.

A It lies to the west or northwest of the Charleston Canal. The Charleston Canal comes out of Spring Creek, I think, in Section 1, immediately to the west of this tract.

Q And this water from Spring Creek irrigates one hundred and eight acres and a half in area of land that you included in the area under the Charleston Canal, is that right?

A No sir, I did not include that under the Charleston Canal.

Q I mean in estimating the entire area of it, that is not for irrigation purposes, but what I am trying to get at is I understand this one hundred and eight acres and a half is land which lies under the Charleston Canal?

A I should say it lies under Spring Creek and not under the Charleston Canal though it is partially below the intake of the Charleston Canal.

Q And it is irrigated from Spring Creek? A. Yes sir.

Q Spring Creek is what you call -- Spring Creek, not the Spring Creek Irrigation Company, but simply Spring Creek, is it?

A It is the natural channel of Spring Creek that this is irrigated from.

Q Well, is that a portion of the Spring Creek Irrigation Company's land?

A I understand it is not.

Q What is not? A. Yes sir.

Q Do you know what company owns the canal above the ditch?

A No; I don't.

THE COURT: Owns the canal above the ditch?

MR. MACDONALD: I beg your pardon, above the land.

Q I am referring now to this one hundred eight acres and a half.

MR. A. C. HATCH: If the court please, the plat shows four different canals above this canal.

MR. MCDONALD: If the witness knows he may answer.

THE COURT: Mr. McDonald, the court will hardly understand the answer because the court doesn't just understand what you intend by your question. Do you mean by this question to ask the witness who owns the ditch or canal from which and through which this land, this particular one hundred and eight acres is irrigated?

MR. MCDONALD: Yes.

THE COURT: Now, if you understand the question can you answer it?

MR. MCDONALD: I will say, your honor, I don't understand that system of ditches, and I am asking what the witness for information.

A I don't know the ownership, it appears to be a natural channel down to a point in the north side of Section 1, where I have marked on the plat "Charleston dam". It is to the south and west of this point that the hundred and eight acres is irrigated.

Q Now, as I understand you, there is 1200 acres irrigated under the Spring Creek Sage Brush Canal? A. Yes sir.

Q Then this one hundred and eight acres and a half that you speak of is not taken from that twelve hundred acres?

A No sir.

Q Now, referring to Spring Creek in the River Bottoms, Utah County, from what did you receive or obtain your information as to the acreage which you have given of the various individuals?

A I have plats made from the actual survey upon the ground, and with the help of Mr. Wentz I segregated the areas of these names from areas which were given formerly under the West Union and Smith Ditch systems, and have compiled that list and read it.

Q Well now, doesn't Andrew Forsyth, as a matter of fact, own twenty-nine and a half acres?

A I could not give --

Q You have given it as 24.89.

A I have given his irrigated area as 24.69.

Q Where did you get your information?

A But that is additional land which I don't admit as an irrigated area.

Q Where did you get your information that that area which you excluded was not irrigated?

A That was my judgment under my survey that it was not an irrigated tract.

Q You concluded then from your investigation that there was a tract that he didn't irrigate?

A. Yes sir.

Q And it is in the River Bottom?

A. Yes sir.

Q And susceptible to water from the river or source there which they irrigate there the same as his other land, is it not?

A Yes sir.

Q And do you know whether he has irrigated it for pasture purposes?

A It appeared to me to have no system of ditches, but to receive water only from the high water in the river.

Q So you would say it is irrigated then by the high waters?

A Possibly at times it has overflows in high water season and at other times it receives sub-irrigation from the river.

Q So in your judgment, then, it is all irrigated by some means and at some time during the season?

A Not necessarily.

Q What do you mean by that?

A I mean by that that there is no system of ditches covering that area and it is not irrigated the same as the rest of the farmers irrigated, rest of the farming lands.

Q And in carrying out your investigation did you use the same method relative to all the names that you have given?

A Yes sir.

Q For instance, that J. Joseph Johnson, he has ten acres of land, hasn't he?

A He has larger area than I admit to irrigation.

Q And you don't know except from the investigation which you made and which you explained here whether he systematically irrigates that whole tract, do you?

A I assume that he does not systematically irrigate it.

Q You assume he does not?

A Yes sir, particularly from my investigation that he does not.

Q But you have no idea other than you have given us here whether or not that entire tract is irrigated?

A No sir.

MR. MCDONALD: May I inquire of your honor whether there was any other evidence as to ~~x~~ any other portion of the North Field?

THE COURT: I think no, I don't remember any other evidence.

MR. A. C. HATCH: That is all and the thirty acres lying below the road.

Q I understood you included some land of the North Field in your estimate of the lands in what is called the South Field, under this Charleston system, is that right?

A Thirty acres was considered as belonging to the North Field tract, which is south of the Heber-Miday road in Section 1.

Q You considered that as part of the North Field?

A Yes sir.

Q Because it was irrigated from Spring Creek?

A No sir, because it was irrigated from the North Field right so far as I was able to tell.

REDIRECT EXAMINATION by Mr. A. C. Hatch.

Q What is the crops, if any, grown upon the two tracts of land referred to by Mr. McDonald as belonging to Johnson and ^{you} another which ~~he~~ said was not irrigated?

A The area --

Q Spring Creek Canal in Utah county.

A The area I did not consider entitled to irrigation is covered

with brush and timber. Also the same on the Forsyth tract.

Q Is it near the river banks?

A Yes sir, it is adjacent to the river bed.

Q And has no -- can you say whether or not it has ever been -- had a water turn upon it through ditches for irrigation purposes?

A I would say that there was no ditches apparently leading into those tracts, and the turning of the water would be from ditches without the tracts and I cannot say that the water would not cover portions of it after being turned out above, but there was no apparent systematic system of irrigation within those brush areas.

Q Can you say whether or not there is any sign of surface irrigation other than by the flood waters or waters of the river upon any portion of the tract which you have excluded?

A So far as I could tell from observation there is not.

Q Now, going back to Wasatch county, to the tract of land known as the Burrows farm, do you know where that is located, it is the north end, northeast corner of the North Field enclosure.

A I have marked on the map as the north name which is in the south side of Section 18, Adolph Sessions. I think the Burrows tract you speak of is to the north of the Session tract?

Q And east?

A Though it is not marked on the map.

Q It is not included --

A On the plat I show a barn and house to the north of the Sessions tract which is probably the Burrows.

Q And south of the upper Midway road? A. Yes sir.

Q How many acres is there in that tract approximately?

A I have no idea because the division lines are now shown on the map between the property owners there. It would be only an approximation.

Q Is that tract upon which is situated the barn and house included

within the area given us as irrigated under the North field system? A. Yes sir.

Q That is the area that you gave us? A. Yes sir.

Q In your testimony. What kind of a house is it if you know?

A That would be a matter of memory only, it seems to me it was a brick house, I could not state definitely; quite a large front, barn.

Q And in the northeast corner of that area?

A Yes sir.

J. W. CARTER, called by the defendant, Provo City, being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Thomas;

Q State your name?

A J. W. Carter.

Q Where do you reside?

A Provo City;

Q How long have you resided here?

A Well, practically all my life.

Q How old are you?

A Thirty-six years old -- forty-six years old.

Q Have you ever had any official connection with Provo City?

A Yes sir.

Q What is it, what was it?

A When I first started to work for Provo City I was road supervisor and deputy water master.

Q And what other official position have you held under Provo City?

A I was water master for two years.

Q When were you deputy water master?

A 1908 and '09, part of '09.

Q When were you water master?

A 1912 and '13.

Q What were your duties as water master and as deputy water master?

A Well, when I was deputy water master I handled the water in the west side of town that was turned into the ditches, distributed it, and when I was water master here I divided the water in the ditches good deal myself at the head.

Q Then what part of town did you supervise?

A The west side.

Q What ~~if~~ did you do or what did you have to do with the east side.

A Well, only just in a general way over-see it.

Q Now, distinguishing the east side as against the west side, what ditches were on the east side?

A From 3rd West west was what I looked after.

Q What ditches were on the east side?

A From 3rd West east.

Q What ditches were on the east side?

A The East Union.

Q Only? A. Yes sir.

Q And what ditches were on the west side?

A The city race and Tanner's race.

Q Did you have anything to do with the Factory Race?

A Yes sir.

Q And that is on the west side?

A Yes sir.

Q Well, while you were deputy water master did you at any time measure the water? A. No sir.

Q When did you as deputy water master have charge of the water, at what point?

A After it was turned into the head of the ditches.

Q Did you measure it? A. NO sir.

Q Who did?

A Mr. Thomas.

Q Is that the Mr. Thomas who was court commissioner?

A Yes sir.

Q That is Hyrum Thomas?

A H. S. Thomas.

Q Are you familiar with the character of the land under the Tanner Race and City race, Factory race?

A Yes, pretty well.

Q How long were you acting as deputy water master and water master and traveling over that district?

A About three years and little over.

Q Have you had any experience as an irrigator, farmer?

A Yes, in a practical way.

Q Where and for how long a time?

A Well, off and on for twenty years,

Q In this county? A. Yes sir.

Q Elsewhere?

A I was in Weber county for five years.

Q During your time as a practical irrigator state if you had any experience under the ditches, the Tanner ditch or Factory race and the City race, did you do any irrigating under those ditches? A. No sir.

Q Where did you irrigate?

A My farm is outside of the city irrigation system.

Q In what system?

A We got a kind of a spring bench.

Q What is it called?

A I don't know as it has got any name, I never heard it called anything. It is just a little local short ditch there that we clean and keep up ourselves and catch seepage and spring water.

Q I want to direct your attention to the lands under the East Union ditch, and I will ask you if you are familiar with the character of the soil there?

A Not so very familiar under the East Union ditch.

Q You have seen crops raised there? A. Yes sir.

Q And what do you say as to the application of water as to what amount of water is necessary to produce a crop under the East Union ditch? I am asking you to base your judgment upon your

experience as an irrigator and upon your knowledge of what amount of water has been applied on the lands under the East Union ditch.

MR. RAY: Object to it upon the ground the witness has not shown himself competent to express an opinion.

THE COURT: I understood the witness to say he was not familiar with the situation on the east side. You may ask him again.

Q I will ask you what do you know as to the character of soil and country generally lying under the East Union ditch?

A I am not so well acquainted with it under the East Union ditch anymore than just traveling over it from time to time.

Q During what times of the year have you traveled over it?

A Well, usually in the spring, in the cleaning of the ditches and the like of that.

Q State if you have traveled over the country during the time when crops were growing there?

A Yes, but not so much.

Q How much?

A Oh, two or three times a year.

Q Do you know what kind of crops were raised there?

A Yes, to a certain extent.

Q Well, to what extent?

A Well, grain.

Q All right, just say what you saw raised there?

A Alfalfa, sugar beets and potatoes.

Q Is the ground under the East bench any different in any material way from the ground under the west side ditches?

A Yes, I would say so.

Q In what way?

A Well, I think that is more clayey than it is on the west side. I think that is a little lighter soil with more gravel in it.

Q Comparing the two soils, which class of soil would you say required the greater amount of water?

A I would say that the west side required the greatest amount of

water on the gravelly soil.

Q Have you ever farmed on land similar to the lands under the east Union ditch?

A Some of it, similar to some of it.

Q What part?

A The loam.

Q Where is that, geographically speaking, what territory, up the ditch or down toward the lower end?

A It would be down toward the lower end more.

Q Basing your judgment upon such experience as you have with lands similar to that and this land, what would you say would be the duty of water to that land under the East Union Ditch?

MR. RAY: Object to it on the ground the witness has not shown himself competent.

THE COURT: Objection sustained.

MR. THOMAS: Exception.

Q What do you say as to the character of land under the City race?

A There is some clay, some loam and some gravelly material ground under the City race.

Q What crops are raised there?

A There is alfalfa, grain and sugar beets, corn and garden stuff of all kinds.

Q What do you say as to the duty of water of the land under the City race?
Judging on my experience I would figure about 50 to 55 acres.

A Well, judge.

Q What do you say as to the Tanner race, what character of soil is there there?

A Well, there is gravelly soil and black loam.

Q How much was of black loam?

A Very little, takes right through it.

Q Are you familiar with the number of -- can you state what the acreage is under the Tanner Race?

A Well --

Q I suppose there will be no objection to saying it is 430.5

as it is tabulated here in evidence. What portion of that land would you say was loam and what portion would you say was gravelly?

A I could not hardly proportion it.

Q Well --

A It runs up and down.

Q Is it variable? A. Yes sir.

Q It is not in an even part so that you could say one part was one kind and one another? A. No sir.

Q Is it of a mixed character? A. Yes sir.

Q What character of soil predominates largely?

A The gravelly soil.

Q Now, what has been your experience as to the amount of water that is necessary to put upon that land under the Tanner Race to raise a crop.

MR. RAY: Objecto it upon the ground that the witness has not shown himself to be competent to express an opinion.

THE COURT: I am inclined to think he has. He has had charge of that portion of the city. Objection is overruled. He may answer the question.

Q Go ahead and answer the question.

A Well, I would think, according to my experience, that it would take about a 40 acre duty, 40 to 45.

Q State if that is the amount of water which, under your administration was given to that land?

A Practically that.

Q When you say practically would there be any variation substantial variation?

A Well, only in high and low water.

Q What would be the amount placed upon the land during the high water season?

A Well, I could not say as to that, I never measured it.

Q Your answer then covers the late water season, or the measured season? A. Yes.

- Q Direct your attention to the Factory Race and lots of the land thereunder. You are familiar with that land, are you?
- A Well, I will say ^{that the} as a deputy water master handled that while I was water master, the irrigation part of that, all that I handled was the turning in at the head, and turning in and out, that is, we took turns changing it.
- Q Now, let me understand you there, you took turns in turning the water in or in looking after the water after it was in the Factory Race?
- A Well, we took turns in the last water season, changing night and morning from the Factory Race to the other ditches.
- Q Now, I want to know if you had the supervision of the water in the Factory race yourself? A. Yes sir.
- Q Now, what kind of crops were raised on the lands there?
- A Well, there was grain and beets and potatoes so on, hay, some alfalfa.
- Q What was the character of the soil there?
- A Well, it was a kind of a sandy, gravelly soil.
- Q Is it more or less gravelly than the lands under the Tanner Race?
- A Well, I would naturally say that it was a little less gravelly than the lands under the Tanner Race.
- Q What do you say as to the amount of water that was necessary to produce a crop under the Factory Race?
- A Well, about 50 to 55.
- Q That is taking the entire field as a unit?
- A Yes sir.
- Q That is during the low water season? A. Yes sir.
- Q What was the rule that you followed, or what practice did you follow, rather, in all the ditches during the high water season?
- A What--
- Q I mean as to the amount of water you would turn into the ditches?
- A Well, during the high water season we kept the ditches pretty well filled up.
- Q During your experience as deputy water master and as water master,

state if you know what waste, if any, occurred?

A Well, as far as I know I couldn't say that there was any waste
occurred.

Q What would you say as to the application of water during the
low water season as to whether there was waste then or not?

A Well, I never saw any that I could definitely speak of.

Q What was the general habit of the farmer and irrigator during
the low water season as to their care of the water and their
application of it?

A Well, they were very careful, all seemed anxious to use it,
to take care of it.

Q What was your experience and judgment as to that, whether they
did or not?

A Yes, my experience and judgment would say that they did.

Q Did you have any charge yourself of the platted area of Provo
City during your term as deputy and as water master?

A Yes sir.

Q What work did you do in distributing the water in the platted
area of Provo City?

A I distributed it in the west side from 4th West west in the
platted area.

Q What would you say was the necessary duty in the platted area
that you had charge of?

A Well, under the conditions that existed I would say that
it would take a lower duty than it would on Tanner's Race in
the platted area.

Q What would you say the duty -- what duty did you say was on the
Tanner Race?

A About 40 to 45, I believe, was what I said.

MR. RAY: Mr. Thomas, did I understand the witness to
confine his testimony as to these different streams to the
farm areas?

MR. THOMAS: No.

MR. RAY: It included the platted area then, did it
not?

MR. THOMAS The first question may have done that, but it was not intended especially -- that is why I asked this last question.

THE COURT: I understood Mr. Carter to say that he had charge of this irrigation at these times from 4th West west, then I took it that these questions all had reference to the portion of the city that laid under these particular ditches clear up to 4th West, that is the way I understood it.

MR. THOMAS I think your honor is right on that, that is just the way I framed the question, but I ~~ask~~ asked this last question to call attention to the city lots, part of the city lots are, as a matter of fact, under these ditches, so perhaps the question is a repetition. It is answered, however, and I will not press that part of it.

Q What was your custom as water master in arranging the times of irrigation for the respective water users, what did you do to determine the times of irrigation?

A I don't quite understand.

Q How did you distribute the water to the farmers on the canal?

A Why, the water was timed, all timed on the west side of town.

Q Did you prepare any certificates to that effect?

A Yes sir.

Q What did you do with them, did you distribute them to the farmers?

A Yes sir.

Q Was that system followed under the East Union?

A No sir, not altogether.

Q Who distributed the water, or who issued the certificates for water in Provo City?

A Who issued the certificates?

Q Yes, in the platted area of Provo City?

A I did.

Q Did you have charge of all of the platted portion of Provo City?

A No sir.

Q Just the --

A Yes, I will say this, in a way I had charge.

Q Just state in what way?

A In a general way.

Q Just state in what way you did have charge, state what you did?

A Well, I was over it all, I had a deputy water master and he took care of the water.

Q In what --

A I made out the certificates, I had them made out and delivered them to the deputy water master on the east side of town. He handled the water in the ditches.

Q And you on the west side of town? A. Yes sir.

Q Now, how was the water distributed on the platted area that you had charge of?

A How was it distributed?

Q Yes.

A Turned from one ditch to the other.

Q In laterals in the city? A. Yes.

Q What do you say as to the method that is used, how is it used in the city, was it economical use, I don't want to put the answers in your mouth, Mr. Carter?

A Yes sir, I would say it was economically used.

Q State if you from time to time visited these various areas within the city that you had charge of?

A Yes sir.

Q Did you make any investigation as to how the water^{was} being used, and if it was put to beneficial use?

A Yes sir, at times.

Q State what investigation you made?

A Well, in traveling around I always rode a wheel and I rode the ditches nearly all the time, in fact, all the time and visited right along up and down the ditches where they were using the water.

Q Now, from your experience and knowledge what would you say as to the economical use of the water in the city?

A Well, I would say while I was there I thought it was economically used.

Q State if you saw any waterwasted during the irrigating season in the city?

A No, I didn't see any that I would call wasted.

Q Did you see more than enough water distributed through the districts than was sufficient to answer the calls of the irrigators while you were in charge?

A Well, no, in speaking, that is of the season.

Q You mean the irrigating season?

A I mean the irrigating season.

Q What was your custom as to the distribution of the water in the city where you found one district suffering and another temporary surplus of water, what was your custom, business and duty at that time?

A To take the water from the ditch where there was plenty and put it into the one where they were suffering, that is, part of it.

Q Well, what part would you take?

A Enough to put in the ditch so that it would make that district so there would not be a suffering.

Q That really would apply to the whole of the system?

A Yes sir.

Q East Union, Factory Race, Tanner Race, City Race?

A Yes sir.

Q And the entire system of Provo City? A. Yes sir.

Q To that end did you travel the city over constantly to ascertain what was needed and what was not needed?

A Yes sir.

Q What did you require of your deputy in that particular?

A He was on his ditches all the time.

Q Was he making examinations under your direction?

A Yes sir.

Q How frequently would he report to you?

A Well, nearly every day.

CROSS EXAMINATION by Mr. A. C. Hatch.

Q What do you call the duty of water, Mr. Carter?

- A Duty of water I would say enough water to grow a crop.
- Q Have you ever had any experience in the measuring of water?
- A No sir.
- Q Have you ever made any tests on land to determine the duty of water that was put upon the land at any irrigation?
- A No sir.
- Q Have you ever been present and watched others when they were testing to determine the quantity of water applied to lands?
- A No sir.
- Q Upon what do you base your judgment as to the duty of water on any land then?
- A Well, I have been with the commissioner when he has measured, and watched that all the way through^{on} the river and the way that we distributed the water, that is what I based my judgment on.
- Q He distributed the water several miles from much of the land that was irrigated by it, did he not?
- A I distributed the water?
- Q The commissioner. A. Yes sir.
- Q Do you know how much water he distributed at any particular time?
- A Well, I couldn't say now, I did know at the time.
- Q Do you know how much he distributed to any particular ditch at any time?
- A Well, I couldn't say that I know exactly how much he distributed without I looked it up?
- Q Do you know how much water you or your deputy distributed to any of the ~~laterals~~ laterals to which you distributed water at any particular time?
- A Well, in my judgment --
- Q I am not asking for your judgment, I am asking for your knowledge.
- A Do I know?
- Q Yes. A. No sir.
- Q Then why do you say that or attempt to say that certain lands require a certain quantity of water in order to successfully produce crops?
- A Well, in watching the water and handling it.

Q But you don't know anything about the quantity that you are handling, do you ?

A Not to a certainty, no sir.

Q Why did you fix the duty at 50 or 55 acres to the second foot on any land?

A Well, by the commissioner measuring the water that went into the head ditch and charging me -- pass my judgment on what was turned in there.

Q Was it based upon the quantity turned in at the head of the ditch? A. Yes sir.

Q That is ~~in the~~ not the laterals but the main canals?

A Yes sir.

Q You don't know anything, do you, about the quantity of water that is lost by seepage or evaporation or by people taking it out of their turn, what we farmers call stealing water, before it finally reached the person whose turn it was to irrigate? A. No sir.

Q You have heard some of these people testify that as to certain of the soils here that a cubic foot of water would run all day for ever and not get over the land, haven't you ?

A Yes sir.

Q And these main canals run along over lands such as that in places, do they not? A. Yes sir.

Q So that probably half the water that was turned in by the commissioner would be lost before it reached the land to which it was applied for irrigation?

A Well, I wouldn't say that.

Q Well, how much would you say, a quarter would be lost?

A In some places.

Q How much of it would be stolen?

A Well, I could not say as to that only --

Q There is always some of that, isn't there?

A Well, I had but very little, I will say, in my time.

Q But you did have some?

A Oh yes, I had some.

Q Other water masters watch the gates of the irrigators as closely as you did, do you know?

A I don't know.

Q Well, do you know of any of them taking the water and using it out of the canals? A. No sir.

Q While you were water master? A. No sir.

Q You know of some who clandestinely take it occasionally?

A I didn't hear that question.

Q You know of some who would occasionally clandestinely take the water and use it when you were not watching them, and take it out of their turn?

A I don't know of any.

Q Have you any judgment whatever as to the quantity of water that is necessary to irrigate an acre of land actually applied upon the land? A. No sir.

Q You understand that the duty of water means the water actually applied upon the land, do you not? A. Yes sir.

CROSS EXAMINATION by Mr. Ray.

Q While you were water master what percentage of the gates along these laterals were tight gates and what percentage were leaking gates?

A Well, the most of the laterals I will say run the whole time, that is, there was a stream in them all the time. There were some that were closed down at times for a day or a two but -- well, I could not say just what percentage.

Q Good many of the head gates were so constructed that they were leaking water into the laterals all the time, weren't they?

A Not very many of them.

Q You don't know how many? A. No sir.

Q Had no weirs or measurements to determine anything of that sort? A. No sir.

Q How much water was taken into the Factory Race while you were water master?

Q At what stage?

Q Oh, take the low water stage.

A Well, if I remember right I would say about from 19 to 24 second feet.

Q That is it was doubled up at night, doubled up in the day time and out off at night? A. Yes sir.

Q And you determined how much water the Factory should have by how much was needed for irrigation, didn't you?

A No, not in that way.

Q In the low water season you always cut the Factory down, didn't you?

A In the low water season only at night.

Q Well, you cut it down in the day time, didn't you?

A No sir.

Q I don't mean shut it off, ~~he~~ gave it less water, didn't you?

A No sir, not while I was water master.

Q All throughout the season you gave it all the water it wanted, did you? A. Yes sir.

Q In the day time. Do you know how much you did give it?

A No, I could not say now.

Q But your judgment is it was about 19 to 24 second feet?

A Through the season.

CROSS EXAMINATION by Mr. Bagley.

Q You said that lots in the platted part of the city on the west side would require a less duty, that is would take more water to irrigate them than the lands under the Tanner ditch, but you didn't say what that duty would be. You placed the Tanner duty at 40 to 45 acres to the second foot and you said these lots would be less than that, how much less?

A Oh, from 35 to 40.

CROSS EXAMINATION by Mr. Jacob Evans.

Q I would like to ask one question. As I understand it, under the Factory Race, City Race and Tanner Race, you started out at

the commencement of the season and irrigated on schedule?

A Yes sir.

Q And you gave each person entitled to municipal water a notice as to when his turn would commence and when it would end?

A Yes sir.

Q And you did that with all of the water users from the races which I have spoken of?

A Yes sir.

Q

REDIRECT EXAMINATION by Mr. Thomas.

Q You stated, Mr. Carter, that you gave the Factory Race all the water it needed.

THE COURT All it wanted, he said.

MR. THOMAS: All it wanted, I understood it was "needed". That was from 36 to 48 second feet in the day time?

MR. HATCH: 19 and 24 second feet.

MR. THOMAS: Yes, but that was doubled up.

Q Is that what we are to understand, Mr. Carter.

A I don't just understand.

Q You stated to Mr. Ray the Factory Race had from 19 to 24 second feet, was that correct? A. Yes sir.

Q Was that a constant flow or was that flow doubled up in the day time and out down at night/

A It was doubled up in the day time or practically doubled up, out down at night.

Q Where was that water taken?

A Put in the East Union and some in Tanner Race and City Race.

Q So that there was from 40 to 45 second feet of water running in the Factory Race during the day time?

MR. RAY: Object to that as leading and contrary to his testimony, and mere assertion of counsel.

THE COURT: Yes, I think he should ask the witness how much.

Q State how much water to the best of your memory was running in the Factory Race in the day time?

A Well, I used to put about as near as I can remember, from 35 to 45 second feet in it.

Q Now, during what season was that?

A Low water season.

Q Do you remember what you put into it in the day time during the high water season ?

A Well, I think that it run about 85 -- 80 to 85 or 75 second feet in the high waterseason.

Q Did you make any record of that? A. No sir.

Q Did you make any record at any time of the amounts of water that was to be -- or was diverted in the various ditches?

A No sir.

Q Now, as to these head gates, what was your duty and what did you do withreference to head gates generally throughout the system?

A Wherever we had a head gate that locked we fixed it, tried to keep them tight.

Q What was the result of your labor?

A We usually succeeded in keeping them tight.

Q Now, with reference to stealing of water, how frequently would you inspect the head gates to determine what amount was of water was taken through the various laterals?

A I was on the ditches every day.

Q Oftener than once a day?

A Twice a day.

Q Do you know whether there were times when you would make more frequent visits than that? A. Yes sir.

Q How frequently would those visits be made?

A Sometimes three and four times a day.

Q And during that time and those visits what amount of stealing did you detect?

A I did not detect any.

Q Now, with reference to your experience in the measuring of water you stated to Judge Hatch that you had not yourself measured

any of the water? A. No sir.

Q Now, by what means, or what means then did you adopt to determine the amount of water, the quantity of water that was to be allotted to each particular lateral, state fully now what method you adopted and what your experience was in that particular?

A I traveled with the commissioner up and down the river measuring the different streams several times, but I never measured any water.

Q Well, what was done, I want you to state just what was done by the commissioner and what was done by you to determine in your mind what a certainty quantity amounted to, how did you arrive at a certain quantity?

A Just through his figures and measurements my judgment is to the size of the stream.

Q Now, you refer to his measurements, I want you to state fully now what those measurements were? and if they were placed in any -- and particularly any marks left to guide you. What was done?

A Yes sir, in the head of my ditches I placed marks in to guide me.

Q Well, state how those marks were placed and for what purpose they were placed?

A Placed in the side of the head gate just at the top of the water each time that it was measured.

Q Would you put in any other marks than those just at the top of the water? A. No!

Q And state if those amounts were fixed by the commissioner in weirs or in head gates or in flumes that enabled you to determine?

A Just in the head gates and the flumes they run through.

Q Now, knowing the quantity of water that was placed in each ditch, how did you determine the amounts of water or how did you divide that in quantities in your mind?

A By the experience and by my judgment that I had in seeing other streams ^masured.

Q Did that apply, or state if that applied to the various laterals

measured, your entire system? A. Yes sir.

Q Is that the means that were adopted and experience you obtained in acquiring knowledge how much water was in each lateral?

A Yes sir.

Q How did you determine then what amount of water would be represented by a second foot?

A ^{with} through the measurements, which it measured.

Q And that is how you have been able to determine what a second foot in quantity meant?

A In my judgment, yes sir.

Q Mr. Goddard suggests a question, it seems I have asked that. Directing your attention to the city lots by what way did you determine or how did you ~~it~~ determine that the city lots required a lower duty, greater quantity of water than the platted areas outside or the areas outside.

A Well, they are smaller streams. I think that where there is a ditch with a second foot of water in there it takes a longer time to irrigate that lot than it would an acre, or that much ground on the outside where a man has a big stream to run over it, and it requires more water to cover that amount of ground with that small stream of water. There is more seepage and soakage.

Q Did you take into consideration in arriving at that judgment the number of laterals in the city?

A Yes sir.

Q The re being a greater number of laterals in the city?

A Yes sir.

Q And smaller areas? A. Yes sir.

Q And that is why you so determined it? A. Yes sir.

Q Is it because the loss is greater by reason of those more excessive laterals in the city? A. Yes sir.

Q As well as the smaller area irrigated?

A Smaller stream of water to irrigate with?

RE-CROSS EXAMINATION by Mr. Jacob Evans.

Q You say you made your schedules at the beginning of the year

distributing water to persons receiving water from the Factory Race and City Race and the Tanner Race?

A Yes sir.

Q Did you give each person the same quantity of water under each of those races for each city lot and for each acre of ground irrigable?

MR. THOMAS: Do you understand the question, Mr. Carter?

Q Did you give the same time ?

A Not altogether the same time, Mr. Evans. Some of the ditches that is smaller that had longer time than ditches that was larger, but the city lots practically all the same time, and the same amount of water as near as I could determine.

Q Did you aim to give the same quantity of water to irrigate each acre of land? A. Yes sir.

Q So that you made no distinction then as to the land under any of the canals?

A Well, not in my judgment.

Q In working out your schedule, that was done in your office I take it, was it? A. Yes sir.

Q And in working out that schedule you gave, or attempted to give the same quantity of water to each acre of land under each of those different canals?

A Well, the schedule don't ~~xxx~~ determine the amount of water, the schedule determines the time.

Q I understand.

A And in giving the water out of in having the water in the ditches, why, there were some ditches that were larger and some smaller.

Q I see.

A And certain ~~amount~~ ^{land} that was hard to water, why they got more water. That is --

Q More water in the ditch?

A They got more water in the ditch at that time than the fellow that had good land to water.

Q I understand, but you aimed to put them all on the same basis, so far as quantity of water was concerned, did you not?

MR. THOMAS: Witness has just answered to the contrary.

A No, I was just going to say in my judgment I did not.

Q You fixed the schedule to begin with, didn't you?

A Yes sir.

Q You knew how much land each person had?

A Yes sir.

Q And you knew how many hours he would be entitled to water, didn't you?

A. Yes sir.

Q And you made them all uniform, did you not?

A Well, as I said before there were some that had longer time than others in the schedule, in the ticket.

Q Longer time for an acre of land?

A Yes sir.

Q Than some other person would have ^{for} another acre of land?

A Yes sir.

Q Would that be because the stream was larger?

A It would be because the stream was smaller where the man had the longer time.

Q Where the man had the longer time it would be because the stream was smaller?

A. Yes sir.

Q And where the stream was larger you would give him less time and figure the two streams, you aimed to distribute the same quantity of water to each person for each acre under each canal?

A Well, not exactly that way, Mr. Evans.

MR. THOMAS: The witness has answered that ~~as~~ two or three times.

Q How did you figure it out then?

A Well, as I say, the water was changed from one ditch to another.

Q I know, but when you figured out your schedule you did that in the spring of the year, didn't you?

A Yes sir, in the winter time.

Q In the winter time; now, when you exchanged water in the night

time with the factories wouldn't the people who used water in the night time get considerably more water than those who used it in the day time by reason of the fact you had turned water into the races from the Factory Race?

A Yes sir.

Q So that you don't claim that each person received the same quantity of water for the land?

A No sir, I don't claim that they did.

Q If a person's turn happened to come at a time when you were taking water out of the Factory Race and putting it into some of the other races he would get a very much larger quantity of water? A. Yes sir.

Q Than a person who happened to be irrigating when the water was running in the Factory Race? A. Yes sir.

Q Do that there was in fact, no uniformity as to the quantity used on any of the lands, was there ?

A Well, not altogether, no.

Q You don't know and cannot say the particular persons who had the benefit of the Factory Racewater, can you now?

A No sir.

Q Nor those who were deprived of the benefit of the use of the Factory Race water? A. No sir.

RECROSS EXAMINATION by Mr. A. C. Hatch.

Q One question I would like to ask for information. You stated when the land was harder to irrigate they put more water in the stream being used by the person irrigating that particular land, is that right?

A Yes sir.

Q Where did you get the water?

A Out of one of the other six ditches.

Q Then suppose there was two or more irrigating this land at the same time, how would you manage it?

A Well, there would not be --

Q On different ditches?

A On different ditches?

Q Yes.

A Well, where it was put that way I figured my time so that they could come at different times up the ditch?

Q Did you know every tract --

MR. JACOB EVANS: Ask him if they rotated.

Q Did you know every tract of land that was being irrigated at the time you were making tickets.

A Practically.

Q Knew all the land, how long it would require to irrigate it?

A No sir, I didn't know every tract.

Q Whether it required more water or less water?

A No sir.

Q Did you know the majority of the tracts of land that were to be irrigated under your system? A. Yes sir.

Q Knew of the soil and time required to irrigate and so on?

A I think I did the majority of them.

Q Now, you knew it at the time that you were making the tickets?

A I knew the pieces of land at the time I was making the tickets yes sir.

Q And could tell as to two pieces side by side? which would require the longest time to irrigate?

A Oh, I never figured that.

Q Or the greatest quantity of water?

A I never figured that altogether.

Q And that was one of the occasions of lack of uniformity in the quantity of water distributed to the irrigators, was it not?

A Yes sir.

Q When you turned the water from one stream to increase the quantity flowing in another stream, what would the irrigators along the stream from which the water was taken do for water during their turn?

A I wouldn't take it all, I just take part of it or little of it to increase the other stream.

Q Did you increase the time of those who were irrigating the decreased quantity? A. No sir.

Q Then you were depriving someone of his quantity of water while you were adding to the quantity of the other, were you not?

A Not necessarily.

Q Explain please how you could take water from one and give to another without depriving one of a portion to which he was entitled?

A Well, in the distribution in the ditches where one ditch was well watered up and another one did not get watered up so well, we would take this week the water, out down the ditch, one ditch had a little less water in than just enough to water them up and get a little to take in the one over there. Just change it around another week.

Q How many ditches did you have from which to make these changes?

A Well, the ditches, there is about eighteen, I think.

Q Are they all so situated you can turn the water from one into the other?

A Yes sir, nearly all so.

Q As occasion requires?

A Nearly all so. Under the City Race they are that way and under the Tanner Race they are that way so you can turn the water from one into the other.

Q Now, as a matter of fact, you had a source from which you could supply at any time, did you not, an increased quantity of water to those who required it or desired it?

A No, not at any time.

Q Well, at the time then when you didn't have that source to comply, what did you do for those people who had the bad land to irrigate?

A Well, while I was there I had pretty good supply and I just handled it that way, from one to the other as I needed it.

Q Do you know now, or do you remember any occasion when you didn't have that supply furnished you?

A Not while I was there.

Q So that you always had more water in some of the ditches than was necessary, didn't you? A. NO sir.

Q Can you explain that?

A There wasn't no time that I had more water than was necessary that I know of.

Q Then how could you, without depriving someone of his rights take water from any of the ditches to put in those other ditches?

MR. THOMAS: Object to this as not proper cross examination. The witness has not said he has taken any right.

MR. A. C. HATCH: I am asking him how he could without taking a right.

THE COURT: Objection is overruled.

A Well, I believe I explained that once before.

Q Well, just here as I understood you, you said you had had in none of the ditches at any time more water than was necessary.

A I explained --

Q Then I asked how you could take water from a ditch where it was necessary and put it into another ditch without depriving someone of their use to which they were entitled under the dicket.

A Well, I cannot just exactly explain what I want to in handling it. Where there was a little low that way in one ditch, as I said before, and the other ditch this wk week, where ^{one} was a little low and the other one had enough in to supply next week, why, we would change it back a little.

Q Yes, but you were always a little low in the ditch from which this man with the bad land irrigated when it came his turn to irrigate, weren't you?

A Well no.

Q Didn't he always require an increased quantity of water with which to irrigate his bad land?

A Well, the way the schedule, the time was made out there was certain little ditches shut out just at the time he took the water.

12 Noon, Recess to 2:00 P. M.

REGROSS EXAMINATION By MR. A. C. Hatch continued.

Q Mr. Carter, the tickets issued by you to the water users provided for the use of the water by them in rotation, did it not?

A Yes sir.

Q Have you any of those tickets?

A I suppose there is some down in the office.

Q Could you get one of each of those that you furnished the lot owners and those that you furnished to the acre owners?

A Yes sir, I think so.

Q I wish you would do so, I would like to see them to know what they are.

A I can find out by going down there. They are kept in the water master's office down in the basement.

Q I would like to have one of each of the different kinds of tickets that you issued to the water users.

THE COURT: Is there any further cross examination?

MR. A. C. HATCH: None, except that.

REGROSS EXAMINATION by Mr. Bagley.

Q I would like to ask a question and probably we could get some other information while he is down there. I suppose when you made up these tickets, Mr. Carter, you had before you the number of acres of land that were irrigated under the city system, did you? A. Yes sir.

Q And the number of acres and the number of lots that were irrigated in the platted part of the city?

A Yes sir.

Q Do you remember now the number of acres of land that were irrigated by the city when you were city water master?

A I have got it down here, I don't remember them.

Q Let me ask you is that a paper that you had while you were City water master? A. No sir.

Q Where did you get the information that is on the paper?
A Mr. Farrer gave me this paper this morning. I borrowed it from Mr. Farrer.

Q Thomas John Farrer? A. Yes sir.

Q While he was water master or water commissioner?

A Well, I could not say as to that. I did see it, but I borrowed is all for a little information.

Q Is it the sheet, or a copy of the sheet which you issued in making your distribution of water?

A I could not say as to that either.

Q Did you make up what is on the paper there?

A No sir.

Q Well then, any testimony which you would give based on that would not be of your own knowledge, but would be reading from that paper, would it?

A Yes sir, I can get that other information while I am down in the office though.

Q Did you have a book or some record in the water master's office in which the number of acres irrigated was recorded?

A Yes sir, at that time.

Q And the number of lots recorded? A. Yes sir.

Q Can you produce that book here if it is still in the office?

A Yes, if I can find it.

Q All right I would prefer to have the information from that book rather than from this paper.

MR. THOMAS: I will say, Mr. Bagley, the city expects to present those books. Mr. Wentz has quite a number of them. The city expects to present it if you want any information --

MR. BAGLEY: I want the acreage of the city lots and farm lands as used in the distribution made by Mr. Carter.

MR. THOMAS: You can get that, Mr. Carter?

A I think so.

MR. THOMAS: There is one question I want to ask before

you go, you can tell me how many lots there are that receive water for irrigation purposes below the woolen mills?

A I could not tell you now.

MR. THOMAS: Can you tell?

A I can get that information too.

MR. THOMAS: Then get that information and I will examine you.

MR. RAY: I submit that is in, Mr. Thomas.

RECROSS EXAMINATION by Mr. Jacob Evans.

Q In the distribution of the water for the city lots you distributed the same quantity of water for each lot of the same size irrespective of whether or not there was any buildings^{OR} out houses or anything of that kind on the lot, didn't you?

A Yes sir.

Q Or whether the land was good or bad?

A Yes sir.

Q Made no distinction whatever?

A Not a bit.

Q And as to whether it was cultivated or uncultivated, you didn't take that inna into consideration? A. No sir.

Q Or whether it was irrigated or not, you didn't take that into consideration?

A Well no, I did not.

REDIRECT EXAMINATION by Mr. Thomas,

Q You are referring to the city lots, aren't you?

A Yes sir.

Q Now, will you state just what plan you did follow in determining what water should be appoitioned to each lot and what time should be allotted to each lot?

MR. A. C. HATCHEL The witness has gone over that in his direct examination and cross examination.

MR. THOMAS I think this matter ought to be cleared

up. I submit the question without argument.

THE COURT: Objection is overruled. He may answer, if you are not satisfied with his previous answer.

Q Go ahead, Mr. Carter

A In making out the time for the city lots that way, we would start at the lower end of the ditch and follow the ditch right up, each ditch on each street and take the city lots as they came up the ditch and made the time out that way.

Q What elements did you take into consideration, the occupancy of the land?

A Well --

Q Its past use for agricultural purposes?

MR. JACOB EVANS: I submit he can answer what other elements he took in without counsel suggesting other elements.

A I would like that question read.

Q What other elements did you take into consideration?

A Well, I don't know as we took anything, anymore than each lot was entitled to so much water. That is the way I always understood it.

Q You may state if you considered its past use for any purpose, agricultural or otherwise?

A Well, I don't know any time while I was there that there was any lot with the exception of over here on --

Q The business blocks?

A The business blocks that was -- got that far along, past use.

Q Just explain that a little more fully, I don't know whether I quite understand you or not?

A Well, the business blocks were about the only blocks that we took into consideration of not needing any water in that locality.

Q You say not needing any water, do you mean it just that broadly?

A Well, we didn't make any time out for the business lots.

Q That is, time for irrigation?

A Yes sir.

Q What did you do with all the other lots?

A Well, we made time out for all the other lots and portions of lots

Q In cross examination this morning you made a statement relative to the use of water upon the farm acreage and your method of determining the amount that was to go upon each acre, what factors did you take into consideration there in determining the amount of water that the various tracts of land should have?

A Well, in making out the water time on the farm acreage, we took in the condition of the land and the soil, and in making out -- now, for instance, I will explain to take the 5th West ditch -- the City Race rather, if you will allow it and I will take the lower end and the upper end. Now on the upper end is what is known as the Warner ditch. That waters some city lots and some acreage. In the forepart of the week that ditch for three days waters city lots. Down at the lower end of the ditch there were two irrigating streams taken out there for farm irrigation and those two run until along about Thursday-- well, one of them was through. I should say when this ditch on the upper end, the garden ditch, I will call it, it ended, then they took out a big stream up there for the farm acreage and that one down there shut off and in working the ditches that way with the time and using the garden streams in places up the ditch and the acreage ditches here that is the way we determined the use of it.

Q Well now you said you took into consideration the condition of the soil, what did you mean by that?

A Well --

Q Just answer that question as fully as you can in your own way?

A Now, I spoke about the two ditches that took out of the City Race Race at the lower end, up to Egerson's corner. They called it the Egerson Ditch I think. There was a ditch taken out there that run about the same all the time, run through a box at the head gate and that run a full week, took a full week to water the acreage there and in putting these streams, the big streams onto the farm acreage I turned more water into the ditch like the Warner Ditch which waters the west side of

5th West up next to the river ~~at~~ bottoms there. I usually put more water in that ditch than I did in the one below on account of that being more gravelly and right on the river.

RECROSS EXAMINATION By Mr. A. G. Hatch.

Q The city ordinances provide, do they not, the time that shall be allotted to each city lot and time that shall be allotted to each acre of land for irrigation purposes?

A Yes sir.

Q Now, did you attempt in any way to change the provisions of the ordinance in distributing your water?

A In this way, the ordinance provides every two weeks on the farms, and where we give it every week we give half of the time.

Q You changed the city ordinance to that extent? as to the farms?

A Yes sir.

Q Some of the farms?

A Yes, well, most of the farms.

Q Did you change the ordinance as to any of the city lots?

A No sir.

Q Then how is it that you didn't issue tickets for or consider the business lots?

A I didn't quite understand that.

Q I understood you to say in answer to Mr. Thomas that you did not distribute water to the business blocks or business lots as they had no use for water for irrigation?

A There is one block over here.

Q Which block?

A B ounded by 1st North and Center and Academy Avenue and 1st West. There is two blocks in there, excuse me, there is two blocks there, one west of it.

Q Whatt did you do with this block immediately north of the court house?

A I believe that there was some of that in my time, that was timed.

Q Never had any crop of any kind growing upon it within your time,

did it?

A. No sir.

Q Now, within the history of prove City it never had, did it?

A Not that I know of, not that I can remember.

Q Now, the Smoot Lumber Company block, was that irrigated in your time?

A. No sir.

Q Do you know of its ever having been irrigated at any time?

A I cannot remember of it ever being irrigated.

Q Do you know whether or not tickets were issued for that block?

A I could not just exactly say, but I can find out down in the office, the stubs of the book is there.

Q You understood that the ordinance provided for the issuing of tickets to each of these blocks, didn't you?

MR. THOMAS I submit the ordinance is the best evidence.

MR. A. C. HATCH: I am asking him for the understanding of the ordinance.

MR. THOMAS: Then I object on the ground of its immateriality.

THE COURT: Objection is overruled.

MR. THOMAS: Exception.

A I don't know.

Q Now, the west half of the block on which Taylor Brothers Mercantile business is now situated, was that irrigated during your time as water master?

A I believe the north half was issued tickets for if I remember right.

Q The south half, were tickets issued for?

A I would not positively say, I don't remember.

REDIRECT EXAMINATION by MR. Thomas.

Q Just one question, do you want to be understood, Mr. Carter, as saying that you would set aside the ordinances of the city relative to the distribution of water?

A No sir.

THOMAS J. FARRER called by the defendant Provo City, being first duly sworn, testifies as follows;

DIRECT EXAMINATION by Mr. Thomas.

Q What is your name?

A Thomas J. Farrer.

Q Where do you reside?

A Provo.

Q What is your age?

A Fifty-five.

Q Have you ever had any official connection with Provo City?

A Yes sir.

Q What position did you hold?

A City water master.

Q When?

A 1904 until 1910.

Q Both years inclusive? A. Yes sir.

Q Beginning in 1904 and ending in and including 1910?

A Yes sir.

Q Are you sure it was 1910 or 1911 -- this is a leading question?

A It would end in 1911, it would be eight years.

Q It ended in the year 1911, that is as I have it.

A Yes sir.

Q What were your duties as water master?

A To regulate and control the waters of Provo City.

Q Have you held any other position under Provo City?

A No sir.

Have you ever held any other position connected with the distribution of water in this city or under the Provo System.

A Yes sir.

Q What position?

A Water commissioner.

Q When did you hold that position?

A 1911.

Q For the one year only?

A Part of 1912.

Q Up to what day in 1912?

A Sometime in June.

Q What were your duties as water commissioner?

A To distribute to the various canals in proportion according to the Morse decree.

Q Let us be sure about these dates, Mr. Farrer, you began your duties as water master in 1904? A. Yes sir.

Q How long did you continue as water master?

A Eight years.

THE COURT: That would take 1911, both years inclusive.

MR. THOMAS That is as I understand it.

Q Let me ask this somewhat leading, did you finish in the year 1911?

A Yes sir, that is, it was eight years I served as water master. That would be 1911, wouldn't it?

Q What year did you begin your duties as water commissioner?

A The year following, 1912.

Q In 1912? A. Yes sir.

Q And you continued acting as water commissioner--

A During that season and part of the next.

Q That is, be up into 1913? A. Yes sir.

Q Now, state a little more fully what your duties were as water commissioner when you were acting under the court?

A My duties was to regulate and distribute the waters to the various canal companies from the mouth of the canyon down below the mouth of the canyon.

Q Going back to 1904, I will ask you to direct your attention to that map that is Exhibit 59, directing your attention to that Exhibit,--

MR. RAY: I think that is 58, Mr. Thomas.

Q 58 is right. I will ask you if that map Exhibit 58 outlines the irrigation system as was in existence when you were water master?

A Does that include all the canals?

Q I am asking you, directing your attention to the exhibit, if that map shows the system of canals known as the Provo City system that was in existence when you were water master in 1904?

THE COURT: If Mr. Farrer has not examined this map it might be well to suggest to him that the canals are shown, or purport to be shown in red upon the map. I understand that is the case.

MR. THOMAS Yes, the various canals in the Provo System are marked in red upon this map.

A This is the river, as I understand it.

Q Now, this upper line here indicates, purports to indicate the present location of the East Union canal, and this thinner line purports to indicate the present location of the Factory Race through the city and this line still farther west purports to indicate or locate the present Tanner Race.

A City race.

Q There is the Tanner Race down here, that is correct, the City Race and here is the Tanner Race and this line -- now look over these lines and see whether that will indicate the system as it was when you were in? A Yes sir.

Q Was any change made in any of the ditches, changing the course of the canals or ditches at any time ~~xx~~ during your term of office as water master?

A Only at the head of the canals there was some changes made.

Q Which canals?

A Taking the water through the wheel here at the brick yard, they enlarged what they call the head of the East Union and brought it around to pass it through the brick yard here and then ~~xx~~ take it back over to the river again to the various canals that were taken out there.

Q Was there any ^{other} change made so far as you now remember?

A No, not that I know of.

Q Are you familiar with the lands lying under the East Union Canal. What ditches did you have under your immediate supervision

while you were acting as water master.

A Practically all of them.

Q That is, of the whole city? A. Yes sir.

Q I should have said of the whole Provo system, Provo City system? A. Yes sir.

Q Including the irrigated area of Provo City as well?

A Yes sir.

Q Now, directing your attention to the lands lying under the East Union Canal, I will ask you to describe the general character of the soil that lies under that canal?

A Well, it varies all the way down the canal. There is some --

Q Beginning up toward the p--

A North end of the canal there is a clay soil, light clay.

Q That is a surface soil?

A Surface soil.

Q Can you tell now what the depth of that soil is?

A It varies all the way from some places might be ten feet deep.

THE COURT: How much?

A Ten feet.

Q Down to what?

A Well, to a foot.

Q What was the character of the subsoil?

A Underneath that is gravel.

Q Was it large?

A Coarse gravel.

Q How far down did that clay territory extend?

MR. RAY: I object to that as having been asked and answered.

THE COURT: I understand you mean how far down the course --

MR. THOMAS: Yes, I said territory.

A Between fifty and sixty acres, I should judge.

Q Now, next to that what kind of soil is there coming down the ditch?

A Kind of a black loam soil on the surface.

Q And can you tell now what the depth of that soil was?

A That varies from about a foot to eighteen inches, I should judge.

Q And over what area would that character of soil extend? Give your best judgment, Mr. Carter?

A There is quite a little stretch down there, about 25 per cent, I believe.

Q About 25 per cent? A. Yes sir.

Q Of the whole land lying under the East Union Canal. Now, going down still farther south what is the character of the soil there?

A That varies, from there it is kind of a loose gravel clay and sand, and varies a great deal down there.

Q From there to where?

A To the lower end of the canal.

Q Then is that lower tract variable in character?

A Yes sir, it is gravelly.

Q Go ahead?

A Part of it is a loose gravel, that is deposited there, porous—

Q Little louder?

A It is a loose gravel and porous, part of that land.

Q What would be the depth of the surface soil?

A Well, it varies in different places, some places it is very shallow, other places it is deeper.

Q Estimate it in inches?

A Well, from a foot to two feet.

Q Little louder, speak up loud.

A From a foot to two feet.

Q Would that surface depth be uniform throughout that territory?

A No sir, not exactly. Practically the biggest part of the area would be varying that way.

Q What is the subsoil in that gravelly country?

A Well, I never dug down in to see how deep the subsoil was.

Q I didn't ask you how deep.

A I could not say as to that.

Q What is the character of it, the subsoil?

A Well, the subsoil when you get through part of it it is sand underneath.

Q Would you state what part of it would have a sandy subsoil, what part a gravelly subsoil?

A Not definitely I could not.

Q What crops were raised upon that land when you were there as water master?

A Various crops, wheat and various kinds of grain, corn, potatoes and beets and vegetables of all kinds pretty near.

Q Can you state the amount of water that used to be turned into that canal while you were water master?

MR. THURMAN: Mr. Thomas, ^{may} I interrupt you, if he could give the percentage of that last kind of land.

Q What would be the percentage of that gravelly tract under the East Union?

A I could not give exact amount of area.

Q Approximately?

A Biggest part of the area is in that condition, down at the lower end, taking from the State Mental Hospital south.

Q Did you ever do any irrigating yourself under the East Union canal? A. Yes sir.

Q When?

A When I was water master.

Q Have you had practical experience as an irrigator aside from the time you were acting as water master?

A Yes sir.

Q How many years?

A Ever since I was big enough to pack a shovel.

Q And within this valley and under this system?

A Yes sir.

Q What would you say -- you didn't finish the question I asked you. What amount of water was turned into the East Union canal the time you were water master?

A Well, during high water there was about 45 second feet.

Q Was that a constant stream running day and night?

A Yes sir.

Q Was that during all the season?

A That was during the high water season.

Q Now, what would be the amount of water you turned through that canal during the low water season?

A Well, different stages of the river it would vary from 30 to 20, 15 feet, second feet.

MR. JACOB EVANS: What?

A From 15 to 30 second feet, according to the stage of the river.

Q State if you had the same amount of water running day and night, or if you made any changes in the flow, state what changes they were?

A At various stages, it would be lower some days, made changes with this, taking the Factory water and transferring it to the canals and make a variation there. It would raise the percentage during the night time and lower it throughout the day time, when that change was made.

Q At what time of the day would you turn the waters of the Factory Race into the East Union?

A About five o'clock in the evening.

Q And let it run until what time?

A Until five o'clock the next morning.

Q What amount of water did you distribute to the irrigators under the East Union canal to irrigate their land, that is, what duty did you allow them?

A Well, it varies there, there wasn't no specified time given and I never measured the water what was taken out for each individual, made an estimate of about, according to their supply and want on the ground they were situated on.

Q Did you at any time issue tickets or time under the East Union canal?

A. Yes sir.

Q When did you issue tickets to them?

A During the time I was water master, part of the time.

Q Do I understand those tickets called for specified and regular hours of irrigation?

A Yes sir.

Q Under the East Union system? A. Yes sir.

Q Did you ever change that method of distributing the waters under the East Union system?

A No more than that.

Q You may state if there was ever a time when you yourself distributed water irrespective of any time fixed and distributed water according to the particular needs of the individual?

A That is the only time it was given, it was given at the time that it was required by the land owners. There was no set time given only at the immediate time it was necessary, a day or two ahead.

Q Then I misunderstood you, Mr. Farrer, let me ask you, put it in this way --

A There was no season ticket.

Q No season ticket? A. No sir.

Q Were these season tickets given under the other ditches?

A Yes sir.

Q But you didn't have the same system of distribution under the East Union that you had under the Factory Race and other races? A. No sir.

Q Well now, going back to the East Union, what duty did you allow them, taking into consideration the different classes of soil?

MR. RAY: Your honor please, I object to that and submit that the witness has testified he doesn't know what duty he allowed, never measured it, kept no record of it and doesn't know what duty he allowed.

MR. A. C. HATCH: Further objection that he has not shown that he knows what duty is.

THE COURT: I think you may examine the witness somewhat on that line further, Mr. Thomas, if you expect to ask him as to the duty, find out whether he knows.

Q Do you understand the term duty of water per acre, Mr. Farrer?

A Yes sir, to some extent.

Q Well, give me your understanding of it?

A The duty of water is a second foot on so many acres, second foot. If it is a 60 acre duty that would be a continual stream of one second foot to cover 60 acres of land continually.

Q By that do we understand that you mean enough water to mature a crop on a certain number of acres of land?

A Yes sir, and if the ground is porous the duty would go less. If ~~it~~ it was a 40 acre duty it would take second foot of water to produce a crop on that kind of ground.

Q Do you understand when you speak of duty of water that it is a variable term, that it may mean one thing on one class of land and another thing on another class of land?

A Yes sir.

Q Did you have that idea in mind when you were distributing water under the East Union system, having in mind the different character of soils that were under that stream?

A Yes sir.

Q Now, with that --

MR. JACOB EVANS: Let me ask one question, what did you understand a second foot of water to be, how much water?

A One second foot is a foot of water in one ~~xxxxx~~ second.

MR. JACOB EVANS: What kind of a foot of water?

A Well, it would be a square foot of water, cubic foot of water passing over a weir in one second.

MR. JACOB EVANS: Cubic foot?

A Yes sir.

MR. JACOB EVANS: Does it have to pass over a weir in order to make a second foot?

A No, it can be measured with a meter through a flume so that it can be measured.

MR. JACOB EVANS: Measure it in any way, can't you, doesn't make any difference how you measure it, does it? in order to make it a second foot?

A No sir.

Q Now, Mr. Farrer, what duty of water did you allow the irrigators under the East Union Canal?

MR. RAY: Object upon the ground it appears that the witness does not know what duty he allowed.

MR. THOMAS: It appears that he knows what duty is and appears he knows what water is and appears he knows what the character of that soil is and he handled the water there and land there.

THE COURT: I think he may answer the question, objection is overruled.

MR. A. C. HATCH: If the court please, counsel has stated and the witness says that he understands it as counsel does that the duty as to one kind of land has a different meaning from duty as to another kind of land. I would like to have that explained.

THE COURT: I observed that statement made by counsel and witness answered yes. I don't know whether counsel meant that and the witness meant that. You may ask him if you desire, Judge Hatch.

CROSS EXAMINATION BY Mr. A. C. Hatch.

Q Now taking a gravelly kind of land such as lies south of the State Mental Hospital, what does duty mean as regard to that kind of land?

A Low duty on that.

Q Sir?

A It would run a lower duty.

Q What does duty mean in regard to that land?

A One second foot to less acreage of land, way I understand it. Take more water to cover that acreage of land.

Q That is what you understand the difference in the meaning of the word duty to be, it is more or less according to the land?

A. Yes sir.

DIRECT EXAMINATION by Mr. Thomas continued.

Q Now, let us go back to the original question, Mr. Farrer. The duty of water under the lands under the East Union Canal, what duty did you allow to the farmers and irrigators under the East Union canal ?

A I had distributed according to the amount that was measured to that canal.

Q Yes, I understand that.

A And distributing that out, I took into consideration the duty on some lands did not require as much as others, and had to apply it to lands that required more water.

Q What duty did you give to the irrigators at the upper end of the canal, about how much water per acre did you allow them to mature their crops?

A Well, I give them time to irrigate their lands, some land would irrigate easire than others, wouldn't require the amount of water.

Q I understand that, but you have not answered the question, Mr. Farrer, what in your judgment would be the duty of water to that land necessary to mature a crop, and how much did you allow the farmers for that purpose?

A I didn't take into consideration that at all.

Q Well, what water did you turn out to them, how much per acre did you allow them?

MR. THURMAN: That is the upper part?

MR. THOMAS: Yes sir, the upper part, the clay land?

Q Did you make an estimate in any way whether or not -- I^{will} withdraw that question, stay with the first one. How much water did you allow for each acre to mature a crop?

MR. RAY: I submit the witness has testified he never took that into consideration, distributed the water that was available in the canal and did not know how much he allowed.

MR. THOMAS: He doesn't know, he has not said he didn't know.

THE COURT: I don't remember he said he didn't know.

If you know Mr. Farrer how much you distributed per acre you may state. If you don't know, just say so so we can pass on.

A I never took any measurement of the water after it was measured in the canal, and just took observations what the stream would be in different localities. Sometimes a man has so many acres of land, might want to water a crop of beets, he would require a smaller stream a little longer time. That is the way it was distributed under the East Union.

Q If he has a crop of Alfalfa what then?

A He would require a larger stream taking into consideration where a man had grain or alfalfa. We tried to double up these small streams and apply it to ground that required a greater stream to spread over and to irrigate that crop.

Q What difference ~~did~~ did you make in the distribution of water if any, between the lower part of the system and the upper part of the system?

A Didn't make any difference, that is any more than the amount of time that was given to an acre of land. Some lands would require more hours for watering.

Q There was a difference then, wasn't there?

A Yes sir.

Q What was that difference? State if you allowed more water to the gravelly land than to the upper land?

A Yes sir.

Q Why?

A Because it required more.

Q Now, can you state from your experience now what the duty of water would be to that lower land, the gravelly land under the East Union canal?

A Well, I have not figured that out.

Q Could you state what the duty of water would be to the upper lands on the East Union?

A Taking the whole canal through, some of the duty would run high, run as high as seventy acres, and others would run down as low

as 40.

Q What land would run as high as 70?

A There is some land out here in the northeast part of the city.

Q Was that within the tract that you designate as the clay land or the black loam?

A That was the black loam.

Q That would be within the land you said amounted to 25 per cent of the area, is it, in that territory?

A Yes sir.

Q What part of the land in your judgment would require a 40 acre duty?

A Down at the lower end, toward the lower end of the canal from the State Mental Hospital great part of that, there is a loose gravelly soil in various places.

Q Now, beginning at the State Mental Hospital and going down to the end of the East Union Canal, what portion of that land would you say would require a 40 acre duty?

A Quite a little stretch there, I couldn't just call to mind the number of acres.

Q Let me put it in this way if it will aid you, what portion of it?

A I should judge about 50 per cent.

Q About half of the land would require that?

A Yes sir.

Q And what would the other half require?

A Well, that would require about 60.

Q So if the lands then under the East Union canal would vary from 40 to 70 acre duty ?

A. Yes sir.

Q Now state if, in your term of office, any water went to waste under the East Union system?

A. No sir.

Q You may state what use it was put to while you were water master?

A It was put to use by applying it on to the various pieces of lands in different localities.

Q State whether it was an economical use or otherwise?

A Economical use.

Q Now, part of the platted area of Provo City is under the East Union Canal? A. Yes sir.

Q And you have charge of that system also, that area?

A Yes sir.

Q Now direct your attention to the Factory Race.

A Yes sir.

Q Have you had experience on that ditch? A. Yes sir.

Q And know the lands there? A. Yes sir.

Q Describe the character of lands in the Factory Race?

MR. RAY: The farming or platted lands?

Q We will start with all of them, describe the character of the lands under the Factory Race, starting at the upper end, Mr. Farrer. Do you remember the number of lots that are on the Factory Race above the woolen mills?

A I don't remember, but I have checked over a list.

Q With whom?

A With Mr. Thompson.

Q Do you know what list that was that you checked over?

A I had a copy of it here.

Q Let me see that list, when did you check it over with Mr. Thompson?

A I think it was day before yesterday, I think it was.

Q Did you find that list corresponded with the number of lots and acres that you irrigated while you were water master?

A Yes sir.

Q And state if it corresponded with the number of lots and acres under the various ditches as when you were water master?

A Yes sir.

Q Now, direct your attention to the first column under farm acres.

A That is on the upper end.

Q 27 acres under the Factory Race above the Provo Woolen Mills, what is that character of that soil, can you locate that in your mind, Mr. Farrer? A. Yes sir.

Q What is the character of that soil?

A It is a black loam on the surface.

MR. JACOB EVANS: Let me see that paper just for a minute.

Q What is the depth of the surface of that soil, if you remember?

A It is very shallow.

Q And the character of the subsoil?

A Gravelly.

Q Coming down to the city lots under that same race, describe that soil ?

A That is a black loam.

Q Similiar character?

A Good deal the same character of soil, varies in places.

Q What is it as to grade, is it a poorer or better grade than the other one?

A Practically about the same grade.

Q What do you say the depth of that subsoil is or depth of that surface soil is?

A Part of that is under that is black loam, and part of it is a gravelly substance on the top, it is very gravelly.

Q What would be ~~the~~ the depth of that -- let me put it this way, is the depth of that black loam uniform or otherwise?

A Well, it is pretty uniform on the small tract that is there.

Q What as to the uniformity of the other surface soil?

A Very gravelly.

Q As to its uniformity, is it generally gravelly throughout?

A Yes sir, all the way through.

Q What is the character of the subsoil there?

A Some of it is nothing but rock, but ~~is~~ it is awful gravelly, it is gravelly soil, kind of sand and clay mixed up.

Q What is raised upon it, what was raised upon that land when you were there?

A Raised vegetables of different kinds, trees.

Q Orchards?

A Orchards.

Q What was the character of crops raised upon the city lots?

A These are city lots you are referring to now, isn't it?

Q First I directed your attention to the 27 acres.

A First you did.

Q Then I came to the city lots, what crops are raised there -- orchards as you have described -- now coming to the farm acreage, twenty farm lots amounting to nine acres, what is the character of that soil?

A That is what I was alluding to last. You came from the twenty-seven acres to the city lots and asked me to describe that.

Q You did, now coming to the farm lots, there are twenty farm lots there, nine acres in area?

A Yes sir.

Q What is the character of that soil?

A That is black loam soil.

Q What is the depth of that surface?

A Very shallow.

Q Could you estimate it in inches.

A It varies from a foot to a foot and a half.

Q And the subsoil?

A That is gravelly, underlaid with gravel.

Q What crops are raised on those, the usual farm crops?

A We have some vegetables raised and some of it is in pasture land
Grass.

Q What would you say would be the duty of water on those farm acres, the first lot that you spoke of?

A On the twenty-seven, about 55.

MR. THURMAN: What is that, the duty?

MR. THOMAS: That is the first lot, twenty-seven acres.

Q Now, the second division, the city lots, what would you say would be the duty of water upon those lots?

A That is outside of the nine?

Q Outside of the nine acres, yes.

Q That is a gravelly, biggest part of that is right gravelly soil.

Q That is within the city lots?

A Yes sir, that is in the platted portion of the city.

Q Yes, now what would be the duty of water for this?

A About 40 acre duty.

Q And what would you say would be the duty to those nine acres?

A Well, that would be about the same as --

Q As the first?

A As the first acreage.

Q About 55? A. Yes sir.

Q Give a duty of 55 to the farm lots and 40 to the city lots?

A Because of the different characters of the soil.

Q Any other factor enter into that judgment?

A What?

Q Did any other factor enter into your judgment?

A It requires more water on this gravelly ground than it would that above, because the sub irrigation is a little closer to the surface than it is down there and it is very porous, gravelly ground, the biggest part of that.

Q Have you taken into consideration the means of --

MR. JACOB EVANS: Now, Mr. Thomas, let him answer.

MR. THOMAS: Certainly I want him to answer, I don't want him not to answer, you know that.

MR. JACOB EVANS: I submit he asked if there was any other factor. Now, he can state whether there was or not and what it was without counsel suggesting to him some factor.

MR. THOMAS: There was no suggestion there. I have a right to examine my witness. If you don't like the character of questions, object formally.

Q Did you take into consideration any loss in transmission in arriving at the duty of water for the city lots?

A Yes sir, there is a certain amount of loss transferring that water down those ditches.

Q Why and how ?

A Well, in transferring water down a small irrigation ditch there

is more loss than there would be in a large canal where they keep the water in a body.

Q Now, direct your attention to the land under the Factory Race, below the Provo Woolen Mills, there are 98 acres of farm land there, what is the character of the soil?

A That is a gravelly soil, sandy, gravelly soil.

Q Give the depth, surface depth there, Mr. Farrer.

A That varies from, I should say, from a foot to two feet,

Q Would that be uniform or otherwise?

A Well, practically uniform, that is take the whole of it.

Q What is the character of the subsoil?

A That is a sandy soil mixed with gravel, biggest prt of it.

Q What are the crops raised upon it?

A Various crops, alfalfa, beets and grain, hay, some of it.

Q I direct your attention to the city lots, fifty-five in number,

Q below the Provo Woolen Mills, you may state if the character of those lots differs in any material way from the character

of the other city lots that you have described?

A Well some, yes a little but to what I have just described.

Q Now, in wh t way do they differ?

A Well, there is a different soil.

Q Describe that difference, or indicate the difference?

A Difference, this is a kind of black clay, a loose clay and real shallow.

Q What is the character of the subsoil under those city lots?

A It is very gravelly.

Q What do you say as to the farm lots, 6.7 acres, describe that soil and the crops raised?

A That is a sandy, just about the same as the farm land is.

Q You are now describing the surface, are you? A. Yes sir.

Q What would be the depth of that surface soil?

A That varies from one to two feet or three feet deep in different places, be on an average of a foot and a half, I should judge.

Q Now, state whether that depth is uniform or whether it is

variable?

A It varies from a foot to two feet, it is uniform, that is, to take it in a whole, or nearly so.

Q Well now, either you don't understand me, or I don't understand you. It cannot be uniform and variable.

A It varies from one foot to two.

Q Throughout that tract? A. Yes.

Q What is the character of crops raised on that?

A Garden trucks.

Q Garden truck? A. Yes sir.

Q What duty of water is necessary to mature the crops upon that ninety-eight acres?

A Take about a 54 or 55 duty.

Q What duty would in your judgment be necessary on the city lots, fifty-five in number?

A Be about 40 or 45.

Q And on the farm lots, fifteen in number?

A That is what I say including -- I misunderstood you there, on the farm lots.

Q Now, the farm lots would have a duty of what, 40 or 45, is that the answer you wanted to apply to them?

A Yes sir.

Q Take the city lots, fifty-five city lots irrigated from the Factory Race below the provo Woolen Mills?

MR. THURMAN: May I ask a question for information. He gave a duty of 54 and 55, what was that on?

MR. COLEMAN: That was the ninety-eight acres.

MR. THURMAN: I want to put that 54 and 55 on the right land, that is the ninety-five acres?

A That is the ninety-eight acres at the lower end.

MR. JACOB EVANS: Including the Stubbs tract?

A Yes sir.

MR. THURMAN: Now the city lots, fifty-five in number.

MR. RAY: 40.

MR. THOMAS: He has not given that yet.

MR. A. L. BOOTH: Yes, he said 40.

A I misunderstood the question.

Q You gave the 55 acre duty for the ninety-eight acres?

A Yes sir.

Q And gave what duty for the fifteen lots, farm lots?

A 45.

Q What duty do you give for the city lots?

A 40.

Q Now then, I will direct your attention to the -- let's take up the Tanner Race, there are 314 acres under the Tanner Race, describe that land as to its soil and amount of water that you put on it and the crops that you raised upon or were raised upon it?

A That is a loose gravelly soil.

Q What would you say as to the surface depth?

A That varies.

Q From what to what?

A It is practically with very little -- is all the same kind of soil all the way through, that is at the lower end.

Q What would that be?

A It is mixed with gravel and kind of a loose sand, little bit formation, loose gravel and sand. Some places the same runs down four or five feet and gravel would crop out in the rolling condition all the way through. It varies, it would be hard matter to estimate the depth of the soil to take it on an average all the way through, it varies.

Q And the subsoil?

A Practically the same thing from top to bottom, it is a loose gravelly soil and the soil reaches down in places and the same way with gravel, you can scrape down in places and find nothing but gravel, loose gravel.

Q State if that condition extends practically over the whole of that 340 acres?

A Practically the whole of it.

- Q What is raised there?
- A Various crops.
- Q Farm crops? A. Yes sir.
- Q Usual crops raised in the neighborhood?
- A Yes sir.
- Q What in your judgment is the duty of water for that tract of land?
- A About a 48 acre duty.
- Q I didn't catch that?
- A About a 48 or 50 acre duty on that tract of land.
- Q Will that vary from 40 to 50?
- A Well say 50 acre duty.
- Q Let us take up the next, the city lots, 239 under the Tanner Race, what was raised upon those lots?
- A Various crops, strawberries and different things and some is vacant property.
- Q SPEAK louder.
- A I say various crops, garden truck.
- Q Garden truck? A. Yes sir.
- Q What is the duty of water to those tracts, describe the character of the soil first?
- A It is practically the same as the farm land, kind of a loose gravelly formation all the way through.
- Q What would be the duty for the city lots?
- A About 40 duty, I should judge.
- Q Direct your attention to twenty farm lots, nine acres in area, what was the character of that soil, can you place that in mind?
- A Well, I could not say for certain whether ~~that~~ this all lays in one district or whether they are scattered among the various parts of the -- under the canal.
- Q As I understand it, Mr. Farrer, these 20 farm lots are apart from the city lots and apart from the acreage marked as farm lots?
- A I understand that, but there is part of them at the upper end

and part at the lower end, are they included in that way?

Q I don't know, do you understand that?

MR. JACOB EVANS: Must be.

MR. RAY: I will submit if the witness don't know where they are, he should not pass an opinion.

MR. THOMAS We will find out.

Q Now, do you know whether there are lots at the upper end and lots at the lower end of the Tanner?

A Yes sir.

Q If there were lots at the upper end where would they be located?

A They would be located at the upper end of the canal.

Q Near or in proximity to this 314 acre tract?

A The 314 tract includes all the way along the canal.

Q Would some of these lots be near them?

A Yes sir.

Q And you say --

A In the northwest part of the city here is a great many, whether they are all in that part or not.

Q Listen to me, nevermind them. Would some of these lots be near that 314 acre tract? A. Yes sir.

Q Would you say some of those lots would partake of the same character of soil as this other? A. Yes sir.

Q Would you say the same duty would apply?

A About a forty acre duty.

Q Now, direct your attention to the City Race below the power plant, farm 345 acres, describe that soil?

MR. RAY: That is not the power plant, is it?

MR. JACOB EVANS: The foundry.

MR. THOMAS: It is power plant here.

Q 345 acres below the foundry under the City Race, what is the character of that soil?

A That is a gravelly, sandy loam.

Q What would be its depth?

A I could not say, it varies.

Q Louder, Mr. Farrer.

A It varies a great deal in different places.

Q Is there any uniformity as to depth over the whole tract?

A Practical about a uniform -- yes, I would say it was about uniform in that locality.

Q In depth? A. Yes sir.

Q Now, about what will be its depth?

A Well, I should say about two feet.

Q And the subsoil.

A It is a gravelly subsoil.

Q What crops are raised on it?

A Various crops of all kinds.

Q Orchards?

A Yes sir, some orchards.

Q What duty is required there?

A Run about a 55 acre duty there.

Q Now, the city city lots, forty-three number, what is the character of that soil.

A Practically about the same nature of soil, it may vary a little in different places, ~~be~~ kind of a clay in some places, just shallow soil.

Q What duty would you allow there?

A It is about a forty acre duty to water the city lots.

Q Now, there are two farm lots, can you ~~locate~~ locate those?

A Yes sir.

Q What is raised upon them, what kind of soil is it?

A It is a gravelly soil just the same as the farm lands.

Q And the duty would be the same?

A Yes, practically the same as the farm land area, joins right on to the farm land.

MR. RAY: What is the acreage of those farm lots?

MR. THOMAS: Nine-tenths, two lots, nine-tenths acres.

That is the City Race below the Provo foundry.

Q Now, on the City race about the foundry, 185 acres, what is

the character of that soil?

A That varies considerably, part of it gravelly.

Q Subsoil?

A Very gravelly.

Q And what depth of surface?

A Part of it is very shallow, kind of a black loamy soil with a very shallow soil all the way.

Q Speak louder?

A Subsoil is very shallow, or the surface soil.

MR. RAY: Now, Mr. Thomas, ^{he} says in all these cases it varies a good deal and part of it is gravelly, I don't get any meaning from that. Can't we have that more definitely if he knows.

MR. THOMAS: He is trying I think to give it best way he can.

Q What is the character of the subsoil?

A Gravelly.

Q What crops are raised upon it?

A Various crops, some alfalfa, grain, different kinds of crops, garden truck.

Q What duty of water do you allow there, or in your judgment should be allowed there?

A Duty would run about --

Q Louder, Mr. Farrer.

A About 40 acres on part of that.

Q What part of it?

A About half of it, I should judge.

Q Louder, Mr. Farrer.

A Half of it.

Q That is right, now you are talking. And the other half would require what?

A About a 50.

Q Now, I will direct your attention to the 345 city lots, what is the character of that soil?

Q That is a kind of a sandy clay, I should say.

Q What is the depth of the surface soil?

A About a foot to eighteen inches.

Q A foot to eighteen inches.

A Yes sir.

Q What is the character of the subsoil?

A Very gravelly.

Q What crops are raised upon it?

A Well, just garden truck and trees and such as --

Q What is the duty of water to those lots?

A About a 40 acre duty.

Q I will direct your attention to the farm lots, forty in number, aggregating eighteen acres, what is that character of that surface soil?

A Those farm lots, that is all above the foundry?

Q Yes.

A I was trying to locate them whether they were all in one place or not? Part of those lots is a very light soil, kind of a blank loamy soil and part of it little heavier soil, kind of a clayey soil.

Q What part of it is a heavy clay soil and what part the other?

A The lower part.

Q What portion of it?

A I should judge about half.

Q What would be the -- what is the character of crops raised upon these forty lots?

A Just vegetable and various other kinds.

Q Louder.

A Just vegetables, garden truck of various kinds.

Q What was the duty of water to be allowed to that tract?

A About a forty acre duty.

Q You may state if this duty was the duty that was apportioned, or allowed to these various tracts and lots during your term of office?

A. Yes sir.

Q Now, I will direct your attention to the platted area, what is the system or what was the system of irrigation when you began work as water master in Provo City?

A By issuing tickets to each property owner for the use of the water.

Q That was the system of issuing certificates, but what was your plan of irrigation, what method did you have of carrying water onto the lands in the city?

A By conveying it down each one of these ditches on the streets.

Q From where?

A From the various canals.

Q State if there was a ditch on every street from the canals.

You had main ditches, had you? A. Yes sir.

Q And where did those ditches run?

A They run down through the town north and south, run through the town streets running north and south.

Q I will direct your attention to that Exhibit 58 in the platted area of the city, you see the red lines, those indicate the ditches, I will ask you if those are practically the same when you began your work as water master as they are there platted?

A Yes sir.

Q State if you had laterals running at that time from your main ditches into the lots?

A Just individual laterals, they belonged to the individuals, the laterals that went from the ditches into the lots.

Q How many were there in each lot, how many laterals in each block tather?

A I could not say, there was quite a number.

Q Would they vary in number? A. Yes sir.

Q Where did your responsibility end so far as your duties as water master were concerned with reference to the platted area, when would you cease to have control of the water?

A I controlled the water the entire year.

Q Now, at what point in the laterals would you cease to control

A During the irrigation season.

Q Let me ask the question again, at what point in these laterals would you cease to control the lateral when it went into the lot, just before it went in or near .

A Controlled the water.

Q Did you have control of the water when it was running in the laterals as water master?

A Well, only control I had was turn it in and seen that it was kept in.

Q Then you did have control of it?

A Yes.

Q That was your duty, wasn't it, to put it in there?

A Yes sir.

Q Now then, just what did you do with the water and what control did you have of it when it went into the laterals, tell us fully?

A I did not have any control over it after it went into the laterals, that was up to the --

Q Do you mean to say you didn't have any control of it when it was running in the laterals in the streets?

MR. RAY: The witness means the individual laterals in the block.

A I misunderstood you, I understood you to say whether I had any control of it after it was taken --

Q Out of the street laterals into the private ditches?

A Into the private ditches.

Q Then your control ceased when it went into the control of the private ditches?

A Yes sir, it was up to the property owner.

Q Were there trees upon the street when you were water master?

A Yes sir.

Q State how those were irrigated?

A Biggest part of them was irrigated when the water runs down the ditches.

Q In the laterals? A. Yes sir.

- Q How were they irrigated upon the side streets?
- A Great many of them irrigated them with part of their water, allotted time, that was allotted to the lots. If they had a small area of ground they applied some to the trees running east and west.
- Q During your term of office did you as water master ever irrigate any of the trees upon the public streets?
- A No sir.
- Q during your term of office was that done by the individuals who were residents or individual irrigators in the city?
- A If it was done it was.
- Q If it was done at all? A. Yes sir.
- Q During your term of office as water master did you make measurements of the streams, did you keep an account of the water, the amount of water that was going into all the canals?
- A Yes sir.
- Q And those records you turned in to the water master or in to the office? A Yes sir.
- Q How frequently did you take the water from the Factory Race and turn it into the East Union Canal?
- A Every night and Sundays and holidays during the low water season.
- Q Did you turn all the water out of the canal?
- A Out of the race, yes sir.
- Q Out of the Factory Race? A. Yes sir.
- Q Even though there were irrigators under that canal?
- A Yes sir, that is, part of the time, there was some times be some running down to water those lands below and the pasture lands. There was some lands below that had to be irrigated, and chances are they would get it when the water was running down, during that time.
- Q How much water would you turn out of the Factory Race and turn into those other streams at those times that you have designated?
- A We would turn all that was going out except maybe a second foot

or two that would supply those below.

Q Speak louder?

A We would turn it all out except a foot or two, couple second feet, probably that would go down to water the city lots below there in various ditches.

Q How many feet of water would you turn out of the Factory Race?

A Well, it would vary from about 30 to 35 second feet, that would transferred into the other canals according to the amount that was in there.

Q During your term as water master, state if there was any time -- or let me put it this way, in what year did you have your highest flow of water?

A I think it was in 1907.

Q You may state if there were any measurements made that year?

A Not to my knowledge.

Q Why?

A Wasn't necessary, there was water going to the lake during the whole season, everybody had their canals full, I think it was the year 1907.

Q What year did you have your lowest water supply?

A In 1904.

Q During your term as water master did you have anything to do with the flow of water from the artesian wells in the city?

A No sir.

Q During your term of office as water master did the mills, the woolen mills or the Hoover mills or any of those mills shut down for want of water?

A. Yes sir.

Q What time?

A 1904.

Q To your memory did any other -- did they shut down in any other year?

A I think not, not that I can remember now, I don't remember.

Q You may state if you took any measurements of the river during your term of water commissioner?

- A No sir, I did not take any measurement myself, but I was with the commissioner, practically every measurement that he made.
- Q You didn't understand my question, did you make any measurement of the river during the time, during the term of office as commissioner? A, Yes sir.
- Q During your term of office as commissioner did you have anything to do with any part of the water distribution in Provo City?
- A No sir.
- Q Your duties were confined, I suppose to the upper -- just to the canals alone? A. Yes sir.
- Q Putting water into them?
- A (No audible response.)
- Q During your term of office as water commissioner what disposition did you make of the springs that flowed into the Provo River in the canyon there?
- A What springs do you mean?
- Q Are there any springs up in the canyon?
- A I didn't make any disposition.
- Q Are there any springs or seeps up in the canyon that find their way into the river? A. Yes sir.
- Q What are they?
- A There are various ones, some along by Heiselt's and all the way up the river in various places.
- Q Do you know where the Pony Steele Springs are?
- A Yes sir.
- Q State if any of those waters found their way into the Provo River?
- A In the low water season, yes sir.
- Q Are there any other springs that you can now name, do you know a spring that is sometimes called the Maple Spring or Cottonwood Spring?
- A I don't know it by the name of that, but I believe it is right on the Heiselt property, I could not say what the name of it is, I didn't know it by that name.
- Q Can you state what became of the water from that spring while

you were there as water commissioner?

A During the low stage of the river it went back into the river, during the time that I looked at it, of course I didn't know it run regular, but times I was there.

Q How many times were you there?

A I was there several times.

Q During the season ? A. Yes sir.

Q What disposition did you make of the water that came from those springs?

A It was taken and put into the Provo Reservoir.

Q The plaintiff company? A. Yes sir.

Q By whom, by you?

A Yes sir, that is, I took that proportion and put it into the reservoir.

Q Now, into the river --

A Into their canal.

Q Into their canal? A. Yes sir.

Q Under whose direction and authority did you do that?

A Well, understanding they had the right to that spring.

Q Now, you didn't, I think, understand me, Mr. Farrer, who told you they had -- let's put it this way, did they claim they owned the springs? A. Yes sir.

Q And who directed you for them to turn the water into their reservoir system?

MR. A. C. HATCH: Just a moment, if the court please, I submit that he has not said that they directed anyone.

THE COURT: I understood that to be the substance of his evidence. You may inquire further about that and find out whether he did so state. I understood him to so state.

MR. THOMAS: We could have the answer read.

THE COURT: No, you may ask the direct question whether anybody directed him.

Q Were you directed by any officer or any member, anyone of the plaintiff company, Provo Reservoir Company, to turn the water into the river? A. Yes sir.

Q Who?

A By Mr. Murdock and also Mr. Jacobs that had charge at the time.

Q Give that answer again, who directed you to turn that water in?

A Mr. Jacobs has a list of the water they had --

Q Answer the question, who directed you to turn the water in, your answer was Mr. Murdock? A. Yes sir.

Q And Mr. Jacobs?

A Mr. Jacobs was there at the time.

Q When was this.

A That was after the high water was over, I think sometime in June, I believe.

Q Of what year?

A In 1912.

Q How many times did they speak to you concerning that water?

A Well, at various times they would mention it whenever the water was measured. I think it was mentioned --

Q Speak louder.

A It was mentioned a great many times, I don't remember exactly how many.

Q Did you make any report of that to the court? that you had turned those waters in?

A I think I did.

Q If you did your report who would show it, wouldn't it?

A Yes sir.

Q Did anybody else claim that was water to your knowledge?

A No sir.

Q What decree were you acting under?

THE COURT: Might I interrupt, I don't just understand where he was directed to turn it or where he did turn it.

MR. THOMAS: He said he turned it into the Provo Reservoir canal.

THE COURT: That is the part I didn't understand, whether he turned it into the canal.

Q That is true, isn't it? A. Yes sir.

MR. A. C. HATCH: If the court please, he said he turned it into the river and then turned the same quantity out of the river into their canal. He turned it into the river at their request and also into their canal at their request.

THE COURT: I understand it now.

Q Did you say you turned it into the river at their request?

A It was turned into the river.

Q It was running into the river, wasn't it?

A Not at the time, part of it was at the time they directed it into the river before it was turned into their canal they were using it during high water on some trees, and after the high water was over it was turned so that it would turn back into the river again.

Q What springs are you referring to now?

A The Pony Steele springs.

Q Is it the Steele springs you are referring to?

A And the Heiselt springs, I don't know the name of the spring, it is above the Heiselt home.

Q Is it on the Heiselt home or how far above it?

A It is a short ways above the home there, small spring there, I don't remember just the distance.

Q In what kind of a grove or what kind of a -- describe where that spring rises?

A Well, just above Heiselt's place, rises on the hill, comes over the hill, use to convey it in a flume, if I remember right.

Q What became of that water, did it go into the river or was it used by someone. This spring that you refer to a spring that had been piped at one time?

A Yes sir.

Q By someone on the Heiselt place?

A Yes sir.

Q It was on the Heiselt place, was it? A Yes sir.

Q That is the spring you now refer to?

A Yes sir.

Q And the other springs you refer to were the Pony Steele Springs?

A Yes sir, below Heiselt's.

Q Below Heiselt's place? A. Yes sir.

Q When you say that the plaintiff company directed you to turn that amount of water out of the river which came into it by those springs, you didn't refer to -- you didn't mean by springs any other spring than that one on the Heiselt place?

A No sir, I refer to -- Heiselt claimed the spring.

Q And he had had it piped.

A Had it piped and using it on his property there.

Q And that is the spring you had in mind?

A Yes sir.

Q Now then we have got it straight again.

THE COURT: Did it rise on Mr. Heiselt's property?

A I think so, I wouldn't be positive, but I understand he owns quite a strip of ground in there, I could not tell where his boundary line was.

Q These springs that you have designated at certain seasons discharge water into the river?

A Yes sir.

Q And it was these waters or waters equivalent in amount to those that Mr. Murdock and Mr. Jacobs asked you to turn out?

A Yes sir.

Q Into their system? A. Yes sir.

Q Now, Mr. Farrer, what system did you adopt in determining the amount of water to be allotted to the various lots in the platted part of Provo City each season you begin your plans for issuing tickets and the like; what is your method in determining the amount of water to go to each lot and the time to be allotted to each lot?

A Why, there was time -- the council made a schedule of that distribution of the water that it should be distributed an hour and a half to each city lot, and two hours to an acre on farm lands, and I distributed that water down --

Q I didn't get that, hour and what? Hour and a half to a city lot?

A Yes sir.

Q How much to the farm land?

A Two hours to the farm lands two hours to the acre.

Q Pardon the interruption, go ahead.

A And I made out the time up and down those various ditches. through the city an hour and a half to each city lot, and distributed them commencing at the lower end of the city and going through to the north side, and then turned in the water during the irrigation season in each one of those ditches, after the time was given, to get out the time for the whole season, during the season we would make out the time and distribute it in the spring of the year for the irrigation of the farms, and the same way with the farm lands. On the west side of the city in the East Union, they were not timed only as they came along in their turns on the ditches, and if the water was in the canals. The other ditches was closed off throughout the city as the time went out water receded down, then went down the canal, closed some of the ditches off earlier in the week and then we would give the water out by period to each individual that was entitled to that water in turn according to the amount of land they owned.

Q In the city the water user at the end of the ditch would have his first turn? A. Yes sir.

Q And so on up to the head of the stream?

A Yes sir.

Q And then it would begin at the foot of the stream?

A Foot of the stream.

Q Or ditch? A. Yes sir.

Q Did every user, every irrigator, rather each year irrigate his lot?

A No sir, not always.

Q Was every lot irrigated each and every year?

A No sir.

Q What became of that water which was allotted to those lots which were not irrigated?

A Well, it was taken by others that would inquire in regards to

water, whether they could have -- some property that chances are there was buildings all over it and there would be others that would have a large area of ground that needed water. They would make arrangements, some of them, with other parties to get their turn of water to help out with their's on their various lots.

Q Under such circumstances were the lots sometimes over irrigated, have mre water than the land needed?

A Not to my knowledge.

Q Can you state now whether or not the water was generally applied to beneficial use throughout the city?

A Yes sir.

Q State if, during your experience, any of the water went to waste at ^{the} end of the ditches, or in any other way for that matter?

A. NO sir.

Q What was the condition during the high water season?

A Well, outside -- I allude to the low water season. Of course in high water there is quite a lot of water that passes on through the ditches in the early season that is not used, but after the high water why there is none goes to waste.

Q Did you keep any record, or did you have any time for irrigation during the high water season?

A Yes sir. it was timed, that is, all the time that was given out during the high water season.

Q Would you restrict -- put it this way, did you ever restrict the use of water to lots during the high water season?

A NO sir.

Q Why,

A Because it was not necessary.

Q During the low water season?

A Yessir.

Q Was it at that time then that the tickets or certificates went into effect?

A Yes sir, more, it was brought down to a regular turn of course there was --

Q During the ticket season or the low water season what amount of water would you divert into the laterals in the city?

A Well, from a half to three quarters of a second foot.

Q What was the result when a half a second foot was used?

A There was a very small stream; of course, a great deal of the garden stuff which would be done away with by that time when it was right low, and it was applied to their orchards and the things, just to keep --

Q In your judgment would half a second foot been sufficient to have maintained the proper moisture for the crop in the early season?

A Not the whole season through, that is, half a second foot, I said from half to three-quarters, it would vary a little.

Q Did you have more than that during the low water season?

A No sir, not any more than three-quarters of a second foot I shouldn't judge,

Q That is your judgment? A. Yes sir.

Q And less than that would be insufficient?

A Yes sir.

Q During your experience as water master do you know -- can you now state whether or not any crops were raised with a less amount of water than you say had been put upon the land or was necessary to put upon the land?

A Not to my knowledge.

Q From your knowledge can you state now whether or not there was any water wasted during the irrigation season during your period?

MR. RAY: Object to that as having been asked and answered twice before.

MR. THOMAS: Probably it has, the question is withdrawn.

Q While you were water commissioner, how did you divide the water, what was your plan and system of dividing the water, and how did you divide it, what portion did you give to the various

canals?

A I divided it under the Morse decree, that is, in the various canals, their proportion, according to the stage of the river.

Q That was your method? A. Yes sir.

Q And understanding? A. Yes sir.

Q And guide? A. Yes sir.

Q Did you have any other decree to guide you?

A Yes sir.

Q What?

A The Chidester decree.

Q Those two decrees, Morse Decree and Chidester decree?

A Yes sir.

CROSS EXAMINATION by Mr. Jacob Evans.

Q Mr. Farrer, you have given your judgment as to the character of the soil under those various irrigation ditches, now, I call your attention here to a tract of land marked on Exhibit 58, called B. Y. U. Alumni Association, 19.24 acres, how deep is the surface soil on that tract of land?

A Well, the surface soil on that is two or three feet deep.

Q What kind of subsoil?

A Subsoil is clay down quite deep.

Q How deep?

A It varies all the way from four to twelve feet, I should judge.

Q Did you dig any holes on it?

A No sir.

Q How do you determine the depth of the subsoil and surface soil without making some excavation?

A Well, there is a canal runs ~~xxx~~ right down to the side of it that is washed down by the stream that is shows on that side. I wouldn't say it reached plumb across.

Q Let's get over here to the G. O. Haws tracts What is the depth of the surface soil on that tract?

A Surface soil is a little different soil, it is a black loam,

part of it and clay soil on the other, on the upper end.

Q How deep?

A It varies from, I should judge about from two to three feet distance --

Q That is the surface soil two feet deep?

A Yes sir.

Q What is the subsoil?

A Well, there is -- I could not say for that only on the upper end it is a clay.

Q How did you determine the depth of the soil on that tract?

A Had some drain ditches dug in part of it. The soil is shallower at the lower end than it is at the upper end.

Q Did you measure the soil when this drain was open?

A No sir, only just by information.

Q Whereabouts was this drain ditch dug?

A Towards the lower end.

Q Was there any openings on the upper end that you could determine the depth of the soil there?

A Only in the streets, just by division on the north side.

Q Let's take the George Eagan tract, what is the depth of the soil through there?

A That is shallow soil.

Q How deep.

A Black loam, I never -- I should judge about a foot to two feet deep.

Q What is the subsoil?

A I could not say for that, I never dug down into it.

Q Did you ever see any openings on that tract at all?

A Well, yes.

Q Where and when?

A When he had a drain dug through it there was clay substance, by recollection.

Q What were they digging drain on that land for?

MR. THOMAS: Object to that as improper cross

7 examination, immaterial what they were digging them for.

THE COURT: Objection is overruled.

A I suppose to drain their springs that was on there.

Q Was the surface water near the surface at this point?

A Yes sir, one point of it?

Q How near to the surface?

A One spring come right out on the surface.

Q How far across the George Eagan place was the drain dug?

A I could not say at present.

Q Now let us take the south tracts of the George O. Haws 10.20 acres, what kind of soil was on that tract of land?

A That is a loose clay soil.

Q How deep?

A I should judge about a foot or eighteen inches.

Q And what was the subsoil?

A Probably about the same as the Eagan soil.

Q Were there any openings on that in the ground so that you could determine the depth of the soil?

A No sir, not as I remember^{only} by the ditches on the west and sough side.

Q And how deep were the ditches?

A From two to three feet, if I remember right.

Q And you determined the character of that soil then from the ditches altogether?

A Yes sir, I did not dig on them.

Q All right, lets take the Block 25, Plat B, what kind of soil is on that block?

MR. COLEMAN: Whose place is that?

A That is the Andeline property, I believe.

Q Do you know whether it is or not?

A I think so.

Q What kind of soil, what is the surface soil on that block?

A I should say it was a kind of a loose clay soil.

Q How deep.

A I never dug in to see; it is, I should judge, shallow

information by observation.

Q That is by looking at the surface of the ground, judge it was shallow?
A. Yes sir.

Q But you didn't dig into it to determine?

A No sir.

Q Then you don't know what the depth of the soil was on that block at all?
A. No sir.

Q All right, lets take the block south, Block 41 in the same Plat, what is the kind of soil on that block?

A I could not say just at present because I cannot call to memory.

Q Did you ever dig into it?
A. No sir.

Q Ever seen it open?

A Not as I remember at the present time.

Q All right, let's take Block 39 then, same Plat, tell us what the surface soil is on Block 29. When I refer to Block 41, I should have said Plat C, Block 25.

A Block 41 is where Keeler lives, I believe.

Q Let's take Block 40, plat C, Provo City survey, what kind of surface soil is there on that block?

A I believe it is sandy gravel there, I am not positive.

Q Ever dig into it?
A. No sir.

Q Don't know the depth of it.
A. No sir.

Q Lets take Block 39 in the same plat which is the block just west of Block 40, and tell us what kind of soil that is?

A I could not call to mind, I don't remember.

Q Don't remember. Did you ever dig into it?

A No sir.

Q Ever see any openings on it?

A Not to my knowledge.

Q Block 38, that in the same condition?

A I never dug in any of this property at all.

Q Never dug in any of these lots in the city?

A No sir, not to my knowledge.

Q Then you don't know what the depth of the soil is?

- Q Then you don't know what the depth of the soil is?
- A No sir,
- Q On any of these blocks except as you determined from a superficial examination?
- A That is all.
- Q Now, isn't that very largely true concerning all of the farm lands about which you testified?
- A Well, in some parts, various parts of the land that I have seen the --
- Q Where you have seen it exposed? A. Yes sir.
- Q But where you have seen it exposed it is a very small percentage of the whole tract lying under the system irrigated by Provo City, is it not?
- A No sir, not under the whole system.
- Q I say it is a small proportion.
- A In what way do you mean?
- Q Of percentage where you have seen the land and actually dug into.
- A Well yes, that is to be dug into.
- Q That is what I am asking? A. Yes sir.
- Q So that where you have actually seen the land open, what would be the percentage of the land that you have actually seen dug into and open that is irrigated under the Provo System?
- A Well, there isn't very many that I ever dug into.
- Q Just a very few? A. Yes sir.
- Q And when you gave the court your judgement as to the character of the soil and the depth of the soil, surface soil as well as the subsoil, you did that based upon a mere superficial examination of the surface of the ground?
- A And by the sewers dug through on the streets of course I concluded it would extend under the property between.
- Q But in any of these cases you made no measurement and no memorandum of the depth of the surface or the subsoil, did you?
- A No sir, I never made no measurement.

Q Never did at any place? at Provo City or under this irrigation system?

A No sir, only where I seen it opened.

Q But you only saw it opened and then made no measurements of it did you? A. No sir.

Q And made no memorandum of any of these measurements?

A No sir.

Q Let us take the Elizabeth Stubbs tract, do you know where that is? A. Yes sir.

Q In the southern part of the city? A. Yes sir.

Q What kind of land is that?

A That is a gravelly sandy ground.

Q Would, in your opinion, that tract of land require about the same quantity of water as other tracts of land under the Provo River system? A. No sir.

Q What would it require, more or less?

A It would require less.

Q How much less?

A Well, chances are five or ^{six} second feet less.

Q Five or six second feet, what do you mean by that?

A That is a higher duty.

Q What would you say would be the duty for that tract?

A On that land I believe it would run about 55.

Q About 55?

A Yes sir, I think so.

Q That is what you put most of the other land, isn't it, from 50 to 55?

A Some parts of it.

Q Where is there any you put at any other or different duty than from 50 to 55?

A In the west part of town.

Q What did you put that at?

A 45, if I remeber right.

Q 45. You think then the Elizabeth Stubbs tract would require about the same duty as all the other lands that you have put

in at 55, do you? A. Yes sir.

Q Now, taking the various city lots that you have testified to, you find the soil varies in many cases, don't you?

A Yes sir.

Q And yet it is a fact, is it not, that you have given the same duty of water to all of the city lots through out the entire area of provo City? A. Yes sir.

Q You don't think just a variation in the character of the surface and subsoil makes any difference, do you, as to the duty of water?

A Yes sir, it makes a difference.

Q You give the other all the same duty, don't you?

A They have practically -- under layer of subsoil.

Q I am talking about the same duty, you give all the lots in provo City the 40 acre duty? A. Yes sir.

Q Every one of them, and yet you say the character of the soil is different in some of the lots?

A Yes sir.

Q But you don't think that makes any difference so far as the requirement for water is concerned, do you?

A Well, practically.

Q What is that?

A In practice not much difference.

Q Doesn't make any difference, does it?

A No sir.

Q What?

A In practice.

Q What do you mean by "in practice".

A Well, it doesn't -- area of the ground wouldn't require any more, chances are with the deep soil it would pass over quicker than others.

Q Your opinion is, however --

A If it is a gravelly, sandy ground it will sink and won't run over.

Q Your opinion is, however, when you give the duty you make the

duty on all the city lots a duty of one second foot for each forty acres of land, don,t you ?

A Yes sir.

Q And you do that irrespective of the character of the soil?

A Yes sir.

Q Do you think that is a proper duty?

A I do.

Q Irrespective of the character of the soil?

A Yes sir.

Q And on the farm lands you give a duty of substantially 50 to 55?

A Yes sir.

Q Irrespective of the character of the soil ?

A Yes sir.

Q Do you think that is a proper duty?

A I do, under the system.

Q Now, did you ever experiment with a tract of land by actually measuring the quantity of water that was used during the irrigation season?

A Not going on to a piece of land.

Q Did you ever measure over a weir, or with any other measuring device a given quantity of water then turn it on to a tract of land to determine how much water would be required to irrigate any particular tract? A. No sir.

Q You have never done that at any time? A. No sir.

Q In turning your water from the main canals into the various laterals, did you, while you were water master, have any measuring devices to determine how much water you turned into the various laterals? A. No sir.

Q How did you determine then the quantity of water that you were turning in to these laterals?

A By judging the amount of water.

Q By guessing at it? A. Yes sir.

Q Did you take into consideration the velocity of the water?

A Yes sir.

Q In looking at it? A. Yes sir.

- Q And the depth of the water? A. Yes sir.
- Q And the width of the water? A. Yessir.
- Q And is it your judgment that you can determine by looking at a stream how much there is in it without measuring it?
- A Pretty close.
- Q How close?
- A Well, I couldn't say.
- Q Within what percent?
- A Small streams, why come within quarter of a second foot or eighth of a second foot.
- Q How close can you come with a large stream? say a stream carrying 25 second feet?
- A Well, I couldn't guess at that, that is, to make any close estimate of it, that would be hard to determine.
- Q How close could you come to it?
- A That would be according to the current it had or flow.
- Q That would depend upon the current in a small stream as well as a large one, wouldn't it?
- A Yes sir.
- Q What would be your judgment as to the percentage in a large stream?
- A I have never guessed at any large stream, never made no estimate.
- Q Now, the only measurement that you ever made at all under the Provo River system as I understand it during your administration, was to measure the water at or near the intake of the East Union Mill Race, the City Race and Tanner Race?
- A Yessir.
- Q And when those measurements were made none were made to any of the laterals below? A. No sir.
- Q But you merely turned out the water through those laterals based upon your judgment as to what each ditch ought to have?
- A Yes sir.
- Q And in many cases isn't it true that you had no head gates through which to run that water, but merely used rock and earth and brush and anything that you could get to turn it?

A No sir.

Q Isn't it true on 2nd East Street here?

A It was true when I went in, but after that I put gates in.

Q What kind of gates did you put in?

A I put in wooden gates and locked them.

Q And you knew the width of those gates, did you?

A Yessir.

Q Were they always on the same elevation?

A Yes sir.

Q For what distance back from the gate would they be on the same elevation?

A They were on the same -- well, they were not all in one place.

Q I mean would the current of the water be the same approaching these gates in all lateral ditches? A. No sir.

Q It would vary, wouldn't it?

A Yes sir.

Q In all the ditches? A. Yes sir.

Q Some places it would run approaching the gates, much faster than it would other places? A. Yes sir.

Q And yet you made no measurements to determine the quantity of water going through the gates?

A No sir, no measurements at all.

Q No measurements at all. Now, in making out your tickets for the distribution of the water during your administration, you would do that during the winter time, wouldn't you, so far as the Mill Race, the City Race and Tanner Race was concerned, and for the lots within the platted portion of Provo City?

A In the springtime we would, yes sir.

Q In the early spring, ^{or} in the winter time? A. Yes sir.

Q And you would distribute them during the early spring time, wouldn't you?

A No sir, not until in the irrigation season, in April.

Q Along in April you would distribute them?

A Yes sir.

Q That was before the high water had commenced to go down, wasn't it?

A Yes sir.

Q Everybody was put on turn during high water as well as low water, wasn't they?

A They taken out what they wanted, didn't use their turns, great many.

Q They were given tickets?

A They were given tickets, yes sir.

Q And those tickets provided the quantity of time they were to have to irrigate each one of their lots? A. Yes sir.

Q And that was true during high water as well as low water, wasn't it? A. Yes sir.

Q And you made no distinction that time as to high water or low water, did you? A. No sir.

Q You gave them an hour and a half for a city lot in June exactly the same as you give them an hour and a half for a city lot in August? A Yes sir.

Q And that was true throughout the entire city, wasn't it?

A Yes sir.

Q And that was true to each and all of the city lots no matter where they were located? A. Ye sir.

Q And no matter what the soil of those lots might be?

A Yes sir.

Q And so far as your farm land was concerned, you gave tickets to farm lands under the races which I have named, that is, this Mill Race, the City Race and the Tanner Race, those tickets in the were made out same way the tickets for the city lots, weren't they? A. Yes sir.

Q And distributed throughout the early part of the season?

A Yes sir.

Q Along in April, and you gave two hours to irrigate each acre of land?

A No, that was changed to one hour because they wanted it. One season they tried it on a two hour acres and could not prodge the crops because they had their things in that wanted

water and it was changed to one hour. The farmers came in and wanted to take and water half of the ground one week and half the next, change it around.

Q But that was equivalent to the same thing, wasn't it?

A Equivalent to the same thing, yes sir.

Q It was two hours for the irrigation of the farm lands when they used it every two weeks? A. Yes sir.

Q Or it was one hour for the irrigation of each acre of farm land when they irrigated it once each week?

A Yes sir.

MR. A. C. HATCH: Mr. Evans, he has answered as to the farmers having put one hour instead of two hours in irrigating half of their land one week and half the next, I don't understand that.

Q Did we understand you correctly they wanted to irrigate half of their lands one week and the other half the next week?

A That is the way they would have to do on their allotted time. They would have where they changed their time during the one week. service, they could not water all their ground during that time, they may have some stuff growing they required the water once a week and preferred having it in that way in order to make the water better use, better advantage to their own use.

Q Now then is they irrigated a lot on one hour once a week and that is an acre of land once a week and then exchanged and irrigated another acre on an hour what difference would there be if they gave them two hours to the acre or one hour to the acre?

A That was all according to the crop that was in.

Q That is, that was varied then in special cases where they required it? A. Yes sir.

Q But it didn't vary the whole system, as I understand it?

A I couldn't say for that.

Q For instance you would make up your tickets and deliver them

during the early spring? A. Yes sir.

Q And the allotment was two hours for each acre of land?

A Yes sir.

Q Now, when anyone wanted that changed they would request you to change it and you would change it?

A Providing it was so that I could.

Q But your system and your practice was to irrigate one acre of land in two hours? A. Yes sir.

Q And the tickets were issued in that way? A. Yes sir.

Q And they were issued to everybody who owned farm lands uniformly in that way? A. Yes sir.

Q As I understand it the acreage was irrigated generally speaking every two weeks, wasn't it?

A Yes sir.

Q And the city lots were irrigated every week?

A Yes sir.

Q And you gave two hours to irrigate each acre of land, farm acre? A Yes sir.

Q And one hour to irrigate each city lot, one hour and a half?

A Hour and a half.

Q And there was less than half an acre in each city lot, wasn't there? A. Yes sir.

Q Now then in distributing your water there to the East Union, that was distributed from time to time as the farmers required the water, as I understand it? A. Yes sir.

Q And in making your distribution did you distribute to them two hours in time for each acre of land that they owned?

A Some of them, yes.

Q How many of them?

A Well, just as in proportion to some ground, it was wherever they wanted that we figured on the bases of two hours, some ground wouldn't require that.

Q Some ground wouldn't require it?

A No sir.

Q That is, you had no ground but that could be irrigated then

- with two hours time for an acre of land?
- A I don't remember of any but what could be watered.
- Q But there was some that didn't require that much?
- A Yes sir.
- Q For instance, if a person would come to you and say "I want to irrigate my land, I have ten acres".
- A Yes sir.
- Q You would issue him then a ticket which would entitled him to the use of the water for twenty hours? A. Yes sir.
- Q And that was the rule there, wasn't it?
- A Yes sir.
- Q So that in making your distribution of the water you aimed substantially to deliver the same quantity of water and the same hours in all parts of the irrigation system?
- A No, sir.
- Q How did you judge that?
- A Because you could not give the same quantity to all.
- Q I understand, but so far as the time was concerned you give them the same time?
- A Same time, some of them more.
- Q Did you give some of them bigger streams than others?
- A Yes sir.
- Q Where did you give bigger streams?
- A In the west part of town bigger streams and had more time, that is smaller streams.
- Q In the west part they had a smaller stream or bigger stream?
- A They had some a bigger stream, some smaller.
- Q Would that depend upon the character of the land they had?
- A No sir.
- Q Why did you give some a bigger stream and some a smaller stream then?
- A They wanted longer time and less water.
- Q I see, but the whole thing worked out so that they got the same quantity of water, didn't it? A. Yes sir.
- Q And that was true throughout the entire system, wasn't it?

A yes sir, tried to divide that water as near as possible , and do the most good.

Q I understand that is the point. So that, in every part of the city each man who owned an acre of land you tried to distribute that man the same quantity of water for that acre of land that you distributed to any other man owning another acre in the same locality?

A. Yes sir.

Q So that you made no distinction in your distribution of water among the farmers on account of the different characters of the soil that they had, did you?

A Distinction if a man had a hard piece to water why another had ground that did not require that amount of water I could increase the stream to him.

Q I know, but if a man had a hard piece to water you give him two hours to water it?

A Give him two hours, and as much water as I could spare.

Q Was there many cases of that kind?

A Yes, quite a number.

Q Where are they?

A There is various lones down at the lower end of the East Union.

Q Who are they down there?

A Well, there is Heddenburg and Nuttall.

Q How many hours did you give Heddenburg to irrigate his land?

A I would give him the same amount of hours, only give him more water.

Q Where did you get this water to give to Heddenburg more than you would give to anyone else along that ditch?

A These certain ditches that closes off certain times of the week and put those tracts of land on, when we had the water to spare, after the irrigation of some of these ditches was closed down.

Q Did you work it in such a way that Heddenburg's time come, you had water you could take to give him from somebody else?

A Wouldn't be taken from anybody else, we could increase the stream to him beneficially to the farms.

Q In other words you didn't have any uniformity about your streams did you, at all?

A No sir, not to measure them.

Q Your streams would vary every day, would they?

A Yes sir.

Q And they would vary in the day time and in the night time particularly on the East Union?

A Certainly.

Q In the day time your streams probably wouldn't half as large as they would be in the night time, would they?

A No sir.

Q Yet you distributed the water to them on the same basis, two hours to an acre, didn't you?

A Sometimes there wasn't any to distribute in the day time.

Q They did irrigate some in the day time over there, didn't they?

A Very little on the farms.

Q You had about 18 second feet in that canal, didn't you, during the day time? A. Yes sir.

Q What did you do with that?

A I couldn't say all the time.

Q That was the quantity you aimed to turn into that canal during the day time, wasn't it?

MR. THOMAS. It is not a question what he aimed to do.

Q That is what you did turn out, didn't you?

A It would vary from fifteen to twenty.

Q It would vary from fifteen to twenty during the day time?

A Yes sir.

Q Then how much would you turn in at night?

A About fifteen or sixteen second feet.

Q About fifteen or sixteen second feet?

A Yes sir.

Q That would make it carry approximately thirty or thirtyfive second feet? A. Yes sir.

Q In the night time, now, didn't those people who irrigated in the

night time have the benefit of that additional water that you turned in?

A. Yes sir, they would have the benefit.

Q And their streams would be approximately nearly one half larger than the streams in the day time, wouldn't they?

A Yes sir.

Q And yet you would give them the same number of hours to irrigate an acre of land?

A No sir, not where there was a small stream he would have longer time than he would with a larger.

Q But your basis was two hours to the acre?

A Basis was that, but would have to base your water --

Q What proportion of the Mill Race would you take then and turn to other canals and what other canals would you turn it to?

A Into the Tanner Race and City Race.

Q Into the Tanner Race and City Race? A. Yes sir.

Q When that water was turned in there -- it had been distributed at the commencement of the season, hadn't it?

A Yes sir.

Q And when it was turned in, wouldn't the man who got his turn during that time that that water was turned into those races, get a very much larger proportion of water than the person would who had his turn when the water was not turned into those races?

A Certainly, yes sir.

Q So that some irrigators get very much more water under that system than others did, didn't they.

A Not very many, when it took the week through.

Q You had the Mill Race twelve hours every day, didn't you.

A Yes sir.

Q You turned it off at five o'clock in the evening and turned it back in again at five o'clock in the morning?

A Yes sir.

Q And you had the use of about how much water during that time?

A From 20 to 35 second feet according to the amount that was in there.

Q I presume the people who raised their crops with water used in the day time got just as good crops as the man who raised at night, didn't they?

MR. THOMAS Are you testifying, Mr. Evans?

MR. JACOB EVANS: I am cross examining, which I have the right to do.

MR. THOMAS: Is that a question mark or exclamation mark at the end?

Q You can answer that question.

MR. THOMAS: Do you understand the question, Mr. Farrer?

Q Read him the question if it is not clear, ^I will try and make it clear.

(question read)

Q As the man who raised is crops with water used in the night time?

A Well, I never heard any complaint.

Q No body complained about using the water in the day time, did they?

A There is very few gets water all in the daytime.

Q I say, nobody complained about using it in the day time?

A No sir.

Q You say there is very few people that gets water in the day time, what becomes of the water that is running in the canal during the day time?

A You misunderstood me,

MR. THOMAS The witness didn't say that, Mr. Evans.

Q What did you say concerning that then?

A Very few tracts that in the farm land that is given out night and day. Chances are part of that land is watered in the night as well as in the day, larger tracts that --

Q Mr. Farrer, when you made out your tickets at the beginning of the season, don't their turn come around, we will say -- we will

take the city lots for instance, don't they come at the same hour on the same day of each and every week?

A Yes sir.

Q Now, is that not true with respect to the farm lands?

A Yes sir.

Q Well then, a man who gets water, commencing, we will say at ten o'clock in the morning and it runs until five o'clock in the afternoon, doesn't that turn come at that ~~xx~~ time during each of his irrigations during the entire season?

A Yes sir.

MR. THOMAS: What ditch, Mr. Evans.

Q Under any of the ditches, such as the Mill Race, the City Race of the Tanner Race.

A Yes sir, that is timed in the day time.

Q It would be in the day time during the entire season, wouldn't it?

A. Yes sir.

Q And those people who are timed in the day time during the entire season, you may state whether or not they get as good crops as the person whose time comes in the night time?

MR. THOMAS: Object to this as improper cross examination and entirely immaterial, going into the realms of night water and day water, I don't know there is any difference.

THE COURT Objection is overruled. I think it is proper cross examination. He stated repeatedly, as I remember it, persons who watered in the night time get more water.

MR. JACB EVANS: Yes, that is the way I understood it.

MR. THOMAS There is testimony to that effect.

THE COURT: Yes, considerable testimony to that effect. I think this would be proper cross examination of the statement made by this witness.

A Yes sir, I believe they would.

Q But it is a fact that people who are timed in the night time get more water than those whose time comes in the day time?

MR. THOMAS: Object to that as needless repetition.

MR. JACOB EVANS: All right, just a minute,

Q Concerning the water in the Mill Race, did you ever turn the water off the Mill Race at a time when the water was low and the farmers required the use of that water?

A Yes sir.

Q Did you take it as a matter of right, or did you make any arrangements with the mill owners about it?

MR. THOMAS: Object to this as immaterial.

THE COURT: Objection overruled.

MR. THOMAS: Exception.

A For the benefit of the farmers.

Q Whenever you required it for a farm, you may state whether or not you went and turned off the Mill Race and took it for the farms?

A Yes sir, I was instructed to do so.

Q Did you do that as a right in the city or did you make some arrangements with the mill owners?

A I don't remember ever making any rights during that period.

Q Don't remember what.

A Making any suggestions to the mill owners.

Q Simply went and took it.

A Water was low and it was impossible to irrigate in the low season, and be no benefit to either party to let it run down the Mill Race.

Q And you claimed that as a right all the time, didn't you, whenever it was necessary to take that water from the Mill Race to take it and use it on the farms?

A Well, I was so instructed.

Q And you followed those instructions?

A To a certain extent. I had no other occasion only one season.

Q Who instructed you to do that?

A City Attorney and --

Q City Council.

A City Council.

MR. THOMAS: Who was City Attorney at that time?

A I believe it was Mr. Evans if I remember right.

Q The instructions were obeyed, weren't they?

A Yes sir.

Q You got the water whenever you went after it?

A I generally got it whenever I went after, I looked after that part of it.

Q Just went and took it? A. Yes sir.

Q Whenever the farmers needed it, and you did that during your entire administration? didn't you?

A That is the only occasion I had to do it.

Q Now, what are these farm lots that you have testified to, what do they consist of?

A Why, it is estimated, consisted in the various parts of the city --

Q What are they?

A They are lands just the same as any other city lots.

Q Who are they called farm lots?

A Farm lots because the parties living in the field that way they wish to be timed with the same pro rata as the city is in the platted portion, and it is estimated that the same amount of ground and wish to have the same stream once a week in order to produce a garden crop.

Q What is for the purpose of irrigating their garden in the immediate vicinity of their homes, which are located on their farms?

A Yes sir.

Q And those farm lots are situated in different localities of the city outside of the platted portion of the city?

A Yes sir.

Q In other words, whenever a man builds him a little home on his farms and plants him a little garden, that constitutes a farm lot, does it? A. Yes.

Q And he gets his water then once a week?

A Yes sir.

Q And that is what has been referred to as farm lots?

A Farm lots, yes sir.

Q And when he has a farm lot, you may state whether or not you

distribute water to him on the basis of an hour and a half for his farm lots if it is the same size as a city lot in Provo City? A Yes sir.

Q And once a week? A. Yes sir.

Q In other words, you use him just the same as though ~~h~~ he lived in the city on one of the city lots?

A Yes sir.

Q Is there any limit as to the amount of land a farmer may have irrigated in that way? A. Yes sir.

Q What is the limit?

A Limited on the same size as a city lot.

Q Can he have two or three or four city lots?

A Generally have just one or some two.

Q Do you know of any cases where they have more than one?

A Yes, one.

Q Who?

A I think it is L. L. Nielsen down below the track.

Q How many lots does he have?

A Two, I believe.

Q Does anybody have more than two lots?

A I cannot call to mind just now, I think there is though.

Q Well, if you know who they are and how many lots they have, I wish you would state?

A I think Mr. Beesley out here in the east part of town has.

Q Do you know how many lots he has?

A I cannot call to mind just now.

Q What is your best recollection as to the number?

A I believe he has got four or five lots, I wouldn't be certain.

Q Four or five lots? A. Yes sir.

Q Suppose a person would say I want to have water drawn for a ten acre tract on the basis of farm lots, would you then turn that water on the same basis you turn water for city lots?

A Where they ~~take~~ come under one of the city ditches, under the city ditches except the Nielsen piece, I believe.

Q I don't think you understood my question. You didn't answer it. Will you read it please.

(question read)

A No sir, I never do.

Q How many lots do you limit a person to as to farm lots?

A I never limited him.

Q That is what I am trying to get at, is there any limit?

A Not to my knowledge.

Q Then if a person wanted to draw the water on the same basis they draw it from the city for ten farm lots he could draw it on that basis, could he, under your system?

MR. THOMAS: Object to that as not proper cross examination, there is nothing of that kind in the evidence.

A I could not answer that question.

THE COURT: He says he can't answer the question.

Q Now, you say you measured the -- that is you turned the water of the Heiselt and Pony Steele Springs into the canal of the plaintiff, Provo Reservoir Company?

A Yes sir.

Q Do you know how much water you allowed for those springs?

A I don't just remember, I believe one of them is half a second foot, if I remember right. I had notes made of it. They have been mislaid, at the time.

Q Didn't you turn the one and a half second feet?

A No sir, not from the Pony nor the other.

Q Have you a record of it showing the quantity you turned?

A I did have a record, but I cannot find it, I left all the records I had with the city and I have not been able to get hold of them.

Q Have you looked for them?

A Yes sir.

Q Can't you find them? A. No sir.

Q Did you make a report to the court showing --

A Yes sir, I did.

Q Will you look it up and see if you can find that record?

A Yes sir.

Q And tell us tomorrow morning, or sometime during this trial, just how much water you turned to the plaintiff for the springs known as the Pony Steele Spring and the Heiselt Spring and another springs arising in the bed of the Blue Cliff Canal and just above it, and flowing into the bed of the Blue Cliff Canal.

MR. THOMAS: That wasn't gone into in his testimony.

A I don't know of any that runs in the Blue Cliff Canal.

Q I am asking you to look up your record, see what you did concerning it .

A I will.

Q Now, the Steele springs and the Heiselt springs were used to irrigate the land belonging to Mr. Heiselt and Mr. Steele.

A Yes sir.

Q And they had orchards on their ground there, didn't they?

A Yes sir.

Q And had used those springs for many years to irrigate that land?

A I think they did, yes sir.

Q And when the Reservoir Company succeeded to the rights of these parties they merely turned that water into the river, and asked you to turn it out into their canal?

A The instructions I got from them they had purchased those springs and they turned it off and I told them I could not turn that off, turn it into their canal until after it was turned back into the river.

Q And they did turn it into the river?

A Steele Springs is below the Provo Reservoir head gate.

Q But it was turned into the river and you allowed them the use of the Provo Reservoir Company of the quantity of water that they had in those springs which was turned into the river, didn't you?

A. Yes sir.

Q But you don't remember now that quantity?

A No-sir.

5:00 P. M., Recess to 9:30 A. M., June 23, 1916.

DAVIS & CHAMBER, SHORTHAND REPORTERS, 111 N. 1ST ST., SALT LAKE CITY.

CROSS EXAMINATION by Mr. Jacob Evans continued.

Q Mr. Farrer, when does the irrigation season begin under the Provo System.

A In April.

Q What time in April?

A Well, it varies different seasons, it commences along about the fifteenth of April.

Q When does it end?

A About the last of September or first of October, some years a little later.

Q And ends when.

A About the first of October or fifteenth of October.

Q Do you mean to be understood as saying that the water users under this system commence to take their turns regularly and continue to irrigate from the fifteenth of April to the first of October?

A No sir, not regularly.

Q How many days would you say constitute the irrigation season?

A About one hundred and fifty days, along there.

Q About one hundred and fifty?

A About three or four months.

Q And you think they irrigate regularly for one hundred and fifty days, do you?

A Yes sir.

Q Now, would that be so on a crop of wheat?

A Yes sir.

Q Do they irrigate a crop of wheat for one hundred and fifty day, you say they would?

A No sir, not for one hundred and fifty days.

Q How long would it require for the irrigation of a crop of wheat?

A That would be shorter than other crops.

Q How long would it be?

A Sometime in July, that would be about --

- Q When do they commence to irrigate a crop of wheat?
- A They commence in May sometime, May, June and July.
- Q And irrigate it how late?
- A Up until July, about the fifteenth.
- Q About the fifteenth of July?
- A About the fifteenth of July.
- Q When would they commence to irrigate a crop of sugar beets?
- A Varies, some years they commence earlier, some years little later.
- Q What would be the average?
- A In May.
- Q What time in May?
- A Forepart of May and first of May.
- Q What would be the last irrigation?
- A Well, up until October.
- Q Take fruit trees, when^{would} they commence to irrigate fruit trees?
- A Well, they commence in May, April and May, just according to the season.
- Q Do you know of any year while you were water master that the fruit trees required to be irrigated during the month of April?
- A There aren't many fruit trees under the city irrigation, outside of the city lots.
- Q There are a good many under the city lots, aren't there?
- A There is a few.
- Q Do you know of any year while you were city water master that they irrigated fruit trees during the month of April?
- A No sir, not to my knowledge.
- Q When would they commence to irrigate them then?
- A Later on, according to the season. If the soil required it, they would have to water earlier.
- Q What would be the average time?
- A Commence some time in May or latter part of April or first of May.
- Q When would they commence to irrigate potatoes?

- A That would vary in different years according to the cultivation.
- Q When would they commence to irrigate them?
- A And the location of the ground, kind of soil they were in, some years some would commence in the latter part of May.
- Q How long-- when would be the last irrigation?
- A Along in September, first of October.
- Q Now, can you tell me any crop where the irrigation would commence in April and continue to October, if so what kind of a crop requires that kind of irrigation?
- A I have never made a test of it and couldn't tell you.
- Q You cannot name any crop can you, that requires a full irrigation, commencing in April and continuing to the first of October?

MR. THOMAS: Just a moment, I object to this as improper cross examination, no such testimony given that any one crop requires one hundred fifty days irrigation. Testimony was that the irrigation season extended over one hundred and fifty.

THE COURT: Objection is overruled.

MR. THOMAS: Exception.

- A Yes, alfalfa.
- Q Do they commence the irrigation of Alfalfa during April of every year?
- A Well, most of them does
- Q And continue it until October?
- A Yes sir.
- Q Is there any other crop that you know of that requires irrigation during that period?
- A Pasture and meadow land.
- Q Anything else?
- A Not commencing that early.
- Q Now, as a fact, wouldn't one hundred and twenty days be sufficient for the average crops that are raised in the vicinity of Provo?
- A To average them up?

Q Yes.

A Take them on an average chances are it would. Of course, depend on the season.

Q Take the average season?

A The season and quantity of water we have. If the season was dry might be it would run later.

Q Take the average season with the average crop, wouldn't one hundred and twenty days be ample?

A Well, likely it would, I couldn't say positive.

Q Now, each farm, as a general rule raises a diversified crop, do they not? A. Yes sir.

Q They have a little alfalfa, sugar beets, potatoes, grain, strawberries, raspberries, fruit a variety of different things, don't they? A. Yes sir.

Q And when their grain crop is off in July, they have no more necessity for water after that to irrigate that particular land that is planted to grain, do they?

A No sir.

Q So that wouldn't you say now that one hundred and twenty days would be ample for an irrigation season during the average year.

A I wouldn't say. Take some crops, take water from this land that the ~~the~~ crops matures earlier and applies --

Q Apply it on the other land?

A Apply it on the other land.

Q When they are irrigating one kind of a crop the rule is they don't have to irrigate other crops owned by the same farmer?

A Yes sir.

Q For instance, if they are irrigating alfalfa early in the season, as a rule their sugar beets wouldn't require irrigation so early, would they? A. No sir.

Q Wouldn't be planted, would they?

A No sir. Well, they plant sugar beets in April.

Q But they don't require any irrigation until along in May or first

of June, latter part of May, do they? Say 20th of May?

A It is all owing to the season, if the season is dry like this year, beets require water little earlier.

Q In some localities of the city do they irrigate earlier than they do in other localities?

A Not to my knowledge, no.

Q Now, I call your attention to a tract of land north of 5th North Street and west of Academy Avenue, or I will say between 5th West and Academy Avenue, and north of 5th North, and ask you to state what the character of the soil is on that particular tract. If you will look at the map here, I think it is Exhibit 58, call your attention to this particular tract between 5th West and Academy Avenue and 5th North and north of there up to the road where you turned across the river bridge, what kind of soil is that tract?

A That varies along through here, this is the west, main ditch here,

MR. THOMAS : Little louder.

A This is the west main ditch I understand there.

Q That would be City Race.

A City Race and this is the Tanner Race. If you include this land --

Q As I understand it, this red line here represents the Mill Race

A Yes sir.

Q The next one to the west represents the City Race and the City Race runs through the tract of land which I have referred to?

A It is the Clark field, what is known as the Clark field.

Q What kind of land is it?

A Well, kind of a black loam on the top.

Q How deep?

A Well, you can determine by the depth of what they plow.

Q Do you know what the subsoil is.

A I have never made any test of the subsoil.

Q You don't know then? A. No sir.

Q Do you know whether it is deep or shallow?

A No sir, only by the wash of the creek, it is by the creek, I never made any tests.

Q Do you know whether it is underlaid with gravel or not?

A No sir, I won't say I do.

Q You don't know?

A Only where they dug a well at the lower end of it.

MR. THOMAS: Louder, please.

A Only where they dug a well on Mr. Clark's property that is underlaid with gravel there.

Q Gravel in the bottom soil?

A Yes sir.

Q How deep?

A About eight or ten feet deep they dug the well.

Q Did they strike the gravel before they got to the bottom of the well ?

A. Yes sir.

Q How deep was the gravel from the surface of the ground?

A Down there it was about four feet, if I remember right.

Q Do you know whether the whole tract is of that same character or not?

A No sir, I don't.

Q Was it a part of your duty, Mr. Farrer, to collect the water rates or water taxes?

A. Yes sir.

Q Would the users of water within the city all pay the water rates that were levied against their lots each year?

A Practically all of them, yes sir.

Q Did you have some that declined and refused to pay?

A Well, I cannot call to mind just at present whether we did or not. There were some, chances are, there were some, Mr. Evans .

Q Some that refused to pay the rates? and did you turn the waters to them next year just the same as if they had paid their water rates?

A Yes sir, there was a time given, I believe.

Q In other words, it made no difference whether a person paid his

water rate or not, you give him a ticket for the next year, didn't you?

A Yes sir.

MR THOMAS: Object to this as immaterial.

Q And so that was --

MR. THOMAS Just a minute, I don't see the materiality of payment.

THE COURT: I hardly see the materiality of it, what is the object of it?

MR. JACB EVANS: Why the object of this is to show the method and manner of this distribution of water. It is to show that it makes no difference whether they pay water rates or not, they continue to turn them water, and whether they use water or not they continue to turn them water on these lots year after year.

THE COURT: I saw that was the object of it to show that, but the materiality of that is what I was wondering at. How will that aid the court in determining the issues in this case?

MR. JACOB EVANS: I would aid the court in determining if they are not using water on considerable portions of this city land they ought not to have water issued for it, or have a decree for that water.

THE COURT: Yes, that is true, but whether they paid for it or not -- the objection is sustained unless you can indicate some materiality, the court will sustain the objection.

MR. JACOB EVANS: All right, we will take an exception .

Q Was the same rate of tax levied on all lot owners during each year?

MR. THOMAS I object to this on the same ground,

THE COURT: Objection is sustained.

MR. JACB EVANS: Exception.

Q I will ask you to state whether or not the Mill Race, whether or not the mills along the race were charged each year for the use of the water that was turned to them?

A Yes sir.

Q How much were they charged, if you know, beginning at the mill highest up on the race?

A I think, if I remember right it was seventy-five to the Pressed Brick Company, seventy-five.

Q Seventy-five what?

A Seventy-five dollars, and seventy-five for the ice plant and a hundred and ten for woovers and two hundred and fifty for the factory and hundred for Ward's and hundred and ten for the Smoot.

Q And was this same charge made during each and every year while you were water master?

A Yes sir.

Q And collected by you? A. Yes sir.

Q Was the foundry, that is the Provo Foundry & Machine Company, charged for the use of the water on the City Race?

A Yes sir.

Q Do you know how much the city charged it for the use of the water?

A Fifty dollars,

Q And that was paid each year, was it?

A Yes sir.

Q That was located on the city race? A. Yes sir.

Q And not on the Mill Race? A. No sir.

Q The race that is farther west? A. Yes sir.

THE COURT: When Mr. Farrer referred to the factory, is that the woolen mills?

Q Is that what you referred to?

A The Grove Woolen Mills, the Knight Woolen Mills it is now.

THE COURT: You referred to it as factory, I wondered if it was the same.

A Yes sir.

Q Have you made any investigations since yesterday to determine what quantity of water you turned to the plaintiff, the Provo Reservoir Company from the Steele springs and the Blue Cliff

Springs, which you testified to yesterday?

A Eight-five --

Q Have you made any investigation?

A I have been looking up my papers and I asked the county clerk to look it up this morning, to find the report I filed with the court.

Q Did you find it?

A They are looking it up now.

Q You haven't the figures yet then?

A No sir, I haven't got that yet.

Q So that you have nothing at this time which would refresh your recollection any more than you had yesterday?

A No sir.

Q You will get that information, will you?

A Yes sir.

Q While you were city water master was there any land irrigated under the provo system beyond the limits of the city?

A Now, I think not, that is, only the north side.

Q That is what I am asking, is there any land under the irrigation system that is outside of the city limits of Provo?

A Yes sir.

Q And in levying the tax the persons living outside of the city would be taxed just the same as the persons living within the city, would they not?

A. Yes sir.

Q For the use of water?

A. Yes sir.

Q And the tax would be the same amount per acre?

A Yes sir.

Q As within the city limits?

A. Yes sir.

Q And the tax levied in the same way?

A. Yes sir.

Q As it would be within the city limits. That is all.

CROSS EXAMINATION by Mr. John E. Booth.

Q Mr. Farrer, you recall the ditch on the west side of First West Street and Fifth North Street?

A West side?

- Q Of 1st West? A. Yes sir.
- Q Above 5th North? A. Yes sir.
- Q That comes out of the Mill Race? A. Yes sir.
- Q Now, how much water in second feet did you estimate that water or that ditch carried ordinarily for irrigation of the lots under it ?
- A Well, about a second foot of water.
- Q About one second foot?
- A Yes sir, I would make an estimate of about that, it might be a little bit more.
- Q It wouldn't be less than that?
- A I think not.
- Q Now, how large is a city lot?
- A Six by twelve.
- Q That is a little less than half an acre?
- A Yes sir.
- Q How and a half you give to a lot? A. Yes sir.
- Q That would be then to water an acre in three hours, that is, two lots in three hours?
- A Yes sir, counting it as an acre.
- Q You say that is about a tenth less than an acre?
- A Less than an acre.
- Q The water runs night and day I understand you?
- A Yes sir.
- Q That would make it so that it would irrigate eight acres in a day, would it?
- A That is the twelve hours, that is, to take a block, it takes twelve hours to water a block.
- Q Twelve hours to water a block?
- A Yes sir, there is eight lots to a block.
- Q There is less than four acres in a block? A. Yes sir.
- Q So that would be practically an acre for three acres, wouldn't it? A. Yes sir.
- Q Except the tenth, that runs the whole of the time, that would make it gets around every week, does it not?

- A Yes sir, that is what is required, the time is given that way.
- Q That is the way you do it, is it not?
- A Yes sir, issue the time.
- Q Eight hours a day, that would make fifty-six acres for the week, wouldn't it, less the one tenth?
- A I never figured it up.
- Q Let's figure it up and see, eight acres a day, seven days, would make fiftysix acres, wouldn't it, seven times eight?
- A Seven times eight is fifty-six.
- Q Less a tenth?
- A Yes sir, about a tenth less.
- Q And you say it would be a little more than a second foot?
- A We aim -- it is owing to the season of the year in that particular ditch.
- Q Usually the ditch is full, is it not, when they are irrigating there?
- A Not always?.
- Q Fairly full?
- A No sir, not always.
- Q Who turns the water in from the Factory Race into that ditch?
- A I did, used to turn it in.
- Q Did you let it run all the time, did you turn it in once or take it off part of the time?
- A Well, take it off, it could go back into the race again if it wasn't used, to apply to the others below. If it interfere with any of the mill rights, anything of that kind, didn't interfere with the stream only as it was used.
- Q The gate was not locked there, was it?
- A Yes sir, during the time I was in it was locked.
- Q Now, this was fixed for the whole irrigation season?
- A Yes sir.
- Q So that would make -- you estimated that was forty acres to the second foot, did you not?
- A Yes sir.
- Q Wouldn't that make fifty actually applied as you are now --

A I said it would take a forty acre duty to apply on city property.

Q Now, figuring up that would be fifty, would it not, your actual use, the second foot in that ditch waters eight acres a week, doesn't it, don't you get that -- I mean fifty-six acres a week?

A Fifty-six acres in seven days.

Q In seven days, yes, that is the way all the season throughout, isn't it?

A. Yes sir.

Q Wouldn't that be practically fifty acre duty then on that ground?

A There is some land requires more than others on that, but take an average.

Q That is what it takes according to the way you have been doing, those lots are watered every week, are they not?

A Well, practically they are.

Q Well --

A That is what the tickets are made for.

Q You make the tickets out so they are watered every week coming at the same hour?

A Yes sir.

Q That would make the fifty -- that would be fifty-six acres then every week?

A. Yes sir.

Q And that second foot waters it, don't it?

A I couldn't say it watered it all, but I had no complaints.

Q That was your calculation that is what it did, is it not?

A That is what we calculated, that amount of water would supply that.

Q I will ask you this, you know Block 108 and 109, Plat A, the Andrew Watson Block?

A. Yes sir.

Q And the block right west of there?

A. Yes sir.

Q You put those two blocks on the same duty, did you not?

A Chances are I did, yes sir.

Q Have you examined the soil?

A. No sir.

Q Between those two, even in a casual way?

A Well, there is a difference in the soil, one is gravelly and black

clay substance on the surface.

Q Would you put those two blocks on the same duty?

A Well, it is all owing to the subsoil.

Q Nevermind about the subsoil, nevermind anything else except just what you know of those two block, do you say they require the same amount of water for successful irrigation?

A Yes sir.

Q You wouldn't make any difference?

A Make a difference in farm land of course you have to distribute that water.

Q Nevermind whether it is farm land or anything else, takes a duty --

A Yes sir, that is the duty.

Q I am not asking for the duty you put on;

A That is what we aimed to put on.

Q I understand you make no difference in your distribution of the water? A. No sir.

Q I am asking you if the land itself would be similar in its requirements for water for irrigation?

A No sir, the Watson land would require more than the one on the west on the surface.

Q About how much more?

A Well, it is more porous and gravdly.

Q I am asking you about what --

A I cannot give a positive answer. I never made no test what it would require,

Q Did you put the Watson block at 40⁷-duty of 40 to the second foot. What would you put the block right west of there.

A I could not say positive.

Q You have been giving your best judgment about these matters, have you?

A Yes sir, taking it in a whole.

Q I am asking those two blocks, so you fix the Watson block at a duty of 40 acres to a second foot as you fixed all of it. Now

relatively, what would you put the block right west of that?

A Well, I wouldn't -- couldn't say just at present, that is, I wouldn't. I took into consideration the area of the city.

Q Yes, I understand that, but you cannot give -- but there is -- you cannot give the relative requirements of those two?

A Not at present, I would not.

Q But you recognize there is a difference, do you not?

A Well, there may be a slight difference, I couldn't tell, be just merely making an estimate of it.

Q I am not asking you now as to the amount of difference, but is there a difference?

A Chances are there would be a slight difference. I couldn't say how much.

Q Would you call it slight?

A Well, it would be a question to be ~~xxx~~ determined by the water-- I couldn't in regard to that.

CROSS EXAMINATION by Mr. Ray.

Q Mr. Farrer, the East Union Canal is built along the foot hills east of provo, isn't it? A. Yes sir.

Q And is built through rather a loose formation there?

A Well, part of the way it is in a loose formation, along here by the bench where it passes around the bench just northeast of town here, right north on the northeast of here.

Q And of course it is built on lands which are the highest, or higher than the lands which it irrigates below?

A Yes sir.

Q Now, you have given a classification of the soils under the East Union, you have given the classification as you found the soil along next to the canal, haven't you?

A Yes sir.

Q Now, as a matter of fact, as you go down the East Union you find the soil gets deeper and better away from the canal, don't you?

A That is quite a distance away from the canal, lower down.

Q From ten to sixty rods west of the canal the soil gets much bet-

ter, doesn't it ?

A In various places, yes.

Q There is a deep clay loam for a large part of the distance of the farming lands and lands irrigated under the East Union, is there not, after you get down from ten to sixty rods from the bed of the canal?

MR. THOMAS: Mr. Ray, pardon me, is that the entire distance?

A Well, it varies from ten to sixty rods, between that in various places.

Q So that your classification is confined to that part of the soil just west of the canal as you found them from examining the cut made by the canal?

A Cut -- the canal is made almost on the level, the canal is not so deep through there, it is just a shallow canal.

Q Didn't you observe the soil in the canal itself?

A Yes sir.

Q That is, as it was exposed?

A In cleaning the canal, yes sir.

Q That is largely what you base your testimony as to the variation of the soil along the canal on, wasn't it, Mr. Farrer?

A Yes sir.

Q Take the Fay Hilbrook property, you know where that is?

A Yes sir.

Q That is west of the East Union? A. Yes sir.

Q Deep clay loam, isn't it?

A Part of it is.

Q Good part of it?

A Yes sir, that runs pretty close to the canal on there.

Q And that is true as you get away from the canal clear up, it is a much better soil?

A It is a clay loam.

Q I am not asking you what it is, it is a much better soil, isn't it than that right next to the canal? A. Yes sir.

Q There have been series of brick yards along through that class of soil like the Vangundy Brick Yard, haven't there?

A Yes sir, there is Vangundy Brick Yard is quite a ways from the canal.

Q Down in a deep clay loam ?

A Yes sir, there is a clay loam there.

Q Now, going down the East Union near the end and across the county road, there is some lands under there that are sub-irrigated, are there now, swampy?

A That is below the --

Q County road.

A County road, that is below the city irrigation not above, between there.

Q Aren't there some this side of the infirmary and below the road there where there is sub-irrigation?

A I cannot call to mind just now, I don't think there is any that is irrigated from the canal, that is sub-irrigated.

Q How far south does the canal go?

A It goes down to what is known as the Sutton farm.

Q Where is that from the infirmary?

A That is about a half a mile, I should judge south from the infirmary.

Q Aren't there some lands just this side of the infirmary and west of the county road that are grown up with bulrushes from the sub-irrigation?

A That is not under the city irrigation to my knowledge.

Q Well, tell me whether the lands are there?

A Yes sir, there is lands there & that is below the canal. I got a little piece below the canal that is sub-irrigated.

Q And if it required water could and would receive water from the East Union, wouldn't it?

MR. THOMAS: Object to that as being immaterial because it is not under the city system.

THE COURT: If it is not under the city sit system, I take it is is not material.

MR. RAY: I was asking that question for the purpose of finding out why it was not under the city system. I will withdraw it under that objection.

Q Now, what about the Biglow land?

A That is down lower from the canal.

Q Does that take a duty of 40? A. No sir.

Q Does the Fay Holbrook land take a duty of 40?

A No sir.

Q And they are all on the south end of the canal?

A There is just spots, they are long ways apart, Biglow land and Holbrook land is a mile apart almost, three-quarters of a mile.

Q And neither of those take a duty of 40?

A No sir.

Q And they are both on the south end of the canal, that is the south part of the canal?

A Yes yes, they are towards the south end of the canal.

Q You stated, Mr. Farrer, that all the time you were city water master the lands under the canals and city service received a duty of water which you have specified as the necessary duty, didn't you?

A Yes sir, I believe I did, if I remember right.

Q Well, you never made any measurements, did you to determine whether that was a fact?

Q No sir, I never made any measurements.

Q Or any observations to know whether the water was applied as you gave it? A. Yes sir.

Q There was no land upon which you could say the quantity of water applied during any year, the depth or the number of acres, which a second foot of water covered?

A I never made no tests of that.

Q So that you don't know just what duty the land in this city and in the farming area around it have received, do you?

A Only by what has been put in at the head of the canal, not determined any measurements at all in any of the laterals or the distribution of the water. I have never measured that

water as it flowed out of the canal, nor seen it measured.

Q So that your statement as to the actual duty is just based upon what you turned in at the head of the canal?

A Based upon that and what it would require to water an acre of land. It would vary from 40 to 70 acre duty, some lands requires more than others.

Q You had times when you left, you said, two or three feet in the Factory Race to irrigate with at night when you turned the Factory Race into the other canals?

A Yes sir, if they were irrigating below there we had to leave it in in order to supply those with that below down in the west part of town.

Q How did they get it out?

A It is taken out down here between Center street and 1st South street on 2nd West.

Q Have to put head gates in the canal?

A Yes sir.

Q How long would it take them to back the canal up to the head gates after it was shut off with two or three second feet of water?

A The ditch goes right on a level.

Q The ditch goes right on a level with the bottom of the canal?

A Nearly so, yes sir.

Q That is true in all cases, is it, Mr Farrer?

A Very nearly all cases,

Where it takes out.

Q When the canal is full below the race there is abundant water all day going to waste from the race down into the lake isn't there?

A Yes sir, when the water is in the race we take out the planks at night and let it go on down the race, it is not required in there.

Q So that the irrigation at the time when there is 45 second feet running in the race of the Knight Woolen Mills below the factory, there is more water than you can possibly use for irrigation down

there, isn't there?

A We cannot take that amount through the laterals, just take a small stream through the laterals.

Q And those people could have an unlimited quantity all day?

A No sir.

Q Why not?

A because it goes on down through the other wheels when it is running there. There is two more mills below there.

Q Neither one of them use as much as the Factory Race, do they?

A I don't understand the question .

Q Well, neither the Ward mill nor the Smoot Mill use ^{anything like} as much water as the Knight Woolen Mills, do they? to run their wheels?

A Well no, no sir, they haven't got the machinery.

Q They haven't got the machinery nor the necessity.

A No sir.

Q So that the taking out of water there for irrigation of land wanted in the day time wouldn't affect either the Smoot Mill or the Ward Mill, would it?

A In the low water season it would, yes.

CROSS EXAMINATION by MR. Bagley.

Q There are only two, about two hundred acres that are irrigated out of the Mill Race below the mill, is there, below the woolen mill?

A Yes sir, about -- well, I don't k call to mind just about that, I should judge.

Q There is 98 acres of farm land and about a hundr-ed and seven lots, if there were only two hundred acres to be irrigated there would be ample water in the day time out of the Mill Race, wouldn't there, to irrigate that two hundred acres?

A Well, if we took it out there would, but of course we take out what the ditch will carry that is small irrigation ditch that goes out.

Q Well, you don't mean to say to the court that it is necessary to let two or three second feet of water run down the mill

race at night to irrigate this two hundred acres of land when the Mill Race is running from 30 to 45 second feet?

A No sir.

Q For twelve hours in the day time.

A Don't let that run down all the time, we shut that dry at the head. Just in case there are some turns on at night some of them is timed at night down in there.

Q Why are they timed during the night when there is plenty of water there and they could be timed during the day?

A Because there isn't time enough to just take the time time to irrigate that land, give them the time, they would not water the land and get around in their turns during the day time and omit the night.

Q You mean that there isn't enough time during the day to irrigate these two hundred acres of land?

A Once a week.

Q With a flow of water from 30 to 45 second feet?

A 45 second feet.

Q There is that much in the Mill Race?

A Yes sir, but they don't have 45 second feet of water.

Q How much do they have?

A Maybe two second feet that goes down through that lateral, just a small lateral.

Q You mean you only divert for irrigation two second feet from the Mill Race?

A That is just a small lateral that runs out from the race on 2nd West, it is not a large canal, they don't take it direct from the Mill Race.

Q The lateral is adequate to irrigate the land, isn't it?

A It is just a small lateral, comes down on 3rd West.

Q Isn't it big enough to irrigate the land it serves?

A By giving it longer time.

Q By running it day and night it is big enough?

A Yes sir, by running it day and night it is big enough, it will cover the ground, otherwise it would not by running it just

the twelve hours a day it would not cover that ground.

Q It would not be big enough if you just used it twelve hours?

A No sir.

Q It could be made big enough so that it could be operated in the meantime, couldn't it?

A It could provided we took that amount of water, of course, but I wouldn't say to that because part of that is city lots, be considerable expense.

Q Let me ask you this, while you were water master did you try to apply economical schemes to distribute this so that it would not be wasted?

A. Yes sir.

Q Did you consider that the methods adopted there were the best kind which could be applied to save water.

A Yes sir.

Q Where you left three second feet, two or three second feet run down the mill race at night ?

A That was timed in scarcity of water when the race got low and parties who had crops that were suffering, we had to apply that in order to keep that race up, same as any other ditches that were supplied.

Q Well, do you mean that was at times when the Mill Race only had three second feet of water in it during the night? and day too?

A Three second feet night and day.

Q As I understood your testimony, in the day time you turned enough water into the Mill Race to turn the wheel and at night you left two or three second feet run down the Mill Race to irrigate lands that were irrigated at night?

A Yes sir, to keep that constant stream in those laterals that takes out, there are two or three laterals that takes out up the race. There is one above waters those lots above the woolen mills there.

Q I am asking you about the land below the woolen mills. The land above the woolen mills could be irrigated in the day time,

couldn't it?

A No sir, not just in the day time alone.

Q How many acres are there up there above the woolen mills to be irrigated?

A Just city lots above.

Q Only twentyseven acres of farm land, isn't there?

A Yes sir.

Q And seventy-four acres with farm lands, farm lots and city lots above the factory; do you say it was necessary to let water run in the Factory Race at night in order to irrigate that?

A Yes sir.

Q It could not be done in the day time?

A Yes sir.

Q Was there any water used from the Mill Race for irrigation during the day time?

A Yes sir.

what

Q About, quantity, how many ditches?

A There is three ditches takes out.

Q Three ditches? A. Yes sir.

Q Are those above or below the factory ?

A There is two of them above the woolen mills and one below.

Q Do you count in the Stubbs ditch?

A The Stubbs ditch --

Q Is that the one below? A. No sir.

Q Is that the only one?

A There is the Stubbs ditch and one down here between Center Street and 1st South.

Q Then there would be four?

A That is four, including the Stubbs land.

Q And did they each carry water in the day time?

A No the Stubbs ditch doesn't.

Q It only carries water at night? A. Yes sir, that carries water, carries the water on to it from the Smoot Mill down there, there is no water turned around that way.

Q Water was the Stubbs and Strong land don't run through the

Smoot wheel at all, does it.

A No sir.

Q After it leaves the woolen mill only goes through the Ward wheel?

A Ward wheel and then --

Q And then goes out into the Stubbs ditch?

A Yes sir, it has^{to} go -- goes through the -- tailrace of the Smoot mill is too low for irrigation.

Q Now, do you say that the Stubbs piece don't irrigate in the day time?

A They irrigate in the day time by taking it from the Smoot mill there.

Q Do the Stubbs people ever irrigate any other^{time} than in the day-time?

A At night, yes, some.

Q Some? A. Yes sir.

Q Do the Strongs and all those that irrigate under the Stubb ditch, do they irrigate at night at all?

A They don't water through the Stubbs ditch, the Strong property.

Q Well, those who do irrigate through the Stubbs?

A Stubbs is the only one that waters out of the Stubbs ditch these to my knowledge.

Q And notwithstanding this flow of water going by all day long, he irrigates at night, does he?

A Stubbs?

Q yes. A. No sir.

Q You said he irrigated at night.

A He irrigates if he wants at night, but he is not under the other. The other ditch is different, he is below them all, he catches --

Q Let's leave the Stubb ditch and take up these city ditches, you say there are three city ditches that take water out during the day time? A. Yes sir.

Q And I suppose that they are like these ordinary city ditches, they carry from a second foot to a second foot and a half of water, each one of them?

A It varies, yes sir, those are a little different, about a second

foot'

Q This one you spoke of that Judge Booth asked you about was out of the Mill Race, wasn't it?

A Yes sir.

Q And was one that you referred to? A. Yes sir.

Q You say it carries a second foot? A. Yes sir.

Q Every day? A. Yes sir.

Q And the other ditches are of the same character, are they?

A The Watson ditch goes out at about -- half a second foot there, I forget how many blocks, but just down here as far as 1st South Street, as far as that waters, narrow tract in there.

Q And the one below the woolen mills carries water each day?

A Yes sir.

Q A second foot or more?

A Yes sir, that carries little bit more.

Q So that there is three second feet of water running out of the Mill Race every day in the daytime, is that right?

A Yes, it would be over three second feet I should judge.

Q Be over three second feet running out every day in the day time?

A Yes sir.

Q And notwithstanding that fact, you say you had to let two or three second feet run down for irrigation purpose at night?

A Yes sir.

CROSS EXAMINATION by Mr. A. G. Hatch.

Q I would like to ask a question, you say there are three ditches besides the Stubbs ditch that take water from the Factory Race? A. Yes sir.

Q And approximately a second foot of water in each of the ditches?

A There is a little bit more in the lower one than there is in the upper two.

Q That the Stubbs ditch?

A No sir, the one above the Stubbs ditch. The Stubb ditch is way to the lower end, almost where it empties into the First Ward

Pasture.

Q Why do you put more water in the lower ditch than you put in both the upper ditches?

A Because there is land below there that irrigates below.

Q How much is there in the upper ditch -- that the one you gave to Judge Booth?

A Yes sir.

Q About a second foot?

A. Yes sir.

Q The next one below that?

A Well, from a second foot to half a second foot, about a second foot.

Q An average of three-quarters of a second foot then?

A Just about, I should judge, about that goes down there.

Q There would be one and three-fourths second feet in those two upper ditches.

A. Yes sir.

Q What was the quantity in the third ditch?

A Below?

Q Yes, in the Stubbs ditch?

A Well, it would be about two and a half second feet.

Q In the one that goes to the --

A Two and a half second feet.

Q There would be four and a quarter second feet in the three ditches?

A Yes sir, practically, by dividing it up.

Q Then at night you didn't fill them with the two or three second feet that you let run down the Factory Race at night?

A Well, we aimed to fill the one that goes to the farm. There is some --

Q Why didn't you let water enough run down the Factory Race at night if it was necessary to fill the ditches as they were filled, each of them?

A There is some seepage water that comes in there that makes up the difference in the amount during the night and day.

Q The seepage water is always there night and day?

A Yes sir.

CROSS EXAMINATION By Mr. Thurman.

Q May I ask a question, your honor. These two hundred acres of land that is watered by that lower ditch, what character of land is that generally?

A Were you meaning the Factory Race ditch?

Q Below the woolen mills, yes, taken from the Factory Race, the two hundred acres you testified about?

A It is a kind of a gravelly, sandy loam.

Q Does that require more water than the average land in the city?

A Yes, it requires quite a lot of water in that district there.

Q You say that you run about two and a half second feet for that during the night?

A That is about an average of two and a half second feet during the night and day too.

Q That is two and a half second feet for two hundred acres, that is sufficient, is it?

A Well, I haven't heard no complaint in regards to what it was.

Q And that is a gravelly land among what you call the hard land to irrigate?

A Part of it is, not the whole two hundred acres.

Q It averages with the lands?

A No sir, not an average of all the lands, no sir.

Q Well, which is it, worse or better?

A It is better land, sub irrigation is closer at the lower part of it. Tracts of that land that is really porous and gravelly.

Q Have you figured out what duty that is, two and a half second feet to two hundred acres?

A No sir, I haven't figured it out, but I made an estimate of about what would go out of that canal to supply that ground in various kinds of crops.

MR. THOMAS I suggest the record shows there is only 129 acres under the Factory Race, not two hundred.

MR. THURMAN: Is that right, is it two hundred acres or one hundred twenty-five?

MR. THOMAS: One hundred and twenty-nine.

- Q Mr. Farrer, what is the fact about that, it has been stated here and that was the purpose of my question, there is about two hundred acres watered below the woolen mills, not including the Stubbs land, but from the ditch there which you say is about two and a half second feet?
- A What is the amount of land?
- Q Yes sir.
- A I have an estimate, but I haven't got it here.
- Q The land you refer to?
- A I believe the Stubbs land is included, if I remember, on that tract under all this.
- Q You refer to it as about two hundred acres of land?
- A You asked me if there was two hundred acres of land, I wouldn't be positive there is two hundred acres there.
- Q Are there any city lots? A Yes sir.
- Q Included in that, how many?
- A I couldn't say just at present.
- Q You have usually figured a city lot as an acre of land for the purpose of water, haven't you?
- A No sir.
- Q What difference have you made between a city lot and an acre?
- A Made a difference of, you take the acreage of the city lot counting an acre, if it was all in acres seventy-two square rods.
- Q Do you mean to say that in your distribution of water here that you have not allowed nearly an acre of water for a city lot?
- A I don't remember; I don't call to mind now.
- Q I wish you could determine some way or another just how many acres there are under that ditch below the woolen mills which have been referred to here as about two hundred acres. If it is going to take you any time to do it, you can do it after you leave the stand, I don't want to take up the time.

MR. THOMAS: I can refer to this, Judge, if there is no objection. This is my copy, it is the same list he has had.

Q You cannot straighten it out from your memory?

A No sir, I cannot, I cannot remember the different tracts of land.

MR. A. C. HATCH: Mr. Goddard, is the Stubb land included within this one hundred and twenty-nine acres below the factory?

MR. GODDARD: Yes sir.

MR. THURMAN: How much is there of the Stubb land?

MR. GODDARD: About twenty-four acres, I think.

MR. A. C. HATCH: And the Strong land also?

MR. GODDARD: Yes sir.

MR. A. C. HATCH: How much is there of that.

MR. GODDARD: I don't just remember. The Strong land is principally irrigated from 3rd West Street except about six or eight acres. He has got something about fifty or forty-five acres.

REDIRECT EXAMINATION by Mr. Thomas.

Q Is this the memoranda that you had?

A Similar to the one I had, yes sir.

Q Is that identical with the one you had?

A I could not say as to that. Yes sir, this is the one. I could not say it is the one, but it is similar to the one.

Q That happens to be the one you had yesterday. Now, refresh your memory by referring to that memorandum, please state how many acres of land are irrigated from the Factory Race below the provo Woolen Mills?

MR. A. C. HATCH: If the court please, we went all over this, it is direct examination and gave the acres as I understand, and the streams that were irrigated.

THE COURT: I see no particular object in it, Mr. Thomas. The witness has testified from his independent recollection he is unable to state; you are now handing him a tabulation which has been admitted in evidence and which has been testified to as being correct.

MR. THOMAS: That is true, your honor.

THE COURT: It adds nothing to it to have Mr. Farrer read from it, or refresh his recollection from it because he says he has no independent recollection which would enable him to state the amount on the land.

MR. THOMAS Mr. Bagley in his cross examination kept insisting upon the acreage being two hundred under there, and it was misleading of the witness.

THE COURT: That is apparent.

MR. THOMAS: It was merely for the purpose of correcting that because it was an error on Mr. Bagley's part.

MR. BAGLEY: I did not insist upon it, I don't think.

MR. A. C. HATCH: The questions asked Mr. Goddard was for the purpose of straightening out the testimony and getting what was correct as testified to by the witness in my mind.

MR. THOMAS. I understood the court had --

MR. THURMAN: There was one question that was hardly answered, I will ask you if a city lot for the purpose of irrigation wasn't considered the same as an acre?

A No sir.

MR. THURMAN: Haven't you, in this very tabulation, included the city lots?

A Yes sir.

MR. THURMAN: Fifty-five city lots, ninety-nine acres of land, some farm lots?

A Yes sir.

MR. THURMAN: Making up this two hundred acres?
A yes sir, that has been the tabulation if they took the area as they stand.

MR. RAY: Judge, in that tabulation the city lots is multiplied by forty-five hundred to get the acreage.

MR. THOMAS The lots are not classed as an acre.

MR. THURMAN: I see.

Q Mr. Farrer, I want to direct your attention to this night water running through the Factory Race with especial reference to the

First Ward Pasture. I will ask you if the lands in the First Ward Pasture are really irrigated in whole or in part from the Factory Race?

A In part.

Q State if that part which is irrigated from the Factory Race takes its water at a point above or below the Smoot mill?

A Below.

Q Below the Smoot mill? A. Yes sir.

Q Below the tail race?

A Right at the tail race, at the lower end of the tail race of the Smoot mill. The Smoot tail race is below where the intake of the Pasture takes their water out.

Q State if it is possible for the First Ward Pasture to take water from that race during the time the Smoot mill is running?

A No sir, that is not used at all, cannot be used at all after it leaves the Smoot Mill, that is on First Ward Pasture.

Q State if that is the reason the water has to be run through the Factory Race for the First Ward Pasture at night?

A Never run in through the First Ward Pasture.

Q You don't understand me, or else I don't make it plain. You stated the water had to run down through the Factory Race at night to supply certain lands, you allowed certain water to run down through the Factory race?

A That is never considered the First Ward pasture, leaving in for the First Ward Pasture never considered that.

Q Is there any water used through the Factory Race at night for the First Ward Pasture?

A Well not to my knowledge, I don't know.

Q Then I have been misinformed, state if any water is taken out below the Smoot mill for irrigation during the time the Smoot mill is running and using its head?

A No sir.

Q You may state if the lands that were irrigated at night could, with an economic use of water, be irrigated during the day time under the present system? A. No sir.

MR. A. C. HATCH: If the court please, that has been gone over.

MR. THOMAS: He says no.

Q What times have 45 second feet of water run through the Factory Race what times?

A During the day time in low water. Some years in the low water season.

Q Up to what time in the year?

A Well, it varies, as the water recedes there is less goes through the wheels, as the water decreases in the river or less proportion is transferred to these various canals.

Q Let me direct your attention to your classification of soils on the East Union Bench, in making your classification state what area you took into consideration upon your direct examination, that land^{lying} by the canal, or all the land lying under the canal?

A All the land lying under the East Union ditch.

Q You may state if the land lying to the south end of the East Union canal, which you designated in your direct examination as being largely of a gravelly class as sandy loam in one area or clay loam in any extensive area below the canal from ten to fifty yards down?

A That varies, it runs in streaks all the way down there. There is clay and then there would be a gravelly streak and across one piece and you go on to the gravelly part and then clay below and then it will vary all the way down that canal from the State mental hospital to the lower end of the canal.

Q State if you took that into consideration when you were giving your classification on your direct examination?

A Yes sir.

Q Do you want to amend or correct any part of your direct examination in reference to that, do you want to correct the classification as you have it on your direct examination?

A I don't catch your meaning on that proposition. Are you referring --

Q Just a minute, I will get at it in another way, what part of that gravelly portion of land lying to the south end that receives its water under the canal is of clay loam?

A Well, part of it, they receive it at various times according to their --

Q I am speaking of the clay loam, what part of it is clay loam?

A Well, I could not give a definite answer, that is in parts. It joins on each part of a man's property, you know, in narrow strips and tracts of land. It is all divided into narrow tracts of land in various places all the way down. There is some that varies for from four to five acres, maybe a strip of clay land lying in between or on the lower end of it, just a narrow strip of clay loam on the lower end and gravelly substance the rest of the way. Take it on the Nuttall farm there is parts of that that is very porous, parts of it has got the clay loam mixed with the gravelly surface, and then from there on down it varies all the way down, streaks of gravel and clay in different places all the way from there to the lower end.

Q Now, state if there is such quantity of clay loam in that area which you designate as gravelly to change your mind as to the amount of water needed?

A No sir.

Q In answer to Judge Booth, you said in substance, that one second foot was used on fifty-six acres in the city.

MR. A. C. HATCH: Less one-tenth, 50.46 acres.

MR. THOMAS It was substantially the fifty-six acres.

MR. A. L. BOOTH: Ten per cent off fifty-six.

Q Just what did you mean by that, just explain that more fully?

A part of that land that does not require the water, the other part does, some pasture land there.

Q Louder, Mr. Farrer?

A There is some pasture land there, chances are they would not use their turn altogether.

Q State if, as a matter of fact, one second foot of water in the city in the platted area does actually irrigate the whole of fifty-six acres or fifty-six less ten per cent?

A Providing you had one second foot you may do that, but there is some of this area, ground you cannot apply one second foot on that.

We have to receive according to the amount that is in the canal. We reduce the streams in the city just the same ~~xx~~ as we do on the farms, don't have a constant stream exception of those ditches that takes out of the Factory Race.

They may run the same the season through about.

Q Does a second foot of water irrigate the whole of fifty-six acres of land in the platted portion of the city?

A No sir, not to my knowledge.

Q Reference was made by you to the Clark field. Mr. Evans asked in cross examination if you had made any tests there. I think you said you had examined the wash of the creek, just what did you mean by that?

A There is a creek runs between the two Clark pieces, all in one field, that is two pieces, but the City Creek runs between the two pieces of land. Sarah Clark and George Clark piece. There is a clay.

Q What is the depth of that creek bed or creek channel?

A That cuts down about twenty rods, I should say, partly down the field it drops off.

Q You have not answered the question, how deep is the creek channel from the surface of the Clark field to the bed of this City Creek channel, how many feet?

A Maybe two or three feet deep.

Q How long has that been there?

A As long as I can remember. It was there all during when I took charge of the irrigation.

Q Have you ever seen any of that land plowed?

A Yes sir.

Q State if you have ever seen any post holes dug or any other holes dug on the place to your memory?

MR. JACOB EVANS: I object to this on the ground that it has already been gone into both in direct and cross examination only filling up the record with unnecessary matter.

THE COURT: Objection is overruled. I think it is probably redirect^{of your} examination on that subject.

Q Answer the question.

A No sir, not to my knowledge outside of what I mentioned to Mr. Evans.

Q Then upon what have you based your knowledge of your classification of soil there in that field?

A Account of the loamy black --

Q Upon what have you based your judgment, what experience, what examination?

THE COURT: I understand Mr. Farrer to say it was based solely upon what he could see from the wash of this creek, and nothing else. That was my recollection of it.

MR. COLEMAN: And the well dug at the lower end.

THE WITNESS: yes sir, that is true.

Q With reference to the use of night water under the East Union, or in the East Union Canal, please state what amount of water was used at night and whether lands were irrigated at night that could economically be irrigated in the day time?

A No, we generally used to apply the water at night^{time}, on land, larger tracts where is required more water, such as alfalfa and grain, that could be irrigated more successfully than they could in the day time. On other tracts where the stream was smaller could be used on these small tracts, beets or rowed stuff. If we divide that water onto ground to be used through an economical basis we would cover the area of land during the time.

Q You may state if more water was given proportionately to the land at night than would have been given to that land in the day time?

A Yes sir.

Q Why?

A Because it required more on those tracts of land.

Q But why did you give those tracts of land more at night.
Would you have given them more at night than you would in the
day time?

A Didn't have it to give in the day time.

Q Then did you as a matter of fact, Mr. Farrer, give any more
water to any part of the land at night than that land would have
received in the day time? A. Yes sir.

Q Why ?

A Because we had it to give to them and the land required it.

Q I understood you to state in cross examination to Mr. Evans that
you gave more water to some land?

A We took in consideration, I took in consideration the locality
of the land when I distributed this water that some land would
require more water, some tracts of land, and we would apply that
water in larger quantities in some tracts of land and some less,
where the land was more of a clay soil, and that it would not
require as large a stream to cover the area of that ground.

Q Now, Mr. Farrer, if you had had water in your canal would you
have given more water to that land in the night than you would
have given to the same land in the day time?

MR. JACOB EVANSE Object to that as incompetent, and
not proper redirect.

THE COURT: Objection is overruled, I will hear what
the witness says.

Q Now, do you understand the question?

THE COURT: Read it.

(Question read)

A Now, what I understand about the question, if I am right, if we
had the same amount of water during the day as we had at night.

Q Yes, then would you have given more water to the land at night
than you would give to the same land in the day time?

A No sir, I would have given more at night in the day time on
account of being night it would be more hard to handle in some
localities.

Q Now then, state upon what lands you turned the water at night?

A Those tracts that had alfalfa or grain, such crops that had to be flooded instead of rowed stuff.

Q You may state if you at any time turned the water at night on land where the water could not be economically used?

A No sir.

Q In answer to Mr. Evans you stated that you hadn't made any special tests to determine the character of soil in various parts of the system, state how you did determine the classification.

MR. JACOB EVANS: Object to this because it has already been gone into.

THE COURT: I think it has been gone into. If there is any particular one you think Mr. Farrer did not make clear enough, you might inquire into that, but generally speaking, I think he has told.

MR. THOMAS: As to the particular determination of character he did, your honor, but as to the method of determination I don't think he did. That is my remembrance. Mr. Evans asked him, especially, as I now recall, whether he had made any special tests, whether he dug any post holes. As I remember on the direct examination I did not deal in that. This was brought out on cross examination, and I desire to ask him his method and means of arriving at his judgment. I think it is proper redirect.

THE COURT Now, it is not, as you have asked it. The objection is sustained as you have asked it. This is clearly direct, should have been asked on your direct examination, and I think it was. I have suggested if there is any particular instance you want to direct the witness's attention to, you may do on redirect, but you cannot go into the matter generally, because that was gone into generally in your examination in chief.

Q Reference was made to Mr. Heddenburg, you may state if you gave more water to Mr. Heddenburg than to any other man who had similar land and similar crops? A No sir.

MR. JACOB EVANS: Object to that because it has been

asked and answered.

THE COURT: It is answered now.

RE-CROSS EXAMINATION By Mr. A. C. Hatch.

Q I would like to ask for information, if distributing the water to the farm lands I understood you that they were distributed generally according to the requirements of the ordinance, two hours per acre every two weeks, is that right?

MR. RAY: Object to that, your honor please, as having been asked and answered.

MR. A. C. HATCH: This is only preliminary.

MR. RAY: Withdraw the objection.

A That is according to the city ordinance.

Q Well generally the water was distributed -- there were exceptions when you distributed it once a week?

A There was only year I believe part of this that was given on that once in two weeks, otherwise it was changed once a week and given them one hour to an acre on certain ditches according to the --

Q To the farm land? A. Yes sir.

Q What was the quantity of the flow of water in those ditches in those distributions?

A Well, they would vary in different --

Q I understood you to say about two and a half second feet?

A According to the amount of water we would have in the low season. We take the water down the canal --

Q At the eighteen thousand flow in the river, eighteen thousand minute flow in the river, if I understood you correctly it was about two and a half second feet in these farm ditches.

A Well, chances are there would be a little more in some of those farm ditches in the west part of town.

Q What would they average about?

A Divide the city ditches --

Q Pardon me, I am not asking about the city lots, it is the farm land only I am asking.

A Well, I couldn't say definite, maybe three second feet, three and a half that is divided in two.

Q You think the average would be three second feet?

A I cannot call to mind at present .

Q For the low water season beginning when the river is at 18000 minute feet and running along down until its lowest period or point, what would be the average flow in the ditches in second ~~xist~~ feet, don't you remember.

A Well, not exactly, I don't remember just now just exactly the --

Q Approximately, you had some regularity with regard to that?

A Yes sir, I had some regularity, but not measuring that way, I could not say definite just what it was in the various ditches.

Q You don't know the quantity you put into those ditches then at any period in the year?

A Divide it to the best advantage for the farms in the different localities according to the acreage.

Q Would you attempt to give me the quantity?

A No sir, not exactly, I would not.

Q Or approximately? A. No sir.

Q At any time from the 18000 foot period of the river?

A No sir, I could not do that, I never measured it.

J. W. CARTER RECALLED

CROSS EXAMINATION by Mr. A. C. Hatch.

Q Did you produce the tickets, copies of the tickets you issued to the farm lands and city lots, have you them now, Mr. Carter?

A I will say that the tickets I issued were all given out and the stub books all but one has been destroyed, but I have got a copy -- that is, I have got a --

Q A form?

A A form.

Q Is the same as the form used by you?

A Practically the same, that is, almost exactly the same only out of a different form of book. This is used with a carbon and the one I used was used with a stub.

Q It was signed by whoever was deputy at the time in the blank place left for deputy? A. No sir.

Q This is signed Thomas C. Thompson, yours would be signed with your --

A J. William Carter.

Q Were the same kind issued for both the farm lands and the city lots?

A The stubb book was down there.

Q I ask you if the same kind of ticket was issued?

A Yes sir.

Q To the users upon farm land and the users upon farm lots?

A Yes sir.

Q And does this ticket represent the use of water for a city lot or farm lot or for farm lands?

A That ticket represents for a city lot portion of it, of a city lot.

MR. A. C. HATCH: I ask that it be marked.

(Exhibit 68)

MR. A. C. HATCH: I offer it in evidence.

MR. THOMAS No objection.

THE COURT: It may be received.

MR. A. C. HATCH: I will read it into the record.

"Water Master's Office, Provo, Utah, April 1, 1915. Number 1647. Mrs. Hattie Knight is entitled to the use of all the water in Ditch No. 1 on 6th West Street on Wednesday of each week from 7 o'clock A. M. until 8:30 o'clock A. M. of Wednesday upon Lot one-half 4-5, Block 51, Plat A, Provo City. Signed, C. Thompson, Chief Deputy Water Master, By (blank) deputy." Then follows a copy of provo City ordinances Sections 251 -- doesn't appear to be a copy -- follows a printed statement as follows: "Provo City ordinances See Sections 251, 252, 253,

254. Any person who shall convey any water from any ditch or canal of Provo City without first providing a good and sufficient head gate through which to take such water to the acceptance of the water master; or who shall fail to keep such head gate in constant repair; or who shall fail to close the head gate at expiration of time for using water; or shall change the flow of any water where distributed; or break any dam, canal, water ditch or dig away from the banks of any ditch or canal shall be guilty of misdemeanor, punishable by a fine not exceeding fifty dollars, or by imprisonment not exceeding thirty days, or by both fine and imprisonment. Every person using water from the ditches of Provo City shall construct a covered flume or pipe full width of the sidewalk and keep the same in constant repair."

Q Now, in the distribution of the water, you distributed it in accordance with the tickets theretofore delivered to the users?

A Yes sir.

Q And according to the time set forth in the tickets?

A Yes sir.

Q Did you make any difference in the size or volume of the stream distributed to farm lands from that distributed to farm lots?

A Yes sir.

Q What was the difference, about what was it?

A Oh, approximately about a second to a second and a half feet.

Q Difference? A. Yes sir.

Q And what difference, if any, was there between that distributed to farm lots and that distributed to city lots?

A There wasn't any difference between farm lots and the city lots.

Q And the stream distributed to the farm lots and the city lots was about one second foot? A. Yes sir.

Q That would make the stream distributed to the farm lands about two and a half second feet? A. Yes sir.

Q That was the quantity after the water had reached the 18000 foot flow in the river?

A Yes sir, about that?

Q And it was reduced according to the reduction of the quantity of water distributed to the city?

A Yes sir.

Q During the irrigation season? A. Yes sir.

Q So that in the latter part of the season the stream would all be less, is that correct?

A Well, the two years that I was water master it didn't get much below that, but that was the way we distributed it.

Q Did you distribute to the farm lands as provided by the ordinance every two weeks? A. No sir.

Q How did you distribute that?

A I cut the time in two and gave it every week.

Q That is distributed it one hour once a week instead of two hours twice a week per acre?

A Instead of two hours in two weeks, yes sir.

Q In two weeks, pardon me. That is all.

CROSS EXAMINATION by Mr. Bagley.

Q Mr. Carter, you have gone to the records that were in the water master's office at the time you were there, and ascertained the number of acres that you distributed water to while you were water master, that was in 1923? A. Yes sir.

Q And the number of acres as you have found it from your books was 1991.81 acres of farm land?

A Yes sir.

Q And 1789.36 lots? A. Yes sir.

Q Those lots were treated as acres in your distribution, were they?

A No, not as acres.

Q You added the number of lots to the number of acres, didn't you, to make the total? A. Yes sir.

Q Well, unless you treated the lot as acres how could you add them together as one and make a sum out of it, sum total?

A They were added together and made the sum total, that is right.

Q So that the lots were treated as acres?

A In this total, yes sir.

Q And in the distribution?

A Not in the distribution of the water?

Q Let me ask you this, you were in control of the distribution of the water from the river among the four principal canals, weren't you, of the city? A. Yes sir.

Q That is, you turned a certainty quantity of water in the East Union? A. Yes sir.

Q Certain quantity in the Factory Race, certain quantity in the Tanner Race and certain quantity in the City Race?

A Yes sir.

Q You apportioned the whole flow of city creek which is the main channel from the river to the point of distribution among these four main canals, didn't you?

A yes sir.

Q And in order to make a proper distribution among these four canals you had to know the number of acres of land and the number of city lots which were irrigated from each one of these canals? A. Yes sir.

Q And in order to divide the water you ascertained the number of lots and the number of acres under each one?

A Yes sir.

Q And apportioned the water according to those lots and acres, didn't you? A. yes sir.

Q And in that apportionment you didn't apportion a certain amount for the lands and cer-tain amount for the lots?

A In all the ditches nearly that irrigate land they are larger than the ditches that irrigate the city lots. The apportionment was larger in the land ditches than it was in the smaller ditches that irrigate the city lots.

Q Yes, but I am not speaking about the small laterals, I am speaking about the difference among the four principal canals that carry the water in, dividing the water up you never put in so much for the lands and so much for the lots, did you?

A Yes, in the division you had to figure it up and put so much in each one to cover the lands and lots under that.

Q They were classed together, wasn't they?

A Yes, it was classed together.

Q So (that you took the number of acres and number of lots in the East Union that were irrigated out of the East Union?

A Yes.

Q And turned that quantity of water into the East Union?

A Yes sir.

Q And in determining the quantity of water which would be turned into the East Union you would add together the number of acres and number of city lots? A. Yes sir.

Q And subtract that from the total number?

A Yes sir.

Q Or take its proportion of the total amount in the City Creek?

A Yes sir.

Q And you did not distinguish between a lot and an acre?

A Yes, there was a distinguishment between the lots and acres.

Q What was the difference between a lot and an acre?

A A lot was figured at less than half an acre.

THE COURT: In determining the water to put in the canals?

A Yes sir.

Q You mean you only gave half as much water to a lot in this distribution as you gave to an acre?

A Yes sir.

Q Have you got any record of the figures of distribution between these four main canals?

A No, I haven't, not now, any more than what the river man would have, Mr. Wentz.

Q He didn't divide your water in City Creek for you?

A Yes sir, he measured all four ditches.

Q Didn't he measure City Creek as one?

A No sir.

Q Well, didn't you have to tell the water commissioner how much to

turn into each one of these four before he would know how you wanted it divided? A. Yes sir.

Q Then you would have to make a calculation anyway, wouldn't you?

A Yes sir.

Q Now, can you remember how you divided it among these four streams?

A The calculation was set by the City Council, the difference between them four at one time. I cannot state the year, but the Council decided that.

Q Was it made a matter of record?

A Yes sir, in the city.

Q While you were water master?

A No, it was before I was water master.

Q Did you act on that while you were water master?

A Yes sir.

Q Do you remember how you divided the water?

A I could not say right now, I don't just remember.

Q Could you go to the city records and find out how this water was to be divided between these four canals?

A I think so.

Q I don't like to have to send you out again, but if it is agreeable, I would like to have it if you can.

THE COURT: Mr. Carter lives in the city?

MR. THOMAS: He lives here, that can be had, your honor.

W. K. FARRER, called by the defendant Provo City, being first duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Corfman.

Q Mr. Farrer, you live at Provo?

A Yes sir.

Q How long have you lived here?

A About fifty-four years.

Q How old a man are you now?

A Little past fifty-four.

Q Lived here all your life? A. Yes sir.

Q In what business are you engaged?

A I am a farmer.

Q Always been engaged in farming?

A Part of the time, I have changed some little.

Q At Provo and --

A Surroundings.

Q In the vicinity? A. Yes sir.

Q Are you engaged as a farmer now?

A Yes sir.

Q And have been using water for irrigation?

A Yes sir.

Q Under the Provo City water system? A. Yes sir.

Q Were you at any time connected with the city government of Provo? A. Yes sir.

Q As what officer?

A Water master.

Q When?

A 1898 and '99.

Q At any other time?

A I was deputy under Silas Alred in '96, I believe.

Q And were you connected with the city as an official at any other time?

A Yes sir, member of the council.

Q When?

A I just don't remember the years.

Q About what time, along about 1909?

A I think it was some time after I was water master a few years, I don't remember just exactly the year.

Q 1900, was it along about 1900?

A I think so, somewhere along about in 1900.

Q And in all of these connections with the city you have had occasion to observe the use of the water under the Provo City water

system? A. Yes sir.

Q And particularly as water master and deputy water master?

A Yes sir.

Q You have heard the testimony of witnesses with reference to the number of canals that comprise -- main canals that comprise the system, have you?

A Well, I don't know that I heard them state it, I know what they are.

Q What are they.

A Four.

Q Are the the upper, or the East Union, the Factory Race, the City Race and the Tanner Race.

A Yes sir.

Q You are familiar with all those canals?

A Yes sir.

Q And all the laterals. A. Yes sir.

Q That take the water from them? A. Yes sir, some forty odd laterals takes from them.

Q Now, in 1893 how was the water distributed to Provo City from the river?

A Through City Creek.

Q By whom?

A By Mr. A. L. Booth acting as commissioner at that time.

Q Under what kind of an arrangement?

A Kind of a -- just a social agreement, I guess that is the way you would put it, amongst ourselves.

Q Amongst the water users taking water at the mouth of Provo Canyon? A. Yes sir.

Q And he divided the water of the river and apportioned to Provo City. A. Yes sir.

Q The quantity? A. Yes sir.

Q And after the water had been apportioned by Mr. Booth you took it, as water master, and distributed it to the inhabitants of the city? A. Yes sir.

Q Now, where was the measuring gate for the city at that time situated?

A The measuring gate on the East Union was just --

Q Now, not of the several canals under the system, but when Mr. Booth measured the water to prove City where was the gate situated making this measurement.

A Just south of the old power plant, mouth of the canyon.

Q It was measured out to the city at that point?

A Yes sir.

Q From there you took it and distributed it to the several canals?

A Yes sir.

Q Now, about what time did that distribution take place in which Mr. Booth apportioned the water to prove City, how early in the season?

A In '93 we had a tight stream last of April in the river, that is practically a tight dam.

Q And you commenced measuring then? A. Yes sir.

Q And continued throughout the season?

A Yes sir.

Q Now, as the water was apportioned to you by the commissioner Mr. Booth, how did you distribute it among the several canals?

A Well, usually form according to the way --

Q What was the usual form at that time?

A I don't remember the amount that went into each canal.

Q Do you remember about what portion of the water you gave to the East Union Canal?

A I think that it was based on the amount of water that was in the river how much they took in each one of these canals, it varied.

Q Now, when it was down to about 300 second feet in the main river you then distributed the water that was apportioned to you, to the city? A. Yes sir.

Q And about how much did you give to the East Union Canal, how did you serve the East Union canal with the water down to that stage?

A Well, I don't remember those figures at that time, we used at

that time the Leffel system.

Q What system?

A The Leffel system, minute feet.

Q Was the East Union canal constructed and maintained at that time as it is now? A. Yes sir.

Q And how did you serve the water users under that canal with the water?

A Under the East Union Canal?

Q Yes.

A Well, we tried to time them on time and it was not satisfactory on account of the condition of the canal and we placed a man over it in the usual way they have done ever since. All the rest of the city was timed early in the season and timed throughout the season.

Q You abandoned that method ?

A Yes sir, had to abandon it.

Q At that time?

A Yes sir.

Q What was your judgment whether that was the most economical and beneficial way of serving the water users?

A I believe it was the best way.

Q How did you distribute the water under the method of serving it in turns?

A We based it on as near as we could on the two hour a system to the acre to the user.

Q Did you have water in that canal, continuous stream?

A Yes sir.

Q Night and day?

A Night and day.

Q The same quantity night and day ?

A Yes sir.

Q And ~~xxxx~~ during the low water stage of the river did you have the same quantity of water? A. No.

Q In the East Union Canal?

A In the low water stage of '98, that was one of the lowest

seasons ever known, we had 7600 feet was all it measured at the mouth of the canyon.

Q That was in 1898?

A 1896.

MR. A. C. NATCH: I didn't get that.

A 7800 that included two spring streams below the mouth of the canyon.

Q 7800?

A 7600, that is the same year we went to Heber and asked for water from Heber city, which they turned to us.

Q That is minute feet?

A Minute feet, yes sir.

Q What year?

A 1898.

Q Give us the date of that measurement?

A I don't think I can give it, I believe it is on record though in the city, it should be.

Q Was it in the spring, summer or fall?

A I will tell you, they were just cutting the timothy hay in Charleston when we were up there, that is about as near as I can tell you on that. It was in July, I believe.

Q Listen to the question now, when water got down to that very low stage in 1898, was there a sufficient quantity to supply the needs of the inhabitants of Provo City?

A No sir.

Q And the users of water? A. No sir.

Q In the Provo City system?

A There were only 1600 feet of water in the Factory Race at that time, that is, minute feet, and they couldn't run on it without backing up. Hoover mills couldn't run without backing up.

Q What did you do in order to procure more water that year?

A The mill people didn't have enough to do any good with and we used it on the farms for something over a month.

Q On account of the mills not having sufficient to turn their wheels? A. Yes sir.

Q And then did you have enough after taking the water from the mill owners?

A We had to have enough, we had all there was.

Q Did you do anything else in order to supply the irrigator?

A We turned that water into the different canals for the farmers.

Q You answered and said you went to Charleston?

A Yes sir.

Q For the purpose of getting water?

A We went to Charleston, there was a committee appointed, different canals got together and appointed a committee of five. There was James Lovelace of the Big Bench Canal, James Gray of the Upper East Union, there was Henry Goddard, Thomas Beesley and myself.

Q And you went to Wasatch county and conferred with the water users there? A. Yes sir.

Q Who in particular did you confer with?

A We found Joseph R. Murdock.

Q Of what company?

A Of the Spring Creek Irrigation Company, I believe that was the name of it.

Q Was arrangements made with him for the turning of the water down?

A He got in the rig we were in, went with us, and found the water master and he told him to turn off certain portion of that water right before us.

Q Did he do so?

A Well, the next morning --

Q Did he do so?

A I didn't see him.

Q You don't know whether he turned the water?

A I don't.

Q Was the water increased?

A The water was increased at the mouth of the canyon next morning 1100 minute feet.

Q To that amount?

A To that amount of 1100 minute feet.

Q Now, coming back to the East Union Canal, as I understand you, you found it impracticable to serve the water there to the users on a time basis? A. Yes sir.

Q And you served it in turns? A. Yes sir.

Q Now, under that method can you tell the court how you served the water users?

A Well, we based it as near as we could on the two hours to the acre.

Q In turning it to the several water users and applying it to the different crops?

A Yes sir.

Q How did you do that?

A The man that had charge of it would be posted along the canals as they knew who come in on his turn and if he was a man that had irrigated with his rowed stuff, cultivated stuff, why, we would try to give him as much as possible of the turn and the man that had alfalfa and grain and crops that could be handled at night, we gave him a night water as much as we could. If the man had both probably his turn would come on any hours of the day and take part day and part night.

Q You followed that system of distributing the water throughout that -- A. Yes sir.

Q Low water stage or season? Now, how did you distribute the water to the mill race that year in 1898?

A They had the water in the day time and we had it at night practically all summer.

Q In 1898? A. Yes sir.

Q Did they use the water throughout the season of 1898?

A No, they didn't use it. There was more than a month, ^{they} didn't use it at all, they had artificial power.

Q By reason of their not using it, then you distributed --

A Yes sir, by mutual agreement with the company.

Q To what canals did you distribute that.

A To the East Union, City Race and Tanner's Race. Some of it

farther to the canals farther down the river.

Q What was your method in 1898 in distributing to the platted portion of the city?

A Well, each lot got an hour and a half.

Q They got an hour and a half to begin the irrigation season with. What arrangement would you make for the distribution of the water users within the platted portion of the city?

A We timed them on a time card starting at the lower end of the ditch, hour and a half to to a city lot.

Q Then following up the ditch?

A Then following up the ditch to its head.

Q Was that done throughout the city, or only in the eastern portion of the city?

A It was done throughout the city with the exception of the East Union canal.

Q They were timed? A. Yes sir.

Q As to what has been called the farm lots, how were they served with water?

A Farm lots was practically served the same as city lots, or same as acres.

Q They were timed?

A They were timed, yes sir.

Q How much time did you give to the farm lots?

A We give two hours for an acre every other week where it could be handled that way, but Provo City can't take it that way. We haven't got in Provo City today more than two or three canals that use over two or two and a half second feet of water. All the rest of them are under that, and the water has to be timed in a little different form.

Q How do you time them, according to the needs or according to the property?

A On the small ditches get a certain amount every week.

Q Who is your deputy?

A J. M. Strong.

Q What lands were actually irrigated under the -- what was known

as the Mill Race in 1898 and 1899 while you were water master?

A Well, some little lands --

Q Commencing^{at} the head of the Mill Race, follow it down, Mr. Farrer.

A I could not give you the exact acres, I can tell you --

Q Where was the first lateral taken from the Mill Race?

A Be call it Baums field or pasture at that time, I don't know just who owns it now.

Q Where is that situated now?

A That is situated somewhere just above where Dr. Wallace's farm is.

Q Was that above Hoover's mill? A. Yes sir, was above Hoover's mill.

Q Take water there?

A At Hoover's mill?

Q No.

Q Yes sir, there was water taken there.

Q At Baum's place?

A Yes sir, partly spring water and partly water --

Q About how much water did you take from the Mill Race at that point?

A I don't think it would exceed a second foot.

Q Going down who was the next water user on the Mill Race?

A On 2nd West?

Q Well, following down the Mill Race.

A That is on the 2nd West street about two blocks above the woolan mill.

Q Who took the water there.

A It watered a number of city lots.

Q Remember the number of lots?

A No, I don't.

Q About how much water did you distribute to that ditch?

A That ditch would not exceed a second foot, I don't think.

Q Did that run continuously, did you give --

A No sir, it didn't run all the time.

Q It was shut off?

A Yes sir, it was shut off partly. Part of the time it was shut off.

Q For what purpose.

A To save the water.

Q Where did it then go?

A Down the Factory Race.

Q To whom?

A I don't know -- it was used.

Q Who used it?

A The woolen mills and ditches down 1st West below Center. Douglas field, First Ward pasture.

MR. A. L. BOOTH: You mean on 1st South below Center, instead of 1st West.

A 2nd West.

MR. A. L. BOOTH: You said on 1st West.

A I should have said 2nd West below Center.

Q The water before it came to that ditch was used by the Excelsior Roller Mills or Hoover brothers Mills?

A Yes sir.

Q And then following down the race who next used the water?

A Next the woolen mills used the water.

Q And who next?

A E. J. Ward & Sons.

Q Were they in operation in -- the woolen mills in operation in 1898? A. Yes sir.

Q And '99? A. Yes sir.

Q Was there any water out for irrigation between the Knight Woolen Mills and Ward & Sons Mills? A. Yes sir.

Q Where?

A On 2nd West between Center and 1st South.

Q Do you know about how much water was diver-ted into that lateral?

A I should say about two to two and a half second feet.

Q Do you know what it irrigated?

A I don't know the number of acres, I know where the land is, who

used it.

Q You don't know the number of acres?

A No sir, I don't, I don't remember.

Q Was the water all used that was diverted by the land owners?

A Yes sir.

Q Di-verted into that lateral? A. Yes sir.

Q Then the next place of use was at what point?

A Next place was Stubbs field.

Q Before that was there any other place?

A Smoot Investment Company.

Q Was there any place before that?

A E. J. Ward & Sons.

Q Did they use the water at that time? A. Yes sir.

Q For power purposes?

A For power purposes.

Q And from there where did the water go?

A Went to the Smoot Investment Company.

Q Were they in operation at that time?

A Yes sir.

Q Using water? A. Yes sir.

Q During 1898 and 1899 at that point during the day time, what portion of the water in the Mill Race did the Smoot Investment Company mill use?

A In 1898, as near as I can recollect the water run along from about 2200 minute feet down to sixteen, as near as my memory serves me. It was along about those figures we had continually, dropped all summer long, they couldn't run.

Q Did they use all the water?

A Yes sir, they wed all they could get.

Q During the day time? A. Yes sir.

Q Now, don't-the water that run in the Mill Race, I understood you, was diverted to the canals? A. Yes sir.

Q Are you familiar with the lands known as the First Ward Pasture?

A Yes sir.

Q Were they using water from the Mill Race in 1898 and 1899?

- A Some on the west side, northwest corner.
- Q For irrigation? A. Yes sir.
- Q You have been familiar with that tract of land all your life, have you? A. Yes sir.
- Q And has that been true since you have known it, they have used the water there for irrigation after it runs through the mills?
- A Yes sir, they can't get no water after it passes the Smoot Investment Company.
- Q That is during the time the Smoot Investment Company uses the water they could not use it on their land?
- A No sir.
- Q The Smoot Investment Company use it all during the low water stage? A. Yes sir.
- Q And do you know whether or not they used water through the mill there for the purpose of irrigation, speaking now of the First Ward pasture?
- A I cannot say as to that, I believe they did, I know that we had to make a number of special arrangements to water the Stubbs field, and that property down in there during '98.
- Q Now, during your years of 1898 and 1899, what do you say as to your -- number of times you would go over the irrigation and observe the use of the water?
- A In 1898 I visited the mouth of Provo Canyon.
- Q I am not talking about the mouth of Provo Canyon, but where the water was used?
- A Every day.
- Q Every day?
- A Yes sir, practically every day.
- Q Was that true of 1899 as well.
- A Practically.
- Q Was any water going to waste during those two years, 1888-- 1898 and 1899? A. No sir.
- Q What do you say with reference to their being sufficient water for the successful irrigation of lands under the Provo ^{City} system in 1898?

A There wasn't enough, it got in such condition that we had complaints from all over the district and got so bad I asked the chairman of irrigation, James Beesley, to visit the different parts of the city, and he did visit some and we went ^{all} over the whole buisness.

Q What condition did you find the crops in?

A We found the crops in as good condition as a person could expect of them. Everybody was just as short of water as they could be and doing anything at all. Lots of places ~~thxxx~~ they were losing part of their crops.

Q For want of water?

A For want of water.

Q Do you farm yourself?

A Yes sir, I do.

Q How many years have you farmed?

A I have farmed practically all my life.

Q Where is your land situated?

A West of Provo.

Q Under what irrigation system?

A Provo City and Little City Creek.

Q Do you use water from Provo City? A. Yes sir.

Q Each irrigation season?

A Every season.

Q From what canal?

A I use water -- the water I use comes -- for my city lot I use City Creek water and the water I use on land comes through Tanner's Race.

Q You use water from both of those canals?

A Yes sir.

Q Throughout each season? A. Yes sir.

Q How many years have you done that?

A About twenty-six or seven years.

Q Throughout that entire time have you had allotted to you for the use on your lot or land any more water than could be used?

A No sir, I have not.

A Beneficially?

A Only in the early season when there is a flush.

Q As a farmer and practical irrigator have you observed the general conditions?

A Yes sir, in a general way.

Q During the past twenty years. A. Yes sir.

Q Of the crops that have been raised under the Provo City water system? A. Yes sir.

Q Do you know at any time during that twenty years, last twenty years that Provo City has had more water than was sufficient to supply the needs of the demands for irrigation purposes?

A There was one year they had sufficient and had all the needed, everybody had all they needed.

Q What year was that?

A 1899.

Q Outside of that were there any years that the city was supplied with even sufficient water?

A I cannot call to mind any.

MR. THURMAN: I object to that, I don't think he has shown himself competent to testify to every year. He was not so connected, at least does not appear he was so connected with the system to justify that.

MR. COREMAN: Your honor, this witness is a practical farmer that has observed the use of water for the past twenty years.

MR. THURMAN: He might answer as to himself, but he is asked now about the whole system.

THE COURT: I understood Mr. Farrer to state he had observed the use of water in Provo City with reference to whether they had sufficient for the last twenty years. I understood him to answer that.

MR. THURMAN: It is a very sweeping question, goes right to the merits, and I would like to ask a question as to his competency.

THE COURT: You may cross examine him before he

answers this question, but do it after adjournment.

12:00 Noon, Recess to 2:00 P. M.

W. K. FARRER - - - - -

MR. THURMAN: I will ask the answer be stricken out.

THE COURT That may go out until you cross examine.

CROSS EXAMINATION by Mr. Thurman.

Q You were water master for how many years?

A Two years.

Q And deputy water master?

A One year.

Q What is three years?

A Yes sir, member of the irrigation committee two years.

Q And you are a farmer? A. Yes sir.

Q Where is your land?

A West of town, some of it right on the river.

Q Have any under the East Union?

A I haven't any, but my people have.

Q Now, you attend to your farm yourself?

A Yes sir.

Q Do the irrigating?

A Yes sir, I do all the irrigating practically.

Q And cultivating it? A. Yes sir.

Q During the time that you were not water master and devoted your full time to business, you were pretty well occupied with your farm? A. Yes sir.

Q You had but little time, I take it, for anything else?

A Oh, I had a little time, but I was working on the farm.

Q Did you go up the river that year?

A No sir, I have land over on the south-west corner of the bench, and I have to cross that usually two or three times every week.

Q You say you didn't go up the river?

A Yes sir, I did go up the river occasionally.

Q No, but you didn't go up every year?

A Yes sir, I go up every year, there has not been a year I haven't went up the canyon I know of.

Q During the times you were not water master? A Yes sir.

Q What do you go up for?

A Sometimes to fish, sometimes for pleasure, different things.

Q What season of the year do you go up?

A Well, I couldn't say that.

Q How?

A I couldn't say what seasons I have went up.

Q Of course you go up during the fishing season, you wouldn't go up to a fish outside of the fishing?

A Usually we went up to the resort.

Q You undertake to say there wasn't sufficient water during any of those years?

A There has been two years there has been sufficient water, I believe for all purposes. I don't know of any other.

Q There has been two years when there was considerable water run into the lake all season?

A No sir, not of late years, there hasn't been any.

MR. CORFMAN: Mr. Thurman, may I asked -- I understodd Mr. Thurman was going to examine this witness for the purpose of ascertaining the qualification.

MR. THURMAN: Yes, I wanted to see what he knew about it and what opportunity he had for knowing. I don't care to get outside of that.

Q Anyhow you feel perfectly competent to say positively that there has not been sufficient water during those years in which you were the water master?

A All but two.

Q Which two were they?

A 1899 and 1907.

Q Where has only been one year when you were not water mas ter?

A Yes sir, one year when I was not water master.

MR. THURMAN: I think I will not ask further except

general cross examination.

THE COURT: very well, the answer that was stricken out may be reinstated and may appear to come after this examination.

DIRECT EXAMINATION by Mr. Corfman continued.

Q Now, what you have said concerning the use of the East Union Canal during the years that you were water master, is equally true with respect to the use of the water in the other three principal canals of the city?

A Yes sir.

Q The water was always taken?

A Yes sir.

Q Was the Provo Foundry & Machine Company using water from the Tanner Race or the City Race during the years that you were acting as city water master? A. Yes sir.

Q Did that company or mill have all the water necessary for its use during the low water stage of the river?

A No sir, they did not.

Q It was not sufficient to supply it? A. NO sir.

Q Was the use made of the water by that plant about the same as is being made in recent years at the present time?

A Yes sir.

Q How long do you know of the Provo Foundry & Machine Company plant using water at that point?

A As far back as I can remember.

Q How long is that?

A Well, I think I would be safe in saying thirty-five or forty years.

Q What would you say as to the use made by the plant now known as the Provo Ice & Cold Storage Company's plant?

A It was not in operation at the time --

Q It was not in operation at that time?

A Yes sir.

Q What would you say as to the Hoover Brothers, or Excelsior Roller

Mills.

A They were operating just the same as now.

Q How long before had they been operating, about how many years?

A I couldnot tell you, as far back as I can remember. I can remember when Beebee built the mill, but I was just a boy.

Q Were they using about the same in the years you were water master as they are using now and have been using in recent years?

A I think so.

Q And is that true of the Knight Woolen Mills?

A Yes sir.

Q Is that true of E. J. Ward & Sons Company plant?

A Yes sir.

Q And Smoot Lumber Company plant?

A Yes sir, Smoot Lumber Company plant at one time run two wheels, but I believe they are only running one now. That is the mill and the investment company had a wheel each.

Q And have those mills been using the water as long as you can remember?

A Practically.

Q You remember when the brick plant was installed?

A I remember something about it, but it was after my term of office.

Q It was later? A. Yes sir

Q They were not using the water at that point when you were water master?

A No sir.

Q Speaking of the several main ditches or canals of the Provo City water system, how long have you known the use of the water being made through these canals?

A Thirty years.

Q Any of them longer than that?

A Propably so.

Q As long as you can remember? A. Yes sir.

Q And were they in those early years, or as far back as you can

remember, were their construction and capacities practically the same as now and as in recent years?

A With the exception of a few changes they made putting in the new brick plant they changed the head gate, but the size of the canals are just the same.

Q Now, are you familiar with the lands under the East Union Canal?

A In a general way.

Q Do you know whether or not they differ in character in different localities?

A Yes sir, they differ very much.

Q Did you ascertain in your experience in distributing water to the lands under the East Union that the land in the different localities required different amounts of water for to supply their needs?

A. Yes sir.

Q Commencing at the upper end of the East Union Canal, will you tell the court what you ascertained as to requirements of the use of water, the lands under that section?

A Yes sir, taking the head of the Canal, the land north of the city known as the Brerton land used to be Duzenberry's down through that section of the country.

Q For the purpose of identification, I will ask you if that land is now owned by Brigham Young University?

A I didn't know the University owned any land on the hill.

Q You have reference to the land on what is known as the Canyon Road?

A. Yes sir.

Q Immediately below Mr. Poulson?

A. Yes sir.

Q Now, what would you say as to the requirements of water on those lands being more or less than in other sections of the canal?

A Why, I think that land along through there needs about as much water as the average irrigated land.

Q And as you proceed farther down the canal is there different class of land?

A. Yes.

Q And what is the character of that?

A Well, the character of the land would be somewhat of the same

- A nature as far as irrigating purpose would be, to my judgment would be about the same until you get down to what is known as Elmer Smith's farm.
- Q That is farther east?
- A That is a little north of the Asylum.
- Q What is the character of the land there?
- A From there down for a little ways there is sub-irrigated ditches in part of that.
- Q Would you say those lands require as much --
- A Some seasons of the year they require more, and another year they won't need as much. Sub-irrigated land when it dried out is the worst land we have to contend with while we are irrigating.
- Q And as you go on farther down the ditch is the land still different character?
- A It changes again just north of the Asylum a little ways.
- Q What is the character of the land there?
- A Well, we had quite a hard time to supply that with water in 1898, very hard time.
- Q What kind of land is it?
- A Immediately laying below the canal at various depths it is a gravelly clay formation, and as it recedes farther down it becomes more of a clay loam.
- Q You found those lands different?
- A Yes sir, then as you go farther down to bottoms more sandy, very sandy formation.
- MR. RAY: Going down the canal or down the bench?
- A That is going west from the Asylum.
- MR. RAY: Going down the bench then?
- A Yes sir, not down the canal, but down the lay of the country.
- Q What did you find the requirements of that land to be?
- A Which is that?
- Q The sandy land that you speak of down the bench?
- A Sandy loam, quite a deep sandy loam.
- Q As to the requirements of water?
- A Takes fairly good amount of water to water them.

Q Now, what do you mean by fari, good quantity of water?

A Well, I would say --

Q More than the aveage or about the average?

A A good average.

Q Going down the canal from the point where you left it, north of the Asylum, what character of land do you find?

A We find a gravelly clay formation for considerable distance.

Q And what did you find the requirements of that class^{of} land in that locality?

A I think that there ain't a great deal of difference when it comes to irrigating .

Q As I understood you, in delivering the water to the water users, the users took turns? A. Yes sir.

Q What method did you have at that time with respect to changing the water from one field to another?

A The man that had charge of the canal knows just when the water is going to expire from one man't turn to another. He notifies them ahead when their turn will be on, and sees that they get it or somebody else.

Q Did you endeavor while you were water master to deliver to each acre of land under the system -- I am speaking of the East Union -- exactly the same quantity of water?

A Yes sir, practically so.

Q You are speaking now of quantity, not of time but quantity? Did you do that regardless of the kind of crops he was raising and when he needed it, or did you apply the water according to the needs?

A The canal was going in so many streams, usually figure out so many irrigating streams of water that he could get out of the canal, and if it come to a section of country where there was some garden streams added the stream was cut up in small streams.

Q How did you use the water? give the same land the same quantity regardless of the crop that was on it?

A No sir.

Q How did you do that?

- A Cultivated crop, what we call row crop don't need as a rule unless it would be big field of potatoes or corn, something like that, wouldn't need as much water as alfalfa or grain.
- Q And you didn't distribute to that class of land the same water you did to other lands?
- A Not usually.
- Q Did you give attention to the night irrigation?
- A Yes sir.
- Q Needs of the land? A. Yes sir.
- Q And in those irrigations where was the water usually applied at night.
- A Applied on alfalfa and grain, larger tracts of land that you can handle it the best.
- Q What method did you use, furrowing or flooding --
- A Different, some use the marker system and some use the flooding system.
- Q And during those years I will ask you whether or not after using the water upon the land whether there was any more water distributed under that system than could be beneficially used in your judgment?
- A No sir, there was not.
- Q And could the farmers under that ditch have used more water beneficially had they ever have had it?
- A Yes sir, they could. We had a great deal of trouble to get it out to the end of the ditch on account of it being such a small stream so far out.
- Q Now, since that time and down since 1902, have you made -- have you observed any time the conditions of the crops and manner in which they were irrigated under that system?
- A Why, I have been -- you mean out in the Union system?
- Q Yes.
- A No, I don't know as I have,
- Q I mean not as an officer, but have you been through there?
- A Yes sir, I have been through there in a general way, I have seen them.

Q And have the methods that have been used since that time been practically the same as when you were water master?

A I think they have.

Q During the years that you were water master did you distribute the waters under what is known as the Tanner Race?

A Yes sir.

Q And did you time the water users there or take it in turn?

A Gave them time.

Q And how was that time apportioned among the water users?

A An hour and a half to city lots and two hours to acres with the exception where the ditches are smaller. Where the ditches are smaller have to use it in different ways, usually according to the stream each week.

Q What would you say where the tracts were small, such as city lots and acre lots requiring a greater quantity of water on account of their being divided up?

A They do require more water. You take the city lots, could not possibly,-- could not be watered on the amount of water they get if all the water was watered -- that is in the lot-- on the land, couldn't possibly be watered.

Q Did you find that to be generally true all over the platted portion of the city where water is used ?

A Yes sir, that is the way I found it everywhere.

Q What class of crops are generally raised throughout the Provo City irrigation system?

A Well, considerable of sugar beets has been raised. I think it is grain, alfalfa, different kinds of grain, vegetables, general farm crops.

Q Now, when a wheat crop is grown and harvested, is there any use of the water made on those lands after the wheat is taken off?

A On the wheat crop?

Q On the land?

A Yes sir, occasionally.

Q What for?

- A Well, great many people sow alfalfa after the grain crop. It is customary now when rotating crops.
- Q Plow the land up in the fall? A Yes sir.
- Q In order to do that successfully what is necessary?
- A Have to irrigate it most every fall.
- Q Now, you spoke about the farmers throughout the Provo City system using -- growing truck, growing good deal of truck gardens; as an experienced farmer and irrigator, what would you say as to the quantity of water that is necessary to apply to that class of ~~xsteg~~ vegetation in order to grow successful crops?
- A I think it needs considerably more water than the average farm crops.
- Q What would you say as to the frequency?
- A Have to be watered every week.
- Q In the platted portion of the city you spoke of allotting an hour and a half's time for the irrigation of a city lot?
- A Yes sir.
- Q Now, under your management was that done regardless of the number of square rods of ground that was actually in cultivation?
- A Yes sir, we didn't take any notice whether there was two rods or whether there was more.
- Q And some lots I take it, some seasons were not irrigated at all?
- A Yes sir.
- Q And sometimes a lot would miss and next year be cultivated and crops grown upon it? A. Yes sir.
- Q Now, at the heads of the ditches irrigating the platted portion of the city, I will ask you whether if you, in distributing the water, you took the needs of the particular property owners that were under each lateral into consideration in turning the water to their use? A. Yes sir.
- Q Turned it in according to their needs and requirements?
- A Yes sir.

MR. JACOB EVANS: Wait a moment, I move to strike that

out, the witness has testified he gave them tickets at the beginning of the season. The ticket was for an hour and a half for the lot two hours for the acre, I don't see how he could testify concerning the needs when that was all arranged at the beginning of the season.

MR. CORFMAN: We are using the water now and not distributing the tickets.

MR. JACOB EVANS: Do you mean to say he disregarded his tickets then?

MR. CORFMAN: I mean to have the witness tell the court how the water was used.

THE COURT: well, as yet the evidence with reference to the way this water was distributed in advance by the issuing of the tickets has been so incomplete as not to mean anything as yet. One element is lacking which would make it mean something. It does not mean anything to say a person could have water for an hour and a half or two hours unless some idea is given as to the quantity of water. We all understand if a person has two second feet of water running two hours they would get more than they would if they had a half a second foot running, but there has not been any evidence at all yet which would indicate what was intended by this hour and a half. There was evidence as to the quantity running at times in these ditches. So that any evidence that will tend to connect up that and furnish the missing factor is very material of course.

Q Now, in the distribution of the water you spoke of having passed out tickets to the water users at the beginning of the season?

A Yes sir.

Q Did they take the water as prescribed in that ticket they might have it? A. Yes sir.

Q How? A. Yes sir.

Q Always?

A No, I don't think they did always, occasionally where it was missed.

Q Well, when they missed it they had no occasion to use it, is

that what we are to understand.

A. Ye sir.

Q Was the water taken by any of the property owners when they didn't use it?

A. Yes sir.

Q What did they do with it?

A Irrigated with it.

Q That is what I am asking you, did they take the water when they didn't use it?

A The individual that had time might have missed, might be a case where an individual missed his time and another individual used the water.

Q And were those instances frequent where one man would take another's turn? where the other didn't have occasion to use the water?

A No sir, not to my knowledge.

Q They generally used some water?

A Yes sir, mostly.

Q And in cases where the water was not used at all, where did it go?

A Well, nearly every city ditch has farm land at the lower end of it, and as a rule the man on the lower end has a pretty hard time getting water in low season especially.

Q And those farmers at the lower ends of these laterals, how did they manage to get this water?

A I don't know of a man that don't live near the lower end that don't have a placed fixed so that if any water comes he will get it in order to keep up his water.

Q What arrangements does he make there in connection with the use of water upon his land in order to catch this water if any should go down?

A They have head gates in the ditches leading into their crops.

Q And that was done while you were water master?

A Yes sir.

Q And have you seen that done since you were water master?

A Ye s sir, I do it ,myself.

Q I will ask you if that is not the general practice?

A Yes sir.

Q Of the land owners that are below these laterals that are taken out through the platted portion?

A Yes sir; I would like to state right here, I live on the tail end of the Provo River system myself, and I pretty near know what I am up against.

Q And by that method all the water was used beneficially?

A Yes sir. I believe that I could answer the Judge's question probably too, if there is no objection.

Q You may do so.

A I would like to state that Provo City has something over forty of these small irrigating ditches, and I believe that if an engineer will go out today and measure them he won't find one out of the forty of these small ditches has a second foot of water in an average.

MR. A. C. HATCH: You mean today that condition exists?

A I mean it exists after you get to the first measurement, speaking from the first measurement. I water farm land out of 9th West on Provo City and I haven't measured it, but I believe my judgment is as good as the average man on water, and I don't believe that I have ever used over a minute and a half or a second and a half of water out of that ditch to water my crop.

MR. A. C. HATCH: Is your's farm land?

A Yes sir, I have a piece I have reference to is farm land.

Q Now, if you got more could you use it beneficially?

A Yes sir, you can't find no waste ditches running from my land, any of you.

Q Mr. Farrer, do you know whether or not in any recent years of those using water for irrigation purposes under the Provo City water system having crops that suffered for lack of water to irrigate them with. A. Yes sir.

Q What years have you known?

A I don't know I could call to mind the exact time.

Q You do know of such instances?

Q I have heard of them.

Q And have you seen crops that were suffering for want of water?

A Yes sir.

Q As that been occasionally, or has it been quite frequently during the very low stages of the river?

A Different locations.

CROSS EXAMINATION by Mr. Thurman.

Q Where has the land suffered, Mr. Farrer, that you have seen mostly, what part of the city?

A I have a piece myself, last year I couldn't get enough water to water it.

Q What kind of crop?

A Barley.

Q Where was that, west side or east?

A West side?

Q How much barley did you have?

A I just had a small piece. I had a patch of sugar beets and piece of barley on this piece of land, and in order to mature the sugar beets I had to slight the barley.

Q How much barley, how many acres?

A I didn't have only a small patch, about three-quarters of an acre of barley.

Q Then did you thrash it? A. Yes sir.

Q Do you know how many bushels you had?

A I don't remember. It was a very light crops, some places wasn't hardly enough crop to cut with a binder.

Q Don't recall how many bushels you had last year?

A I thrashed two pieces of barley together.

Q So you cannot segregate them?

A I could not segregate the, but the bundles were very short, the band wouldn't stay around the bundle on pretty near half of the patch.

Q Well, did anybody else suffer?

A I could not name all of them. I have heard there was a number of

them that complained to be losing part of their crop.

Q I am asking about what you know.

A No sir, I could not name you.

Q You lose a little on three-quarters of an acre of barley, your beets were all right, weren't they?

A Yes sir, I done fairly well on the beets.

Q Rest of your crop was all right?

A Yes sir.

Q That is all you actually know of of your own knowledge ?

A Yes sir.

Q Last year.

A Last year.

Q How many acres have you in your entire farm?

A Only four acres in that piece.

Q Well, how much do you farm?

A I have about thirtry-five acres altogether, but in different places.

Q Now, in 1898, was there much suffering that year that you have knowledge of?

A Well, there wasn't a full crop raised of everything.

Q what do you call a full crop, say of wheat, on your average land?

A Fifty bushels.

Q Does your average land make fifty bushels of wheat in the Provo District?

A I usually run close to fifty bushels on an average. I have had as high as sixty-five and seventy, not often seventy, I have had fifty a number of times.

Q You remember what you had in '98 ?

A No I don't, I didn't farm in '98.

Q Do you remember how far short the crop was in '98 on grain?

A No sir.

Q Do you remember it was short at all?

A I couldnot say how much anybody was short.

Q Well, do you remember that they were short?

- A I know that was the general complaint.
- Q I know there was a complaint, you have had complaints whenever you was water master, didn't you, you heard complaints always, that is the common thing in every year, isn't it?
- A Not as much as others.
- Q How?
- A Not as much as others.
- Q No, sometimes they are pinched a little more and complain, then later on find they did not suffer, isn't that true?
- A No sir.
- Q Haven't you know men to complain of shortage of water because at the time they think they ought to have it, but they get it get what they want and after all don't suffer when the crop is harvested, don't you know that is true?
- A It might be so in some cases.
- Q Do you know of anybody who had a shortage of the crop in 1898.
- A I cannot call to mind now, I did know of some, but cannot call to mind now, it has been about sixteen years.
- Q Don't recall a single individual notwithstanding your familiar acquaintance with all the ditches and all the lands and the water supply?
- A I believe I stated sometime ago we had so many complaints that I had p-
- Q Yes, I know that is true, and it would seem, wouldn't it, in so many complaints you could think of one so as we can test it.
- A James Gray was one place that you could specially visit too, because he was very low with his crop.
- Q When was that?
- A That was in '98.
- Q Can you give^{us} a live man now that you think of that we can check up on?
- A No, I cannot call any particular.
- Q Was that crop of Mr. Gray's a grain crop?
- A Mr. Gray had a number of different crops.

Q Were they all suffering, or some particular class of crops?

A His hay was short of a crop.

Q What kind of hay, lucern, alfalfa?

A Alfalfa.

Q How much short, do you know?

A No sir, I don't.

Q Do you remember what season of the year it was?

A No sir, I don't, I believe it was in July.

Q What do you think, would it be late or early, would it be the early, say April or May when -- sometimes short in those months, aren't you?

A No sir.

Q Never?

A No sir, in 1898 it was the only time that I ever knew of the river being damed off at the dam in the last of April, but they had water enough by dividing it around everybody ^{have} had a sufficiency to water with at that time.

Q Now, generally, if it was divided up around when people are complaining of being short, it was arranged to give it to those who needed it and take it from those who don't, there wouldn't be much shortage, would there?

A Not in April.

Q In any season of the year?

A You say if it rained?

Q No --

A I didn't understand you.

Q If the water was divided up when some people complained of being short and others have may be to spare there would be less reason for complaint, wouldn't there?

A Well, I don't think, there is some seasons they could not, I don't believe could be divided so everybody could have what they wanted.

Q Have what they needed?

A Have what they needed. I believe every farmer that has undertaken to make a living on a farm is trying to see how little

water he can possibly use for his own benefit, that is what everybody that is tilling land is trying to come to.

Q Trying to come to that?

A Yes sir. I wouldn't have a drop of water put on my ground that is not necessary that I could get along without.

Q How long has that been -- that effort been made?

A Number of years, I think it is a common practice.

Q It has not always been so, has it?

A No sir, it has not.

Q In recent years you have been trying to do that?

A Yes sir, I am not as an individual, and I know of others.

Q And you still don't have any more water under that effort than you had when you used to be more wasteful, ain't that true?

A We have had more water last few years coming out of Provo Canyon than we had here a few years back.

Q You had more water under the decree than you had before, haven't you, take it one year with another?

A No sir, we haven't, not where I farm.

Q Well --

A If it hadn't been for the water turned out of the Factory Race Little Dry Irrigation Company would have lost their crops, biggest portion of it.

MR. RAY: What year?

A One year after another.

Q Well, hasn't the practice been here to turn the water out of the Factory Race whenever the farmers really were suffering for the water? A. Yes sir.

Q Hasn't that been the practice ever since you have known -- been familiar with it? A. Yes sir.

Q Water master would go and take it from the Factory if necessary in the day time and give it to the farmers?

A With the consent of the mill people.

Q With the consent of the mill people?

A Yes sir, that is the way I understand it.

Q Well, are you speaking now from your own experience?

A Yes sir.

Q Or the experience-- you are not attempting to include what other water masters have done?

A No sir.

Q You went and got consent when you turned it?

A& Yes sir.

Q When did you take it from the Factory for the farmers in the day time?

A The water was taken in 1898.

Q Who was in charge of the Factory water?

A What do you mean, do you mean the water master?

Q No, no, who was running the factory and claimed the factory water, what particular person was in charge of the -- superintendent of the factory?

A I expect I ^{will} have to refer to another dead man on that.

Q All right.

A Mr. Crane was engineer and had charge at that time of that part of it.

Q Who was superintendent?

A I think Mr. Bath or Down, I think it was.

Q James Down?

A No, it was Reed Smoot, that is who it was.

Q Did you get Reed's consent?

A I think I did, but I don't remember, it was the general understanding between all the mills--

MR. THURMAN: Now, I object to what -- ask that go out.

THE COURT: That may go out.

Q You don't remember getting Reed's consent?

A No sir, I don't.

Q Did you get Crane's consent?

A Well, we would go over and see them and they didn't have water enough to run with and farmers didn't have enough to go on with.

Q I didn't ask you that, I am trying to get at the way you ob-

tained this factory water, you say with the consent.

A I have stated --

Q I want to know who gave the consent?

A Got consent from Hoovers and A. T. Ward.

Q In 1898? A. Yessir.

Q State just what took place between you and Hoover on that occasion?

A I cannot call the exact conversation.

Q Which Hoover was it?

A I think John W. Hoover, Jr. was running the mill at that time, they would have to back the water up for some length of time and then turn their wheel loose until the water run down, then stop it and run again.

Q They were not running at all then?

A Just as well not been because they had to put in an engine and put the engine in.

Q Do you mean to say when they didn't have water enough to run you still went and asked them for water for the farmers?

A We went there and talked with them and they understood the situation and they were willing for the farmers to have it.

Q You don't know has it been the custom here for the water masters under the direction of the old City Council to allow the water to go to the factory as long as the farmers could stand it, but if there come an emergency the water wasters went and took it without the consent of the factory?

A No sir, I didn't know that way.

Q You never understood it that way? A. No sir.

Q How long have you had any knowledge of that being the way it does was done, how many years has your memory go back relating to that particular subject?

A I only had the one year turning the water off in the summer time in the day time.

Q How is that?

A I only had experience one year turning the water off in the day time.

- Q That was when you were water master?
- A Yes sir.
- Q But I am speaking just from your memory, as a resident here, how far back does your memory go concerning the way in which the city took the water?
- A Turning it off at night?
- Q No, in the day time?
- A I don't know.
- Q I understand it is turning --
- A I don't think I can answer that question.
- Q As I understand, it is turning off, giving it to the farmers at night, the farmers really exchange with them, don't they, by letting them take it in the day time?
- A No sir.
- Q They don't?
- A No sir, there may have been some changes of that kind made at different periods, but that is not generally. It is general for them to turn them off at night in low water time.
- Q But the farmers don't give up anything in the day time?
- A No sir.
- Q Does the East Union canal run as much in the day as it does in the night?
- A No sir, not in low ~~xxx~~ water time.
- Q Why?
- A Because they had the Factory Racewater in there at night.
- Q Do they run as much, do they have their full quote which they have without the factory water, do they have that during the day time, or do they give some of it up?
- A I never knew of them to give it up.
- Q How does the factory run in the day time.
- A Usually they have their proportion of water.
- Q How much is necessary to run the factories on the Factory Race, turn their wheels?
- A If my memory serves me right, Hoover Brothers could run on about

eighteen to twenty minute feet. I don't understand feet, used a Leffel system before that time.

THE COURT: Eighteen to twenty minute feet?

A Yes sir.

MR. THOMAS: Do you mean that, Mr. Farrer, haven't you made a mistake. Eighteen minute feet?

A I meant eighteen to twenty hundred minute feet.

Q Eighteen hundred?

A Yes, to two thousand minute feet. It could hardly run on the eighteen, if my memory serves me right, I have been there a number of times when they have been trying to run. At that time they factory would attach their wheel and engine so they both pulled together and they would get the benefit of all the pull there was in the --

Q Eighteen hundred would be three second feet, wouldn't it?

MR. RAY: Thirty.

A No, they could not make much of a run on eighteen.

Q What could the woolen mills run with, could they run with the same quantity?

A They could by doing like I said, they could attach their power with the engine and give them what power there was in the water. I found them running that way a number of times when I was there.

Q There was never a time, I suppose, within your memory when the factory run at night, used the water?

A There was during Alfred's time of service when I was deputy to him. They had the old Provo City electric light system over there and they used the water until about one o'clock at night and then we would turn it off to the farmers at twelve so that it would be off with them about one, and then in the morning we would turn it back so that they would have it again after six o'clock in the morning. I have made a trip up there month in and month out once at twelve o'clock and once early in the morning to change that water.

Q Did you ever measure the water that went into the East Union Ditch?

A. No sir.

Q How do you know what ran in there when you were water master?

A By the measurements that the commissioner would give us.

Q Would he measure the water into that ditch?

A That was the method they had of determining how much water there was, measuring the head of each canal, and we would regulate out ditches and then they would measure them.

Q So all you know about it you got from the commissioner's report?

A Yes sir.

Q Let me understand, does the commissioner measure the water into each of these canals, or does he measure the water into City Creek, or what is that?

A I don't know how they measure it now.

Q At that time they measured each of the canals?

A I think they were measured at both places at different times general way, it was at the City Creek.

Q Well, these canals running into the city taking water, all of them take water from City Creek?

A Yes sir.

Q How much did the commissioner measure into the East Union Canal?

A I could not tell you.

Q Did he measure any, did he measure at that point.

A Yes, there was a weir there, it has been measured, I could not tell you what measurements were given now. Provo City system is a unit system and it didn't make any difference whether one section was shorter than the other the water was changed a little at times and has to be done at times.

Q You don't know then what the East Union ditch carried?

A East Union ditch on the ten thousand foot basis of the river would be about twelve hundred minute feet, that is, counting minute feet.

Q About twenty second feet, what would the City Race carry at that time?

A Be about eight hundred minute feet on that basis, between seven and eight.

Q What would the Factory Race carry in the day time?

A I don't know that I remember the figures on that.

Q The Tanner Race?

A Tanner Race was a little less than the City Race.

Q That is twenty second feet in the East Union?

A That is the way I understand it.

Q Just give me the figures again, I haven't put them down. 20
second feet to the East Union, how many to the City Race?

A I think it is, my memory serves me, it was eight hundred.

Q And the Tanner Race would be a little less?

A Be a little less, about seven,

Q Six or seven hundred?

A Somewhere along in there, I could not tell you just exactly.

Q Factory Race, hadn't you any approximate idea at all?

A No sir, my memory don't serve me on that, not at that stage.

Q Here is about forty --

A At the time I was water master Provo City, according to the
agreement ~~between~~ before the decree was granted here we worked
on the basis of $43/100$ of the whole river, is the basis we
divided on.

Q That is the city would get?

A $43/100$, that was before the decree was granted.

Q $43/100$ of ten thousand?

A Yes, sir.

Q When it was down to ten thousand?

A Yes sir, that will give you what was in the Factory Race.

Q You said one year there was -- Factory Race was taken down
Little Dry Creek, what year was that?

A How was that?

Q Didn't you say that one year the water of the Factory Race was
taken down Little Dry Creek?

A We have had water out of the Factory Race every year in the
Little Dry Creek for the past ten or fifteen years if not
longer.

Q Who gave it to you?

A Why, whenever they turn it off the dam is arranged so that we get our water through Provo City system and whenever they turned off the water we get a portion of their water.

Q When the factory turns off?

A When the factory is turned off we get a portion of their water

Q What do you mean by turning it off, what would they turn it off for?

A Turn the water off because there isn't enough water in the low season at night.

Q Do you know whether the factory people consented in that case or whether --

A No sir, I don't know anything about it, only as I told you the year I had the experience with them as water master. I have understood it was all right with them.

MR. A. C. HATCH: If the court please, I want the privilege of examining the witness on another question.

CROSS EXAMINATION by Mr. A. C. Hatch.

Q You stated you never had to exceed one and a half second feet of water in the ditch from which you irrigate your farm land?

A Yes sir.

Q And do you irrigate on the turn of two hours to the acre?

A No sir, I have a little more than that.

Q How much time do you have?

A I get my water every week on that piece and water part of it one week and part of it next.

Q And you get how much, enough more than a second and a half -- what would be the average of the quantity which you get in the ditch?

A I get practically somewhere along about that, Judge. When it gets right low then I think very often it is smaller than that.

Q Down to what point?

A Well, it is not ever cut below a second foot if I understood the second foot theory proper, and I think I do.

Q How long do you get per acre?

A I get just double time figuring two weeks out.

Q That is, you take, you get four hours per acre every two weeks instead of two hours as provided by the ordinance?

A Yes sir.

Q Don't you have a ticket?

A Yes sir.

Q How is that arranged that you get double the time?

A Because the ditch --

Q Allotted to other individuals.

A I don't get different to other individuals.

Q I understood you to answer me that you get four hours per acre every two weeks. The ordinance provides two hours per acre of land every two weeks?

A That is figured on the basis where they get a stream of water to water with.

Q Two and a half second feet?

A Yes sir.

Q Now, you get more than one half of that same quantity of water if you get a second and a half, second foot and a half, and do they double your time, give you more than others?

A Yes sir.

Q But all the time you don't get the second foot and a half?

A No sir, don't get it all the time

Q About what proportion?

A That is that's my judgment on it.

Q About what proportion of the time do you get that quantity, or what proportion a less quantity.

A I could not say exactly what proportion, very often we are short of water.

Q Now, from whose time do they take the extra time that they give to you during the week?

A I don't know they take it from anybody.

Q I understood that the tickets were made out in the late winter or early spring, and that each person was given a ticket for

his time, according to his lots or his acres, is that correct?

A Yes sir.

Q And that the time comes around so that each party gets it once a week, under the City ditch system, or city lot ditch system?

A This land is under the city lot system.

Q And it would have to come around regularly in order to get around once a week, according to the time that is shown by the ticket, would it not?

A I can probably answer that for you in a way?

Q That is what I want to know.

A Now, where there is garden water and city lots the stream is divided up into two or more turns and that is the way with the other -- the farm gets their amount out of it.

Q The stream is increased usually when it gets to the farms?

A Yes sir.

Q And he has two and a half second feet.

A You take that ditch on 8th West there is a ditch on each side of the street that takes out of that ditch. Then in the middle of the block between 8th and 9th, there is another stream taken out and one on the east side of 9th West there is another ditch taken out, and very often two of those ditches are running at once.

Q But the time --

A Three of them.

Q But the time is not increased, that is what I was asking you about, how could they increase your time, double the time stated on your ticket and still get around?

A I get -- the way they do that is because when two or three ditches of water, it gives us more time on the one single ditch by adding, flowing the water all into one ditch as they do for all the farms along that ditch.

Q Still I don't understand, I can't understand how they can double your time from that given you by your ticket -- not increasing

the water, I can understand that, give you more water, but I can't understand when the time is all allotted, how they can give you more time than your allotment without taking that time from somebody else on the same ditch, do you understand my position?

A Yes sir.

Q Now, if you can explain that to me I wish you would, possibly you misunderstood me when you said --

A I don't know just how to explain that to you. In the first place that ditch used to be all farm property at one time, and they kept adding on the city lots and cutting it up different shapes so that they could water the different class of --

Q Mr. Farrer, that is not attempting to answer my question, you don't understand me or else I don't understand you. Now, on the city lots they have from three quarters to a second foot an hour and a half a week?

A Yes sir.

Q Farm lands have tickets issued to them for two hours per acre once in two weeks, that is as I understand it?

A Yes sir.

Q And the whole time is taken up by the allotments as shown on the tickets under each of the ditches? That is right, isn't it?

A Yes sir.

Q Now, what I don't understand is how they could double your time?

A Well, the length of that was --

Q Wait a moment, without taking the time from someone else's allotment.

A There is time enough on that ditch to get the time in that way, on the length of the ditch.

Q Then there is more than sufficient time to reach all of the parties on the ratio of one hour and a half for city lots and two hours for farm lands per acre under that particular ditch?

A Yes sir, if there was water enough to water so that a man could

water his land at the time given him, but there is not.

Q pardon, me, the water hasn't anything to do with it. It is the time.

Q It has something to do with a man irrigating his land.

Q It has a difference as to the irrigation, but I am only asking as to the allotment of time.

A Those things have to be taken into consideration.

Q You eliminate the water from the time and answer as to the time, that is what I am asking about, the time is all ~~xx~~ taken by the allotments made by the ticket?

A No sir, it is not all two hours to the hour and hour and a half to the city lots.

Q On the particular row of blocks under which you are located?

A Yes sir.

Q Is that true as to all those blocks in the city?

A No sir.

Q Now, are there any others besides that one ~~xx~~ row of blocks in the city in which the time is not all taken by the allotment under the ticket?

A I think there is, but I could not call you to mind now. I think the ditch we referred to sometime ago that takes out of the Factory Race is different.

Q How many lots are irrigated in that row under which you are situated?

A I could not say.

Q Do you know how many acres of land are irrigated from the ditch?

A I am not qualified to make that statement.

Q Now, how many extra hours of time is there ^{over} and above the hour and a half for the city lots and two hours per acre for farm lands.

A I could not tell you.

Q Under your other farm lands, what quantity of water do you get?

A My land is not under Provo City.

Q It is not under the Provo City? A. No sir.

Q You said there were only three ditches that would carry two and a half second feet of water under this system, if I understood you correctly.

A I said I didn't think that there was more than that .

Q Which are those ditches?

A One of them is the -- two of them is the City Race, one of them is the City Race that runs in the fork, main two ditches, what is called the City Race and one down here on 2nd West I think is another. I don't know of any other.

Q And those will not carry to exceed two and a half second feet, will they?

A There is one other I forgot.

Q What other?

A The tail end of the Tanner Race.

Q Those ditches will not carry to exceed two and a half second feet?

A Yes, two of them will.

Q Which two.

A I think the Scott Ditch will carry a little more, and I think the City Race will.

Q About how much more?

A They might go three second feet, maybe a little more, I don't know, but not much.

Q But two and a half second feet is all that is intended to distribute for the irrigation of any farm lands under the city system is it not?

A I don't know that, what they intend to do.

Q Well, the west part of the city?

A 9th West is one of the larger of the ditches in the city, and that is short very much of an irrigating stream.

Q I didn't get the last part.

Q I say 9th West is one of the larger ditches besides those I mentioned and it has a very small irrigating stream.

Q What would you say run in it?

A I said about a second and a half feet.

- Q What is for the irrigation of farm lands?
- A Yes sir, for the irrigation of the farm part.
- Q Do you know how many ditches there are, laterals used for irrigating of the lands under the whole system?
- A No sir, not exactly, somewhere around forty.
- Q Do you know how many of those ditches are used at any one time being used at once?
- A No sir, most of them are used at once, but I don't know which would be not used.

CROSS EXAMINATION by Mr. Ray.

- Q Mr. Farrer, how many acres of land have you which are irrigated under the city system that you have just referred to?
- A About four acres.
- Q And as your water comes to you you have a stream for that once a week? A. Yes sir.
- Q And you water as you see fit with that stream upon that four acres? A. Yes sir.
- Q What was the lowest stream you had last year in the irrigation of that four acres?
- A I could not give you just the exact amount.
- Q About a second foot you told Judge Thurman, didn't you?
- A Yes sir, I think that would be somewhere about what it would be.
- Q And it ranged from that to a second foot and a half?
- A That would be my judgment.
- Q How many hours a week did ~~we~~ you have to irrigate, what was your time?
- A About eight hours.
- Q Eight hours a week, so that for four acres of land you had eight hours a week with a stream of water flowing very near to one and a half second feet? A. Yes sir.
- Q Would it average one and a quarter, do you think, during the season?
- A I guess it would.

- Q Now, have you ever measured that to determine whether it is four ac res? A. No sir.
- Q You estimate it at four acres? A. Yes sir.
- Q Is your home on that property? A. No sir.
- Q All of it is under cultivation? A. Yes sir.
- Q What crops did you have last year?
- A I had beets and barley.
- Q Just the two crops?
- A Little bit of hay ground, very little.
- Q Now, while you say you never have measured any water, Mr. Farrer, you have some judgment as to what a second foot of water is, haven't you? A. Yes sir.
- Q Have you any judgment as to how many acres of the land like you described on the upper end of the East Union a second foot of water would irrigate during the irrigation season?
- A No sir, I could not.
- Q Haven't any judgment at all about it. Have you any judgment as to how many ac res a second foot of water would irrigate in the platted portion of Provo City during the irrigation season?
- A That is something I have never made much of a study on, from that way of figuring only as a practical way of watering.
- Q You are on the tail end of the irrigation system you say?
- A Yes sir.
- Q If there is any loss of water through neglect or by other people taking it out of their turn, you would get the maximum of that loss, wouldn't you? A. Yes sir.
- Q So that your right would be served as poorly as any right on the stream?
- A When I referred to being on the tail end of the system I had reference to another canal.
- Q Oh, I see. You said, however, you were on the tail end of the Provo system?
- A No sir, not Provo system. I said the Provo River system.
- Q Beg your pardon, you are very nearly the tail end of the Provo

system?

A Yes sir, on the other part we are very near.

Q And any loss or filching of water would be above you largely, wouldn't it? I think that is all.

CROSS EXAMINATION by Mr. Bagley.

Q You stated there were forty laterals, and that you went out and measured them, wouldn't be one that would have -- carry more than a second foot, isn't that what you said?

A The regular city ditches?

Q Yes.

A I don't know there is exactly forty of those smaller ditches, but there is somewhere along in that number some place.

Q Does that mean those ditches inside of the platted part, or does that include the ditches in the farm lands?

A That includes practically all of Provo City smaller ditches. It might take in some of the larger ones, I didn't make an estimate of it.

Q What do you mean by larger ones, you don't mean the main canals?

A No, I mean such ditches as the tail end of the Tanner Race and City Race, Scott ditche

Q You call those larger ditches?

A I call those larger ditches Provo City water system.

Q Let's call them the service ditches, ditches that serve the land directly, now many of those are there?

A That serve the land?

Q Yes, that is, out of the main carrying channels into the land, how many of those, these that you speak of as carrying a second foot, ditches of that character?

A I could not tell you just exactly the number.

Q Are they ~~are~~ all of the same capacity?

A No, they are not of the same capacity, some is a little larger than others.

Q Is it a material difference or could you average them off as you did, a second foot to the ditch?

A I just limit them all in that way. I said I didn't think from my judgment the majority of those ditches carried over a second foot of water.

Q Did you say majority?

A Well, I don't know whether I said majority or not.

Q Didn't you say there wouldn't be any of them that would carry more than a second foot?

A Main prove City ditches outside of those service ditches, those bigger ditches don't carry, in my judgment, much over a second foot of water. You take one out here, I think it is 4th East, two people have to water at ^a time all the way down the whole system in order to get ~~knis~~ their time in and that ditch may have a little more in.

Q Can you give the size of the ditches that are above a second foot? A. No sir.

A You can't do that? That is all.

CROSS EXAMINATION By Mr. Jacob Evans.

Q Just one question, I believe it has been answered. As I understand it I believe you never made any measurements of any of the water that was turned into any of the laterals under the city system? A. No sir.

Q Never made a measurement at any time?

A No sir, I have been along with the commissioners when they made some of them, but I never made any.

Q All they measured was the water in the big canals?

A Yes sir.

Q So when you speak of a second foot or second and a half foot, or any other number of second feet, you are merely using your judgment?

Q Just using my judgment.

Q Without ever heaving measured it and knowing what a second foot is? A. Yes sir.

RECROSS EXAMINATION by Mr. Thurman.

- Q Mr. Farrer, what was the character of the four acres of land that you have.
- A Light sandy loam.
- Q How is it for requirement for water?
- A It takes quite a lot of water to handle it.
- Q What is it, is it the best of worst or average?
- A Just a good average.
- Q Good average of the farming land?
- A Farming land, yes sir.

REDIRECT EXAMINATION by Mr. Corfman.

- Q Mr. Farrer, do you know whether or not during the night time when the water is shut off from the Mill Race whether Little Dry Creek Irrigation system gets any water from that source?
- A Yes sir.
- Q How do they get it.
- A The dam that converts the water into the Tanner Race is a river bed dam, and naturally when the Factory Race is turned off we get some of that water.
- Q And you have a dam thrown in for that purpose?
- A We take farther down, we have to take out water -- our water comes down City Creek with Provo City in the low water season and we go on down below the Tanner dam and then we have a dam.
-

WILLIAM S. HOLDAWAY, called by the defendant, Provo City, being first duly sworn, testifies as follows;

DIRECT EXAMINATION by Mr. Corfman.

- Q Your full name?
- A William S.
- Q Where do you reside?
- A At the present time I am living in Salt Lake County.

Q How old are you?

A I am in my sixty-fourth year.

Q Did you at one time reside in Provo City?

A Yes sir.

Q When?

A Well, up to 1903, I think my home was here entirely.

Q Were you born in Provo? A. Yes sir.

Q You are acquainted with the several irrigation canals and particularly the Mill Race, what is now known as the Mill Race?

A Yes sir.

Q How long have you known the Mill Race?

A Well, since about the year '56, I believe, about as far back as my memory goes.

Q Have you ever had any experience in installing water wheels?

A Yes sir.

Q Operation of mills? A. Yes sir.

Q Hydraulis power, what experience have you had, Mr. Holdaway?

A I could not give you the total, but nearly all my life off and on different times.

Q You have been engaged in that kind of work?

A Yes sir..

Q Did you have anything to do with the installing of the present wheels that are now in operation at the Knight Woolen Mills?

A Yes sir.

Q When was that done?

A I think if my memory serves me right that the wheel in the lower pen stock was put in there in about 1897, that is, the original.

Q 1897? A. Yes sir.

Q That is the wheel, those are the wheels that are in there now?

A One is a Risdon and the other is a Leffel.

Q They were both installed in 1897?

A I think if I remember right that is the date, that is the year.

Q By yourself?

A It was under my arrangement, yes sir.

Q And is the installation now -- you have examined the wheel?

A I have.

Q Recently?

A Well, I have not been down to the wheels, I have only examined the penstock and curbing.

Q The installation at present is about as it was then?

A With the exception of the aged and decayed condition.

Q Now, how long have you been acquainted with the mill?

A I went to the Provo Woolen Mills in August, 1870.

Q Were they operating there at that time with water power?

A No sir, they were then building a tail race and installing and building the buildings, Provo Knights Mills at that time.

Q When did they first install water wheels at that mill?

A In '71, if I remember right, 1871.

Q How many wheels did they operate at that time?

A Three.

Q And were those wheels in operation until the installation of the wheels that you have just testified to?

A No sir.

Q What other wheels?

A There was one wheel that run a grist mill that has been discontinued.

Q But the use of hydraulic power for operating the mills has been from that time to this, has it?

A Yes sir.

Q Do you know when the race known as the Mill Race was first constructed or dug?

A Well, as far as I can remember the date -- of course, I would not remember, but I was a very small child when I first remember the tail race being dug myself.

Q That was some fifty or sixty years ago?

A Yes sir.

Q And the water been running there and used through that race since that time?

A As far as I know, yes sir.

Q Both for irrigation and power purposes?

A Yes sir.

Q Do you know what the capacity of the ~~xx~~ two wheels that are not in operation at the Knight mill are?

MR. JACOB EVANS: Wait a moment, object to that as incompetent. The evidence here shows the quantity of water that has been running through the race all the time, we think it makes no difference as to what the capacity of the wheel must be.

THE COURT: Objection is overruled.

MR. JACOB EVANS: Exception.

Q Want them separately?

Q I ask you if you know what the capacity is?

A From computing it, yes.

Q What?

A Ninety horse power -- ninety-eight horse power.

THE COURT: Both of them combined?

A Yes sir.

Q Do you know about what -- have you had experience measuring water? A. Yes sir.

Q Do you know about how many second feet is required to get the full efficiency of those wheels?

A Approximately so.

Q About how much?

A On the larger wheel to get the full efficiency of the wheel, it would take in the neighborhood of thirtyfive hundred minute feet.

Q And the other wheel?

A About in the neighborhood of seventeen hundred minute feet.

Q How many years were you employed at that mill, that is, the Knight Woolen Mill?

A On the first time I think little over four years, the second time, if I remember right, was about nine years.

Q The first four years, what years were they?

A I was there at work installing machinery.

Q What years?

A From '70 to '75, part of the year '75.

Q And last nine years?

A From '86 to about '89, or '96 -- '97.

Q During the years you were there were those mills in operation continuously during the day time?

A Yes sir, with some exceptions?

Q At night were they operated at that time?

A At some times, sometimes in the season they were.

Q Do you know what was done with the water during the night time?

A It was used for power purposes.

Q When they run? A. Yes sir.

Q But you do know whether it was turned out for any occasion at any time during the night time?

A Just, I think, two places that I remember.

Q During your nine year period and four year period was that power generated since the wheels were installed in the Knight Woolen Mills used for useful purpose?

A Yes sir.

Q What?

A For propelling machinery.

Q What was done with the machinery, what was manufactured?

A Woolen good.

Q You stated you had some knowledge to the principal ditches or canals under the Provo City water system?

A Yes sir.

Q Do you remember how long, can you remember water being used through what is known as the Tanner Race?

A If I can remember since I was as a child about five years of age.

Q Over fifty years ago? A. Yes sir.

Q And do you know of your own knowledge whether the water has run through that race continuously since?

A From the time I was about seven years old, I should say, yes sir.

Q And it was used for irrigation purposes?

A I could not say as to that altogether.

Q What would you say as to what is known as the City Race?

A I have known that as far back as I can remember, all my life.

Q And has that water been used for irrigation purposes?

A Yes sir, I am positive of that part of it.

Q Would you say the same of what is known as the East Union Canal?

A I was not so well acquainted with that, I knew of it.

Q Do you know of the City Race being used for any other purpose besides the irrigation of land?

A Yes sir.

Q What?

A For propelling wheels.

Q How long has that race been used for that purpose?

A Well, as near as I can judge from 1852, latter part of the year '51, I believe it was, if the record is true, I don't remember only as a little child, remember them working there, but from '51 the race was finished, I believe the fall of '51, according to the record and my memory serves me back to the time they put the first wheel in.

Q When was that?

A That was in '52 -- '53, I should say.

MR. A. C. HATCH: '53 you would be only one year old

A In '51?

MR. A. C. HATCH: '53.

MR. THURMAN: What year were you born?

A I was born latter part of '51, I was a mere child, I can remember it because I got my clothes afire and they dumped me in the creek, that is what makes me remember it.

Q Mr. Holdaway, has that power been used since that time for manufacturing purposes? A. Yes sir.

Q Continuously.

A As far as I know.

Q Do you know who dug what is known as the Mill Race, who con-

structed it?

A My father.

Q How?

A My father constructed the Mill Race, I believe, the City Race.

Q Do you know of your own knowledge whether he constructed it?

A No, I could not say from my own positive knowledge, no, I was too young.

Q Did you see the City Race?

A Yes sir.

Q Do you know who constructed the Mill Race?

A Not positive.

Q Don't know of your own knowledge.

A No sir.

CROSS EXAMINATION by Mr. A. C. Hatch.

Q What head has the Factory Race, under what head do they run?

A Soak up a little louder, Judge, Please?

Q What is the head of water flowing through the woolen factory wheels?

A You mean head and tail water?

Q The height above the wheels?

A 16 feet, at one time was 16 feet four, but now it is 16.

Q What efficiency do you calculate the wheels have to develop 98 horse power?

A About 78 per cent at the best.

Q How do you make the computation for the 98 horse power?

A That is the two wheels.

Q Under the 16 foot head for the two wheels?

A Two wheels.

Q Both have the same head? A. Yes sir.

Q How do you make that computation.

A By the amount of water flowing through the wheels.

Q We get it 126 horse power with an 80 per cent efficiency?

A How much?

Q 80 per cent efficiency, I wish you would illustrate it on the

board.

A I don't hear you, Judge, plain.

Q I say I wish you would illustrate it on the blackboard how you compute that horse power with an 80 per cent efficiency?

MR. COLEMAN: He didn't say 80 per cent, he said 78.

Q Well, 78, illustrate it?

A I am only doing that as the company gives it. The companies claim 78 per cent efficiency for their wheels.

Q You didn't determine the horse power yourself then, did you?

A No sir, I never determined the horse power only the amount of water we had in the race, I measured that several times.

Q Well, you gave it as 98 horse power, the capacity of the wheel, 98 horse power and the capacity for water of the larger wheel 3500 minute feet, smaller wheel 1700 minute feet.

A That is taken from the tables given by the company for their wheels.

Q Can you give it to us here so as to testify to it yourself, I understood you were testifying from your own knowledge as to this matter?

A As being the power of the wheels, no, I am only giving that as the company's claim.

Q What company?

A Leffel, James Leffel and the Risdon Wheel Company.

Q Then you don't know of your own knowledge or from any study you have made of the subject whether or not that is correct, do you?

A Not from actual tests, no.

Q And as to the capacity for water, do you know whether or not 3500 minute feet would flow through that larger wheel?

A That is what I say, not from actual test, no.

Q Or from any actual knowledge that you have?

A Only approximating it with the amount of machinery we were handling.

Q Can you tell the quantity of water that is necessary under

that head to turn the machinery that is turned by either of those wheels?

A I could if I could hold of the machinery today.

Q You have made no estimate for yourself of the horse power necessary to turn that machinery, have you?

A No sir.

Q Nor of the quantity of water that flows through the wheels?

A Yes.

Q How did you determine that?

A By measuring the stream above the ~~xx~~ wheels.

Q Today or recently?

A Yesterday was the last time.

Q What did you find flowing in the race above the wheels yesterday?

A Well, from using a --

Q In second feet or minute feet?

A From using a float I got two second feet flowing, that was the speed of the stream eight feet wide and 32 inches deep.

Q Flowing two feet per second?

A Yes sir, two feet per second.

Q Did you allow anything for friction?

A That was the surface flow, Judge, that is only an approximation you know.

Q Did you make any calculation as to the correctness of the surface flow?

A No sir, I am giving you just what I did.

Q Any deduction for the water flowing at the bottom?

A Never made any reduction or additions to it, that was the actual float measurement, the time of the float measurement.

Q Was the quantity apparently the same as that which you had formerly seen flowing in the race when they ran all the machinery of the mill by water power?

A Not as much, no.

Q Proportionately how much was there.

A Well, I believe in proportion it would be all right.

Q Sir?

A I believe proportionately it would be all right, be the same.

- Q Yes, but was it half or three-quarters or seven-eighths as much?
- A Well, to answer that I will make a statement to you. At the time I measured it when I was working there, I had 36 inches deep, 8 feet wide., and yesterday I had 32 inches wide 8 feet deep. There is such proportion.
- Q Difference of four inches in depth? A. Yes sir.
- Q You you made it yesterday 5200 minute feet, 3500 through the large wheel and 1700 through the small wheel?
- A No, I was taking that as what the wheel is today, to use the full gate.
- Q I misunderstood you, and you made that computation from a paper that you got from the company?
- A That is the company's claim as reported by their hand book.
- Q You don't know whether the wheels were ever run to their full capacity or not, do you?
- A Well, we run them with full gates, that is all I know, I guess that is about all you would get out of them.
- Q Do you know whether or not there was ever $86 \frac{2}{3}$ second feet or 5200 minute feet of water flowing in that race above those wheels?
- A From what I measured them.
- Q Sir.
- A To exceed that from my measurements.
- Q When did you make the measurements of that?
- A Yesterday for one.
- Q You say that yesterday your measurements shoed 5200 minute feet-?
- A Something over.
- Q How did you figure it?
- A By the --
- Q Illustrate it on the board, will you?
- A I could give you the dimensions of it.
- Q Give it to us on the board so that we can all see it.
- A What is the number of square inches flowing for one inch of surface.

MR. THOMAS Give the total,

MR. RAY: That should be two at the end, should it not, instead of an 8?

A What is reducing it to the lowest denominator, putting it in inches.

MR. THOMAS: Your lowest figure, shouldn't that be a 2?

A Yes, that is my mistake, that is a 2. That is the method of determining the amount of water that flows in the race.

Q How many inches?

A The area of the race is 3,072 square inches.

Q Then flowing 2 feet per second, go on and give us the cubic feet per minute or cubic feet per second?

A That would be 24 times that, wouldn't it, that is, that many inches. Now, cubic feet, divide that by 60 will give us -- that is what I get for second feet.

Q 122 second feet. Now, Mr. Holdaway, if it were 8 feet wide and 32 inches deep, that would be 2 $\frac{2}{3}$ feet deep by eight feet wide, wouldn't it?

A 2 $\frac{3}{4}$ feet.

Q 8 is two-thirds of twelve, twice twelve is twenty-four and eight are thirty-two? A. Yes sir.

Q It would be two and two-thirds feet deep and eight feet wide?

A Yes sir.

Q Now, to get the area of the cross section of the ditch, you would multiply eight by 2 $\frac{2}{3}$, would you not?

A Put it in the lowest denominator, put it into inches.

Q That is the only way I can do it, I can't figure it.

A Then we will reverse things and say the other way is the only way I can do it.

Q Multiplying it twice 8 would be 16, and calling it a third, two-thirds of eight or three-fourths, twice eight would be sixteen and six would be twenty-two feet there would be the area of the cross section of the water in that canal, wouldn't it, 22 square feet?

A I see where γ made a mistake now, I didn't throw it into feet.
I see where I made a mistake, Judge.

Q I don't want to mislead you?

A I didn't make it into feet at all.

Q Now, take a ditch say in that form, which this ditch is not,
it is 8 feet across and $2 \frac{2}{3}$ feet deep.

A That is the water.

Q That would be a cross section of the ditch?

A Yes sir, that is right at the time the water was in it.

Q To make this easy, we will call that three-fourths which is
larger to obtain the area in feet, you would see twice 8 is 16
and this being three-fourths of eight would be 22?

A Yes.

Q Be 22 square feet surface, wouldn't it?

A That is correct, I know where I made my mistake now.

Q Then if it was running at the rate of 2 feet per second, that
would give us twice 22 or 44 cubic feet per second?

A Yes sir.

Q Instead of 86 and $\frac{2}{3}$ as you gave it to us?

A No, I was giving you that as the amount that would be running
in the race if it was absolutely full.

Q But I didn't understand, I thought you gave it as the amount
that was running in the race yesterday?

A No,

Q And γ couldn't understand it.

A No no, I don't want to be understood that, because that would
not be the facts.

Q What did you make it ~~is~~ yesterday, we are all mixed on it?

MR. THURMAN: What was it, that was 32 inches deep.

A The water in the race was running in the flume 32 inches deep.

MR. THURMAN: Was eight feet wide?

A Yes sir.

MR. THURMAN: All right, give us $42 \frac{2}{3}$.

Q Wasn't the race full yesterday?

A No sir.

Q There was plenty of water to fill it, I suppose, as they want it, isn't there?

A Yes, but if you will look at the conditions over there you will know why they don't run it full.

Q Why not?

A Because of the decayed condition.

Q Sir?

A It is in a bad condition, it is dangerous.

Q The race? A. Yes sir.

Q Well, it is as full now as it is safe to fill it?

A It is, under the present condition, yes sir.

Q Well, now, why, if you know, are the conditions such that they attempt not to put more water in it at this time?

A Because the timbers are all decayed and rotted out and it is in a very, very bad condition in that respect.

Q Now, is it running the machinery in the factory at this time?

A Yes sir.

Q And with that quantity of water? A. Yes sir.

Q They are using no other power than the water power?

A Water for power purposes, yes sir.

Q I didn't understand that?

A I say they are using all the water with what might little leak by, they are using that for the power purposes.

Q I asked you if they are using any other power?

A Yes sir.

Q To run their machinery? A. Yes sir.

Q What kind of power?

A Using steam.

Q Have they always used some steam power there?

A No sir.

Q When did they first begin using steam power?

A If I remember right it was in '86 they installed the first engine, I wouldn't be certain about it.

Q In 1886, and do you know whether or not they have continued to use steam power there ever since?

A Using steam there all the time.

Q Since 1886 if they have continued to use steam power --

A Not all the time, no.

Q Well, the major portion of the time? A. Yes sir.

Q And why did they use steam power there?

A Because of the additional amount of machinery that has been installed since the plant was first put up.

Q And their race was not sufficient to carry the water to turn that machinery?

A That is correct.

Q And they are now running with the water all the machinery that they ever run with water power, are they?

A No, because there have been some big changes there they have not got today.

Q Explain, I don't understand.

A The weave room in the lower part of the building has been entirely changed. We had seventy odd looms on the first floor in the big building which is not there today.

Q They don't run so many looms now as they formerly did, is that it?

A They are running them in another building, separate building.

Q And they are using steam power for that, are they?

A Yes sir.

Q And it is a change in the place of their use that necessitated the steam, is it?

A In that respect, yes.

Q And for economical purposes they made that change, do you know?

A I believe that is the fact.

Q They commenced using steam power there, did they not, as soon as the D. & R. G. Railroad was finished through Provo and coal could be easily obtained?

A No, I think not.

Q About how long there after, that is, after the completion of the road?

A Well, I should think about four or five years.

Q Four or five years after?

A Maybe longer.

Q And you think the quantity of water now flowing in the race is as much as they have used in the race since they installed the steam power?

A No sir.

Q Why.

A Because there was a time since they installed steam power they had no use for the engine and shut it off, had water.

Q They had water?

A Water sufficient to drive the machinery.

Q What condition has existed every year, has it not, with one or two exceptions?

A During the short water time the engine has been ~~in use~~ in use

Q Always?

A Every season, so far as I know.

Q Isn't it in use now? A. Yes sir.

Q It is not a short water time now, is it?

A No.

Q Wasn't it in use last June?

A I don't know, I wasn't here.

Q Do you know as to several years prior to last June?

A No, I couldn't say, because I haven't been here.

Q When you were there was it ever running during the month of June by steam?

A Latter part of the year, yes.

Q Sir?

A Latter part of the month, yes.

Q And the forepart of the month during the highest water period.

A Not as a rule, no.

Q Do you ^{what} know the greatest capacity of that race, Factory Race,

for water has ever been in second feet?

A Not only as the measurement was made by the man that came was sent, claimed he was sent here from Denver, was on his road west from Denver, came there and measured it.

Q You don't know of your own knowledge in regard to it?

A Only as we measured it that day.

Q Is that the only measurement that he ever made?

A Oh no.

Q What was the greatest depth of the race?

A Greatest depth we ever had there was 36 inches.

Q Of water? A. Yes sir.

Q And the greatest width?

A Eight feet.

Q What would be the greatest capacity of the canal or race of which you know?

A That was the greatest I ever knew, yes sir.

Q And the flow was two second feet?

A Well, it exceeded that at one time.

Q How much?

A Oh, twenty feet a minute.

Q Twenty feet a minute? A. Yes.

Q That is not two feet a second, ^{is} it, three feet?

A The flow was necessary in the race, in the flume.

MR. A. L. BOOTH: He means 140 feet a minute, I suppose instead of 120.

Q 20 feet a minute is not as fast as two feet per second, is it?

A No, I mean adding that to the two feet per second, make in the neighborhood of 150.

Q You mean it ran twenty faster per minute than it does now?

A I should think that was about right.

Q That would be two and a third feet per second, that would be right, wouldn't it?

A In that neighborhood, yes sir.

Q And that is the greatest capacity that you know of the race ever having carried or had, is that right?

- A As I remember it, yes.
- Q And do you know what that would be in second feet or minute feet approximately?
- A No, I never computed it.
- Q It is about 56 second feet, isn't it.
- A It is better than that.
- Q That is, without allowing anything for friction? and all the water flowed in the canal just as fast as the water on top where the float was flowing?
- A Be more water than that.
- Q Pardon me, but you can't get it unless you make it flow faster, can you, can't get more water in the canal of that depth unless--
- A No.
- Q -- you chase it and make it run faster. I think that is all.

CROSS EXAMINATION by Mr. John E. Booth.

- Q Mr. Holdaway, you were speaking of horse power, what is horse power?
- A 33000 pounds one foot one minute.
- Q Raise 33000 pounds one foot high in one minute?
- A Yes sir.

4:30 P. M. Recess to 9:30 P.M. June 26, 1916.

WALTER B. PEAY, called by the defendant Provo City,
first being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Thomas.

- Q What is your full name, Mr. Peay?
- A Walter B. Peay.
- Q Where do you reside?
- A Provo.
- Q What is your business.
- A I am deputy water master at the present time.
- Q How long have you acted as such water master.
- A Seven years.

Q Has your service been continuous ?

A Yes sir, all during the irrigation season, sometimes I would be on the road department.

Q During the irrigation season you have acted as deputy water master for the last seven years?

A Yes sir

Q Over what part of the system has your duties called?

A All over it.

Q Are you familiar with the East Bottom system? A. Yes sir.

Q I beg your pardon, the East Union?

A Yes sir.

Q What amount of water flowed through the East Union Canal, if you can state, in 1912?

A I could not tell you.

Q Have you ever measured any of the water.

A No sir, only with a rule, sometimes for the benefit of the water master.

Q And when and where did you make such measurements?

A In the measuring weir.

Q When and where?

A When, I couldn't tell you when, at different times.

Q But you didn't make any measurement of the water in the East Union canal in 1912?

A No sir, not the amount.

Q Are you familiar with the quantity of water that has been flowing through the canal?

A Only what the water commissioners claim has been in there at different times.

Q That isn't the -- that doesn't answer the question, state if you ever seen the water in the canal?

A Yes sir.

Q State if you have seen it at certain height of the bank?

A Yes sir.

Q Now, can you state from that whether there was more water in

1912 than there was -- say in the prior years?

A There was less in 1912 than there was in 1911.

Q Compared with 1910?

A Well, there was somewhere about the same in 1910 and 1911, that is all the season through.

Q Then 1909?

A Yes sir, 1909 was a wet year.

Q Now, in 1913 and '14, take 1913 first, what quantity of water was there, as much as in 1911? A. No sir.

Q State if there was sufficient water in the canal in 1911 to properly irrigate the land under the East Union canal?

MR. RAY: Object to that upon the ground that the witness is incompetent, or has not shown competency, it is a conclusion.

MR. THOMAS I will withdraw the question.

Q Did you observe the amount to determine the crops or character of crops as to the amount of crops raised on the East Union canal in 1911?

A In 1911 I wasn't there constant all the time, but 1912 and '13 I had that all under my own control, I was there all the time, that was my department, that is my side of the town to look after.

Q In 1913 is when you were acting under a commissioner in this case that is now pending, now being tried.

A 1912 and 1913.

Q Not 1912 but 1913? A. Yes sir.

Q Comparing 1913 with 1911, was there more or less water given to you ?*

A There was less in 1913.

Q 1913?

A I said in 1913 there was less.

Q I misunderstood you, there was less. State if there were very many complaints in 1913 from the farmers as to the scarcity of water. A. Yes sir.

Q What was the character of their complaints?

A they were burning up, that is, the crops began to wilt.

MR. THURMAN: Is that in 1913?

MR. THOMAS: 1913.

Q Did you see the crops at that time? A, Yes sir.

Q State what their condition was?

A Be just the same as a crop would look suffering for water, they would wilt.

Q State if that condition occurred more than once during the year 1913? A. Yes sir.

Q How many times, if you can tell?

A I could not tell you exact.

Q Several times?

A Probably half a dozen times.

Q During the irrigating season? A. Yes sir.

Q What was raised there if you can tell?

A Under that canal?

Q Yes, during 1913, during the scarcity of water?

A Most any kind of crop you could make you could grow in this climate.

Q Your hand was before your mouth and I didn't hear you.

A Most any kind of crop you could raise in this county.

Q What was being raised there?

A Hay and grain, alfalfa, some wild hay they call it, sugar beets, fruit, vegetable gardens.

Q State if you had the same character of complaints, same number of complaints in 1911 that you had in 1913?

A I wasn't on that canal in 1911 constant.

Q Well now, you weren't there in 1914?

A No sir.

Q Where were you, or what other ditches have you been on in the city; when I say city, I mean under the provo City system?

A West side, what is called the west side of town.

Q The west side is that that covers the Tanner, City Race and Factory Race?

A That is the west side, Factory Race.

- Q West side of the Factory Race, when did you begin service there on the west side?
- A In 1909.
- Q And that was the year you had plenty of water you stated you had a wet year?
- A Yes sir, that was the high water season.
- Q Throughout the entire season?
- A Yes sir.
- Q Was there any scarcity of water at all during that year?
- A No sir.
- Q Plenty for everybody.
- A There was no complaint at all that I ever heard of.
- Q Now, in 1910, you were on the west side.
- A It was scarcer then.
- Q You were on the west side?
- A Yes sir.
- Q State if the water was measured to you during the year 1910?
- A Yes sir, it was measured in 1909, that is, the water commissioner measured it every year.
- Q Now, what was the result as to the amount of water applied in 1910? Were there any complaints on the west side?
- A Yes sir.
- Q Was there a scarcity of water in 1910?
- A Yes sir.
- Q And in 1911? A. Yes sir.
- Q Now, in 1914, 1912 and 1913, you were over on the east side?
- A Yes sir.
- Q 1914 you were on the west side? A. Yessir.
- Q What was the condition there then?
- A Scarcity of water at times.
- Q At what time or times?
- A July and August, part of June.
- Q That was under the administration of Mr. Wentz as court commissioner, was it not? A. Yes sir.

- Q Now, where did the complaints come from on the west side in June and July in 1914?
- A It comes sometimes from city lots sometimes from farmers.
- Q Did you investigate those complaints to determine whether or not they were well founded?
- A If I had time, if I didn't have the water I would go and see them. If I didn't have the time and knew I could by some way increase the stream they wanted, I would do that.
- Q Tell how you did that? ^{A.} If some man on the farm irrigating out of some small ditches that run through the farm and some man was suffering and I knew some of those in town on the lots they had probably not in so much, I would cut them off a little and give it to the man on the farm.
- Q Just state what other complaints you had in 1914, did you have many complaints?
- A Oh yes, every year get complaints haven't got sufficient water.
- Q Did you investigate those complaints to see ascertain whether or not they were well founded in your judgment?
- A Yes sir, I investigated.
- Q What was the result of your investigation?
- A The crops was wilted they had not had water enough to get over it all.
- Q In '14? A Yes sir.
- Q Now where, under what ditches?
- A Well, there was some under the Tanner Race, some under what we call the City Race.
- MR. THURMAN: What is these complaints?
- MR. THOMAS: Of the wilting of the crops.
- Q Go on.
- A And some on the west side of the Factory Race.
- Q Could you state what the acreage would be?
- A No, I couldn't state what acreage was, I never measured it.
- Q What was the condition in 1915?
- A Scarcity and complaint same as general in all shortage years.
- Q Did you investigate the complaints to see then if they were well

founded in 1915? A. Yes sir.

Q What was your conclusion there?

A The crops were suffering for water.

Q That they didn't have enough water, is that is?

A Yes sir.

Q You may state if there was as much water in 1915 and '14 as there had been in previous years when there were less complaints?

A No sir, there wasn't as much.

Q Now, you may state -whether or not you have seen the water wasted during the low water season on the City Race for instance? A. No sir.

Q What is the condition as to the economical use of water under the Tanner Race in the low water season?

A Economically.

MR. THURMAN: I object to that question and that answer. The question calls for a conclusion and the answer states a conclusion.

THE COURT: Yes, I think that is true.

Q You may state if the water --

MR. THURMAN: Move to strike it.

THE COURT: It may go out.

Q If the water has been wasted? A. No sir.

Q I am speaking now of the Tanner Ditch.

A Yes sir.

Q And during the low water season?

A Yes sir.

Q You may state how the farmers handle it as to whether they conserve the water or not?

A Do they conserve the water?

Q Do they do that? A. Yes sir.

MR. A. C. HATCH: Just a moment, object and move to strike out the question and answer as to the conserving of the water. MR. THURMAN: The question asks for a conclusion

THE COURT: What do you claim for it.

M. THOMAS: I asked him to state if the farmers were conserving the water and what they were doing in that particular.

THE COURT: The motion may be granted. I think you may show how they use the water and what they do, but his conclusion what constitutes conserving the water, I don't think is competent.

MR. THOMAS: exception.

Q State how the farmers handle the water under the City Ditch,
of
I am speaking of your experience particularly during the low water season. State how they apply it to the ground.

A According to the ground they have got.

Q Yes.

A I don't know just exactly what you mean saying how they use it.

Q What is the length of their ditches generally and state if the water is allowed to be wasted or whether it runs off in quantities or how they handle it, whether they care for the water or whether they don't care for it, tell us just exactly.

A There is no change for them to waste it they are all timed on the ditches and start at the bottom end of the ditch and when everybody during the week has their head gate in how can it waste when there is head gates in the ditches.

Q After the farmer puts it upon his land what does he do to take care of the water to prevent it from being wasted then?

A He looks after it.

Q Just how does he do that?

A He turns it on in different strips, different rows, whatever he is irrigating. When it gets through he changes it to another one.

Q Does he allow the water to waste, to go off in quantities at the end of his rows?

A No sir, these ain't any of them got a place to run it to waste without they would dig a ditch through some other fellow's farm.

Q State if that is the general condition and general conduct under your experience of the farms under these ditches?

A Yes sir.

Q In the city? A. Yes sir.

Q State if that has been their conduct so long as your remembrance has brought you in contact with them here under this system?

A Yes sir.

Q That applies to all the ditches, does it?

A Yes sir.

Q Now, were you on the west side altogether in 1915?

A Yes sir.

Q And not over on the east side at all?

A Not without the water master wanted me to go for some purpose or other, to help clean a ditch, something like that, or regulate some water for him.

Q During those times did you have any opportunity to investigate whether there was as much water in 1915 as former?

MR. RAY: I object to that, your honor please, as uncertain, indefinite. Take him out there once or twice, he cannot compare the seasons.

THE COURT: Objection is sustained, it does not appear he has sufficient knowledge to enable him to testify as to the general conditions that year over there.

Q How many times were you over in 1915 on the east side?

A I couldn't tell you?

Q About how many?

A That would be a hard matter to tell you about how many.

Q Once a week?

A I might probably for a couple of weeks, maybe out once a week and then not go out there for a month.

CROSS EXAMINATION by Mr. A. C. Hatch.

Q You say the water was short in 1914 in June and July?

A 1914?

Q Yes. A. Yes sir.

MR. RAY: And August he stated.

Q And do you know the quantity that the city had at that time?

A The quantity?

Q Yes, flowing in their several canals?

A No sir, no more than what the --

Q Did you have, as deputy water master, the right to turn the water off nights from the Factory race?

A Yes sir.

Q Did you do so every night during June, July and August when the water was scarce?

A In 1915?

Q 1914.

A No sir, not every year.

Q Did you any night in 1914? A. Yes sir.

Q When did you begin, what month?

A In June, I think.

Q Don't you know whether or not you turned the water off in June if it was scarce and the crops were suffering?

A Sure.

Q Well now, if the crops were suffering you would turn it off, wouldn't you? A. Yes sir.

Q Now, did you turn it off any time in June in 1914?

A I could not swear to that because I never put down the dates or any time when I did turn it off.

Q Well, could you say that you turned it off in July, every night in July? A. Yes sir.

Q In 1914, and in August, 1914? A. Yes sir.

Q Now, don't you know -- you did it every night during August of 1914?

A No sir, I wouldn't turn it out on Sunday because it would not be in there.

Q It would not be in there.

A Not in the factory, I would turn it out on Saturday and wouldn't turn it back in until Monday morning.

Q Every week day night during August, 1914, did you turn the water

out of the factory Race to the farmers/ and lot owners for their use.

A I could not swear to that because I think a time or two that the woolen mills wanted the water to run, they were short and they needed the water.

Q At night? A. Yes sir.

Q Well, would you allow them to use the water nights?

A If there was any way to spare it we would.

Q Wait until I finish my question, would you allow them to use the water nights when the crops of the farmers were suffering,

A No sir.

Q Then when they used the water, if they did use it, the crops would not be suffering at that time?

A No sir, not that particular time.

Q That would be in August of 1914?

A I thought you said 1912.

Q 1914.

A I meant in July, I thought you said July, not August.

Q Well, I am asking you June, July and August of 1914, the three months when you said the crops suffered, if I understood you correctly. Now, I asked you as to June and as to July and now asking you as to August, 1914?

A Yes sir.

Q Did you turn the water out of the Factory Race every week day night in 1914, in August.

A If I didn't the water master did.

Q Do you know whether or not it was done?

A I could not swear to that, sometimes he would say he was going up to turn ^{it} out, and I wouldn't go there, but looks of the stream, why, he did.

Q When there was a scarcity of water and complaint made by the farmers you investigated, you say?

A Yes sir.

Q Now, did you go to the Factory Race to see whether or not that stream was coming into your ditches when there was a scarcity?

A Yes sir.

Q How did you find it when you went?

A Whenever the water was turned out of the Factory Race had to go to the ice plant down here between Center Street and 1st West and put in a plank to turn the water out.

Q You don't understand me, I asked you how you found the Factory race at the times you went to it when you went to investigate during the scarcity?

A Find ~~s~~ it turned out.

Q And no water running in the Factory Race.

A Only enough to supply those ditches that irrigate from the Factory Race.

Q What quantity would that be?

A In the race or in the ditch?

Q In the race?

A Oh, probably three or four second feet.

Q Not to exceed that much?

A Well, it all depends. If Stubbs was watering there might be six second feet.

Q How many ditches ~~six~~ did that stream supply, farm ditches?

A It supplies five ditches.

Q Would be about six second feet to supply the five ditches, is that correct?

A They would not all be irrigating the same time.

Q How many of them would be irrigating at the same time when Stubbs was irrigating?

A May not be any other farm, may be up here on the city lots.

Q Is Stubbs all in farm? A. Yes sir.

Q No farm lots under the S^bubbs tract?

A Not under the Stubbs ditch there is no lots.

Q How many ditches, farm ditches would that stream supply with three or four second feet?

A It wouldn't supply only one.

Q Sir?

A It wouldn't supply but one.

Q Wouldn't supply but one, would it supply one and some city lots?

A How many feet?

Q Three or four second feet and the six second feet.

A If you only had three or four second feet, according to my judgment that would only be enough for one farm ditch.

Q How many farm ditches are there using water from the Factory Race?

A From the Factory Race?

Q Yes.

A I said five.

Q Five farm ditches?

A That is, that run to the farm.

Q And they become farm ditches after they pass the platted portion of the city, do they not?

A There is one ditch I would not say was a farm ditch because it irrigates the First Ward Pasture, that would be a pasture.

Q There are four besides that? A. Yes sir.

Q And ~~xxx~~ the two besides the Stubbs ditch?

A There would be three besides the Stubbs ditch.

Q Doesn't water run in some one of those three all the time?

A There is three of those ditches that run pretty near all the time.

Q Now, when you had only three or four second feet in, would there not be a time when two of the ditches were not being used, two of these farm ditches?

A Farm ditches?

Q Yes.

A No, that would -- the farm ditches -- they would not be on the farms all the time, be on the city lots part of the time.

Q Is there ever a time when there is at least two of the ditches being used upon the farm lands?

A Any time two of the ditches is not used?

Q Is there ever a time when there are not at least two of these farm ditches being used to irrigate the farm lands, two of them excluding the First Ward Pasture?

A I didn't understand you then.

Q Read it again.

(Question read)

A Is there any time that two of those ditches is not used, is that what you mean?

Q Is there any time when at least two are not being used to irrigate farm land? A. No sir.

Q Then the three or four second feet would be the quantity that would flow in the ditches that were being used, wouldn't it, whatever the number?

A From the Factory Race?

Q Yes.

A Well, but there is two ditches on 4th West comes over into those ditches, that makes more than that.

Q From what source do they receive the water.

A What source?

Q The two ditches on 1st West?

A They would come from the City race.

Q From the City race and they are added to this Factory Race water?

A If they were needing the water I would turn more water down the City race to supply those two ditches to fill up those others.

Q The ditches on 1st West, are they supplied from the City race?

A West of the Factory Race.

Q You meant the street, first street west of the Factory Race, didn't you, 4th West?

A Some of the water leaks out on the east side, runs across the Factory race and waters some lots west of the Factory race.

Q Flumed across? A. Yes sir.

Q Now, did any of that water get into these farm ditches that you have mentioned?

A All the ditches that runs through the city runs on the west side of town.

Q Sir?

A All the ditches on the west side of town, the city lots ditches runs to the farm ditches on the outside of the town.

Q You say there is no chance for any water to be wasted for the reason that there are head gates in the ditches?

A Yes sir.

Q What do you mean by that?

A Because the time starts ^{at} the bottom of the ditch, and one man will use more water than another man, and the one that needs more than the other one will catch what he don't get.

Q After his turn has passed he leaves his head gate. in?

A Yes sir.

To catch any that goes down the ditch, but about the water that runs off the farms or the city lots, what becomes of it.

A Runs off?

Q Yes.

A When does it run off?

Q I presume every time that a man irrigates, if he has enough water to cover his land he has a little more than enough, and some of it runs off the land, isn't that true?

A If it runs off some man's time on a ditch and there is any water passes him.

Q I am not speaking of the ditches, I am speaking of the lands that are irrigated with the water, doesn't some of it sometimes run off the land that is being irrigated?

A No sir.

Q Never under this system?

A If it did it would run into some other ditch and some fellow would catch it on his pasture.

Q I understood you to say they had no waste ditches.

MR. THOMAS: Did the witness say that?

MR. A. C. HATCH: Yes.

Q And that they kept all the water right on the land?

A I said the individual didn't have a waste ditch.

Q Well, if the individual doesn't have any waste ditch who does

have a waste ditch, if there is one?

A There is ditches that the city maintains that runs through the town surplus of water in high water time to carry the water away.

Q When you get to the farm lands doesn't some water run off during the time they are irrigating?

A I don't know of a farm down that way that had got a waste ditch.

Q And the lots is watered, then flood over into the street, doesn't it, isn't that the way all of these streets are irrigated?

A No sir, they don't irrigate the streets by flooding them.

Q How does the water get upon the streets in and about Provo City?

A Sometimes a culvert will choke up and run over into the street.

Q None of it ever runs off during the time a party is irrigating?

A You sometimes see a little run off a man's lot or off a man's farm into the street, a little water.

Q That is what I was asking about, and none of the farmers have waste ditches, you say? A. NO sir.

Q And the City lots, the waste ditches are made by the city?

A They are made to drain the city and for the surplus of water at high water time.

Q Do you know whether or not in the watering of the city lots water runs off from a lot being irrigated and into the waste ditches?

A No sir, I don't know of any.

Q Did you never see any water running off a city lot across the sidewalk?

A Yes, I have seen a little water run across the sidewalk.

Q During the time the person owning the city lot was irrigating, haven't you?

A Not to my knowledge.

Q You don't remember any instance in the seven years you were water master when you saw water running from a city lot across the sidewalk during the time that the party was irrigating the lot? A. No sir.

Q Is that right. You say that in 1910 the water was scarce, is that right? A. Yes sir.

- Q Do you know what quantity of water Provo City had in its several main ditches or canals during that year?
- A No sir.
- Q Any part of it?
- A Never measured it.
- Q Any part of the irrigating season.
- A I never measured it.
- Q How do you know the water was scarce?
- A I turned the water out of the Factory Race myself three months and a half in 1910.
- Q When did you begin?
- A About the middle of June.
- Q And continued until the first day of October?
- A It was the last day of September I think the last trip I went up there, or night, to turn it off.
- Q Now, how much more water was there in 1910 than there was in 1911, if any?
- A I could not tell you how much ~~more~~ more, I never measured.
- Q Was there any more?
- A I couldn't say yes or no to that.
- Q Do you know whether there was more in 1911 than there was in 1912?
- A Yes sir, to my own judgment there was.
- Q About how much more?
- A I couldn't tell you, I never measured it.
- Q Now, how much more land would it irrigate?
- A I couldn't tell you that.
- Q Do you know whether the water was scarce in 1912?
- A Ye sir, it was scarce.
- Q Now, do you know that the water was scarce in 1912?
- A From the looks of the crops.
- Q From the looks of the crops?
- A There is a difference in giving and in having water to keep it alive and giving it enough to have it in a thrifty condition.
- Q Did you examine the crops on the east side?

A In 1912?

Q Yes.

A I saw pretty near all the crops there was out there.

Q Did you see the stream of water that was flowing to the east side?

A. Yes sir.

Q You saw the streams in 1912, did you? A. Yes sir.

Q How did those streams compare with the streams in 1911?

A I couldn't tell you, I wasn't out there much in 1911.

Q How did the streams that you were using or distributing compare with the streams in 1911, streams you were using, 1912?

A I don't think there was much difference in 1911 and 1912.

Q How about 1913?

A There was a great deal of difference in 1913.

Q What was the difference?

A It was scarcer and less.

Q What was the difference?

A I couldn't tell you, I never measured it.

Q Could you tell how much less land it would irrigate?

A No sir, I could not.

Q How was it in 1914 as compared with 1913.

A It was in a better condition, that is appeared to be a little more water than there was in 1913.

Q Do you make that statement from your recollection now of the streams of water flowing in the several canals during the entire season, or from your recollection of the appearance of the crops during the two years?

A In the looks of the stream.

Q Now, take the City race, how much higher do you remember, was the water in the City Race in 1914 than it was in 1913?

A There wasn't much difference.

Q The factory race, what was the difference in that stream in 1914 and 1913?

A Factory Race in 1912?

Q 1913 and 1914, I am asking you about now.

A

- A I could not hardly tell you that.
- Q Were the crops any better in 1914 than they were in 1913?
- A I couldn't tell you.
- Q Do you know of any crop that produced a greater yield in 1914 than in 1913, any particular piece of land?
- A Crops make a great deal of difference on the kind of a season. If it is a damp season crops are better, if it is a cold, dry season, crops are not so good.
- Q I am speaking of '14 and '13, do you know of any crop that had a better yield in '14 upon the same land than in '13?
- A No sir, I don't.
- Q Do you know of any crop that had a better yield in 1909, upon any particular piece of ground than it had in '14?
- A I never paid any attention to it, didn't have time.
- Q In 1909, everybody had plenty of water?
- A That is most of the season through.
- Q All the season wasn't there, Factory race wasn't turned off at all in 1909, at night, was it?
- A I could not swear to that now.
- Q Do you know of any person having lost a crop of by reason of the scarcity of water during any year while you have been water master?
- A I noticed a crop last year that I think he lost quite a bit on it on account of not having water enough.
- Q Whose crop was it?
- A Nephi Ross.
- Q I didn't get the name,
- A Nephi Ross.
- Q Didn't he have a water right for all the land that he had under cultivation?
- A He had water time.
- Q What?
- A He had a water ticket.
- Q What was his ticket?
- A What was it?

- Q What was the time?
- A I could not tell you the amount of hours.
- Q Do you know how many acres he was trying to irrigate?
- A He was trying to irrigate about five acres of sugar beets.
- Q Last year? A. Yes sir.
- Q And you don't know what his time was?
- A I could not swear to that.
- Q What ditch was he irrigating from?
- A Scott Ditch.
- Q What race does that come from?
- A Tanner Race.
- Q And it is supplied also from other sources, isn't it, at times?
- A Supplied from other sources?
- Q Yes.
- A The Tanner Race?
- Q No, the Scott Ditch.
- A No, it is supplied from the Tanner Race.
- Q Don't some of the city ditches find their way into the Scott ditch as well?
- A There is a few ditches that runs through the city lots that runs into the Scott ditch, that is, runs into the Tanner Race and then gets to the Scott ditch.
- Q What time in the year was the water scarce for the irrigation of the Ross land?
- A Sir?
- Q What time of the year was it when the water was scarce, not sufficient for the irrigation of the Ross land?
- A Sometime in July, I think, latter part of July.
- Q Can you fix it definitely as being July or August?
- A It wasn't in August.
- Q It would be before August? A. Yes sir.
- Q Now, do you know what the yield was upon that five acres?
- A No sir, I never asked him.
- Q Sir?

A I never asked him.

Q Do you know how it got along for irrigation during the month of August on that five acres?

A He never had water enough, because I would have to divide water with other fellows to get to him.

Q When you divided water with the other fellows, did he irrigate his crops?

A I never went there to see whether he got through with it or not.

Q Then you don't know as a matter of fact, do you, whether or not the final result was an injury to his beet crop?

A I can tell by the looks of crop how it suffered, whether he lost on it or not.

Q You say you could tell? A. Yes sir.

Q Did you see it when he harvested it?

A I saw some of his beets.

Q Yes, but you didn't see the crop when it was harvested, did you?

A Not all of it, I saw some of the beets--

Q Did you see some of the crops--

MR. THOMAS: Just let him finish.

A When I said I seen some of the beets, I seen the beets after they were dug.

Q You saw some of the beets after they were dug?

A Yes sir.

Q At the field or at the station.

A In his wagon.

Q Did you see any of them at the field?

A Saw them in the field when they were growing before he dug them.

Q I mean after they were harvested?

A No sir, I did not.

Q Now, you know that these were beets grown upon that land because someone told you, don't you, the beets you saw in the wagon?

A Was that because somebody told me.

Q Somebody told you these were the beets that you saw, that were

grown upon this five acre tract?

A He was on the wagon himself.

Q On Ross's wagon? A. Yes sir.

Q Did you talk with Ross about it

A No sir, didn't ask him any words about the beets.

Q Didn't ask him where he got that load of beets from that you saw?

A Asked him if he was digging his beets and he said yes.

Q Did you ask him if those beets came from his land?

A No sir, I didn't ask him, I supposed the way he spoke he was hauling them off his own ground.

Q But you don't know whether or not those beets you saw was the next beets you saw grown upon this land, do you?

A No sir, I didn't see him loading them.

Q Last year was a very bad year for beets there throughout this entire section, wasn't it?

A That is what some people claim.

Q Don't you know if you saw the beets throughout the section without anybody else claiming it, I am asking you if you if you don't know it.

A No, I don't know it.

Q You didn't raise any beets yourself, did you?

A Yes sir.

Q Did your beets suffer for water? A. Yes sir.

Q Did you lose anything by reason thereof on your crop?

A Yes sir.

Q How much?

A I couldn't tell you.

Q Now, why do you say that the beets suffered for want of water, your beets?

A Simply because they didn't have the water to put on them.

Q And couldn't get it in the Provo System?

A No sir.

Q The water wasn't here to be had then?

A What is, there wasn't enough to get over the ground.

Q And you were running on the regular time, were you?

A Yes sir.

Q You don't know what the shortage in your crop was?

A No sir.

Q Don't you know that the shortage was in crops where they had plenty of water last year just the same?

A There were some pieces of ground that were short, and some was good.

Q Regardless of the water, isn't that right?

A I couldn't tell you whether that was on account of the water or not. You see some years on land you don't water the water comes closer to the top than on ~~these~~ others.

Q What crops did you see wilted in 1913?

A I saw Nuttals.

Q Nuttals?

A State Mental Hospital.

Q For how long a period were they in that condition?

A Oh, probably three or four days.

Q Don't you know?

A No sir, I couldn't tell you.

Q How long it was before you got the water to them?

A No sir, not exactly.

Q They irrigate once a week, don't they, those people?

A Those fellows?

Q Yes.

A No sir, sometimes it is two weeks before they water.

Q What was the interval between the irrigations at the Mental Hospital in 1913?

A I couldn't tell you, it varied.

Q Tickets were issued to them, weren't they?

A No sir.

Q Do you know what was the interval between the irrigations on the crops that you saw wilted, whether it was one week or two

weeks?

A It would be ten days or two weeks, probably, might be a little more than that.

Q Might be more than two weeks?

A Yes sir.

Q You distributed the water, didn't you?

A Yes sir.

Q And under that ditch the water master has the regulation and turns the water to the people when they need it?

A Yes sir.

Q There was no tickets or turns.

A No sir.

Q And these two crops were suffering before you turned the water to them is that right?

A Yes sir.

Q And for two or three days after you first saw them suffering before you turned the water to them?

A Yes sir, I couldn't get to them any quicker.

Q Now, you say this occurred half a dozen times in 1913?

A That is not on the same ground, but different places.

Q I understood different, some crop suffered half a dozen times during the same year, that is, you found it in that withered condition?

A You asked me if I seen any crops suffering, I said half a dozen different times.

Q But you never saw but one crop that was wilted, never saw the same crop wilted but once during the year 1915?

A I couldn't say for that right now.

Q Do you know whether they suffered any loss by reason of it, for lack of water?

A I know whenever alfalfa suffers you lose some of the crop.

Q I am asking you as to these particular crops, Nuttal and State Mental Hospital.

A Well, the State Mental Hos-pital, that was alfalfa that was burning for want of water.

- Q Do you know how much if any the crops were short?
- A I know it was short some, but I couldn't tell you how much.
- Q You didn't see it when it was cut?
- A I never weighed it.
- Q Did you see it when it was cut? A. Yes sir.
- Q When did you observe the wilted condition of the crop?
- A When?
- Q Yes, when?
- A What do you mean, in the morning, afternoon or what month?
- Q I mean what month and what day of the month and what time of day.
- A I think it was in July, but I could not tell you what day.
- Q You don't know whether it was the forepart or after part of July? A. No sir.
- Q You say you never measured any of the water that was distributed by you? A. No sir.
- Q Not any of the streams that were flowing into the city system?
- A I never measured any of them, no sir.
- Q You don't know anything about the quantity of water that was going to the city during any of the years that you were water master, in second feet? A. No sir.
- Q Now, your recollection as to the quantity of water that was flowing in 1911, you had plenty that year, hadn't you?
- A I couldn't swear to that now, 1911.
- Q You said the water was shorter in 1914 and 1913 than it was in 1911, you must have some recollection of 1911?
- A I know there was a difference, but I couldn't ~~say~~ tell you the difference.
- Q There was less water running in the ditches that you were distributing in 1911 -- or than there was in 1914 and 1914 than there was in 1911, that is all you know about it, is it?
- A Yes sir.
- Q You don't know as to the quantity going into the city through its several canals, do you? A. No.

MR. THOMAS: That question has been asked and answered

several times, different ways.

MR. THURMAN: Been asked several times, but has not been answered yet.

MR. THOMAS I object to it as improper cross examination, matter having been asked and answered.

THE COURT: I don't remember Mr. Peay answered it.

MR. THOMAS: He was asked whether he knew the quantity of water going in the ditches, whether he measured the water in the ditches and he has broached the same question from different angles different times, and the witness has said he didn't measure, he had been with the commissioner when he measured it, but he himself had not measured it, that wasn't his business, wasn't his duty.

MR. A. C. HATCH: If the court please, I was asking him to compare between 1911 and 1914 and '15, and I have certainly not asked him to do that heretofore.

THE COURT: I didn't remember. Objection is overruled, he may answer it if he can.

MR. THOMAS exception.

Q You say you had complaints in 1913 from the lot owners and from the farmers, has there ever been a year except 1909 while you have been water master that you didn't have complaints from someone?

A No sir

Q That is particularly true under the East Union Canal, is it not, where they have not regular ticket, no regular system?

A It is no more there than it would be anywhere else.

Q The parties under the East Union Canal only irrigate as the water master determined they need the water, isn't that true.

A No sir, the water master don't determine then they need the water, they ask the water master when he can get some water if it is needed and the water master tells him when he can have it and tells him how much and how long a time.

Q Isn't that determining when they can have the water?

A Sir?

Q Isn't that a determination by the water master when they can have the water?

A In one sense of the word it is.

Q You give it to them in their turn then, under the East Union canal the same as under any other canal, do you?

A No sir, don't give it to them in turn same as you would any other canal.

Q Then how do you?

A I would give it to the one that needed the worse.

Q Then you determine which one needs it the most and give it to him first, is that right?

A If a man come to me and tell me he was suffering, wanted some water and some other fellow would ask me the same question for the water, I would ask him what kind of condition his crop was in. Probably I had seen his crop and I would say one crop needed it worse than the other one. I would tell him he could take it a certain time and next fellow take it probably the next day or next night, and use my own judgment.

Then

Q If you determined when he should have the water and when his crop needed it, don't you, under that system?

A Yes, if I should happen to see his crop I would judge for him.

Q And if you didn't see his crops you would wait for him to come to you and complain or ask for water, is that right?

A Yes sir,

Q So that if he asked for water or tell you in each instance his crop is suffering or that it is in need of it, is that right?

A He would ask for the water, and I had it to spare I would tell him to take it.

Q Whether his crop needed it or not?

A He wouldn't ask for it if he didn't need it.

Q You assume that, do you not?

A Oh, I could tell, I would know about when he had it before, and could tell about whether he needed it or not by the amount of

days or weeks since he had had it.

Q You don't wish to say there is no man using water under the East Union Canal that would not ask for water unless his crop really needed it, do you?

A No sir, he wouldn't, not without he thought he needed it.

Q You say when they ask^{ed} for water and complaint was made, if you could get water from some other sources you would give it to them and furnish the water to the complainant, where would you go to get it.

A From where, do you mean?

Q From any point. That was during the scarcity of water under the provo City system?

A I would take it from somebody that didn't need quite so much water and divert it to the other fellow.

Q And then during all these scarce periods there are people under the system who have water they don't really need, is that right?

A No sir.

Q Then by what right would you take from one who was using water that he really needed and give it to another?

A These town ditches start down in the farms and goes up into town. When they are watering in the farms you have to follow those town ditches to get water enough to get over the farm land when there is a scarcity of water and some fellow's crop is burning and water was up in the town you could take a little water from several ditches, that probably a man could water his truck garden with that stream, and that would increase the other fellow's stream a little but bit so that he could get through properly.

Q Then are we to understand you would take it from the city lots when they were really needing it in order to give it to the farms? A. No sir.

Q Then there was a surplus water there in those city ditches that you could take without injuring anyone and turn it to the farmer who was suffering, is that right?

A There would be in that case.

Q Wasn't that true in every case when there was someone suffering for water?

A No, not true in all cases, couldn't do it in all cases.

Q Was there ever a time when you could not from some sources obtain an increased supply for anyone whose crop was suffering during the seven years you were water master?

A Was there any one time no, that I couldn't do it -- I didn't understand that.

Q Read it to him again, please.

(Question read)

A I didn't catch that yet.

Q Let me state it to you, was there ever a time during the seven years that you were water master when you could not obtain an increased supply of water for one whose crop was suffering?

A No.

CROSS EXAMINATION BY Mr. Ray.

Q Mr. Peay, you said there was some wild hay crop up under the East Union, what acres is there of wild hay up there?

A I couldn't tell you.

Q Just approximately, hundred acres?

A All depend in what year you are talking about.

Q Well, what year were you talking about when you answered Mr. Thomas there was wild hay and diversified crops up there?

A That was in 1912 and '13, I suppose.

Q How many acres of wild hay were there then?

A I couldn't tell you, I never measured it.

Q About how many acres?

A About thirty-five acres.

Q Whereabouts on the canal was that located?

A There was a piece belonging to John Neal down here by the railroad track.

Q South of the asylum?

A No sir, south of the town here. Milo Strong had a piece of wild hay. One of the Giles had a piece of wild hay.

Q They grow wild hay where the ground water is very close to the surface, don't they, mainly?

A What they call wild hay is timothy, redtop, something of that sort, some calls it tame hay .

Q You call it wild hay, they grow that kind of hay generally where the ground water is close to the surface, don't they?

A Yes sir.

Q So that it can get a great deal of sub irrigation?

A It does in the latter part of the season, but not in the forepart.

Q After they have commenced to irrigate the upper land it gets a great deal of sub irrigation down there?

A Yes sir.

Q That is on the south end of the East Union?

A No, this wouldn't be on the south end of the Union, be the top.

Q You said there was wild hay under the East Union.

A That would be under the East Union, water is given from the East Union to that.

Q That is what I asked you, that would be irrigated under the East Union system? A. Yes sir.

Q Did you have more complaints in 1914 or '15?

A More complaints in 1914 or '15?

Q Yes.

A What do you mean?

Q Which year did you have more complaints as to scarcity of water, in the year 1914 or in the year 1915?

A There isn't much difference as I know of.

Q Not much difference. Now, you said you saw some crops suffering, and referred particularly to your beets later, where were your beets grown?

A There on the ground.

Q Of course; where is your ground?

A 13th West and 6th South.

- Q What ditch do you irrigate under?
A Scott Ditch.
- Q The same as Mr. Ross? A. Yes sir.
- Q Now, did you ever see any crops wilted, as you referred to that did not survive later and produce?
A Sure, they would revive, but whenever you let a crop suffer, it is a detriment to that crop.
- Q Did you ever see any that turned brown and were lost for want of water any year?
A Yes, I have seen sugar beets all dry up and no good at all on gravel beds.
- Q Yes, but I asked you if you saw crops under this system dry up and burn, entirely destroyed for want of water?
A No sir,
- Q As a matter of fact, sugar beets have brown leaves which they drop all during the season, haven't they, some?
A No sir.
- Q Don't they?
A Not in the forepart of the season they don't drop no dry leaves.
- Q They begin pretty early in the season to drop the lower dry leaves, don't they?
A It depends on the soil and dampness of the ground.
- Q Where they are growing normally and producing good crops sugar beets drop dry leaves more or less during the entire season?
A On irrigated ground they do more than on others.
- Q On Mr. Ross's crop was it a fact there were some dry leaves that made you think it was suffering for want of water?
A No sir, because all the leaves laid on the ground.
- Q They were wilted? A. Yes sir.
- Q They were not brown? A. No sir.
- Q They revived when irrigated? A. Yes sir.
- Q And they were irrigated? A. Yes sir.
- Q There is a matter I want to clear up, your honor, if I can,

- that the rest of the counsel may understand. Where does the Stubb ditch take out of the Factory Race?
- A It takes out whereabouts of the Factory Race?
- Q Yes.
- A Takes out of the Factory Race down towards the lower end, that is, towards the First Ward Pasture.
- Q And below the Smoot Investment Company's mill?
- A Yes sir.
- Q When the water is running through the Factory Race in the day-time can they use the water that goes through the Smoot wheel?
- A No sir.
- Q Why not?
- A There ain't any water in the Factory Race, it is in the tail race.
- Q But can't they get water from the tail race?
- A They could if they pumped it.
- Q But it is below the intake of their ditch?
- A Yes sir.
- Q Why couldn't they put a pump in there to raise it up to the intake of their ditch and use water in the day time.
- A It would back it under the Lumber Company's wheels so they wouldn't get no power.
- Q I didn't understand why that was. That is all.

REDIRECT EXAMINATION by Mr. Thomas.

- Q Did you want us to understand there was always a surplus of water in the various laterals of Provo City?
- A No sir.
- Q What are we to understand then from your statement to Judge Hatch?
- A He asked me what I would do. I said if there was such a thing I could take, I would take it; if there wasn't, I wouldn't take it.
- Q Has there been a time in a scarcity of water when there has been a surplus of water in the city? A. No sir.

Q State if at any time it was your duty to measure the water in the canals.

A The water master sent me several times to measure the water, to tell him the depth of the water in every canal from here to the mouth of the canyon.

Q Who did measure the water out to the city while you have been acting as deputy water master.

A In all the years?

Q Yes.

A Different ones, commissioner?

Q The commissioner?

A He never measured it to the canals of Provo City, all he would do was measure the different canals to find out the amount of water there was in Provo River.

Q Didn't he divert the water or cause it to be diverted under a certain measurement to Provo City?

A He would cut higher canals above Provo City to get Provo City's proportion.

Q Was it part of your duty at any ~~time~~ time to measure the water diverted to Provo City? A. No sir.

RECORDS EXAMINATION by Mr. Hatch.

Q You answered Mr. Thomas that there never was a time when there was a surplus of water in Provo City, that the water was scarce, that is true, isn't it?

A Never what?

Q Never was a time when there was a surplus of water in Provo City; that the water was scarce?

A Never was a time there was surplus when the water was scarce, no sir.

MR. THURMAN: Just a moment, I want to get that soaked in if I can. You say there was never a time there was a surplus that water was scarce?

A He asked me if there was ever a time there was a surplus of

water when water was scarce.

MR. THURMAN: And what did you say, yes or no?

A I said no.

MR. THURMAN: Now, you are sure you are right about that, are you positive about that.

A Way I understand the question he wanted to know if there was a surplus of water when water was scarce.

MR. THURMAN: Well, about--

A What is the definition of that now?

MR. THURMAN: Well now, if you don't know the definition of it you ought not to have answered that question until you find out. Now, I want to ask you in connection with that, or I understand you to say that you never knew to be a surplus of water in Provo City?

A All depends on the time of the season, what year.

MR. THURMAN: I am asking any time.

MR. THOMAS: I object to that as being indefinite testimony here, several times there has been a surplus.

THE COURT: Question is very definite. Question may-be read if there is any question about it being definite. The question is now to Mr. Peay what he testified to a few minutes ago.

A There is a surplus of water in Provo right now.

MR. THURMAN: There is a surplus right now, is there any suffering anywhere you know of ?

A Not that I know of.

MR. THURMAN: There could be suffering when there is plenty of water through some lack of system, couldn't there?

MR. THOMAS: Object to this as being improper cross examination.

THE COURT: Objection is sustained, I think it is not a matter of expert testimony.

MR. THURMAN: I know, but your honor, he has said there was suffering, he wants to attribute it to a scarcity

of water, I am asking him of his knowledge if he has not known of suffering when there was --

THE COURT: No, that was not the question.

MR. THURMAN: Read the question I asked.

(Question read)

THE COURT: The court will take notice of the fact that could exist.

A It could through negligence on somebody's part or account of breaking ~~me~~ of some canal.

MR. THURMAN: Through some inefficient regulation.

A Yes sir.

MR. THURMAN: Lack of regulation?

MR. THOMAS: Just a minute, I object to this.

THE COURT: Objection sustained.

MR. THURMAN: At the time that you say there was suffering for want of water in 1913 and 1915, do you know whether your system was efficient, in good working order?

A The canals?

MR. THURMAN: Yes, your system by which you distributed?

A Yes, it was in good order.

MR. THURMAN: Are you willing to say that there wasn't anybody that was receiving more water during that very time than was necessary for their --

A I am satisfied there was not.

MR. THURMAN: D^o you know it?

A I never saw it.

NIELS JOHNSON, called by the defendant, Provo City, first being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Corfman.

Q Your name is Niels Johnson? A. Yes sir.

Q Live in Provo? A. Yes sir.

- Q How long?
- A Provo has been my home town since 1856.
- Q How old a man are you?
- A I am sixty-seven past.
- Q You own property in Provo? A. Yes sir.
- Q Lot property, city lots?
- A I own city lots.
- Q Do you own any property outside of provo under the Provo City irrigation system? A. Yes sir.
- Q What part or locality is your farm land situated?
- A It lies south of the city.
- Q Have you irrigated city lots and farm land within the Provo City water system, have you irrigated --
- A Yes sir.
- Q How long?
- A Well, I don't know just how long, nearly forty years.
- Q Have you attended to those duties yourself?
- A part of the time.
- Q Until, ^{recent} years?
- A Recent years I have attended to them.
- Q Were you at any time connected with provo City in the distribution of the water under its system?
- A Yes sir, I was at one time.
- Q In what capacity?
- A As deputy.
- Q Under what water master?
- A Mr. Taylor, J. W. Taylor.
- Q What years were you deputy water master under J. W. Taylor?
- A I think it was in 1896 and 7.
- Q And as such deputy did you have to do with the distribution of water?
- A Yes sir, on the east side of the city.
- Q Does that include the East Union canal?
- A Yes sir.
- Q In those years did you personally have charge of the East

Union Canal?

A Under the direction of the water master.

Q And did you attend to the distribution of the water from that canal? A. Yes sir.

Q And is your farm land under that canal? A. Yes sir.

Q What part of the system is your land situated in?

A It is south of the city here.

Q South and east?

A Well, not much, almost directly south.

Q Is that land cultivated land or pasture land?

A Well, it is cultivated land, some of it is meadow lands, small part of it.

MR. RAY: How many acres?

A Altogether?

Q Yes.

A There is between twenty-two and three acres altogether.

Q How many years have you owned it and irrigated it?

A Why, I have owned it, I have owned the most of it, I guess, thirty-five or forty years.

Q Now, you were familiar with all the upper canals these thirty or forty years you have been a resident of the city?

A I was familiar with the east part here.

Q You have known of the other canals?

A Yes sir.

Q And their operation? A. Yes.

Q Are they about the same capacity now as they were in those former years?

A I believe they are.

Q And has the water been used through them since your earliest recollection? A. Yes sir.

Q And claimed by the city? A. Yes sir.

Q And diverted to its inhabitants? A. Yes sir.

Q Now, in 1915 did you personally have charge of any land for the purpose of irrigating?

A I irrigated ^{part} my farm, part of my farm I had leased out.

Q The part that you irrigated yourself, I will ask you whether or not you had sufficient water for the irrigation of the land in 1915?

A No, it was short in 1915.

Q You state whether or not your crop suffered?

A They suffered some.

Q What crops did you raise in 1915?

A I raised hay, some hay and some sugar beets and potatoes.

Q And you say they were short.

A Yes sir.

Q What was the reason for it?

A The reason was they did not have sufficient water.

Q Did you make an endeavor to get water?

A I did.

Q could you get it?

A No sir, I could not get it when I wanted it.

Q When did you want it?

A When did I want it?

Q Yes.

A I wanted it when my crops needed it.

Q And you could not get it? A. NO sir.

Q Do you know whether or not the water was to be had?

A Well, the water master claimed he could not furnish me the water at the time that I asked for it.

Q Now, what do you say as to the irrigation of your city lots during 1915, what was your experience?

A My experience was that I had great trouble in getting water on my city lots.

Q Did you have sufficient?

A Sufficient water, no sir.

Q What part of the city are your city lots situated in?

A They are in the southeast part of the city.

Q On the ditch that runs through what street?

A It runs on Fourth East.

Q And how many lots have you there?

A I have two full lots in that one place.

Q What part of those two full lots -- that would be twelve by twelve rods? A. Yes sir.

Q What part of those two city lots were you irrigating or attempting to irrigate in 1915?

A There is all of half, at least one lot of the two that I am not cultivating, it is in barns and yards, such as that I don't attempt to cultivate it.

Q About what portion do you attempt to cultivate?

A Approximately one lot, little less perhaps.

Q Did you have one lot under cultivation in 1915?

A Yes sir.

Q Now, were you able to irrigate the entire lot?

A Not on my turn I was not.

Q Did you get others turns?

A I did.

Q In order to do that? A. Yes sir.

Q How did you manage to do that?

A Well, I would see the neighbors around there and if they were not suffering so bad they would change turns with me.

Q You would take their turn?

A Yes, and sometimes they would take my turn.

Q And under that arrangement were you able then to sufficiently irrigate your lots?

A I got them irrigated by that means.

Q I will ask you whether or not you were in need of more water for the irrigation of your lots? A. Yes sir.

Q Could you have raised better crops if you had had it?

A I could.

Q And is that also true of the farm land under the East Union?

A Yes sir.

Q Your experience with reference to watering your city lots in 1915, did you have -- have you had some experience in previous years?

A Yes, I have.

Q How about 1914?

A I haven't kept track of the years at all, but I have had more or less, some years water was scarce down^{at} the lower end of the ditch, had trouble about getting sufficient water.

Q Did you have to adopt the same method of getting the water by getting of your neighbors as you did in 1915?

A Yes.

Q As the water master on the -- as a resident who has observed the use of the water, is that generally true of the citizens taking water on the east side?

MR. THURMAN: I object to that, these questions have all been leading long enough, have to object. Is that generally true with everybody else, he says, that is leading.

THE COURT Objection is sustained.

Q What has been the custom of our residents on the east side, Mr. Johnson, with respect to getting the water for irrigation of their city lots?

A I am more particularly acquainted with my nearest neighbor there, my brother's widow. Their property, they have had difficulty in getting their lots watered.

Q How has she managed to do so.

A She had a water, her watering turn comes early in the morning, and at the time she could water she has not had sufficient water to get over the ground at all and as has been stated here today, the water turns commence at the bottom of the ditch and go on up. We most always leave our head gates in the main ditch in case some man's water would come down that we might get. By that means they have been able to water.

Q State whether or not after doing that she had sufficient water to irrigate her lots in 1915?

A I don't know anything only what she has told me herself, she said no.

Q Didn't you see the garden?

A I saw the garden, yes.

Q What would you say as to the condition after seeing it?

A I could see she suffered for want of water.

CROSS EXAMINATION BY MR. Thurman.

Q You obtained water, you say, from your neighbors?

A Yes sir.

Q To help your turn?

A I sometimes get water from the neighbors when I couldn't get water enough --

Q Your neighbors had water to spare?

A Must have had, I guess.

Q Or you wouldn't have got it if there had been a proper system on that ditch giving water only to such areas of lots as were cultivated and needed water there would have been no scarcity, would there?

A I think the regulation was complete all right so far as I know.

Q How then is it that your neighbors had water to give to you when you didn't have enough?

A I couldn't tell you that.

Q Isn't that due to some defect in the distribution of it?

A Not necessarily.

Q Where one person gets more than another right in the same neighborhood under the same ditch?

A There is quite a difference^{there} in the conditions of the land to water. Some of those lots there they lie quite high and others are very easy to water and it requires more water, more time to get the water up on to the high lot ~~a~~ than it does on a lot that is low and will easily run off.

Q Some lots are easier to water than others?

A Yes.

Q Yet the same amount of water is distributed to a lot that is easy to water and takes less as is distributed to a lot that requires more and more difficult to water?

A I suppose so.

Q The same time or same quantity of water flowing in the ditch?

- A Yes.
- Q Isn't that just what I am asking you about, that if that water was distributed to the lots that need it because of their character of the soil or because of their situation instead of being distributed promiscuously all alike there would be water for all ordinarily, isn't that true?
- A I don't know whether they would have any right to discriminate as far as that is concerned.
- Q How?
- A I don't know whether they would have any right to discriminate as far as that is concerned.
- Q We will leave that for the court finally to determine, but I am asking you if it wouldn't be true, if that water was distributed to the lands that need it instead of being distributed an equal quantity to each city lot without regard to its necessity there would be water ordinarily sufficient for all? and would have been in 1915?
- A I couldn't answer that.
- Q You couldn't say there wouldn't be enough, would you, Mr. Johnson.
- A I can only say I didn't have enough and I had water turn for the full two lots and only --
- Q But you also say your neighbors had enough that you were able to get some from them?
- A I did I said that.
- Q You say on your farm you raise hay, sugar beets, potatoes, what portion of your crop last year was short?
- A What portion of the crop?
- Q Yes, what kind of crop were you short?
- A We were short of hay and we were short on sugar beets.
- Q What kind of hay were you raising.
- A I was raising some alfalfa hay and some meadow hay.
- Q Did the weevil trouble you last year, your alfalfa?
- A No, it didn't. The fact of the matter there isn't very much alfalfa in now, it is grown up to other grasses.

- Q How many acres of beets did you have last year?
- A Do you mean just what I cultivated myself, or on the farm or place?
- Q What you cultivated?
- A I cultivated about two acres.
- Q Your beet crop was short, was it ?
- A Beet crop was short, yes.
- Q How much tonnage did you have on the two acres?
- A How much what?
- Q Tonnage, how many tons?
- A I had little less than eleven tons to the acre.
- Q What do you call an average crop of beets?
- A Oh, sixteen and seventeen tons to the acre, used to raise eighteen to twenty tons years ago.
- Q That was on account of the land itself rather than shortage of the water, wasn't it?
- A Perhaps so.
- Q Shortage in water doesn't always account for shortage in your beets, does it?
- A Not always.
- Q There might be other reasons for shortage?
- A Yes.
- Q Are you down at the lower end of the ditch?
- A I am at the lower end, yes sir.
- Q Those at the lower end are more apt to suffer under most every irrigation system than those higher up, are they not?
- A I am not at the lower end of the main canal, I take the water through a lateral, comes down about half way down the system, I should judge.
- Q Are you at the lower end of the lateral?
- A Yes.
- Q That is just about as bad then as long as there is some fellows above you on the ditch you have to use -- that is where the trouble is, isn't it?
- A I haven't had any trouble with anyone taking the water from me.

- Q You haven't had? A. No.
- Q Did your neighbors on that lateral suffer the same as you did last year?
- A I don't know, I am sure, whether they did or not. I will say that the man had my farm leased, he suffered, he was on the same lateral.

CROSS EXAMINATION by Mr. John E. Booth.

- Q Mr. Johnson, what part of the block do you live on?
- A What part of the block?
- Q Yes.
- A In the city?
- Q Yes.
- A I live on the southeast quarter of the block.
- Q Who is east of you?
- A East of me?
- Q Across the street?
- A Mr. Hutton, James Hutton across the street.
- Q Is his land about on the same level as your's?
- A Oh no, his is much lower than mine.
- Q His is much lower than your's?
- A We doesn't take the water from the same ditch.
- Q Now, do you know what time he gets for his lot?
- A No, I don't know.
- Q What time do you get for yours?
- A I have three hours time to my lots.
- Q You don't know what he gets?
- A No, I don't.
- Q Who lives south of you across the street?
- A Why, Mr. Jacques and number of people have just small lots along there.
- Q Do they irrigate from the same ditch you do?
- A Yes, not the same laterals, my water comes half a block from the main ditch on 4th East before it gets into my lot.
- Q Don't they water out of the same general lateral?

- A Yes, out of the same ditch, yes.
- Q Is their land about the same level as yours?
- A No, lower.
- Q Considerably lower? A. Yes.
- Q Do you know whether they get the same time you do?
- A I don't know.
- Q Who are the neighbors you got water from?
- A I got water from Mr. Jacques a time or two , but I don't remember the others.
- Q Does the Jacques land require as much water as yours?
- A Well, it is pretty much the same nature of ground, but his land is quite a slope to it and runs off rapidly.
- Q Then you may answer, if you can, whether you think his lot would require as much water as yours?
- A I don't think it would require -- well, I couldn't say as to that, I don't know, I have not observed his land, I don't know.
- Q It is right in your neighborhood?
- A Yes.
- Q What is your best judgment about that?
- A Require as much water as mine?
- Q Yes, would his lot, according to the ratio of his land require as much water as yours?
- A Oh, it might require as much water, not at the same particular time, but require it oftener in order to keep it wet.

CROSS EXAMINATION by M^r. Ray.

- Q Mr. Johnson, do you know how much water was turned into the head of the East Union canal last year?
- A No sirl
- Q Have you any opinion as to whether or not there was sufficient water turned into the East Union Canal, if distributed in accordance with the actual necessities of all of the lands under the canal to have properly irrigated them last year?
- A I never followed up the canal, I don't know anything about it.
- Q You don't know whether there was sufficient water came into

the head or not?

A I don't.

Q Under that system the water master passes upon your necessities, doesn't he?

A We usually ask the water master perhaps a day or two when we can have the water, when we think our crops require the water we will ask him a few days in advance when we can have the water.

Q If you don't complain as to your necessities you don't get any water, do you, that is, have to make this request?

A Well, there is times, there has been times when they have asked us if we needed the water.

Q That was in periods of very high water?

A Well, not necessarily, in low water too.

Q Now, how many lots has Mr. Jacques?

A He has one lot.

Q What proportion of that did he irrigate.

A Well, I don't remember, I don't know, I don't really know, the house is on the lot.

Q More than half of it?

A Yes, I should judge he irrigated maybe three-fourths of it.

Q And he has one water right for that lot?

A Yes.

Q And you have double water right for the lot which you irrigate?

A I have double the amount of land.

Q But you only irrigate one lot on a ticket for two lots?

A That is right.

Q And still Mr. Jacques has water to lend to you?

A It has been on occasions when he said I could take his turn

CROSS EXAMINATION by Mr. Thurman.

Q When does your turn come, night or day, on the East Union?

A On the East Union?

Q Farm?

A Don't have regular turns only as we ask for it. Last year, 1915,

we have always, I think, invariably had it at night.

Q Had it at night?

A Had it at night.

REDIRECT EXAMINATION by Mr. Corfman.

Q Mr. Johnson, how is it that you were able to get part of the water for the irrigation of your city lots from your neighbors, just explain that to the court, will you?

A Well, my neighbor, he watched me when I am watering -- I would like to make an explanation if it is permissible, how I have to get the water on to my lot.

Q That is what I want.

A I have to put a head gate in in the ditch goes down 4th East, have a head gate there, and the water will back up more than a block, distance of a block before I can get ~~it~~ it up on to my lot, and then I take the water, the water runs east from this ditch, runs east to my lot, then I have to run the water north. That country is so level around there and I -- and as I say, Mr. Jacques has come over and said "How are you getting along with the water." I said "I haven't got through, the ditch appears to be full, but there is no force to it to get it over the lot!" That is why he says "You can use my time." He said "Maybe I can catch a little waste water,"

Q What did you do to catch the waste water?

A Catch the waste water?

Q Yes.

A Put in my gate.

Q What?

A Put in the head gate after they are through watering.

Q Mr. Jacques, I understand you, gave some of his water to you?

A Yes.

Q When he didn't have water to spare, is that true?

MR. THURMAN: I object to that, he has not said so and it is leading.

Q Will you say how Mr. Jacques and the neighbors there come to give you the water?

MR. RAY: Object to that as having been asked and answered.

THE COURT: I don't remember that he has explained that ~~mirat~~ situation.

MR. RAY: I thought his last answer was an explanation to that.

MR. A. C. HATCH: I thought he covered it fully by saying he had to put the dam in, back the water up more than a block, and Mr. Jacques would come and see it and ask him how he was getting along with his water and he said he wasn't getting along, and Mr. Jacques said he could take part of his turn.

THE COURT: Yes, I remember that, but don't think that contemplates what is covered by this question. The question really is how Mr. Jacques come to be able to furnish him water. That does not explain that at all.

Q Answer, Mr. Johnson.

A I don't know, I am sure whether he was in need of the water at the time or not, I couldn't say.

THE COURT: That is a complete answer, he says he doesn't know.

RE-CROSS EXAMINATION by Mr. Ray.

Q Mr. Johnson, just one question, you backed the water up for a block.

A. Yes sir.

Q When you took your dam out the man below then got all of the water which you had reservoired on his turn?

A Yes sir.

Q Was Jacques below you?

A Jacques was below me.

Q And Jacques would get that water?

A Likely would, or some of the others along the row would get it.

JOSEPH F. STRONG, called by the defendant Provo City,
first being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Corfman.

- Q Your full name?
A Joseph F. Strong.
- Q You live in Provo? A. Yes sir.
- Q How long have you lived here?
A About fifty years.
- Q Own land under the Provo City water system?
A Yes sir.
- Q What kind.
A What kind?
Q Yes.
A Alfalfa and farm land.
- Q Own any city lot? A. Yes sir.
- Q Under irrigation? A. Yes sir.
- Q What part of Provo City are your farm lands situated?
A It is just east of this road that goes out to the canyon, I don't know just what section it is in.
- Q When they are under what is known as the East Union Canal.
A Yes sir.
- Q You take water from that canal? A. Yes.
- Q What kind of crops do you grow on these lands?
A Different kinds, corn, wheat, oats, alfalafa.
- Q How long have you been irrigating?
A I have been irrigating it for fifty years, I guess.
- Q Were they irrigated in 1915? A. Yes sir.
- Q What do you understand --
A Understand I have not myself --
Q Yes sir.
A My brother he has got my farm.
- Q As a tenant? A. Yes sir.
- Q Have you observed the use of water on these lands since your

brother has been operating?

A Why yes, I would see it, the crops didn't look quite as if good as I would like them to.

Q Did you see them in 1915? A. Yes sir.

Q What would you say as to the condition of the crops in 1915?

A Well, it was short.

Q What crops were short?

A Alfalfa mostly .

Q Any other crop short?

A Well no, I don't know as there was anything in big pieces of the other.

Q What did you say was the reason for the shortage ?

A Well, want of plenty of water.

Q How?

A For the want of water, I call it.

Q Have you ever been connected with the city?

A Yes sir.

Q What?

A In the water, deputy.

Q When were you deputy water master?

A That I couldn't say unless I would look up the records.

Q Under what water master were you?

A George W. Gee.

Q What year were you deputy water master, as near as you can remember?

A I couldn't say, I just been trying to find out now by Mr. Gee, it was before any of these others you have had up here.

Q How?

A It was in early days, I couldn't say just what year without looking it up.

Q And as deputy water master when were you water master, what particular portion of the system did you have under your supervision?

A From the Factory race here mostly to the East Union ditch, lower East Union.

Q All east of the Factory Race? A. Yes sir.

Q That would include the East Union? A. Yes sir.

MR. RAY: Mr. Corfman, if you know when this man was water master --

MR. CORFMAN: No, I don't.

MR. RAY: State it into the record.

THE WITNESS: I can find out, but it has slipped my mind.

MR. THURMAN: Back in the 80's, I know that. George W. Gee was water master in '83-4-5.

Q I will ask you, Mr. Strong, whether you are now acquainted with the principal canals that are used in connection with the irrigation of the lands under the Provo City system?

A I am not posted on them.

Q Do you know what canals there are?

A Yes sir.

Q What are they?

A There is the Timpanogos, Upper East Union --

Q Oh no., I am asking about Provo City?

A They have been changed so that I am not positive.

Q Do you know what principal canals run into the city now from which the water is used?

A Yes, there is the East Union is the most principal, and then laterals down from the East Union here.

Q What other canal?

A There is a ditch from the Factory Race down into the fields.

Q I am speaking of the upper canals, what are they, if you knew. If you don't know all right.

THE COURT: I understood Mr. Strong to say they had been so changed he didn't know what they are now.

A There has been a wide difference since I was in that I couldn't answer.

Q Now, did you irrigate any city lots in 1915?

Q 1915?

Q Yes.

- A Just my own lot.
- Q What part of town is that lot situated on?
- A On 5th south, 2nd East.
- Q And does that lot get water from the East Union Canal?
- A Yes sir.
- Q Did you irrigate in 1915 yourself?
- A Yes sir.
- Q What do you say as to having sufficient water for 1915?
- A I have sufficient water.
- Q You did have? A. Yes sir.
- Q In 1915?
- A Yes sir, my own lot, the water run down toward the fields below part of Stubb's, and of course I got a good flow.
- Q You live in what is known as the Stubbs Addition?
- A Yes.
- Q Do you know what is done by the water users in that locality to take care of the water that comes down the ditch?
- A It comes down to Stubbs there below the depot. They water there and there is a good many lots on the east side of the lane, I couldn't name the persons along there waters from that ditch below me.
- Q How much ground do you irrigate, or did you irrigate in 1915?
- A I don't irrigate very much, my lot is pretty much all barn and sheds.
- Q How much, what is the area?
- A About a third of it.
- Q What is the area of your lot ?
- A It is about nine by fourteen and a half.
- Q And what portion of it do you irrigate?
- A Just half of it, I guess.

CROSS EXAMINATION by Mr. Thurman.

- Q Did you say you irrigate about one third of your lot?
- A Maybe a little more than one third.

Q Is it a third or half about?

A It might be half of it.

Q You say it is nine by fourteen, that is larger than the ordinary lot, ain't it?

A Yes sir.

Q Where is that lot ?

A It is right on 5th South and 2nd East corner.

Q pretty near down to the end of the street?

A Yes sir.

Q Is there where you live? A. Yes sir.

Q Is that the end of the ditch that irrigates the city lots?

A No, no, no sir.

Q Where does water go below you, beyond you?

A It goes down and then turns down towards the depot and then under the track and then down the land down what we call the pasture lane.

Q Did I understand you to say you were short of water on your lot there? A. N^o sir.

Q What?

A I didn't say so.

Q You had sufficient, didn't you say your alfalfa crop was short last year ?

A Yes sir, it was.

MR. RAYP That was on the farming land.

A That was on the farming land.

Q Where is your farming land?

A It is up on that canyon road.

Q Where is it?

A I forget what section, I couldn't say.

Q Is it near --

A It is right east of Thurman's store, if you know where that is, where the lane turns to go toward the cemetery, it is east about four blocks.

Q It is southeast of here? A. Yes sir.

Q Toward the lower part of the city?

A Yes sir.

Q What kind of land is it?

A It is kind of rolling land.

Q What is the character of soil?

A It is gravelly and clay.

Q How much alfalfa did you have?

A I guess about six acres in.

Q Did you have a shorter crop than usual?

A Yes; it is quite short.

Q What is your average tonnage per acre?

A That I couldn't tell. I could tell when I hauled it in the barn there wasn't near as much hay as I got before.

Q Did you have any weevil in your crop last year?

A I did in the first part.

Q That would affect your tonnage, wouldn't it?

A Very little. We tried that, we put on a little water then brush harrowing it and we killed the weevil. It is the latter part of the season it fell short.

Q You don't know how much tonnage you got per acre?

A No, I don't.

Q How is your neighbors, did they have average tonnage last year?

A I could not tell because I did not attend to it, I wasn't out in the field like I used to be, and I could just tell by the hay that I got that I didn't get enough ~~xxx~~ to justify me.

CROSS EXAMINATION by Mr. Bagley.

Q Referring to your city lot, Mr. Strong, you said you had nine by fourteen?

A I think so.

Q Before the interurban was built you had nine by fifteen, didn't you?

A Yes, I had more, I don't know just what it was.

- Q Now then, since the interurban was built has there been any change in your ticket or card for the use of water on your place?
- A I couldn't say, because I don't water that part of it at all.
- Q Did your water ticket cover the land you didn't water the same as the rest of it?
- A I don't think so, I have just got it for one lot.
- Q How much do you pay per annum?
- A For what?
- Q For the irrigation water for your lot?
- A I think I pay, I think it is dollar and a half, I believe it is a dollar a lot, I ain't sure.
- Q What is the time they give you?
- A The time I water?
- Q Yes, for your lot where you live?
- A I couldn't tell you that.
- Q You don't know, the exact amount you pay?
- A I have got the time, I couldn't tell you just what it is.
- Q Well, as a matter of fact, there is only a small part of your lot that is irrigated, or ever has been irrigated, isn't that true?
- A I water all down, you know, where the slopes are there.
- Q There is half the lot that lies below the hill that would be say three rods by nine rods?
- A Three, yes, there would be that now.
- Q That is marsh to some extent, isn't it, doesn't require water at all?
- A It was, it ain't now.
- Q Is it drained now?
- A I have filled it up.
- Q Up to the time that the interurban built through there it was marshy, wasn't it?
- A Yes sir, it was marshy.
- Q And was never irrigated? A. No.

Q And there are other lands in that neighborhood that are marshy and have never been irrigated by water from the irrigation system of the city?

A That is right.

Q But you are not able to say whether those lands are ticketed?

A No.

$\frac{1}{2}$ -----

WILLIAM J. TAYLOR, called by the defendant Provo City, first being duly sworn, testifies as follows:

DIRECT EXAMINATION BY Mr. Corfman.

Q What is your business?

A Farming and dairying.

Q Your full name?

A William J. Taylor,

Q Where do you live?

A At Lakeview at present.

Q Did you ever live in Provo?

A Yes sir.

Q Were you ever connected with the distribution of the water in the Provo City water system?

A Yes sir.

Q And what year?

A 1896 and '97.

Q As what officer?

A Water master.

Q Who measured the water and turned it to the city those years?

A A. L. Booth.

Q And you had the water that was measured to the city?

A Yes sir.

Q And what were the main laterals or main canals at that time?

A The East Union ditch, Factory Race, City race and Dry creek, stream called Dry Creek.

Q Are those -- were those canals at that time practically as they are now?

A Yes sir, my judgment.

Q How did you distribute the water to the East Union Canal at that time?

A We distributed it as it was needed by the farmers.

Q Did you use all the water of the Mill Race in order to do that?

A At times, yes sir.

Q And when did you take the water from the Mill Race to do that?

A In 1896, we had a very good supply of water, it was necessary to take much from the Mill Race. In 1897 we were short and took it all the time practically during the months of July and August.

Q What use did the Mill Race have of the water during 1896 when there was plenty?

A They used it to turn their wheels.

Q At what time?

A During the day time.

Q Any at night?

A Well, now, I think the woolen mills made electricity at that time at night.

Q And was the water sometimes turned out at night of the canal?

A Yes sir.

Q How was it distributed among the several main canals under the Provo City system?

A The Factory Race when it was necessary, we used to shut down the head gates of the Factory Race and open the gates of the different canals where it was needed most.

Q Was that at night or day?

A That was at night while we had sufficient water.

Q And did I understand you it was distributed among the several canals?

A. Yes sir.

Q Do you know about how much water the East Union then carried?

A No, sir, I don't remember, I have a record of it, but I don't

remember.

Q Do you know what any of the canals carried?

A I don't recall the amount that the different canals carried.

Q What do you say as to the use of the water in the early season?

A The early season?

Q Yes.

A It was used as it was needed in the early season.

Q And what quantity was turned into the canals?

A We usually filled up the canals as full as the farmers needed them, needed the water.

Q Did you use more water in the early season than later, the farmers? A. Yes sir.

Q Now, you say they used more in the early season?

A At times.

Q And about as compared with the season when the water was divided by Mr. Booth as commissioner, can you tell about how the canals were filled up to the time the measurement was taken and the water divided by Mr. Booth, the commissioner?

A Up to the time when Mr. Booth made the division?

Q Yes.

A They were filled by the different water masters.

Q And about how much did you carry in them at that time?

A If I remember it it was in the neighborhood of 18000 --

Q How did you fill your canal as to capacity?

A We filled them full as they were needed.

Q Was that water generally used by the irrigators?

A Yes sir.

Q And then from that time up to the time that Mr. Booth took jurisdiction of the water you carried them in that way, did you?

A We took what Mr. Booth turned to us at that time.

Q Up to that time you carried according to the capacity?

A Yes sir.

Q Did you observe whether or not the use of more water in that early season was beneficial or not?

A It depended very much upon the season of the year.

Q Ordinary season of course?

A Whether they would run full.

Q In ordinary seasons was the use of the water, greater quantity in the early season beneficial or not?

A I don't know that it appeared beneficial. We used more water what I term the early season is while the grain is growing, and when the grain is ripening the water is not needed so much after it gets ripe. It is beneficial then to use more water.

Q I understand, but did they use this early water beneficially?

A Yes sir.

Q Acquainted with the several main canals now that are under the system?

A. Yes sir.

Q Would you say they are about the same in construction and way they are maintained as then?

A. Yes sir.

CROSS EXAMINATION by Mr. Thurman.

Q Have you been over the ditches in recent years, Mr. Taylor?

A How is that?

Q Have you been over all these ditches in recent years?

A Not over all of them, but I have been among the canal system in recent years, yes sir.

Q You say you think they are about the same as they were when you were deputy water master?

A In my judgment they are about the same.

Q Was the old Tanner Mill running at that time when you were deputy?

A The old Tanner Mill?

C Yes.

A No sir.

Q What did run once, did it?

A Yes sir, I remember when it ran.

CROSS EXAMINATION by Mr. Ray.

Q Mr. Taylor, in the early part of the season when the river was high you usually took your canals full of water, didn't you?

- A As full as needed, yes sir.
- Q You know where the tail race is of the East Union?
- A Yes sir.
- Q And the water would run into the East Union up here and through the East Union and down through the tail race and across the Bullock farm into the lake, wouldn't it?
- A Yes sir.
- Q That was true of most of the ditches, wasn't it? that a large quantity of the water that you took in at the head went out through the tail races and waste ditches into the lake?
- A Not as a rule.
- Q I mean in the early season when the water was high?
- A There usually was some run through, but as the people needed it they took it until it was necessary that it all be taken;
- Q Yes, I am ~~not~~ referring to the time when the inflow at the canals was reduced, because the river had gone down; I mean in there early season when there was a flush of water the water went on through and down the tail races, part of it, to the lake each season, didn't it?
- Q Part of it, yes sir, during the high water.
- Q You always took the factory water when you needed it, didn't you in the low water season? A Yes sir.
- Q And just as much of it as you ~~needed~~ needed?
- A Yes sir.

REDIRECT EXAMINATION by Mr. Corfman.

- Q Now, did you take the factory water during the day time?
- A Yes sir, when it was needed.
- Q When did you take any factory water during the day time?
- A In the months of July and August and part of September.
- Q What was the condition of the factory stream at that time?
- A When we took it there was no factory stream.
- Q How?
- A When we took the water and gave it to the farmers there was none left.

Q Was there sufficient water in the Mill Race at that time to turn the wheels? A. No sir.

MR. THURMAN: Let me understand that, you mean after he took it out or before?

MR. CORFMAN: No, I am saying before.

Q When you took the water during the day time from the Mill Race was there sufficient water in there to turn the wheels?

A No sir, there was not.

Q It would have gone to waste and gone down, would it not, because of their not being able to use it??

A Yes sir!

RECROSS EXAMINATION BY Mr. Thurman.

Q I still am not clear about that, before you would take the water when the farmers were needing it, would there be enough water in the Factory Race running to run the mill?

A No sir, not in that low water season.

Q By backing it up.

A They could have run short time and shut down their gates and backed it up perhaps run a little while and back it up again.

RECROSS EXAMINATION by Mr. Ray.

Q Mr. Taylor, it would have run some of the wheels, wouldn't it, along the canal, along the race?

A Might possibly have run the smaller wheels by backing it up.

Q Wouldn't it have run some of the smaller wheels without backing it up, like E. J. Ward & Sons?

A I doubt very much if there was sufficient water in the race to run E. J. Ward & Sons.

Q Do you know how much water there has to be in the race to run E. J. Ward & Sons wheel as it was then constructed?

A No, I don't know just the amount, it wouldn't take very much though.

Q Take good deal less than the Factory, than the woolen mills?

A Yes sir.

Q You don't know whether there was sufficient or not to run that wheel?

A Yes, I do know there wasn't sufficient to run that wheel, giving them their proportion.

Q Their proportion was all of it, wasn't it, all the race?

A No sir.

Q All the Factory Race.

A All the Factory Race,

Q What was the proportion of the Factory Race?

A It was the proportion remaining after the irrigators was all supplied.

Q Yes; that is all.

12:00 Noon, Recess to 2:00 P.M.

WILLIAM J. TAYLOR - - - -

CROSS EXAMINATION by Mr. A. C. Hatch

Q Mr. Taylor, would you say whether or not there was fifteen or twenty second feet of water in the canal running to the factory at the time you say you turned it in?

A At times there may have been.

Q Well, about how much would you say was running in the Factory Race, or that they were entitled to at that time when they were entitled to have any running in the race?

A Well, to what they were entitled to, I suppose, they were entitled to their proportion of what was in the river.

Q Do you know what that was at any time when you turned it in?

A No, I don't at present, I don't recall the amount.

Q Do you know what their proportion of what was in the river was?

A At that time, as I remember it, their rights were in connection with the rights of Provo City.

Q I understood you to say that all their rights were supplied to the use for irrigation purposes whenever the farmers needed it, is that right?

A That is the way we understood it with an agreement with them that the agriculturist should use their water when it was needed.

Q Was there a practice to take it whenever it was needed for irrigation while you were water master, was that right?

A Not without an understanding with them.

Q Did you have an understanding when you took it?

A Yes sir.

Q To whom did you talk?

A Always had an understanding with the mill owners.

Q I say to whom did you talk?

A With the superintendent of the mill.

Q Who was that?

A Mr. Clayton.

Q And as to Ward & Company and Smoot Lumber people?

A Yes sir.

Q And Hoover? A. Yes sir.

Q Did you always obtain their permission to turn the water off?

A Yes sir, we always kept in touch with them as the condition of the water and needs of the agriculturist.

Q State what was said by you and Mr. Clayton or the substance of it, if you can?

A When the water began to get low so that it was necessary to take some from the woolen mills, I would call on Mr. Clayton and inform him of the condition and they usually would call up the water master when their supply began to diminish and he would supply them as long as it was in the river. Then when the water receded and it was necessary to use part of it for the agriculturist, we would go to them and tell them of the fact, and take, with their consent, what was necessary for us to use.

Q Whether they consented or not you would have taken it, wouldn't

you?

A No, I don't recall that I ever took it without their consent, without an understanding with them.

Q You think that there would be fifteen or twenty second feet at the time you took it all?

A I could not say as to that.

Q Did you turn it all off?

A At times, yes sir, as much as the head gates would close at least.

Q Sir?

A We would close it as much as the head gates would stop.

Q You didn't allow any to run down to irrigate lands down below the factory then?

A Usually there is sufficient seepage in the Factory Race, different places, to supply all below with water when they are shut off above.

Q When the gates were shut tight up at the head?

A At times, yes sir.

THOMAS E. THURMAN, called by the defendant Provo City first being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Gorfman.

Q Your full name is Thomas E. Thurman?

A Yes sir.

Q You live in Provo? A. Yes sir.

Q Lived here all your life? A. Yes sir.

Q How old a man are you?

A Sixty-six.

Q What is your business now?

A I am engaged in mercantile business at present.

Q Do you do any farming? A. Yes sir.

Q How long have you been farming?

A Oh, ever since I can remember, fifty years anyway.

Q And do you own lands under the Provo City system of irrigation?

A Yes sir.

Q How long have you owned lands?

A Since '75. 1875;

Q Where are your lands situated?

A In the southeasterly, south and southeast of the city.

Q Under what canal?

A Under the East Union.

Q Do you own city lots? A. Yes sir.

MR. RAY: How many acres of farm land?

Q How many acres?

A I have seventeen and a half now, I did have more, I sold out some.

Q How long have you irrigated these seventeen and a half acres under the East Union?

A Since 1875, some of it before.

Q What kind of crops have you raised there?

A All kinds, that is, wheat, barley and oats and beets and hay, potatoes.

Q Have you irrigated your city lots as well.

A Yes sir.

Q How many years have you owned your present city lots?

A About twenty five years.

Q You were at one time connected with the city and its irrigation system? A. Yes sir.

Q What year?

A In the year -- I will have to refer to my book.

Q Have you a record of it?

A Yes, I was deputy water master under Robert Thomas.

Q When was that?

A In the 70's. I don't remember just what year, up until Mr. Gee was appointed water master.

Q When was Mr. Gee water master?

A Why, in the 70's and 80's, up until 1890. I was appointed

water master in 1890.

Q 1890? A. Yes.

Q And what time did you serve?

A Served all of 1890 and Mr. Scott was in in '91. Then I had '92 until '94.

Q Now, what portion of the system did you give your special attention to during the irrigation season?

A During the year 1890 I looked after the river and the head gates. Mr. Gray had charge on the east side of town and Mr. Scott the west. There was three of us.

Q They were deputies.

A They were deputies.

Q In the irrigation of the city lots, how were the city lots irrigated, on time or by turns or how, while you were water master in 1892 and 1894?

A I think Under Mr. Gee they commenced to irrigate at the head of the ditch and took it in turns down, and I started in when I was appointed, I started at the lower end of the ditch and come up an hour and a half to the lot.

Q That was in 1892 and 1894?

A '90 and '92 and '94.

Q Then you inaugurated the system of commencing at the --

A Lower end.

Q Lower end of the ditch and irrigated back in turn?

A Yes sir.

Q How? A. Yes sir.

Q And why did you do that, Mr. Thurman?

A There was always complaint that the lower end of the ditch never got any water that they took it above and did not get their turn.

Q Didn't get down to them?

A Didn't get down to them so we took it at the bottom, so that it went down to the bottom on the first day of the ^{week} ~~week~~ and then gradually come up.

Q Now, how large an area are your city lots, Mr. Thurman?

A Twelve by twelve -- no, six by twelve for one lot.

Q Two lots?

A Two lots, yes, I had the two lots.

Q What portion of those city lots do you irrigate now?

A Well, about two thirds.

Q Of the area? A. Yes.

Q And did you have them under cultivation in 1915?

A Yes sir.

Q What do you say with respect to the quantity of water that was furnished to you for the lots in 1915?

A Well, I couldn't say, I had my place rented for that year, and I hadn't heard.

Q You are speaking of the city lots now?

A Yes, of course, I lived out on another piece, out by the --

Q You didn't irrigate them yourself??

A No, I didn't irrigate them. We were talking about the lots I own inside of the city here.

Q Did you farm any of your lots in 1915 yourself?

A Just a small portion of it.

Q Did you make any observations as to the supply of water that you had during the season of 1915?

A Yes.

Q What would you say as to the quantity of water you had for the land that year?

A Well, there was times it was very scarce.

Q Were you able to get it?

A Not on my turn, sometimes I would take some waste water that come from the man above me that happened to let go. You see, the land lays on a slope and they can't hold it all on their lands, and sometimes it will run off and run into my ditch and then I would catch it.

Q Were you able by that means to successfully irrigate your land?

A Yes, I got along with it.

Q Was that true of your tenants.

A Yes sir.

Q Now, have you taken any notice since you inaugurated this system of watering commencing in the city, commencing at the last man on the ditch and irrigating back as to how much water would ^{be} taken under those circumstances?

A Well, during the high water it was all right, but when water got down to -- so that there wasn't much in the river they didn't have enough.

Q And would you say there would be sufficient water in the Provo City water system for the irrigation of the entire area of the city lots?

MR. RAY: At what time?

MR. COREMAN: In 1915 and for the past eight or ten years during the low water stage.

A I couldn't say so much about it since I got out of the business.

Q Well, ^{when} you commenced this system of irrigation in 1894, from 1892 to 1894, what was the effect?

A When the river got down to fifteen hundred or fifteen thousand feet at the river and divided up by the commissioners we didn't have enough to get over it sufficiently for all the years. Lots of people suffered for water.

Q Here in the city.

A Yes sir, and on the farms too.

Q And you noticed whether that -- whether or not that has been true since that time?

A I have noticed some farms that have suffered for water.

Q Here in the city?

A I have not noticed the city so much as I have out on the farms.

Q Now, have you made -- did you make any observation in 1915 as to the crop conditions under the East Union Canal?

A Yes sir, that is the most especially.

Q During the low water stage of the river?

A Yes sir.

- Q What would you say as to their having sufficient water to irrigate those farms?
- A I would say at times they did not have, especially noticed Mr. Gray's farm down close to mine.
- Q What did you notice there?
- A I noticed that he didn't have water to water his grain and his lucern and ~~he~~ it suffered. Also Mr. Borden, Thomas Borden, owns ground close by there. They called my attention to it and I went over and looked at it.
- Q Did you notice any other?
- A I don't recollect of any now.
- Q In previous years to 1915 do you recall any like conditions under that canal?
- A Yes sir.
- Q When.
- A When I was water master very often had complaints and I would go and examine them, ~~at~~ especially at the asylum, State Mental Hospital up here where they had gardens, and they didn't have sufficient water to mature their crops.
- Q And you were at that time distributing the water to the water users?
- A. Yes sir.
- Q Were the canals in 1892 and 1894 the main canals here in Provo City, about as they are now?
- A Just about the same.
- Q Who distributed the water to Provo City in making division at the mouth of the canyon among the several water users who took water there in 1892 and 1894?
- A In ~~19~~ 1890 I think it was agreed amongst all the canals and city that I should regulate it.
- Q And did you? A. Yes sir.
- Q And did you give Provo City its proportion of the water?
- A Yes sir, under the agreement, I think, of '84 there was an agreement entered into by the different users.
- Q Do you remember what proportion of the river Provo City received at that time, what part of it?

A I think it was $45/100$, that is my recollection.

Q Have you got a record of it?

A I don't know. These are old books that I just happened to pick up, according to the way it was divided? I believe Provo City had $410/1000$ of the river.

Q That would be $41/100$?

A Yes.

Q What year was that?

A That was in 1890. I was appointed Commissioner, Mr. Goddard was water master and that was the same agreement under which we had been working -- 1900.

Q And later was that arrangement modified or changed?

A I think it was under the decree of the court.

MR. BAGLEY: Do I understand that was in 1900 instead of 1890.

A Yes, that was in 1900.

MR. A. C. HATCH: In 1900 you gave them $410/1000$.

A 1900 the city portion was $410/1000$ according to the way I have got it figured here.

MR. THURMAN: Just excuse me a minute, you gave $45/100$ in 1890, do you change that?

A I don't know -- in 1890?

MR. THURMAN: Yes, when you were first appointed water master by the agreement to divided the water between the users.

A We divided the water then under the old agreement of '84, I think. That was $45/100$ of the river went to the city. What is my recollection.

Q In 1884? A. Yes.

MR. THURMAN: wasn't it forty-three.

A Maybe forty-three, I don't remember.

Q Have you got a record there was it forty-three or forty-five one hundredths along in '84 and '86?

A No, I haven't got that record, this is the record of June 29th, 1890.

Q Previous to that it was more?

A Yes.

Q You don't remember whether it was 43/100 or 45/100?

A No, I don't remember that, it was an agreement entered into by the council and different persons.

Q What you say as to the --

MR. A. G HATCH: Mr. Corfman, I am mixed on his answer there and like to have it straightened it. He says he has a record there of 1890 that he was reading from?

MR. CORFMAN: Yes.

MR. A. G. HATH: Is that 410/1000 the amount distributed then to the city?

MR. CORFMAN: Yes.

THE COURT: D^o you mean 1890 or 1900?

Q Do you mean 1890 or 1900?

A This is 1900, this 410, I am talking about,

Q Now, as to the acreage or area irrigated then and now what would you say.

A Well, there may be a little more irrigated now than there was then.

MR RAY: What day do you fix as then, Mr. Corfman.

MR. CORFMAN: In the year 1892 and '94 when he was water master.

Q Were the ditches maintained and canals then about as now?

A Yes sir.

Q Speaking of what is known as the Mill Race, was the Mill Race run then about as it is now? A. Yes sir.

Q Do you know about how many feet of water it carried at that time, in 1892 and 1894, when you were water master?

A Well, about the same as it does now, the last time I was on it, I don't see much change.

Q What was the custom in 1892 and '94 and during the years you had to do with the irrigation system with respect to the water during the early spring months before the river reached its normal stage?

A We usually filled the ditches, people had what they wanted.

Q Was there more water used then in the early season than during the later applications of the water when the river reached the lower stage?

A. Yes sir.

Q What would you say as to whether or not that use was beneficial?

A Well, I think so.

Q Why?

A Well, they would irrigate their lucern and gettit to growing, and it takes more water in the first watering, always takes more than any other time they irrigate.

Q Is that true now?

A. Yes sir.

Q Now, while you were water master in 1892 and '94, was there any water diverted from the Mill Race for irrigation of any farms?

A. Yes sir.

Q When?

A Ever since I can remember there has been water taken out of the mill race to farms on the south of the town and city lots.

Q Yes, but I mean from the volume of water that the mill owners used in running their wheels.

A There is always water taken^{out} for the farmers, out of the Mill race.

Q Yes, certain ditches.

A Yes, certain ditches.

Q Now, what was the custom, your custom, with reference to taking the water in the low water stage?

A Always furnished it to the farmers out of those ditches.

Q I understand, but while the mill was operating did you continue -- did you allow them to continue to operate, or would make arrangements?

A Why, when the water got down so that they didn't have enough to supply the ditches we always made arrangements with the mill owners to take the water part of the time.

Q What part would that be?

A Well now, in 1890, they wererunning the electric lights down here and had water enough in the factory in the race to run one

wheel, and they run the lights until twelve o'clock on the streets, and I had an arrangement with the superintendent of the mill to go up and turn that water off at twelve o'clock to the farmers, and did do that from July up until September, made that trip every night and then turned it on in time for them to start to work in the morning.

Q What was the custom with reference to the East Union canal at that time, in 1892 and '94, as to the farmers taking water from that ditch, were they timed?

A In 1890 I timed them, went over the ditches and timed them under the ordinance. I think it was two hours to the acre, that is my recollection, I am not positive on that. We tried that system for two, I think, or three irrigations, and it was not satisfactory.

Q Why?

A Because some of the men had been accustomed to using the water out there and trading one with another. If I wanted to water my wheat and wind storm come up and it was my turn, and afraid of it blowing down, my neighbor, I would change with him and then some man wasn't satisfied with the idea of having time to coming around once in two weeks and some of them wanted it every week, and it was not convenient to the farmers to have a time that way, being all in one ditch, and the head of the ditch was small, they would just take the water out of the big ditch and it was divided up into about four or five streams, the ditch was, and we give them turns.

Q Would you say ~~a~~ from your experience as a water master and observation of the use and application of water under that system it would be more economical use to take it by turns?

A Yes sir.

Q And ~~as~~ that system then of taking it on time abandoned?

A Yes sir.

Q For those reasons?

A Yes sir.

Q Do you know whether the water has been used by turn since that time?

A Yes sir, it has.

Q What would you say with reference to that method of distributing the water to the water users under the East union?

A I think that is the most economical way of distributing it.

Q Now, while you were water master in 1892 and 1894, do you know whether the mill known as the foundry, the Prove City Foundry & Machine Company was in operation?

A Yes sir, it was.

Q During the low water stage of the river those years did that factory run?

A Yes sir, some of the time, most of the time.

Q Do you know whether it has been in operation since that time?

A Yes sir.

Q Do you remember, Mr. Thurman, when the Mill Race was dug?

A You mean the Factory Race?

Q The Factory Race, speak of it as the Mill Race.

A I can remember the mill being there about 1885, grist mill, and there was a mill race there then.

Q Using water as now? A. Yes sir.

Q Now, do you know who dug that race, constructed it?

A I don't know as I can tell that, I know John Taylor had a grist mill on it.

Q Did you ever have any interest in the woolen mills over here?

A Yes sir,

Q How did get your interest there ?

A By helping to make that race and hauling rock to the building.

Q And was paid in what?

A Paid in stock.

Q Do you know of others doing the same as you?

A Yes sir.

Q Then it was constructed in that way? A. Yes sir.

Q And in those early days used about the same quantity of water it is using now?

A After the factory time the woolen mills was consturated, they made

the race larger and had more water.

Q About what time was that factory constructed?

A Well, I think it was somewhere in the early '70's, but I could not say just the date.

Q What would you say as to the Mill race having had water in it since that time?

A It has always had water in it to my knowledge.

Q Do you know of its always being used? A. Yes sir.

Q Do you remember, Mr. Thurman, when the East Union Canal was constructed? A. Yes sir.

Q About when was that?

A Well, the present situation of it now, it was about '65, 1865, it has been moved up several times from what it was originally, built originally, come just below the hill here, down by the -- going down to the bottom of the hill and was around the edge.

Q As it is now. It was constructed in 1865, about that time?

A I think Mr. Gee, when he was water master, raised it up on that side hill.

Q Have you any recollection when it was first constructed?

A I don't think I have, along about '55, there was a lateral, or that is, the East Union ditch was taken out and taken around as far south, probably, as this Center Street here, somewhere along in there. Turner had a farm and Cluff's, but it was not as far up as it is now.

Q What would you say as to having had the water and using it from that ditch since that time?

A It has always been used every year.

Q The Tanner Race, have you any recollection when it was first built?

A No, I have not. Tanner Race was, upper end of it was an actual channel, but I don't remember just when that was done.

Q How long can you remember that had the water and used it as being used now?

A Well, Tanner had a mill on that race I think about 1860, and

it has been used ever since that.

Q And the City Race, do you know when it was constructed?

A That was constructed, earlier, that was one of the first ditches that was taken out and brought down -- ever since I can remember that has been there and I come here in '52, and I know of going to school down in the old cemetery down there and had to cross that Mill Race.

Q Had the water in it since that time. A. Yes sir.

MR. THURMAN: Is that the City Race you are speaking of now?

A That is the one that runs the factory, one I understand is the City Race.

Q Then all the main canals that embraces the Provo water system was constructed in those early days?

A Yes sir.

Q And have had the water in since that time?

A Yes.

Q In practically the same quantity as now?

A Yes.

CROSS EXAMINATION by Mr. John E. Booth.

Q Mr. Thurman, do you recall when the woolen factory was put in operation, what year?

A No, I don't, it seems to me like it was '72, but I am not certain.

Q Do you recall when they had a big celebration on the Fourth of July?

A I remember being there. Mr. Thurman was the orator of the day, but I don't remember the year.

Q I didn't know whether you remembered it.

A I do.

Q During that winter '71 and 2, do you recall the fact that the Factory Race was very much enlarged that fall and winter?

A Yes sir.

Q About how much more would it hold after that, carry after that

- than before.
- Q Well. it would carry double.
- Q At least double? A. Yes sir.
- Q There was just the Taylor mill there before?
- A Yes, the mill down there in that ward.
- Q Owned by Davis? A. Yes.
- Q So that it would be increased at least double?
- A Yes, I think it would.
- Q I think you are right about that. Now, you spoke about an agreement of 1884, I am going to ask you, would you remember what that division was if you heard it?
- A It is pretty hard to remember all these things, I think I would recognize it.
- Q The Tanner Race one tenth of the riger?
- A Yes sir.
- Q You recall that? A. Yes.
- Q That would be ten out of a hundred wouldn't it?
- A Yes.
- Q Now the City Race two twenty-fifths?
- A That is right.
- Q That is correct, is it? A. Yes sir.
- Q That would be eight, wouldn't it, out of a hundred?
- A Yes.
- Q And the Factory Race three twentieths?
- A Three twentieths is right?
- Q That would be fifteen out of a hundred, and the East Union one tenth.
- A One tenth is right.
- Q That makes forty-three hundredths, does it not?
- A I haven't figured it, forty-three is right.
- Q You recall it now?
- A Yes sir.
- Q Now, you were water commissioner, I think, one time, were you not?
- A Yes sir, 1900.

Q Up to 1884 we-re you present at that meeting called by the City Council where this division was made?

A I think I was.

Q I am going to ask you if you can recall the others now as you did the city's part. Provo Bench one-eighth?

A Yes sir.

Q That right?

A That is right. I don't know whether I have got that or not. Yes, that is right, I remember that.

Q Now, at that time the West Union --

MR. THOMAS: When was that?

MR JOHN E. BOOTH: That was in '84 the people got together.

Q Let me ask, that was the first time there was any difficulty about water, was there not, that you remember?

A Well in '78 I think it was, the water was very low.

Q '79 was the year, excuse me.

A And we had to put a guard up to the mouth of the canyon, Will Strong and me was guard on that.

Q But there neverwas any kind of any division until 1884?

A No, big bench tried to take it all and we didn't want it.

Q 1883 was a very low year for water, wasn't it?

A Yes sir.

Q You remember that? A. Yes sir.

Q Do you recall that the x enterprise, what was called Enterprise Canal, and Hooper onal were separate canals at a that time?

A Yes sir.

Q Afterwards united and called what now?

A Lake Bottom.

Q West Union?

A West Union, yes sir.

Q Do you remember that they east were entitled to 1/15 under that division? A. Yes sir.

Q Making 2/15 for the two which afterwards was absorbed by the West Union.

MR. THOMAS: Had the West Union a separate branch at that time?

MR. JOHN E. BOOTH: No, there were two separate corporations and they united and made another corporation.

Q Lake Bottom 1/15, do you recall that?

A Yes sir, that is right.

Q Upper East Union.

A Upper East Union had 1/12.

Q Your memory seems to be pretty good.

A I have been over them several times.

Q Timpanogos.

A That was 1/50, wasn't it?

Q Correct.

A Faucett Field -- I forget that.

Q The Faucett field, that was included in the Upper East Union, was it not?

A Yes, I believe it was.

Q At that time? A. Yes.

Q Separated afterwards. Little Dry Creek?

A One fifteenth, was it, let's see,

Q Now so much as that, one twentieth.

A One twentieth, that is right.

Q You remember that now, do you? A. Yes.

Q Now, the River bottoms, do you remember that.

A I don't remember just what that was.

Q See if you would remember it if I would tell you.

A I think I would.

Q nine hundred and nineteen ten thousandths?

A Yes sir, that is right, that is the way it was.

Q That used up the whole river. I believe that is all. No, just one other question, do you remember there was another mill on the Tanner site before it was called the Tanner mill?

A Down on that ridge?

Q Yes.

A George Peay had a mill down there.

Q No, I mean on the same ground as the Tanner, or practically the same.

A Oh yes, Kelton.

Q That was the first mill built on that race?

A Yes.

CROSS EXAMINATION by Mr. Thurman.

Q You think that was about 1871 or 2 now that your memory is refreshed that the factory was put into operation?

A Yes, that is my recollection.

Q Now, when was the Factory Race enlarged, Mr. Taylor?

A Well, it was enlarged after that, some ^{part} of it was done before the celebration in 1871, was it?

Q That was in '71, July 24th.

A 1871, and the next spring that Factory Race was built ~~and~~ up and made larger so that it could take water for two wheels.

Q Then is when you took stock? A. Yes sir.

Q Become a stockholder? A. Yes sir.

Q And you say others did?

A Yes sir.

Q Now, at that time the people here considered they had no more water for their farms and lots than they needed, didn't they?

A Well, there was some of them thought it, yes.

Q Always some of them that feel that way anyhow. Well, prior to the enlargement of that race where had this water been going in the low season of the year which afterwards run in the race?

A It went into the lake, good deal of it.

Q In the low water?

A Well, some years.

Q I am speaking of the low water season?

A Some years, you know, as I say in '79 the water was very low, something like 7000 feet at the mouth of the canyon, as I recollect it.

Q We are not getting ahead, I want to know about '71, about whether

at that time the farmer and lot owners here in what we call the low water season which is somewhat indefinite in one sense, and yet understood in another, whether or not they were using generally about all the water?

A Yes, they were,

Q And the factory took in a large supply there in addition to what it had. What arrangements were made or understood with the farmers?

A I know that Robert Thomas was water master and I was deputy, and we had lots of trouble to ~~gatt~~ keep the factory going and farmers too.

Q Well, was it not understood at the time of that arrangement that in an emergency in low water the farmers would have the right to the water if they needed it, or did they just surrender up a right which they had used before without any consideration whatever?

A I don't think the farmer ever surrendered anything.

Q Your understanding is they kept what they had?

A Yes sir.

Q Then after that factory was put into operation whenever an emergency called for it in low water the water master would notify the factory that the water was needed for the farmers, wouldn't he?

A And go and see him and tell him the water was scarce.

Q And they needed it.

A Needed it for the farms.

Q And in such cases they generally always got it, didn't they?

A I don't know of anything but what they did, I never heard.

Q You never knew of anything else, did you?

A No sir.

Q In that kind of a case, and that has been the custom as far as you know through all the years, has it not?

A Yes sir, we have tried to accommodate one another, the factory and --

Q But the point I want, and I want it one way or the other clear,

while they tried to accomodate one another, that is no doubt true, didn't the farmers when it come to that emergency, did they not get the water by going and speaking to the mill owners and telling them they needed it?

A Yes sir.

Q What kind of land is your farm, Mr. Thurman, what kind of soil?

A Clay soil, clay and sand mixed.

Q The most of this soil out here near the road, under that road between here and Springville is of a clayey nature, is it not?

A Yes sir.

Q That doesn't ordinarily require as much water as the gravelly land?

A No, I think not.

Q Now, you spoke about having a system of two hours to an acre, which you installed and after trying it for some two or three irrigations -- you meant by that in the same year, did you?

A Yes sir.

Q You put it on turn? A. Yes sir.

Q Now, tell us exactly what you mean by putting it on turns, how were the turns given out and on whose demand or request?

A That ditch is about six miles long, close to it, and --

Q The East Union I am talking about?

A Yes sir, supposing on the upper end there there is a man had his turn and two hours to the acre, and then a man on the lower end had his two hours to the acre. Fellow up on the top may take more than his share and time it got to the lower man he didn't have any, and we concluded that to keep the water in a body, that is, so it was divided into four streams, why we could do more work with it and do better service by keeping it kept together and water master could be right there so that he could see what was being done with it, and it was giving better satisfaction to the farmers than it was where he had two hours to the acre. Half the time he didn't have the water, that is about the situation.

Q You could have kept the water in a body and still given out

time and worked it out just the same, couldn't you?

A I think it could be done, but it didn't give as good satisfaction as the old system they had been working under.

Q Why does that system work up under the East Union, if that is the best system there, why don't they use the same system under the other canals?

A The city lots or small lots it is more convenient to have it the other way where they have small streams. If they had laterals take it from -- if every man had a lateral and measure just so much water to him as they do to the city lots it could be done probably that way, but some men have fifteen or twenty acres of land in one place.

Q Can't you measure it outside on the farms as well as on the lots and farm lots?

A I think it could be done, but I say we didn't do it.

Q You didn't, but I am trying to get at your views as to what would be the best system. You spoke of, if a storm came up and flooded a man's land and he didn't want it at that time to use the water, or wind storm, I should say.

A Yes.

Q He didn't want to flood his grain so he changed with somebody else.

A Yes.

Q Now, he could have made that change, couldn't he, if he had tried?

A Oh yes.

Q So the storm illustration you gave really doesn't illustrate the real reason for it, does it?

A Well, a man has a lucern patch you know, he could change off with his neighbor and get it on the lucern it wouldn't hurt it like it would wheat.

Q I understand that, but he could do that if they were both put on time, couldn't he, make the same change?

A I believe it could be done, yes.

Q Now, do I understand that if a man wants to let his watering turn pass, say he is up on the upper part of the system, wants to let it pass for some reason on account of a wind storm or anything that he can make a demand on the water master at another time for the water and get it when he wants it?

A No, that wasn't it. He is supposed to have it two hours to the acre once in two weeks, that was the rule that we had. Well, if I had water and you had it, you had it one week and me the other and I didn't want to use it this week I could change with you around, that was the way that they worked it.

Q Well now, do they under the present system or the system which you afterwards came back to, do they take it for two hours to the acre or do they take it as long as they need it?

A I don't know what they do now.

Q What was your plan when you let them have it on turn?

A Two hours to the acre.

Q Two hours to the acre?

A Yes.

Q Well now, do you see any reason or excuse for changing it from the time system that you inaugurated back to the other?

A No, I didn't really see myself. There were so many of them wanted to go back to the old system and just drifted back, that is all.

Q They wanted it that way and you of course was willing they should have the system as they wanted it ?

A Yes sir.

Q What would suit them best? A. Yes sir.

Q go you restored the old system? A. Yes.

Q Well, it is not a fact then they let a man take the water and use it as long as he wants to up there?

A I don't think they do now.

Q Did you let them do it?

A No sir.

Q You kept them to their two hours to the acre?

A Yes sir.

- Q And wasn't that true for all classes of land just the same?
- A Yes, we didn't have any right to discriminate in it.
- Q Now, suppose a man didn't get through with his two hours to the acre.
- A That often happens.
- Q Would you allow him to finish or shut him off?
- A We would try to catch him up if we could, sometimes be a break or something and water didn't get to him or didn't get time enough.
- Q If he could show some substantial reason why he hadn't had his fair share.
- A We would try to catch him up.
- Q You would try to accommodate him?
- A Yes.
- Q But the rule was to let him have it for the two hours to the acre?
- A. Yes.
- Q And you expected that he would get through on that time?
- A Yes.
- Q Unless there was some accident or something?
- A Yes sir.
- Q Did you have accidents on that system up there very often, such as breaking canal or overflowing?
- A No sir, not as I remember of. Sometimes -- well, the worst trouble that we had was when they were -- Charleston and Heber people up there would want, they would shut the water off dry and about ten days we would run right down until we didn't have enough to turn a wheel or do anything before their seepage water commenced to come back in.
- Q That was in the early days mostly?
- A Yes, that has always been that way.
- Q Is that the case now up there when they shut off all ^{of} the water they can that you feel the effects of it down here?
- A Yes sir.
- Q For a little while until that seepage begins to come?
- A Shut off sometimes for ten days we just suffer bad, very bad.

Q Mr. Thurman, in your experience, assuming that they commence to irrigate up there along in the Month of May, pretty heavy watering, flooding the lands there with water, have you any judgment as to when you get -- first feel the benefit or effects of that return water down here?

A I think that we get it quicker now than we did when they first commenced irrigating, but it would be three weeks to a month before we would get it back.

Q Assuming you commenced in the early part of the high water, or they did up there to irrigate, by the time you reach your low water here you probably would begin to get the benefit of it?

A Wessir, I believe we would. They take it out early up there, we don't have as low water.

Q So you don't appreciate much then the effect of their taking the water out up there if they take it in that way?

A No, I think it is really a benefit to us.

Q Get more low water? A. Yes sir.

Q Than you would have if they didn't take any out?

A Yes sir.

CROSS EXAMINATION by Mr. John E. Booth.

Q Mr. Thurman, when you were water commissioner and making this division that you have referred to, under the agreement of 1884, how much water in the river was required to supply the reasonable demands of the people at that time; you used to measure it in minute feet, did you not?

A Yes, about 15000 feet.

Q If there were 15000 feet in the river and above that, there was no difficulty about the commissioner was there?

A No sir.

Q That is the point that I desired to make.

CROSS EXAMINATION by Mr. Ray.

Q At all times when you were connected with Provo City, both as

an irrigator and as a water commissioner, water master and deputy water master in the early days, the prove bench canal was in operation, was it not?

A Yes sir.

Q And was taking water as it could to the extent of the carrying capacity of its canal?

A Yes sir.

Q At all times? A. Yes.

Q And they were so diligent about that that you say you had to send guards up occasionally to prevent them from taking too much? A. Yes.

REDIRECT EXAMINATION By Mr. Corfman.

Q Mr. Thurman, you were asked concerning the use of the water on the lands in Wasatch county and effect it had on the prove River at the mouth of the canyon; have you observed whether or not the use of the water on those lands has increased the flow of the river during the low water season?

A I have noticed that after they had watered two or three weeks that our water would begin to raise a little.

Q That it would increase the flow?

A Yes sir.

Q And continue throughout the season? A. Yes.

Q And prior to that time then I take it, you would not have had the quantity of water that you ^{have} had in recent years?

A No, I think not, there is more water in the river the last three years than there used to be. We run straight through from the head.

Q And there has been ever since that water was taken out up there and applied to the land?

A Yes sir.

Q Now, do you know whether in those early days Provo Bench Canal and Irrigation Company was taken out they were using the quantity of water they have been using?

A They did not have half what they are using now.

Q And Provo City and the other older rights took it at that time?

A. Yes sir.

CROSS EXAMINATION by Mr. Thurman.

Q You spoke of 15000 minute feet, what do you call that, the low water stage.

A. Yes sir.

Q At that time the farmers and lot owners down in the Provo system generally need the water, do they?

A They would call for a division then. Generally called ^{all} the canals together, that is, all the superintendents of the canals together and they would agree on a commissioner and divide, go and divide.

Q There was not division required in those early days until it reached about that point?

A About that.

Q And at what stage generally would you call upon the factories to -- get the water in the day time. As I understand in the night, the factories during the farming season don't use the water at night at all, that goes to the farmers?

A When it got down to about 9700 feet we commenced to looking out for the farmer.

Q And every fellow has got to look out for himself from then on?

A We would have to commence to skirmishing.

Q In other words, you think you needed all the water for the farmer at that time, every drop you could get, farms and lots?

A. Yes.

Q And that is about the time you would make the call on the factories for the day water.

A. Yes sir.

REDIRECT EXAMINATION By Mr. Corfman.

Q When you say you commenced looking out for the ~~sa~~ farmers, what do you mean, when did you take the water?

A I don't know the date.

Q Night or day?

A The night.

RECROSS EXAMINATION by Mr. Thurman

Q You say that is the night, when would you take it in the day time?

A From the factory.

Q Yes.

A Depend on how the farmers were suffering.

Q How?

A Sometimes there would be sections of the city that was really suffering for water and we could not get water to them any other way we would make arrangements with the factory to let us have it.

Q Tell us something about how you made those arrangements, what you would do, what did you do?

A I went over to the Reed Smoot, who was the superintendent of the factory and I says "Reed, the farmers are up against it, they are right out of water and we can't furnish it to them, water is right down low. Now, what will you do about it;" and we wix would agree on what to do. That is what I done, I don't know what the other fellows done.

Q What I want to find out here Mr. Thurman is whether or not the farmers conceded the right to the factory to take that water when the farmers really needed it or did the farmers go and say "We need the water and we want it."

MR. CORFMAN: Object to that as calling for a conclusion of the witness. This witness has stated what was done.

MR. THURMAN: This is cross examination of his witness.

THE COURT: I am inclined to think he can answer the question.

MR. THOMAS Exception.

A The farmers said they wanted it and they got it, they would have to have it, that is all.

REDIRECT EXAMINATION by Mr. Corfman.

Q Under the arrangement that you have testified?

A Yes sir.

CROSS EXAMINATION by Mr. A. C. Hatch.

Q Did you ever take the water from the factory nights?

A Nights?

Q Nights when the water was above the 9700 minute foot stage in the river? A. Yes sir.

Q Or what point did you begin to take the water nights, that is, what stage of the river?

A I could not tell exactly about that, whenever it got down to about 9000 feet.

Q When it was above that you had enough, is that right?

A Yes sir -- well, I don't know about the enough.

Q You didn't take the water from the factory nights when it was above ten thousand feet in the river, did you?

A I could not say as to that.

Q You don't remember as to what you did yourself while you were water master?

A No, I don't, I don't know just what stage it was at.

Q But you fix it at 9700 feet as being about the stage at which you first commenced taking water nights from the factory? A. Yes sir.

Q Until the water got down to that state, 9700 minute feet, the factory had 3/20 under the arrangement therefore made, 3/20 of the river? A. Yes sir.

Q Both day and night? A. Yes sir.

CROSS EXAMINATION by Mr. Bagley.

Q Calling your attention to this agreement of 1884 that you went over with Judge Booth, did I understand you to say that

that was used as a distribution of the river up until 1890,

or was that modified?

A That was modified, but I don't know the date.

Q Was it modified before the suit in 1892 or 1902, the Morse decree?

A I guess it was, it was used, ^{until} then, as far as I know.

MR. JOHN E. BOOTH. You say it was used until then?

A I think so, I am not certain.

THE COURT: I understood this division to refer to a time when he was commissioner in 1900 which would take it up-- did you so understand it?

MR. BAGLEY: I didn't understand it, that was what I was trying to get straightened out.

THE COURT: In 1900 when you were dividing did you divide according to this schedule you have given Judge Booth?

A Yes sir.

THE COURT: That is the way I had it.

Q That was the 1884 schedule was used in dividing the river up to 1900 ?

A. Yes sir.

REDIRECT EXAMINATION by MR. Corfman.

Q At what stage was the river when you began to divide the stream among the several water users at the mouth of the canyon?

A 15000 feet.

Q Sure of that?

A I think that was the --

Q Got a record of it?

A No, I have not, but I think that is right, I think whenever the -- it might be eighteen, I am not certain. I have got fifteen and eighteen in my head.

Q I want you to be certain about that whether it was 1500 or the 1800 foot stage.

A Thousand?

Q Thousand stage, have you got a record that you could refresh your memory from.

A I don't think I have.

Q Have you got a record of your first divisions?

A Yes.

Q Now, taing them, show how many feet was divided?

A I have got different canals here and how it was, but I ain't figured out whether this is just -- I can read this over to you.

Q Is that the first division that was made?

A First division was made on June 29, 1900.

Q Lets see what division you made on that day?

A In the Lake Bottom canal was $61/100$. West Union was $120/1000$ --- Sixty thousandths instead of one hundred. Provo Bench was $147\frac{1}{2}/1000$. Timpanogos was $30/1000$. Upper East Union was $90\frac{1}{2}/1000$.

THE COURT: This is the proportion, not the amount?

Q It doesn't show the amount?

A It shows the amount --

Q Just the proportion?

A. Yes.

Q You haven't got the amount at all?

A. No.

Q Then we don't care for them.

MR. RAY: It appears from that, Mr. Corfman, that that is not the basis given by Judge Booth at all.

THE COURT: No, it is entirely different from the schedule.

MR. RAY: Entirely different schedule from that mentioned by Judge Booth.

MR. JOHN E. BOOTH/ May I ask a question. Mr. Thurman, isn't that what you found in the several canals?

A Yes, that is what I found in the different places.

MR. JOHN EL BOOTH: That was before division?

A Yes.

MR. JOHN E. BOOTH: Provo Bench 147, you say?

MR. RAY: They are all diffe-rent.

MR. JOHN E. BOOTH: That was before. There had been no division before that time; they were helping themselves to

A I don't think I have.

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MR. JOHN E. BOOTH: Provo Bench 147, you say?

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MR. JOHN E. BOOTH: That was before. There had been no division before that time; they were helping themselves to

all they wanted.

THE WITNESS: first measurement, I say that was the first measurement we made.

MR. THOMAS: When was this first measurement made according to your record?

Q June 29th.

MR. THOMAS: What year?

A 1900.

S. L. ALRED called by the defendant Provo City being first duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Corfman.

Q Your full name?

A S. L. Alred.

Q How long have you lived in Provo?

A Since '51.

Q How old a man are you?

A I was born in '48.

Q What is your occupation?

A Well, I am kind of a farmer.

Q How long have you been farming?

A Nearly all my life.

Q Farming lands that are irrigated?

A Yes sir.

Q Have you farmed any lands under the Provo City Water System?

A Yes sir.

Q Where are these lands situated?

A Well, I own a farm on Provo Bench, also I have owned one or two farms here in Provo.

Q What farms have you owned under the Provo system, where are they situated?

A I own what is known as the Ben Alridge farm up here in Pleasant

View ward.

- Q That is not within the city limits?
- A No sir.
- Q Speaking now of the water or the lands under the provo City, own a farm
- A I, known as the Nuttal farm out south of provo on the Springville road.
- Q Under what canal?
- A Under the East Union Canal.
- Q How many acres in it?
- A Twenty acres.
- Q When did you own that?
- A I think I disposed of that about ten or twelve years ago.
- Q And where else did you own lands in Provo City?
- A I just owned one city lot in the First Ward of Provo City.
- Q Did you ever have to do with the irrigation of any other lands under the provo System in the Provo System?
- A I don't understand you exactly.
- Q Did you ever have to do with the irrigation of other lands in the Provo System.
- A Well, yes, I have irrigated other lands.
- Q What lands?
- A On the turner farm near the asylum.
- Q That is up Center Street? A. Yes sir.
- Q How many acres was there in that?
- A Twenty acres.
- Q When were you using that land?
- A I think up until about ten years ago.
- Q It is under the East Union? A. Yes sir.
- Q Were you at any time connected with the city as city water master?
- A I was.
- Q During what years?
- A My memory serves me right I was 1905 and '06.
- Q HAD charge of the entire system those years?
- A Yes sir.

Q You mean 1895 or 1905?

A 1895 and '96.

Q Who was your deputy.

A Will K. Farrer.

Q What particular portion of the city did you give your personal attention to?

A The east part.

Q Under the East Union? A. Yes sir.

Q You acquainted with that ditch now?

A Yes, a little.

Q Is the ditch practically the same now as then?

A Well, portions of it is, there is part of it that I have not been over for ten years, but I should judge it was about the same.

Q You have seen it in recent years, have you not?

A Yes sir.

Q Do you know about how much water that ditch carried in 1895 and 1896, during the low water stage of the river?

A No, I couldn't say, Judge.

Q What would be your judgment.

A That would be the East Union ditch?

Q Yes.

A Well, I expect about four or five hundred inches.

Q What kind of inches.

A Sir?

Q What do you mean by inches?

A I didn't understand you.

Q What was your last answer?

A Sir.

Q Did you say inches, four or five hundred inches or four or five hundred acres?

A I said four or five hundred inches.

Q Inches? A. Yes sir.

Q That is the way you measured water then?

- A I didn't have anything to do with the measuring of the water myself. Our commissioner measured out canal for us.
- Q Do you know how many second feet it carried?
- A No, I don't.
- Q Minute feet?
- A No sir, I don't.
- Q During the early stage of the river down to the time that the irrigators began to make the division did you carry more water than later in the canal?
- A Did we carry more water?
- Q Yes, during the early season?
- A Oh yes, we generally carried the canals full.
- Q Up until what time?
- A Well, up until the river got so low that we had to have it divided.
- Q What stage was the river at that time?
- A I couldn't say.

3:30 P.M., Recess to 9:30 A. M., June 27, 1916.

S. L. ALRED - - - - -

DIRECT EXAMINATION by Mr. Corfman.

- Q You don't remember the stage of the river when you begin to divide the water?
- A No sir, I don't.
- Q Yesterday you spoke of having in the East Union Canal during the low water season, five hundred inches?
- A Yes sir.
- Q What kind of inches did you have in mind when you spoke of it as five hundred inches?
- A In Idaho, where I come from, we measured it, they call it they call it miners inches and I had a canal there I was entitled

to a thousand inches of water in it so I got an engineer to measure my water and he said "You just got five hundred miners inches. I didn't know what miners inches was or anything about it.

Q You said you had five hundred inches in the --

A East Union.

Q You were comparing in mind the volume as compared with what you had in your canal in Idaho.

A Yes sir.

Q Now, during the day or the night time you had that?

A This was during the day time in low water.

Q At night how much water did you have in the canal?

A Well, we increased it a good deal because we had the factory water to turn into it.

Q You turned that in? A. Yes sir.

Q After turning that in about -- do you know about how much you had in the canal after turning the night water from the race in?

A Yes, I should judge we had half as much again and more.

MR THURMAN: May I just ask as a question, not to go in, but so as to understand. You mean half as much again more or as much again more?

A I don't mean as much again more, about half as much again more.

MR, THURMAN: You mean 250 inches more? For instance, of you had 500 inches?

A This factory water, part went to the west side and part to the east side, I couldn't say ~~ex~~ for certain how much we had either way .

Q You divided up among the several --

A Several canals, yes sir.

Q You don't know the quantity you had ⁱⁿ any particular canal?

A I couldn't say?

Q Now, at that time under the East Union, were you serving the water in turns or by time?

A In turns.

Q By that method how long did you permit a farmer to take the water?

A Well, if my memory serves me right we generally counted on about two hours with the stream of water to the acre.

Q And did you serve the water regardless of the kind of crops that were raised or according to the crop?

A Well, it was generally, if a man had twenty acres of land he had two hours to each acre.

Q Regardless of the crop? A. Yes sir.

Q Now, the ditches that were taken to water the platted portion of Provo City, do you know if they were then as they are now principally?

A Yes sir, I believe they were.

Q Did you turn the water to those ditches?

A Sir?

Q Did you turn the water to those ditches?

A Yes sir.

Q And do you know whether they watered from the lowest man on the ditch back or did you commence with the first man on the ditch at that time?

A We commenced at the lower end of the ditch.

Q And watered up? A. Yes sir.

Q And during the high water state of the river how much water did you have in the canal?

A Well, we generally had out canal full, Judge, I didn't know how much we had in there.

Q Up to the time there was a division?

A Yes sir.

Q Was the water used when the canals were full?

A Yes sir, generally used.

Q How long had you known the canals that are now watering Provo City, how many years?

A Well, ever since there have been canals here.

Q How long has that been?

A I am sure I couldn't say, I have been interested in them to

ever since the first canals.

Q About how many years would you say they have been taking the water from Provo River?

A I guess fifty years and over.

Q Are they now about as they were in those early days?

A The canals have been enlarged since the early days of course.

Q Since the very early days?

A Yes sir.

Q But they took the water and used it as now?

A Yes sir.

CROSS EXAMINATION by MR. A. C. Hatch.

Q Do you know the rule as to the miners inch measured in Idaho?

A No sir, I don't.

Q You stated that there was four or five hundred inches of water in the East Union canal, you answered counsel that that there was five hundred, that is, Mr. Corfman this morning in his redirect, which was it, in your judgement, four hundred or five hundred inches in the East Union Canal while you were water master?

A I thought I said five hundred, Judge.

Q I have it four or five hundred inches.

A I said five hundred, if I didn't, I meant to say it.

MR. RAY: That is what he said.

THE COURT: He said four or five hundred yesterday and this morning he said five hundred.

MR. A. C. HATCH: Yes, I am quite certain he said four or five hundred inches and this morning he said five hundred.

Q Do you remember at this time the quantity of water that you saw in the canal at the time you were water master distinctly, about the volume?

A About the volume of the water?

Q Yes, as it was that long time ago?

A No, I couldn't say.

Q So that you could say whether it was in your judgment this morning four hundred or five hundred inches?

A I don,t understand your question.

Q You don't hear very well, Mr. Alfred?

A No, I don't hear very well.

Q I will come a little closer. I say do you now have a distinct recollection of the water, volume of the water that was flowing in the East Union Canal in the day time at the time you were water master so as to form a judgment as to the quantity that then flowed in the canal?

A Well, my judgment was -- the reason I said five hundred inches was because my best recollection is that at the time I had my canal measured in Idaho that there was about the same flowing in the East Union ditch at the time of low water that I had then.

Q And your knowledge of the quantity flowing in the canal in Idaho was based upon the measurement of the engineer?

A Yes sir.

Q You don't know what kind of a miners inch was ~~was~~ used in Idaho at that time, do you?

A I don,t know a thing about it. All he said -- I knew I was entitled to ~~to~~ a thousand miners inches, they told me and I bought my ranch, you are entitled to a thousand miners inches of water. I didn,t know how much a miners inch was, and I don,t today.

Q Do you know that there are three different ways of -- or three different measurements by which the miners inch is determined, and that each gives a different quantity of water?

A No sir, I don't.

Q The Colorado and California and the Idaho rules, do you have any judgment as to a second foot of water as compared with a miners inch?

A No sir, I don't.

Q Did you have plenty of water with which to irrigate under the East Union Canal at the time you were water master?

A In the forepart of the season we did.

Q Has the ditch since been enlarged?

A Since I was water master?

Q Yes.

A No sir, I don't think so.

Q Do you know whether it has?

A I know it has not on the part I have been over.

Q They clean it out each year, do they not?

A I suppose they do, they did when I was there.

Q And they always put the debris that is cleaned from the bottom of the ditch or the canal upon the lower bank, don't they?

A Part of the canal ain't cleaned at all. Part of the canal cleans itself.

Q Yes, but that part they do clean?

A They throw that out of course.

Q And those parts are the weakest places in the canal?

A Yes sir.

Q Have the least capacity, do they not?

A Well, I don't know as to that.

Q The water runs slower and comes nearer the top of the banks?

A Yes sir.

Q At those places where they clean it out. Now, as a matter of fact, Mr. Alread, don't you know that all of these canals are, by the manner in which I have stated, gradually increased from year to year, that is the banks are built higher and little wider from year to year by putting the material cleaned out of the bottom upon the low places, on the lower bank?

A Well Judge, I understand your meaning all right, but I don't believe that the theory of it is just right. I believe you would go over the canal that you would say so yourself? In raising this silt we throwed out it don't raise the bank to a very great extent. I have been connected over here for ten years and I don't believe that I could say they were one part of an inch higher than they were when I lived here, to

tell you the truth.

Q In the beginning the canals have uneven bottoms, do they not, all of them? A. Yes sir.

Q And those high places in the bottom are gradually from year to year taken down and the bottom of the canal put upon the grade? A. Yes sir.

Q Now, that increases the capacity of the canal materially, doesn't it?

A Well, I suppose it does.

Q And where the higher places are the capacity of the canal is usually smaller than in other parts of it, isn't it?

A Our canals is generally built the same width, either seven or nine feet, just whichever the tract requires.

Q Let me illustrate. Here is a canal with a bottom something after the form of that line with high and low places in it?

A Not very often.

Q Did you ever see one when first constructed that did not have them -- the canal when it was first constructed that did not have places in it where it riffles?

A Yes sir.

Q Those riffles are caused by high places in the canals are they not?

A They are caused where they draw off a little more.

Q And the water is backed up immediately above?

A Yes sir.

Q To remove those riffles allows the water to flow over freely?

A They don't built a canal like you have got this laid off.

Q Not so rough? A. No sir.

Q But they don't build them on a grade in the first instance?

A They didn't used to but they do at the present time.

Q Of course we are talking about a long time ago when the East Union Canal was first built?

A Yes.

- Q When surveyors in the community were not as competent, probably as they are today. Now, you say you think the grade has been made more uniform in all the canals since you were water master?
- A I know it is more than ten years ago.
- Q And thereby the flow would be increased, the capacity rather of the canal would be increased?
- A Naturally it would.
- Q Now, do you remember about the time of the year when the water, division of water was usually made at the time -- at or about the time you were water master.
- A I think about the first of June, somewhere along the first of June.
- Q The water is usually quite high in the Provo River about the first of June, isn't it?
- A Some seasons it is.
- Q Isn't that the rule that the water remains up to the tenth and even to the twentieth of June?
- A Yes sir.
- Q Did this year, didn't it?
- A I believe so.
- Q And the division was never made until the waters of the river began to recede after high water?
- A No sir, no occasion for it.
- Q Was the quantity of water that you distributed to the city lot ditches about what it is say last year?
- A I couldn't say, I wasn't here last year.
- Q When were you here before last year last, Mr. Alred?
- A I lived here ten years ago, last September went to Idaho.
- Q And didn't return until after the water season last year?
- A No sir, didn't return last October.
- Q You say you had more water at night during the time you were water master in the low water season.
- A We got consent of the factory people to use the factory water at night.

Q Now, how did you get that consent?

A Well, I believe it had been usual with the agreeable consent from the factory owners and the mill owners to let us have the water at night.

Q The farmers used all of the low water before the factory was built, did they not?

A All of the lower water?

Q Yes, the late season the farmers used all of it, did they not?

A Before the factory was built?

A Yes.

A No sir, them mills has been on that race ever since the farms have been running.

Q The canals leading to the mills have been enlarged though, have they not?

A The Mill Race?

Q Yes.

A I don't think so.

Q Do you remember the Taylor mill?

A Yes sir. I remember it before it was the Taylor mill too.

Q You remember the -- was that canal built before the Taylor mill was built?

A Never was built -- nature built that canal.

Q The Factory Race? A/Yes sir.

Q It was a natural stream in the beginning, was it?

A Yes sir.

Q And Taylor simply built his mill upon it?

A Yes sir, Smith built his mill first. Smith was the man built the first mill there.

Q The Smith mill was up out of town a mile, was it not?

A No sir, the Taylor mill at first was Smith's mill.

Q Where was that located?

A Right where the factory is.

Q Didn't Smith afterwards have a mill about north of where the cross roads runs from the riverbridge east?

- A Jim smith put a mill there in later years.
- Q What was another Smith? A. Yes.
- Q What Smith owned the Taylor mill.
- A I don't know. I just know the Taylor mill, the first man that built that mill was named Smith.
- Q Did he put in any works to back the water up in order to get call to his wheel?
- A I suppose he put in a little there.
- Q Or a flume or something?
- A Yes sir.
- Q To drop the water off the hill down?
- A Yes sir.
- Q And diverted the stream and made it straight along the street line too, didn,t he? A. No sir.
- Q Originally dit the stream run due south throughtProvo City as the race now does? A. Yes sir.
- Q And on the same line?
- A I think so.
- Q Those natural streams usually meander some as they pass along?
- A Does yet in the lower part of the city.
- Q Below the city?
- A No sir, in the city, in the lower part of the city it is not straight today.
- Q Now, in distributing the water during the time you were water master, you alloted the time as two hours per acre?
- A Yes sir.
- Q And that seemed to be sufficient time, did it, for the irrigation of the lands?
- A I suppose it did. It had been an old habit of irrigating that way.
- Q And the time was practically fixed by the users of the water themselves, was it not?
- A Possibly they might have been.
- Q The canal w as -- was the canal an incorporated ditch in the beginning, or was s it always under the administration of the

city?

A No sir, it was an incorporated canal.

Q And do you know how the city obtained the control of it?

A No sir, I don't.

Q It was a regular stock company in the beginning, was it?

A Yes sir.

Q And the users were owners of shares?

A Yes sir.

Q Then they fixed the time themselves as to the use of the water naturally, didn't they?

A I suppose they did.

Q And the two hours was deemed sufficient for the irrigation of an acre of land with the stream that was then delivered to them?

A I don't think before it was in the city, I don't think that it ever was timed or given out in turns. It might have been. I think the farmers regulated that themselves.

Q Yes, but the farmers when they regulated it themselves arranged for it in turns, did they not?

A I just don't know how it was then. I know it went under a change when the city took the ditch over.

Q Do you know whether these other ditches, the Tanner Race was originally -- and City ditch, the water being diverted by the city, or whether it was a joint stock company or incorporation, or a ditch made by the farmers in g together for their use?

A No sir, I think there was a canal there and ditch there when the first mill was built on it.

Q A natural stream?

A A natural stream.

Q And the mill was built upon it the same as the Smith mill was built upon the Factory Race.

A. Yes sir.

Q Now the City Race was that also a natural stream?

A Yes sir. Well now, I wouldn't be so positive about that, but

I know Shed Holdaway had an old carding machine on that race way in the 50's.

Q Was that machine right within the city or was it north of the city?

A It was within parton the north side of the city.

Q And was run by water power, was it?

A Yes sir.

Q There are no mills on that race within the city limits, is there.

A Foundry I think is the only thing that is there.

Q That is on the City Race? A. Yes sir.

Q What machinery did the foundry run by water power from the City Race?

A Well, they always had some machinery there to run, but I don't know just what kind of machinery they did run.

Q Just a small turning lathe, wasn't it?

A Well, possibly it might have been.

Q Would require three or four second feet of water to turn it?

A I don't know how much it takes to turn the machine.

Q Do you know what machinery is now run at that old foundry stand?

A No sir, I don't.

Q You don't know whether it is more now than just a turning lathe and an air compressor?

A I could not tell you a thing about it, I haven't been there.

Q Do you know about how much as to capacity the several canals have been enlarged since the early days of which you speak?

A I don't.

Q Doubled at least, haven't they?

A Been doubled?

Q Yes.

A Well, I couldn't say, I don't think that the Factory Race is carrying a third more water than it ever did in the early days.

Q The East Union, how as to th s, has it been doubled in capacity since it was a joint stock company or a corporation?

A They might have enlarged it after the city took hold of it.

I know they lengthened it out a good deal.

Q Now, in the early days do you have any recollection of the people turning out almost en masse to divert the water from the city going down in main channels or natural channels to keep it from overflowing the city and city lots?

A Yes sir.

Q And that was the case nearly every year, was it not, for many years?

A For some years it was.

Q You have seen ~~the~~ in Provo City the river overflow and chubs and suckers scattered around on the streets by reason thereof, haven't you?

A. Yes sir.

Q And that was by reason of the water coming down in those natural channels to Provo City?

A Our irrigating ditches used to be full of suckers and chubs.

Q I asked you with regard to the river overflowing, if you haven't seen that condition by reason of the river overflowing?

A No sir, I never did.

Q Now, from these natural channels that then flowed through the city the ~~at~~ settlers simply diverted little ditches and applied upon their ground, did they not?

A Yes sir.

Q The city had nothing to do with it, with the diverting of the water?

A Not in early days they did not.

Q And the appropriation or the ditches were diverted all along the course of the natural streams as they ran through the city, weren't they?

A Well, I suppose they was.

Q And do you remember at that time there were divers natural perennial springs arising within the city limits?

A Springs?

Q Yes.

A Yes sir, I know there was some springs.

- Q And they were diverted and used by the inhabitants or settlers for irrigation, weren't they?
- A Well, I don't think they were because I don't think the springs was big enough, Judge, in Provo City to do any irrigation with.
- Q Do you remember a spring that came out from under the hill just north of this Center Street, flowed down across the street about where the Anderson garage now is, came out between the old Hines drug store and that hill on the east on 1st West Street?
- A I don't think there was ever any springs come out there until after they began to irrigate above here. My recollection the only spring I ever saw coming out of the hill was down here by old Peter Stubbs place, and I think it is there yet.
- Q What about the springs that are right south of the Strong place east of the depot?
- A They are there yet.
- Q They were there when the city was settled, were they?
- A Yes sir.
- Q And they were quite large streams, weren't they?
- A Not an irrigating stream, not over just a good irrigating stream.
- Q They are today?
- A I don't know how they are today.
- Q Very good irrigating stream, aren't they?
- A I don't know how they are today, I haven't been there.
- Q You say they were a good irrigating stream then?
- A Just about a good irrigating stream coming out of them.
- Q Sufficient to irrigate all the lands south of them, were they not, and within the city?
- A All of the land that was irrigated there I don't think exceeded over twenty acres.
- Q Well, sufficient to irrigate all the land that is now cultivated south of those springs, aren't they?
- A I suppose so.

Q And if allowed would be sufficient to irrigate the first pasture and Stubbs farm?

A They never used to irrigate the first Ward Pasture until the last few years, maybe the last twenty years.

Q Isn't it within the last ten years that they commenced to irrigate that first ward pasture?

A No sir, it is not.

Q They irrigated it some before you went to Idaho, did they?

A Yes sir, ten years before.

Q About the Stubbs farm, when did they first commence to irrigate that, if you know?

A No, I don't because -- you mean that lays south of the ditch?

Q Yes.

A I don't think that ever was irrigated very much.

Q But such irrigation as it has had has been since litigation with regard to the water in the river was commenced, is that true?

A I think that they always watered from the springs, that Stubbs farm.

Q Never used any water from the City Race or the Tanner Race?

A I don't think so.

Q Or the Factory Race?

A No sir.

Q Or until quite recently?

A I don't know that they do yet, I know they didn't used to when I was water master, they never considered that in the city at all to irrigate.

Q There was another farm adjoining the Stubbs farms do you know the name of it?

A Joining the Stubbs farm?

Q Yes, on the west?

A There was the old South Field, that is all I know about and that was watered from the west side.

Q But it could be readily irrigated from those springs, could it

not?

A No sir, it could not.

Q Why?

A Because the water wouldn't run that way.

Q It won't run to the west?

A No sir.

Q Toward the river? A. No sir.

Q The springs are higher altitude than any of that farm in the old south -- that land in the old South Field, aren't they?

A The springs?

Q Where they come out of the earth?

A No sir, I don't think so, I think the South field -- in fact, I know the South Field is higher, then you get way down low.

Q While you were water master did the turns for city lots come around from the south to thenorth each week?

A Went from the south the the north, yes sir.

Q And everyone had a turn each week for city lots?

A They all have their turn, yes sir.

Q Were there any lands irrigated below the -- from the city ditches south of the platted portion of the city and east of 1st West street while you were city water master?

A I just don't know, Judge, anything about the west side, generally the deputy water master was chosen --

Q You didn't understand me, I am limiting it to east of 1st West Street, the bench portion of the city?

A 1st West Street?

Q Yes.

A I don't know where 1st West Street is.

Q I understand it to be between the old Cosmopolitan Hotel and Hines drug store running north and south, first street west of Academy Avenue?

A I think there was part of the old south field and west part of the South Field, I think was watered from the city ditches, in fact, I know they were.

Q Then they would have to cross the Factory Race? A. No sir.

Q Pardon me, you didn't understand my question, I say were there any lands, farm lands south of the city and east of 1st West Street irrigated from the city ditches? that is, the ditches used to carry water to the city lots?

A To the city lots?

Q Yes?

A I don't think there was any farm lands irrigated on the east side.

Q Now, on the west side were there any farm lands south of the city irrigated from water flowing through the ditches used to irrigate the city lots?

A Yes sir, I think there was.

Q Then how did you arrange it with the city lots each had their turn once a week and farmers once in every two weeks?

A The farmers was watered from what is called the city ditch, or City Creek that went through the Factory or the Foundry Race.

Q Well what I am asking about is these little ditches, laterals that run along there by the side of the city blocks?

A No sir, I don't think so.

Q To irrigate the city lots?

A No sir, I don't think so.

Q You don't think there was any farm lands irrigated by water that flowed through those small laterals?

A No sir.

Q Such farm lands as were watered from the city were watered from the City Race at that time, were they?

A Yes sir, part of them, and part of them from the Tanner Race and part of them from what was known as the Old Dry Creek Race.

Q Were any of them watered from the Factory Race?

A I don't think so.

Q I have understood that the old Dry Creek Race and the Tanner Race were one and the same race, am I right in that?

A Yes, I believe they were.

- Q That Tanner Race, where does it connect with the river?
- A It used to take out on the northwest side of the --
- Q Bridge?
- A Bridge of the Main Street.
- Q And below the bridge?
- A Below the bridge.
- Q And runs right along the county road to the east for a little distance?
- A No, it don't go out by the county road, it runs east of the county road along the river and then takes out below the bridge.
- Q I don,t understand. The Tanner Race is taken out above the river bridge and runs in a separate stream under the bridge, does it not?
- A Well, we used to take it out --
- Q And carried out again since the grade was constructed there?
- A I don,t know how it is now, we used to take it out just below the bridge, right under the bridge, right at the bridge and follow the whole Tanner Race up .
- Q Do you know whether or not prior to the building of the factory the farmers and the lot owners used all of the low water flowing into Provo City from say the 20th day of July, until the irrigation season was over?

MR. COLEMAN: I think he answered that , he said they were built at the same time.

MR. A. C. HATCH: J^ust a moment, pardon me, I think I know what I am trying to do. Did you understand the question?

- A No, I did not .
- Q Will you read it to him please.

(Question read)

- A No, I couldn't say whether they did or not, that was before I had much to do with irrigating.

Q Mr. Alfred, when you had charge of the East Union Canal, dividing the water to the farmers, two hours to the acre, how many streams did you have that divided into, how many men used it at once?

A Well now, I couldn't say as to that, we might have had three men on three streams, Judge.

Q Well, did you have four.

A I couldn't say as to that, I wouldn't say.

Q You don't remember about that? A. No sir.

CROSS EXAMINATION by Mr. Ray.

Q Mr. Alfred, just one question, you say they lengthened the East Union a good deal after the city took hold of it, do you?

A Yes sir, I believe they did.

Q Now, do you remember what year the city took hold of the East Union?

A No, I don't.

Q About?

A I couldn't say, I knew at the time, but I couldn't say what year it was or how long it has been.

Q Well, was it before you were first water master?

A Yes sir.

Q How long before?

A Well, good many years, I should judge ten years.

Q Ten years before you were first water master, that would be about 1880, wouldn't it?

A I couldn't say.

Q Now, when were you first water master?

A I was in '85 and '86, or '95 -- 1895 and '96.

Q So that it would have been, according to your best recollection, about ten years before that that they lengthened the East Union?

A I wouldn't say whether it was ten years or fifteen years, I couldn't say.

- Q Would fifteen be the maximum?
- A I couldn't say, I wouldn't be saying to be positive.
- Q Prior to that time, whenever it was, what was the end of the East Union Canal?
- A Prior to that time?
- Q Yes, before it was extended.
- A Well, I wouldn't say that either, I think about the time the city took it there was a small farm come in known as the Randall place.
- Q Where was the Randall place.
- A Just south of the infirmary.
- Q Of the infirmary or the State Mental Hospital?
- A Infirmary.
- Q That is as far south as it goes now, isn't it?
- A I think it takes in some more land there below that if I recollect right it irrigates -- well no, I think that is as far as it goes now.
- Q Well, now, where did it stop before they extended it? You say it was extended, now what point was it extended from?
- A I believe I said it might have been extended after the city took charge of it.
- Q Do you remember whether it was?
- A No, I don't remember whether it was or not.
- Q Do you remember when it stopped near the State Mental Hospital?
- A No I don't, I know I owned land good many years before the city took it way south of the Slate Canyon road here.
- Q And it was then irrigated from the East Union?
- A Yes sir.
- Q Do you know of any time when the carrying capacity of the East Union was enlarged, any specific time when it was made bigger?
- A No I don't.
- Q When you said to counsel that the canals had been enlarged a good deal since the early days, what did you mean?
- A Why, I explained it to him and he did to me. He wanted to know if cleaning these canals out did not increase them and I told

him it did.

Q That is what you meant?

A Yes sir.

Q There was no time that you have in mind when they went out for the purpose of carrying more water, dug the canal larger?

A No sir, not that I recollect of.

REDIRECT EXAMINATION by Mr. Corfman.

Q You spoke of the Stubbs tract south of provo, that wasn't under your jurisdiction while you were water master, I understand?

A No, I don't think so.

Q Did you give it any special attention at the time you were water master to see whether or not it was irrigated?

A No, I don't think it was listed at all.

Q That is on the west side of Academy Avenue, you know where the tract is?

A No, I am referring to this on the east side of Academy Avenue, right near the hill here, watered from the Strong springs there.

Q When you spoke of the Stubbs tract you had reference to the lands east of Academy Avenue and not west?

A Not west.

Q Do you know whether the west lands, the Stubbs land on the west side of Academy Avenue was water while you were water master.

A Yes sir, I think it was.

Q And from where they got the water?

A No, I don't. The deputy water master seen to everything west of the Factory Race.

CROSS EXAMINATION By Mr. Thurman.

Q Mr. Alfred, do you know how many city lots and farm acres there are below the woolen mills to be irrigated from the Factory Race?

A No sir, I don't.

Q Haven't any idea?

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IN DIST. COURT
UTAH CO., UTAH.
* FILED *

SEP 26 1921
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