

IN THE DISTRICT COURT OF UTAH COUNTY, UTAH.

Provo Reservoir Company, - - - - - Plaintiff,)
vs.)
Provo City, et al. - - - - - Defendant.)

BE IT REMEMBERED that on this 6th day of June, A. D. 1916, the above entitled action came regularly on for trial before Hon. C. W. Morse, Judge of the District Court of the Third Judicial District of the State of Utah, sitting specially in the District Court of Utah County in the Fourth Judicial District of the State of Utah.

The following proceedings were had, to-wit:

June 6, 1916.

MR. McDONALD: I have been informed this morning that Joseph Williams, whose true name ought to be Joseph Williamson, has died either before or since this action was brought, or either before or since service was made, and that he has deeded his property, or did deed it in his lifetime to his wife, and I would like an order substituting the name Sarah Williamson for Joseph Williams.

MR. A. C. HATCH: You have your answer filed, have you?

MR. McDONALD: She is named in a group of persons out here that uses water from a spring that.

MR. A. C. HATCH: But have you filed an answer for her?

MR. McDONALD: I have filed no answer for her except in common with the others who claim in common from the spring in the river bottom.

MR. HUFFAKER: If the court please, the Midway Waterworks Company claims and owns water in the system here, and it has not been made a party defendant. I will ask permission on behalf of the company to intervene and file an answer.

MR. A. C. HATCH: No objection.

THE COURT: That may be done.

MR. A. C. HATCH: I would ask at this time if the parties have complied with the rule and filed with the clerk the names of the different litigants whom they represent? That is, if counsel have?

MR. HUFFAKER: I have not yet.

MR. THOMAS: May it please the court, I have not done it but will do it this noon, will have it typewritten.

MR. COREMAN: I will do the same.

MR. A. C. HATCH: The committee, or the parties who met yesterday in the court room agreed upon certain matters-- here is Judge Booth now who will make a report on it.

MR. JOHN E. BOOTH: If the court please, I will say that the parties to this suit met yesterday afternoon and agreed on two matters by stipulation, and it may go in the record. It is stipulated that the order of trial shall be as they are named in the complaint subject to some slight modifications that may be made as they are met. I think one or two instances perhaps there may be somebody in Wasatch county or Summit county between two names here. In a case of that kind it will be subject to a little modification,

Also stipulated that any parties to this suit having introduced prima facie evidence showing an original appropriation and use need not produce the mesne conveyances from the original appropriation to the present claimant; provided that this stipulation shall not preclude inquiry into the existence of appropriations claimed by the parties, and further provided that this stipulation shall not apply to where two or more parties claim to have succeeded to the rights of the same appropriator. If I did not read it just as it is, it may be re-read.

There was another motion presented and voted on to the effect of the court going up to Wasatch County to hear some of the testimony, but the parties were not agreed on it on either side. They were divided both ways, so I have no particular recommendation to make about that. I suppose it will be reached perhaps in the progress of the trial when we come to it.

MR. A. C. HATCH: I understand this stipulation as read by Judge Booth will be adopted by all of the parties to

the suit and be treated as a stipulation of the parties made in open court.

THE COURT: I so understand it.

MR. RAY: Agreed to by all parties, your honor.

THE COURT: You may proceed, Judge Hatch.

ROYAL J. MURDOCK, called by the plaintiff, being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. A. C. Hatch.

Q Where do you reside?

A At Provo, Utah.

Q What relation do you hold to the plaintiff, the Provo Reservoir Company?

A I am secretary of the company.

Q Have you in your possession the original applications made by Provo Reservoir Company to appropriate waters from Provo River?

A. Yes sir.

Q Will you produce the first application made?

A Yes sir.

Q Do so, is this the paper.

A Yes sir.

MR. A. C. HATCH: The paper is marked plaintiff's Exhibit "1" certified copy of the original. I will submit it to counsel for examination.

MR. RAY: Are these attached memorandums --

MR. A. C. HATCH: The slips attached are memorandums attached by the State Engineer.

MR. RAY: Are they part of the application? and allowance.

MR. A. C. HATCH: They show the present status, I understand of the application as shown by the records of the

STATE Engineer's Office. the transfers made. Those matters are eliminated, however, by the stipulation.

MR. RAY: This is the application of the old Timpanogus to impound waters.

MR. A. C. HATCH: Yes, the original application is made by the Timpanogus Irrigation Company, but it is under this application that the plaintiff claims a part of its rights through mesne conveyances and the conveyances and the conveyances are shown, that is memoranda of the different conveyances are attached to the slip -- slips attached to the paper itself, and we offer it in evidence if the court please.

THE COURT: It may be received.

MR. McDONALD: We desire to interpose an objection to the introduction of the paper on the ground it is incompetent, irrelevant and immaterial, and we shall reserve the right to move to strike it out after an opportunity to more fully examine it.

THE COURT: Very well, objection is overruled at this time, and it may be received.

MR. A. C. HATCH: If an objection is taken for the reason that it is a certified copy instead of the original, we would like to have it made at this time.

MR. RAY: The Provo Bench Canal & Irrigation Company does not object on the ground that it is a copy.

THE COURT: Mr. McDonald, do you base your objection upon that ground?

MR. McDONALD: I shall stand on my objection whatever it is, and whatever it shall show on examination.

THE COURT: It includes that then, Judge Hatch. The objection is due to the fact it is a copy instead of the original.

Q Have you the original in your possession?

A No, I have not.

Q Do you know where it is?

A I don't know unless the secretary of the Timpanogus Irrigation has it, but I haven't it.

Q Have you made any inquiry?

A Yes sir, but I have not been able to locate it.

Q You have been unable to locate it? A. Yes sir.

MR. A. C. HATCH: Then we now renew the offer, if the court please.

THE COURT: What is this, a certified copy?

MR. A. C. HATCH: This is a certified copy of the record in the state engineer's office.

THE COURT: It may be received, objection is overruled. If it is a certified copy of a paper that is in the hands of the Timpanogus Company, it would not be competent, of course. If it is a certified copy of a record in the State Engineer's office, it is admissible. I don't see any certificate.

MR. A. C. HATCH: I will ask Mr. McDonald, have you the possession of the original certificate?

MR. MCDONALD: I have not.

MR. A. C. HATCH: Do you know whether or not your clients have?

MR. MCDONALD: No, I don't know anything about it, I can find out.

MR. A. C. HATCH: I wish you would and let us know.

THE COURT: Probably, Judge Hatch, you had better withhold the offer until you find whether the original -- this seems to be not only a copy of the record, but a copy of this particular paper, and until you have had the person in whose custody it should be examined, and show it cannot be found, I think probably it had better not be admitted.

MR. RAY: If the court please, for the purpose of abbreviating the record in this case may we have an order that if it is satisfactory to counsel that the objections of any counsel for a defendant shall be available to the counsel of each of the other of the defendants.

THE COURT: Yes, that order may be made.

MR. RAY: And in cases where we are willing to waive, for instance, the best evidence and take secondary proof, we may then state at the time of the objection that the particular company does waive that point?

THE COURT: Yes.

MR. BAGLEY: And the same order will apply to exceptions.

MR. McDONALD: The Wasatch Canal Company haven't the paper, and don't know anything about it.

Q Now, Mr. Murdock, do you know what company, or if there is a company organized for the construction of a reservoir to store the water provided for under the application 442?

A Yes sir.

Q Plaintiff's Exhibit, 1, referred to in plaintiff's Exhibit 1?

A Yes sir.

Q What is the name of that?

A The Union Reservoir Company.

Q And do you hold any official position with that company?

A Yes sir.

Q What is it?

A Secretary.

Q And as secretary, I will ask whether or not you have possession of such papers as are owned by the company relating to its water rights? A. Yes sir.

Q And have you now, or have you ever had possession of the original application 442? A. No sir.

Q Have you at any time tried to find out where it was so as to

obtain possession of it? A. Yes sir.

Q And what have you done?

A I was not the secretary of the company when it was organized, but since becoming secretary of the company I have endeavored to find all the instruments affecting the titles to the water right, and I have been unsuccessful in securing the original application from the Timpanogus Irrigation Company. I have two certified copies from the State Engineer's office affecting the rights and ownership to the application but I have not been able to find the original.

MR. RAY: Judge, pardon an interruption there, wasn't that application introduced and become one of the exhibits in the Timpanogus case going to the Supreme Court as one of the exhibits in that case we tried?

MR. A. C. HATCH: I don't remember.

MR. RAY: I think that is very likely where it is. We had this application many years ago before Judge Booth, and I think that became part of the original exhibits in the case.

THE COURT On file then in this court.

MR. A. C. HATCH: Some of the exhibits in that case were lost in the Supreme Court, after that went to the Supreme Court.

MR. RAY: This case didn't go to the Supreme Court, The Evans and Gardner case went to the Supreme Court.

MR. A. C. HATCH: That is right, it was the Mountain Lake case in which the papers were lost. I was mistaken -- some of the exhibits. Well, we will make inquiry, if the court please.

Q What was the next application made to the state engineer's office?

A Application number 1828.

Q Have you that? A. Yes sir.

THE COURT: What was the number of this other one?

MR. A. C. HATCH: 442.

Q This is the original application?

A Yes sir.

MR. A. C. HATCH: We now offer application number 1823.

MR. RAY: I understood, your honor, Exhibit 1 was temporarily withdrawn.

THE COURT: yes, it has not yet been admitted.

MR. RAY: This is offered?

MR. A. C. HATCH: Yes.

MR. RAY: The Provo Bench Canal and Irrigation Company desires to object to the admission of Exhibit 2 on the ground it is incompetent, irrelevant and immaterial, and upon the ground that it shows on its face that the State Engineer has no jurisdiction to allow the appropriation as applied for, for the reason at that time there were no unappropriated waters in the Provo River.

THE COURT: Objection is overruled.

MR. RAY: Exception.

MR. THOMAS: Under the order made that objection may be taken advantage of by all of the parties litigant?

THE COURT: Yes sir.

MR. A. C. HATCH: We now offer plaintiff's Exhibit No. 3, extension of time within which to complete the appropriation.

MR. RAY: The defendant Provo Bench Canal & Irrigation Company desires to object to the admission of the plaintiff's Exhibit 3, on the ground it is incompetent, irrelevant and immaterial, the state engineer having no jurisdiction to allow the original application or extend the time within which it might be perfected.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 4.

an assignment.

MR. RAY: Object to Exhibit 4 on the ground it is irrelevant under the stipulation, going to start with mesne conveyances here we will take a whole lot of time.

MR. THOMAS: I hope you won't insist on that objection, Mr. Ray, because it will do away with objections to all of these particular assignments or those applications which were made.

MR. A. C. HATCH: The objection is not well taken. The stipulation does not prohibit --

MR. RAY: I will withdraw the objection if he desires it in.

THE COURT: It may be received.

MR. MCDONALD: We object to it on the further ground it appears on its face to be a duplicate and office copy, and it is incompetent.

MR. A. C. HATCH: Duplicate original.

THE COURT: If it is a duplicate it would be admissible. If it is an office copy it would not be. It seems to be an original paper, objection is overruled. It may be received.

MR. MCDONALD: Exception.

MR. RAY: Who was the grantor in that?

MR. A. C. HATCH: The grantee is the Provo Reservoir Company. The grantors are the original applicants under the application 1828, and the conveyance conveys all the application and all of the rights and privileges that may accrue under it to the plaintiff.

MR. BAGLEY: Application 1828.

MR. A. C. HATCH: 1828. The application 1828 is for 150 second feet of the unappropriated waters of the Provo River to irrigate the lands mentioned therein, an area of forty thousand acres covered by the application, and it is

dated 14th day of April, 1908, filed the 16th day of April, 1908.

MR. RAY: I thought that was dated 1906, the application.

MR. A. C. HATCH: 1908.

Q Do you know whether or not the lands described in the application are under or below the canal and ditches of the Provo Reservoir Company?

A As I understand it they are.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 5, an application for change of place of use of the waters applied for under application 1826.

MR. RAY: We object to the admission of plaintiff's exhibit 5, your honor, upon the ground that it is irrelevant, incompetent, immaterial and it not appearing that at the time of the filing of the application for the change of the place of use that the plaintiff was the owner of any water described in the application which it was entitled to use at any place.

THE COURT: Objection is overruled.

MR. RAY: Exception.

MR. A. C. HATCH: I will ask you if all of these exhibits may be treated as read into the record, the same as if they were actually copied into the record, or does counsel require they be read into the record?

MR. RAY: I suppose counsel will not object to our taking the exhibits to read or copy them ourselves if they are not read into the record.

MR. A. C. HATCH: No. I would like to withdraw this witness temporarily and put upon the stand the clerk of the court, or the deputy clerk.

MR. RAY: No objection.

ELIAS A. GEE, called by the plaintiff being duly sworn, testifies as follows:

DIRECT EXAMINATION by MR. A. C. Hatch.

Q Where do you reside, Mr. Gee?

A Provo City.

Q Do you hold any official position in the county of Utah?

A I am deputy county clerk, ex officio deputy clerk of this court.

Q I will ask if the record is a case of Salt Lake City et al against Timpanogus Irrigation Company is filed in the office of the clerk of this court? A. Yes sir.

Q And if among the files there is an exhibit, being the original application 442, application to appropriate water, application made to the state engineer of the State of Utah, by the Timpanogus Irrigation Company, defendant in that case?

A There is no such exhibit with the files or records.

Q You have made a search through the files of your office?

A Yes sir.

Q And been unable to find the same?

A The record shows that the exhibits, any that was ever introduced in the trial of the case was never delivered to the clerk.

Q The case was not originally filed in this court, was it?

A I think so.

Q You have not the original copy of the case, have you?

A We have not the original files, we have had the original records of the entry of the files register of action.

Q Do you know where the files are?

A I do not.

Q Have you search your office to find them?

A Yes sir.

Q And could not find them?

A The record shows they went to the Supreme Court, and we have no account of them.

MR. A. C. HATCH: We now renew our offer of the

plaintiff's Exhibit 1.

MR. McDONALD: And we renew our objection, your honor.

THE COURT: The objection is overruled, it may be received.

MR. McDONALD: Exception.

MR. A. C. HATCH: Plaintiff's Exhibit 1 is dated August 22, 1905, for the right to store eighty-five hundred acre feet of water of the Provo River and reservoir. Was filed in the state engineer's office August 22, 1905, and approved July 20, 1906. Was protested by Salt Lake City --

MR. RAY: And the four canal companies.

MR. A. C. HATCH: And others, on February 27, 1906, and was finally determined by suit in this court in favor of the applicant.

ROYAL J. MURDOCK: - - - -

DIRECT EXAMINATION by Mr. A. C. Hatch continued.

Q What is your next application, Mr. Murdock, number 944, 7500 acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 6, application to the state engineer for 7500 acre feet of water of the Provo River to be stored in reservoirs.

MR. RAY: This was in the same case, was it not, Judge, in the Timpanogos case.

MR. A. C. HATCH: I don't remember.

MR. RAY: June 12, 1906.

MR. BAGLEY: We object to it as incompetent, immaterial and irrelevant.

THE COURT: Objection is overruled.

MR. BAGLEY: Note an exception.

MR. A. C. HATCH: Application is dated June 12, 1906, for 7500 acre feet of water to be used each year from January 1st, to December 31st, water to be diverted from the Provo River, setting forth the point of diversion and the lands to be irrigated. Filed in the state engineer's office June 14, 1906 at 9 A. M., and approved May 14, 1910.

MR. RAY: Where was that water to be stored, Judge, so that the court may have that in mind under the application? Trial Lake, Washington Lake?

MR. A. C. HATCH: The waters to be taken from the Provo River, partly from the Provo River and partly from the Weber River. You might look at it a little closer. *Erin*

MR. RAY: It is an application to store.

MR. A. C. HATCH: Application to store.

MR. RAY: The water was originally under that application to be conducted down the Provo River to Utah Lake and pump from Utah Lake using Utah Lake as a storage reservoir.

MR. A. C. HATCH: The application pretends to take the water from the Weber River system at the points herein described, convey them into the Provo River to be taken out at a point on the Provo River herein described, and the point on the Provo River at which they are to be taken out is the left bank of said river south 48° 52' west 1320 feet from the quarter section corner between Sections 5 and 6 Township 6 South Range 3 East, Salt Lake base and Meridian, Utah County. That is as I understand it, the intake of our canal some six or seven miles above Provo.

MR. RAY: Where is your storage reservoir application to store? *Corrected*

MR. A. C. HATCH: It seems I mis-stated the matter in making my statement into the record. It is an application to appropriate water.

MR. McDONALD: You say it is an application to appropriate?

MR. A. C. HATCH: Application to appropriate water. I made a mis-statement in it.

MR. RAY: Just a minute.

MR. THOMAS: We object of the part of Provo City, South Kamas Irrigation Company, Washington Irrigation Company, and other Summit County users on the ground that it is incompetent, immaterial and irrelevant; on the further ground that it does not on its face purport to be the original application. It would seem from its face that the application as originally made and as it must have been originally published has been amended so that its point of use and point of diversion are entitled different from the point of use and point of diversion as indicated. It would seem from the face of it that it was to be ~~be~~ allowed at one time in the application to flow down Provo River to Utah Lake, where it will be stored for the use of water users who divert water from the Jordan River. Then that has been erased with other erasures so that it now reads that the water be allowed to flow down Provo River to the point of diversion where it will be recovered and used on the herein described land.

MR. RAY: In one instance it is an application to store waters produced during the non irrigation season and in the latter instance it is an application to take water during the irrigation season from the channel of the river.

MR. THOMAS: That may be included in the objection.

THE COURT: The record may show the objection was made before it was admitted in evidence. It has been admitted once. Now, I will state, gentlemen, in admitting these papers in evidence the court does not pass upon the sufficiency of them, or affect of them at all, merely before the court for ~~e-~~

MR. RAY: Our objection is exactly in that light so that we may preserve the record and intelligently present

them to the court later when we have examined them.

MR. THOMAS: For the purpose of abbreviating objections Mr. O. P. Soule and myself represent a number of the water users in Summit County, I believe all except those represented by Mr. Dahlgren and the Sunrise Irrigation Company.

MR. BAGLEY: That is in Wasatch.

MR. THOMAS: Then I believe that will be practically all the water users in Summit County, and in making our objections if we may refer to them as Summit County users.

THE COURT: I suggest you need not refer to them at all under the stipulation. Any objection made by any of the counsel in this case applies and may be taken advantage of by all the other litigants, any party to the action.

MR. A. C. HATCH: I wish to state in view of the objections of Mr. Thomas before submitting the paper to the court --

MR. MCDONALD: I understand this paper has been admitted.

THE COURT: Yes.

MR. A. C. HATCH: True, but the objections were not made until after it was admitted.

THE COURT: It is admitted now, the court overruled this objection and it may be received.

MR. A. C. HATCH: I might overlook this matter later, if the court please. The statements of Mr. Thomas have gone into the record what the paper shows on its face. I wish to call the court's attention at this time to the paper itself as it is admitted and the manner in which it is shown on its face that there are two -- apparently two applications in one, and with the rule in the State Engineer's office as to amendments. If your honor is acquainted with that rule, I will not take up the time of the court.

THE COURT: I am not familiar with it.

MR. A. C. HATCH: These applications are made and

and the State Engineer has any objections to the form of the application it is returned with the statement of his objections for amendments to the original applicant with instructions that all amendments must be made in red ink and as originally filed. It is filed after the amendments are made. That is the rule. If it is objectionable as to form it is returned for further, and continued to be returned until it conforms to the rules and regulations of the State Engineer's office, and the amendments are made in red ink.

THE COURT: The rules you refer to are printed on this application. Those rules are all printed and they are not published until finally determined and that the erasures and interlineations are all made prior to the publication.

MR. McDONALD: Your honor please, if the statement of counsel is to be considered in this case by way of evidence we object to it on the ground it is incompetent.

THE COURT: Counsel is not sworn.

MR. A. C. HATCH: I have in view the rule that the court would take judicial notice of the rules and regulations of the different offices of the state in the performance of their public duty. I may be in error as to my construction of that rule.

Now offer Exhibit 7, an assignment of the rights, assignment of application 944.

MR. RAY: Object to the admission of "7" on the ground it is incompetent, immaterial and irrelevant.

THE COURT: Objection is sustained. There is no proof of the signature, it is not acknowledged, there is nothing on its face.

MR. A. C. HATCH: Very well. We offer Exhibit 8, extension of time to complete the appropriation 944.

THE COURT: Let me see the assignment that the court just sustained the objection to. Is the Timpanogus Irrigation Company in this case, are they represented by

counsel here.

MR. THURMAN: I represent them.

THE COURT: Is there any serious question as to this being the signature of the president of this company,

MR. RAY: I don't know, I have no question in my mind at all about it, I merely want to preserve the record.

THE COURT: Then you will have to introduce your evidence.

MR. RAY: I think it is entirely covered by our stipulation. I don't want to put counsel to any inconvenience as far as we are concerned.

MR. THURMAN: I supposed our stipulation quoted by Judge Booth this morning covered any mesne conveyances.

THE COURT: I don't see the object of the objection if it covered by the stipulation. If you expect to question the genuineness of this assignment of course --

MR. RAY: I do not, your honor please, I state frankly I will admit the genuineness of the signature.

THE COURT: Then the objection is overruled.

MR. A. C. HATCH: The purpose in producing these assignments, the Provo Reservoir Company, the plaintiff herein is claiming under the same application in different places with this particular defendant the Timpanogus Irrigation Company, and it is to show their respective rights and the particular water that the mesne conveyance is introduced to segregate their interest.

MR. RAY: They claim through a common application, and are tenants in common of the water applied for there now.

MR. A. C. HATCH: I think so.

MR. McDONALD: That assignment pretends to be all the rights of the Timpanogus Irrigation Company on that particular application that it relates to.

MR. A. HATCH: That is right, all the rights in this

particular --

MR. THURMAN: Like to have it understood whether an instrument of that kind is not within our stipulation and if it is why take up the time.

MR. RAY: I have suggested it is and should not be offered.

THE COURT: If I remember correctly the wording of the stipulation I will say it was within the stipulation.

MR. THURMAN: Clearly so, if not I don't know what is.

MR. RAY: I think so.

Q What is your next?

A Application No. 1847 one hundred second feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 9, an application to appropriate water from the Weber River and Beaver Creek, diverted into the Provo River and recaptured. The application is number 1847, dated April 24, 1908, and filed April 29, 1908, at 4:50 P. M. Approved August 28, 1909. The application is for 100 second feet,

MR. RAY: We desire to object at this time, your honor please, first, the admission of Exhibit 8 which was offered but not admitted.

THE COURT: WHAT is Exhibit 8?

MR. RAY: Exhibit 8 is the extension of time within which to complete the appropriation in the matter of application number 442 and 944 to December 22, 1916. Object to it upon the ground that it is incompetent, irrelevant and immaterial, there being no showing that the applications extended are valid applications and were granted with proper jurisdiction by the state engineer.

THE COURT: The objection is overruled.

MR. RAY: And may we have an exception. And to Exhibit No. 9, we object upon the ground that it is incompe-

tent, irrelevant and immaterial, it not appearing there were at the time of the allowance of the application any unappropriated water in the source from which they were proposed to be taken, and no evidence that the State Engineer had jurisdiction by virtue of publication or otherwise, to grant the application.

MR. THOMAS: Mr. Ray, would you include there were no unappropriated waters at the time of filing or at the time of the allowance.

MR. RAY: At the time of the allowance.

THE COURT: Objection overruled.

MR. RAY: Note an exception.

MR. A. C. HATCH: No. 8 will be admitted and No. 9.

MR. THURMAN: Does Exhibit 9 state the number of acres to irrigate?

MR. A. C. HATCH: Hundred second feet of water to be diverted, it is the 40,000 acres described in the other application.

We offer Exhibit 10, an assignment of the application to the plaintiff herein.

MR. THURMAN: That is not necessary under the stipulation, judge, the stipulation includes that.

MR. A. HATCH: I stated before that I did not understand that the stipulation barred this evidence, and where there is only one assignment and we have it, we would prefer it become a part of the record.

MR. THURMAN: All right, I merely called attention to it.

MR. RAY: It seems to me these as a matter not of right, but as a matter of stipulation ought not to be offered. The purpose of that stipulation as counsel understands, is to abbreviate this hearing and the record. Any party to this case may desire to appeal and if he does then

he has an expensive record encumbered with a lots of evidence which has been stipulated in advance and time of court and counsel are all taken in the offering of mesne conveyances which are admitted, and it might raise the question whether or not the stipulations were not waived to go into those matters. We object to it as irrelevant, immaterial and incompetent.

THE COURT: Unless there is some good reason shown, the court is disposed to take the view presented by Mr. Ray. I think the object of this stipulation is as he has just stated to abbreviate the record, so that any person who may desire to have a transcript of this record will be relieved of the expense.

MR. A. C. HATCH: If the court please, if you will notice, this application has not yet been completed, that is, the appropriation has not yet been perfected, it has been perfected only in part and we are claiming the right to continue to do this until we do perfect it and to settle the matter in this litigation instead of having, as soon as this is closed, another law suit to determine what the seepage or evaporation is possibly as to this water that is added from time to time. We claim the right to put the water into the channel that they are now using, and we would like to have it determined in this action, and the stipulation I understand, goes to the extend of covering anything except claimants to the waters of the provo River. There is no litigant here, no defendant who claims any of the waters of the WEber River, but they do claim as against us our right to put that water into the Provo River and recapture it in like amount at our point of diversion upon the provo River.

THE COURT: Now, I understand, Judge Hatch, that it has been stipulated by all the parties to this action that you have just such an assignment as you have presented here.

MR. A. C. HATCH: If the other parties so understand, I will not insist.

THE COURT: It is stipulated every claimant has a conveyance by virtue of an assignment of deed transferring to them all the rights which they claim to have. There is no limitation on it, and you may draw the same inference from the stipulated facts that you would draw from the proven facts.

MR. A. C. HATCH: Is number 9 admitted?

MR. RAY: Yes.

MR. A. C. HATCH: It is for 100 second feet.

Q What is your next number?

A 1929.

MR. A. C. HATCH: We now offer Exhibit No. 11, being application No. 1929 for waters of the Weber River and Beaver Creek, 2000 acre feet. The date is June 22, 1908, date of the application received at the State Engineer's office, June 25, 1908, and approved May 14, 1910. Applicant Joseph R. Murdock.

MR. RAY: Object to this as incompetent, irrelevant and immaterial upon the grounds stated in the prior objection, that it does not appear there were any unappropriated waters in the source of supply from which the applicant proposes to take the water, and further it does not appear the State Engineer ^{allow the} obtained jurisdiction to application by conformity to the statute in the matter of publication and otherwise.

THE COURT: Objection is overruled.

MR. RAY: Exception.

Q What is your next?

A Application number 3995.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 12, being application of the Provo Reservoir Company to appropriate water, number 3995, dated May 13, 1911, for 1200 acre feet.

MR. WILLIS: Your honor, I would like to suggest in the presenting of these different papers and applications it takes up a great deal of the time of the court for each counsel to examine them. I would like counsel when they are introduced to give the date of application, the date of filing and date of approval, and the waters that are appropriated, so that we can make a proper record of it. It is not done in all of them.

THE COURT: In all that I remember it was done. I got the dates, just the data that you have referred to.

MR. RAY: I have it here.

MR. WILLIS: Then counsel does not speak loud enough so that some of us can hear.

THE COURT: Yes judge, if you will speak a little louder.

MR. A. C. HATCH: The application is dated May 13, 1911, for 1200 acre feet of water from the First South Branch of the South Fork of Provo River, was filed or received at the State Engineer's office, May 17, 1911, 3 P. M. Approved January 11, 1913, and the time extended to March 31, 1916.

MR. RAY: Object to Exhibit 12 on the ^{same} ground as interposed to the preceding application.

THE COURT: Objection is overruled.

MR. RAY: May we have an exception.

Q what is your next?

A Application number 4307.

Q We will not use that.

A Application number 4308.

MR. A. C. HATCH: We offer Exhibit 13, application to appropriate water, dated October 3, 1911, 1500 acre feet, to be used January 1st to December 31st of each year. Received at the State Engineer's office October 5, 1911, approved April 8, 1913, from Soapstone Creek, a branch of the

Provo River.

MR. RAY: Same objection as to the preceding exhibits, your honor.

THE COURT: Objection is overruled.

MR. RAY: Note an exception. This is water to be reservoired, I understand, or stored.

Q Your next?

A Application number 5309, 500 acre feet.

MR. A. C. HATCH: The number is 5309, dated July 2, 1913, for 500 acre feet of water received at the State Engineer's office July 3, 1913, and approved May 21, 1915, appropriated from Lincoln meadows.

MR. BAGLEY: That is since this action was commenced?

MR. A. C. HATCH: I think not, but I haven't in mind the exact date of the filing of the complaint in this case.

MR. THOMAS: Yes it is, Judge, we have two stipulations, I think.

MR. RAY: Same objection to Exhibit 14, your honor.

THE COURT: Objection is overruled. It may be received.

MR. RAY: Note an exception.

MR. A. C. HATCH: This application is signed by the plaintiff as applicant.

Q Your next?

A Application number 5310, five hundred acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 15, an application to appropriate water 500 acre feet, dated July 2, 1913, received at the state engineer's office July 3, 1913, at 2 o'clock P. M., and approved May 21, 1915.

MR. RAY: Source?

MR. A. C. HATCH: Knights meadow in Wasatch County.

Mr. Wahlquist: To appropriate the water from Knights

Meadow, or store water at Knights meadow?

MR. A. C. HATCH: Direct source of supply -- applies to the Utah Lake and Jordan River or the river system of drainage areas -- direct source of supply is Knights meadow in Wasatch County.

MR. RAY: Defendant objects to the admission of plaintiff's exhibit 15, on the grounds stated to the previous application.

THE COURT: The objection is overruled.

MR. RAY: Note an exception.

Q What is the next?

A Application No. 5311, five hundred acre feet, Alexander Lake.

MR. A. C. HATCH: Now offer plaintiff's Exhibit 16, July 2, 1913, for 500 acre feet from Alexander Lake, tributary of the Provo River, application received at the state engineer's office July 3, 1913, and approved May 21, 1915, the plaintiff being the applicant.

MR. RAY: Object to it as incompetent, irrelevant and immaterial, and upon the further ground stated to the previous exhibits of the same nature offered.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

Q Next?

A Application number 5312, five hundred acre feet.

MR. A. C. HATCH: We now offer Exhibit 17, being application 5312, dated July 2, 1913, for 500 acre feet of water, direct source of supply being Melldrums meadow in Summit County, tributary of the Provo River. The application is received at the state engineer's office July 3, 1913, approved May 21, 1915, the plaintiff being the applicant.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

Q Next?

A Application number 2077, 316.6 acre feet.

MR. A. C. HATCH: We now offer plaintiff Exhibit 18, being application to appropriate water 2077, dated August 31, 1908 for 316.6 acre feet. The direct source of supply, the Provo River. Application received at the state engineer's office September 15, 1908, approved October 20, 1911, time extended in which to complete appropriation to January 1, 1908, the applicant being Joseph R. Murdock.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

Q Next?

A Application 2077-A for 824.1 adre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 19, being application to appropriate water, dated December 8, 1908, 824.1 acre feet, the direct source of supply is the Provo River, application received at the state engineer's office, September 15, 1908, approved December 24, 1909, the Provo Reservoir Company, plaintiff, being the applicant.

MR. RAY: Object to this upon the same ground as to the preceding application, and upon the further ground that at the time of the approval it appears there was no application, the date of the filing, there appears to have been no application.

THE COURT: Objection is overruled.

MR. RAY: Save an exception.

MR. A. C. HATCH: We offer Plaintiff's Exhibit 20, being extension of time applications 2077-A to 2077-Q, inclusive, to June 1, 1916.

MR/ RAY: Object to it as incompetent, irrelevant and immaterial.

THE COURT: Objection is overruled.

MR. RAY: Exception.

Q Next?

A Application number 2077-B 421.1 acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 21, being application number 2077-B dated December 8, 1908, for 421.1 acre feet, the direct source of supply being the Provo River, and received at the state engineer's office September 15, 1908, application approved December 24, 1909

MR. RAY: Same objection as to the previous application.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application number 2077-C 166.5 acre feet.

MR. A. C. HATCH: We offer plaintiff Exhibit 22, being application to appropriate water number 2077-C, dated December 8, 1908 for 166.5 acre feet of water from the Provo River, application received at the state engineer's office September 15, 1908, approved December 24, 1909, the plaintiff herein being the applicant.

MR. RAY: Same objection as to the other exhibits, and further objection that it appears that at the time of this receipt no application had been made.

THE COURT: Objection is overruled.

THE WITNESS: Application Number 2077-D, 227.5 acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 23, dated December 8, 1908, for 227.5 acre feet from the Provo River, the application being dated September 15, 1908, approved December 24, 1909, the plaintiff Provo Reservoir Company being the applicant.

MR. RAY: Same objection as to Exhibit 22.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application number 2077-E.

MR. A. C. HATCH: Now offer plaintiff's exhibit 24, being application to appropriate water 2077-E, dated December 8, 1908, for 1460 acre feet of water direct source of supply the provo River in Utah county, application received at the state engineer's office September 15, 1908, approved December 24, 1909, time to complete construction and diversion extended to June 1, 1916, application by the plaintiff, Provo Reservoir Company.

MR. WAHLQUIST: Where does it say that water is to be stored, inasmuch as the Provo River in Utah County is the source of supply?

MR. A. C. HATCH: It is proposed to store the water here referred to in what is known as Lost Lake, which is situated on the head waters of the Provo River on unsurveyed land in the Uinta Forest Reservation.

MR. WAHLQUIST: They are taking on quite a job if they are going to convey it from provo River to the Lake in Wasatch County.

MR. RAY: Object to it as incompetent, irrelevant and immaterial upon the other ground stated as to the previous application.

THE COURT Objection is overruled.

MR. RAY: Exception.

12:00 Noon, Recess to 2:00 P. M.

ROYAL J. MURDOCK - - - -

DIRECT EXAMINATION by MR. A. C. Hatch continued.

THE WITNESS: Application number 2077-F.

MR. A. C. HATCH: This is ^{an} application for 280 acre feet, date December 8, 1908, the applicant Provo Reservoir Company, the application is for 280.8 acre feet. Date of the receipt at the state engineer's office, September 15, 1908, and approved December 24, 1909. I will explain the apparent

conflict in the date of the application and the date of receipt at the state Engineer's office.

MR. HUFFAKER: Where is this water from?

MR. A. C. HATCH: The provo River.

MR. WAHLQUIST: And where stored?

MR. A. C. HATCH: To store the water in what is known as Lost Lake, situated at the head waters of the Provo River, Uinta Forest Reserve. I probably might as well say here now, that 2077, the application covers all of the waters that are covered by all of these indicated letters following, and that the date on the application 2077 with the letter following are amendments to the original application required by rule of the state engineer's office and the date put thereon is the date of the receipt of the original application. They were all embraced within the original, as will be shown by it, and the state engineers required that they be segregated and that each proposed reservoir be stated by itself, so that under the rule one might be rejected without rejecting the entire application. One might be completed and ~~was~~ certified as completed, and the others lost by reason of failure to perform the conditions required by the statute. The direct source of supply is Provo River. that is the waters of the provo River that would otherwise find their way into the Provo River.

MR. RAY: We desire to interpose the same objection to Exhibit 25, your honor please.

THE COURT: The objection is overruled, it may be received.

MR. RAY: Note an exception.

MR. A. C. HATCH: I will ask, Mr. McDonald, you represent the Wasatch Irrigation Company?

MR. MCDONALD: Yes.

MR. A. C. HATCH: And I understand that you object to the introduction of application 442 for certain reasons, and

reserve the right -- the Wasatch Irrigation Company, as we understand it, claims under this application -- can you say whether or not they do?

MR. MCDONALD: No, I cannot, I may be able to find out something about it, but I have no information at hand. What do you say the number of it is?

THE COURT: Exhibit 1, 442.

MR. A. C. HATCH: Our understanding is they are joint owners with us in the application and in the water stored.

MR. MCDONALD: If it is incompetent it would not be evidence anyway, even if were interested in it.

THE WITNESS: Application No. 2077-G, 398.2 acre feet.

MR. A. C. HATCH: Application No. 2077G, application to appropriate water dated December 8, 1908, for 398.2 acre feet. Provo Reservoir Company is the applicant. Date of receiving at the State Engineer's office September 15, 1908, application approved December 24, 1909, and time extended to complete appropriation to June 1, 1916, endorsed on the application.

MR. RAY: Source is where?

MR. A. C. HATCH: Provo River.

MR. RAY: Utah County.

MR. A. C. HATCH: Utah County.

MR. RAY: Same objection, your honor please.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

MR. A. CHATCH: To be stored in Lost Lake.

THE WITNESS: No. 2077H, 313.9 acre feet.

MR. A. C. HATCH: Now offer application 2077H, dated December 8, 1908, applicant Provo Reservoir Company, quantity of water applied for 313.9 acre feet, source Provo River, received at the state engineer's office ~~December 15~~ September

15, 1908, approved December 24, 1909, time extended to June 1, 1916.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application No. 2077I, 175.9 acre feet.

MR. A. C. HATCH: 2077I, application to appropriate water, dated December 8, 1908, for 175.9 acre feet applicant Provo Reservoir Company, received at the State Engineer's office September 15, 1908, approved December 24, 1909, extended to June 1, 1916, endorsed on the application.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application No. 2077J.

MR. A. C. HATCH: We offer plaintiff's Exhibit 29, application to appropriate water dated December 8, 1908, applicant Provo Reservoir Company for 124.9 acre feet, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time extended to June 1, 1916, source Provo River same as all the others.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application No. 2077K, 173 acre feet.

MR. A. C. HATCH: We offer plaintiff's exhibit 30, application to appropriate water dated December 8, 1908, Provo Reservoir company applicant water applied for 173 acre feet, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time extended to June 1, 1916, in which to complete appropriation endorsed on the back.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: 2077L, 471.9 acre feet.

MR. A. C. HATCH: We offer plaintiff's Exhibit 30, application to appropriate water, dated December 8, 1908, for 471.9 acre feet, applicant Provo Reservoir Company, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time extended in which to complete appropriation June 1, 1916.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: 2077M, 209 acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit No. 32, application to appropriate water, dated December 8, 1908, applicant Provo Reservoir Company, 209 acre feet, received at the state Engineer's office ~~1908~~ September 15, 1908, approved Decembr 24, 1909, time extended to June 1, 1916, in which to complete appropriation, source Provo River.

MR. RAY: Same objection.

THE COURT: Objection overruled.

MR. RAY: Exception.

THE WITNESS: Application No. 2077N, 230 acre fe et.

MR. A. C. HATCH: Now offer plaintiff's Exhibit No. 33. application to appropriate water dated December 8, 1908, application Provo Reservoir Company, water applied for 230 acre feet, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time to complete appropriation extended to June 1, 1916, source of supply the Provo River.

MR. RAY: Same objection, your honor.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

THE WITNESS: Application No. 2077-O, 1650 acre feet.

MR. A. C. HATCH: We offer plaintiff's Exhibit 34,

No. 20770, application to appropriate water dated December 8, 1908, name of applicant Provo Reservoir Company, water applied for 1650 acre feet, received at the State Engineer's office September 15, 1908, application approved December 24, 1909, time extended to June 1, 1916 in which to complete the appropriation.

MR. RAY: Same objection.

THE COURT: Same ruling.

MR. RAY: Exception.

THE WITNESS: Application No. 2077P, 820.6 acre feet.

MR. A. C. HATCH: We now offer plaintiff's Exhibit 35, application number 2077P, application to appropriate water dated December 8, 1908, name of applicant Provo Reservoir Company, water applied for 820.6 acre feet, source, Provo River, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time extended to June 1, 1916, in which to complete appropriation.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

THE WITNESS: Application No. 2077Q, 1650 acre feet.

MR. A. C. HATCH: We now offer plaintiff's exhibit No. 36, being number 2077Q, application to appropriate water to dated December 8, 1908, name of applicant Provo Reservoir Company, amount applied for 1650 acre feet, source the Provo River, received at the State Engineer's office September 15, 1908, approved December 24, 1909, time extended June 1, 1916, in which to complete appropriation.

MR. RAY: Same objection.

THE COURT: Objection is overruled.

MR. RAY: Exception. Judge Hatch, will you pardon

a question here. What Exhibit did you say 2077A to Q inclusive were duplicates of?

MR. JACOB EVANS: 2077.

MR. RAY: 2077 is only for a total of 316.6 acre feet. The total of these others would be some thousands of acre feet.

Q What is the original application to which these letter numbers apply, was there an original application covering all of these application from 2077 to and including 2077Q?

A Yes sir.

Q What was the number of that application?

A The original application was 2077. It included the 316.6 acre feet and all of the others including that down and including Q, and the State Engineer returned it and ask it be segregated specifying each storage we desired to make.

MR. RAY: Then these separate applications were made?

A Yes sir.

Mr. Wahlquist: It appears Exhibit 34 and 35 are exact duplicates of each other both as to the amount of acre feet claimed as well as the dates and sources.

THE COURT: No. 34 is 1650, 35 is 820.6.

MR. WAHLQUIST: 34 and 36, beg pardon, are both are both for 1650 acre feet, same date, same parties and same source of supply, and so far as we know now, to be stored in the same place.

MR. JACOB EVANS: I might suggest an answer to that if the detailed information given on the applications themselves were read it would show they were separate and individual reservoirs.

THE COURT: Counsel can examine these exhibits, and get the data they wish without asking the question.

Q And the dating of the several applications from 2077 to 2077Q, as received in the State Engineer's office, can you

state why that date was put there as December 15, 1908?

MR. RAY: Object to that, your honor please.

Q And application itself being dated December 8, 1908?

MR. RAY: Apparently put there by the officer of the State Engineer's office, an employee, and why he put it there this witness is not competent to testify.

THE COURT: I am inclined to think that is true, Judge Hatch, you are asking this witness to state the reason which actuated the clerk or person in the Engineer's office putting that on there.

Q Do you have the original application 2077 in your office?

A Yes sir.

Q The one that embraces all of these applications?

A Yes sir.

Q Have you it with you?

A No sir, I haven't it with me.

Q You will produce it later?

A Yes sir.

the court; In order that I may understand the situation, Judge Hatch, I understand that the witness now states that he is in possession, but it is not here, the application No. 2077; what is Exhibit 18?

MR. RAY: The same, practically.

THE COURT: But you are referring to one that was withdrawn.

MR. A. C. HATCH: Yes, it was returned to segregate them. The statement was that the original 2077 covered all of these.

THE COURT: And the new 2077 was substituted for a part --

MR. A. C. HATCH: For a part of the original application.

THE COURT: I understand it now.

Q For how long have you been secretary for the Provo Reservoir Company?

A Seven years.

Q Do you know as to the amount of money that has been expended by that company in the construction of its reservoirs and its works for the diversion of the water?

MR. RAY: If your honor please, while that is just preliminary, I object to it as irrelevant and immaterial what money they have spent. Only materiality to that inquiry, only possible materiality is whether or not they have done the necessary work specified by the State Engineer for the completion of their water right within the time. People cannot minimize the rights of prior appropriators by spending money. It is immaterial whether they have spent little or much if they have done the work required by the State Engineer for the purpose of vesting their rights under the laws of Utah.

THE COURT: Objection is overruled.

MR. RAY: Note an exception.

THE COURT: This should be answered yes or no.

A I do, yes sir.

Q What is the amount approximately?

MR. RAY: Now, your honor please, before that I desire to interpose an objection as to the form of the question, what they have spent it for, may have spent it for a good many purposes that had nothing to do with perfecting water right. It may be held that is a question of cross examination, but it seems to me we are entitled to know what they have spent upon their irrigation system.

THE COURT: I think you are entitled to know.

MR. A. C. HATCH: This is only preliminary.

THE COURT: But it is not incumbent necessarily upon the examining counsel to show what it is for first. That would go largely to the order of proof. Objection is

overruled.

MR. RAY: Note an exception.

A I have not the exact amount here. I have it at the office. Approximately two hundred and seventy-five thousand dollars.

Q What construction works have they made, what have they done in the way of constructing reservoirs and making of canals pipe lines, ditches and materials, do you know?

A Yes sir.

Q You may state generally what they have done in the way --

A They have constructed reservoirs at the head of Provo River and spent approximately sixty thousand dollars there, and diversion work at the mouth of Provo Canyon near Mr. Heiselt's residence the canal has been built a northeasterly direction to Mr. Holman's place and then practically west and north to the point of the mountain, then we have an inverted siphon crossing the Jordan River and then follows the foot hills.

Q On the west side?

A On the west side of the Jordan River to near the settlement of Bluffdale, and from there goes practically in a northerly direction to the Welby station on the Bingham Branch of the D. & R. G. Railroad. There are a number of -- approximately forty-five miles of canal construction.

Q Are there any flumes, tunnels or bridges?

A Yes sir, we have a six foot inverted siphon at Olmstead, just below the old Olmstead power plant.

Q What kind of a siphon did you call it?

A Inverted siphon.

Q Do you know the length of it approximately?

A As I remember it is about four thousand feet. Then there are two tunnels from the intake to the siphon, I have forgotten approximately the size, but they are over six foot in diameter, and also a McGinnis steel flume, skirting the hillside there for a considerable distance. Then we don't have any more siphons or pipes until we reach the Dry Creek,

immediately north of Lehi and have a siphon there.

Q What is the length of that?

A As I remember the length of that is about eight hundred feet.

Q The diameter?

A Fifty inches, forty-nine inches is the Dry Creek siphon. Then a steel siphon at Jordan River, I have forgotten the diameter of this steel siphon. It crosses from the near side of the Jordan River --

Q Do you know --

A I have forgotten the approximate length of it.

Q Do you know the cost of the construction of the intake and canals completed, approximately?

A Approximately two hundred thousand.

Q Dollars? A. Yes sir.

Q And do you know when the construction was first commenced?

A It was as I remember, in 1909.

Q And is it completed now, the system that you have started?

A No sir.

Q Do you know the number of acres of land irrigated by the system through their canal and under your corporation, the Provo Reservoir Company?

MR. KING: Is that land you claim owned by the plaintiff?

MR. A. C. HATCH: owned lands irrigated by the plaintiff through its system.

MR. KING: That is to be irrigated?

MR. A. C. HATCH: Or land irrigated, that has been irrigated.

MR. KING: But not lands belonging to the plaintiff?

MR. A. C. HATCH: No, that is not what I asked.

A There is approximately sixty-five hundred. That may be a little under, I wouldn't be sure, I haven't checked it for a couple of months, and we have made a number of sales since then. It is around sixty-five hundred acres.

Q You could give us that --

A I could give it exactly, yes sir.

Q And when it was irrigated? A. Yes sir.

Q That is, what season it was irrigated?

A Yes sir.

Q Do you know the number of acres of land that are lying under your canal that are not irrigated?

A Oh, I know in a general way, but I don't know exactly.

Q Approximately how much land is there under your entire system?

MR. WAHLQUIST: That we may understand that question, do you mean includes land under other canals, irrigated from other canals in a lower level than their canal clear to Salt Lake City?

MR. A. C. HATCH: I asked him lands that were not irrigated.

MR. WAHLQUIST: By their system.

MR. A. C. HATCH: No, I didn't ask by their system, that are not irrigated at all. We expect to irrigate all these unirrigated lands before we get through.

A There are about, I think, twenty to twenty-five^{thousand} acres under the system.

Q You have not computed it? A. No sir.

Q Yourself?

A No sir, I have not.

Q But there is that much land anyway?

A Yes sir.

Q What kind of land, is it barren and unproductive, or without irrigation is it land that will produce crops without irrigation?

A It is in practically every state. There is some that has never been farmed at all. Some that has been dry farmed, and others that is partially irrigated and raising crops, and some entirely without water right. Practically every crop that is known to this section is under this irrigation system.

Q I asked if the unirrigated lands were such as would produce

crops without irrigation, if you knew?

A I cannot answer that. I know in a general way that considerable of the land in Salt Lake County did not make a success of dry farming, and I take it from that that it is necessary to be irrigated.

Q It will produce better crops with irrigation?

A Yes sir.

Q Now, going back to the reservoir, do you know whether or not they have stored water in the reservoir constructed by them?

A Yes sir.

Q Have they?

A Beg pardon?

Q Have they stored water in the reservoirs? A. Yes sir.

Q I will ask whether or not they have turned it loose and used it through their system for the irrigation of lands?

A Yes sir.

Q They have? A. Yes sir.

Q And for how many years have they been doing this?

A They have turned storage water ever since I have been with the company.

Q For seven years at least? A. Yes.

Q And do you know--

A They may not have done the first year, I would not be positive as to that.

Q Do you know from what reservoirs the water has been released for irrigation purposes during that period?

A From the Washington, Wall and Tial lakes.

Q During all that period.

A I think so, except probably it may have been the first year, I would not be sure as to that.

Q Do you know anything as to the construction of the reservoirs at the places designated in the several applications number 2077? A. No sir.

Q Whether or not any water has been diverted from the Weber

River water shed to the Provo River?

A I know that some has been diverted, but I am not prepared to just say, when and how much. Engineers have that in charge, I don't know exactly.

Q Have you any documentary evidence with relation to the appropriation of water by the Blue Cliff Canal Company?

A Yes sir.

Q What is it -- I will withdraw the last question -- I will ask you of Mr. Murdock whether or not as secretary of the company you have made application to the State Engineer for a further extension of the time in which to complete the several appropriations of water applied for under these applications that have been introduced in evidence here?

A Yes sir.

Q When did you make the application for the extension of time?

A The application for extension of time with reference to application number 2077A to 2077Q inclusive was filed in the State Engineer's office June 1st.

A Of this year? A. Yes sir.

Q Do you know whether or not that application has yet been acted upon?

A No sir, I don't.

Q Now, referring to the Blue Cliff Canal Company, I will ask you if you have any documents relating to the appropriation of water by that company?

A I have.

Q This appears to be a certified copy, have you the original?

A No sir.

Q Do you know where the original is? A. No sir.

Q Have you ever seen it? A. No sir.

Q Have you made inquiry to ascertain if it was in existence?

A No sir.

Q You have not? A. No sir.

Q I will ask if you got the papers or had turned over to you

the papers of the Blue Cliff Canal Company?

A Yes sir, except this.

MR. KING: I suppose there is no question, is there about ^{it} getting the deed, certified copy ought to prove itself. I would not waste any time proving the lost instrument.

MR. THOMAS: Does it come under the stipulation?

MR. A. L. BOOTH: No, this is the original instrument.

MR. KING: Speaking for myself, I don't make any question about producing the original, perfectly competent under the statute.

MR. A. CL. HATCH: We offer now plaintiff's Exhibit 37, certified copy of a notice of appropriation of water from the Provo River. It is dated 13th day of April, 1885, and claims five thousand feet per minute of the entire flow of the Provo River at low water. Second a primary right to all the night flow unappropriated, being as follows, to-wit, $\frac{3}{20}$ of the whole of the water of said river, the same usually ~~is~~ flowing in the Factory Race, Provo City, the same being unappropriated and running to waste for thirteen hours, to-wit: from six o'clock in the evening of each and every day until seven o'clock in the morning of the day following. Third, a primary right to all the night flow unappropriated being as follows, to-wit: $\frac{2}{5}$ of the whole of the waters of said river, usually flowing in the City Race Provo City, same being unappropriated and running to waste for thirteen hours, to-wit, from six o'clock in the evening of each and every day until seven o'clock in the morning of the day following. Fourth, a primary right in and to the whole of the waters of said river usually flowing in said Factory and City Races and Tanner Race and Little Dry Creek for the whole of each and every Sunday the same being unappropriated and running to waste on such Sundays, same being all eight thousand feet per minute of said river at low water. Fifth, a secondary right in and to the one-half of the waters

of said Provo River, same being unappropriated and running to waste through the whole of the high water season, usually lasting from the first day of March to the 15th day of July of each and every year. (Signed) John E. Booth, J. D. Jones, George M. Brown, A. J. Stewart, Jr., R. L. Jones. Acknowledged before V. L. Halliday, County Clerk of Utah County, Utah.

MR. KING: Object to it as immaterial, irrelevant, incompetent, not upon the ground they did not produce the original instrument.

THE COURT: Objection is overruled.

Q Do you know whether or not the Provo Reservoir Company has succeeded to the rights of the parties named in that notice through the Blue Cliff Canal Company? A. Yes sir.

Q Have they or have they not?

A They have, I have the deed here conveying the property.

Q From the Blue Cliff? A. Yes.

MR. RAY: You mean by that question they have succeeded to whatever right the Blue Cliff had by virtue of that application, that application does not represent the right that actually existed.

MR. A. C. HATCH: I think I used your exact language.

MR. KING: This came in under that stipulation.

MR. A. C. HATCH: Yes.

Q Have you any other papers pertaining to that right?

A I have the deed from the Blue Cliff Canal Company to the Provo Reservoir Company also the deed from Susannah Steele to the Blue Cliff Canal Company, and deed from Joseph E. Keeler.

MR. KING: Are those for rights in addition to those claimed under the appropriation?

MR. A. C. HATCH: Part of them are.

MR. KING: They are not supplemental, but additional rights?

MR. A. C. HATCH: The conveyance of the right of Susannah Steele is a separate right, as I understand it. There

is a quit-claim from J.B.Keeler to Blue Cliff Canal Company.

What relation does that have?

A He had some interest in the property there. Those were turned to us at the time the transfer was made of the Blue Cliff property to the Provo Reservoir Company, and those are the original documents.

MR. A. C. HATCH: I take it that under the stipulation showing of the original application of appropriation that the title will be deemed to be in the plaintiff.

THE COURT: I take it so unless some of the parties give you notice they expect to introduce evidence in contra-vention. If they do then --

MR. A. C. HATCH: I will ask it be done at this time.

THE COURT: That should be done at the time of the offer, but I don't know the court would hold the ~~the~~ party had waived the right to introduce such evidence by not objecting, but you will not be precluded from introducing such proof as you have if the parties introduce evidence. We can not follow any fixed order of proof in cases of this kind.

MR. KING: Judge, those are independent claims, as I understand, let me see the nature of the deeds.

MR. A. C. HATCH: These Susannah Steele deed is an independent claim.

MR. RAY: Do you plead in your complaint a claim to the Susannah Steel water right?

MR. A. C. HATCH: The springs that refers to and we specifically plead the right in our complaint.

MR. KING: This is a deed to seventy acres of land, Mr. Ray, together with all and singular the improvements, appurtenances, together with the water rights belonging to the grantors used upon and in connection with that said land, particularly the waters of six certain springs rising on and running from said land, also eight shares of the capital stock of the Blue Cliff Canal Company.

MR. A. L. BOOTH: The springs are mentioned in paragraph 29-A of the complaint.

MR. A. C. HATCH: We offer plaintiff's Exhibit 38, being a conveyance from Susannah M. Steele and Leander Steele, her husband.

MR. RAY: Object to the admission of Exhibit 38, upon the ground it is incompetent, irrelevant and immaterial, no appropriation or interest in the water having been shown. Of course, that is a matter of order of proof.

MR. A. C. HATCH: We will show the appropriation.

THE COURT: Even without showing the appropriation it would be admitted in evidence. It might be the basis of a claim of adverse use, based upon a claim of right, even though there was no appropriation. I merely suggest it would be admissible. I did not get the date or the names.

MR. A. C. HATCH: Susannah M. Steele and Leander Steele her husband to the Blue Cliff Canal Company, a corporation, conveying interest in the lands situated in the Provo Canyon.

THE COURT: What is the date?

MR. A. C. HATCH: The date of the deed is the 13th day of June, 1908.

Q Have you the copy of the decrees of the court?

A Yes sir.

Q Let me see them.

THE COURT: Did you complete your record with reference to this. I overruled the objection.

MR. RAY: Note an exception.

MR. A. C. HATCH: If the court please, we also offer plaintiff's exhibit 39, the deed of the Blue Cliff Canal Company to the plaintiff, conveying all of its right awarded to it under the decree of this court.

MR. RAY: Object to it as immaterial under the stipulation, encumbering of the record.

THE COURT: I am inclined to think that is true,

unless there is some additional rights than those you have shown by the appropriation, and deed of Mrs. Steels

MR. A. C. HATCH: There are some special matters in this we desire to have in evidence.

MR. RAY: Withdraw the objection then.

THE COURT: It may be received.

Q I will ask you whether or not, if you know, the plaintiff has succeeded to the rights of the estate of William Wright, deceased to the waters of Pfovo River or any portion thereof?

A Yes sir, they have.

Q And have you a deed of conveyance to that right?

A Yes sir.

Q The title as shown comes from the William Wright estate through minors distributees under the decree of distribution and deed of the guardian of the minors to Joseph R. Murdock and from Joseph R. Murdock and his wife Margaret to the plaintiff herein.

MR. KING: I understand that is an original right up there, and the vendor sold to Mr. Murdock part of the interest or the interest to Mr. Murdock's Company, and the right claimed as a part under the appropriation here.

MR. A. C. HATCH: No.

MR. KING: I just stated that for the illumination of your opponents. Go ahead, we will look at it later.

Q That is true, is it not?

A Yes sir.

MR. WAHLQUIST: The deed shows upon its face there are certain portions of the William Wright estate water right that are not conveyed.

MR. A. C. HATCH: I am submitting for you to examine. We claim a portion of the rights of the estate of William Wright, deceased, and I think the stipulation will cover the transfers for whatever it is.

MR. WAHLQUIST: Yes, but your question to the witness was as though you referred to all the rights of the

William Wright estate.

MR. A. C. HATCH: We offer 40, warranty deed from Joseph R. Murdock and Margaret Murdock, his wife, to the Provo Reservoir Company, conveying certain interest in water to the Provo River formerly decreed to the estate of William Wright deceased.

We offer 41, being no objections.

THE COURT: It may be received.

MR. A. C. HATCH: To 40. A certified copy of the decree of distribution in the matter of the estate of William Wright, deceased. Any objections?

THE COURT: It may be received.

MR. A. C. HATCH: We offer No. 42, certified copy of a guardian's deed from Mary Jane Wright as guardian of the estate and persons of Zella Wright, Zora Wright, Leora Wright and Lorin A. Wright, minors to Joseph R. Murdock.

We now offer plaintiff's Exhibit No. 43, being a certified copy of a decree of this court. I don't find any number of the case or any date when the decree was entered. This is certified as being a true copy. We offer it if the court please. The case is entitled "In the District Court of the Fourth Judicial District of the State of Utah, in and for Utah County, Provo City, a municipal corporation and many others plaintiffs, against the Telluride Power & Transmission Company, Blue Cliff Canal Company and others including William Wright. It is known as the Chidester decree in which the waters of the Provo River were -- right to the use of the waters of the Provo River were adjudicated, and we offer it for the purpose only of establishing the rights that were succeeded ^{to} by purchase from the Blue Cliff Canal Company, and from the successors of William Wright, parties to this decree, and we offer it for no other purpose.

MR. RAY: We object to it, your honor please, as immaterial and irrelevant for that purpose, as not tending

to prove the extent of the right which they succeeded to at a much later date, and at the present time, not the same parties to this action. They were not parties.

THE COURT: Who were not parties?

MR. RAY: Were not all the same parties to that action as to this action.

THE COURT: Objection is overruled. There may be parties to this action who were bound by that litigation. I have not investigated, but I think probably there are.

MR. A. C. HATCH: I take it we are bound by this decree to whatever right the Blue Cliff had as to the parties who were parties to that decree, and who were are parties to this case also, and that every other party is bound, who were parties to that case and who are also parties to this case, bound by the decree insofar as those two interests are concerned. We are privy to the decree to the extent that we succeeded to the interests of parties whose rights were adjudicated.

THE COURT: Yes, I have overruled the objection on that theory.

MR. RAY: If your honor please, so I may be understood in my objection there. I think there is certainly some finding of fact as a decree of this sort between parties to the action, and there are mutual estoppels growing out of it, but in all these decrees and particularly in this one the rights to the water decreed is very broad, and it states specifically in the decree that the rights herein decreed are dependent upon ^a the present, future and continuous beneficial use. We don't want to waive any of our rights to proof in that particular.

THE COURT: I am not in a position now to determine what effect the decree has, but I think it is admissible, especially as between the parties who were ~~no~~ parties to that action.

MR. RAY: Note an exception.

MR. A. C. HATCH: I will ask to withdraw the exhibit, if the court please, and submit it, so that it may be submitted to the court to show the date of the decree as ^{on} is shown, the original, and also show the date, the number of the file.

MR. BAGLEY: Your honor please, counsel offering this exhibit limited its purpose. I take it, it being admitted it will be effective to prove whatever it does prove without limitation by counsel in offering it.

MR. A. C. HATCH: If the court please, we offer it only for the purpose that we offered it and for no other purpose.

THE COURT: If it is admitted the other parties may use it for any purpose they wish.

MR. BAGLEY: Without reoffering it?

THE COURT: Yes, it is in the record for whatever it may show upon its face, even though you offer it for one purpose only.

RE-CESS

MR. A. C. HATCH: If the court please, upon the introduction of the decree in what is known as the Chidester decree of the court, the court said that it would be of course in evidence for all purposes. We wish at this time to say that we claim not to be bound by anything contained in that decree except to the extent that we have become privy to the decree by reason of our purchase of rights as the parties who were parties to the decree, and that the purpose for which we have introduced it is only to show those rights to which we have succeeded.

THE COURT I think possibly you may have misunderstood

what the court intended. I did not intent to suggest by reason of the fact that you had offered it you were bound by any provision of the decree at all by reason of having offered it. I merely suggested that whatever the decree was competent to prove in favor of or against any of the other parties that it was in evidence, the entire decree was in evidence, and, ^{not} that you were bound by reason of having offered it. In other words, it is in for all purposes that it would be in for if each one of the defendants has severally offered the decree. It being in ~~six~~ evidence, any of the parties could use it for the purposes it is competent to use it for and not by virtue of your having offered it, you were bound by anything you would otherwise not be.

MR. A. C. HATCH: Yes, I wish to emphasize that at this time for fear it might be misconstrued.

THE COURT: It was withdrawn, however, and is not now in evidence. You withdrew it, I understood, so as to have some changes made in it. Do you offer it again?

MR. A. C. HATCH: We have not yet got the changes made, but we will have them made. We^e have discovered it was not a full and complete copy and withdrew it for that reason. With the exception of the introduction of this decree we are through with this witness.

CROSS EXAMINATION by Mr. King.

Q Mr. Murdock, reference has been made to the quantity of land 6500 acres, I understood you that had been irrigated by your company, that is land that the company doesn't own, but owned by private individuals?

A Yes, majority of it.

Q And the land to which you refer is approximately 20,000 acres which might be irrigated was also land not owned by your company but by various individuals ?

A Yes sir.

Q In other words, this plaintiff corporation does not have land of its own except a few acres which it has acquired in connection with the acquisition of certain water rights?

A Yes sir.

Q And it was the scheme -- I don't use the word offensively-- and plan to build reservoirs impounded water that might not be used and had not been appropriated by the prior appropriators who lived upon the river and sell that water to persons who might have dry lands, non irrigated lands as they might desire? A. Yes sir.

Q So that is a plan to furnish water if there is any waste water in this river, unappropriated water to persons who have land but have no water? A. Yes sir.

Q Does the purchaser of water become a stockholder in your corporation?

A Yes sir, after a period of ten years elapses. The contract provides that at the expiration of the ten year pri period he takes over the proportionate interest in the system.

Q Then do you issue him stock? A. Yes sir.

Q Do you at the time he makes the contract?

A No, at the time he makes the contract he simply signs a contract for the purchase of so much water. At the time he pays up for this water he is issued a deed for the water right.

Q That conveys certain amount of water right?

A certain interest in the system according to the shares he has purchased.

Q At any rate for ten years he has no voice whatever in the management? A. No sir.

Q But at the end of ten years, if he pays for it, he would have some voice as a stockholder? A. Yes sir.

CROSS EXAMINATION by Mr. Thomas.

Q Mr. Murdock, you made reference to the diversion of water by your company from the Weber water shed. Have you made personal

examination of those diversions?

A I have not.

Q You have only such knowledge of it then as has been given to you by the engineers of the company? A. Yes sir.

CROSS EXAMINATION by MR. RAY.

Q How much land, Mr. Murdock, lying below your canal which you have included within the twenty thousand acres and the sixty-five hundred acres also lies below other canals diverting water from Provo River?

A I have that information but I don't have it just in mind at the present time, number of acres.

Q Are you able to approximate it?

MR. A. C. HATCH: We will show that definitely later, by other witnesses.

THE COURT: You may recall Mr. Murdock, if that is not shown to your satisfaction later.

CROSS EXAMINATION by MR. BAGLEY.

Q Mr. Murdock, do you understand under the plan of organization of the Provo Reservoir Company that these persons who have contracted to buy water right from the company will at the end of the ten year period become stockholders in the Provo Reservoir Company itself?

A Not necessarily, no sir.

Q The plan is to organize a new company at the end of the ten year period which will be in fact an irrigation Company?

A That is as I understand it, yes sir.

Q And take over the system, but the Provo Reservoir Company will continue to be a development company. having no stockholders who are water users in the sense the stockholders are water users in the ordinary irrigation corporation?

A That is my understanding.

Q So that your statement to Judge King was not entirely correct?

A It was entirely correct to this extent, the purchasers of water right own their pro rata interest in this system from the date at which they receive their deed, have to buy water right in the system, but it is not operative. They don't have a voice in the management or control of the system until ten years have elapsed, at which time, I understand, there will be a controlling or different company organized to take over their interest, and ~~may~~ operate their proportionate interest in the system.

Q You distinguish the system, that is the physical property from the corporation itself?

A As I understand when they buy stock in the irrigation system they have a proportionate ownership in the water and right of way, and everything pertaining to the irrigation canal company.

Q At the end of this ten year period, if the plan works out as contemplated the corporation asset will be changed entirely, that is, the plaintiff's assets will be changed from water right and irrigation system into cash assets or contract?

A It might.

Q That was the plan? A. Yes sir.

Q So that if it worked out perfectly at the time when you say the water right purchasers in your company will become stockholders the Provo Reservoir Company won't have any land or water right?

A Well, if they -- ultimately they will not, no sir.

CROSS EXAMINATION by Mr. Coffman.

Q Mr. Murdock, you testified you have been irrigating approximately sixtyfive hundred acres of land? A. Yes sir.

Q And that you have been irrigating this land for the past seven years?

A I don't think I so stated, they irrigated the entire quantity

seven years ago.

Q How much have you been irrigating for the past seven years?

A I could give you exact number of acres if I could refer to my map.

Q Approximately how many acres have you irrigated during the last seven years, approximately?

A Well, probably four thousand acres, thirty-five hundred to four thousand.

Q And during that time, since February of 1914, the irrigation of those lands has been under the stipulation filed in this court as to the use of the water.

A I don't understand the question.

Q You remember that there was a stipulation as to the use of the waters for the years 1914 and 1915 and also a stipulation for this season? A. Yes sir.

Q Now, in 1914 and '15 the use of the water was under that stipulation, was it not?

A That is as I understand it.

CROSS EXAMINATION by MR. Thurman.

Q The use of it, all the Provo water was under the stipulation those two years, wasn't it?

A Yes sir.

MR. A. C. HATCH: Judge Booth may take the stand.

MR. JOHN E. BOOTH: I believe I would like to have it in the record before I am sworn that being a witness called by the other side will not interfere in any manner with my rights as an attorney representing my clients.

THE COURT: No, certainly will not.

MR. THURMAN: You have the right to cross examine yourself.

JOHN E. BOOTH, called by the plaintiff, first being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. A. L. Booth.

Q State your name?

A John E. Booth.

MR. A. C. HATCH: We now offer, if the court please, renew our offer of certified copy of decree known as the Chidester Decree, dated the 26th day of January, 1907, let it be marked the same as it was before, 43.

MR. RAY: And we renew our objection.

THE COURT: Objection is overruled.

MR. RAY: Exception.

MR. A. C. HATCH: Offer it under the same conditions as offered before, and for this purpose only.

Q Are you the John E. Booth whose name was signed to the purported notice of appropriation of water of Provo River dated the 13th day of April, 1885^{also}, and signed by J. T. Jones, George M. Brown, A. J. Stewart, Jr., and R. L. Jones?

A Yes sir.

Q What was done by you people and your successors in pursuance of this notice of appropriation?

A Well, we first surveyed a canal from the Provo Canyon up to Spring Dell, surveyed the root of it and commenced work upon it and worked from year to year until we got water.

Q Did you help survey it personally?

A I did.

Q What was the size of the canal when it was completed, if you know?

A My recollection is it was six feet in the bottom clear and two feet and a half deep for carrying water, with a fall of nine-tenths of an inch to the road.

Q Was it those dimensions for the whole distance?

A It was calculated so, yes.

Q You personally saw it after being constructed? A. Yes.

Q The canal?

A Oh yes, I was there frequently.

Q What did you do, if anything, as to taking the water into that canal?

A We put a headgate right at the mouth of the canal where it joins the river, and opened it; the theory was to put out ^{the} headgate a little below the bottom of the river, so that in case of any accident the water would run into our canal.

Q Was the water taken into the canal, if you know?

A It was.

Q And about how much of the capacity of the canal was taken up by the stream that was used in the canal?

A The capacity was calculated to be three thousand minute feet which would be fifty second feet.

Q Was that water used on land that theretofore had been un-irrigated?

A Yes sir, it was above the other canal.

MR. HUFFAKER: What was this canal called?

A The Blue Cliff canal.

Q You incorporated later, I understand into the Blue Cliff Canal Company? A. Yes sir.

Q And transferred all your rights over to that company?

A To the Blue Cliff, yes sir.

Q Where did the canal extend to; you said it started about where Spring Dell is now.

A Well, it was on the northwest of the side of the river, got out onto Provo bench, then we extended it on out finally to Rogers' place, probably two miles this side of Pleasant Grove.

Q Do you know how many acres of land were irrigated from this canal?

A No, I couldn't tell how many were actually irrigated.

Q Do you know what year the water was taken out, or what years the water was taken out before you people let go of the interest

Amount of water

in the company?

A No, I could not fix the year without looking up the record.

Q Now, do you know of any water being developed in the soil this canal was being constructed, water in the bottom of the canal?

A. Yes sir.

Q Just state what water was developed in this canal?

A As to the amount?

Q If you know.

A I never measured that, only estimated it.

Q Have you had any experience in measuring streams of water?

A Oh yes.

Q And from your experience and observation in measuring streams of water, what would be your best judgment as to the amount of water that was developed in the bottom of this canal by its construction?

A X My estimate would be about five second feet.

Q Was that ~~was~~ water taken out along the canal in connection with this other from the river?

A Oh yes, we had, it run right into the canal; it joined the river water.

✓ Q Do you remember about when that was developed, that spring water?

✓ A It ~~was~~ developed right along as we made the canal, from what is known as the Steele place up to the head of the canal.

Q Did you examine the physical conditions of the river, to know whether that water appeared in the river anywheres that you could see it before you developed it?

A Oh, there was some that did, yes, a great deal of it did not. As far as we could trace it seemed to be seepage water, but I suppose if it would keep running down it would get to the river someway, if we had not intercepted it.

Q You don't say it came into the river?

A No sir.

Q There was no place where it showed to come out?

A If a portion of it was from the Steele springs, there the

water runs into the river.

Q About what proportion of this five second feet came into the river?

A Before we did anything?

Q Yes, before you did anything?

A I should say half of it.

Q But after the canal was constructed, none of it went into the river?

A No, we intercepted it all.

Q Do you know whether or not at the time of this notice of appropriation there was water in Provo River that had been used for irrigation previous to that time?

A Why, yes, I know there was water there which was not used.

Q How large quantity, if you know?

A Well, in the high water, or all the years through?

Q The notice mentions five thousand minute feet in low water that you claim by this notice.

A Five thousand?

Q Minute feet.

A Perhaps that was it, I was thinking it was three, three thousand was what,-- was all we calculated on appropriating after we commenced the ditch; I remember that. We limited it to three thousand.

Q Do you know whether in low water in 1885 there had been three thousand minute feet unappropriated previous to that time?

A Why, I know there was three thousand minute feet that went part of the time into -- that run through into the lake.

Q This says in low water season.

A Yes, low water. Up to that time they had not used the Factory water at night; that was one of our grounds of appropriation, great deal of the water run through the mills and right on night and day.

Q You also mention in the notice City Creek water from six

o'clock at night until seven o'clock in the morning?

A That was the water the factory used.

Q And it is distinguished in the two, there is two divisions in the notice? A. Yes.

Q One is the factory and the other called the City Creek, as I remember?

st. A I don't recall that, maybe so; I haven't read the notice for a good long time.

Q I wish you would just read this notice over; that has been admitted as plaintiff's Exhibit No. 37, and see if that brings back to your recollection some of the details?

MR. RAY: It has not been offered at all.

MR. A. L. BOOTH: It is marked Exhibit 37 and I find it here among the exhibits.

THE COURT: Yes, it was offered.

Q Now, after reading over this document, introduced as plaintiff's Exhibit No. 37, do you recall as to whether the water that is therein mentioned had heretofore been unused and unappropriated?

A Well, in a great measure, yes.

CROSS EXAMINATION by Mr. Willis.

Q After looking over Exhibit 37, Mr. Booth, can you state as to the time when that appropriation was made?

A Why, my recollection was it was made 1885, and that the date of it appears to have been in April.

Q It was in 1885?

A It was in 1885.

Q How long after that did you commence using?

A Actual use?

Q Yes.

A Oh, I think it must have been all of ten years.

Q What quantity did you appropriate and commence to use the first use that you put the water to?

A Well, the first, we got out, I should estimate wasn't over

fifteen or twenty second feet.

Q When did you --

A Then we increased it along.

Q From time to time?

A From time to time.

Q The first water, I understand, would be about fifteen second feet that you used, and it would be during the year about 1895?

A That would be my recollection, might have been a year or two before or a year or two afterwards.

Q That is approximately?

A I know it was a very heavy job and we were poor people and we were a good while getting it out. I state here we spent fifty thousand dollars on the work before we used it.

CROSS EXAMINATION by M^r. Carfman.

Q How much water, Judge Booth, was developed by the construction of the canal independently of water that was diverted directly from the river?

A Why, my estimate was, as I said, about -- all that we took in the canal along its course, would be about five second feet, but I should judge there was more than half of that but what would run into the river before we intercepted some of these small springs where it had a defined channel. Of course, wherever we crossed it we took it.

Q Places where water came in from seeps and springs along the course of the canal where it passed through the canyon?

A Yes, for a mile and a half, I should judge.

Q After the canal was constructed, when you first commenced the construction, how long was it before the water of the canal was applied to the farms?

A I say I estimated about ten years, might have been a little more or a little less.

Q That would be along in 1905?

\$50,000.00
5 feet
Spring water

Culinary water

A 1895.

Q 1895? A. Yes.

Q That ~~xxx~~ is when it was first built?

A When we first got it out to actual use.

Q How far did the canal extend at that time into the valley?

A Let's see; first we took out from the mouth of the canyon, as I remember, it is two miles and a half from the mouth of the canyon up to the head of the canal. And then I think the first year we used water we ran it out to Grant's farm. That would be probably four miles farther.

Q During those ten years did you take any part of the water from the factory race or the Mill race that might not have been used Sundays and nights?

A I think that before we got the canal completed they commenced to use water nights and Sundays, but when we started it, then as I remember it, the Provo City in the early time did not water lawns at night. There was plenty of water and from the old records, as I examined them afterwards, they did not distribute the water to the lots at night. Of course, after it got scarcer, they did, for a number of years back, and the factory water run to waste nights and Sundays.

Q If the water had not been augmented by water directly from the river would the seepage water you speak of have run out of the mouth of the canyon?

A Oh yes, I think so, there was enough for that.

Q Was there enough of it to be used beneficially on a farm or for any purpose?

A Why yes. We used it for culinary water then all the time.

Q Was it used for that? A. Yes.

Q By whom?

A The people living along there, I don't know, I couldn't state them.

RE-CROSS EXAMINATION by Mr. Willis.

Q One other question, your honor; what did you do, Judge Booth,

during the year 1885, to do what you call appropriate the water?

A After the notice was filed and recorded we commenced work on the ditch at the head and I think that year we completed about forty rods and turned water in and turned it back into the river.

Q When did that Blue Cliff canal first -- when did you first construct it to its greatest capacity?

A Well, I should say about 1895.

Q Now then, isn't it a fact that for say just a short period that was maintained at that capacity and that you allowed it to fill up and it was not used to that capacity for a number of years after that?

A No, I think after we commenced using it we kept it except for where we had breaks or something of that kind.

Q I suppose by reason of allowing debris to fill into the canal, that you didn't lose or abandon the use of some of the water that you put into that in the year '95?

A No, we never meant to abandon any of it; of course, other people claimed rights ahead of us, and we did not get all the water we wanted.

Q Did you in fact then maintain that canal for a number of years after the year 1895 to the capacity that you claim it was able to carry?

A No, we never -- I don't think we ever appropriated the fifty second feet at all.

CROSS EXAMINATION by Mr. Thomas.

Q Judge Booth, when the Chidester decree was granted your rights presented to the court for determination, were they not?

A Yes sir.

Q Did you under that decree get in the award which was given in paragraph 6 of it, receive as much water as you say you had appropriated?

A I don't think that we did.

Q Didn't that decree substantially declare your rights to the water that you had actually put to beneficial use?

MR. A. L. BOOTH: Object to it as calling for a conclusion of the witness. The decree is the best evidence what it declared, not proper cross examination.

MR. RAY: He has the right to have the witness make the comparison.

THE COURT: Well, Mr. Booth's objection is he is seeking to have the witness's statement what this paper contains.

MR. THOMAS: To avoid discussion I will change the form of the question.

Q How much less water did this decree give you than you had heretofore claimed?

A Well, I don't recall just what the decree gives us.

Q To refresh your memory the decree gave you, gave the Blue Cliff Canal Company 960/17960 of class E water of the Provo River; how much less was this than the amount which you said you had claimed under this original appropriation?

A.C.
MR. HATCH: Just a moment, if the court please. That does not cover all the water that was awarded under the decree.

MR. A. L. BOOTH: There was some class A. water.

MR. RAY: Paragraph 3 under (a) sets forth the primary right.

MR. THOMAS: That fixes the amount of water they have out of the race, which was two second feet, which was less than they had claimed heretofore, and less than they had appropriated.

MR. A. C. HATCH: I object to the question as being uncertain and indefinite in this: the decree as offered in evidence, fixes the rights of the Blue Cliff Canal Company as being a certain proportion of the waters

of the river. Now, the time of year in which that appropriation was taken would have something to do with determining the quantity, times of the year when probably it would amount to a hundred second feet.

THE COURT: Of course, that is very true, but as I understood the question this question to Judge Booth was merely what their claim was, whether they claimed more water than was awarded. Read the question.

(Question read)

THE COURT: If I understand the question, do I understand you to mean the amount they were claiming in that lawsuit?

MR. THOMAS: No, in this appropriation.

THE COURT: I think the pleadings would indicate that; what is the object of it? I don't just get the object of the question.

MR. THOMAS: I am trying to find out -- probably somewhat indirect way -- what the plaintiff is seeking to establish by this witness. If they are seeking to claim or take their appropriation or their right from the time that Mr. Booth and his associates made their first filing, we should like to know it. If they are seeking to rely, or if they are relying upon the decree, the Chidester decree, which has been introduced then Judge Booth's testimony is entirely irrelevant and I shall move to strike it out.

MR. A. L. BOOTH: But this Chidester decree is not binding on all the parties to this action, by any means; there are a great many of them that were in it and a great many that were not, so that whatever the Chidester decree contains would be limited to the parties who were interested in that action, as I take it.

MR. THOMAS: This is fundamental, but I want to know now what you ~~saxx~~ are claiming by it.

THE COURT: I am going to suggest, Mr. Booth could

probably answer the question better than the witness.

MR. A. L. BOOTH: Mr. Thomas is asking the question, I don't know.

MR. THOMAS: I will ask counsel now does plaintiff claim its appropriation or right under the Blue Cliff Canal to water under the original appropriation Mr. Booth and associates made.

MR. A. L. BOOTH: As against these parties who were not in it?

MR. A. C. HATCH: We claim as against all the parties in it bound by this decree, all the rights the Blue Cliff Company had regardless of the decree. Now, there are certain interests here that bind us to the decree who are prior in point of time to us. There are certain other interests who are not bound by the decree and against whom the decree does not bind us, who are later in their appropriation than the Blue Cliff Canal Company. Now, as to all those who are prior in point of time to the Blue Cliff Company and who were parties to the Chidester decree, we are bound, ~~it~~ but as to those who were later in their appropriations than the Blue Cliff Canal Company, and who were not parties to that decree we are not bound, and we claim all that the blue Cliff were entitled to, that we can show they were entitled to regardless of the decree as against those parties.

MR. WILLIS: I would like to ask one question if you will pardon me. Mr. Thomas, what is your attitude as to those who are not bound by any decree at all who are users of the Provo River, for instance, those who are prior appropriators? Are you willing, so far as they are concerned, to be bound by the Chidester decree as to them?

MR. A. C. HATCH: No, and we are offering the proof to establish as against them all the rights to which we are entitled, are think we are entitled, or can show we are entitled by the proof. In other words, as to A, we may be

bound to a certain quantity, he being prior in right, of course being prior in time; but as to B, we are not bound at all, and it is for the purpose of showing to what we are entitled as against B that we are offering this evidence.

MR. THOMAS: B, if the court please, does not seem to be in existence; the decree which has been introduced in evidence as one of the exhibits, paragraph 2, finds that the waters of said river are divided into two classes, especially designated as Class A., and Class B, respectively. Class A consists of all the water of said river when the flow thereof has decreased to not more than 17467 cubic feet per minute of time, measured at the mouth of Provo Canyon and the several points of intake of the parties hereto, taking water from the river above the mouth of the canyon. Class B consists of all the water of said river in excess of 17567 cubic feet, as measured as aforesaid. That takes in all the waters of the river if all means all, and river means river. Then there are no other waters designated, there are none other waters to be designated, or be considered either by the parties to that suit or by anybody at all. Then in the next division of the decree, paragraph 3, the Blue Cliff Canal Company is determined to be the owner and entitled to the use of two feet, two second feet of water during the certain hours out of the City Race. Then in paragraph 6, the Blue Cliff Canal Company is the owner and entitled to the use of 960/17960. That is not against A, or B, or C, or D, that is all the Blue Cliff Company had, that was binding against the Blue Cliff Company. Now then, if that is worth its paper, the necessary interest of the Blue Cliff Canal Company cannot now come in and play hot and cold and say because somebody who may be was not in existence at that time was not made a party to that suit, that they may now come and claim under a prior Appropriation a greater amount for these same people. That seems to be an inconsistent position. The Blue Cliff Company

had a finding in its favor of a specific quantity of water, the right to its use, no more and no less. I don't care whether you have one party or ten thousand parties who were not a party to this litigation, you cannot claim any more. If you are seeking to claim any more the testimony of Judge Booth is entirely irrelevant, you are beyond the pale, you cannot get it. there is nothing there for you to get.

THE COURT: What do you understand the question to the court at this time is?

MR. THOMAS: I have asked counsel as to what his attitude was. Now then, that I have got it, I move to strike out the testimony of Judge Booth.

THE COURT: The motion is denied; you may proceed with the examination.

MR. A. L. BOOTH: They were cross examining.

THE COURT: You may proceed with the cross examination.

MR. THOMAS: I am through.

CROSS EXAMINATION by Mr. Thurman.

Q You were asked whether you thought this five second feet of water developed by the canal would get through, you answered some of it, as I remember.

A Yes.

Q What effect did that water developed there, have upon enabling you to get the head waters through by reason of closing up the --

A Oh, it was a very great benefit to us because we would keep the water in all the time you see, and the spring water did not freeze up and we would use it the whole year around.

Q Now, you say you made your -- below the head of your canal you made the flow in the bed of the river so that in case of an accident the water would go into the canal? A. Yes.

Q Was it within your contemplation at that time that an accident might happen at any time and be inconvenient to get water in

the canal?

A I don't remember discussing any farther than just the part I told you. I do remember we discussed that.

CROSS EXAMINATION by Mr. Ray.

Q I understood you to say to Mr. Corfman that all the water which you intercepted, unless intercepted would have found its way into the river prior to the river leaving the mouth of the canyon.

A No, I didn't mean to say that, if I did.

Q Where did that water find an outlet if you know?

A Well, the part that was from springs and running water that went right in the river. The percolating water I don't know anything about.

Q How high above the surface of the river was the canal, bed of the canal?

MR. A. L. BOOTH: He said it was below.

A The river has a rather steep incline; of course, every rod we were farther from the river as we came down. When we got down to the lower part of it, at Steele's, lower part of where water run into our canal I don't know -- I should estimate it was forty feet above the river.

Q And the drainage from that part of it was naturally toward the river?

A Certainly.

Q And the surface springs which you intercepted were going towards the river? A. Yes sir.

Q And you say about half the water which you gathered in your canal in that way was water which had gone across the surface into the river?

A I should judge so, yes; of course, it is only an estimate.

Q Have you any reason to believe the other water which you intercepted was not making its way beneath the surface to the river bed?

A If they were running that is the way they would go.

Q Now, these quantities which you have stated are mere estimates are they not? A. Yes.

Q Not based on any measurements or any record?

A Why, I believe they were measured, but I didn't do it, I don't recall what they were.

Q But at least, you, yourself, never did measure them?

A No, I never measured them?

Q Were you personally a water user under the Blue Cliff?

A No, I don't believe I ever did use any myself.

Q Were you ever the water master of the Blue Cliff?

A No, never was.

Q So that you had neither the duty of turning in or attending to the water in any way?

A No, I was president of the company, sometimes issued orders about those things, but I never turned it in or used it. I lent my interest in that.

Q Nor measured it?

A Nor measured it.

Q Do you know what the capacity of the Blue Cliff canal at its smallest point of capacity was; did you ever determine that?

A Well no, not determine, I know what the estimate was, it would be three thousand minute feet.

Q Do you know what the fact was?

A Why, I think that it would carry that amount.

Q Did you ever ~~was~~ make any measurement to determine whether it ever did or was carrying such amount of water?

A I never made any measurements.

CROSS EXAMINATION by Mr. Coleman.

Q Judge Booth, you state in your application that you made application for a certain quantity of the day water that was used in the factory to be used at night and Sundays; do you know whether that water was ever used at night under the Blue

Cliff Canal?

A By the Blue Cliff Canal?

Q Yes.

A Why, yes, we turned --

Q Did you ever use any?

A No, I never used any.

Q Did you ever see it used?

A Personally, no.

Q Just hearsay?

A That was the water master so reported, just merely hearsay?

Q Just merely hearsay?

A Yes, that was all hearsay. We had water from somewhere, I know that, because I was there and saw it.

MR. A. L. BOOTH: Don't know whether it would have run in the Mill race or not if it come down?

A No, I wasn't particular about that it when we got it in our canal.

MR. KING: I want to ask counsel before I cross-examine, I may have no cross examination at all, I understand you to claim that any appropriation made by the Blue Cliff Canal Company or by Judge Booth and his associates under which the Blue Cliff Canal Company claim conflicts in any way or is superior to the claims of the pioneer Irrigation Company or Allens and McAffees, whom I represent and who take their water out from Provo River near Charleston and who have been using it, as we claim for approximately fifty years. If this claim is not hostile, but subordinate to the claims I represent I have no cross examination at all. Otherwise I have.

MR. A. C. HATCH: We don't claim anything as against them.

MR. KING: By reason of the Blue Cliff Canal appropriation?

MR. A. C. HATCH: Only that they must use the

water judicially and economically.

MR. KING: I understand that.

MR. A. C. HATCH: We deny their claims --

MR. KING: I am not asking you to admit all we claim; I am asking whether or not this claim is superior or junior to mine.

MR. A. C. HATCH: Junior.

RE-CROSS EXAMINATION by Mr. Thomas.

Q Was the use of the water in the Blue Cliff Canal limited to the amount awarded under the Chidester decree after the signing of the decree?

A Why, soon after that we sold out to the Provo Reservoir Company and I don't know what they have done. I think it was not limited to the Chidester decree before we sold during the high water, but when the water was running to waste and running into the lake we took all our canal would carry, interfering with nobody. It was when it got down to the Class A, I think we submitted to the decrees.

MR. RAY: Judge, that is the only time the Chidester decree attempted to govern the water, wasn't it, when it got to Class A?

MR. A. L. BOOTH: It mentions 960/17960 of the river as Class B.

MR. RAY: Two classes.

THE WITNESS: Can I be allowed to explain a little further. I can clear up this. I don't know whether it has been introduced in evidence for I have not been in court all the time. There was a decree before the Chidester decree, divided into three classes and then --

MR. A. L. BOOTH: Morse decree is not in this case yet.

THE WITNESS: And I think, as I recall it, there was eighteen thousand minute feet in the river at the time

the Morse decree was signed, it was there agreed that supplied everybody with all they needed and whatever was above that was unappropriated water, so there was no measurements had been required until the river got down to what was estimated as eighteen thousand feet.

MR. BAGLEY: Move to strike ^{out} the statement it was agreed as being purely voluntary, not a response to any question.

THE COURT: I did not catch it.

MR. BAGLEY: Let the reporter read from where he said it was there agreed that eighteen thousand minute feet--

THE WITNESS: Decreed, I said.

MR. BAGLEY: I understood "agreed".

THE COURT: I was wondering what the question was directed to, I take it this decree provided for some commissioner or some means by which it would be enforced. Do you contend that the fact that was enforced by a commissioner would be a voluntary relinquishment of any excess claim, anything of that kind?

MR. THOMAS: No, your honor.

THE COURT: I assume the decree has been in force unless it was shown it was not. The rights are fixed by the decree so far as all parties that are bound by the decree are concerned.

MR. THOMAS: As I understood Judge Booth, it is ~~evident~~ evident the commissioner did not always enforce the decree. I understood him to say they did not limit their use ~~to~~ of the water to the Chidester decree.

THE COURT: I take it you claim nothing for that, would you?

MR. BAGLEY: No.

THE COURT: Is there any further cross examination of Judge Booth?

MR. THOMAS: None, your honor.

THE COURT: Any redirect examination?

MR. A. L. BOOTH: Yes, two or three questions.

RE-DIRECT EXAMINATION by MR. A. L. Booth.

Q When this appropriation was first filed, or this notice of appropriation was first filed, was there any statute governing appropriation of water?

MR. THOMAS: Statute itself be the best evidence of that.

MR. A. L. BOOTH: In 1885.

A My recollection --

MR. THOMAS: Just a moment; object to that.

THE COURT: Objection is sustained.

MR. A. L. BOOTH: Give us an exception to the ruling of the court.

Q Was there any year after 1885 until you got this water out that you did not do work on the Blue Cliff Canal?

A I think not.

Q Did you do work to the extent of the ability of those interested in the work?

MR. RAY: Object to that as immaterial, as to the extent of the ability.

THE COURT: Objection sustained.

MR. A. L. BOOTH: Give us an exception.

CALEB TANNER called by the plaintiff being first duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. A. C. Hatch.

Q Mr. Tanner, you were former State Engineer of the State of Utah?

A Yes.

Q I present to you plaintiff's Exhibit 18, being application

number 2077, to appropriate water and call your attention to the date of it, August 31, 1908, and the filing in your office of state engineer September 15, 1908, and I then call your attention to 27, if you can say whether or not that is the original application of that number?

A This is the original application 2077.

Q Do you have a recollection of numbers, application number 2077 with a letter following? A. Yes sir.

Q And running from 2077A to 2077Q, following the letters of the alphabet in regular order? A. Yes sir.

Q As to each of them the paper is dated December 8, 1908, and it shows that it was filed in your office September 15, 1908, can you explain ~~to~~ the apparent conflict in the date?

A Yes.

Q Do so.

A Application number 2077 was originally made from fourteen thousand acre feet of water to be stored in a great number of independent reservoirs specified on page 2 of the application. The application was received in the state engineer's office and its date of priority is September 15, 1908 at 10 o'clock A. M., ~~is~~ that is the material date, that fixes the time that the appropriation begins, if it is completed. The application filed in this form was in contravention of the rule of the State Engineer's office, which specifies that any application for storage of water in number of storage reservoirs where the quantity was in excess of five hundred acre feet, must have an independent application for each storage reservoir if for series of the storage reservoirs that will not exceed five hundred acre feet. In order to come within the rule the application was returned to the applicant and then in compliance with the rule he made segregated applications all of the same date of priority which is indicated on page 3 of the application, these letter series coming within the rule of the engineer's office.

Q The actual dating of the application as December, being of December 8, 1908, was the date of the making of the amendment?

A Yes, and is not a material date in any case.

Q And the date of the receipt in the State Engineer's office is not the date when the paper itself was actually received there, but is the date of the priority of the application?

A Yes sir.

4:50 P.M., Recess to 9:30 A.M., June 7, 1916.

(OMITTED.)

Application by Mr. Willis to amend and substitute as to
John Kummer, Joseph Hatch, William Winter and John B. Fowler.

MR. A. C. HATCH: At this time I wish to have added as of counsel for the plaintiff, Messrs. Thurman, Wedgewood & Irvine. The clients represented by Messrs. Thurman, Wedgewood & Irvine in this case having -- settlement having been agreed upon as to any differences that might exist between the plaintiff and clients represented by them in the trial of this case.

THE COURT: Very well.

IRWIN JACOB, called by the plaintiff, being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. A. C. Hatch.

Q Mr. Jacob, where do you reside?

A Provo City.

Q What is your occupation or profession?

A Civil engineer.

Q How long have you been practicing your profession as civil engineer?

A About ten years.

Q What school did you graduate from?

A University of Utah.

Q What has been your business in your practice of your profession, what have you done generally?

A Practically irrigation engineering.

Q What work have you been engaged upon?

A In the construction and design and operation of work on the Provo Reservoir Canal system and Utah Lake Irrigation Canal system.

Q Any others?

A A few small jobs.

Q You have been accustomed to measuring water?

A Yes.

Q In capacity of canals and irrigating ditches? A. Yes.

Q During the entire period of ten years that you have been engaged in your work?

A I would say during the last seven years.

Q Are you acquainted with what is known as the Blue Cliff Canal?

A Yes.

Q Have you a plat or drawing showing the relative position of that canal with the Provo River? A. Yes.

Q Have you that with you?

A This is it.

Q Marked Plaintiff's Exhibit 44. You may show on this the intake of the canal and the point at which it reaches the irrigated land?

A The exact location of the intake is not shown on this? Approximately in here.

Q That is at the right hand side --

A Yes, at the extreme right of the plat. The yellow line is the Blue Cliff Canal line, and the point where it reaches the Provo bench, or the place where it begins serving the farming district is at the left of the map here.

MR. RAY: There is no point marked there to indicate that.

MR. A. C. HATCH: Mark it at the point.

A At the point "X".

Q What does the blue line indicate?

A Provo River.

Q And has the plat marked upon it a scale in miles or rods?

A It has not.

Q What is the scale upon which it is drawn, ^{is} it a uniform scale?

A Yes, it is uniform, the section.

Q The squares there indicate mile squares?

A Yes, they indicate one-half mile squares.

Q Half mile squares? A. Yes.

Q MR. RAY: Quarter sections?

A Quarter sections.

Q Have you at any time measured that canal?

A Yes.

Q Can you give the dimensions of cross-section?

MR. CORFMAN: Object to it as immaterial, unless time is fixed?

A I measured the canal--

MR. A. C. HATCH: Just a moment, there is an objection.

MR. CORFMAN: We object to it as immaterial unless the time is fixed.

THE COURT: You may fix the time.

Q When?

A Saturday last.

THE COURT: Proceed with your answer.

A I measured the canal at four different points, two points, at the place here marked "Upper section."

MR. RAY: Two measurements there you say?

A Yes, and two measurements at the point marked "Lower section."

Q What was the cross section?

A The cross section of the first place measured at the upper section was six foot bottom width; lower side slope of 2.9 in two feet and upper side slope of 3.6 in three feet. Height of the bank, lower bank was 2.05 feet. At the second point in the upper section the bottom width was six feet. The lower side slope 3.2 in two feet. The upper side slope 3.5 in three feet. The height of the lower bank was 2.85 feet. The first point in the lower section, the bottom width was six feet. The lower side slope four feet in three or four in three, the upper side slope was four in three, the bank, lower bank, was 2.5 feet high. The second section bottom width was 5.8 feet, the lower slope was three in two, and the upper slope 2.5 in two. The lower bank was 2.3 feet high.

Q Did you take the grade of the ditch? A. Yes.

Q What was the grade?

MR. RAY: At what point?

A I took the grade throughout the upper section, and also throughout the lower section. The grade of the lower section was 4.2 feet per thousand. The grade of the upper section was 2.6 feet per thousand.

Q What was the capacity of that canal?

MR. RAY: Object to it upon the ground it does not appear this witness is qualified to testify to the capacity of that canal from the measurements made. He has made two measurements over considerable length and capacity is the water it will carry at the smallest point.

THE COURT: I take it he is asking for the capacity at the point at which he measured.

MR. RAY: If he will limit it to that.

THE COURT: The court will consider it so because not having measured it any other place he could not testify to the capacity at any other point. I understand that is what you are asking for.

MR. A. C. HATCH: Yes, that is all he could testify to.

A The capacity at the lower section the first point measured would vary between 37.2 second feet to 44.4, depending upon the coefficient used in figuring the capacity. The coefficient varied between normal or average conditions and bad conditions of canal section. The capacity figured at the second point measured in the lower section was between 38.1 and 45½. The capacity of the first section in the upper section was 29.4 to 36.

Q Second feet?

A Yes, cubic feet per second. And second section of that section is 28.9 to 35.4.

Q Now, in taking these cross sections I will ask whether or not you went along the canal the entire distance shown there on

the plat ? A. Yes.

Q And state whether or not the places you selected for measurement were the places narrowest and of least capacity or whether they were average, if you know?

A The places selected were of the least capacity. Biggest part of the canal is filled in and impossible of access to measurement and the places selected were those that appeared to have the original section and these four sections measured were the smallest of these.

Q So far as the canal was at that time exposed?

A Yes.

Q So that it could be measured. Do you know when the canal was last used to convey water? A. No.

Q Has it been used, have you had any knowledge of it, for the past three or four years? A. No.

Q You may state whether or not its appearance indicated that it had been used or not used within a number of years?

A It appeared to not have been used for a considerable length of time. It is filled in more or less nearly the entire length of it.

Q Have you a knowledge of the Provo Reservoir Company's system of canals and laterals?

A Yes.

Q Have you a plat showing those canals and laterals?

A I have a plat showing the main canals.

Q With reference to its geographical position in Utah and Salt Lake Counties? A. Yes.

Q Is that it? A. Yes.

Q Before going into that I will ask a question or two touching the Blue Cliff Canal, question or two further, have you ever been acquainted with this Blue Cliff Canal prior to the time you made these measurements? A. Yes.

Q How long ago?

A The first time I can remember, I think it was in 1907.

Q Was the water flowing in it at that time? A. No.

Q Do you know anything as to any spring water arising in the canal of being developed by the canal at any point along its course?

MR. RAY: I object to that as calling for a conclusion of the witness as to what is developed water in the canal?

MR. A. C. HATCH: I put it in two ways, arising in the canal or developed in the canal.

MR. RAY: It is the latter question I object to.

MR. A. C. HATCH: He can answer yes or no, it is only preliminary.

THE COURT: He may answer and then you can cross examine him as to his knowledge if you desire, and source of his knowledge.

A Yes.

Q At what point on the canal did this water occur, at the upper or lower point of measurement, upper or lower section to which you have referred in your testimony?

A It occurred between the upper and the lower section.

Q Do you know whether or not that water had been turned to the Provo Reservoir Company by the ^{water} ~~the~~ commissioner during the past -- at any time during the past?

A Yes, I know on one occasion.

Q When was that?

A In 1913, I think.

Q Whowas the water commissioner?

A Frank Wentz.

Q Do you know what the quantity of water was at that time?

A No, I don't remember.

Q It was measured was it not?

A Part of the water was measured, yes.

Q The whole of it was turned to the provo Reservoir, Company,

or only a part of it?

A The whole of it.

Q Do you know whether or not it was ever turned by any commissioner other than Mr. Wentz?

A It was turned by Mr. Wentz' predecessor, Mr. Farrer.

Q When was that?

A During 1912.

Q I didn't get your answer.

A During 1912 season.

Q Do you know the measurement or quantity was at that time?

A I don't think it was measured, I think it was estimated.

Q Do you know whether it was estimated as to the quantity?

MR. RAY: I object to that as calling for a conclusion of the witness, as to the estimate of some person, and hearsay.

MR. A. C. HATCH: I am not asking him what it was, but if he knows whether or not it was estimated.

MR. RAY: Object to that as immaterial what somebody else estimated.

THE COURT: I take it the question is as to whether it was an actual measurement made or whether there wasn't. If he knows, he may state. The statement it was estimated is merely a statement it was not measured, I take it. He may answer the question with that understanding of its purport.

A Yes, I know that it was estimated?

Q By whom?

A Mr. Farrer.

Q What position did Mr. Farrer hold as water commissioner, that is, by whom was he appointed?

A By the district court, I think.

Q Under one of the decrees entered here?

A Yes.

Q And was he acting as such commissioner at this time to which you refer? A. Yes.

- Q Were you with him at the time? A. No.
- Q Did you make any estimate at any time of the quantity of that water turned by Mr. Farrer to the Provo Reservoir Company?
- A I don't remember.
- Q Have you made at any time an estimate of the quantity of that water, looked at it so as to judge of the quantity?
- A Yes.
- Q When?
- A About a year ago.
- Q The water to which I am referring is the water that has arisen in or developed by the Blue Cliff Canal, and runs along the canal, is that the same water to which you are referring?
- A That is not the water that I have been referring to. about making the measurements. There are several springs there, some rise a little above and some in the canal.
- Q Yes.
- A And they commingle and the measurements were made of all the springs.
- Q All the water? A. Yes.
- Q That would include what rises in or developed by the canal, and also the springs that find their way into the canal and run along? A. Yes.
- Q What is your judgment of the quantity of that water, your estimate?

MR. RAY: Your honor please, I understand the witness to say he made a measurement, if he made a measurement his judgment is immaterial, his measurement is material.

- Q Did you make a measurement?
- A No, I did not.

MR. RAY: He stated he did.

MR. A. C. HATCH: I didn't so understand the witness.

THE WITNESS: I was present when Mr. Wentz made the measurement, but I don't remember the quantity.

- Q What was the length of canal upon which you made your obser-

vations at the time you took the cross sections to which you have testified, Blue Cliff Canal?

A The total length was sixteen hundred feet.

Q That you observed at that time?

A Yes.

Q What was its condition at that time compared with what it was when you saw it several years ago, that particular section that you have observed at the time you made the measurement?

A The section that I refer to, this sixteen hundred foot section, that is the two sections total that.

Q Yes.

A Seem to be in fairly good state of preservation. The canal, the rest of the canal was with the exception of one or two small sections was nearly entirely filled in.

Q Now referring to plaintiff's Exhibit 45, you may point out to the court --

MR. RAY: Has that exhibit ever been offered in evidence? neither 44 or 45 offered in evidence.

MR. A. C. HATCH: We will offer them later.

Q You may point out on the Exhibit 45 and the Provo Reservoir Company's canal if there are marks upon the exhibit, indicate the different points along and intake and if not place marks there and name them so as to indicate or show to what you refer?

A The point here marked intake of the Provo Reservoir Canal is the point the canal leaves Provo River.

Q Now, what are the works at that point, construction?

A There is a diversion dam across the river and gates leading into the canal.

Q What kind of a dam?

A A concrete diversion ~~xxxx~~ weir with angle iron flash board control.

Q Proceed?

A The blue line represents the Provo Reservoir canal and at this

point marked by the heavy dotted line on the border of the map leaves Utah county and enters Salt Lake county, runs about fifteen miles into Salt Lake county, which is the present terminus of the canal near the border of the map.

Q What is the entire length of the canal from its intake to its lower end?

A Approximately 39 miles.

Q Now, what is the capacity of the canal at its intake?

A The present capacity is about 135 second feet.

Q Following down the canal, you may state the kind of construction?

A After it leaves the intake there is an earth section of canal about 1500 feet long. Then it enters the tunnel about a thousand feet long.

Q Through what kind of rock formation does that tunnel run?

A Through solid rock. Then there is a McGinnis steel flume extending for about two thousand feet and enters another tunnel about four hundred feet long, then a wood stave pipe, ^{for} about twenty-two hundred feet.

Q That part is a siphon?

A Yes, it is a siphon across Provo River and Provo canyon gulch. The end of the pipe places it on the brink of the bench.

Q What is the formation through which that second tunnel is driven?

A Solid rock.

MR. RAY: What kind of rock in each case?

A It is lime stone.

Q I will ask you whether or not any of the water escapes from either of these tunnels?

A Well, there is one small seep that is developed in the second tunnel.

Q Is that the only indication of any water escaping from either of the tunnels? A. Yes.

Q Now, what is the capacity of the tunnels, if you know?

A I would say from one hundred eighty to two hundred second feet.

Q What is the capacity of the siphon pipe line across Provo Canyon gulch?

A Present capacity of that is about one hundred fifty second feet.

Q Now proceed.

A From the point where the siphon puts the canal on the Provo Bench there is an earth section of canal over to the point known as Dry Creek.

Q Is it indicated on the map as Dry Creek?

A Yes, it is indicated Dry Creek here. At that point there is a 400 foot, 49 inch diameter wood stave siphon across Dry Creek, then an earth section from there.

MR. RAY: What is the capacity of that?

Q The capacity of that siphon?

A Approximately 100 second feet.

Q Proceed.

A From that point to the point of the mountain it is an earth section.

Q North county line of Utah county.

A Yes, it is an earth section and it enters a concrete conduit approximately 1500 feet long.

Q How long?

A No, I will change that it is about 1200 feet instead of fifteen.

Q What did you call that, concrete work?

A Concrete pressure conduit siphon.

MR. THURMAN: Where is that?

A At the point of the mountain, siphon across a swale in the mountain there, and from that point --

Q What kind of a siphon is that?

A Concrete reinforced concrete siphon.

Q Across Provo--

A Across a saddle in the mountain.

MR. RAY: May we have the capacity of that as we

go along?

Q Yes, what is the capacity of that concrete siphon?

A The capacity of that in connection with the steel siphon immediately beyond is 125 second feet.

Q Proceed.

A From the outlet of the concrete siphon extending across the Jordan Narrows is a steel pipe 40 inches in diameter and having a length of approximately 1400 feet. Then there is earth section of canal for about a quarter of a mile and then another steel siphon across what is known as Beef Hollow, not shown on the map. The length of this siphon is 400 feet same diameter as the other one. And from there on to the terminus is earth section.

Q At what point on the canal down from its head or intake do they first begin to distribute the water to the users?

A About a mile below the intake, about a mile and a half below the intake where the canal comes out on Provo Bench at the outlet of the wood stave siphon.

Q Do you know the number of laterals through which water is distributed from the canal to users on what is known as the Provo Bench?

A I think twelve laterals.

Q How many?

A Twelve.

Q At what points along the canal other than upon the Provo Bench is water distributed to users or irrigators?

A It is distributed almost continuously from Provo Bench to the point of the mountain.

Q That is the county line?

A Yes, with the exception of the last four or five -- three or four miles before we reach the county line and then it is distributed after we cross the Jordan Narrows almost continuously from there to its terminus.

Q Do you know the quantity of water that has been diverted into

that canal and used during the past seasons?

A Yes.

Q Have you a record of it?

A I have.

Q Here? A. No sir.

Q It is so that you could give the quantity that was distributed during each of the years?

A Yes, since 1912.

Q Can you give the approximate quantity diverted each year without your notes?

A I can for the last two years.

Q Sir?

A For the last two years I think I can.

Q You may so do.

MR. RAY: Now, your honor please, we object to any evidence as to the quantity diverted and distributed during the years '14 and '15, last two years. This case had been commenced, they were handled under a stipulation and order of this court with a specific provision --

THE COURT: That is my recollection.

MR. RAY: We limit our objection to title.

THE COURT: I will ask Judge watch the object.

MR. A. L. BOOTH: It is one year that it has actually been distributed under stipulation.

MR. RAY: Two years.

MR. THURMAN: If the court please, it seems to me it is material in ^{any} this event, not absolutely binding, of course,-- all of the water in this system, as I understand it, has been distributed under a stipulation the last two years. If the plaintiff is not permitted to prove what the ~~disposition~~ distribution has been and the defendants for the same reason are not permitted to prove what the distribution has been, there will be two years about which no evidence can be admitted here, what the flow of the water is.

THE COURT: I don't understand there is any objection made to this being shown if it is for any purpose other than for the purpose of showing some right by virtue of having done it.

MR. RAY: That is exactly the limit of my objection.

THE COURT: I understood the objection to be limited that way, and that is the reason I asked the question. I think there are a number of purposes for which it is proper to show it, for instance to show the capacity of your canal.

MR. THURMAN: Not only that, but in a sense to show the capacity of the river to furnish water.

THE COURT: Yes, all of those matters, but the objection was it should not be received for the purpose of any basis or establishment of any right.

MR. RAY: Now, if your honor please, Judge Thurman makes a suggestion there which seems to me might give the testimony more weight than it is entitled to. He said first it is admissible to show the capacity of their canal, that is granted, that it will carry water and has carried water. He says next it is admissible to show the amount of land which the river will serve. It seems to me it is not admissible for that purpose for the reason that pending this litigation we are subjected to an order of the court as to how this water shall be distributed, and there is a stipulation there particularly setting out how it shall be distributed and it shall not affect the rights of the parties as to the title to the water. Now, Judge Thurman suggestion goes to that very question and it casts upon us the burden of disproving something which we granted under a stipulation with the provision that we should not be required to disprove it.

MR. THURMAN: Let me be heard a moment on that. The purpose and object of this suit is to determine the rights of these parties. The rights of these parties will

depend upon the quantity of water necessary to irrigate first, and most important, if possible, of having rights at all -- these prior rights. Now, let us suppose this case, that although operating under a stipulation for the last two years, the water has been distributed -- we cannot put all our evidence in at once -- ^{we show} suppose, what these people have had the last two years, plaintiff and defendant -- suppose the plaintiff or defendants like those that I represent -- and show that the water distributed was enough for all land. We cannot put our evidence in all in at once, as I say. Wouldn't that evidence have some bearing even on the main question, and isn't it to some extent pertaining. Of course we are not going to insist that because water was distributed to the plaintiff that they are entitled to the quantity of water distributed. That would be absurd on our part and contrary to the very spirit of the stipulation.

THE COURT: Let me suggest my view of it is, Judge Thurman, the court ought to admit any evidence ~~unlike~~ of this kind and when it comes to the consideration of the case, give to that evidence such weight and draw from it such inferences as are not in conflict with the provisions of the stipulation, and I make the suggestion now, because I think your arguments are at this time not of much benefit to the court; because I am disposed to admit this evidence, and then you may argue from the evidence all those deductions you think ought to be drawn that are not in conflict with the stipulation and would not be in contravention of the spirit of the stipulation. I understand the spirit of the stipulation is this division of water shall in nowise affect the rights of any party, and yet what was done with the water and the result is in the nature of an experiment and might be shown so far as it might affect the lawsuit.

MR. A. C. HATCH: In asking the question I had not in mind the stipulation at the time. What I had in mind

was the quantity that was diverted by reason of our storage water and quantity that was added from the natural flow of the river. That was the purpose of the question and as to our storage waters, of course we claim there was only distributed to us what came from our reservoir.

THE COURT: Now, do you remember the question -- if you don't --

A Yes, I remember it.

THE COURT: If you do, you may answer it.

MR. RAY: May we have an exception.

A The quantity of water distributed into the Plovo Reservoir Canal varied considerably.

THE COURT: Judge Hatch, have you someone who has the record, exact figures. I think if you have better not take the time of the court.

MR. JACOB EVANS: I think the report of the commissioner shows all those matters, and we could get it from the commissioner's record.

THE COURT: I think it would be better to give the court the benefit of the exact figures than to have estimates made by this gentleman.

Q In the distribution of the water under your system do you know what the duty was upon the land irrigated different periods of the year?

MR. RAY: For the purpose of making that question definite, I merely want to know whether or not that question includes merely the acreage irrigated and water distributed, and it would then be a mathematical calculation, not what the duty is, because he has not qualified himself to testify to that.

THE COURT: This I think is a qualifying question. Ask him whether he knew what the duty was, read the question.

(Question read)

MR. A. C. HATCH: I thought the question was plain.

THE COURT: I don't know, Judge Hatch, I exactly understand what you have reference to when you ask as to the duty of water during different periods of the year. I don't know I understand just what you have in mind.

MR. A. C. HATCH: The quantity of water per acre in second feet or in acre feet upon the land.

THE COURT: You mean that was distributed?

MR. A. C. HATCH: That was actually distributed and used upon the land.

MR. RAY: That is the limitation I wanted.

THE COURT: You may answer that.

A I cannot state absolutely without, as I said before, the quantity distributed in the canal fluctuated considerably, and to state just the duty it would be necessary to figure these fluctuations in it before an average I can give.

Q You have computed it generally, have you not, so as to determine what the approximate duty was?

A Yes, from time to time I computed during the season.

Q You may give it.

A During the period to about the 1st of July or what is known as the high water ~~prts~~ period --

MR. RAY: What year?

A During 1914 and 1915 we distributed a second foot for about 70 acres, exception of during 1915 during May and June, part of June, we did not divert as much water as that, owing to the scarcity and also the cold weather during May. After July the first we distributed approximately a second foot for a hundred acre duty. During 1914 for a short period it got to a second foot for 110 acres.

Q During what month did it reach that 110 acres?

A During August.

Q Proceed?

A During 1915 after July the first we distributed a second foot for 145 acres.

Q' Now, beyond the Jordan River, you may state what the distribution was?

MR. RAY: I object to that as incompetent, irrelevant and immaterial. what the distribution was below the Jordan River. No similar situation shown whatsoever, nor similarity in the character of land or order of cropping them.

MR. A. C. HATCH: If the court please, we cannot show all of these things at one time, and the distribution beyond the Jordan River would be as material as the distribution at the mouth of Provo Canyon, if it is shown to be the same kind of soil and land under the system and upon which water was distributed and used. That is, it is material as to showing the duty of water upon like lands and I take it that any evidence that will tend to show the duty of water upon lands that are like unto the lands under the Provo River proper ~~maps~~ under the several canals here is material evidence.

THE COURT: I understand you then to state that you intent to show by evidence later that the lands referred to in this question are similar in character and condition?

MR. A. C. HATCH: To some of the same lands under the canals of the parties litigant here.

THE COURT: Very well, with that assurance the objection is overruled.

MR. RAY: Note an exception.

MR. MCDONALD: If the court please, I desire to interpose a further objection to the testimony upon the ground that the witness has testified so far the quantity of water distributed there has been no duty shown, as I understand it to this time.

THE COURT: The duty would be shown if evidence is introduced later to the effect that the quantity of water distributed was sufficient to mature crops upon that land. Of course that would establish the duty of the water, without

that it does not ~~mean~~ mean anything, of course.

MR. MCDONALD: So far it doesn't mean anything relative to the duty of water.

THE COURT: Necessarily so far the evidence does not tend to establish the duty of water at all, but it is one element which with the other elements shown would establish the duty of water. Now, you may answer the question.

A A second foot for seventy acres.

THE COURT: I had lost the first part of it, I don't know just what it refers to, below the Jordan River prior to July first.

THE WITNESS: Beyond the Jordan River.

Q And after July first, is there any water distributed to those lands from the Provo Reservoir Company canal?

A No.

Q Why?

A There is no water available.

MR. THOMAS: That is as to distribution beyond the Jordan?

A Yes.

Q All the water you had in your canal then after July 1st in 1915 was distributed to users in Utah county?

A Yes, instead of July 1st, it was June 27th, I think, that our distribution stopped in the other county. July 1st is the relative time, as being about the time of the high water, end of the highwater period.

Q The actual date was July 27th?

A June 27th.

Q Now, I will ask you if you observed the crops grown upon the lands irrigated from your canal during 1914 and 1915?

A Yes.

Q What kind of crops were they?

A Alfalfa, grain, wheat, ~~xxxxx~~ grapes, berries, garden truck.

Q Any beets or potatoes?

A Yes, potatoes, vegetables.

Q Now, what was the conditions of the crops as to producing abundantly or otherwise?

MR. RAY: I object to that as calling for a conclusion of the witness as to a matter that he is not yet qualified, how they produce, irrelevant and immaterial, his opinion about it.

THE COURT: Objection is overruled.

MR. RAY: Exception.

A The crops in general were thrifty and produced normally.

THE COURT: Let me ask, Judge Hatch, you are asking with relation to the crops upon this system in Utah county?

MR. A. C. HATCH: Yes.

THE COURT: And not in Salt Lake?

MR. A. C. HATCH: In Utah County.

Q How were they in 1914?

A That is what I answered.

Q In 1915?

A 1915 the crops in the latter part of the season -- well, during May suffered a little from lack of water.

Q What do you know as to 1915 being a year of scarcity of water or otherwise?

A It was very scarce water supply during 1915.

Q Can you say whether or not it was the lowest water season or otherwise that you have known .

A It was.

Q Was the lowest?

A Yes, it was the lowest that I have known.

Q In the Provo River system? A. Yes.

Q Have you ever had any occasion to study the soils or examine the soils, soils of the lands irrigated under the provo

Reservoir Company's Canals? and compare them in any way with the soils generally under the other canals using water from the Provo River system in Utah county? A. Yes.

Q Now, what is the general --

A The soils are generally similar.

Q Is the soil under the Provo Reservoir canal similar to the soil under the several other canals using water from the Provo River system?

A Yes, on the Provo Bench vicinity.

Q On the Provo Bench? A. Yes.

Q Does your Exhibit 45 show the relative position of the other canals taking water from the Provo River in Utah county.

A It does.

Q All of them or only part of them?

A I think all of the largest canals.

Q Name them, will you, and point them out on the map?

MR. BAY: Are they marked on the map.

MR. A. C. HATCH: He says they are.

A North Eden Canal is shown here marked "North Eden canal". The Buttermilk Ditch shown on the edge of the bench west, the western canal.

Q What ditch is that, Buttermilk Ditch? Does it have any other name?

A It is a branch of the West Union Canal, I think.

Q The West Union?

A Yes, I don't know any other name for it.

Q Where is the Provo Bench Canal Company canal?

A That is the name given to the first part of the North Union Canal until it gets out on the bench and it divides there, and the north section is termed the North Union Canal and south section the Provo Bench lateral system. Provo Bench canal is not listed, that is it is not named on the map here.

Q Will you mark it so that it can be discovered by one examining the map? How did you mark it?

- 32300 -D 107
- A I have marked it Provo Bench Canal. The Lake Bottom Canal is shown below or south from the West Union Canal and is marked on the map. The canals on the east are in order from the north, the Timpanogas Canal, the Upper East Union and the East Union.
- Q Speak a little louder.
- A Those are all the canals leading from Provo River that are marked on the map.
- Q Aren't there any that lead out on the east side marked?
- A These are the ones that I last named, the Timpanogas, Upper East Union and East Union.
- Q Now, are there any lands irrigated by the Provo Reservoir Canal that lie below the Provo Bench Canal?
- A Yes.
- Q Or North Union Canal? A. Yes.
- Q Do you know the quantity in acres?
- A Approximately thirteen hundred.
- Q Now, at how many points does the water from the Provo Bench Canal Company's system cross the North Union Canal?
- A You say the Provo Reservoir or Provo Bench?
- Q The Provo Reservoir?
- A It crosses it at four main points.
- Q And at how many places does it cross the Provo Bench canal, if at all?
- A In speaking of the Provo Bench and North Union, I am using one term. I refer to four points cross both of them.
- Q Is there any land irrigated from plaintiff's system lying below the lower canal, the one indicated as Provo Bench Canal on the map? A. Yes.
- Q About how many acres below the Provo Bench Canal?
- A Yes, the one marked Provo Bench Canal on Exhibit 45.

MR. COLEMAN: He has answered that 1300 acres.

MR. A. C. HATCH: He answered he was speaking of both ditches.

A I don't know just what the acreage is.

Q But there is some, is there, below the lower of those two canals?

A Below some of the branches, the Provo Bench canal branches into several laterals, and some of its laterals are crossed by --

Q Laterals of the plaintiff? A. Yes.

Q Now, are you acquainted with the reservoirs of plaintiff at the head waters of the Provo River? A. Yes.

Q Have you a plat showing the location, relative position of the several reservoirs? A. Yes.

MR. A. C. HATCH: If the court please, we now offer in evidence plaintiff's exhibits number 44 and 45.

THE COURT: Same may be received.

Q I now show you plaintiff's Exhibit 46, and ask you, that is a plat showing the plaintiff's reservoirs at the head of the river?

A Yes, it is.

Q I will ask if you made the original of that blue print?

A No, I did not.

Q Have you checked it up? A. Yes.

Q So as to determine whether or not it is correct?

A Yes, I have checked the majority of it.

Q You may point out to the court the different reservoirs of the plaintiff, or in which the plaintiff has an interest -- by the way, does that give the section and township and range?

A At the time this map was made the country here was not surveyed, and it is not surveyed yet except some ^{country monuments} boundary lines are set on the dividing ridges and ties are made into that.

Q And all of them are shown on the plat itself?

A No, none of those monuments are shown on this plat. I have a map.

Q Just point out and mark the several reservoirs?

A The approximate location --

MR. RAY: Just a minute. I would like to ask the witness a question or two, if this map is correct we don't want to object to it at all, I assume it is. Mr. Jacob, is the face of that map copied from some other map, or is it an original survey by the maker of the map?

A It is an original survey with the exception of these contour lines. Some of the ~~xxx~~ contours were traced in from the Government sheet.

MR. RAY: Taken from the government sheet?

A Yes.

MR RAY: It is drawn to a uniform scale?

A Yes.

MR. RAY: Have you checked to see whether or not the contours, general base of the map conforms to the government base?

A Yes, I have checked the contours immediately around the lake in some cases, but not in general.

MR. RAY: Well, if we find it is incorrect --

A I have examined the government sheet in a number of instances with reference to individual locations.

MR. RAY: And you know the relative relation of the lakes from actual observation.

A Yes, the lakes have been tied from well defined monuments on the boundary ridges and have been checked on this map. There is a corner which has been located approximately at this point. This is given as the location of -- approximate location of the corner when this country is subdivided.

MR. RAY: Is that marked on the map?

A Yes, it is marked probable location for township corner when surveyed. It is the corner between Township 1 South and 2 South, Range 8 East and 9, of the Salt Lake Base and Meridian.

Q Proceed to point out the several reservoirs?

A The reservoir here is Washington Lake reservoir; that is Wall Lake reservoir.

Q Mr. Jacobs, as you go, do you know the present storage capacity of the several reservoirs?

A I don't remember off hand, the storage of the different reservoirs.

Q Have you the data from which you can give it?

A Yes.

MR. RAY: Original data?

A Yes, I have the data of the actual amount of water that was delivered from these reservoirs during the past two seasons.

Q You may get that later. Proceed, Mr. Jacobs, as you were doing.

A This is trial lake?

Q Are they marked on the map?

A Yes, they are all marked. Washington, Wall Lake and Trial Lake, these are the three main reservoirs. Then there are numerous secondary or small reservoirs in connection with these. The Lost Lake reservoir here and North Fork lakes Number 1, 2, 3, 4, 5, and 6 occupy this tract. The Haystack Lakes numbers 1, 2 and 3 shown here.

Q Has there been any work done on those lakes?

A Yes.

Q Towards creating reservoirs for the storage of water?

A Yes.

Q On all of them?

A On all that I have designated.

Q Very well, give us that information as to all of which you refer?

A As to the ones?

Q Yes, those that are now reservoirs of any quantity of water artificially created reservoirs?

A Washington Lake, Trial Lake, Wall Lake, Lost Lake, the North Fork Lakes 1, 2, 3, 4, and 5.

Q The Haystack lakes?

A The Haystack lakes number 1, 2 and 3. I think those are all

that there has been work done on them. I mentioned Lost Lake?

Q How long would it take you to get the data, your books with reference to the data as to the capacity of those several lakes and also as to the lands irrigated?

A The lands irrigated?

Q Yes, lands irrigated under your system?

A You mean the present capacity of those lakes?

Q The present capacity and capacity last year and year before?

A I could get that in an hour, probably two hours.

Q Have you any lands irrigated from your system lying under the West Union Canal?

A I don't think so, I am not positive.

MR. A. C. HATCH : That is all. I wish to examine this witness further upon the two points later.

THE COURT: Capacity of these reservoirs?

MR. A. C. HATCH: Capacity of the reservoirs and also as to the land irrigated under their system in different years.

THE COURT: You may cross examine.

MR. WILLIS: I desire, your honor please, not to cross at this time. Others may bring out such matters as I wish to ask about.

THE COURT: Judge Thurman, have you some matters, any of the counsel?

MR. THURMAN: We will reserve our right to cross examine after the witness is through.

MR. A. C. HATCH: There is another question suggested to me that this witness may know something in regard to.

Q Do you know what is termed the Pony Steele Springs?

A Yes sir.

Q Have you ever measured the quantity of water flowing from them?

A No.

MR. RAY: I prefer to defer my cross examination

until they conclude with the witness.

MR. STORY: I will desire to cross examine with reference to the Blue Cliff Canal Company, but before doing so I would like to have the stenographer read the testimony during the recess. I have arranged with counsel to defer cross examination.

MR. McDONALD: I will ask one or two questions.

CROSS EXAMINATION by Mr. McDonald.

Q Mr. Jacobs, what you refer to as reservoirs are natural lakes, are they not?

A Some of them are.

Q Aren't all of them?

A Well, it depends on what you ~~as~~ class as a lake.

Q You class it.

A Some of them are. I would say a lake is a body of water.

Q Aren't all these you have designated as reservoirs something with some water in?

A No, there are some meadows without having any standing water.

Q Whatever water there was at any time in those lakes or reservoirs prior to any work done by the plaintiff corporation found its way into the provo River, did it not?

A No, I think not.

Q Is there any of those that contain, or did contain any water where the water did not find its way into the provo River?

A Yes, all the three largest lakes, and in fact, I think most of the others that were closed lakes. The water had no outlet channel and after the heavy run-off in the spring it would simply stay there ponding. Of course there would probably be a slight seepage.

Q And that seepage would find its way into the river, would it not?

A Well yes, it might and might not.

Q And how about the slope of the country from the lake to the

river?

A It might be water would follow probably the bedding plains of the rock strata there, and those plains might slope away from the river instead of towards it.

Q What is the general slope on the surface.

A Well, the topography of the country is towards the river, but the underground water would not necessarily follow the surface topography.

Q If, when the snows were melting there was sufficient quantity run in to overflow any or all of those lakes the water from them, the overflow water would find its way into the Provo River, would it not? A. Yes.

Q From all of them? A. Yes.

Q And some of the lakes empty into some of the other lakes, do they not? A. Yes.

Q You say that some of the lakes empty into others?

A Yes.

Q And they did so as lakes, did they not?

A Yes, I suppose so.

Q Now, any work then that the Provo Reservoir has done would be to fill in with earth or a log or something across the mouth of some of those lakes so as to stop the flow of water from running into some other lake, is that right?

A During the high water period, yes.

Q Well, at any period when there was water there to run that is right, isn't it? A. Yes.

RE- DIRECT EXAMINATION BY MR. A. C. Hatch.

Q You say that some of the lakes would empty into others of the lakes, what did you mean by that?

A I meant that during the spring run-off when the lakes were full and overflowing that the natural drainage would be into another lake.

Q But the lakes never were in fact emptied of all the water they

contained? A. No.

T. F. WENTZ, called by the plaintiff, being duly sworn, testifies as follows:

DIRECT EXAMINATION by Mr. Jacob Evans.

- Q Where do you live?
- A Provo.
- Q What is your business?
- A Civil engineer.
- Q How long have you been engaged as civil engineer?
- A I have been practically since 1900.
- Q Are you the water commissioner of this court?
- A Yes sir.
- Q When were you first appointed?
- A On this case or the other cases?
- Q Just tell the court what experience you have had with Provo River?
- A This is my fourth year on the Provo. I have been appointed in July, 1913, by Judge Morgan under the Chidester and Morse decrees. In 1914 I served under the lower division. Mr. Deming was the general commissioner and I was appointed over the whole river in 1915, spring of 1915, and served last year, and serving at the present time. Stipulation is still in court.
- Q You were unanimously elected as the commissioner this year?
- A Yes sir.
- Q Have you any interest in the water of Provo River?
- A Yes, I use some of the waters of Provo River.
- Q Whereabouts do you use it?
- A On Provo Bench.

Q Just state to the court what interest you have in the water of Provo River?

A I own nine shares of the capital stock of the Provo Bench Canal and Irrigation Company and own twenty acres of land under that company's system.

Q Do you have any other interest aside from that?

A No sir.

Q I show you, Mr. Wentz, a package here, ask you to state what that package consists of?

A That is the 1915 report, report of the river commissioner's work for the season of 1915.

MR. JACOB EVANS: I will have these marked.

THE COURT: Those are the files, are they?

MR. JACOB EVANS: They are the files.

THE COURT: The court doesn't have the court records marked. You can identify.

Q I will ask you to state whether or not the papers I have in my hand here beginning at part 1 and continuing to part 19, constitute the report of yourself for the year of 1915?

A Yes sir, myself, and one part No. 9, is the report of Mr. Pratt, he was the assistant on the upper division from May 17th until September 15th.

Q THE COURT: Is Mr. Pratt where he could be procured if the parties desire to cross examine him?

A Yes, he is in Salt Lake, I can get him by the 'phone.

MR. JACOB EVANS: I will state to the court in the box containing the papers which I have just taken out is filed, but the papers contained in the box none of them are marked filed, just the box containing these 19 different parts of these reports.

Q THE COURT: Are they so described upon the schedule upon the box that they may be identified?

MR. JACOB EVANS: Yes, the schedule on the box described them and sets forth what they are.

THE COURT: I think that is sufficient identification then.

Q Mr. Wentz, I show you a book here which is marked --

MR. A. C. HATCH: If the court please, the papers themselves have nothing except the number. They have nothing except typewriting connected with them by which they can be identified. There is one has a signature on.

THE COURT: In order that they may be identified, Mr. Clerk, you may number these papers respectively and consecutively and file them, mark each one filed so that they may be so identified they can be referred to from time to time.

MR. COREFMAN: If the court please, I don't understand those are original files at all of the court. nothing to indicate they are. The box on which the filing marks are place, I understand that the commissioner has filed here in court from time to time his reports and they have been marked as filed in the court, and we object and call for the originals that they be introduced.

THE COURT: Of course, I supposed, Mr. Corfman, from the statement made by Mr. Wentz these were the original reports.

A This is the report, this is the original.

THE COURT: Original report for 1915?

A Yes sir.

MR. COREFMAN: Filed in the office of the clerk?

A Yes, filed in November.

Q MR. COREFMAN: Weren't the original files stamped, Mr. Wentz, by the clerk from time to time, place stamp upon them and file them?

A I don't know what the clerk did with them, I filed them just as I find them now.

THE COURT: Mr. Wentz, have you examined these papers that were exhibited to you so you know these are the

ones. You may look at them and see if they are the ones you delivered to the clerk for filing, and if they are the clerk may put the filing mark on them.

MR. CORFMAN: I submit, your honor, there is no filing mark on the box.

THE COURT: Have you examined those and are they the original ones?

A They are the originals.

THE COURT: That were enclosed in the books?

A I filed those on the 11th day of November, 1915, except part 19, and I filed that the first of December, near the first of December.

THE COURT: Mr. Clerk, you may endorse those as filed on that day if that was the date they were received.

Q The souvenir book I have here, is that part of this report you speak of?

A Yes, that is one part.

THE COURT: Was delivered to the clerk at that time as part of the report?

A Yes, sir.

THE COURT: Mr. Clerk, you may do that during the noon, need not do it now, and sometime during the day you may introduce them as filed at the time shown on the register of action when this package was delivered to you.

MR. COLLEMAN: Your honor please, part 19 was not filed at the time the original package was delivered.

THE COURT: I understand so, it was filed a later date.

Q I show you what is marked part No. 1 of this report, and ask you to state what that is?

A Part No. 1 consists of a letter of transmittal to the court and list of the contents of the report, from part 1 to 19.

Q I show you now part No. 2 and ask you to state what that contains?

A Part No. 2, commissioner's report 1915, contains the correspondence relative to the determination of water requirements, soils, etc.

Q Will you just state what those correspondence were?

A First letter the letter to Mr. A. B _____, that is the county agent in this county horticultural agent from the Agricultural College of April 13, Commissioner to the Bureau of Soils of April 16 and the Commissioner to Senator Reed Smoot; letter asking him to transmit the letter to the Bureau of soils. Letter of May 8th, to A. V. _____ to the commissioner Bureau of Soils to the Commissioner on May 12th, Commissioner to A. V. _____ May 17th, Commissioner to the Utah Valley litigants May 26th. That was a general circular letter to them. The answer of the West Union Canal Company to the letter of May 26th, Provo Reservoir Company's answer to the letter of May 26th, Timpanogas Irrigation Company's answer to the letter of May 26th. Commissioner's note of June 8th, some memorandum and Commissioner's note of November 9th.

Q Mr. Wentz, if there is anything in that report which you deem of importance which will throw any light upon this case, you may read such part of that paper?

MR. RAY: I object to that as irrelevant and immaterial in passing up to the witness his judgment what is material testimony. If the court will examine --

THE COURT: I think counsel may examine these several reports, and if there ^{is} anything counsel deems important they ~~my~~ may offer it to the court later, and the court will examine it. I think that will be better. The Commissioner, Mr. Wentz, is an officer of the court, and of course he will hold himself in readiness to give any information either of the counsel may ask him.

MR. RAY: Yes, I have personally examined that report is why I object to the form of the question.

Q You may state Mr. Wentz, what, if anything you did to get the cooperation of any of the parties to join with you in determining the questions involved in this litigation?

MR. RAY: Your honorplease, I object to that as irrelevant and immaterial what he did to get other people to cooperate with him to help determine this litigation. That was not his function as Commissioner. It was to distribute this water and his powers were specifically limited.

MR. THOMAS: And set forth in the stipulation.

MR. COREMAN: According to the decrees heretofore made.

Q I will call your attention to Part No. 3, ask you to state what that consists of?

A Part- No. 3 consists of the correspondence relative to the areas irrigated in the Utah Valley.

Q What does part number 4 consist of, Mr. Wentz?

A Part No. 4 is the correspondence relative to the appointment of an assistant commissioner.

Q I call your attention to Part number 5, ask you what that consists of?

A Part number 5 is miscellaneous correspondence.

MR. RAY: May I ask there if these contain both letters and answers to letters?

A Yes, the correspondence includes everything that came to the office and from the office, every letter that I sent out ~~or~~ and every letter I received are included in this correspondence.

Q Part number 6, ask you to state what that is?

A Correspondence relative to the distribution and water shortage.

Q Call your attention to number 7, ask you to state what that is?

A Number 7 is a detailed report of the 1915 Provo River and

Commissioner notes.

MR. RAY: 1915?

A 1915 Provo River and Commissioners notes.

Q I think I will just conclude with this while I am at that and have them all identified. Call your attention to Part number 8, ask you what that consists of?

A Part number 8 is the distribution of the 1915 Provo River, Commissioners explanations and notes.

Q What is part number 9?

A Part number 9 is report of Mr. Pratt, the assistant commissioner who had charge of the upper stretch of the Provo.

Q What is that?

A Part number 10 is a hydrograph of Provo River, showing in colors 1915.

Q You may state what Part number 11 is?

A Part number 11 is a list of diversions and discharge of the several diversions on the Provo River by the observations made during the year and also the observations on the wells in the Provo Valley.

Q What is part number 12?

A Part number 12 is the compiled set of the chronological data for the Utah section covering one year from October, 1914, to October, 1915.

Q And 13?

A Number 13 are newspaper clippings showing the drought table water shortage in three states and water shortage generally over the state.

Q Number 14?

A Number 14 is a daily sheet of myself. This is the details of all the work done each day through the season. The second section of 14 is the daily sheet of Mr. Pratt for the season.

Q Who was Mr. Pratt?

A Mr. Pratt was the assistant commissioner in charge of the

upper division of the river.

Q Number 15?

A Number 15 is the observation at the reservoirs. This is a copy of the notes taken by Hardy Clegg and Dean Clyde, observers. These two men stayed at the reservoirs.

Q Under whose direction was Mr. Pratt and Mr. Clyde working?

A Mr. Pratt was working under my direction and Mr. Clyde and Mr. Clegg were working under Mr. Pratt's direction.

Q Then were all then commissioners of the court? That is, they were doing work under your direction?

A Yes.

Q And you were appointed by the court and authorized to employ these persons to assist you?

A I employed Mr. Pratt but Mr. Clyde and Mr. Clegg were employed by the Union Reservoir Company, were paid by them and they were working under the direction of Mr. Pratt. They were doing the work without any expense to the people that were not interested in the reservoirs.

MR. RAY: You mean the Union or Provo Reservoir?

A The Union.

Q That is part number --

A 15.

Q What constitutes part number 16, if you know?

A 16 is one hundred fifty-two photographs, post card size and two enlarged size of diversion work, reservoirs and miscellaneous things pertaining to the Provo River.

Q What does number 16 consist of?

MR. RAY: Taken by whom, the Photographs?

A I have taken part of them and Mr. Pratt the other part.

Q You may state what part number 17 consists of?

A Part number 17 is a list of the photographs with a very short description and date of each photograph.

Q Now, number 18?

A Number 18 is the correspondence and recommendation to the court

from the commissioner regarding the Provo River gauging station in the canyon.

Q Now, do the parts which you have identified contain all of the reports that were made by you and your assistant during the year 1915?

A There is one other part, number 19.

Q Part number 19, what does that consist of?

A Part number 19 is the statement of the inflow of the Factory race and details of the discharge found at each station and method of making this determination.

Q I show you a package here, Mr. Wentz, and ask you to state what that is?

A This package contains the report of myself to the court for the year 1914, consisting of typewritten reports and eight enclosures.

Q Does that package show it has been filed with the clerk, have any filing marks on it?

A Yes, in the District Court of Utah, filed February 25, 1915, signed by E. D. Palfreyman, Clerk.

Q Does it have a statement on the outside of the various things that it contains?

A Yes, it has a statement of the enclosures consisting of --

Q state what they are?

A Typewritten report pages 1 to 86, monthly discharge of the Provo River, stage duration of Provo River, tabulation of mean river, Utah Lake fluctuation, Great Salt Lake fluctuation, mean Provo River, graphic standard six foot width weir, standard three foot weir.

Q The report of 1914 and 1915 -- in the reports of '14 and '15 which you have identified are the only reports which have been made, I take it, by the commissioner since the commencement of this suit.

A Those are the only reports I have made. Mr. Deming made a xp report.

Q Is Mr. Deming's report contained in your 1914 report?

A No, Mr. Deming's report was separate.

Q Do you know where Mr. Deming's report is?

THE CLERK: We are unable to locate Mr. Deming's report.

MR. RAY: Mr. Wentz, Mr. Deming, I suppose has a copy of it?

MRL COLEMAN: I have a copy.

MR. RAY: We will stipulate it may be substituted if necessary.

MR. JACOB EVANS: I would like to inquire how this report will be considered, whether they will be considered by the court, the court having access to them, or whether or not they should be offered in evidence?

MR. RAY: We insist, your honor they are not in evidence.

THE COURT: I don't think the court -- the reports are not in evidence, but I think they are part of the files and that any part or all of them may be introduced in evidence that the parties think are material or competent.

MR. RAY: Yes, but we insist they can only be qualified in evidence by being admitted in evidence.

THE COURT: That is true.

Q Mr. Wentz, I will ask you if you personally have attended to the distribution of the water to the plaintiff and the various defendants in Utah Valley during the year 1915?

A Yes sir, except a small portion up to July 28th, the East River Bottom Water Company, I engaged Mr. Shipman to look after those and he was there until the 10th day of September, going over the system each day, making those changes and delivering the same amount of water daily. His gauging or his changes are included in the report. The distribution to the main canal and all except that, I attended to that myself personally.

Q With the exception of the matter that you have just stated, did you yourself attend to the distribution of the waters to all the other parties?

A Yes, to all of them.

Q Can you state during the year 1915 what quantity of water you distributed to the plaintiff Provo Reservoir Company?

A Yes sir.

Q I wish you would do that, and if it is necessary to refer to your report for so doing, you may refer to it to refresh your recollection. Have you a copy of your report?

A Yes.

Q You may get it and Judge Marse may have the other copy, or this may be used by someone else.

MR. RAY: We object to that procedure, your honor please, the reports, I want to object to the form of the report, it is merely a memorandum to refresh the recollection of this witness to make up the report. We don't object to his refreshing his recollection from the memorandum, but the report is not in evidence yet in this case.

MR. JACOB EVANS: That is all we are asking, that he may refer.

THE COURT: I don't understand what your objection is.

MR. RAY: Treating the report filed as evidence. Object to it being treated as evidence until --

MR. JACOB EVANS: I have not offered it.

THE COURT: I understood Mr. Wentz was asked to refresh his recollection from the memorandum?

MR. RAY: From the copy which we do not object to of course.

Q What section of the report, Mr. Wentz, are you using?

A Part 8 ^{gives} is the distribution for the season and the gauge readings. The amount shown actually in the canal at the different observations are shown in part 11.

Q All right, proceed now.

A Under the stipulation entered into at the beginning of 1915 288.8 second feet were reserved for the defendants in the Utah Valley, and not the canyon rights in the Utah Valley, not including the canyon rights above that amount. The flow was distributed to the plaintiff company except the exceeding high water which lasted about two weeks. The quantity was distributed to all the companies.

Q Why did you reserve 288.8 second feet for distribution among the water users of the Utah Valley?

MR. RAY: Object to that as irrelevant and immaterial why he reserved it.

THE COURT: I will hear from you.

MR. RAY: He distributed this water, your honor please, on a stipulation of the parties; what they are entitled to and what he might think they are entitled to is immaterial.

THE COURT: Certainly but he is not asked what he thought they were entitled to. He is asked why he reserved that 288.8 feet, and the court wants to know the reason, whether it was from the stipulation or from some other cause. If it was for some other reason the court would like to know it.

MR. THOMAS: May I cross examine just a moment right here?

MR. JACOB EVANS: Yes.

MR. THOMAS: State why you made that reservation, and under what authority you made it.

THE COURT: That is the question Mr. Evans asked, he may answer that question and then you may cross examine.

A Under the stipulation entered into at the beginning of the season 288.8 second feet was reserved to the different rights in the Utah Valley.

Q You may proceed and state what quantity of water you distributed

to the plaintiff during the year 1915?

A When the river had receded to the 288.4 then we did not distribute to the plaintiff any of the natural flow except as that specified in the stipulation; that was the Blue Cliff title and two second feet from the Wright estate at the head of the canyon and two and a half second feet from the --

Q Reservoirs?

A From John D. Dixon.

MR. WILLIS: What amount did you distribute under the Blue Cliff?

A 1.15 second feet.

MR. COLEMAN: Continuous flow,

A Continuous flow.

Q That was under the stipulation which was agreed to by all the parties? A. Yes.

Q And that was when the river was at the stage of 288 second feet?

A Yes, I made that distribution when the river was at 288.4 and below.

Q What did you distribute to the plaintiff when the water was above 288 second feet?

A Excepting one distribution, the first call for distribution, I think, after the high water was on June 23, 1915. Distributed to the plaintiff at that time 70 second feet.

Q What did you distribute to the balance of the defendants?

A I distributed to the balance of the defendants an average 50 acre gross duty to the upper principal ones and 40 acres gross duty to some of the smaller diversions, and I held in reserve for the draught in the river 6.78 second feet for possible draught for the next morning. This was the distribution made for the morning of June 24th. This was made, this was outlined in the evening and made for the early morning adjustment.

Q What was the stage of the river at that time if you know, was it high water or low water?

A No, we were going down, going down from high water to our low water.

Q When did you make another distribution after that?

A July 1st, was the next distribution that I have included here. We kept those distributions for distributing every day for that matter, but when we change from one duty to another I have included that.

Q You continued on the duty you have just read before until what date?

A I continued from 50 to 60 acre duty until July 1st, one week there.

Q To whom did you distribute water on the 50 acre duty?

A The Timpanogas, West Union, Provo Bench, Upper East Union, Provo City acreage, Little Dry Creek. That is all under the 50 acre duty.

12 Noon, Recess to 2:00 P. M.

T. F. WENTZ - - - -

DIRECT EXAMINATION by MR. JACOB EVANS continued.

Q Mr. Wentz, you said you took as the basis of your distribution for the year 1915 288 and a fraction second feet of water, was that correct?

A 288.4 to the different companies in the Utah Valley. The stipulation called for 17,960 minute feet or 299.33 second feet.

Q Where then did the balance --

A Measuring at the watering gates of the parties using water in Utah County under former decrees of this court. That included the Morse decree and Chidester decree. The Chidester decree included some rights in the Provo Canyon above the mouth of the Provo Canyon.

Q What were they?

A Some rights in the south fork of the Provo Canyon, of which John D. Dixon purchased the J. H. Snyder right, 40 minute feet The J. J. Mecham right of 20 minute feet, J. W. Hoover 100 minute feet and Hyrum Heiselt 8 minute feet. This amount was stipulated as to be turned to John D. Dixon in the Utah Valley here, as $2\frac{1}{2}$ second feet. And there remained in those rights above the Canyon the Hyrum Heiselt one minute feet, Spring Dell Resort Company 60 minute feet, George Duke 30 minute feet, J. J. Mecham 40 minute feet, C. S. Conrad 74, J. R. Hooks, 30, J. W. Hoover 14, South Fork Cattle Company 22, George Taylor 16 minute feet, Wright Estate 120 minute feet, and the Blue Cliff 69 minute feet. Of this amount John D. Dixon was entitled to $2\frac{1}{2}$ second feet, Hyrum Heiselt and the others in the canyon were entitled to 5.28 second feet. The Provo Reservoir Blue Cliff title was 1.15 minute feet, and by the stipulation the Provo Reservoir Company was allowed 2 second feet of water from the Wright ranch title, making a total of 10.93 second feet or rights above the mouth of the canyon, and rights to be diverted through the Provo Reservoir Company leaving the amount 288.4 second feet to be reserved for the defendant in the Utah Valley.

Q That made a total then of 299.33 second feet?

A Yes.

Q Now why did you take that as a basis for the distribution?

A The stipulation ordered that.

Q Did you make an order ^{or} about May 4th for the division of this water among the various parties?

A Yes, I made a memorandum of ^{an} the outline of the 288.4 feet would be divided among the different parties when the river was at that stage and when the river was above that stage.

Q You may state how you divided this?

MR. RAY: At what page of your report?

A It is on page 5 of part 8.

MR. RAY: Beginning with Provo City municipal right?

A Yes.

MR. RAY: Provo Bench will stipulate what part of the report may be copied into the record as part of the report at this time to save reading.

THE COURT Is that satisfactory?

MR. JACOB EVANS: That - is agreeable to us. Of course, I would like to know what this said distribution was. The court will ultimately have to decide this case, the question is whether it ought to be read now or hereafter.

THE COURT: It can be read now just as well as any other time. Mr. Wentz might read it now so as to have the benefit of it.

MR. JACOB EVANS: I think so.

A The proposed distribution as I made on May 5, 1915 to be used, distributing 238.4 second feet is as follows:

Canyon rights 5.28 second feet.

The Provo Reservoir Company 5.65 second feet.

This includes the Wright water, the Dixon water and the Blue Cliff title. To Provo City as a municipal right, that is for the lots and water works 24 second feet. The Factory Race --

Q That water is in the pipe line of Provo City, is it not, water works?

A Part of it is in the pipe line and part of it there is a lot irrigation in the town in the blocks.

Q All right.

A Factory Race 19.3 second feet. The Lake Bottom --

Q What is the Factory Race?

A The Factory Race is one of the branches of the City Creek that runs down through the center of Provo City on which are some mill interests, power rights, use this water for power purposes.

Q Proceed then?

A The Lake Bottom Canal Company 12.75 second feet, on an area of

1275 acres.

Q Right there, where did you get ^{that} acreage, Mr. Wentz?

A I got the acreage as submitted in the 1914 report from the letter of Mr. Scott Stewart that made a survey of this area in the Utah Valley under the Provo River.

Q Do you know then whether or not that acreage 1275 is correct?

A No, I don't.

Q All right, proceed with the next?

A The Fort field for 574 acres an 80 acre duty equalling 17.18 second feet. Partial total to this point 73.93 second feet.

Q In regard to the acreage in the Fort Field, do you know anything about whether that is correct?

A No, I don't. All of the acreage, the areas that I use here are subkitted in this same letter of Mr. Stewart's and enclosed with the report and submitted by Provo City. Provo City, the area they gave me is a little larger than the one Mr. Stewart gave me, and I used the Provo City area.

Q Did the various users of the water know the number of acres they were being distributed water for?

A Yes.

Q Did they usually agree that was the number of acres?

A I wrote them a circular letter at the beginning of the year stating that unless other areas were submitted to me by June 10th -- I think was the date -- that I would use the same areas in the distribution that I have had included in the 1914 report. If they had any objection to this why -- or had any additions or corrections to make to them why I would be glad to have them.

Q As I understand it then, these acres that you are now reading were used as a basis for distribution for 1914?

A For 1915.

Q 1914 and '15?

A No, there was no area distribution in 1914.

Q I see, all right, go ahead,

A The distribution of areas was made only last year.

Q Proceed then?

A The Timpanogas Canal Company 847 acres on a 52.28 acre duty, 16.2 second feet. The Provo Bench 4333 acres on a 52.28 acre duty, equal to 82.87 second feet. The West Union Canal and others -- that includes Smith Ditch and Carter Ditch that divert their waters through the West Union Canal an area of 1900 acres, 52.28 acre duty equal to 36.34 second feet.

Q You speak of the Smith and Carter ditches. They are a part and parcel, are they not, of the West Union Irrigation Company?

A They are not included in the corporation, the West Union Irrigation Company, but divert their water through the West Union Canal, and take it out at various places along that canal. They are not incorporated companies either of them.

Q Now, in the Provo Bench where you speak of 4333 acres that includes also what is known as the North Union?

A Yes, that includes the North Union Company.

Q All right, now, proceed.

A The East River Bottom Water Company, 393 acres on a duty of 52.28 acres per second foot equal 7.52 second feet. Barton & Young Ditch 54 acres on a duty of 52.28 equal to 1.03 second feet. The Parke & Nuttal, 69 acres on a duty of 52.28 acres per second foot equal to 1.32 second feet. The Upper East Union and Faucett Field 871 acres 52.28 acre duty 16.66 second feet. In this case on the Upper East Union and the Faucett Field, the Upper East Union is an incorporated company and the Faucett Field divert their water through the canal, but are not a part of the corporation. The Upper East Union alone 762 acres on a 52.28 acre duty, 14.57 second feet. The Faucett Field 109 acres and 52.28 acre duty equal to 2.09 second feet.

Q The last two that you have read, the Upper East Union and

Faucett Field are included in what you read as the Upper East Union and Faucett Field?

A Yes, I read the two together first and then separated them.

Q Making a total of 871 acres?

A Yes sir.

Q And total distribution of 16.66 second feet?

A Yes.

Q And separated as you have read them?

A Provo City acreage, that is the farm land outside of the blocks, 2454 acres on a 52.28 acre duty 46.94 second feet. The Young Ditch 40 acres on a 52.28 acre duty.78 second feet. The Dixon Ditch 40 acres 52.28 acre duty, equal to .78 second feet. Little Dry Creek 506 acres on a 52.28 acre duty, equal to 9.68 second feet. Spring Creek users 276 acres on a 52.28 acre duty, 5.28 second feet. Making a total of 299.33 second feet.

Q Now, Mr. Wentz, was this distribution made on the basis of the old decrees?

A No sir.

Q The total amount distributed was the same as distributed in the decrees at low water period was it not, that is, at the 300 second feet period?

MR. RAY: Your honor please, I submit that question answers itself, the same water that was distributed under the 300 feet under the old decree.

THE COURT: It lacks two-thirds of a second foot of being 300 second feet.

MR. RAY: If it is 300 feet it is 300 feet.

THE COURT: Just a matter of computation.

Q Now, why do you set off by itself, Mr. Wentz, the Lake Bottoms and Fort Field in one column and put the others all on the same basis?

A On account of the soils. The Lake Bottom is a uniform tract

of good soil, and the Fort Field is the same. They neither use water as early as the other systems or as late, and get along more on a uniform duty than the other systems.

Q So that in making this distribution you were making it based upon your judgment what the duty of water ought to be for these various people irrespective of the decreed water to the various users?

A In this outlined distribution I was making the distribution of the 288.4 second feet and how it would be made during the season.

Q Now, was it made on that basis during the season?

A Excepting some areas were changed. Parke & Nuttal Ditch was increased, area of, to 100 acres and East River Bottoms Water Company was increased to 500 Acres. They submitted no letters in return, but advised me orally they had that much land, and I increased the areas to what they stated, but the distribution excepting the Lake Bottom Canal Company and the Fort Field, among the other companies for the whole season, they were all treated equally, the amount given to each system according to the acreage, the same, excepting the Provo City municipal right, I always figured that as a constant of the 24 second feet.

Q You didn't change that at all? A. No.

Q Then throughout the entire season you kept all of the conditions which you have read with the exceptions of the municipal right, the Factory Race, Lake Bottoms and Fort Field on an equal duty of water?

A Yes, on the same duty.

Q On the same duty for 1915? A. Yes.

Q When did you commence to distribute the water?

A We began in May, we had a low period through May, very low, and began the distribution about the 10th of May.

Q Why did you begin about the 10th of May to distribute the water?

A We were down to low water period, necessary to make a distribution between the several parties.

Q When you speak of low water priod, you speak of the number of cubic feet?

A We went as low as 20⁴ second feet in May. There were three days, I think, we were down to 20⁴, our total.

Q When you were at that duty you distributed the water equally, as you have stated, to those various parties?

A Yes.

Q On this basis.

Q Excepting we kept the 2⁴ second feet for the city.

Q All the time?

A And kept a constant through May of 19.3 for the Factory Race.

Q In measuring this 2⁴ second feet to the city did that take into account any of the water they had in their water works system?

A Yes, that includes the water works system.

Q You measured that?

A No, I have not measured it, I took the reports as I got them from the city officials. In the beginning that was 5 second feet and later 8 second feet.

Q That is, you took their measurement for it? and then deducted the amount they said they had in the water works system from the water distributed to the city?

A Yes, the water distributed to the city is in the 2⁴ second feet.

Q Now, there is a distribution here to the Factory Race of 19.30 second feet. Do you know whether or not that 19.32 second feet was distributed continuously, or whether it was doubled up in the day time and cut off in the night time?

A Except for a very short time in June, during our high water, that was cut off at night, sometimes at five o'clock and and sometimes at six and turned back to the Factory Race at six

the following morning. Cut off on Sundays and also on holidays.

Q Do you know whether or not they used the 19.30 second feet of water that was doubled making it approximately 40 second feet you run through that race?

A The 19.3 second feet is figured as a constant. I used that for calculation. During the day we estimated that equal to 45 second feet, during the 12 hours of the six days or 19.3 second feet is a constant stream equal to that.

Q I understand, but as a fact they had more than 19.30 second feet running in the Factory Race in the day time?

A Yes.

Q Do you know how much they have running in the Factory race in the day time, would they have just double this amount?

A We aim to give them the 45 second feet. Of course sometimes we went above and sometimes a little below, but that is the intended distribution.

Q Where did that 45 second feet come from? The city's portion of the water?

A I did not figure as a city portion, I figured it entirely different from the city.

Q Did you take any water away from any of these other people to make up the 45 second feet?

A During the time of May, I held the -- during the month of May through the low period I held the 45 second feet to the Factory race, excepting I intended to hold it there, but I did not hold it there. It was shut off entirely during the day time some part of May, by the City, but in my distribution for May I intended to hold that constant at 45 second feet to the Factory race, because the need for it -- there was no need for it among the farmers at that season of the year. It was not down to a time of absolute scarcity, and I did not figure that I had any right to butt in on a power right

when we were not down to a time of absolute need.

Q But when you got down to a time of absolute need, then what did you do with the Factory race water, if anything?

A We cut into the Factory Race water enough to make up all the other canals.

Q All right, how much did you ever cut into it at any time?

A Our average through August to the Factory race shows 31 second feet that we delivered as an average to the Factory Race. Sometimes we would butt in a little harder and sometimes not so much.

MR. RAY: That was 31 second feet for six days of twelve hours each?

A Yes, that was 31 second feet during the day time.

Q How did the year 1915 compare with other years with respect to the quantity of water flowing in Provo River?

A Very low, very low.

Q Have you ever known the water to be as low in any other year as it was during the year 1915?

+ A During our record from 1889, we have never had a period in the early part of the season that it has been as low. We went down to 204 second feet in May last, year and our minimum before in the twenty-six years was 341, and that was only down for one day in the twenty-six years.

MR. RAY: That is for the month of May?

A That is for the month of May. Our six months total of our run for 1915 was 102,000 acre feet short of the mean river.

MR. RAY: What was it at the minimum?

A Our greatest deficiency occurred in the period of high water. We were low in our high water only having about two weeks of high water. Through August our mean, our 1915 river held up very well to the mean river.

Q What do you attribute that to, Mr. Wentz?

A I attribute it to using the bulk of the high water on the upper lands during the early spring time, trying to restore

our storage water in the ground and in the Heber Valley to normal.

Q When did your high water occur in 1915, you may put that on the board if you like?

A Do you wish the original, this is my copy.

Q All right, we have the original here, you may use that.

A On the 1st day of June until the 12th day of June --

Q Now what does the white line on the map represent?

A The white line and shaded white is the mean Provo River computed years 1905 to 1914, inclusive and counting 40 second feet inflow between the station of observation at Vivian Park and the several points of measurement in Utah Valley.

Q Why do you count that 40 second feet in flow?

A That was established during the year 1914, on the rating table in at that time, and, order to keep the same comparison with the other years, we are still using the 40 second feet inflow. However, that inflow is changed, as shown by the shaded areas on the map and marked "increase inflow" that approached or went as high in 1915 as 74 second feet of inflow between the station and several points of measurement of the canal in Utah Valley.

MR. JACOB EVANS: You may mark the original of this. isn't it

THE COURT: This part has been numbered as one of the parts?

MR. RAY: It is part 10.

THE COURT: You may conduct the examination of this witness as though part 10 was on the blackboard.

Q You may state what the ^{white} line on part 10 of your report represents?

A The white line represents the mean river 1905 to 1914 inclusive.

Q And the yellow line, what does that represent?

A The red line shaded underneath with yellow is the 1915 Provo River figured on the same inflow of 40 second feet.

- Q that shows the mean flow of the river? the yellow line?
- A I will explain how this was made, and I believe you will get a better idea.
- Q All right,
- A For the first day of April the discharge for the first day of April for each of the ten years were added together and divided by 10 to get the mean. The 40 second feet was added inflow. That give the first point. For the second day of April, and so on down until the last day of September. Each day was taken and ten years added together and average taken and the 40 second feet added to get this mean. That gives the mean on the white line, mean Provo River for those ten years. The red line underscored with yellow is the observed, the discharge of last year, taken for each day, the amount at the station of observation in the canyon with 40 second feet added and placed on the hydrograph.
- Q When usually, Mr. Wentz, during the ordinary season does the water get down to 300 second feet in the provo River at the mouth of Provo Canyon.
- A July 16th.
- Q What is the average height or the greatest flow flowing in the river, and when does that occur.
- A The maximum point of the mean is the 7th day of June, and is 1550 feet.
- Q Second feet?
- A Second feet.
- Q You may state, Mr. Wentz, if you know whether or not during the high water period of Provo River in average years there is large quantities of water running to waste in the Utah Lake?
- A Yes, there are large quantities going to the Utah Lake.
- Q And is that so during all the years, that is all the average years?

Q Do you know whether or not that was so during the low year of 1915?

A Yes, we had water going to the lake until the 14th day of June, from the beginning of our raise near the 31st day of May, until the evening of the 14th day of June, we had water going to the lake.

Q Do you know about what quantity was going into the lake?

A June 7th, 119.32 second feet, that is by actual measurement. June 2nd, 100 second feet. June 5th, 100 second feet, and after that time just very small amount on three other dates of a half a second foot.

Q When the water of the river begins to recede from high water to low water; just tell the court whether it does it gradually or whether it does it very rapidly, what is the usual?

A Usually it will drop down to five or six hundred second feet and it may drop three hundred second feet in a night. Sometimes it will drop more gradually, but after it gets to about 500 second feet we can expect it to go to its stationary point within a very few days. We go more on the color of the river, at least I go more on the color of the river of what it is going to do than anything else, by the color of the water.

Q You determine from the color of the water whether it is melting snows or whether it is spring water?

A Yes, if we get melting snow water it is a grayish cast and drops slowly, we can expect it to go right on down, but it changes from a grayest cast to the amber why, we know we are down and no questions about it going any further.

Q Now, when do they begin to divide the water, at what stage to you begin to divide the water among the Provo people?

MR. RAY: You mean under the stipulation, Mr. Evans?

MR. JACOB EVANS: Yes, or any other time since

you have been commissioner.

A Well, that is different, sometimes if we have a cold, rainy spell of weather we don't have to make any division until they get down to three or four hundred second feet because they are not always using it, or don't care to use it and they are not so particular about it, but if it gets down to 400 to 450 second feet and Provo is needing water and wants water we have to make a division and apportionment at that time.

Q That is at the time when everybody is using water without any particular regulation, I take it?

A Yes, we don't make any regulation until it is called for, until somebody -- until the man down at the lower end is shut off. We generally hear from Provo City first.

Q And that is about what stage of the river?

A That is about 400 to 450 second feet.

Q When did you commence to distribute the water during 1915 again, I think you said along about the tenth of May?

A Yes, we began in May of 1915.

Q Now, you distributed your water under the schedule that you have read?

A Yes, along those lines that was outlined.

Q When if at all, did you make a change from that schedule?

A In addition to the schedule that I have read I have shown I outlined the schedule on the way it would be distributed, the way I would make the distribution when the river was below this 288.4 second feet, and when above the constant or 5.65 second feet to the Provo Reservoir Company and the constant to the Provo City and Factory race of 19.3 were maintained, and the amounts were to be distributed according to the areas as I have read as before outlined excepting during the time when the river should recede to a time of scarcity. The Factory race rights was subject ~~to~~ and secondary to all

other rights, and the constant right to Provo City maintained constant all the time as a first class right above all of them.

MR. RAY: That is page 6 of your report, Mr. Wentz?

A Yes, page 6. On June 23rd on the night of June 23rd beginning our distribution after the high water period. This was the outlined distribution to ~~me~~ be made on the morning of June 24th. Our river was dropping and this was the distribution outlined for the next morning, that I made the next morning as the sheet shows. On July 1st the distribution was made --

Q What was your distribution for June 23rd, will you state that so that it may be read into the record.

THE COURT: June 24th outlined on the 23rd for the 24th.

Q Outlined on the 23rd, distribution on the 24th, what was that?

A Provo City municipal rights 24 second feet.
Machine interests Factory race 19.3 second feet.
Timpanogas 16.94 second feet.
Provo Bench 36.66 second feet.
West Union 38 second feet.
River Bottoms 12.5 second feet;
Barton & Young 1.35 second feet;
Park & Nuttall 2.5; second feet;
Upper East Union 15.24; second feet;
Fausett Field 2.7; second feet;
Provo City acreage 49.8; second feet;
Baum Ditch 3; second feet;
Little Dry Creek 10.12; second feet;
Lake Bottoms 12.75; second feet;
Fort Field 7.18 second feet;
Spring Ditch 6.9 second feet;
Held in reserve 6.78 second feet, and
Provo Reservoir bottoms 70 second feet;
Total 385 second feet.

This sheet was made for approximate early, the amounts given on the 40 acre duty basis are -- consist of very poor regulation and are not under proper control.

Q Was that why you made them 40 acre duty?

A Yes sir.

Q It was not because you believed they were entitled to a 40 acre duty as against the other people with a 50 acre duty?

A No.

Q In other words, the land did not require any more water than the other lands?

A No, doesn't require any more. Some of it does and some does not, I should not think that it does, all of it.

Q Now, Mr. Wentz, I will ask you to state if in your opinion, the duty that you gave there under the regulation of June 23rd, was sufficient duty of water at the period of the year for these various parties? A. Yes.

Q And I will ask you to state further whether or not it is your opinion that the duty of water as given by you under the schedule dated May the 4th was a sufficient duty of water at that period of the year?

A Yes sir, excepting very small amount to the Spring Creek users.

Q You observed the crops, I take it, under each of these canal systems? A. Yes.

Q Knew what they were doing all the time?

A Yes sir.

Q And they were, or were they not suffering for the want of water?

A They got along all right all through the season excepting a little part of the lower end of the Upper East Union, but that was because of their internal distribution, not because of the amount at the head.

Q Now, this water that you distributed was all measured at the

intakes of the canals, was it?

A Measured at their rating stations, most of those stations are near the first lateral, just above the first lateral at their dividing point, as near their point of use and not conflicting with their distributing system as is possible. Now, the city, we made the city measurements just ~~son~~ north of town.

Q Did you make any other distribution later on in the season, Mr. Wentz?

A Yes, July 1, 1915.

Q You may state what quantities of water you distributed and state the duty?

MR. RAY: What page of your report is that?

A That is page 10.

Q You are now referring to part 8 of the commissioner's report?

A Provo City municipal right 24 second feet;

Machine interests 19.3 second feet;

The Lake Bottoms 100 acre duty;

Fort Field 80 acre duty;

Timpanogas --

Q Had we better not have the amount of water distributed as well as the duty. Read the amount of water 12.75 second feet to the duty.

A Lake Bottoms 12.75 second feet, 100 acre duty;

Fort Field 7.18 second feet, 80 acre duty;

Timpanogas 14.1 second feet 60 acre duty;

Provo Bench 72.3 second feet, 60 acre duty;

West Union 31.7 second feet 60 acre duty;

East River Bottoms 8.3 second feet 60 acre duty; and

to this amount was added 6 second feet making 14.3 second feet.

The 8.3 second feet is based on the 60 acre duty. This is one of the systems not under regulation.

Park & Nuttall 1.7 second feet on a 60 acre duty.

2½ second feet was diverted through this canal.

Upper East Union and Faucett Field 19 second feet was

diverted through this canal based on a 60 acre duty and adding 4½ second feet for poor control.

Provo City acreage 40.9 second feet 60 acre duty;

Young, Dixon and Baum Ditches 3 second feet;

Little Dry Creek 8.4 second feet.

Q What is the duty of the Young, Dixon and Baum?

A That is figured on the 60 acre duty and one second foot added.

Q For what purpose?

A Because we had no control over them.

Q All right.

A Little Dry Creek 8.4 second feet under 60 acre duty?

Spring Creek 4.6 second feet on a 60 acre duty;

Canyon right 5.05 second feet;

Provo Reservoir Company 5.65 second feet; and

Held in reserve for lack of control 26 second feet.

MR. RAY: That was the distribution of July 1st, was it not?

A Yes, making a total of 299,33.

Q Now, I will ask you, Mr. Wentz, if in your judgment under that distribution the parties to whom the waters were distributed received a sufficient quantity of water to properly irrigate their crops at that time?

A With one exception. I think the Spring Creek users who are on a very low duty class of land for that time of year they ought to have more water.

Q What do you think they ought to have, Mr. Wentz?

A I would rather not take those up unless I take them up all at once, because I would rather not take them up at all for that matter. Fellow takes up one or two of those at a time he gets confused.

Q I will do that a little later on then. Did you make any other schedule of distribution of the water of Provo River during 1915, if so, when?

A July 12th.

Q You may state what your distribution was on July 12th, give the number of second feet and the duty of water distributed, I am referring now to part 8?

A Distribution on July 12th generally was the constants maintained to the city and machine interests, the Lake Bottom on one hundred acre duty and Fort Field on a one hundred acre duty. The other main interests on a 65 acre duty; and with the small int systems that we could not control on a 40 acre duty. Now, I will read them as they come:

Provo City municipal right 24 second feet;

Machine interests 19.3 second feet.

Lake Bottoms 12.7 second feet; one hundred acre duty;

Fort Field 5.7 second feet 100 acre duty;

Provo Reservoir company 29 second feet, that is storage water and other rights not a part of the natural flow of Provo River except as these that were included in the stipulation of 1915.

Timpanogas 13 second feet 65 acre duty;

Provo Bench 66.7 second feet 65 acre duty;

West Union 29.2 second feet; 65 acre duty;

East River Bottoms 12.5 second feet 40 acre duty;

Barton and Young 1.5 second feet 40 acre duty;

Park & Nuttall 2.5 second feet 40 acre duty;

Upper East Union 17 second feet; this was on a 65 acre duty as the other main systems with 3.6 second feet added for lack of control with the other party in that system;

Provo City acreage 37.8 second feet 65 acre duty;

Yeung, Dixon and Baum pitches 3 second feet, 40 acre duty;

Little Dry Creek 7.8 second feet 65 acre duty;

Spring Creek users 6.9 second feet on a 40 acre duty, making a total of 291.48 second feet and total acreage used 13,810 acres.

Q I notice on the page that you were reading from there is

Sego 2.88.

- A Yes, and the Sege Irrigation Company, which I omitted 2.88 second feet, which is storage water from the Union Reservoir system with 4% deducted for transmission loss.
- Q What is water that is stored at the head of Provo Canyon?
- A Yes, head of the Provo River part of the Union Reservoir system.
- Q And turned in to the natural channel and taken out in Utah County? A. Yes.
- Q Did you make any other distribution after that, Mr. Wentz. Now, first ask you if in your judgment the water distributed, as you did distribute it under your schedule of July 12, 1915, was sufficient for the irrigation of the crops irrigated at that time?
- A That is very nearly so. Why I say that is this. This is a gross duty of the distribution. Some of those canals have inflow and some of them have transmission losses. The proper distribution under this ~~sixt~~ system would have been at the land and on like land had that distribution equal so as to supply the same amount of water to each farmer at his farm. That was impossible because we didn't have the information or didn't have time to get the information. Now, these canals that were under this distribution that had heavy losses, I don't think had enough water, that is, I think they ought to have had enough to make up those losses and those that were --
- Q Mr. Wents, did you notice whether any crops suffered during this time for want of water, and if so where, and under what canals?
- A No, there was no material loss in crops, but I think one reason for that is why I say these canals that had losses in their systems last year, they had their fruit crop off and their crop is under a system which had those losses but I think with a normal year and their fruit, on to make them the proper amount those losses ought to be made up.

Q Yes, but from your observation you didn't see any crops suffer for want of water?

A No, but I say under that division with the fruit crop off and normal year with it on I believe they would need the losses made up in order to insure them against suffering.

Q Did you make any other -- do you have any idea what the losses would be in a normal year?

A I have not measured the losses, they were measured in 1914 under the direction of Mr. Deming. On the Provo Bench system the losses there were about ten per cent. I also made some determination in the fall on the city system here in Provo on a distributing system in the blocks which I included in the files here in the report but other than that I have not determined the losses or the inflow.

MR. RAY: When you say the Provo Bench system you mean the canal and laterals of the Provo Bench Canal and Irrigation Company?

A I mean what is included in the 1914 report the loss immediately below the measuring weir down to the farms and including the North Union and the Dry Creek Canal.

MR. RAY: On that canal?

A Yes.

Q As I understand you then, Mr. Wentz, you turned to them under the distribution of July 12th, 66.70 second feet, measured at their intake, or near the intake of the canal?

A Measured at their rating station at the lower end of their main canal and at the head of their lateral system.

Q And you think that by the measurement of the water at that point, that there was approximately ten per cent of that water lost before it actually reached the farms?

A Yes, there was as I remember without referring to the note 9 per cent loss.

Q 9 per cent loss?

A Nine per cent loss.

Q So that in reality they did not get 66.70 second feet of water on their farms?

A No, it would be about ten per cent less than that at the farms.

Q But you didn't see any crops suffering under those conditions, you say?

A No, but I attributed, I say, part of that to the fruit crop being a failure last year. If it was normal I think they would require enough to make up those losses.

Q In other words, you think if the fruit crop had been on they would have required ten per cent more water?

A Yes.

Q Do you think it is feasible, Mr. Wentz, to measure the water of all users of water at the land where the water is actually used?

A Yes, perfectly feasible, that is the only way that we can get a proper system of distribution.

Q Can you determine with any degree of accuracy the loss in transit of water in the various canals?

A Yes, very accurately.

Q You can determine that?

A Very accurately.

Q Don't you find it varies during the season of the year and depending upon the quantity of water carried in the various canals as to the loss and also as to the condition of the canal itself?

A Yes, those conditions would have to be determined by a series of measurements made at least once a month during the low water season, but in case those measurements were excessive due to poor canal, canal in bad shape, why, they should not be allowed until the canal is made in good shape. That is the measurement should be made with the canal in good order and repair, and the curve, the loss curve for that canal based upon that amount.

Q What I am trying to get at, Mr. Wentz, would be assuming you would make a measurement today and find a certain loss in the canal, would that be any accurate basis for determining the losses in that particular canal at some other time during the year and carrying a different quantity of water?

A Yes, that would be one point on the loss curve. We would make a loss curve by the different points on that canal and different seasons. These canals are old canals that have been built for a number of years, and their conditions are not changing fast. The conditions that change are more of return ~~to~~ seepage and the lower canals are canals that are mainly conducting water and losing water.

Q If you can arrive accurately then at the loss in transit of the water why do you say that it is better to measure the water at the land than at the intake of the canal?

A So that the distribution can be made and delivered to the farmers the actual quantity needed.

Q Could you not do that if you knew exactly what quantity you were losing or gaining at the inflow?

A If they all took through the same ditch you could if it were constant, but it is not constant. We may get a loss curve now and use it for five years, may check it up once a year and see if it is holding, go on for five years, it may change. We have had big changes in the last sixteen years.

Q Did you make any other distribution during the year 1915?

A Yes, the distribution of July 29th and 30th.

Q You may state what that distribution was in the same manner that you described the others.

Total river 277.53 second feet;

Provo Reservoir Company 19.2 second feet;

Ontario Tunnel water --

Q That was the water that was reservoired?

A Yes, that is the reservoir water from the Union reservoirs.

Ontario Tunnel water 10.5 second feet; less 4 per cent which is 10.8 second feet primary rights as outlined in the stipulation 5.65 second feet making a total of 34.93 second feet. Of this amount 6 second feet was diverted to the Provo Bench Canal leaving 28.93 second feet taken to the Provo Reservoir Company canal. The Provo City municipal right 24 second feet; machine interest 12.36 second feet; Spring Creek and Lake Bottom canals not changed. That is in the system on the west side we have no means of control to the river except the head gate and when the Spring Creek has more water in than their proportion why they keep it, we have no control over it, either to shut it off or divert it to other users.

Fort Field 5.74 second feet 100 acre duty;

East River Bottoms 12½ second feet 40 acre duty;

Faucett Field 4 second feet;

Park & Nuttall 2 second feet;

Barton & Young .9 second feet;

Young, Dixon and Baum Ditches 2.5 second feet. The last five named I have marked on the report as temporary because they were not under proper control.

Timpanogas Canal Company 12.1 second feet 70 acre duty;

Provo Bench Canal 61.9 second feet 70 Acre duty;

West Union 27.1 second feet 70 acre duty;

Upper East Union 10.9 second feet 70 acre duty;

Provo City acreage 35.1 second feet 70 acre duty;

Little Dry Creek 7.2 second feet, 70 acre duty;

Q In your judgment, Mr. Wentz, was the water that was distributed under this distribution sufficient to mature the growing crops of the parties at that time?

A With the exception I made on the other distribution as regarding the losses, yes. Now, you will note in this distribution that the Factory race, the machine interests title instead of

being 19.3 second feet are 12.36 second feet. Now, the question --

Q You took that from the Factory race then to make up what you regarded necessary to produce the crops under these various canals? A. Yes.

Q Took it from the Factory race?

A As the river went down I had to determine somewhere to stop raising those duties and cutting the canal down and at the point where I deemed it necessary to hold those canals at the same point and cut into the Factory race. At this time I decided that the 70 acre duty was the proper point to stop at, and continuing from July 29th and 30th the canals were held at the 70 acre duty for the rest of the season and whatever deficiency we had was borne by the Factory race.

MR. RAY: That is July 29th on?

A Yes.

Q Did you make any other distribution after that?

A On August third, the distribution was made, but it is along the same line and on August third our river was a little higher, and on this date we were able to deliver to the Factory race the 19.3 second feet, but the distribution for the rest of the 1915 season was held on these main systems at the 70 acre duty, and the smaller systems that I could not control were on the 40 acre duty.

Q What was the slight raise in the water due to, if you know, between July 30th and August 3rd?

A Well, I don't know, I don't recall at this time because we never have an absolutely steady river. The river has pulsations, some days she will go up and go back just like breathing. We cannot account for it, don't know why it does it, but it does it.

Q You may state during this season that you have just testified to whether or not there was any rain, any moisture or pre-

cipitation that would aid?

A No, there were no rains! It was an extremely dry season, we went from June 14th for eighty-seven days without a drop of rain.

Q Now, calling your attention to the tables showing the outlined distribution season of 1915, I take it that is merely a table which collects together the information which you have just read into the record, is it not?

A Yes.

MR. RAY: Just a compilation of it.

MR. JACOB EVANS: Yes.

MR. RAY: So far as the Provo Bench is concerned if it is a compilation it may be admitted in evidence without reading.

THE COURT: What page is that?

A What is page 16.

MR. RAY: We are willing to stipulate it may go in.

THE COURT: The table, the summary on page 16 may be considered in evidence without being read. It may be copied any time the parties desire.

MR. COREMAN: May it please the court, we understand the admission of this compilation and observations made by the commissioner are being admitted in evidence only for during this season. It is not an admission of any right.

THE COURT: Oh no, I don't understand they carry with it any such -- it is merely evidence --

MR. COREMAN: What he did.

THE COURT: What he did, that is all, as I understand it, just the distribution that he made at that time.

Q I call your attention now, Mr. Wentz, to part 9 of the report -- I will ask you Mr. Wentz, whether or not under the method and manner of the distribution of the water in 1915, you had any complaint concerning the distribution, any written complaint?

A Yes, we had --

MR. THOMS: Object to this as immaterial.

THE COURT: Objection is overruled.

Q What were they, Mr. Wentz, and from whom?

A On May 18th, during the shortage we had a request from Little Dry Creek Irrigation Company-- they are located down on the lower end, they were short of water at that time.

Q May 18th?

A May 18th, that was out early low period before the high water, at the time of the year when we usually have a great amount of water.

Q Was the water being distributed at that time?

A Yes sir.

Q You may state what that complaint was?

A All the way I could state it is to read their written request stating they were short of water.

MR. RAY: I submit the complaint itself is the best evidence what it contains and I think it is immaterial.

Q Did you have any other complaints from anyone else besides them?

A August 2nd had a complaint from Provo City.

Q What was the stage of the water at that time?

A This was a condition, this complaint was on the amount of water Sundays. This was immediately after, while we were just beginning on the rotation system in the river bottoms just after I had installed Mr. Chipman in there. For the first ten days of that work we did not follow our schedules entirely and sometimes we would find them coming to get their water at their headgate when it was time to turn it off, and in those cases where they had missed their turn we did not want them to go until their turn came around them, and we butted into the Factory race on Sunday with an extra stream that reduced the Factory race this amount and was missed by Mr.

Thompson and he asked to have this matter investigated.

Q That is the people up the river, that is in the river bottom had been using water whenever they wanted to ?

A Yes.

Q Did they have any weirs or measuring devices or head gates to turn their water out to them?

A They have head gates and weirs. The weirs were in bad repair but we repaired them the latter part of July and put them in shape at the time we got on the rotation system in the bottoms.

Q Where did they take their water, out of what stream?

A They take it out of City Creek at fifteen diversions between Provo City and the mouth of the canyon, fifteen small streams.

Q And was there any regulation as to when they should take it and how much they should take?

A The regulations that I had tried to impose upon them during the season, but we did not get to any regulation until we put Mr. Chipman in there and got on a schedule and he turned the water to them and turned it from them.

Q After you got Mr. Chipman there then did you have any further complaints?

A No, we got along all right. We went through August excepting this Sunday -- August and September all right.

Q Did you have any other complaints from anyone else during the year 1915?

A Had complaint on June 23rd from Provo City, that was at the time of the drop from the high water to the low water. The amount and distribution was made on the upper canals all right and I supposed that we were getting the amount that we should get at the lower end, but the city was short. On the morning of the 24th, I went to the mouth of the Canyon, left home about four o'clock and making the regulation down through the bottoms I found a number of dams in, quite a number that were getting

out a great deal more water than should go out, that had caused the shortage to prove City. In making that regulation I was until about 11 o'clock on the 24th, at eleven o'clock when I got breakfast on the morning of the 24th.

Q Their shortage then was caused by dams being in the creek, as I understand? A. Yes.

Q Along the river bottoms?

A Yes.

Q And when they were removed, that removed the cause of the complaint?

A Yes sir.

Q Now, were there any other complaints?

A There was a complaint on June 25th. The complaint was dated June 25th, but I received it on June 30th, under post mark of June 30th, that was from the machine interests on the Factory race. This was also, this amount was caused -- this shortage was caused by our poor regulation between the city and the mouth of the canyon, and was before we got under regulation in the bottoms.

Q After you got under regulation then you had no other further complaint?

A No.

Q Now, were there any other complaints made?

A No, that is the only complaints made last year.

MR. RAY: You confine that answer to written complaints, Mr. Wentz?

A Yes.

MR. RAY: That was the only written complaints?

A Yes, the only written complaints.

Q Did you have any oral complaints?

A Well, there may have been some, but none that I considered that were very material except the upper East union, and I say that shortage was caused by their distributing system.

Any complaints that I viewed that were material and scarcity of water, as I have stated before would have been up from the factory race water, but I was endeavoring to deliver to the farmers what they actually needed.

Q Now, Mr. Wentz. I will ask you to give a detailed description of the soils and water requirements in Utah Valley irrigated from the Provo River system under these various canals?

A Well, must I answer all these questions?

THE COURT: Can you answer it, Mr. Wentz, if you can you may answer it.

A I will have to use the blackboard on that.

MR. JACOB EVANS: While they are taking down those maps, my attention was called to the fact, if it be a fact, that Exhibit No. 46, we offered Exhibit No. 46 -- one of the counsel called my attention to the fact it has never been offered.

THE COURT: It may be received.

A I place on the black board at the left side, in a vertical column, the names of the system under the Provo River in the Utah Valley; as follows:

Provo City acreage;

Timpanogus Canal Co.;

West Union;

Smith and Carter Ditches;

Provo Bench;

Upper East Union;

Little Dry Creek;

Alfred Young Ditch;

Dixon Farm Ditch;

George Baum Ditch;

First Ward Pasture;

East River Bottoms Water Co.;

Park and Nuttall Ditch;

Barton and Young Ditch;
Spring Creek users;
Faucett Field;
Fort Field;
Lake Bottoms;
Sego Irrigation Company;
Provo Reservoir Company;
Provo City Lots;
Provo City Water Works System.

Q Just one question before you proceed. The North Union is a part of the Provo Bench Canal and Irrigation Company?

A Yes.

Q That is it is a branch of it?

A It is a branch of the Provo Bench.

Q And in speaking of the North Union, why it in effect refers to the Provo Bench as well?

A When speaking of the Provo Bench, we include the North Union. The Provo City acreage, farm acreage, is situated immediately surrounding the City of Provo. The soil on the North of Provo is a clay loam, dark, and part of the area very much in Humus. The eastern part is a clay loam and clay, lighter in color and good depth. The southeastern part is clay loam and darker in color. The northwestern part is a dark clay loam very shallow and underlaid with river rocks, very porous. The Western part and the southwestern part is also a dark clay loam, in parts very shallow and porous, but with some parts that are all soils reaching to two or three feet in depth. The southern part is a dark clay loam, and also porous in many places.

This acreage under each of these systems I will take up as units and make a comparison, as a unit over the whole area, and I will make them as 100 as a standard.

The central part of the City system of Provo, is a gravelly loam with a little sand and is also very porous over

the greater part of the City proper, excepting in the immediate north part along fifth north, there is some deep soil immediately north of the Fifth North.

The Timpanogus Canal is situated on the East side of the Utah Valley with canal headed at the mouth of the canyon and is the highest canal on the east side of the river, diverting water from the Provo.

The soil uniformly except immediately below the rocky canyon is a clay loam of good depth. Below the rocky canyon, the main part of the soil is a clay loam, but it has some gravel and rock with it and tailings from the rocky canyon. There are a few points near the edge of the bench that is a gravelly loam that are near the edge of the bench, but they are very small in area; and there is a point near the Phillip's place that is a sandy loam, very sandy loam. This is also a very small area. The requirements of the system of the Timpanogus Irrigation are a little less than the factor assumed for the unit 100, Provo City, and which I mark as co-efficient No. 95.

The West Union Canal Company, including the Smith and Carter Ditches, the amounts of land along the lower bench that is watered by the Smith Ditch Company is a gravelly loam, very shallow and porous. The land under the Carter Ditch on the bottom land is a clay loam, dark in color, very shallow and porous. That is the sub-soil is very porous. Farther west and north, the Lake Water Bottoms Canal Co. lands or the West Union Canal Company lands rather, are a sandy loam. Immediately west of the Provo Bench near the northern end, we have some clay. A great deal of this soil is underlaid with clay with a topping of sand. Taking this system, including the Smith and Carter Ditches, as a unit the water requirements are about the same as the Provo City acreage, and which I also mark as co-efficient 100.

Do you want the description of these canals in this answer?

Q I think you have given a sufficient description.

A The Provo Bench area including the North Union Company is situated immediately south and west of the mouth of Provo Canyon. The canal heads in the tail race of the Olmstead plant and gains the bench about a mile and a half, the North Union branch going north to the town of Pleasant Grove, and the lateral system of the Provo Bench Canal watering the south and central part of the bench. From the mouth of the Canyon west to the south, the major part of the land is a gravelly loam averaging from $1\frac{1}{2}$ to 3 feet in depth. The sub-soil is made up of boulders and sand, very porous structure. The South end of the bench is a clay loam with a few spots of clay with a deeper soil and uniform. The north end of the Provo Bench including the North Union, is a clay loam, and at the extreme end is a dark clay. The clay loam north of the canyon to Pleasant Grove in some places is shallow, but generally is of good depth. It is different from the bottom lands in color, very light in color. This system as a unit has about the same water requirements as the two upper systems I have mentioned before. The Provo City farm acreage and the West Union, and which I mark with the same coefficient 100.

The Upper East Union is the second highest canal, taken from the Provo River on the east side. It follows along below the Timpanogus Canal, and continuing near the foot hills above the State Mental Hospital, out beyond the Utah County Infirmary. The soil on the lower lands and on the bench land, that is back from the brow of the hill is a clay loam. The bottom land near the north end is of unlimited depth, that is for agricultural purposes. The south end is a gravelly loam. This has about the same water requirements as the upper systems that I have marked and for this one I mark a coefficient of 100.

Little Dry Creek has its heading from the river immediately West of Provo City, waters lands west and southwest of Provo City. The land near the river and near its heading is a dark

clay loam, but is very, very shallow. but in some spots it has a depth of two and three and sometimes four feet; and in the immediate vicinity of those spots the soil depth may be as small as one foot; but in the western part near the lower steel bridge on the Provo, the soil is of good depth, and is a good substantial clay loam. The southern part generally is of good depth, with a ground water plane near the surface. The requirements for this system are a little less than the main units that I have expressed, and which I mark 95 as a coefficient.

The Alfred Young Ditch is a small ditch with a few individual users, taken out of City Creek about a mile and a half from the center of Provo, and watering lands on the east side of City Creek. Practically all of the lands under this ditch are clay loam of a good depth. This soil as a unit is better than the main units that I have expressed, but the areas are small and irregular and all things considered, I think the requirements are about the same as the larger systems which I mark with a coefficient of 100.

The Dixon Farm Ditch is practically the same in every respect as the Alfred Young, except a very small area of shallow land. I mark that also 100.

The George Baum Ditch is identical with the Alfred Young Ditch and I mark it 100.

The First Ward Pasture is a tract of land south and immediately adjoining Provo City. This is a dark clay loam. In some places of good depth, some places of not extreme depth, the soil is generally dark and of good texture. As a unit requirements are a little less than the main unit that I have spoken of which I marked as 95.

The East River bottoms Water Company. This company, the land embraced under this company is situated between Provo

and the mouth of Provo Canyon, and is irrigated by fifteen diversions leading from City Creek. The northern portion of the tract is a very loose, porous and shallow soil, with a percentage of river rocks even at the surface. There is possibly 50 acres of this extremely poor land. South the land is a clay loam, in some places of good depth, other places not of good depth. At the southern extremity it joins the Alfred Young and George Baum tracts, and is of good soil and good depth. Near the center of the south half the ground water place is at the surface and there is some drainage and some meadow land. The character of this land if it were in regular tracts and under a large system would average with the main units that I have marked 100. The tracts are irregular and in many instances small, and for that reason require a larger amount of water, approximately ten per cent and which I mark as a coefficient of 110.

The Park and Nuttall Ditches heads near the mouth of Provo Canyon and irrigates a tract of land south and west and near the mouth of the Canyon. The soil is very porous and shallow, and has quite a quantity of gravel and river rocks very near the surface. These tracks are also irregular and in addition to the quantity needed extra above the average system, I think at least five per cent additional should be added for this factor. Therefore I mark this quantity as 115.

The Barton and Young Ditch is located in the same vicinity and is of the same character of land and is marked with the same coefficient.

The Spring Creek users are situated north and west from Provo City below the West Union Canal, and immediately west of the river and derive their greater part of water from the Spring Creek. The land is a clay loam, dark in color and shallow. The sub-surface soil is made up of river rocks very porous.

On this class of land there is no means of conducting water from the ground water plane which is very close to the soil above. The tracts are quite irregular and require more water than the main units that I have designated as 100, and about the same as the Park and Nuttall Ditches which I have marked as 115.

The Faucett Field lies immediately south of the Provo Canyon about a mile and a half south from the mouth, lying on the East side of City Creek and immediately under the Timpanogus Bench. This tract is a dark clay loam, but rather shallow. The requirements are about the same as the East River Bottoms Water Company, or 110 coefficient.

The Fort Field tract is immediately west of Provo City and south of the river. The soil is a dark clay loam, rich in humus of good depth and uniform. The requirements of this tract are approximately seven-tenths of the main units that I have expressed above and I mark this with a coefficient as 70.

The Lake Bottoms tract lays west of the Provo Bench, northwest of Provo City, irrigates the lands near Utah Lake. The soil laying -- lies adjacent to the canal, in many places is a clay sub-soil with a sand top. In some cases the sand is quite a depth. It is open in a few places, some drifts, wind-blown sand. The tract as a whole averages about the same as the Fort Field, and which I mark with a coefficient of about 70.

The Sego Irrigation is a tract of land immediately west from the mouth of the Provo Canyon about one mile. It is a gravelly loam and shallow. The requirements are a little greater than the main units. I mark it with a coefficient ^{of} 110.

The Provo Reservoir Company tracts on the Provo Bench mainly are in the poorer land belt across the center of the bench, but the lands farther north toward Pleasant Grove are the same as those that I described under the North Union.

The lands north of Pleasant Grove are a clay loam except on the high land bench which are gravelly loam and shallow; and after crossing the Dry Creek, the lands are again of good depth and good clay loam. This system averages with the main systems that I have marked with 100.

The Provo City lots with very few exceptions are a gravelly loam with a porous sub-soil. There are some areas in the eastern part of the city and very small area in the northwestern part that is a good clay. The irrigation of these lots is different from the main irrigation systems of farm acreage and will not be marked at this time with any coefficient.

THE COURT: Where is the East Union.

A The East Union is in the Provo City farm acres; at the left of the systems named I rule in columns marking the first column with the Roman letter "I", and above that column I mark May 10 to June 20th. The second column I mark June 20th to July 20th and double I.

MR. RAY: May it please your honor, I don't know the purpose of this as part of the answer. The question was to describe the soils.

THE COURT: And water requirements.

MR. RAY: Was that included?

MR. JACOB EVANS: Yes.

MR. RAY: Excuse me.

A The third column June 20th to September 1st, and marked with three I's.

The fourth column September 1st to October 1st is marked IV.

The fifth column October 1st to May 10th, marked V.

May I describe why I mark these in columns?

C Certainly.

MR. THOMAS: Before proceeding will you state, Mr.

Wents, will you state why you don't put on Provo City lots, we are worried about that.

A Provo City lots?

MR. THOMAS: Yes.

A I have Provo City lots in.

MR. THOMAS: I know, but you have no coefficient.

MR. JACOB EVANS. He gave the reason.

THE COURT: The witness went into that reason quite fully.

MR. THOMAS: I understood him to say he wouldn't put it in at this time. Let him go ahead.

MR. A. C. HATCH: I understood him to give a good and sufficient reason why he didn't do it.

MR. COREMAN: If he has a coefficient we want it now.

Evans

MR. JACOB: We claim you are not entitled to any water for the city lots. Now, they are all built up with houses, barns and churches.

MR. COREMAN: If he has a coefficient we would like to have it now.

THE COURT: If counsel desire they can ask any question they wish now to have that straightened out.

MR. COREMAN: Have you ~~found~~ found the coefficient for Provo City lots on the diagram?

A The reason I don't use a coefficient is because it is a different class from the other classes entirely.

MR. COREMAN: And you haven't found the coefficient at all?

A No, I am not using it. It is a different class from the other class entirely, and a constant quantity and there is no need of a coefficient in my opinion.

The first column, May 10th to June 20th is the season of first irrigation. During this period the crops under the Provo

River system are all watered at least once.

The second period June 20th to July 20th is the period of maximum growth and immediately follows the period of high water on the Provo and is the ending of the irrigation of grain.

July 20th to September 1st is the period after the ending of irrigation on grain, and when this area is not irrigated and extends to the time when some other crops have ceased to be irrigated for the season, especially on the lower lands.

September 1st, to October 1st is the remainder of the season when irrigation usually ceases on October. However, there is some seasons that it continues even into November.

In all the requirements that I shall place on the board I consider, will consider the whole area irrigated. For instance in the first period, May 10th to June 20th the crops may not be irrigated at regular times as for instance the grain crops will be irrigated about once, but in the consideration of duty the whole area is used and figured on that quantity, and in each of the other periods, the duty is based on the whole area.

MR. RAY: Mr. Evans, will you permit a question?

MR. JACOB EVANS: Certainly.

MR. RAY: Is the duty figured at the land or at the intake of the canal?

A At the land, net duty at the land.

MR. RAY: Net duty at the land?

A And the quantity that I state in my judgment will be quantities, are sufficient. What the actual duty is I don't pretend to know, but the quantities that I give I am satisfied from my experience are sufficient and are given only with that idea. I will have to use the duty table on these and I don't expect anybody will object so that I can keep track of them.

The first column on Provo City duty 57, the Timpanogus Canal Company 60. Returning to the Provo City the duty of

57 for the period indicated of 41 days allows a depth of 1.43 acre feet per acre. And the duty of 60 acres on the Timpanogus Canal for the first column allows a depth of 1.35 acre feet per acre.

West Union at 57, same as the city.

Provo bench 57;

Upper East union 57;

Little Dry Creek 60;

Alfred Young ditch 57;

Dixon Farm 57;

George Baum 57;

First Ward Pasture 60;

East River Bottoms Water Company 52 with a depth of 1.56 acre feet per acre.

Park and Nuttall 50 with a depth of 1.63 acre feet per acre.

Barton and Young 50 with a depth of 1.63.

Spring Creek users 50 with a depth of 1.63;

Faucett Field 52 with a depth of 1.56;

Foot Field 80 with a depth of 1.01;

Lake Bottoms 80 with a depth of 1.01;

Sego Irrigation Company 52 with a depth of 1.56;

Provo Reservoir Company 57 depth of 1.43;

During the second period June 20th to July 20th after the irrigation, after the season of first irrigation, the water requirements are about ten per cent less and main systems operate on a 63 acre duty net at the lands. I mark the Provo City acreage under the second column 63.

MR. A. C. HATCH: As the duty?

A As the duty, with a depth of .94

The Timpanogus 66 with a depth of .9;

West Union 63 with a depth of .94;

Provo bench 63 with a depth of .95;

Upper East Union 63 with a depth of .94;
Little Dry Creek 66 with a depth of .9;
Alfred Young Ditch 63 with a depth of .94;
Dixon Farm Ditch 63 with a depth of .94;
George Baum Ditch 63 with a depth of .94;
First Ward pasture Company 66 with a depth of .9;
East River Bottoms Water Company 57 with a depth of 1.04;
Park & Nuttall 55 with a depth of 1.08;
Barton & Young 55 with a depth of 1.08;
Spring Creek Users 55 with a depth of 1.08;
Faucett Field 57 with a depth of 1.04;
Fort Field 90 with a depth of .66;
Lake Bottoms 90 with a depth of .66;
Sego Irrigation Company 57 depth of 1.04;
Provo Reservoir Company 63 depth of .94.

5:00 P.M., Recess to 9:30 A.M., June 8, 1916.

T. F. WENTZ - - - -

DIRECT EXAMINATION by Mr. Jacob Evans continued.

Q You may proceed, Mr. Wentz and complete the answer to
the question that you were answering when you went off
the witness stand last night.

A There was one point in my testimony yesterday that I wish
to correct, that is in regard to the net duty. I stated the
net duty should be at the farms at each particular tract.
To be practical this is almost impossible. The allowable
losses in transmission should include all the unavoidable,
reasonably unavoidable losses to the limits of each legal
subdivision of 160 acres of land, and not within the limits
of the individual area irrigated and should not include
mechanical losses, such as ~~the~~ leaky gates.

The period from July 20th to September 1st Provo City
acreage 70 acre duty, depth of 1.16.

Timpanogos Canal Company 75 acre duty depth of 1.08;

West Union and others 70 acre duty depth of 1.16;

Provo Bench 70 acre duty depth of 1.16;

Upper East Union 70 acre duty depth of 1.16;

Little Dry Creek 75 acre duty depth of 1.08;

Alfred Young Ditch 70 acre duty depth of 1.16;

Dixon Farm ditch 70 acre duty depth of 1.16;

George Baum Ditch 70 acre duty depth of 1.16;

First Ward Pasture 75 acre duty depth of 1.08;

East River Bottom Water Company 65 acre duty depth of 1.25;

Park and Nuttall Ditch 65 acre duty depth of 1.29;

MR. RAY: Mr. Wentz, you will notice in the previ-
ous division under a 63 acre duty you gave a depth of 94
continuously.

A That is for thirty days, this column is for forty-one days.

Barton and Young Ditch 63 acre duty 1.29;

Spring Creek users 63 acre duty 1.29;

Faucett Field 65 acre duty 1.25;

Fort Field 100 acre duty depth of .81;

Lake Bottoms 100 acre duty depth of .81;

Sego Irrigation Company 65 acre duty depth of 1.25;

Provo Reservoir Company 70 acre duty depth of 1.16.

The period September first to October 1st:

Provo City acreage 70 acre duty depth of .85;

Timpanogos Canal Company 75 acre duty depth of .79;

West Union and others 70 acre duty depth of .85;

Provo Bench 70 acre duty depth of .85;

Upper East Union and others 70 acre duty depth of .85;

Little Dry Creek 75 acre duty depth of .79;

Alfred Young Ditch 70 acre duty depth of .85;

Dixon Farm Ditch 70 acre duty depth of .85;

George Baum Ditch 70 acre duty depth of .85;
First Ward Pasture 75 acre duty depth of .79;
East River Bottoms Water Company 70 acre duty depth of .85;
Park and Nuttall Ditch 70 acre duty depth of .85;
Barton and Young Ditch 70 acre duty depth of .85;
Spring Creek users 70 acre duty depth of .85;
Faucett Field 70 acre duty depth of .85;
Fort Field 125 acre duty depth of .48;
Lake Bottoms 125 acre duty depth of .48;
Sego Irrigation Company 70 acre duty depth of .85;
Provo Reservoir Company 70 acre duty depth of .85;
Provo City lots for the actual area irrigated for the

period May 1st to June 20th 50 acre duty; for the period June 20th to July 20th 50 acre duty; For the period July 20th to September 1st 50 acre duty; for the period September first to October first, 70 acre duty; for the period October --

MR. JOHN E. BOOTH: If the court please, I would like to ask a question while he is on this, it will be brief. I see Mr. Wentz, you are uniform in your calculations except those that are above 100 in your first column and there you bring them all down to 100, have you any reason for that?

A Yes, all the lands that are above 100 except the Sego Irrigation Company are bottom land and cease using water, or use less quantity on those bottom lands earlier in the year than the lands that are higher in order to mature their crops there. Soils hold the water better.

MR. JOHN: E. Booth: Would you include the Faucett field in that?

A Yes, all the low lands are bottom lands.

MR. JOHN: E. BOOTH: I wanted to know the reason for it, as I see you are making the distinction.

A That is for the month from September 1st to October 1st.

For the period October 1st to May 10th, after the first

of October the irrigations are not so regular, more intermittent. The whole area is not irrigated. The same from the beginning of the year to May 10th. For that reason it is impossible to know the percentage of the area irrigated and I designate that quantity as so much of column 4 as may be necessary.

MR WILLIS: Mr. Wentz, in getting the duty under column 5, do I understand you then that you give that for the actual necessities and it will be based on that for such time as shall be necessary between the periods named?

A Yes, they may use all the quantity in column 4 they desire.

Q Now, Mr. Wentz, I wish you would state the facts that determine the duty and how you have arrived at the table you have placed on the board.

A There is one other point on this table I have not finished.

Q All right, proceed and finish the table and the other question may be renewed.

A That is the Provo City Water Works. For the Water Works System there should be one second foot for each 1850 people, delivering 350 gallons per day to each individual. This includes lawn sprinkling and culinary use.

MR. COLEMAN: Does that include fire protection?

A Yes.

Q Sprinkling streets?

A Yes.

Q I understand that includes all municipal purposes?

A Yes.

Q That would include, of course, the watering of animals, stock, washing of vehicles, fire, sprinkling streets, sprinkling lawns and all the uses to which water is put in cities?

A Yes.

MR. HUFFAKER: Mr. Wentz, would you make a reservation for the growth of the city?

MR. THURMAN: As the city grows he added to those

↑
figures 1850.

MR. HUFFAKER: May not be any water at that time,
Judge.

MR. THURMAN: Well, we cannot help that, have to go
to a higher power.

Q Now, Mr. Wentz, I renew my question asked a few moments ago.

A Read it?

(Question read)

Q Just a moment, before you proceed to answer that question can
you give any opinion, Mr. Wentz, as to the quantity of water
necessary for power purpose along the mill race for the
different mills?

A No, I don't know their output of power, their ~~efficiency~~
efficiency is low, and I would not be able to say what they
really require. We have assumed, and it was only assumption
just for working basis the 45 second feet during the day, and
I cannot tell that because I don't know the power they actually
have on their line shafts. Their efficiency should not be
lower than 78. And at least not lower than 70 and at least
not lower than 68.

Q You may proceed now to answer the other question -- wait just
a moment, it is suggested that you be asked whether or not
you know anything about whether or not when you get the por-
tion of the water from the Mill race to distribute it to the
other canals whether or not that out interferred with the
running of these mills, or whether they continued to run as
they had run with the 45 second feet?

A They use some of their auxiliary power, some auxiliary power
during the season. That is, the Hoover Brothers and the
Factory. I don't know how much of the other they use.

Q Now, you may proceed, Mr. Wentz?

A The duty of water is controlled by the main factor of soil
and soil depth. On our loose and shallow soils a great deal

of the quantity that is applied is lost into the gravel below, or into the ground water plane. For example, on the sandy loam soil, such as are situate southern part of Provo Bench, they are an average of about two feet deep and application can be made on these soils with four tenths of a foot in depth, or five inches, and retain in the soils two inches. There is a loss of three inches. This loss is governed by the length of run. For example, on a 53 rod run it requires 17 inches in depth for an application. On a run half that length requires about ten and a half inches in depth. Making the length of run 225 feet the application can be made with four tenths in depth, on the heavier clay type, such as those north of Provo City. Almost all of the quantity applied can be held in the soils, and there is practically no loss, but the amount stored in the soil. The application on these lands or from three to four tenths of a foot. It is not possible to make irrigations and not have loss, and over an area as diversified as the Provo area the duty is on a general average of the land. You can make the irrigation with practical application. I have compared -- in addition to my own comparisons I have compared the depth of application under the Strawberry Valley Project.

MR. RAY: Your honor please, we object to that comparison until there is shown a similarity of soil conditions.

MR. JACOB EVANS: If the court please, ~~we promise~~
do
we promise to, that a little later on. We have assurances we will be able to correllate the soils of that vicinity to the soils of this vicinity.

THE COURT: Under that promise it may be shown.

MR. RAY: I would like to ask Mr. Wentz a preliminary question, your honor please, whether or not this data which he is now consulting is data which he himself has taken and

and experiments which he has made.

A Not on the Strawberry Valley, ^{it} is Government information.

MR. RAY: Object to it as hearsay, your honor please.

MR. JACOB EVANS: If the court please, I might say in relation to correlating the soils that we expect to show by a certified copy of a volume of the work that was actually done under the supervision of the farmers in that vicinity.

THE COURT: Under the supervision of the farmers?

MR. JACOB EVANS: Yes, the farmers actually did the work themselves, but the water was measured by the government engineers, taking the character of the soil, blue print showing the character of the soil and number of irrigations and exact quantity of water put on them in numerous tracts, hundreds of them, and this is contained in a volume which is certified to now by the Department of Agriculture and we will produce the man who made the measurements at the time and who saw the crops measured and knows all the conditions concerning that district.

MR. RAY: That very qualification makes it particularly hearsay. They have the direct evidence of it. We have recently had occasion to investigate that matter in the Federal Court, for instance the reports of the Selby Commission and the effect of smelter damages published by the Department of Agriculture, a series of thousands of experiments, and the court has held they are hearsay. We are deprived --

THE COURT: Pardon an interruption, Mr. Ray, I am inclined to think this witness may answer this question. The object of the question I take it is to aid the court in determining what weight ought to be given to this table. If it appears a part of the information from which this table is made is hearsay it will affect the weight to be given to this table. It is somewhat in the nature of cross examination but at the same time if some of the data from which this table

is compiled and from which the witness answers with reference to the duty of water, is based upon hearsay, the court ought to know it in order to determine what weight to be given to the testimony of this witness.

MR. RAY: If your honor will pardon just one further question. I understand it to be the rule an expert witness not is permitted to read even from recognized scientific data in support of his own testimony. It may be read to him on cross examination, truly enough, but he cannot fortify his own --

THE COURT: I don't understand he is doing that.

MR. RAY: I understand that is the purpose of it, to get hearsay in in another way.

THE COURT: I didn't so understand it. Read the last statement. I didn't understand he was reading anything at all.

MR. RAY: I am not contending he was reading it, but was giving what he has read.

MR. THURMAN: That is the view I have of it.

THE COURT: Now read it and we will see. I didn't understand he was reading anything nor stating it.

(Answer read)

THE COURT: That is as I understood it.

MR. RAY: That is as I understood it too, and I think any evidence as to his comparison is inadmissible.

THE COURT: This may remain in, it was a motion to strike out.

MR. RAY: No, there was a further question, I think.

THE COURT: There was no further question, there has been nothing stated as to that yet, as to any comparison yet. You objected for fear he was about to do that.

MR. COFFMAN: May I ask a question. The comparison you make of the Provo River with the Strawberry Valley system

is a comparison based upon experiments made, actual experiments made by you of the Provo River system?

A Yes, some that I have made, not all of them. I don't believe I made myself clear on that point. It is not the amount of water that you can store in your soil that you hold there. It is the amount you have to put on to get it over the land.

MR. CORFMAN: Now, have you arrived at that by careful experiment in this system the Provo system?

A I arrived the amount that four tenths of a foot was sufficient on the two tracts of land. I made that comparison with the tests made by Mr. Deming in 1914, while we were working under this court. They are practically the same and in order to further substantiate that in my work I made a comparison with the Strawberry Valley project.

MR. CORFMAN: But you didn't make the test yourself?

A On the Strawberry Valley project?

MR. CORFMAN: No, on the Provo system.

A Yes, I made some.

MR. CORFMAN: How many tests did you make?

A Made the soil tests.

MR. CORFMAN: What do you mean by soil tests?

MR. JACOB EVANS: If the court please, I think this has gone far enough. We object to his proceeding further, it seems to be bringing out the question of cross examination.

THE COURT: I think so, I think this would be proper cross examination, it is not voir dire.

MR. WILLIS: And if it should prove ~~xxxx~~ ^{in to} cross examination ~~as~~ these matters are not the actual knowledge of the witness then we would have a right to move to strike.

THE COURT: Certainly. You may proceed with the examination.

Q You may proceed, Mr. Wentz.

MR. RAY: I don't understand what question there is

before Mr. Wentz, your honor please.

THE COURT: The question is to give the basis upon which he has made this table, and upon which he has fixed the duty of water on these severallands. That is the substance of it.

MR. JACOB EVANS: Yes, in substance it is to state the facts that determine duty and how he arrived at the table he has placed on the board.

A During the year 1910 on forty-eight tracks, 152 applications the average depth of application was .79.

MR. RAY: Now, that is where?

A On the Strawberry Valley project.

MR. RAY: We move to strike that out.

THE COURT: That may go out. I understood you to say you did not make the applications over there?

A No.

THE COURT: That may go out.

Q Go ahead, Mr. Wentz, any other reasons that you have from which you arrive at the duty shown in the table you may state them.

A The tests I made myself in this area experiments from by Mr. Deming and after we had receded in 1915 with our supply and were operating the systems on the 70 acre duty after a month of observation from July 28th ~~tax~~ until the first of September, seeing the result on these fourteen thousand acres, seeing how we were getting along, it was conclusive evidence to me that the amount was sufficient where the losses in transmission that I have heretofore spoken of, made up.

Q The table that you have made there, as I understand you, is the duty given applied to the land, is that correct?

A That is in --

Q At each 160 acres?

A At each 160 acres within a half a mile of all the lands. The lands farthest away from this point would be a little over half

a mile across the quarter.

Q You said there was a loss in transit of the Provo Bench Canal you thought of approximately ten per cent. Now, you may state whether or not in some of the canals there is actually an inflow into the canal so that the canals ^{carry} more when they reach the land than they do at the intake? and if so, what canals are in that condition?

A We have not measured, or I have not measured in only the Factory Race, and Mr. Pratt measured the Charleston Canal in the upper valley, but the Factory Race gains $5 \frac{3}{4}$ second feet inflow from the head to the Sixth South Street of Provo City. Charleston canal gains 33 per cent.

Q What do you say as to the Lake Bottom Canal?

A Lake Bottom Canal gains and West Union has some flow in, that is, visible flow.

Q The quantity--

A We have not determined those quantities.

Q Are there any other canals that have any increase?

MR. RAY: You referred, did you not, Mr. Wentz, to the Charleston Canal in the Provo Valley?

A Yes.

MR. RAY: Thirty or thirty-three and a third per cent gain.

A Thirty-three and a third per cent gain.

Q Isn't the Lake Bottom Canal entirely made up of seepage in the latter part of the season, and doesn't take any water directly from the river?

A Well, when I speak of the Lake Bottom Canal I mean from its measuring flume down to the point of the banks, from there on. Above that practically all the water is from Spring Creek. It is all return seepage, but it is of a similar -- our whole river is made up seepage except the South Fork and North Fork, Deer Creek and little water from Round Valley

Creek, and Spring Creek is a branch of the river, but it is the same class of water.

Q In other words, you regard all these springs as being a part of the Provo River system?

A Yes, all the same system.

MR. RAY: Mr. Evans, does the water supplying the Lake Bottom Canal seep into the river below the other points of diversion before it is diverted into the Lake Bottom, or does it seep into the Lake bottom after its point of diversion?

A The spring creek rises along the bench on the west side of Provo River and is continuously along the east side of the bench down to Carey's point or the south point of the bench near where the Lake Bottom Canal rating flume is situated. During the late part of the season practically all the waters of the Lake Bottom Canal are waters rising in Spring Creek. There is a diversion from the river through which any deficiency to the Lake Bottom Canal and the Spring Creek users is made up. This water arises in August when there are tight dams in at the mouth of Provo Canyon, raises in the bed of the river below the mouth of the canyon. When the supply in the Lake Bottom Canal is sufficient only enough water is diverted from the river to supply what is known as the Clyde Ditch, which has its heading above the Spring Creek waters, above where the Spring Creek waters are available. Does that clear it up?

MR. RAY: Yes, that is just what I wanted.

Q What kind of crops, Mr. Wentz, generally are raised on the Provo bench and in Provo and in this vicinity?

A On the lighter soils and shallow soils the crops are alfalfa, grain, orchards and berries. Those are the principal crops. On the heavier lands, alfalfa, grain, orchard, pasture, sugar beets and truck.

Q Now, about what season of the year do they commence irrigating wheat?

A Wheat?

- Q Yes.
- A Wheat is irrigated about the 20th of May, 20th to the 30th of May. It depends on the spring rains.
- Q How many irrigations does that require to mature?
- A A dry season like this year it would require four irrigations, usually three irrigations?
- Q When do they cease irrigating wheat?
- A Not later than the 20th of July.
- Q When do they commence to irrigate alfalfa?
- A The 20th day of April. We have had one case in 1915, where they begin irrigating 15th day of March.
- Q How long does irrigation continue on alfalfa?
- A It continues the whole season.
- Q Up until what time in the fall?
- A Until October and sometimes until the first of November.
- Q After they get through with the irrigation, which is about July 20th, the land upon which wheat is planted and produced is not irrigated any more, is it, after the crop is harvested?
- A No.
- Q Does that apply generally to oats and barley and materials?
- A Yes, except in the cases where they have planted alfalfa with the wheat in the spring. In those cases, why, it is continued to be irrigated through the whole season.
- Q When that is done then the crop the following season becomes a crop of alfalfa and not a crop of grain?
- A Yes.
- Q They are changing this land all the time so that some of it is going into new alfalfa and some old alfalfa is being plowed up and planted into grain?
- A Yes, various change rotation of crops, diversified area.
- Q So that the duty table that you have given here, Mr. Wentz, applies to that portion of the land where crops are actually growing and being matured?

A No, I stated that in the beginning the duty table applies to the whole area as a unit. If there is a system of four thousand acres and there is after July 20th only three thousand acres irrigated, the duty of seventy acres goes to the four thousand acres just the same.

Q What time do they commence to irrigate the fruit crops, such as peaches and apples and trees?

A Where they are in clean cultivation 15th to the 25th of June. Where they have lucern and clover between them they begin irrigating same as though if it were all lucern or clover.

Q How late do they irrigate?

A About September 10th on clean cultivation and later where they are cutting the crop between the trees.

Q Most of the farmers in this vicinity irrigating from this district raise diversified crops, do they not?

A Yes, it is a diversified crop area.

Q Each one of them has a little fruit, little alfalfa, little grain, and generally a diversified crop?

A Yes, generally.

Q So that where we start out, we will say from May 10th to June 20th and you make your duty for Provo City acreage at 57 acres, you figure then as a unit they would use that duty of 57 acres on such crops as required irrigation during that period?

A The duty of 57 acres per second foot for this period is 1.43 feet in depth. All of the land is not watered this period. The grain lands are only watered once. Grain lands take a large amount of water the first watering, and with that idea this amount of 1.43 will be ample to supply that first watering even if has to go to the depth of 1.43, this duty of 57 will cover it.

Q But will that cover the whole of the tract, a duty of 57, I am speaking now of the man who has a crop of peaches and

apples, alfalfa, berries and wheat and such like; you say they don't irrigate the trees until along June 15th to 25th, now, what depth would that cover the whole tract?

A That would cover the whole tract 1.43, but as I say on the grain lands there is only one irrigation in that period, and he can put that 1.43 if he desires it, on at the one irrigation.

Q In other words, take it and put it all on the grain tract?

A Yes.

Q If he so desires, and then when the grain is taken off use the same quantity to put on the other crops which require water later on in the season?

A Yes -- no, that is not the idea.

Q What is the idea?

A I don't know whether I can get it right or not. For example, we will say a tract of ten acres. For that ten acres there would be 1.43 acre feet of water. In that ten acres there may be three acres of wheat, or thirty per cent, and that land is entitled or uses, gets one watering during this period, and he can put on the 1.43, if he desires, on that tract in one application and reserve the rest for the other tract, but he is not butting in to the amount allotted to the other lands by putting his 1.43 on at one time, if he so desires.

Q I will ask you to state whether or not you personally have irrigated land under this system?

A Yes.

Q What had been your experience in actual irrigation yourself?

A Well, I have irrigated every year since I was big enough to carry a lantern and a shovel at the same time, except the years 1901, 1902 and 1903. I have irrigated the tract that I now own some of the time since 1904, irrigated a twenty acre tract, clay and gravel loam in Section 22, 6 South 2 East,

and have irrigated forty-eight acre tract part of one year, that is clay and clay loam and gravel loam, what is known as the Barrett place now, in the northeast corner of the northwest quarter of section 26 -6-2, and I irrigated a tract part of the time for a few years, now owned by Mr. Stratton, in the Southeast quarter of Section 26-6-2.

Q That is all on provo bench, I take it?

A Yes.

Q Those tracts you have mentioned, and under the provo bench Canal?

A Yes, sir.

Q I call your attention to part 2 of your report, Mr. Wentz, you have made a table there on page 5 showing the distribution of water under what is commonly known and termed the Morse decree, and I will ask you to read, Mr. Wentz, that table which would have shown the distribution of the water under this decree had it not been distributed under the stipulation made by the parties.

MR. RAY: During the years '14 and '15?

MR. JACOB EVANS: This is during the year 1915, of course.

Q I will change the form of that question a little and will ask you to read the table referred to with the distribution of water when the river is at the 300 second foot stage, as distributed under that decree, or as it would have been distributed under that decree to the Upper East Union Canal Company.

A 42 acre duty.

Q And at 250 foot stage what would have been the distribution to the Upper East Union Canal Company?

A 50 acre duty. That is, 250 and above.

Q Beg pardon?

A That is at 250 and above.

Q At 250 and above, what is the last column, what does that refer to?

A That is less than 250, say 249.9. The proportions change different stages of the river. The duty under this stage at the same point possibly practically 249.9 would be 46 acre duty instead of a 50 acre duty as shown at the same stage under the other distribution.

Q In other words, at the stage of 250 second feet the duty so far as the Upper East Union Canal Company, immediately decreases?

A Yes, the quantity --

Q And duty of some of the other canals immediately increased?

A Yes.

Q In other words, if the river was at the stage of 250 second feet or below the stage of 250 second feet, the Upper East Union Canal Company would receive more water than they would receive when the river was at 250 second feet?

A Yes.

MR. RAY: True of the Lake Bottom too.

Q Now, I call your attention to the Faucett Field Ditch. If the water had been distributed under what is known as the Morse decree when the river was at the 300 second foot stage, what would have been the distribution to the Faucett Field?

A Twenty-one acre duty.

Q And when the river was receding from 300 second feet to 250 and until it reached the latter named point, what would have been the duty of the Faucett Field?

A It would have been 21 to 26, being 26 at the 250 foot stage.

Q And when it receded below 250 what would have been the duty?

A 24 acre duty.

Q I call your attention now to the river bottoms, and ask you to state what you have been distributing to the river

bottoms under a river carrying 300 second feet in quantity?

A One second foot for each twenty acres.

Q And when the river receded from 300 to 250 what would have been the quantity for the river bottoms distributed under the Morse Decree?

A At the 250 foot stage 23 acre duty.

Q And when it receded below 250 what quantity?

MR. RAY: What point below?

MR. JACOB EVANS: We will say 249, it is shown here as 24.

A The same amount. There is a typographical error there, 23 acre duty.

Q Call your attention to Little Dry Creek when the stage is 300 second feet what would have been distributed to Little Dry Creek under the Morse decree?

A 53 acre duty.

Q And under 250 second feet, what would it have been?

A 63 acre duty.

Q Now, a fraction below 250 feet what would be distributed to the Little Dry Creek under the Morse Decree?

A 52 acre duty.

Q Lake Bottoms, what would have been distributed to the Lake Bottoms at the 300 second foot stage of Provo River?

A 78 acre duty.

Q And at the 250 foot stage?

A 250^{second} foot stage, 94 acre duty.

Q And a fraction below the 250 foot stage, what would have been the duty?

A 86 acre duty.

Q Call your attention to the West Union, Smith Ditch and Carter Ditch; ask you to state what would have been the duty if the water had been distributed under the so-called Morse decree when the river^{was} at the 300 second foot stage?

A 50 acre duty .

Q And at the 250 second foot stage?

A 60 acre duty.

Q And at, or just below, fraction below the 250?

A Practically the same, 60 acre duty.

Q Call your attention to Provo City, ask you to state if the water had been distributed under the Morse decree at the 300 foot stage, how much water would Provo City have received, Provo City acreage?

A This includes, as I recall now, the 3,192 acres, includes 1200 acres in the city lots, that is, including streets, alleys and everything.

Q In other words, the 3100 acres, 3192 acres includes the city blocks here and the lots and the streets and the buildings contained on them and it all figured up into acreages?

A Yes sir.

Q And what would have been the distribution in that way?

A 37 acre duty.

Q When the river receded to 250 what would have been the duty under the Morse decree distribution?

A 47 acre duty.

Q And when the river receded below 250 second feet, what would have been the distribution under the Morse decree?

A 46 acre duty.

MR. RAY: Should we then, Mr. Wentz, correct page 5 of the report to read 46 instead of 48?

A Yes.

Q Do you know, Mr. Wentz --

MR. BAGLEY: Mr. Wentz, why not finish out that schedule. You have asked about all of it except the Provo Bench and Timpanogos. Why not complete it?

MR. JACOB EVANS: I haven't any serious objection

to completing it.

Q I will ask you the same questions concerning the Provo Bench Canal.

A The Provo Bench at the 300 second foot stage would be drawing a 53 acre duty; at the 250 second foot stage 76 acre duty, and just below the 250 second foot stage at practically the same stage of the river 98 acre duty.

Q You may answer the same questions with respect to the Timpanogos Canal?

A The Timpanogos Canal Company at the 300 second foot stage 72 acre duty, at 250 second foot state 86 acre duty, and just below the 250, at practically the same stage of the river, a 105 acre duty.

Q Do you know, Mr. Wentz, whether prior to the year 1915, the water of the Provo River was distributed under and subsequent to the making of this decree the waters had been distributed under this decree?

A Yes, under the tabulated portion of the decree, except for a time in 1914, the decree was not followed all the time, but the amount never went below the amount specified in the decree.

Q Now, there is a decree which has been introduced in evidence here, known as the Chidester decree, does that in any way modify the Morse decree respecting the distribution of the water as shown in the table which was just read?

A No.

Q The Chidester decree is practically the same as the Morse decree, is it?

A Well, the Chidester decree decrees the whole river, no matter what stage it is in, may be up to the height of stage 4180. The Morse decree limits them to the capacity of the canals.

MR. RAY: Now, your honor please, the decrees are the best evidence of that, and I move to strike that out.

Of course Judge Chidester did not decree in that way, as an examination of the decree will show. He made the division above a certain point always depending upon necessities and capacity of canals. The river goes up to 5000 acre feet, and it is ~~prx~~ perfectly apparent Judge Chidester did not decree 3000 feet in excess of the capacity of all the canals. He merely says above this stage they shall all take water in proportion to their necessities, there being no necessity for division. I move to strike it out.

MR. JACOB EVANS: It is true the decree is the best evidence, but here is a man who is entirely familiar with them and if we can get some of these facts before the court without having to ~~xsk~~ dig into these papers, it seems to me it would aid us in proceeding that way with our case. I realize counsel has the right to his technical objections.

THE COURT: Yes, I think the answer should go out.

MR. JACOB EVANS: Very well. I will ask counsel who have ~~made~~ the objection to read in the Chidester decree where that provision is in that decree which he refers to.

MR. RAY: If I am going to testify, I should be sworn.

MR. JACOB EVANS: I don't ask you to testify, it is simply to see if we cannot arrive at the facts, that is all.

MR. RAY: I have nothing to point out, and there is nothing they can point out which sustains their contention that he did distribute the whole of the water. He ~~xthink~~ takes paragraph 3 and distributes specific water, and in paragraph 4, he says "the foregoing constitutes the whole of the river in class A, that is the preferential right, simply told in the decree what they can have.

MR. JACOB EVANS: It does distribute the whole river, doesn't it, irrespective of the quantity in the river. It has been so understood and construed, hasn't it?

MR. RAY: I object to what has been understood the decree means.

THE COURT: Objection is sustained. I am inclined to think, Mr. Ray, Judge Chidester decreed all the waters of the river, determined who they belonged to at all stages. That will be my view of the language used. He divides the river into two classes, Class A and Class B, and Class B is all the residue of the water above class A, and then he divides all of that among certain parties.

MR. RAY: Our contention is merely this, that no court can decree --

MR. JACOB EVANS: In other words, he gives to certain parties certain classes of water. After he gets them satisfied, he takes the balance of the river and gives it to the same crowd.

THE COURT: You suggest another question whether the court had power to do it. As to whether he did --

MR. RAY: My contention is he is limited to the capacity of the canals and beneficial use.

MR. JACOB EVANS: We insist the capacity of the canals has absolutely nothing to do with it. It is a question of use, not capacity of canals.

MR. RAY: That is wrong too.

THE COURT: Now, you may proceed with the examination of Mr. Wentz. The objection is sustained as to the question you asked him.

Q Mr. Wentz, are you familiar with the duty of water in Provo Valley, Wasatch County?

A Provo Valley?

Q Yes, Wasatch County?

A Yes, to some extent, not thoroughly familiar though.

MR. JACOB EVANS: I will say, if the court please, in consulting with associate counsel in view of the fact that

is a different valley that we have concluded we will not go into that matter with this witness at this time, but confine ourselves only to the Provo Valley.

Q Are you familiar with the reservoirs at the head of Provo River owned, by the plaintiff and some of the defendants in this case?

A I am familiar with the Union Reservoir system, the North Fork system and the Lost Lake system. I have not been to the Haystack system of Meldrum Meadows nor the Lincoln Meadows.

Q Will you describe the reservoirs you are familiar with, tell where located, and give a general description of them?

A The Union Reservoirs are located near the head of the river, west and southwest from Mount Bald, consisting of three main reservoirs on the head of the Provo, mainly --

Q I might suggest, Mr. Wentz, you may ~~xxxx~~ have access, if you desire, to the plaintiff's Exhibit No. 46.

MR. JACOB EVANS: We are referring to part 9 of the commissioner's report, if the court please.

A The three main reservoirs in the way of size are Washington Lake and Wall Lake and Trial Lake.

MR. THOMAS: Is that Dial or Trial?

A I could not say, Dial, I call it.

MR. JACOB EVANS: We will name it Trial for the purposes of this case.

THE COURT: Dial is the way it is spelt.

MR. THOMAS: Tyrol is is spelled sometimes, I presume it is the same lake?

THE WITNESS: Same lake.

A These reservoirs were originally natural lakes whose outlets have been deepened and dams have been built across. They are rock filled dams with a slope about two to one on either side, it with an earth fill between the facings and are approximately thirty feet across the top. The storage capacity

above the depth, that is, the storage height is approximately thirty feet.

MR. RAY: In which lake, which one of them?

A Yes, I can give those by in detail by reference, but I don't remember everything in the world.

Q You can refer to your notes if you desire, to give the details.

A Wall Lake has five tributaries, namely, Clyde NO. 1, 2 and 3, and Wall No. 1 and 2. These tributaries little chain of lakes shown on the exhibit that drain into the Wall Lake.

Q Just state where they are located as near as you can?

A They are located on the head of Provo River, west and southwest of Baldy, on the main fork of the Provo.

MR. WILLIS: And flowed originally into the Provo River?

A Yes, their drainage is to the Provo. They are part of the Provo River drainage. I cannot make a description of these without practically reading the descriptions from the reports.

Q I think there is no objection to your reading the description of these reservoirs.

MR. RAY: That description is a description prepared by Mr. Pratt?

A Yes.

MR. RAY: Not by yourself?

A No.

MR. RAY: Do you know that it is correct?

A I have checked it over, yes.

MR. RAY: You have been at the reservoirs?

A Yes, I have been at the reservoirs.

Q You may proceed and read it.

A Union reservoirs consisting -- beginning on Page 1, part 9, paragraph 4 -- is located at the head of the main fork of the Provo River approximately 40 miles north and east from Heber, and lays almost entirely in Wasatch County, and elevation

ranging from nine thousand to ten thousand one hundred feet above sea level. The system groups according to size follows: Washington Lake with its tributaries No. 2, 3 and 4; Wall Lake with five small tributaries, Clyde No. 1, 2 and 3, and Wall No. 1 and 2. Trial Lake with its four tributaries, Star, Diamond and Montgomery No. 1 and 2. Washington Lake in its natural state has a surface area of approximately 50 acres. The shore line is for the greater part smooth and unbroken rising from the natural water edge on about a six per cent grade for a distance, then steeper. The gentle slope of the shore line tends to increase the surface area very rapidly as the lake rises so that as a depth of twenty-five feet above the natural surface, the surface area is nearly 120 acres. At this depth the reservoir commences to discharge water through the spillway. The discharge from this spillway during 1915 before the storage water was released did not exceed three second feet. The surface inflow to this reservoir is larger than any of the union reservoirs being 75 hundredths of a second foot at the lowest period observed, which was on August 29th. The dam across the outlet channel is constructed of earth faced with rock on both sides, built on a slope of one and one half to one. The thickness of the rock on the upper face being 8 feet at the bottom and $3\frac{1}{2}$ feet at the top. The maximum height at present is 35 feet, and present top width is 30 feet. The length is some 500 feet. When completed the top width will be 20 feet. The dam lays northeast and southeast with a slight angle bearing further to the south. on the west end. The water from this reservoir is discharged through a 20 inch Pipe controlled by a gate valve. Of the tributary reservoirs draining through Washington, the largest is Washington No. 2 with a surface area of fourteen acres. Washington No. 3 and 4 have each a surface area of about ten acres. The surplus water in the

last three mentioned reservoirs is held^{back} by temporary sod and timber dams that are constructed each year, the amount of water held depending of course upon the height of the dam constructed that season.

Wall Lake reservoir has a natural surface area of about 55 acres. The shore line for the greater part is steep and rocky, being almost vertical on the north and west sides so that there is no considerable increase in the surface area as the lake raises. This is the highest of the three major lakes comprising the Union Reservoir System, and is located near the top of the divide between the Provo and Weber River. Mount Wasson lays west. The dam across the outlet is similar to that of the Washington Reservoir, being earth faced with rock, with a maximum height of thirty feet and width of twenty feet and length about five hundred feet. When the depth of the water in the reservoir reaches 28 feet above the outlet it commences to discharge through the spillway. A 20 inch pipe is used to regulate the discharge. This reservoir with its tributary discharges through Trial Lake reservoir located below. This reservoir filled this season to within one foot of its spillway. The surface inflow had entirely ceased on August 27th, 1915. The small reservoirs tributary to Wall Lake in order, according to size, Clyde No. 1, area 11 acres; Clyde No. 2, area 4 acres; Clyde No. 3 area 3 acres, Wall No. 1 area 3 acres and Wall No. 2 area 3 acres. The dams in the outlets to these tributaries are small, being rebuilt each year, the storage capacity depending upon the height of the temporary dam.

Trial Lake reservoir is the smallest of the three major reservoirs, comprising this system. It has a natural area of ~~about~~ about twenty-five acres. The shore line on the east and north is rocky with several slopes, on the west steeper. The dam across the outlet is constructed the same as the dams

on Washington and Wall, and has a maximum height of about 35 feet. Top width twentyfive feet and length some 600 feet. This dam has been raised this season, 1915,. The new spillway is now at ~~the~~ a five foot higher level. Tributary to this reservoir are Star Lake with a surface area of approximately 16 acres, Montgomery No. 1, with an area of 5 acres; Montgomery No. 2 with a surface area of approximately two acres; ~~neither~~ neither of which are provided with permanent dams. The water from Wall Lake and Trial Lake reservoirs unite with the discharge from the Washington about a quarter of a mile below Trial Lake. It is only description you want, I understand?

Q If you know who they belong to, you may state who claims them, has possession of them.

A The ownership of this system is divided among four companies as follows:

MR. RAY: we object to that, your honor please, as proof of ownership.

MR. JACOB EVANS: Who has possession of them, you don't claim any of them, do you?

MR. RAY: No, you plead ownership, and we don't deny it.

MR. JACOB EVANS: We have ^{not} proved our proportion.

THE COURT: I see no object in putting this into the record, if it is a matter that is practically admitted by the stipulation.

Q You may proceed and state when, if at all, the water was discharged from these reservoirs and where did it go to during the year 1915.

MR. WILLIS: Let me ask a question, do you know of your own knowledge so that you can answer that question, Mr. Wentz, question just asked you.

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boose except near
the head -

went 196 -

also as to whether there
is an interference because
of Reservoir etc

identin
of losses
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Doesnt know
what the
actual
losses were
had no means
of knowing

A Read the question again?

(Question read)

A Water was discharged through the reservoir brought down the river --

MR. WILLIS: Mr. Wentz, can you answer that of your own knowledge?

A Only on the dates I was there and saw the water flowing from the reservoirs.

MR. WILLIS: Ask then that the testimony be confined to the knowledge of the witness.

Q You know it was turned in and distributed down here, don't you, Mr. Wentz?

A Yes.

Q Go on and state what you know about it.

A Storage water was released from the reservoirs, brought down the Provo River and delivered to the Provo Reservoir Company through their rating flume, on the north end Provo Bench.

Q How many years has that been done since you have been commissioner?

A The three years.

Q The three years you have been connected with the Provo River?

MR. MCDONALD: Mr. Evans, I would like to inquire there, I understand there are other parties interested in these lakes, if so, did they receive some water?

A Yes, the Wasatch Canal Company received their proportion of the water and the Timpanogos Irrigation Company their proportion of the water delivered at their intakes in Wasatch County.

MR. MCDONALD: And Se-go?

A And the Se-go received their portion delivered at its pipe line at the mouth of Provo Canyon.

Q There was no dispute as between the persons claiming to own these reservoirs what proportion of the water should be

distributed to each

A No, none whatever.

Q In turning the water out of the reservoirs you may state how it found its way down to the intake of the various companies to whom it was distributed?

A It was commingled with the waters of Provo River and the quantity delivered at the intakes of the canals in Utah County with a deduction for losses in transmission.

Q Now, during every year, even before the stipulation, was there any deduction made for loss in transit from the water that was turned into the reservoirs to the persons it was distributed to?

A There were no losses deducted for the Wasatch and the Timpanogos Irrigation Companies, but losses for the Provo Reservoir Company and the Segoe Company were deducted according to the stipulation entered into between the parties for the year 1915.

Q Now, how did the water run from the reservoir down to the ^{of} intakes, the Wasatch and Timpanogos Irrigation Companies where there was no such record, where there was no loss required?

MR. RAY: No loss charged, you say?

MR. JACOB EVANS: None whatever.

A It is approximately forty miles.

Q And what is the distance from the intakes of those canals down to the point where the Provo Reservoir Company takes its water in which a deduction was made under the stipulation.

A It is twenty-six miles.

Q Are you familiar enough with the Provo River to have an opinion whether or not there was any loss in transit in the waters from these reservoirs after it was turned in and carried down to the points of distribution to the various canals?

A I cannot say what that quantity would be, because I have not

distributed to each?

A No, none whatever.

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Q Are you familiar enough with the Provo River to have an opinion whether or not there was any loss in transit in the waters from these reservoirs after it was turned in and carried down to the points of distribution to the various canals?

A I cannot say what that quantity would be, because I have not

made any measurement to determine, I don't know of any losing section on the Provo where the Provo loses water unless it is in these -- near the head. Of course, the losses in proportion to the added quantity -- for instance, say there was a hundred second feet in the river and there was a ten per cent loss on it and you added more water, the 110 or 125 the losses would not be very much greater, the losses would not increase in per cent as rapidly as the quantity, so I could not say what those losses are.

Q Do you have any opinion as to whether or not there is in fact any losses in transit?

MR. RAY: Now, I object upon the ground that the witness has specifically stated he has no way of estimating.

MR. JACOB EVANS: He didn't answer, he said he had made no measurements. I ask him now if he has an opinion.

A No, I have formed no opinion of that quantity.

Q I didn't ask you about the quantity, have you formed any opinion whether there is or is not a loss?

A No, I have not.

Q You have no opinion concerning that matter?

A No, I haven't anything to base an opinion on, and therefore I haven't formed one.

Q Mr. Wentz; you are familiar with the reservoirs that you have testified to, I will ask you to state now whether or the impounding of the water in those reservoirs in any manner or at all interfere with the use of the waters of the old appropriators anywhere along the river system. Does it in any way deprive them of any water they otherwise would receive if the water was not impounded in those reservoirs?

MR. RAY: Do you make that specific as to the period during which you do impound them or through the year?

MR. JACOB EVANS: During the period in which they are impounded and afterwards.

Q there may be a short period from say the 300 second foot stage to the four that there would be an interference if they were impounding water at that time. Those seasons vary so much, usually there is time to make that storage during that high water period before the high water goes down in the low water period, but the amount of storage that is impounded there and the one thousand feet being used in the Wasatch County is a great remuneration for any interference that would be given earlier in the season by the impounding.

Q Why.

A Because just as soon as we begin or cease supplying water in Wasatch County in large amounts on those lands our ground water planes begin to drop. Now, I could give an illustration on that, but I guess it is not necessary, and we draw from that ground water plane in the Heber Valley our low water supply for the Utah Valley. After the high water has receded in the Heber Valley, the Wasatch Irrigation Company and the Timpanogos Irrigation Company draw their storage water from the lakes and continue to apply large quantities of water through their canals ~~keeping~~ ^{keeping} the ground water planes up and delivering that storage water to their system and finally to the users in the Utah Valley at a later date.

Q Do you know, Mr. Wentz, whether or not it is a fact that the average season of each year during the high water period whether or not there is more water in Provo River than is utilized and used by all of the water users along the whole river system, both in Summit, Wasatch and Utah Counties?

MR. RAY: Object to that as having been asked and answered and specific figures given by the witness at the outset of his testimony, just a repetition.

THE COURT: I didn't remember it.

MR. RAY: I can repeat the figures, what was going into the lake at the different high water periods.

MR. JACOB EVANS: That was down here in Provo Valley, I am now explaining this over the entire river system.

THE COURT: You may answer the question. I remember now what you have reference to, the fact there was water running into the lake.

MR. RAY: It would follow if it was going past why it also passed the upper dams.

MR. JACOB EVANS: It may or may not, that is the very point I want to show. This water is dammed off in a dozen or more places before it gets down to this valley.

THE COURT: Answer the question.

THE WITNESS: Now read the question.

(Question read)

A That is the average high water period of Provo River, yes, large quantity going to Utah Lake.

Q You may state, Mr. Wentz, if you know, whether or not during the lowwater period of Provo River, ^{is} that, after the river recedes to say 300 second feet down here, whether or not there are any dams in Provo River in Wasatch or Summit Counties which turn the entire stream out and take the stream into their various canals?

A I believe you said 300 second feet at the beginning of the question?

Q I will change it and make it at any time during the low water period.

A Yes, at 300 second feet and ^{above} ~~about~~ 300 second feet we sometimes have tight dams in at the Upper Midway dam and the Lower Midway dam and have as high in July 1914, on July 20th we had a tight dirt dam in at the Upper Midway dam, dam in at the Wasatch dam, but there was some water going through the Wasatch dam, and some more taken out at the lower Midway dam, and water diverted along the river through the Heber Valley,

and at our diversions in Utah Count we had 422 second feet.

Q You may state then whether or not it is a fact that the water is distributed in Wasatch Valley in low water period irrespective of the distribution of the water in Utah Valley with the exceptions of the water that is turned into the reservoir?

A Just read that.

Q The question I want to get at, I will ~~xxi~~ explain it a little, and I will change the form of it; when the water get so low in the Provo River in the Wasatch Valley that it is only sufficient to supply the needs of the decreed rights up there, do they take all of the water from Provo River if it is necessary to do so to irrigate their lands irrespective of the quantity of water necessary to supply the rights of the people in Provo and vicinity?

A Yes.

Q And in addition to the decreed rights, the rights below the Wasatch dam down to the head of the canyon also take water irrespective of the rights in the Utah Valley; in other words, do you distribute to the irrigators in the Wasatch Valley all of the water as it is in the river in the valley in low water season.

A Yes, above the Wasatch dam. The quantity there this year was not enough to supply the decreed rights down below the Wasatch dam to the head of the canyon, we let them use about what they wanted to until a certain time and then we cut them down.

Q In the Wasatch Valley you don't require them at any time to take out any of the dams they may have put in the river for the purpose of letting water come down to the Provo system, except such water as is turned from the reservoirs?

A Yes, in Wasatch county, taking the whole county we allow them to use all the water they will use, encourage the use of it

as long as high water lasts, and during the low water period they can use the water at the Wasatch dam and the upper Midway dam, practically all of it, but below the Midway dam down to the head of the canyon we allow them to use large quantities of water until the 10th of August, I think it was

last year and year before that I cut them down, and cut them -- when the duties here are up to 70 acres I thought they should not, these people should not get up any higher and those people using on low duty.

Q Now, with your experience in distributing the water of this river system I will ask you to state whether or not you believe it necessary a commissioner be appointed to distribute the water throughout the entire system?

MR. THOMAS: Object to that as immaterial whether he thinks it necessary.

MR. JACOB EVANS: That is one of the allegations of our complaint, and it has been done by agreement of all the parties.

THE COURT: What is the objection?

MR. THOMAS: It is wholly immaterial what he thinks there should be done in the way of a commissioner. The court has appointed the commissioner -- whether he thinks the action of the court is the proper one or not.

MR. JACOB EVANS: That is not the question at all. We simply allege that in our complaint in order to bring in this whole system.

THE COURT: I don't understand a commissioner has been appointed here, that he would have any right to distribute water in Summit County.

MR. THOMAS: Oh yes, it was the whole system.

THE COURT: Appointed in this case?

MR. JACOB EVANS: Appointed in this case.

THE COURT: I had reference to the appointment made

under the other decree.

MR. JACOB EVANS: We stipulated and in effect consolidated all these decrees. Of course, that was only temporary.

THE COURT: That is merely pendente lite pending the trial of this case.

MR. JACOB EVANS: Yes.

MR. THOMAS: With statement of counsel I withdraw the objection.

THE COURT: The court wants the opinion of the commissioner on that subject, Mr. Thomas.

MR. WILLIS: If the court please, it seems to me it would simply be a conclusion of the witness and anyway it would not be required for them to introduce facts that the court itself might determine whether or not it was necessary.

THE COURT: That may be true, yet I want the opinion of this man who has had charge of this matter. The objection is overruled, he may state what his opinion on that subject is, his best judgment.

(Question read.)

A Yes, the same commissioner should have control of the whole system as one unit.

Q Call your attention, Mr. Wentz, to part 16 of your report, which is a book containing photographs, I show you one on page 2 and ask you to state what that represents?

MR. THOMAS: Is there another part of the report that explains that?

MR. JACOB EVANS: That is another part of the report, that is 16.

A That is a picture of Washington Lake looking towards Mount Baldy.

Q And now, one of the reservoirs you have testified to?

A Yes sir.

Q Have you any other photographs, any other that show any of

these reservoirs?

A Photo No. 1 is a picture taken from Mt. Baldy looking down on the Union Reservoir system southwest. 51 is the Big Elk Lake reservoir looking north from the west end of the dam.

52 is another view of the Big Elk Lake reservoir, showing part of the lake and the dam.

54 is another view of the Big Elk Lake reservoir.

56 is a view from the north across the lake from the dam.

57 is the same as the first photograph identified as Washington Lake looking towards Mt. Bald. Do you want the dams?

Q Yes, dams any other structures.

A 60 is a picture of Washington Lake dam looking to the west taken from the east end of the dam.

61 is the North Fork Lake No. 6, tributary to Washington-- not a tributary to Washington.

72 is a picture of the Washington Lake dam from the inside showing the gate valve.

64 is the North Fork Lake No. 1 dam.

MR. A. C. HATCH: What system of reservoirs is that?

A This is the Union reservoirs.

65 is the North Fork Lake No. 5. I believe I misunderstood you, Judge Hatch, did you say the North Fork?

MR. A. C. HATCH: Yes, whose system?

A The North Fork system is owned by the Provo Reservoir Company.

66 is the dam of the North Fork Lake No. 6.

67 dam of the North Fork Lake No. 3;

68 is dam North Fork Lake No. 6;

69 North Fork Lake No. 3;

70 North Fork Lake No. 5, looking northwest across the lake.

73 Haystack Lake No. 3 over the outlet.

74 Haystack Lake No. 1 looking east;

75 Haystack Lake No. 2, looking south;

- 76 Haystack Lake No. 2 from the outlet;
- 77 Haystack Lake looking north;
- 79 dam of the Haystack No. 3;
- 81 Dam of the outlet to the Haystack No. 1;
- 82 is Wall Lake taken on the 27th day of August, 1915,
near the outlet looking north and west. This is the low water
point on the Wall Lake;
- 83 Wall Lake looking across to Mount Watson, taken on
July 4, 1915;
- 84 Wall Lake looking west;
- 85 Wall Lake looking north;
- 86 Wall Lake dam taken from the east side and little west,
up from the dam;
- 87 is Wall Lake dam, the east end of it;
- 88 Wall Lake Dam taken from below;
- 89 Wall Lake looking south;
- 90 Wall Lake dam looking west;
- 91 Lost Lake looking east;
- 94 Lost Lake looking east;
- 95 Lost Lake No. 1;
- 96 Lost Lake No. 3 dam ;
- 97 Lost Lake No. 2 looking south;
- 98 Lost Lake Dam;
- 99 the picture of Star Lake ;
- 100 Trial Lake looking east;
- 101 Star Lake taken from the outlet;
- 102 Trial Lake and Mt. Bald in the west;
- 103 is the picture of the temporary dam and the outlet of
Star Lake;
- 104 Trial Lake dam from the east looking west, top of the
dam;
- 105 Trial Lake looking east;
- 111 is a picture of the suppressed weir located about a

quarter of a mile below Trial Lake where we measure the
xxx water coming from the Union Reservoir Lake.

114 is a picture of the same weir taken from above;

117 is a close view of the same weir, taken just below
the weir;

No. 128 is a picture of the headworks of the Provo Reser-
voir Company, located in Provo Canyon;

139 is a picture of the Trial Lake dam from the inside;

140 North Fork Lake No. 1, looking northeast;

148 is the Provo Reservoir Company's siphon across the
Provo River at the mouth of Provo Canyon;

149 is the weir and rating flume station on the top of
the Provo Bench near the mouth of Provo Canyon.

12:00 Noon, Recess to 2:00 P.M.

MR. JACOB EVANS: If the court please, we offer in
evidence now the particular photographs that were identified
and testified to by Mr. Wentz, contained in part 16 of his
report.

THE COURT: They may be received.

MR. THOMAS: May it please the court, aren't they
all part of the files in the court?

MR. RAY: They are not in evidence, doesn't make
them evidence;

T. F. WENTZ - - - -

DIRECT EXAMINATION by Mr. Jacob Evans continued.

Q Mr. Wentz, I wish you would carry out the total acre feet of
water on the table which you have put on the blackboard. Just
state, Mr. Wentz from what date to what date you add those
totals together?

A Column 6 I will mark May 10th to September 1st.

MR. A. C. HATCH: October 1st?

A September 1st, and column 7 I will mark May 10th to October 1st.

Q Just state what they are, Mr. Wentz, as you are putting them.

A Provo City acreage for the column 6, 3.53 acre feet per acre;

Timpanogos Canal Company 3.33 acre feet per acre;

West Union 3.53 acre feet per acre;

Provo Bench 3.53 acre feet per acre;

Upper East Union 3.53 acre feet per acre;

Little Dry Creek 3.33 acre feet per acre;

Alfred Young Ditch 3.53 acre feet per acre;

Dixon Farm Ditch 3.53 acre feet per acre;

George Baum Ditch 3.53 acre feet per acre;

First Ward Pasture 3.33 acre feet per acre;

East River Bottoms Water Company 3.85 acre feet per acre;

Park & Buttall Ditch 4 acre feet per acre;

Barton and Young Ditch 4 acre feet per acre;

Spring Creek users 4 acre feet per acre;

Faucett Field 3.85 acre feet per acre;

Fort Field 2.48 acre feet per acre;

Lake Bottoms 2.48 acre feet per acre;

Sego Irrigation Company 3.85 acre feet per acre;

Provo Reservoir Company 3.53 acre feet per acre.

Q You make no total for the Provo City lots?

A I can make a total for it.

Q Go ahead and make the total, Mr. Wentz?

A Provo City Lots 4.44 acre feet per acre.

MR. COLEMAN: Did you say this was the net duty of gross duty?

A I give it at each quarter section of land delivered at each local subdivision of land, each quarter section. That is within approximately half a mile of each user, the extreme limit of half a mile. Column 7 for a period total of May 10th

to October 5th:

Provo City acreage 4.38 acre feet per acre;
Timpanogos Canal Company 4.12 acre feet per acre;
West Union and others 4.38 acre feet per acre;
Provo bench 4.38 acre feet per acre;
Upper East Union 4.38 acre feet per acre;
Little Dry Creek 4.12 acre feet per acre;
Alfred Young Ditch 4.38 acre feet per acre;
Dixon Farm Ditch 4.38 acre feet per acre;
George Baum Ditch 4.38 acre feet per acre;
First Ward Pasture 4.12 acre feet per acre;
East River Bottoms Water Company 4.7 acre feet per acre;
Park & Nuttall Ditch 4.85 acre feet per acre;
Barton & Young Ditch 4.85 acre feet per acre;
Spring Creek users 4.85 acre feet per acre;
Faucett Field 4.7 acre feet per acre;
Port Field 2.96 acre feet per acre;
Lake Bottoms 2.96 acre feet per acre;
Sego Irrigation Company 4.7 acre feet per acre;
Provo Reservoir Company 4.38 acre feet per acre;
Provo City Lots 5.29 acre feet per acre.

Q Mr. Wentz, will you explain why you made the first total up to September 1st and then added the other total up to October 1st?

A The period May 10th to September 1st is about the average extent of the irrigation season, that is when they are irrigating continuously during the average year. It also makes it more comparable with the other duties of other districts figured on the same length of time.

Q Now, Mr. Wentz, is this schedule that you have compared here based upon any particular number of acres irrigated?

A No, the number of acres doesn't make any difference.

Q Has nothing to do with the total at all?

A No.

Q That is merely the duty of water there in your opinion?

A I have not said it was the duty.

Q You say that is the quantity that would be sufficient?

A I say this quantity is sufficient, I don't say what the duty is. The duty may be less than this, but I am satisfied that this quantity is sufficient. A smaller quantity may also be sufficient, I don't know what that quantity is.

Q So that this question that I am asking because of the number of attorneys speaking about it, nothing would be added to that table by attempting to add any number of acres to each of these particular tracts in order to make the total complete as you have prepared it?

A No, the number of acres doesn't make any difference whatever.

MR. RAY: Now there may I ask a question.

MR. JACOB EVANS: Yes.

MR. RAY: You have figured this duty upon the acreage set forth on page 5 of part 8 of your 1915 report, have you not?

A No, the number of acres doesn't make any difference in the duty.

MR. RAY/ I don't want to cross examine here, but there is a question there I would like to bring out if counsel doesn't object. If they do, I will reserve it.

MR. JACOB EVANS: I have no objection.

MR. RAY: I understood Mr. Wentz to say in respect to Pervo Bench Canal that he had figured it on the basis of their acreage, and if they have four thousand acres and only irrigating three thousand, he would turn them the quantity of water and they might use it as their necessities required on the tract.

A No, you have a misunderstanding. The table is formed and basis is the total area as a unit. If they have four thousand