office one day, I think it was when the sewer contract was to be let, and we walked into the draughtsman's room and there we saw the altered plan. We were thunderstruck with it and that was the first thing that we began to see that we had not been used right.

Rosewater—That was after the second bid was put in?

Shaw—After Creedon & Mahoney had got the contract.

Kountze—The time you speak of here as visiting Mr. Geraldine was at the time that your first bid had been under consideration, $7,900, was it not?

Shaw—I don't understand.

Kountze—You had a bid in, or rather Mr. Connolley had a bid in, for $7,900?

Shaw—Yes, sir.

Kountze—And it was the time the first set of bids were under consideration that Mr. Connolley visited Mr. Geraldine to get information in regard to his first bid?

Shaw—Yes, sir.

Kountze—When Mr. Geraldine told him that he wouldn't get the contract?

Shaw—Yes, sir.

Kountze—Subsequent to that new bids were taken from Mr. Connolley and from Creedon & Mahoney, and didn't I understand from you that when you put this second bid in for this work, or rather Mr. Connolley, that he did not know what he was bidding on?

BID WITHOUT SPECIFICATIONS.

Shaw—He was told verbally by Mr. Geraldine what to bid on. I said this, that he was told to look over his original bid and see if he could not cut his estimate down somewhere. That we did by lowering that $100. He was told also to see what difference it would make instead of driving the sheet piling two feet six, as called for in the original specifications, to cut a trench two feet deep and drive the point six inches. Well, there was enough cut off by doing that to bring the estimate down to $7,100.

Kountze—Are you quite sure?

Shaw—Positive.

Kountze—I understand you did not have any specifications when you put in this second bid?

Shaw—Nothing except the verbal explanation from Mr. Geraldine to Mr. Connolley, which Mr. Connolley brought to me.

Kountze—I understand, Mr. Geraldine, that the specifications had been modified when this gentleman bid on them?

Geraldine—Yes, sir, the modifications were fully explained.

Kountze—And did they have a copy of it, or was it simply verbal?

Geraldine—It was verbal. I simply explained to these bidders the changes that are embodied in this contract.

Kountze—Mr. Shaw, doesn't this appear in your bid? You say that in making your bid for $7,800 you bid to drive your piles six inches and to dig a trench and set them in?

Shaw—No, sir.

Kountze—What did you say?

Shaw—On the bid of $7,800 we were going to drive the sheet piling two feet and six inches.

Kountze—Well, but when you made the deduction of $700?

Shaw—When we made that deduction we were going to dig a trench two feet and drive the piling six inches, which made two feet six.

Kountze—Isn't this the condition of your bid? If sheet piling is allowed to be set in trench instead of being driven, deduct $700?

Shaw—That may be the language of it, but the intention was to drive them in the six inches.

Kountze—Wouldn't we have to assume that the bid as made and as written would be what you intended to do? We could not assume that you should do something different from what you bid for?

Shaw—Well, you can take it in that form. But the language there does not convey just exactly what was told us to be done.

Kountze—This fact is very explicit and certainly Mr. Geraldine or the association could not have required you to have driven those piles one inch under this proposition.

COULD HAVE BEEN BY CONTRACT.

Shaw—It could have been arranged in the contract easy enough, because it was a verbal understanding.

Kountze—Well, but you must hold to your proposition, not what you might have done under other circumstances, but what you actually bid for.

Shaw—There is no doubt that what I have given in black and white there is not just exactly what is wanted.

Kountze—It is exactly as you bid.

Shaw—I understand that, sir.

Kountze—And exactly as the association would have to consider it in drawing a contract for you to do the work, and, drawing it differently, I should judge that you would have been entitled to additional pay if they gave you additional work.

Shaw—Well, I don't think there would have been any dispute about that at all.

Kountze—Well, we will pass that. What were the other questions here?

Bidwell—Were your present with Mr. Connolley when he made this arrangement with Mr. Geraldine?

Shaw—No, sir; I was in my office. Mr. Connolley came down and reported to me.

Bidwell—You are simply stating what Mr. Connolley told you?

Shaw—Yes, sir; that is right.

Rosewater—Do you know in this $7,800 bid whether you counted to furnish white pine or yellow pine?

Shaw—White pine, and I will tell you why. We consulted with the lumber dealers here and we found that it was impossible for us to get yellow pine shipped in here in time to complete the contract at the date specified.

Rosewater—How much higher was white pine than yellow pine at that date?

Shaw—I won't say, because that is just the answer we got and we wouldn't go any higher for it. But yellow pine is cheaper than good white pine.

Rosewater—Have you any idea what the difference in price was or would have been?

Shaw—Well, I would say from $1 to $2 a thousand; that the yellow pine would be cheaper than the white pine, but I would not say exactly. But I will tell you that our bid from our lumber dealer was $18 a thousand for white pine.

Rosewater—The lumber dealers asked you $18 a thousand.

Shaw—That was the price made by them.

Rosewater—You figured on furnishing lumber that cost you $18 when you put in your bid for $7,800.

Shaw—Yes, sir.

Rosewater—Had you supposed you could get yellow pine, what would you have bid?

Shaw—We could not bid at all on yellow pine because they would not agree to deliver it to us at all in time to complete the contract.

Rosewater—Were you offered any lumber by the exposition association or by Mr. Geraldine?

Shaw—No, sir; neither Mr. Connolley nor myself.

Rosewater—What quality of white pine was this that you were bidding on?

Shaw—It was to comply with the specifications. The specifications did not call for any quality.

Rosewater—Will you explain the difference between the specifications as they are now, as you found them on the present work as done and what there was in the original as you drew it first and as you bid on it?

BAD WORK ON LAGOON.

Shaw—I don't know what the present specifications are but I had occasion to go out on the works a couple of weeks ago to see this new patent pile driver, and while there I just made an examination of the works to see how things were going. And I found considerable alteration from what I intended. The sheet piling itself, instead of being down two feet six, ranged anywhere from one to two feet below the surface of the ground; none of it exceeding two feet. The coping should have been 4x12 and it is 4x8. The circular ends of that coping were specified to be broad enough so as to dress twelve inches wide all around, but even in the eight-inch stuff it has not been made wide enough to dress eight inches all around, and you will find in the center of the sticks it is only six inches. There is no waling put on, the piling is being irregularly driven, so that they could not construct the work according to the plans I made. The piles are all zigzag, some out and some in. I saw several while there that were cut more than three-quarters through in order to line up the face of the piling and they are no good that way for if ever any pressure comes against those piles away goes the whole shooting match. Then they couldn't use that face waling owing to the irregular manner in which the piles had been driven and they put in the waling piece at the back of the sheet piling and made a kind of an attempt to groove it into the piles, but it was the clumsiest looking thing you ever saw. The most of it was tacked in by a couple of nails, just nailed up. Now the piles were specified to be not less than twelve inches on the head and eight inches at the bottom. Seventy per cent of those piles don't run over nine inches on the head.

GERALDINE TALKS OF PILING.

Kountze—You made a remark, Mr. Shaw, a minute ago that the work is not done as you intended to do it.

Shaw—That is right, sir.

Kountze—Did you intend to do the work otherwise than called for by the specifications?

Shaw—As called for in the plans and specifications.

Kountze—Then you state that the work as done now by Creedon & Mahoney is not done according to the specifications.

Shaw—It may be according to the new specifications, but not according to the ones we bid on.

Kountze—How is that, Mr. Geraldine?

Geraldine—The only difference in the work as done now and as originally intended is what has been shown in the explanation I have given, with the exception that the piling is set uniformly ten feet apart. In the original design it was intended to be various distances apart, 9 feet 8 inches, 7 feet 8 inches, and in the very high portions 6 feet 8 inches. In going over the work I found that to be unnecessary; that there was sufficient strength without putting the piling in so numerously, and put it uniformly ten feet apart. Don't know just what the difference would be, but probably would be twenty or thirty piles in all.

Kountze—What is there in this matter that Mr. Shaw claims, that the piles were so indifferently driven that in order to straighten up that work it was necessary to cut the piles down to such a condition that they lost their usefulness?

Geraldine—The statement is untrue. It is either the result of ignorance or willful falsehood.

Shaw—I would be glad to take you and show you Thursday, or your representative, where I saw the piles. I know where to go for them and Mr. Connolley was with me.

Geraldine—In driving this piling, you understand it is necessary to get it back to the proper facing and up from the wall somewhat, and in driving the piling at the bottom of the wall, as in this case, the displacement was greater at the front side on the level bottom of the ditch than against the high wall, and of course the inclination of the pile would be to go that way. Now, it is difficult to get the piling exactly lined in driving, so that sometimes to put a pile in the proper place it was necessary to incline it somewhat. Then when we come to put on the anchors the pile was drawn into line by being drawn into place. If it was too far this way it was turned out with a jack and if it was too far at the bottom it was cut off.

Kountze—How many were too far at the bottom?

Geraldine—Very few. There was one pile set so far out that the box above it would nearly cut the pile off to bring it to line. After they had done this work I ordered them to remove the box because from its location the remaining part was sufficiently strong, and it was totally unnecessary to have anything more and it left a better finished job, by far, to cut it off. But the factor of safety provided in this anchorage is very high. It is probable, if it was not for the great length of waling, one pile every eighteen or twenty feet would be sufficient, but in order to get it absolutely safe and sufficiently strong I put the piling every ten feet.

Kountze—Have you anything further to state as to this?

MUCH MORE BAD WORK.

Shaw—I was just going to say this, that a lot of those piles were driven down below the level of the coping. I don't know how many, but a lot of them. And there were little pieces, maybe two inches thick, put on the top to bring it up to the level of the coping. In one case I saw two or three pieces put on the under side of the coping. The whole strain, if any of that clay should move at all, the whole strain comes on the coping and it is held ther by a little two-inch nail going into the pile. Those were specified to be wood lag screws and there was to have been none of those packing pieces at all. I will say this, that it is a very dangerous thing to have.

Geraldine—At one point on the lagoon there were several piles driven below the required level, but they were not driven below the point of anchorage.

Kountze—Not below the point that the pile is anchored back?

Geraldine—No; in these cases I authorized the spiking of pieces on the top and pieces of planking were put on the top and spiked on and the coping was spiked to that. Now, the coping goes on in this manner. (Describes coping from drawing.)

Kountze—What is the fact, Mr. Geraldine, about using the spikes instead of using lag screws, as Mr. Shaw says the specifications called for?

Geraldine—The specifications called for lag screws when we designed to put the waling on in this manner, on the front. There is the end of the waling, and there is the lag screw holding it to the pile. In this case all the protection the sheet piling would have would be the hold of those lag screws in the soft pile. In the other case the waling is put in in this manner, mortised from the back side, so that it cannot move forward without bringing the piling with it. In the other case it would only be necessary for it to pull the lag screws. This is the more expensive method.

Kountze—What is the fact in regard to fastening the piling to the coping. Would it be possible to drive that piling in in the manner which Mr. Shaw spoke of?

Geraldine—No, sir?

Kountze—The manner of your construction would not allow the catastrophe that Mr. Shaw indicated here?

Geraldine—No, sir. Let me state that if this was loose earth with its natural slope, instead of the solid bank that it is, the pile is strong enough to hold it. I was obliged to figure against the thrust of a loose bank of earth for this reason, that in the freezing and thawing this winter a portion of the bank might be sluffed off in that manner and the piling forced to receive the entire thrust of that loose earth. Therefore, I provided for that. I found in looking over Mr. Shaw's drawings that he had designated only ten feet to put these anchors back. Now, the natural incline of a sluffed bank of loose earth would come in this manner to the bottom of the lagoon and would go beyond where he proposed to place the anchors. For that reason I changed his plans, putting the anchor piles further back.

Shaw—You will find it further in the longer piles.

Geraldine—That is correct, but it is not sufficient in the short piles. The anchor, to be safe, should go beyond the point at which the earth would crumble if it was loose; otherwise it would be no protection.

SHAW PRESENTS FIGURES.

Shaw—I figured, gentlemen, that the lumber which was being saved from the method in which the work has been constructed and the plans we bid on as follows: On the backstays there is 21,333 feet. On the short sheeting—that is to say, they did not put it down two feet and six inches—that it amounts to 15,000 feet, and if it had been two feet it would have been more. For the coping, it was originally 4x12 and it is now 4x8.

Kountze—I understood you, Mr. Geraldine, to say that it was 4x10 reduced to 4x8.

Geraldine—The specifications show it.

Kountze—It would have taken twelve-inch lumber, then, would it, to give you the curve, and finish ten?

Geraldine—Yes, on the curve. On the straight there would be nothing cut away.

Shaw—The saving on the coping is 6,664 feet. The waling, instead of being 8x8, is 3x6 and that saves 1,666 feet. The mortise and tenon are only three-eighths of an inch and I don't think they are much good. You might just as well have straight joints. The plan shows them an inch and the saving on that alone is 5,016 feet, making a total, with the cutting of a foot off the sheet piling, of 49,679 feet, and if you cut another foot off, which I believe it will stand, it is close to 60,000 feet.

Kountze—Mr. Shaw, in your bid of $7,800 did you bid on a different specification from that on which Creedon & Mahoney bid?

Shaw—I don't know. We bid on the specifications that were there for bidders.

Kountze—Was there more than one specification?

Shaw—I don't know. I prepared the specifications myself and Mr. Geraldine looked them over and altered some things in them.

Kountze—Mr. Geraldine, was this piling which Mr. Shaw claims he figured on a foot longer than that which Mr. Creedon furnished?

Geraldine—The sheet piling?

Kountze—Yes, sir.

Geraldine—No, sir; Mr. Creedon furnished the same length of piling that the original plan called for. This is the sheet piling, you understand, that I ordered from the Cady Lumber company and was the piling actually used. That was ordered and the estimate made on the first plans.

Kountze—And was of the same length that Mr. Shaw bid on?

Geraldine—Yes, sir; that is, you understand that there is very little of this that was put in full length. It was ordered in long lengths and short. A great deal of the piling was cut at ten feet, eleven feet, twelve feet, and thirteen feet, according to the depth of the lagoon, or rather according to the depth of the bank.

Kountze—Was there a different class of lengths furnished by Creedon & Mahoney than was contemplated in the original plan upon which Mr. Shaw claims that that original bid of $7,900 and subsequently $7,800 was made?

Geraldine—No; that was ordered before the distance of eighteen inches was decided upon for sinking the piling. The greater portion of it was driven to the full depth and some lower, so that this piling is driven on an average more than two feet.

Kountze—The piling that is now in?

Geraldine—In some places, there is a certain location where it is short, where in cutting the lengths of piling to get the required slant that it was short and only went in the ground sixteen inches. I found some that only went in sixteen inches, but there were very few pieces and in that case we required very careful work in the puddling and tamping to avoid leaking rather than incur the delay of waiting for more lumber.

THOUGHT SOMETHING WAS WRONG.

Kountze—Creedon & Mahoney were offered that lumber? Shaw was not offered the lumber, or Shaw & Connolley? Now what was the advantage to Mr. Creedon in getting the benefit of your contract over what Mr. Connolley could have bought the lumber for?

Geraldine—None, whatever. What Mr. Connolley could have bought the lumber for I don't know. As to what the lumber would have been furnished in the market for, giving Mr. Creedon an advantage, when I asked Mr. Creedon what price he had figured on for lumber, he quoted a price lower than he actually paid for what he used.

Kountze—Mr. Shaw, you say the price quoted to you for white pine for this work, tongued and grooved, was $18?

Shaw—Yes, sir.

Kountze—Who was your man who was offering the lumber?

Shaw—The Wyatt-Bullard company.

Kountze—Did you try any of the other lumbermen?

Shaw—I don't know whether Connolley did or not, I did not. I was going to say, gentlemen, that in addition to the lumber bill I have given you, there will be fully forty-five piles saved in that job.

Kountze—What was the value of each pile driven?

Shaw—Oh, it was worth a dollar, anyway; at least that. And the bolts were done away with, and I figured up that the price of that wire and putting it on would not cost as much as the bolts and boring of the holes for putting the bolts in.

Kountze—Mr. Shaw, wasn't Mr. Connolley informed that the change had been made substituting wire instead of wood, and that he bid with that in view?

Shaw—I will tell you honestly, I don't believe it, because Mr. Connolley and I, the first information we knew of it, was when we went up into Mr. Geraldine's room there to look up the sewer contract. We walked in to the draughtsman's table and there was the plan with this new section on it, showing this wire and everything else that we had never seen before; never knew a thing about it before. That is what made us begin to think there was something wrong.

Kountze—That is, you did not know when you put in your revised bid that this wire binding to the stay-tie was to be used instead of wood?

Shaw—We did not. Did not know it. Was never thought of at the time. All the alteration that we bid on was to cut that trench two feet and drive six inches, instead of driving two feet six inches. That was the only thing we ever knew about the alteration of the plan.

Geraldine—The statement is untrue; absolutely false.

Bidwell—Your dealer bid on white pine lumber at $18 a thousand, and that was the basis of your bid of $7,800? If you had known that you could have bought lumber, white pine lumber, tongued and grooved, for $14.50, would that have made a difference of $3.50 per thousand on your bid?

Shaw—Yes, sir. We bid on the basis of $800 profit on that bid of $7,900.

Bidwell—If, as a matter of fact, you had called for a bid from Mr. Hoagland and had received an offer to furnish this lumber, white pine lumber tongued and grooved, at $14.50 instead of $18, you would have reduced your bid that much?

Shaw—Yes, sir. We were content with that margin of profit and we could have reduced our bid.

Bidwell—As a matter of fact Hoagland did offer to furnish that lumber for that money?

Shaw—He did, but we did not know it.

Rosewater—Were you aware that this work was to be done in yellow pine, could you have taken that contract at that time and filled it by September 10, as proposed, in yellow pine if that had been accepted?

Shaw—We could not get the Wyatt-Bullard company to say that they could get us the stuff in time to finish the job. We had an option to bid on yellow pine, but we did not do it.

Rosewater—And you did not know anything about the purchase the exposition made from the other lumber company and that was turned over to Mahoney & Creedon?

Shaw—Did not know a thing about it, neither Mr Connolley nor myself.

PURCHASE, BUT NO CONTRACT.

Rosewater—I want Mr. Geraldine to state as far as he knows, expressed in quantity by feet, of lumber purchased by the exposition and turned over to Creedon & Mahoney.

Geraldine—I don't recollect. I judge it was about 170,000 feet.

Kountze—Mr. Geraldine, in order to make that point clear, did the association buy any lumber and pay for it, or did they simply make a contract for lumber and transfer the contract to Creedon & Mahoney?

Geraldine—They made a contract for lumber and transferred the contract.

Kountze—They never made the purchase? They never received the lumber themselves?

Geraldine—No, sir.

Kountze—But they did make a contract by which they were to take a certain quantity of lumber, and that contract was referred to Creedon & Mahoney, and that was probably 175,000 feet?

Geraldine—Yes, sir; in that vicinity.

Rosewater—Now, have you that contract?

Geraldine—There was no contract. It was a verbal order, and a pencil memorandum of the amount of lumber required.

Rosewater—Have you no agreement in writing by which the lumber company fixed the price in writing at which that lumber was to be delivered for the exposition?

Geraldine—No, sir.

Rosewater—You stated that the lumber was bought at $14.50 per thousand?

Geraldine—Yes.

Rosewater—Was that all the lumber used in that lagoon?

Geraldine—No, sir.

Rosewater—How much other lumber was there used?

Geraldine—I should judge that—I don't know how much. The contractor had to get more—probably 20,000 feet. I don't know.

Rosewater—Is that also yellow pine from the same yard?

Geraldine—Furnished by the same people.

Rosewater—So that, all in all, there would have been 195,000 feet used in the lagoon in its construction?

Geraldine—Somewhere in the vicinity of 200,000 feet.

Rosewater—Now you stated that the piles and the driving of the piling was $779?

Geraldine—Yes.

Rosewater—That, with the lumber got, was all the material used in the lagoon, was it not, and included the labor of driving the piles?

Geraldine—I do not know as I understand your question.

Rosewater—The piles driven by our own people and bought by the exposition, together with 195,000 feet of lumber which Creedon & Mahoney purchased and supplied, was all the material used in that lagoon, was it not?

Geraldine—No, I think not.

Rosewater—What was there besides? I am talking of material now.

Geraldine—There were cables for anchoring the posts, the nails and the white lead or paint that was used.

Rosewater—How much white lead was used?

Geraldine—I do not know. It was put on the west end of the lagoon for about half or two-thirds the distance around.

Rosewater—I notice that in this bill (I presume it is receipted) the amount charged as the cost of piles is $345.89 and the labor is $419.40. In round figures, then, the labor which the exposition has bought is equal to $400. Now, Mr. Geraldine, you stated yesterday that Connolley offered to do the labor for $2,800. Is that correct?

Geraldine—I think his bid shows that.

Rosewater—Did that include the work of pile driving and completing all that work?

Geraldine—His bid will explain.

Rosewater—I have not examined the bid, and I want to know that because I want a clear idea of it.

ADDITIONS AND DEDUCTIONS.

Geraldine—Yes, I think his bid included all the labor.

Rosewater—So that, deducting what you have paid already, say $400, there would have been only $2,300 to add for Mr. Connolley if he had done that work under his bid?

Geraldine—I think there is about $80 of that that was paid for the use of the pile driver or for repairing.

Rosewater—Is that charged to the labor?

Geraldine—I think so. It is included in the complete work.

Rosewater—The reduction was about $80? That would make the computation of labor equal to $2,380, the whole labor. I am talking about separating the materials from the labor. The 195,000 feet at $14.50 per 1,000 would be equal to $2,827.50. To that should be added for piles and pile driving together $779.93, and the estimated labor for which it could be done or bought of Connolley we would put at being equal to $2,380. I want to ask now how much, in round figures, the value of the white lead, the nails and the anchoring would be in round figures?

Geraldine—About $400.

Rosewater—We will place that at $400. But you are aware, I suppose, that only a very small part of that work was leaded?

Geraldine—No, I didn't say so.

Rosewater—That is the way it is represented to me.

Geraldine—I did not represent it so.

Rosewater—Very well; we have then a general computation as regards what the cost of this work would have been had the exposition bought the material as it originally had done so, paid for all the labor and completed the work on its own account. Did this bid of Connolley's of $2,800 include the original specifications or was it on the modified specifications?

Geraldine—Will you repeat the question?

Rosewater—Was the bid of $2,800, for labor, made by Connolley on the original specifications or on the revised specifications?

Geraldine—On the modified and revised specifications.

Rosewater—Now the contract that was made by this exposition right here does not show anything as to the depth of the sheet piling to be driven or the changes that were made, does it?

Geraldine—All that is shown on the plans. In lieu of driving the sheet piling as shown in specifications, the contractor is allowed the option of sinking a trench one foot in depth and not more than five inches wide on the line of said piling, the piling to be driven six inches below the bottom of this trench.

Rosewater—Now, was there any change made in this contract at all? I mean, this is the contract exactly as it was made, is it not? No change made after that?

Geraldine—No, sir.

Rosewater—In here it says the material to be used was to be white pine; was no change made?

Geraldine—That was explained last night. If the committee wishes me to go over the ground again, I will do it.

Rosewater—I have examined this today and the specifications call for white pine clearly.

Kountze—I believe the reasons were given last evening why yellow pine was substituted for white pine. If it is material Mr. Geraldine can state it again.

Rosewater—It probably will appear, then, because you will have a copy of all that was said.

CONCERNING PINE LUMBER.

Geraldine—Perhaps a little more enlightenment on that might be well. Mr. Rosewater stated that the specifications called for white pine, clear. Sheet piling to be of white pine, sound, free from sap, loose knots, shakes or cracks. That is not clear. Clear white pine would be worth from $18 per 1,000 feet upward, as near as I can recollect. In order to get clear white pine it would have to be made a special order, which would take considerable time to fill. It could not be dried by steam, as the southern pine is dried, because they do not use that process in the north, and to air dry it properly would take a month. Besides it would be too expensive and the only advantage gained in using this clear white pine would be its durability. Now, No. 1 yellow pine, which is under the same classifications here, the restrictions as to quality are more severe and it is a better class of material as far as defects are concerned. And after specifying white pine and looking up the matter very thoroughly I found, as before stated, that it was undesirable to undertake to use it at all and at the time I settled the question it was out of consideration altogether. We considered it at all times, as appears in the form of bid as given to contractors to bid on, in which they were requested to bid on yellow pine. Now, there may be some misunderstanding as to the prices quoted here last night.

Wells—If it was understood that they were bidding on yellow pine, why was the contract filled in calling for white pine?

Geraldine—The specifications as first prepared called for white pine.

Wells—I understand this is the contract made subsequently.

Geraldine—In the contract it does appear, but in correcting the old specifications first made that was overlooked and was not taken out. But it was not considered at any time and these bids will show you that we took the figures on yellow pine as the basis of the bid. Now, for instance, here is Creedon & Mahoney's bid. Notice in the tabulation of the bids we give their figures as $8,161. That is the figure on yellow pine, as you will notice by the tabulation, and in the other tabulations we took the figures on yellow pine only; did not consider the figures on white pine quoted; no intention of using it, and there was not a contractor who figured on this work or talked about it afterward but what thoroughly understood that yellow pine was what we intended to use.

Wells—May I ask you whether it was understood by Connolley that he was to use yellow pine?

Geraldine—Yes, sir, and he bid on yellow pine. His last proposition was on yellow pine.

Wells—That was the proposition under which the contract was let?

Geraldine—Yes, sir.

Rosewater—Are you not mistaken about that? I asked you whether you were not mistaken about that statement that Connolley's bid was on yellow pine.

Geraldine—I have made that statement distinctly here several times, and I am not apt to be mistaken in a positive statement of that kind.

Rosewater—You made the statement here also that this purchase was made of the Cady Lumber company with the idea that we were saving $1.50, or about that, per thousand?

Geraldine—I made what statement?

Rosewater—Was it not stated to the board at your instance that we were saving at least $1.50 per thousand in purchasing that lumber?

Geraldine—It was stated by you that I had said so, but it was not true. I did not make that statement.

Rosewater—You did not make that statement to Mr. Kirkendall? Mr. Kirkendall invented that story?

EVADES THE QUESTION.

Geraldine—Now there seems to be a misunderstanding in regard to that matter as far as Mr. Kirkendall is concerned in it which I wish to make clear to the committee. In my written statement here, if you have read it over, you will recollect I stated that the bids were opened and rejected. I explained to Mr. Kirkendall that it would be wise to order this lumber in order to get it under way, as I wished to get a perfectly clear quality of lumber, the best we could get of yellow pine. I wished to have it specially prepared, on a tongue and groove of a design I would furnish. I wished to have it thoroughly dried by steam, wished to get a perfect quality, and I wished to have it sawed one-quarter of an inch thicker than the regular stock, in order to get the fullest strength of the three-inch plank. I said that in order to get this special order through in time it would be necessary to order it now, at the time. I also stated that if I put that in the specifications or asked the contractor to furnish material of that particular kind it would probably add two or three—if I remember correctly, add considerably to their figures in estimating, while I believed, and corroborated that belief by calling up the Cady Lumber company (he and the representative of the wholesalers at Kansas City came to the office and discussed the matter there) that they would furnish this lumber on that special order for $14.50 per thousand. To get that lumber ordinarily or get it through a contractor's bid would probably cost $2 or $3 more on a special order. But by ordering it now and getting what we wanted at that figure, which was the common price, it would be a considerable advantage to the exposition and would make a material difference in the cost of the work as compared with calling for new specifications. The saving to the exposition company was there. It is possible Mr. Kirkendall may not have gotten that idea clearly, or he may have expressed as a saving to the exposition of $1.50 per thousand, which would be correct, but not in the market price of the lumber; but in the quality and dimension.

Rosewater—Was that lumber planed on both sides?

Geraldine—No, sir.

Rosewater—What was the dimension of that lumber when delivered here at the lagoon?

Geraldine—Scant three inches.

Rosewater—I will now bring in a gentleman and present you with a sample of the lumber to show the board just what we did get. I will introduce Mr. Mulhall, who was formerly employed for a great many years in Mr. Hoagland's lumber yard.

Mulhall—I was in the employ for the last seventeen years or more of Gray, and Mr. Hoagland part of the time.

Kountze—Was Mr. Mulhall brought here as an expert in the lumber business?

Rosewater—No, I told him to go out there and get a piece of that lumber, and I wanted to show by him that he went out there and that he compared it with the other lumber in the lagoon as to its size.

Kountze—We will hear what Mr. Mulhall has to say.

Mulhall—All that I have to say is that I measured it and compared it, and that is what I would call one of the best pieces I saw. There were not many pieces around. I was requested to bring in a piece and I was also requested to measure it. I was told it would measure three and one-fourth inches and here it is only two and three-fourths. Another thing I wish to say about it, that for that purpose this lumber is too dry. We sold out of Mr. Hoagland's yard down there; we supplied the bridge company with this kind of lumber for their floor in the Council Bluffs bridge, but it was not tongued or grooved in any shape or form, and the life of it then, even with the sap in, is only from three to four years with the wooden block on top of it, even after being tarred and felt laid on it. And the life of this for the business this is used for out in the lagoon, it is not the kind of material that should be used at all in my estimation for the use against the water there. With the sap in it, it would be a great deal better. The tongue and groove of couree is in addition to that, but it would be also better if it was undressed for that purpose, in place of being dressed. And then if it is like what I have seen there in the face of it, it is very knotty and it would not be taken, it would not be allowed, it could not be used for any other purpose except there. I would not call it No. 2 even. It wouldn't be accepted; it could not be sold in any market in the country only at a lower grade than what it is there. That is all that I can say.

POOR QUALITY OF LUMBER.

Wells—That is an average piece in thickness?

Mulhall—It is just two and three-quarters as it is now. I took a square from one man and measured it.

Wells—Is that the average?

Mulhall—That is the same thickness of all the lagoon. I went along the edge and took a square and measured the tops of the planks and they all only measure two and three-quarters. I have no interest in the matter in any shape or form, but was simply asked to go out there and asked to bring in a piece for this inspection.

Wells—I understand you to say that that is better than the average?

Mulhall—No, I took a saw, sir, and cut that off a piece that was there.

Wells—Didn't you state that the average lumber there was not as good as this piece?

Mulhall—No, sir, that is, it is not free from knots. This piece that I took off is free from knots. But you go along the face of the lagoon down and you will find that the lumber is very knotty and when it dries out a little those knots are apt to loosen and fall out. Then there is another thing in relation to putting it in there in water. These grooves here should have been all leaded. They should at least be painted inside, or white-leaded inside just as they were put in.

Wells—What would be the life of that in the water after being leaded?

Mulhall—I would not swear to it, but I would not put the life in water at over two years, or two and a half, for it is dry and as soon as it takes the water it will rot very quickly. There is no sap in it in any shape or form and when the sap is out of it, in the water it is of no use. It is never used in the market for cisterns or anything of that kind. It is all right for inside work, but where it is exposed to the sun or the weather outside, or water, it soon warps and gets all out of place. It is good enough for flooring inside when it is kiln dried, or anything like that. The majority of this stuff is used to cover areaways or the like of that where brick, perhaps, is put on top of it or where there is stone. It is sometimes used to go over sidewalks in areaways.

Kountze—What has been your experience in using that class of timber? Have you had any?

Mulhall—Sir?

Kountze—What has been your experience in using this lumber?

Mulhall—No experience, only what I have seen. I have seen it in the bridge, as I say, down here, fully three inches thick, undressed, and I have observed the life of it there, where it is covered with wooden blocks and tarred and tar felt put on it. The life is only from three to four years. None of these firms ever kept a large supply of this on hand, for there is no call for it. Mr. Hoagland supplies the bridge company with it, but he only keeps a small supply on hand.

Kountze—If placed in water would that cause it to decay quicker?

Mulhall—Yes, sir.

Kountze—Have you had any experience?

Mulhall—No experience.

Kountze—Then you do not know, except what you heard?

Mulhall—I never saw any of it used in water in that way.

Kountze—That is simply an impression without any knowledge? It is simply your belief?

Mulhall—It is only a very few years in the market here, inside of the last eight or ten years, that this yellow pine has come into the market at all. Very few of these western firms here carried it until the last eight or ten years and none of this grade or thickness. It is used now for drop siding and for flooring and inside finishing, but none of it for outside work.

Kountze—Didn't you state that to place that material in the lagoon in the water, that it would last only two years, or three at most?

Mulhall—That would be my opinion, seeing the life of it here in the bridge.

Kountze—You have had no experience with this timber placed in such a position as this is placed, have you?

Mulhall—No, sir.

SAMPLE BETTER THAN AVERAGE.

Bidwell—How does it come that there is no corresponding tenon on this side of that stick?

Mulhall—No what?

Geraldine—It is only a portion of the plank. If it was a full sized sample it would be twelve inches wide.

Bidwell—Why didn't you cut off a piece the full width?

Mulhall—There was none there. There was not a short piece at all that I could find, and this was the only piece I could find to cut any off from. There is none around the lagoon that is anywhere near the width of that in the lagoon. This is the only piece I could find. I could have fished out a wet piece, but I had nothing to do it with. I went all around and then borrowed a saw from one of the carpenters to get this. It was the only stick I could find, and as I was asked to bring a piece, I brought it. I measured the others to compare with the thickness of this, and it compares in thickness; is the same thickness all along. It is all two and three-quarters.

Bidwell—That is a fair sample, then, as to the thickness, and you think it is a fair sample as to the quality of the plank?

Mulhall—It is an extra sample as to quality, I would call it. It is better. That is, it looks better than the most of it that is in the lagoon to see the face of it just as it is put up, for you take this stick all through and it was free from knots, and there is a great deal of it that is knotty. And then it is cracked, just the same as this is.

Geraldine—Do you know whether this is a piece of the lumber that was shipped here on the first order, or a piece of the portion that was supplied to fill up the deficiency afterward?

Mulhall—I don't know anything about that. All I know about that is that I went out there today at 2 o'clock and got this on the grounds there; cut it off of a stick that was there and fetched it in.

Wells—I would like to have you state whether the contractors, Creedon & Mahoney, knew at this time that three and one-quarter inch lumber was expected to be used.

Geraldine—They did not. It was not mentioned in the contract.

Wells—What was the date that you made this purchase of the Cady Lumber Company?

Geraldine—The 24th of July the verbal order was given subject to the approval of the committee.

Wells—What was the date of advertising for bids for this work?

Geraldine—I do not remember, but it must have been about ten days prior. I should judge that it was about the 14th that we advertised for bids. Then after advertising for the bids, receiving the bids, finding them too high and recommending their rejection, to prevent further delay, knowing that it would take considerable time to get the lumber, I then recommended the order to be given, with a view to using it if we put the lumber in ourselves or turning it over to a contractor if we contracted the job.

Wells—What was the date, do you remember, these bids were opened?

Geraldine—The 24th of July.

Wells—And five days later, I believe, the contract was let?

Geraldine—The 13th of August the contract was dated. It was some time before that it was let. Now, a word about this lumber. You will find in my written statement I say that this lumber is the best lot of lumber I have handled for years. If the committee wish to be satisfied on that I should suggest that they examine it or send some one on whose evidence or knowledge they can depend. As to the thickness of the lumber, it shows. Yellow pine lumber when it is cut green, prior to the process of drying by steam, will shrink under that process on a three-inch plank ordinarily a quarter of an inch. This lumber, I should judge from examining it when it came, at the time it was run into the steamer and kilned would have measured fully three inches. When it came here I measured numerous pieces of it. It measured scant three inches. Scant three inches is anything over two and seven-eighths inches. The ordinary lumber put through the same process, of the ordinary dimension, that this has gone through would measure a quarter of an inch less. That is the difference that was made in the sawing.

Kountze—Then would I infer from that, Mr. Geraldine, that this beam, two and three-quarter inches, is not a piece of the lumber that was taken under the first contract?

CANNOT ANSWER THIS.

Geraldine—I am not prepared to say whether it is or not.

Kountze—This measures only 2¾ inches?

Geraldine—That is all. I could not say whether that was the lumber that was used to fill out with or whether it was a piece of the original stock.

Kountze—Was there any difference in the thickness between the lumber that was given under the contract made by you and that which was furnished to supply the deficiency?

Geraldine—Unfortunately, there was about a quarter of an inch.

Kountze—Then the lumber in the lagoon is not all of a thickness? It is either heavier or lighter?

Geraldine—There are two classes in the lagoon, one thicker than the other. I am inclined to think that that is a piece of the original order. I do not know whether it is or not. I cannot say. But it has been very thoroughly sundried after being steamed and is shrunk to its smallest contraction.

Kountze—Now, Mr. Mulhall stated that that lumber in water, as it would be placed in the lagoon, the life of it would be only two or three years. Have you any experience with lumber of that class under those conditions?

Geraldine—Yes, sir; I have handled yellow pine lumber and used it in engineering works for a great many years, used it as long as twenty years. This lumber placed in that lagoon as it is now will last for ten years in the water. It will last longer. There was a prejudice, and there is yet a prejudice against the use of yellow pine in this country, which was promulgated and encouraged by those interested in the sale of white pine, and it only came into this trade when white pine became so scarce as to give it the advantage. Being used more and more every year, that prejudice is fast disappearing.

Rosewater—I want to ask Mr. Wakefield, as he is an old lumberman and understands, I want to ask him whether this sized lumber is what is classed as three-inch measure lumber. It has been stated here that this lumber originally was 3¼ inches; that it has been ordered as such and delivered as such, but is now 2¾ inches. Now, what do you know as to the probable shrinkage and planing?

Wakefield—I have no means of knowing what it originally was, but if it is 2¾ inches it need not have been over 3 inches to dress 2¾. But if 3-inch lumber were ordered without any further designation, that is to say, 3-inch lumber, dressed on one side, then it would come 2 5-8 thick, because 2-inch lumber comes 1 5-8 and 3-inch lumber would come 2 5-8.

Geraldine—After what kind of a drying process?

Wakefield—Either air drying or steam drying.

Geraldine—Did you ever handle any steam dried?

Wakefield—Yes, sir.

Geraldine—And was it thoroughly dried?

Wakefield—Yes, sir.

Geraldine—What did you find the shrinkage to be in a three-inch plank?

Wakefield—I could not say, because I did not handle it until after it was dried and dressed, and then it came to me. Then, I say, a two-inch plank, as it comes to this market, after being dried and then dressed, measures one and five-eighths inches.

Geraldine—Shrinks three-eighths of an inch.

Wakefield—Three-eighths. Whether it shrinks or it is the dressing I cannot say.

Geraldine—That is two-inch.

Wakefield—Yes, sir. If you would order a three-inch plank dressed one side without further designation than just that order you would not get it thicker than two and five-eighths inches. If it had