No. 2311

IN THE

United States Circuit Court of Appeals

FOR THE NINTH CIRCUIT.

ALASKA TREADWELL GOLD MINING COMPANY, a Corporation;

ALASKA UNITED GOLD MINING COMPANY, a Corporation;

ALASKA MEXICAN GOLD MINING COMPANY, a Corporation; and

ROBERT A. KINZIE,

Appellants,

vs.

ALASKA GASTINEAU MINING COMPANY, a Corporation,

Appellee.

BRIEF OF APPELLANTS.

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Of Counsel.

Filed this.....day of October, A. D. 1913.

.....Clerk.

By....., Deputy Clerk.

THE JAMES H. BARRY COMPANY
SAN FRANCISCO

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BRIEF OF APPELLANTS.

This is a suit in equity brought by the appellee against the appellants to compel the specific performance of a contract.

It is alleged in the complaint that in the month of October, 1909, the appellants, defendants below, entered into a contract with the plaintiff's predecessor in

interest, the Oxford Mining Company, under which the Oxford Mining Company gave the appellants a lease of certain property rights situate on and near Sheep Creek, Alaska, including certain mill sites and other tracts of land, as well as a water right referred to as the Sheep Creek water right. The contract provided that it was the intention of the appellants to erect, equip and maintain upon the leased premises a water power plant of substantial size and efficiency for the generation of electric power, and that if at any time after two years from the date of the contract the lessor or its assigns should elect to take *"a current of not to exceed 300 electric horse power"* which, it was provided, *should be taken from and at the generating plant to be installed upon the leased premises,* the appellants should furnish such current to the lessor upon the execution of deeds conveying all the leased property referred to in the lease; it was further provided if prior to the expiration of nine years from the date of the lease the lessor did not elect to convey the leased property and accept in full consideration therefor "the right to the use of the 300 electric horse power" previously mentioned in the contract, the appellants might at their option purchase the leased property outright upon the payment of $25,000.00. The contract contains other provisions that are not material to this controversy.

The complaint then avers that the Oxford Mining Company elected to take the electric current provided

for in the contract and made the conveyance of the leased premises as in the contract stipulated; that the appellee became the successor in interest of the Oxford Mining Company and notified the appellants of that fact, which notification was accompanied by a request to deliver the current provided for to the appellee.

It is further alleged that on the 6th day of December, 1912, the appellants so set an automatic instantaneous circuit breaker installed upon the appellee's circuit that the same would go out if a current in excess of 56 amperes were drawn.

It is then alleged that the instantaneous circuit breaker installed by the appellants is not a proper or usual device to be applied in cases of this kind, and that the appellants should install in its place a thirty-second time relay circuit breaker so as to enable the appellee to draw such starting currents in excess and addition to the 300 electric horse power for which the contract in terms provides, for such short periods of time as may be necessary to start machinery requiring 300 horse power to operate when duly started.

It is then averred in the complaint that in providing current under the contract the appellants have estimated the same upon the basis of a *unity power factor* and were making available for appellee's use a current calculated upon that basis; that the power factor actually upon the appellee's circuit was at all times less than 85% and at some times, especially when the

machinery was being started, very much less than 85% of the power factor of the circuit.

It is then averred that a watt meter should be installed by the appellants upon the appellee's circuit; and further, *that it is customary to furnish starting currents or surges in addition to the flow of current contracted for.*

It is further averred that the appellee is using this power in carrying forward development work at its mines, and that it would suffer irreparable injury unless a court of equity takes cognizance of the controversy; that this is necessary to avoid a multiplicity of suits, and that the appellee is without plain, speedy or adequate remedy at law.

The prayer asks for specific performance of the contract, and in effect asks that the contract be so construed and enforced as to compel the appellants to furnish the appellee with current sufficient to enable it to develop 300 mechanical horse power at all times, regardless of the power factor, at which appellee's machinery may from time to time operate, and in addition to this that the appellee be furnished with starting currents unlimited as to quantity whenever it may desire to start its machinery.

The complaint was demurred to on the ground, among others, that the appellee had a plain, speedy and adequate remedy at law, and on the further ground that the court of equity had no jurisdiction to grant the relief demanded.

The demurrer was overruled by the court, and the appellants given an exception to such ruling.

The appellants then filed their answer and alleged, among other things, the execution of the contract of October, 1909, and the execution of two subsequent contracts bearing date of April, 1911, both relating to the subject matter in dispute.

The appellants then averred that they complied with the agreements entered into on their part and constructed a power plant having a capacity of approximately 2600 electric horse power, which plant it was averred was erected and completed within the time limited by the contracts, and further, that from and after the date of the completion of said plant the appellants had always been ready and willing to furnish and make available for the use of the Oxford Mining Company and its successor a current of 300 electric horse power as referred to in the contracts; that no demand was made upon them for current until the time referred to in the complaint and that from and after that time they had made available for the use of the Oxford Mining Company and the appellee, as its successor, an electric current of not to exceed 300 electric horse power, in full compliance with the contract; that the appellant corporations had installed at the Sheep Creek power plant on the circuit of the appellee an automatic circuit breaker which would break the circuit whenever a current in excess of 300 electric horse power was drawn, and that said circuit

would not be broken by said circuit breaker unless such excessive current were drawn; further, that such circuit breaker so installed is a common appliance in general use in connection with the distribution of electric current, and is the only appliance which could be installed or maintained by the appellants to protect themselves against *short circuits* occurring on the line of the appellee, and against attempts on the part of the appellee to draw from the bus bars at the appellants' plant electric current in excess of 300 electric horse power.

It is further alleged that the appellant corporations are owners of large and extensive mines, generally known as the Treadwell Mines on Douglas Island; that the current generated at the Sheep Creek plant is used in the operation of these mines, and that unless an automatic circuit breaker is maintained to protect the system against *short circuits* and incoming *peaks* the damage done to the plant of the appellant corporations, and especially to the cyanide plant by such *short circuits and incoming peaks,* would be both large and incalculable; and further, that the water supply in Sheep Creek is at times very low, and was, at the time of the filing of the answer, so low that the total current generated did not exceed 500 electric horse power, so that if a starting current of more than 200 electric horse power in addition to the 300 electric horse power stipulated were drawn, the same would have to be sup-

plied from the appellants' general supply of electricity produced at other generating plants.

That the appellants had complied with all the terms of the contracts set up on their part and were ready and willing to furnish the appellee with a current of not to exceed 300 electric horse power as provided for in the contracts, and were providing such a current at the time of the commencement of this suit; that the appellants and each of them are solvent, and that the appellee has a plain, speedy and adequate remedy at law, and that the court of equity is without jurisdiction to grant the relief demanded.

The affirmative allegations of the answer were put in issue by a reply.

Upon the trial, the contract plead in the appellee's complaint, as well as the two additional contracts plead in the appellants' answer, were offered and received in evidence. It was shown that the appellants were, at the time the complaint was filed, making available for the use of the appellee, at the generating plant, a current of approximately 60 amperes with a voltage of 2300 impressed, the circuit being a three phase circuit; it was further shown that this current was of 300 electric horse power, that 300 mechanical horse power could be developed from the current so made available, and that the apparatus employed would permit the uninterrupted flow of such a current.

It further appeared in evidence, however, that the appellee had installed upon its circuit a motor of the

induction type, and that the use of this type of motor resulted in a *phase displacement* by reason of which the power factor of the circuit was reduced to less than 100%, that is to say, the mechanical power actually developed by means of this type of motor was less than the electric power in the circuit. That this result would follow from the use of motors of the induction type, unless a synchronous condenser, a device employed for correcting the phase displacement caused by the use of the induction type of motor, were placed upon the same circuit, or unless a sychronous motor, which would answer the same purpose, were placed upon the circuit. In this connection it was further shown that if a synchronous motor were installed, or if the motor installed were supplied with a synchronous condenser, 300 mechanical horse power could be developed from the current furnished at appellee's operating plant.

It further appeared that the appellee transmitted the current furnished to the Perseverance Mine, a considerable distance away from the generating plant, and that the long transmission wires so employed necessarily increased the phase displacement and accordingly reduced the power factor of the circuit.

In this connection it was shown that the power factor of any circuit depends entirely upon the length of the transmission lines, the transformers used, and the type of motor or motors employed in converting the electric power into mechanical power. In other words, that whenever an electric current is not *in phase* the

phase displacement is the result solely of the manner and place of use and the apparatus employed in developing the electric power into mechanical power. (See evidence Thane, Rec. p. 155; evidence Wallenburg, Rec. p. 286, 292; evidence Kinzie, Rec. p. 506; evidence Proebstil, Rec. p. 360; evidence Kennedy, Rec. p. 449, 452; see deposition Quinan, p. 609; Grambs, p. 620; Cory, p. 819, 820; Hunt, p. 892; Davis, p. 857; Heise, p. 930; Quinn, p. 964.)

It further appeared in evidence that the motor installed by the appellee was a squirrel cage motor of the induction type. This, it was shown, is the simplest form of motor manufactured and requires a larger starting current than any other type or form of motor in general use. It was shown that the starting current required by this motor was approximately from three to five times its running current. (See evidence Kinzie, Rec. p. 514; Proebstil, Rec. p. 374; Kennedy, Rec. p. 458.)

It was also shown that if the load were taken off from the motor at the time of starting, or if the motor were supplied with proper starting devices in general use, no starting current in addition to the running current would be required by this or any other type of motor, and that a starting current was only necessary where the motor was started under full load conditions and was not supplied with proper starting devices. (See depositions Cory, p. 821; Quinn, p. 965, 966; Heise, p. 931; Davis, p. 860, 861; Hunt, p. 895.)

In addition to offering in evidence the contract of October, 1909, appellee called the witnesses Shackleford, Wallenberg, Bishop and Thane, with a view of proving the negotiations had between the parties which led to the execution of the contract of October, 1909, and in addition to the testimony of these witnesses, offered in evidence letters and telegrams that passed between the parties in connection with these negotiations, all of which evidence so offered was admitted by the court over the objection of appellants. (See evidence Shackleford, Rec. p. 101-107; Wallenburg, Rec. p. 240; Bishop, Rec. p. 252; Thane, Rec. p. 118.)

Appellants offered to prove by the witness Proebstil, an electrical engineer, the meaning of the phrase "a current of electricity of not to exceed 300 electric horse power," this being the phrase employed in the contract of October, 1909. The purpose of the testimony so offered was to prove the technical meaning of the language employed by the contracting parties. Appellee made objection to the admission of this evidence and this objection was sustained by the court and the evidence so offered was not admitted. (See evidence Proebstil, Rec. p. 364.)

Appellants also offered to prove by the witness Kinzie that neither the appellee nor its predecessor in interest had complied with the terms of the contract on its part. This testimony was also objected to by the appellee, and such objection was thereupon sustained by the court and the evidence was not admitted.

In connection with this offer of testimony it was suggested that appellants should have pleaded non-performance more definitely in their answer, whereupon the appellants asked leave of court to amend their answer in that regard, which leave was denied by the court. (See evidence Kinzie, Rec. p. 523.)

Appellants also proved by the witness Kinzie that the contract referred to as the "Gilbert Contract," the same being the contract with reference to which one of the contracts between the Oxford Mining Company and the appellants bearing date of April 22, 1911, was made, pleaded in the answer as the third contract and received in evidence by the court, was still outstanding, and that no settlement or adjudication was had between the parties in regard to the same. (See evidence Kinzie, Rec., p. 495.)

The court made its findings, and found that the contract of October, 1909, as well as the two contracts of April 22, 1911, were executed between the appellants and the Oxford Mining Company, and that the plaintiff was the successor in interest to the Oxford Mining Company.

The court also found that certain negotiations were had between the parties which led to the execution of the contract of October, 1909, and that in that connection certain correspondence was had and certain representations were made, all of which is fully set up in the findings.

The court then further found that it was the inten-

tion of the Oxford Mining Company and of the appellant companies to furnish to the Oxford Mining Company the "beneficial and uninterrupted use of 300 actual horse power," including such starting surges as might be necessary to start motors of the induction type, which the court found to be motors in general use in connection with mine operations, that the use of such motors was in contemplation of the parties at the time of the execution of the contract, and further that the power contracted for was 300 actual horse power, as distinguished from 300 apparent horse power.

All these findings of the court in relation to the intention of the parties were based upon the testimony of witnesses Shackleford, Wallenberg, Bishop and Thane, and the correspondence between the parties, all which testimony and correspondence related to the negotiations had, which were subsequently merged into the written contract. This testimony and correspondence was received over the objection of appellants.

The court further found that the appellants made available for the use of the appellee a current of about 60 with a voltage of 2300 impressed; and had installed an automatic instantaneous circuit breaker which limited the amount of current that could be taken to the current thus made available.

The court further found that the appellee had installed a motor of the induction type which had an inherent phase displacement and operated at a power

factor of less than 100% and that for that reason the appellee could not develop by means of such motor 300 actual mechanical horse power from the current made available for its use.

And further that a starting current in excess of the running current was required by the motor so installed by the appellee and that such additional starting current could not be drawn from the generating plant of the appellants because of the fact that an instantaneous circuit breaker had been installed. In this connection the court found that it was the duty of the appellants to furnish the appellee a current of sufficient amperage and voltage to enable it at all times to develop 300 actual mechanical horse power without in anywise restricting the appellee in regard to the manner or place of use, or in regard to the apparatus to be employed in developing the current into mechanical power. And the court found it to be the duty of the appellants to install a watt meter on the circuit of the appellee, which is a device designed to measure the quantity of power developed without reference to the quantity of current furnished and to so adjust its circuit breaker that the current furnished would at any and all times be such that the watt meter so installed would indicate the fact that 300 mechanical horse power was actually being developed by the appellee from the current furnished.

In addition to this the court found that it was the duty of the appellants to substitute the time relay circuit breaker in place of the instantaneous circuit break-

er and thus enable the appellee to draw starting currents at any and all times unlimited as to quantity.

The court also found that the appellee was doing development work practically as pleaded in the complaint, and had made calculations upon using the current to which it was entitled under the contract sued upon in connection with the doing of this development work, and that unless it were furnished with this current this work would be delayed and damage result.

Based upon these findings the court concluded first, that the appellee had a right to specific performance of the contract; second, that the appellee was entitled to the "actual and beneficial use of an uninterrupted current of 300 real horse power"; third, that the appellee was entitled to "reasonable surges of " power necessary in starting ordinary apparatus used " in connection with mining so that an uninterrupted " and normal current of 300 actual horse power might " be continuously used for the starting of such ma- " chinery"; fourth, the court further concluded that the contract contemplated and referred to the use of real power and that the appellee should be permitted to take starting surges. The court then concluded as follows: that "the defendant companies (appellants) " so arrange their connection with the power line of " the plaintiff company (appellee) that in addition to " said starting surges the plaintiff company (appellee) " be enabled to draw 300 actual horse power uninter- " ruptedly in their operations, and that the apparatus

" and devices installed by the defendants (appellants) " for the purpose of maintaining a circuit with the " plaintiff (appellee) be set and regulated according " to approved watt meter readings so that the circuit " will not be interrupted except when more than 300 " actual horse power according to watt meter readings " is being taken by the plaintiff (appellee) of the de- " fendant company (appellants)."

The court further concluded "that the plaintiff (ap- " pellee) was entitled to have established upon the " connection of the plaintiff (appellee) with the de- " fendant companies (appellants) at the switch board " at the power plant of the defendant companies (ap- " pellants) situate at Sheep Creek, a thirty second in- " verse time relay circuit breaker so as to provide for " ordinary overloads necessary to starting surges."

The court thereupon entered a decree indefinite in its terms, requiring the appellants to install upon the appellee's circuit a watt meter and a time relay circuit breaker and apparently to furnish the appellee with a current not from which it *can* develop 300 actual horse power, but from which it *will,* by the use of any devices and apparatus it may see fit to install, at all times develop 300 actual horse power; and further, to furnish the appellee with such starting currents in addition to the running current to be furnished as it may desire to draw at any and all times.

The uncertainty of the terms employed in the decree make it impossible to determine exactly what is

meant, but the above appears to have been the intention of the court. The many uncertain features of the decree will be discussed when the decree itself is being considered.

ERRORS ASSIGNED AND RELIED UPON FOR A REVERSAL.

The first error assigned relates to the action of the trial court in overruling the demurrer to the complaint, which demurrer was based upon the ground, among others, that the contract sued upon was not such a contract as could be specifically enforced, and that the court of equity had no jurisdiction in the premises.

The second error assigned relates to the admission of testimony. The witness Shackleford testified (Record Vol. 1, pp. 99-112), over the objection of appellants, that in the month of August, 1909, he, acting as the representative of the predecessor in interest of the appellee, and Mr. Bradley, acting for the appellants, had certain negotiations which led to the execution of the contract of October, 1909. The witness testified, among other things, that Mr. Bradley then represented to him that he was willing to insure to the International Trust Company and the parties interested in their property or in the Sheep Creek Mines, sufficient power to operate the Sheep Creek Mines, and that he, the witness, then told Mr. Bradley that he thought a contract along those lines giving adequate power for the operation of the mines might meet with

the approval of the Boston bondholders and of the Trust Company. He said that Mr. Bradley estimated that at least 150 horse power would be needed to operate the mines. That Mr. Bradley thought 200 horse power would be a liberal estimate for the power continuously required in the operation of the mine, and that then a proposed contract was drawn up by the parties in which various alterations were afterwards made; that the witness himself drew up the outline of the option and that after that the option was either drawn or dictated by Mr. Bradley or Mr. Taylor; that the original draft was probably in the handwriting of the witness, as both of the last named gentlemen suggested alterations and changes which were noted by the witness; that the option or contract wasn't signed by either of the parties at that time, but that the draft made was simply for submission to the parties in Boston; that the last clause in the contract was drawn by the witness himself; that he inserted the word "continuous" instead of "uninterrupted," which was changed at the suggestion of Mr. Taylor, because of the fact that a continuous current might be construed to be a direct current; that after the draft of the contract had been so made, Mr. Bradley wrote a letter to Mr. Henry Endicott, who was the most influential bondholder under the mortgage deed of trust held by the International Trust Company and who had represented most of the other bondholders, and that the witness took the letter with him and a draft of the con-

tract; that upon his arrival in Boston, he presented the draft of the contract and the matter was discussed between the three original bondholders and the witness, Mr. Henry Endicott, Mr. William Endicott and Mr. Wallace Hackett. That they asked the witness if he considered 200 horse power adequate, and he told them that was a subject upon which he declined to advise them, because he had no technical knowledge of the requirements of the plant, he could merely tell them about a 30-stamp mill and about the machinery that was there. At that time, the witness testified, Mr. Thane was in Boston and they took the matter up with him, and that the result of Mr. Thane's advice was made known to Mr. Bradley; that after consulting with Mr. Thane, he advised them that they would require 300 horse power in continuous use to operate the mine, and that thereupon Mr. Henry Endicott sent a wire to Mr. Bradley at Wardner, Idaho, which the witness presented in connection with this testimony, and which was afterward read into the record; that thereupon there was nothing done for several days until Mr. Bradley's wire was received; that two or three days after that, Mr. Endicott received a wire from Mr. Bradley, which was afterwards read into the record. Shortly after that Mr. Hackett and the witness proceeded with the organization of the Oxford Mining Company, and the property theretofore held in trust by the International Trust Company was deeded to the Oxford Mining Company as soon as the

president of the Trust Company returned from Europe. As soon as this was done the contract as drafted or submitted by Mr. Bradley with his letter of August, was signed exactly as drafted and submitted except wherever the words two hundred horse power had appeared in the contract originally the words three hundred horse power were substituted.

The witness then testified that during all the negotiations had, nothing was said at all in regard to starting surges; that the witness had no knowledge whatever of the necessity of starting surges, and that he didn't suggest it and didn't discuss it; that the estimates that were made of the amount of power that would be required were made by Mr. Bradley at the time the contract was drawn up and were based upon the actual need of the mine and not upon starting surges as the same were being discussed at the trial, and that it was not until after August, 1910, when the Oxford Company had elected to take the current that any statement was made to the witness or any one within the knowledge of the witness, concerning the fact that the starting surges were necessary, or that the contract meant anything else in practical or effectual terms than 300 horse power; that nothing was said about a peak load by any of the parties until after the Oxford Company had elected to take the current; that the contract was drafted as Mr. Bradley's and Mr. Taylor's proposition; they didn't sign it, they drafted it and then enclosed it with a letter from Mr.

Bradley, which was afterward read into the record. As soon as the Oxford Mining Company signed the contract it was sent to San Francisco and signed there, that the only change made in the contract as presented by Mr. Bradley was that the words three hundred horse power were substituted for two hundred; and that the Oxford Company and Mr. Wallace Hackett and the Endicotts relied upon the representations made by Mr. Bradley; that they were presented with the correspondence from him to them; and that they assumed they would have an effectual power at their disposal equal to the amount named in the contract.

The letter (Record, Vol. 1, p. 108) from Mr. Bradley to Mr. Endicott referred to by the witness and read into the record, contained the statement that he, Bradley, thought 150 horse power was all the power necessary to operate the Sheep Creek Mines, and that 200 horse power was a liberal estimate of the power necessary for that purpose.

The telegram (Record, Vol. 1, p. 109) sent by Mr. Endicott to Mr. Bradley was to the effect that he was satisfied with the contract provided 300 electric horse power was substituted in place of 200; and the telegram from Mr. Bradley to Mr. Endicott was to the effect that this was agreeable to him.

The third error assigned relates to the admission of the evidence given by the witness Thane over the objection of appellants.

The testimony (Record, Vol. 1, p. 118) of this witness was to the effect that he advised the predecessor of the plaintiff that 300 horse power was necessary to operate the Sheep Creek Mines, instead of 200; that at the time he was consulted about this matter he was more or less familiar with the Sheep Creek Mines, and that he advised them that 300 horse power was necessary, and that this advice was not based upon any estimate whatever as to the necessity of starting surges.

The fourth error assigned relates to the admission of the evidence given by the witness Wallenburg over the objection of appellants.

This witness (Record, Vol. 1, p. 239 *et seq.*) testified that he had made inquiry with a view of determining the power consumed at Sheep Creek prior to the fall of 1909. The statement was then made by counsel for the appellee that the purpose of the testimony of this witness was to show that a surge was necessarily implied in Mr. Bradley's offer to contract. The witness then proceeded to testify that he made an investigation of the conditions of the mine prior to the time mentioned and inquired into the equipment of the mine at that time; he then enumerated the various pieces of machinery that were then at the mine, accord-

ing to his information, and testified that the total amount of power necessary to operate all the machinery situate at and near the mine was 380 horse power; he then proceeds further to calculate as to the necessary power required to operate this machinery, and determines that 260 horse power would be necessary.

The witness was then asked the following question:

> "Well, assuming for the moment that it was the intention of Mr. Bradley not to give a starting surge upon the current which he proposed to give to the plaintiff company or to its predecessor, could that property have either been operated or started on the two hundred horse power provided for in the contract at the time it was drawn?"

The witness then testified that the compressor on the ground was something like the same size as the one which the appellee was trying to start with this current at the present time, and could not be started if arranged as the appellee's compressor was now arranged. He was then asked: "Could it have been started with two hundred horse power without a reasonable surge?" to which the witness replied: "Not if installed with a motor as this one is."

The fifth error assigned relates to the action of the court in receiving the evidence of the witness Bishop over the objection of appellants.

The testimony (Record, Vol. 1, p. 252) of this wit-

ness related to the machinery installed at the Sheep Creek Mines and the power requirements of the mine, and was offered and received to throw light upon the negotiations which led up to the execution of the contract of October, 1909.

The sixth error assigned relates to the action of the court in rejecting the testimony of the witness Proebstil called by appellants.

This witness (Record, Vol. 1, p. 364) after qualifying as an electrical engineer, was asked the question what is meant by the phrase "current of not to exceed 300 electric horse power." This testimony was offered for the purpose of proving the technical meaning of the phrase "current not to exceed 300 electric horse power," this phrase being employed by the parties in the contract of October, 1909. The question asked was objected to and the testimony of the witness ruled out by the court.

The seventh error assigned relates to the action of the court in not permitting the witness Kinzie, called by appellants, to testify (Record, Vol. 1, p. 523) to facts which would tend to show that the appellee and its predecessor in interest, the Oxford Mining Company, had not complied with the terms of the contracts on their part; and in not permitting the appellants to amend their answer so as to more fully set up non-performance on the part of the appellee.

The eighth error assigned relates to Finding Num-

ber III (Record, Vol. 3, p. 1054) as made by the court. By this finding the court finds that prior to August, 1909, the International Trust Company were the owners of a group of mines, power plant and other apparatus situated at Sheep Creek, and that the Sheep Creek Mines did at that time require 260 actual horse power for their operation, exclusive of additional starting currents or surges necessary to start the mine and its machinery in operation.

The ninth error assigned relates to the action of the court in making its Finding Number IV (Record, Vol. 3, p. 1056) wherein the court finds that prior to the month of August, 1909, the power plant at Sheep Creek, then in the possession of the International Trust Company, had been used for the generation of power used in connection with the operation of the Sheep Creek Mines, which were provided with certain machines and apparatus enumerated in the finding.

The tenth error assigned relates to Finding Number V (Record, Vol. 3, p. 1057) made by the court, wherein the court finds that the International Trust Company prior to August, 1909, was also in possession of certain other mines known as the Silver Bow Basin Mines, including the Ground Hog group of mines, and that the International Trust Company claimed an equitable title to the Sheep Creek Mines,

in connection with which the power plant referred to in previous findings had been used.

The eleventh error assigned relates to Finding Number VI (Record, Vol. 3, p. 1058) as made by the court, in which the court finds that in August, 1909, F. W. Bradley represented to L. P. Shackleford, attorney for the International Trust Company, that the appellant corporations desired to secure possession and control of the Sheep Creek power plant and construct upon the millsites, upon which this power plant is situated, a water power plant of substantial size and efficiency of a producing capacity of about 3,000 horse power, and that it was the desire of the appellant corporations upon the construction of such power plant to provide the International Trust Company or its successors with a sufficient power to operate the mines claimed by the International Trust Company known as the Sheep Creek mines, and accept in exchange a deed for the Sheep Creek power plant. That the said Bradley then had authority to represent the appellant corporations and to bind them as their representative, and at the same time represented that an uninterrupted current of 200 horse power placed at the disposal of the International Trust Company would be sufficient to operate the Sheep Creek Mines, and that said statement "referred to "the ordinary electric load necessary to the opera- "tion of the mines and the mining machinery ap-

"purtenant thereto and did not include an estimate "of the amount of power momentarily necessary to "start machinery that would uninterruptedly con- "sume or use 200 horse power." That thereupon a draft of a contract was made which was in most respects identical with the contract of October, 1909, except that the words 300 were substituted in place of the words 200, and that thereafter the said F. W. Bradley wrote a letter to Mr. Henry Endicott, the principal bondholder interested in the power plant, which letter reads as follows:

"Treadwell, Alaska, August 10, 1909.

"Henry Endicott, Esq.,
101 Tremont Street,
Boston, Mass.

Dear Sir:

We have been talking to Mr. L. P. Shackleford about your water right on Sheep Creek, this district, and both he and ourselves have agreed upon what we consider an extremely fair proposition. Our concessions have been drawn up in the shape of a document which Mr. Shackleford will present to you.

As it is now this Sheep Creek water power is in jeopardy and can be taken at any time by adverse interests. Our proposed arrangement will preserve your rights while at the same time developing them and making the most use of them. I presume you are holding this water right for the value that it has had and may have in the future for working the Sheep Creek mines and thirty stamp mill connected therewith. Estimating conservatively, 150 HP, is all the power these mines and mills ever required for their past operations.

The mill is amply large enough for the mine and surely two hundred H.P. will more than take care of future requirements.

If the proposition is at all acceptable to you we would begin immediate work, thereby preserving your rights and returning you some monthly income. The proposition provides amply time in which you could decide either to sell the property outright or take two hundred H.P. for the operation of the mines and mill.

Yours very truly,

F. W. Bradley."

and that thereupon the said Shackleford proceeded to Boston to present the said draft of agreement to the said Henry Endicott and the International Trust Company.

The twelfth error assigned relates to the action of the court in making its Finding Number VII (Record, Vol. 3, p. 1061), in which the court finds, that upon the presentation of such draft of agreement by the said Shackleford, the parties interested in the power plant at Sheep Creek made an investigation as to the amount of power actually needed by them, exclusive of the amount necessary for any momentary starting surges, for their machinery, which matter of surges was not discussed between the parties to the contract, and that the parties then ascertained that they would need the continuous use of 300 horse power, and that accordingly the said Henry Endicott sent F. W. Bradley a telegram reading as follows:

"Boston, August 23, 1909.

F. W. Bradley
Wardner, Idaho.

Will lease power on terms proposed subject to consent trust company if three hundred horse power is substituted for two hundred.

Henry Endicott."

and that thereupon the said Henry Endicott received from the said F. W. Bradley a telegram which reads as follows:

"Henry Endicott:

You may substitute three hundred for two hundred horse power may I cable Sup't Kinzie to begin immediate protective measures.

F. W. Bradley."

That thereafter the said International Trust Company and the bondholders beneficially interested in the property transferred the said property to the Oxford Mining Company, and caused the said Oxford Mining Company to execute with the appellants the agreement of October, 1909, which is then set up in words and figures in the Finding.

The court then proceeds in the following language: "And the court finds from the surrounding circum- "stances that it was the intention of the said Oxford "Mining Company and of the defendant companies "to provide to the said Oxford Mining Company the "beneficial and uninterrupted use of 300 actual horse "power, including such starting surges and other con- "ditions which would reasonably insure to the said

"Oxford Mining Company and its successors the "right to use 300 actual horse power in connection "with the ordinary machinery used in mining and the "ordinary forms of induction motors in common use "in mining for loads of 300 horse power or less. The "court further finds that for loads of 300 horse power "or less induction motors having an inherent phase "displacement and power factor less than unity were "in ordinary and practical use in mining and that the "use of said ordinary and practical machinery in mi-"ning operations was contemplated by the defendants "at the time of the execution of the contract, and the "power contracted for was 300 actual horse power as "distinguished from 300 apparent horse power, and "that the contract contemplated the practical and ben-"eficial use of 300 horse power as ordinarily spoken "of and ordinarily measured by common and ordinary "instruments for the measurements of horse power. "The court further finds that the common and ordi-"nary instrument and device in universal use for the "measurement of horse power was and is the watt "meter, which measures actual as distinguished from "apparent power. The court further finds that in "making the said contract the said Oxford Mining "Company relied, and had a right to rely, upon the "representations made by the said defendant com-"panies to the effect that it was the purpose of defend-"ant companies to furnish the amount of power stip-"ulated in the contract in real, actual and practical

" working efficiency, together with such momentary " surges necessary to start the machinery of the Ox- " ford Company, or its successor, the uninterrupted " use of 300 real horse power to be used in connection " with ordinary motors commonly used upon loads of " 300 horse power or less, including induction motors." (See Record, p. 1070.)

The thirteenth error assigned relates to the action of the court in making its Finding Number VIII (Record, Vol. 3, p. 1074) in which the court finds that the Oxford Mining Company on the 31st of October, 1909, elected to take 300 horse power, and did thereupon make the conveyance of the property referred to in the contract of October, 1909, but did not receive any of the power contracted for until November, 1912.

The fourteenth error assigned relates to Finding Number IX (Record, Vol. 3, p. 1075) as made by the court, wherein the court finds that the plaintiff, as successor in interest of the Oxford Mining Company, is engaged in doing development work, and that unless it is supplied with the electric current referred to in the contract of October, 1909, its development work will be delayed and it will suffer irreparable injury, which cannot be compensated at law.

The fifteenth error assigned relates to the action of the court in making Finding Number X (Record, Vol. 3, p. 1076) wherein the court finds that the appellee made arrangement to do its development work

in reliance upon the contract it had with the defendant companies (appellants) to furnish electric current, and employed one hundred and seventy-five men, and that it would be difficult to re-employ these men, unless they were kept continually employed, and further, that the bondholders of the appellee who held its bond to the extent of three and one-half million dollars would in some wise be injured.

The sixteenth error assigned relates to Finding Number XI (Record, Vol. 3, p. 1077) as made by the court, wherein the court finds that in November, 1912, the appellee had installed certain machinery at Sheep Creek, and at Silver Bow Basin, Alaska, and that the appellants at that time had set the circuit breaker so that the same would not go out until from 80 to 100 amperes were taken from the bus bars by the appellee, and that while the circuit breaker was so set the appellee was able to develop 300 horse power; that thereafter and on the 2nd of December, appellee's machinery at Silver Bow Basin was also placed upon the circuit and for a time successfully operated; that between the 4th and 6th days of December the defendant companies (appellants) changed the setting of the circuit breaker so that the same would go out and break the circuit when more than 60 amperes were drawn, the voltage being maintained at about 2300. The court further finds "that the said circuit breaker so installed " is not of the usual ordinary type used upon feeders " leaving power houses, but is what is known as an

" instantaneous circuit breaker; that the ordinary and " usual type of circuit breaker placed upon feeders " leaving direct from power houses is what is known " as a thirty second time relay circuit breaker which " guards against the circuit breaker being thrown out " by momentary and unavoidable surges of current. " That the starting of machinery which will consume a " given amount of power often causes what is known " as a starting surge which lasts from ten to thirty " seconds, but from a practical standpoint is not taken " into account or charged for in electrical connections " and is disregarded and provided against by the use " of the ordinary type of time relay circuit breaker. " That in the Juneau Mining District it is not custom- " ary for the defendant companies to charge any other " customer for the necessary starting surges for ma- " chinery connected with the said power plant of the " defendant companies, but that the power is measured " upon the amount taken under normal conditions, that " is to say, by the amount of power taken after the " machinery is started and in operation" (See Record, p. 1179).

The seventeenth error assigned relates to making of Finding Number XII (Record, Vol. 3, p. 1081) by the court, wherein the court, after finding that the appellants in setting their circuit breaker made their calculations upon a theoretical basis assuming a unity power factor, that is to say, a power factor of 100%; did not install a watt meter or make observations from

a watt meter as to the power actually developed from the current furnished. That there was no circuit upon any of the power lines of the appellant companies which had a power factor of 100%, and that the appellants were at the present time not using any motors except those of the induction type, in connection with the power plant of the appellant companies. The court then finds that wherever motors of the induction type are used the power factor is less than unity, and that the actual and effective power developed can only be measured by a watt meter. The court then finds that the appellants have a watt meter in their possession but have not installed the same upon the appellee's circuit, and have refused the appellee the privilege of installing a watt meter upon the panel at the power house of the appellant companies. The court finds that a watt meter is the usual and ordinary device for measuring horse power.

The eighteenth error assigned relates to Finding Number XIII (Record, Vol. 3, p. 1082) as made by the court, in which the court finds that it is customary for power companies to allow a reasonable starting surge to the consumer sufficient to start and put in operation machinery which would normally consume the current provided for.

The nineteenth error assigned relates to Finding Number XIV (Record, Vol. 3, p. 1083) as made by the court, in which the court finds that since the

24th day of December, appellee has been unable to start its machinery except under an order of the court requiring appellants to hold in their circuit breaker during the time required to start such machinery.

The twentieth error assigned relates to Finding Number XVI (Record, Vol. 3, p. 1084) as made by the court, in which the court makes certain findings in relation to the manner in which the circuit breaker is thrown in after being thrown out by reason of incoming peaks, and the court then finds that at no time since the 6th day of December, 1912, except during such times as starting surges were drawn did the appellants furnish appellee with an uninterrupted current of 300 horse power.

The twenty-first error assigned relates to Finding Number XVII (Record, p. 1085) as made by the court, wherein the court after finding that in October, 1909, the Oxford Mining Company had no power plant except that referred to in the previous findings, uses the following language: "and that it was the "intention of the defendants to provide for the actual "and beneficial use of a current of 300 real horse "power at the power plant of the defendant cor- "poration, and that from the surrounding circum- "stances a starting surge was naturally to be implied "or presumed, and that without a starting surge (in "connection with induction motors, which the court "finds is the ordinary type of motor in mining use,

" for loads of 300 horse power or less) the practical " and beneficial use of more than 100 horse power " could not have been obtained. The court further " finds that under the conditions existing aforesaid at " the time the contract was executed the parties could " not have contemplated the uninterrupted delivery of " 300 horse power provided for in the contract unless " a starting surge was implied in the said contract." (See Record, p. 1085.)

The twenty-second error assigned relates to Finding Number XVIII (Record, Vol. 3. p. 1087) as made by the court, wherein the court finds: "that an inverse " time relay circuit breaker which will resist ordinary " overloads for the period of thirty seconds is the " usual, common and proper device for maintaining " connections upon lines leaving power houses and that " such circuit breaker should be installed upon the " switch board of the defendant (appellants) compa- " nies so as to protect the defendant (appellants) com- " panies from short circuits yet provide enough resist- " ance to prevent the circuit between the plaintiff (ap- " pellee) and defendant (appellants) companies from " being broken under ordinary starting surges." (See Record, p. 1087.)

The twenty-third error assigned relates to the first conclusion of law (Record, Vol. 3, p. 1089) adopted by the court, whereby the court concludes that the ap-

pellee is entitled to have the contract of October, 1909, specifically enforced.

The twenty-fourth error assigned relates to the adoption by the court of conclusion of law Number II (Record, Vol. 3, p. 1090), in accordance with which the court concludes that the appellee is entitled under the contract to the "beneficial use of an uninterrupted current of 300 real horse power."

The twenty-fifth error assigned relates to the conclusion adopted by the court designated as conclusion of law Number III (Record, Vol. 3, p. 1090), which is as follows: "That the plaintiff is entitled to all " reasonable surges of power necessary in starting ordi- " nary apparatus used in connection with mining so " that an uninterrupted and normal current of 300 " actual horse power may be continuously used after " the starting of such machinery."

The twenty-sixth error assigned relates to the adoption by the court of conclusion Number IV (Record, Vol. 3, p. 1090), which is in words and figures as follows: "That the contract in question contemplated " and referred to the use of real power and that the " connections of the defendant companies (appellants) " with the transmission line of the plaintiff company " (appellee) be so established as to prevent the break- " ing of said circuit upon the use of said momentary " starting surges and that the circuit breakers of the

" defendant companies (appellants) be so installed so " as to permit reasonable and momentary starting " surges."

The twenty-seventh error assigned relates to the adoption of the court of its conclusion Number V (Record, Vol. 3, 1091), which is as follows: "That " the defendant companies (appellants) so arrange " their connection with the power line of the plaintiff " company (appellee) that in addition to said starting " surges the plaintiff company (appellee) be enabled " to draw 300 actual horse power uninterruptedly in " their operations, and that the apparatus and devices " installed by the defendants (appellants) for the pur- " pose of maintaining a circuit with the plaintiff com- " pany (appellee) be set and regulated according to " approved watt meter readings so that the current " will not be interrupted except when more than 300 " actual horse power, according to watt meter read- " ings, is being taken by the plaintiff (appellee) of the " defendant companies (appellants)."

The twenty-eighth error assigned relates to the adoption by the court of conclusion Number VI (Record, Vol. 3, p. 1092), which is in words and figures as follows: "That the plaintiff (appellee) is entitled to " have established upon the connection of the plaintiff " (appellee) with the defendant companies (appel- " lants) at the switch board at the power plant of the " defendant companies (appellants) situated at Sheep

"Creek a thirty-second inverse time relay circuit "breaker so as to provide for ordinary overloads "necessary to starting surges."

The twenty-ninth error assigned relates to the refusal of the court to make Finding Number IV (Record, Vol. 3, p. 1162) as requested by the appellants, which refusal of the court was based upon the ground that the facts as stated in said Finding had already been found by the court.

The thirtieth error assigned relates to the refusal of the court to make Finding Number V (Record, Vol. 3, p. 1161), as requested by appellants, wherein the court was asked to find that 300 horse power could be developed from an electric current of 56.2 amperes with a voltage of 2300 impressed.

The thirty-first error assigned relates to the refusal of the court in not concluding, as requested by appellants (Record, Vol. 3, p. 1164) that the appellants by making available for the plaintiff's (appellee's) use an electric current in excess of 56.2 amperes with a voltage of 2300 impressed have complied with the terms of the contract between the parties on their part.

The thirty-second error assigned relates to the refusal of the court to conclude as a matter of law (Record, Vol. 3, p. 1165) that the plaintiff's (appellee's) bill of complaint be dismissed.

The thirty-third error assigned relates to the action of the court in making and entering its decree (Record, Vol. 3, p. 1093).

The first objection to the decree is that the court of equity should not have decreed specific performance of the contract sued upon for the reason (1) that the contract is not such a contract as will be specifically enforced; (2) that the plaintiff (appellee) has a plain, speedy and adequate remedy at law; (3) that the rights of the plaintiff (appellee) were uncertain and undetermined; and (4) that the plaintiff (appellee) itself did not offer to do equity.

The second objection to the decree is that it is so indefinite and uncertain that it would be impossible to comply with it.

The third objection to the decree is that it directs the appellants to install a watt meter and a thirty second time relay circuit breaker, whereas, there is nothing in the contracts between the parties requiring the installation of these devices or any other particular form or kind of device or apparatus.

The next objection to the decree is that it is based upon an erroneous construction of the contracts between the parties in that under it the appellants are compelled to furnish and make available for the use of the appellee a current from which the appellee will develop 300 mechanical horse power, regardless of the manner or place of use or the type or form of apparatus employed in developing the energy in the form

of electric current into the energy in the form of mechanical power (this without the least regard to the volume of current required for that purpose), that is to say, the appellants are required to furnish the appellee not with current but with actual mechanical power to the extent of 300 horse power, whereas under the contract the appellants are required only to make available for the use of appellee a current from which it, the appellee, can develop 300 mechanical horse power.

Again, the construction placed upon the contract by the court is erroneous in that under the decree the appellants are required to furnish and make available for the appellee's use starting currents, surges and peaks exceeding 300 electric horse power to an unlimited extent, whereas, the contract expressly limits the contract to be made available to a current of not to exceed 300 electric horse power.

The thirty-fourth error assigned relates to the refusal of the court (Record, Vol. 3, p. 1096) to grant appellants a new trial, and the action of the court in overruling a motion made in that behalf.

ARGUMENT.

While there are a large number of errors assigned it will be noted that many of the errors complained of are of like character or are mere recurrences of the same thing, so that the points to be discussed are comparatively few in number.

The first error complained of deals with the action of the court in overruling the appellants' demurrer. The complaint was demurred to on the ground that the plaintiff (appellee) had a plain, speedy and adequate remedy at law, and that the character of the contract was such that the court of equity could not decree its specific performance.

The demurrer was overruled by the court and this action of the court presents the first subject for discussion.

Equity is established for the correction of that wherein the law, by reason of its universality, is deficient. Whenever the legal remedy is adequate, the court of equity has no jurisdiction. This is fundamental. Under the contracts in question, the appellants agree to place at the disposal of the appellee an electric current of not to exceed 300 electric horse power which is to be taken from and at the generating plant. There is no contention that the appellants are insolvent or unable to respond in damages. If, therefore, the appellants fail to comply with this covenant in the contract it is difficult to con-

ceive of any reason why an action for damages resulting from such breach would not in all respects afford the appellee adequate and complete relief. The value of electric current could be easily proven, and the judgment, when recovered, could be collected without difficulty. Hence, the completeness and adequacy of the remedy at law.

It is alleged that appellee was, when the complaint was filed, doing development work, and that it would suffer great inconvenience and loss if it were, at that time, deprived of this particular current which it had calculated to use in connection with the doing of this work. It was not alleged, however, that this particular current possessed any virtue peculiar to itself, or any quality not found in other electric currents. It was not alleged or claimed that the appellee, if deprived of this current, could not supply itself with a similar current by installing a gas plant, by installing steam turbines or by developing water power for that purpose. True, this current was available, while a current to be generated by the machinery referred to could not be made available until the machinery was installed. But in any event, the installation of the machinery required to operate a small generator of 300 electric horse power could at most require but a very short period of time. More or less delay in procuring commodities always follows from a breach of a contract to furnish them. It always requires time to manufacture or purchase the commodity, the fail-

ure to deliver which is complained of. In this case it would only be necessary to send for the machinery and place it in position. The time required to do this could not be much greater than the time required to send for a case of ham or a crate of eggs. Yet, no one would contend that the court would decree the specific performance of a contract for the sale of the last mentioned commodities even though appellee's men were all without food and its mines were compelled to shut down on account of the failure to deliver the required ham and eggs.

In any event, therefore, a current of not to exceed 300 horse power provided for in the Oxford Contract has no value to the appellee, aside from what it would cost to procure a similar current elsewhere, either by purchasing the same in the market, or what amounts to the same thing, by purchasing the machinery necessary to develop it and adding thereto the cost of operating such machinery. This cost could be easily calculated and recovered in an action brought for that purpose on the law side of the court.

There is another and further reason, however, why a court of equity cannot decree specific performance of the particular contract in question. Under the terms of the contract, the appellants bind themselves to furnish to the Oxford Company, or its assigns, a current of not to exceed 300 electric horse power. The obligation to deliver this current is not limited as to time, but continues on indefinitely throughout all

time, the only limitation being that the appellant companies shall not be liable in damages for interruptions caused by physical or operating causes beyond their control. The court cannot, therefore, make an order that will settle the matter in dispute. If the court should attempt to compel the appellants to comply with the contract by delivering current to the appellee, it would be necessary to keep this cause before the court for all time. The decree could never be fully executed; every failure on the part of the appellants to comply with the contract would result in a new and separate trial before the court upon contempt proceedings. The cause would never be finally determined, but would cumber the court calendar as long as time endures. Again, in order to comply with the covenants on their part, the appellants must first generate the electric current, must keep the machinery to be used therefor in repair and supervise its operation. This requires not only personal service but a high degree of skill as well. And it has never been held that a contract requiring personal service or the exercise of skill in its performance could be specifically enforced.

In some cases, where the public interests were involved and the welfare of the general public would be injuriously affected unless the contract in question was specifically enforced, and where no personal services or services involving skill were required under the contract, the courts have to a limited extent sought

to enforce contracts, the performance of which continued over a considerable period of time. Such were cases, for instance, where one railroad was required to permit another to use its tracks, or a telegraph company was required to permit another company to string wires on its poles; but in none of these cases were the parties required to perform service, either skilled or otherwise, in order to carry out the provisions of the contract; and in each and all of them, the court departed from the otherwise uniform rule and took cognizance of these cases on the ground that the public interest required it.

The reason for the rule that the court will not decree specific performance of a contract, the performance of which extends over a number of years, is found in the fact that courts must dispose of pending cases, in order that they may find time at their disposal to try and determine such other cases as are brought before them from time to time. If this rule were not followed, the business of the courts would become congested, and the interests of the public would suffer accordingly. It is only in those cases where the public interest demands it that the rule is in the slightest relaxed, as where matters in connection with the operations of *quasi* public corporations, such as railroads and telegraph companies, are brought to the attention of the court. In all the cases, however, where the rule has been thus relaxed, there is a fixed time during which the court will be required to supervise the

execution of its decree, and neither personal nor skilled service is required of the party making the performance. In the case at bar, on the other hand, the time of performance is unlimited, and extends throughout all the years to come, and the defendants (appellants) will be required to perform personal service requiring a high degree of skill.

Marble Co. vs. *Ripley,* 10 Wallace, 350.

The case of *Marble Company* vs. *Ripley* is the leading case upon this subject. The appellee, Ripley, sought specific performance of a contract under which the Marble Company agreed to furnish him with certain quantities of marble from its quarry for an indefinite term of years. The parties had operated under the contract for a period of more than ten years without any apparent difficulty prior to the time that the action was instituted. The court below entered a decree directing specific performance of the contract. The case was appealed to the Supreme Court of the United States, where it was held that the contract was not such a contract as would be specifically enforced. In passing upon the features of the contract pertinent to the matter now under discussion the Supreme Court say:

> "Another serious objection to a decree for a specific performance is found in the peculiar character of the contract itself, and in the duties which it requires of the owners of the quarries. These du-

ties are continuous. They involve skill, personal labor, and cultivated judgment. It is, in effect, a personal contract to deliver marble of certain kinds, and in blocks of a kind, that the court is incapable of determining whether they accord with the contract or not. The agreement being for a perpetual supply of marble, no decree the court can make will end the controversy. If performance be decreed, the case must remain in court forever, and the court to the end of time may be called upon to determine, not only whether the prescribed quantity of marble has been delivered, but whether every block was from the right place, whether it was sound, whether it was of suitable size, or shape or proportion."

Texas & P. Ry. Co. vs. *City of Marshall,* 10 S. C. Rep., 846.

In this case the railroad company had entered into a contract with the city, under the terms of which it agreed to maintain its principal office and shops in the city. The city sued for specific performance of the contract. The lower court held with the city and decreed specific performance. Upon appeal the case was reversed by the Supreme Court of the United States on the authority of *Marble Co.* vs. *Ripley.*

Berliner Gramophone Co. vs. *Seaman,* 110 Fed., 30.

In this case specific performance of a contract extending over a period of fifteen years was asked, but the court held that equity would not grant the relief de-

manded, since no decree could be entered that would dispose of the matter at once. In passing upon this matter, the court quotes with approval from Mr. Justice Miller in the case of *Ross* vs. *Railway Co.,* as follows:

> "The rule is settled, even in the English Chancery, where the jurisdiction is greatly extended in all such cases, that it will decree specific performance only when it can dispose of the matter by an order capable of being enforced at once; that it will not decree a party to perform a continuous duty, extending over a number of years, but will leave the opposite party to his remedy at law."

General Electric Company vs. *Westinghouse Electric & Mfg. Co.,* 144 Fed., 458.

In this case specific performance was asked of a contract covering a period of fifteen years. The complaint was demurred to and the demurrer sustained on the ground that the contract could not be performed at once. In passing upon the matter the court say:

> "It is a continuing contract, running for 15 years, and the courts will not undertake to supervise and compel performance of such a contract."

The court after sustaining the demurrer to the bill gave the plaintiff thirty days to amend its complaint. It appears that the contract contained negative covenants in addition to the affirmative covenants. The

complaint was then amended so as to ask for injunctive relief against the breach of these negative covenants, and as so amended the complaint was held good on demurrer. Upon this matter the court say:

> "When a contract contains both affirmative and negative covenants, breach of the latter, or negative covenants, may be enjoined although specific performance of the former cannot be decreed."

Sewerage & Water Board vs. *Howard,* 175 Fed., 555.

In this case the Sewerage & Water Board had made a contract with the appellee, Howard, to pump water into his mains as long as he had any customers on the mains. The Sewerage & Water Board threatened to discontinue pumping the water in the mains, as provided for in the contract, and an action was brought to enjoin it from discontinuing to so pump the water. The court after holding that the granting of such an injunction was in effect decreeing specific performance of the contract, and that the contract was of a continuing character, refused to grant the relief demanded and held that the remedy was at law.

Lone Star Salt Co. vs. *Texas S. R. L. Co.,* 90 S. W., 863; 3 L. R. A. (n. s.), 829.

In this case the Lone Star Salt Company had entered into a contract with the Railroad Company, under which it agreed to furnish the Railroad Company 66%

of its tonnage, in consideration of the fact that the Railroad Company would extend its line so as to give the Salt Company the advantage of a competing line. It appears that the Railroad Company complied with its part of the contract, and brought suit against the Salt Company with a view of compelling it to furnish the tonnage agreed upon. The contract, it appears, was for a term of years. The court denied the relief demanded on the ground, among others, that the contract was of a continuous character. The opinion is specially valuable in that the court distinguishes the case before it from such case as the *Franklin Telegraph Company* against *Harrison* and other like cases, where a large public interest was involved, and where for that reason the court apparently, to some extent at least, relaxed the rule that specific performance of contracts extending over a period of time would not be decreed.

Pacific Electric Co. vs. *Campbell-Johnson,* 94 Pac., 623.

This case was a suit brought to compel the specific performance of a contract under which the Railroad Company agreed to build and operate a railroad. The court held that the building and operation of a railroad was such a contract as required personal service and that its performance would cover a considerable

period of time, and accordingly denied the relief. In passing upon this question the court say:

> "Courts of equity only decree specific performance where the subject matter of the decree is capable of being embraced in one order and is immediately enforceable."

Peterson vs. *MacDonald,* 110 Pac., 465.

This case was decided by the Supreme Court of California in June, 1910. It is in principle on all fours with the case at bar. It appears that the plaintiff, Peterson, was the owner of two adjoining dwellings, both supplied with water from the same tank, into which water was being pumped by means of a wind mill. The plaintiff, Peterson, sold to the defendant, MacDonald, the property on which the tank was situate with a reservation in the deed to the effect that he was to have a right to the use of the water from the tank on the premises conveyed upon the payment of fifty cents per month as rent for such water as long as he continued to use it. It appears that the defendant, MacDonald, without any cause violated this contract by shutting off the water so that it ceased to flow from the tank to the plaintiff, Peterson's premises. These facts were set up in the complaint, and the court was asked to enjoin the defendant, MacDonald, from further obstructing the flow of the water from the tank. The complaint was demurred to and from an order sustaining the demurrer the case was appealed to the Supreme Court,

where the action of the lower court was sustained. In passing upon the matter the Supreme Court of California say:

> "The allegations of the complaint, as well as the prayer, called for a restoration of the flow of the water from the tank into the pipe, thence to plaintiff's premises, and for a decree permanently enjoining defendant from obstructing the flow of said water through said pipe. Thus necessarily the defendant would not only be required to perpetually maintain the well and the pump and the other apparatus used for pumping the water, but would be compelled to keep the same in such order as to cause water from the well to be pumped into the tank, and thus supply the plaintiff, so far as the plant maintained intact could do so, with water necessary for his purposes as contemplated by the 'reservation.' The effect of the decree, if framed in accordance with the tenor of the averments and prayer of the complaint, would, in other words, be to compel the performance of personal services, which cannot be done. Section 3390, Civ. Code. If, for example, the pumping machinery should be destroyed or in any manner become impaired so that it could not pump water into the tank, the defendant would be required to rehabilitate or repair the machinery so that it could furnish plaintiff with water or otherwise incur the penalty consequent upon a violation of the injunction. Of course, it is well understood that injunction will not lie to prevent the breach of a contract, which would not be specifically enforced.
>
> "Plaintiff had available to him adequate compensatory relief."

The reasoning of the Supreme Court of California is particularly applicable to the case at bar. It requires not only service, but skilled service, to generate electric current and to supervise the operation of the machinery used in that connection. Furthermore, if the machinery required to furnish the electric current should get out of repair or should be destroyed, the appellants in this case would be obliged to repair such machinery or replace it, just as the owner of the windmill and the water tank would be obliged to rebuild it. The two cases are identical in character except that it requires a far higher degree of skill to generate electricity and repair and build hydro-electric plants than it does to pump water or to repair or rebuild a windmill.

In the case of the *Montgomery Light & Power Co.* vs. *Montgomery Traction Company,* a suit brought by the Power Company against the Traction Company to prevent it from purchasing electric power from other power companies, the parties had entered into a contract, under which the power company had agreed to furnish the Traction Company electric current to operate street railways and for the purpose of lighting its stations, cars, sheds and the like; and the contract provided that the Traction Company was not to purchase current elsewhere during the life of the contract. Suit was brought to enjoin the Traction Company from purchasing power from parties other than the power company. The point was

raised that since the Traction Company could not have specific performance against the Power Company for the reason that the contract was continuous in its nature covering ten years, it could not be specifically enforced against the Power Company. The court held that while the contract could not be specifically enforced against the Power Company because of the continuous nature of the contract the negative covenant in the contract to the effect that the Traction Company should not purchase power elsewhere could be enforced by the court. In passing upon this question the court, quoting with approval from *High on Injunctions,* say:

> "While in cases of contracts containing both affirmative and negative stipulations the authorities are exceedingly conflicting and irreconcilable as to whether equity may interfere by injunction to prevent a breach of the negative covenant when the affirmative is of such a nature that it cannot be specifically enforced by a judicial decree, yet the later and better considered doctrine is that equity may thus interfere to restrain the violation of the negative stipulation, although it cannot specifically enforce the affirmative one."

The cases relied upon by the appellee do not hold to the contrary, as appears upon a closer examination of them, viz:

> *Franklin Telegraph Co.* vs. *Harrison,* 145 U. S., 459 (Oct., 1891).

Agreement by defendant to let plaintiff put up a wire at plaintiff's expense on defendant's poles; after ten years wire was to become defendant's with priority of use in plaintiff at rental of $600. The court ordered defendant to keep the wire in good repair for plaintiff so long as defendant maintained its lines.

This case can be distinguished on the following grounds:

(1) The question of the jurisdiction of equity because of continuous performance or personal service was in no way considered by the court.

(2) There was no feature of personal service involved as there is in the present case.

(3) The Telegraph Company was a public service corporation.

Hendricks vs. *Hughes* (Ala.), 23 So., 637 (May, 1898).

"Defendant leased plaintiff a gin-mill for five years and covenanted to keep water-power in good running order. Power for gin-mill taken by a pulley from shaft of saw-mill operated by defendant. Defendant began to construct another gin-mill between that of plaintiff and the saw-mill. *Plaintiff prayed for an injunction restraining construction of the new gin-mill.*"

This case is clearly not in point since here no affirmative relief was prayed for or granted. The court

simply enjoined the construction of the new gin-mill, saying:

> "It is true that a court of equity will not undertake to enforce specific performance of an agreement which requires 'continuous administration of executory skill, discretion, personal supervision,' etc., as decided in *Wingo* vs. *Hardy,* 94 Ala., 184, 10 South., 659; *Bridgeport Land & Improvement Co.* vs. *American Fireproof Steel Car Co.,* 94 Ala., 595, 10 South., 704, and many others. We find nothing in the present bill to which this principle can apply. There is no complaint of a want of water power. The prayer of the bill is to enjoin the erection of a gin house which will cut off complainant from the use of the water power, and destroy the benefits of his lease. The bill is not strictly one to decree a performance of a contract, but, by injunction, to prevent the destruction of contractual obligations. *Bienville Water Supply Co.* vs. *City of Mobile,* 112 Ala., 260, 20 South., 742; *South & N. A. R. Co.* vs. *Highland Ave. & B. R. Co.,* 98 Ala., 400, 13 South., 682. It will be time enough to consider the question so elaborately discussed by appellees when it arises."

Joy vs. *St. Louis,* 138 U. S., 1 (Oct., 1890).

Agreement between City of St. Louis and two railroads by which a right was granted to one railroad through a public park over which the second railroad was to have a right of way. This right of way was denied by the first railroad.

The court expressly based its decree for specific performance, despite the continuous performance and personal service involved, on the public need. The

following language from the case clearly indicates that:

"Railroads are common carriers and owe duties to the public. The rights of the public in respect to these great highways of communication should be fostered by the courts; and it is one of the most useful functions of a court of equity that its methods of procedure are capable of being made such as to accommodate themselves to the development of the interests of the public, in the progress of trade and traffic, by new methods of intercourse and transportation. The present case is a striking illustration. Here is a great public park, one of the lungs of an important city, which, in order to maintain its usefulness as a park, must be as free as possible from being serrated by railroads; and yet the interests of the public demand that it shall be crossed by a railroad. But the evil consequences of such crossing are to be reduced to a minimum by having a single right of way, and a single set of tracks, to be used by all the railroads which desire to cross the park. These two antagonisms must be reconciled, and that can be done only by the interposition of a court of equity, which thus will be exercising one of its most beneficent functions."

Union Pacific Ry. Co. vs. *Pacific Ry. Co.,* 163 U. S., 564 (April, 1896).

Contract whereby plaintiff and defendant were to use each other's lines subject to regulations. The court held that the contract of the defendant could be enforced specifically despite the continuous performance and personal service involved.

Although this case goes further than the Joy case, the court still proceeds upon the same theory—that of the interest of the public in the performance of the contract. The tendency of the courts to enforce railroad contracts specifically is based on the public interest involved because of the right to public use. Mr. Justice Fuller says in the present case at p. 603:

> "It was objected in Joy's case that the court was proposing to assume the management of the railroad 'to the end of time,' but Mr. Justice Blatchford, speaking for the court, responded that the decree was complete in itself, and that it was 'not unusual for a court of equity to take supplemental proceedings to carry out its decree and make it effective under altered circumstances.' And the court applied the principle that considerations of the interests of the public must be given due weight by a court of equity, when a public means of transportation, such as a railroad, comes under its jurisdiction. 'Railroads are common carriers and owe duties to the public,' said Mr. Justice Blatchford. 'The rights of the public in respect to these great highways of communication should be fostered by the courts; and it is one of the most useful functions of a court of equity that its methods of procedure are capable of being made such as to accommodate themselves to the development of the interests of the public, in the progress of trade and traffic, by new methods of intercourse and transportation. The present case is a striking illustration. Here is a great public park, one of the lungs of an important city, which, in order to maintain its usefulness as a park, must be as free as possible from being serrated by railroads; and yet the interests of the public demand that it shall

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"Clearly the public interests involved in the contracts before us demand that they should be upheld and enforced."

This court had occasion to pass upon this precise point in the case of *Pantages* vs. *Grauman,* which was a suit for the specific performance of a contract. Under the contract sued upon the second party agreed to sell to the first party certain shares of stock in an amusement company, and the first party agreed to furnish certain amusements for a term of ten years. The suit was brought for specific performance of the sale of the stock under this agreement. Specific performance was denied for the reason that since a party could not be compelled to furnish personal services for a term of years, the contract could not be specifically enforced against both parties. The contract was deemed to be such that it was not divisible, so that specific performance could not be granted to either party. Hence the court holds that the demurrer to

the complaint was properly sustained. In passing upon this point the court said:

> "It remains to apply these principles to the present controversy. As has been observed, the chief purpose of the agreement was to perfect an arrangement for engaging in the theatrical business. It was necessary to have a playhouse. This seems to have been adequately provided for. It was, furthermore, necessary to secure theatrical talent, and the parties stipulated for that. But it rests in the agreement of Pantages that the amusement company shall be entitled to the first call upon the vaudeville acts and performances to be booked for the theater company in San Francisco. This agreement on the part of Pantages is a continuing affair, to drift over a period of 10 years, and, while the consideration to be paid for the acts and performances is an inducement for the theater company to provide the same, yet the covenant of Pantages is not such a one as equity can or will require to be specifically performed as it will not interpose to take care that Pantages shall require the theater company to furnish the stipulated talent to the amusement company continuously throughout the entire time designated."

The next four errors assigned relate to the action of the court in receiving parol testimony in regard to the negotiations had between the parties, which led up to the execution of the contract sued upon and of statements made between the parties in connection with such negotiations.

The witness Shackleford was permitted to testify,

over the objection of the appellants, to matters which were subsequently merged in the written contract.

The testimony of the witness Thane related also to the negotiations had prior to the execution of the contract. The testimony of the witnesses Wollenburg and Bishop was adduced with a view of showing what was meant by the statement made by Mr. Bradley verbally to Mr. Shackleford and by letter to Mr. Endicott prior to the execution of the contract and in connection with the negotiations which led to its execution.

The II, III, IV and V errors assigned therefore are all of like character so interrelated that they can be discussed together.

The contract sued upon is in writing. The rights of the parties under it must depend upon the terms of the writing itself, and these cannot be varied, modified or explained by parol evidence. The statements made by the parties prior to the execution of the contract, with reference to the subject-matter of the contract were merged in the written contract, and it is now the only evidence that can be considered by the court in determining what the parties did or did not agree to.

Clearly if the court could now receive parol evidence upon the question of what the parties did or did not agree to in connection with the subject matter of the written contract prior to its execution, it would of course have been quite a useless matter for the par-

ties to have executed a writing setting forth the matters upon which they had agreed.

It is fundamental that where the parties have reduced to writing the terms of a contract and agreement between them, and that writing has been duly executed, it is the only evidence by which can be shown what the agreement was.

In the case of *Atwood* vs. *Cobb,* 26 American Decisions, 657, the rule of law bearing upon this subject is well stated in the following language:

> "The general rule is, that parol evidence bearing upon the terms of the contract is not admissible, because, if they vary it, it is a weaker species of evidence, and cannot control it, and if they are to the same effect, they add no strength to it, are immaterial, and therefore inadmissible; and because, when parties have reduced the evidence of their contract to writing, it supersedes all the verbal negotiations which preceded it."

The Supreme Court of the United States said on this point:

> "We have no disposition to overrule or qualify in any way the general and familiar doctrine enforced by this court in repeated decisions, from the case of *Hunt* vs. *Rousmanier,* 8 Wheat., 174, decided in 1823, to that of *Seitz* vs. *Brewers' Refrigerating Company, ante,* 510, decided at the present term, that parol testimony is not admissible

to vary, contradict, add to or qualify the terms of a written instrument."

Fire Insurance Assn. vs. *Wickham,* 141 U. S., 564, 576.

The sixth error assigned relates to the action of the court in excluding evidence offered by the appellants with a view of proving the technical meaning of some of the terms employed in the contracts.

The witness Proebstil was called by appellants and after he had duly qualified as an electrical engineer was asked to explain the meaning of the phrase "current of not to exceed 300 electric horse power." This question was objected to on the ground that the interpretation of the contract was a question of law for the court and the objection was sustained.

Ordinarily, of course, this objection would have been sound, but the contract sued upon deals with electric current and terms used in connection therewith are best explained by electrical engineers who have a technical knowledge of the meaning of such terms. Unless such testimony is admitted it becomes necessary for the court to resort to the use of text books and other sources of information on the subject of electricity to inform itself in regard to the technical meaning of the terms employed in contracts containing terms having such technical meaning. Not only to avoid inconvenience to the court, but for the further reason that the necessary sources of information are frequent-

ly not available, witnesses are allowed to testify concerning such matters, and the court should have admitted the evidence.

The seventh error assigned deals with the action of the court in not permitting the witness Kinzie to testify to facts which would show a noncompliance on the part of the appellee and its predecessor in interest with the terms of the contract sued upon to be kept and performed on their part. This testimony was objected to because a noncompliance with such terms was not especially plead in the answer, and the objection was sustained. Thereupon leave was asked to amend the answer so as to especially plead such non-compliance, and such leave was denied.

Both of these positions taken by the trial court were erroneous. Before the appellee was entitled to specific performance of the contract it was incumbent upon it to show that it and its predecessor in interest had complied with the terms of the contract on their part. This was necessarily a part of their case, and any evidence tending to prove that they had not so complied with the terms of the contract on their part was competent under the general issue. Such non-compliance did not have to be especially pleaded, it was not new matter interposed as a defense, it was a mere denial of one of the things appellee would be required to prove before it would be entitled to the relief sought, and clearly the court erred in excluding the testimony.

If there were, however, any reason why such non-compliance should be especially pleaded the court should have permitted an amendment, and the action of the court in refusing to permit such amendment was error. If the appellee were taken by surprise it might have been proper for the court to grant a continuance on that account, but the amendment should have been permitted nevertheless. It was not, however, claimed that the appellee was taken by surprise and there was no reason why an amendment should not have been allowed.

All the errors assigned in connection with the Findings made by the trial court are such that they can be discussed together.

The court found that three contracts in writing were executed between the parties in relation to the subject-matter of this suit; and the court further found that the appellants were, at the time of the commencement of the suit, making available and placing at the disposal of the appellee, an electric current upon a three-phase circuit of 60 amperes with a voltage of 2300 impressed; that the appellants placed upon the appellee's circuit an instantaneous circuit breaker so adjusted that the circuit would be broken whenever the current taken exceeded 60 amperes.

So far the findings of the court are not open to objection.

The court, however, further found that certain negotiations were had between the appellant compa-

nies and the predecessor in interest of the appellee prior to the execution of the contract of October, 1909, and that in connection with those negotiations certain representations were made by the parties and certain agreements reached.

All of these findings were based upon the testimony of the witnesses Shackleford, Bishop, Thane and Wallenburg, which testimony was received by the court over the objection of the appellants. In connection with these findings the court found that it was the intention of the parties to the contract, to provide for the appellee and its predecessor 300 actual horse power, that is to say, that it was not enough that the appellants furnished the appellee or its predecessor a current of electricity of 300 apparent or electric horse power (that being a current from which 300 actual or mechanical power could be developed), but that the current made available must at all times be such that the appellee not only *could* develop 300 real or mechanical horse power from it, but actually *would* develop 300 mechanical horse power from it, regardless of the manner or place of use or the character of apparatus employed in developing the current furnished into mechanical power. All this without placing any limitation upon the appellee as to how or where the current is to be developed into mechanical power or as to the type or character of motors or apparatus to be employed in that connection.

These findings of the court are open to the objec-

tion (1) that they are not in accordance with the evidence presented and (2) that they are immaterial and not within the issues because the rights of the parties depend upon the terms of the written contracts before the court, and not upon the negotiations or arrangements had between the parties prior to the execution of such contracts.

The evidence in relation to the negotiations and treaty had prior to the execution of the contract which led up to the execution of the contract of October, 1909, clearly shows that from the first it was the intention of the parties to enter into a contract under the terms of which the appellants were to furnish the predecessor of the appellee an electric current from which it could develop 300 mechanical horse power as distinguished from a current from which it would develop that much power. That is to say, it was the intention that the thing to be furnished should be current, and in no sense mechanical power.

In the month of August, 1909, Mr. Bradley, representing the appellant companies, and Mr. Shackleford, representing the International Trust Company, commenced the negotiations which resulted in the execution of the several agreements which the court is now called upon to construe.

The American Gold Mining Company had, in previous years, been operating the mines referred to in the evidence as the Sheep Creek Mines. A thirty stamp mill had been erected on this property and

sufficient of the waters flowing in Sheep Creek to operate a small direct current generator situate at or near the site of the present power plant belonging to the appellant companies, had been diverted and applied to such use.

The current generated by this generator had been used by the American Gold Mining Company in connection with the operation of the Sheep Creek Mines and thirty stamp mill. Neither the mine nor the mill had been operated for a number of years, and the right to the use of the water previously appropriated was in jeopardy because of such non-usage. The International Trust Company had succeeded to the rights of the American Gold Mining Company under a mortgage foreclosure and was endeavoring to sell the property so as to convert the same into money.

It was under these circumstances and conditions that the negotiations between Mr. Bradley on the one hand, and Mr. Shackleford on the other, were carried on. Mr. Bradley was desirous of installing a generating plant to be propelled by the waters flowing in Sheep Creek, with a view of supplying the current for use in connection with the operation of the mines belonging to the appellant companies. Mr. Shackleford was desirous of disposing of all the holdings of the International Trust Company.

Mr. Bradley testifies, that during the summer of 1909, he carried on negotiations with Mr. Shackleford looking towards the purchase from the Interna-

tional Trust Company of certain millsites, wharf site, machinery, appliances, and other property, including the Sheep Creek Water Right, pipe line and power house. He says (Record, p. 651):

> "I did not consider the then old, disused and dilapidated electric and compressor air power plant as of much value, but did value the patented millsites along the beach as they controlled the best site for a new power house. I considered that the water flowing in Sheep Creek would belong to whoever appropriated and utilized it; but I did not want any trouble with our neighbors so negotiated the contract of October 14th, 1909, in which Mr. Shackleford, as representing the International Trust Company, and myself, as representing the defendant corporations in this action, had mutually agreed upon $25,000 as the value of all the foregoing described property (referring to the property previously described by him in detail), consisting of patented millsites with two other tracts of land, with wharf and wharf site together with a power house and other buildings, other plants, machinery and pipe lines and the then developed water power."

Continuing Mr. Bradley says:

> "After coming to this agreement as to the value of all the foregoing property, it was then considered that to sell this water right would leave the Sheep Creek thirty stamp mill and mines without their water power, and it would consequently be difficult to sell them" (see Record, Vol. II, p. 651).

This led to the consideration of a plan under which sufficient power would be reserved for use in connec-

tion with the operation of the Sheep Creek Mines and thirty stamp mill. Mr. Bradley estimated that 150 horse power would be ample power to operate the mines and stamp mill (See deposition Bradley, Record, p. 653; evidence Kinzie, Record, p. 492; evidence Shackleford, Record, pp. 102, 103). In order to make certain that power enough would be supplied under all contingencies, a current of 200 horse power was agreed upon as the extent of the current to be reserved for that purpose.

A draft of the proposed contract was then prepared. The draft was written by Mr. Shackleford in his handwriting, and contained the ideas of all the parties upon the subject, Mr. Bradley and Mr. Taylor making suggestions as to what the draft should contain, while it was being prepared and written out by Mr. Shackleford (see evidence Shackleford, Record, pp. 102-103). The draft of the contract having been completed Mr. Shackleford proceeded to Boston to confer with his principals, and Mr. Bradley wrote a letter to Mr. Henry Endicott, connected with the International Trust Company. This letter is offered in evidence and occurs in Record, p. 652. In this letter Mr. Bradley told Mr. Endicott that estimating conservatively 150 horse power was all the Sheep Creek mine and mill ever required, and that since the mill was amply large enough for the mine, surely 200 horse power would meet all future requirements.

Upon reaching Boston, Mr. Shackleford conferred

with Mr. Endicott and others connected with the International Trust Company, and since none of these gentlemen knew anything about the operation of the mines, they called in Mr. B. L. Thane, who was then in Boston, in order to procure from him expert advice upon the subject. Mr. Thane advised them that he thought 200 horse power was not sufficient power with which to operate the Sheep Creek mines, and suggested that 300 horse power would be necessary for that purpose (see evidence Shackleford, Record, p. 107; Thane, Record, p. 118). Thereupon, Mr. Endicott wired Mr. Bradley that, subject to the consent of the International Trust Company, he would enter into the proposed contract, a draft of which had been submitted to him by Mr. Shackleford, if 300 horse power were substituted for 200. The Oxford Company was then organized to take over the properties at Sheep Creek from the International Trust Company, and entered into the proposed contract with the defendant companies. Thereafter, and as soon as the necessary steps could be taken, the contract of October 14th was executed by the officers of the Oxford Company, and sent to Mr. Bradley and executed by the appellant companies a few days later (see evidence Shackleford, Rec., pp. 110; deposition Bradley, pp. 649-667).

There is nothing in the testimony either received or offered that would indicate that the question of what the power factor should be was ever mentioned

or referred to. The matter was not discussed at all. Not the slightest reference was ever made by any of the parties to the contract prior to its execution relative to the manner in which this power should be developed. Nothing was said from which it could be inferred that it was ever supposed by anyone that a part of the current to be furnished was to be wasted or dissipated, or that the appellee should have the right to develop the current by machinery operated at a power factor of less than 100 per cent., and still have the right to sufficient current to enable it to develop 300 mechanical horse power. Nothing was said as to the form or type of motor that was to be used in developing the power or the place at which said motors were to be operated, except that the contract expressly provides by express provision that the current is to be taken from and at the generating plant.

Again, the finding of the court to the effect that at the time the contract was entered into, motors of the induction type were in general use in connection with mining operations in Alaska is not sustained by any evidence whatsoever. Only one witness testified upon the subject and that was the witness Kinzie, and according to his testimony there were no motors of any kind in use in the locality at that time. The only generating plant that did business at all in the locality prior to the time the contract was executed was the small direct current generating plant of the Oxford Company, and this was not being used.

Of course, there were generating plants in the towns used to generate current for lighting purposes, but no generating plants that generated current for power purposes. The first plant ever constructed in the locality of substantial size was the Sheep Creek generating plant of appellants. Another generating plant was built at Ketchikan. This, however, was smaller and it was not shown what type of motors were there used. No other generating plants existed in the locality at any time until about two years ago, when appellants constructed another plant at Nugget Creek and the appellee now has under construction a large plant at Salmon Creek (see evidence Kinzie, Record, p. 515).

There can be no evidence whatsoever that any form or type of motor at all was in general use at the time the contract was executed, because there being no current to develop any power, no form or type of motor could be used at all.

True, the evidence shows that at the present time the appellant companies are using motors of the induction type, but it also shows that they are now installing two large synchronous motors in order to correct the power factor.

Mr. Kinzie, general superintendent of the power companies, explained very fully why these companies had installed these motors of the induction type, and had used them up to the present time. According to his testimony, the supply of current generated at

the appellant companies' generating plants far exceeded their demands. Motors of the induction type were cheaper and more easily operated, and for that reason while the current supply was larger than the current demand, it was deemed profitable to operate with motors of the induction type, but that in recent years the demands for current at the mines had so increased that all the current that could possibly be developed was required to operate the mines, and that for that reason synchronous motors were being installed to correct the power factor on the circuit so as to enable appellants to develop all the power apparent in the circuit into mechanical power (see evidence Kinzie, Record, p. 517).

There is no evidence, therefore, to indicate that the parties contracted with reference to the use of any particular kind of motor or had in mind the use of any particular kind of motor when the contract was made, or that it was customary to install motors of any given type. No motors of any type, as we have already said, were in use, and nothing was said upon the subject between the parties, and whatever findings the court made in this regard were wholly without any evidence to support them.

That all these findings of the court in regard to what transpired between the parties in connection with the execution of the written contract outside of the contract itself are immaterial and outside of the issues presented, is apparent in view of the general principle

that all contemporary, pre-existing arrangements, relating to the subject-matter dealt with by a written contract are merged in the written contract itself.

The court further found from circumstances, negotiations and other matters outside of the contract itself that the Oxford Company and the appellee, as its successor, should be entitled to not only 300 electric horse power current, but also to such *peaks* or *surges* as might from time to time be required to operate. That is to say, that the appellee should be entitled to draw such starting current as might be necessary to start machinery requiring 300 electric horse power to operate.

The findings of the court in this regard are subject to the same objection urged against the findings just discussed. Surely it cannot be contended that this finding is in accordance with the evidence, for Mr. Shackleford himself testified that in all the negotiations had which led up to the execution of the contract the matter of starting currents, surges or peaks was never mentioned or referred to by any one (see evidence Shackleford, Record, p. 111). If the matter was never referred to the court could not very well find, under the evidence, that it was agreed such starting currents, peaks or surges should be furnished.

And what has been said in relation to the previous findings of the court in regard to negotiations had in relation to the subject-matter of the written contract applies with equal force here.

In the case of the *Lone Star Salt Co.* vs. *Texas*

S. R. L. Co., 90 S. W., 863, 864, the trial court read into the contract existing between the parties the words "as it accrues," for the reason that according to its version of the matter, the parties must have so intended it. But the Appellate Court in reviewing the decision criticizes very severely this action of the trial court, and in passing upon it uses the following language:

> "It is important, first, to see just what was the obligation assumed by the defendant, the salt company, and whether or not it was such as the courts below construed it to be. The promise is to furnish for transportation 66 per cent. of all the tonnage moved by rail, etc. At what times and in what quantities is the tonnage to be delivered for transportation? The contract does not answer by any of its express provisions. It does not stipulate that 2 tons, or 2 car loads, or 2 train loads out of every 3, which the defendant may get ready for shipment, shall be furnished to plaintiff; nor does it provide for the apportionment by days, weeks, or months. If there is an obligation to deliver the tonnage as it accrues, it is an implied one to be found by construction. It is true, as contended by counsel for plaintiff, that, in decreeing specific performance, a court should, if necessary, determine by construction the legal effect of the agreement to be enforced, and enforce it according to its true meaning and intent; but it is not competent for the court to add to the contract a promise which the party has not made. *Blanchard* vs. *Detroit L. & M. R. Co.*, 31 Mich., 52, 18 Am. Rep., 142. The argument is that the promise to deliver the freight as it accrues is necessarily implied from the nature of the agreement expressed,

the situation of the parties, and the objects which they intended to accomplish. The circumstances supposed to lead to this conclusion are that plaintiff's road is only about 9 miles in length, running through an unsettled territory in which the traffic originating, besides that to be derived from the defendant's business, it not sufficient to justify plaintiff's enterprise; that the agreement to build the road was made in reliance, mainly, on the support to be received from the defendant in carrying out its part of the contract, but the road, being in existence, must, in discharge of plaintiff's duties to the public be continuously maintained with or without that support, at a profit with it, and at a heavy loss without it; that its business, which the parties must be held to have contemplated, consists in the running of trains at stated times for the purpose of hauling freight tendered for shipment at those times, and that defendant's business also requires the constant and regular transportation, in and out, of its product and its supplies.

"Conceding for the present, that all of these circumstances are to be considered, and that they are all that are to be considered, in determining what the parties intended to accomplish by the contract, the trouble remains that the defendant has not bound itself to deliver the tonnage as it accrues as a means of securing to plaintiff the advantages mentioned. Specific performance is decreed to enforce the doing of that which the party himself has agreed to do, and not the doing of something which he has not agreed to do because it is deemed essential to the complete attainment of the benefits or advantages anticipated as results of the contract. Considerations such as those mentioned may have been inducements leading to the contract, and may be regarded in determining the

> meaning of the language used by the parties; but what they agreed to do in order to bring to pass the desired results must be determined from their language, and their promises cannot be extended or restricted by the court to make them contribute to the attainment of such results more fully than as expressed they might do. This is especially true in such a proceeding as this, in which the sole basis of the decree must be the agreement of the party certainly specifying the thing he is bound to perform."

The twenty-third error assigned and the thirty-second, raise the same question. The first mentioned relates to the conclusion of the court whereby the court considers that the appellee is entitled to have the contract sued upon specifically enforced, and the next mentioned error assigned relates to the refusal of the Court to conclude as requested by the appellants that appellee's complaint should be dismissed.

The question of whether the contract sued upon is such a contract as a court of equity would specifically enforce was first raised by demurrer; and the court's action in overruling the demurrer was assigned as error. This action of the court has already been discussed and the matter so far as it was raised by the demurrer need, of course, not be reconsidered at this time. The same question was, however, again raised by the answer, and upon the trial additional reasons presented themselves why the court should not decree specific performance of the contract sued upon.

The court found that the parties had entered into

two contracts, in relation to the subject-matter in dispute, bearing dates subsequent to the contract of October, 1909. One of these subsequent contracts, bearing date of April 22, 1911, relates to what is known as the Gilbert contract. It appears that a considerable time after the contract of October, 1909, had been executed and after appellants had spent large sums of money under its contract in the erection of their generating plant, a certain contract referred to as the Gilbert contract was discovered upon the records of the Juneau Recording District. The parties recorded this as a cloud upon the Oxford Company's title, and the Oxford Company in order to indemnify the appellant companies against any claim that might be made by Gilbert or his assigns, executed the contract of April 22, 1911.

(See Contract, Record, pp. 1044, 1050.)
(See evidence Shackleford, Record, p. 116.)
(See evidence Bradley, Record, p. 676.)

This contract provides, among other things, that if at any time the appellants are deprived of the use of any of the waters flowing in Sheep Creek by Gilbert or his assigns, the quantity of current to which the Oxford Company shall be entitled under the contract of October, 1909, shall be accordingly decreased. This contract, referred to as the Gilbert contract, has never been passed upon or adjudicated.

(See evidence Kinzie, Record, p. 495.)

Appellants do not wish to be understood as contending or conceding that any rights exist in Gilbert or his assigns under said contract either as against the appellants or otherwise, but the fact, nevertheless, remains, that this question has never been judicially determined. Any judicial determination of the rights of Gilbert or his assigns under the Gilbert contract might be such that the appellee would not be entitled to any current under the contract of October, 1909, for the reason therefore that the Gilbert contract is not now before the court, so that the rights of Gilbert and his assigns can be determined. Because it is impossible for the court to say at this time what the appellee's rights may or may not be at a future date under the contract of October, 1909, and since the court could not determine this question, it was not in position to enter a decree providing that the appellee would be entitled either to a fixed quantity of current or a fixed amount of power.

Again, the construction placed upon the contract of October, 1909, by the court is such that the quantity of current to be furnished by appellees under it must at all times remain uncertain.

The court does not attempt to measure the current to be furnished by any unit of measurement by which current is or can be measured, nor does the court place any limit whatever upon the quantity to be furnished. Under the court's decree, the appellee is entitled to whatever current it may require to develop 300 me-

chanical horse power, and since the current is developed by the appellee by apparatus installed by it and under its control, and since this apparatus may be such as to require 56.2 amperes, it may require not only the entire output of the Sheep Creek generating plant, but the output of many such generating plants in order to develop 300 mechanical horse power. The court does not fix or measure the thing to be furnished either in certainty or otherwise, but leaves the whole matter to be determined by the subsequent conduct of the appellee. Just how and why this is so will be discussed more in detail when the court's decree is brought up for discussion on a subsequent page in this brief. The quantity of current to be furnished is likewise rendered uncertain because the court decrees the appellee entitled to *starting currents* unlimited as to extent. This again renders the whole matter altogether uncertain. This feature of the court's decree will also be brought up for discussion upon a subsequent page.

That a contract, the terms of which would be as uncertain and indefinite as the terms of this contract would be if the construction placed thereon by the trial court were sustained, could not be specifically enforced, has been often decided by both the State and Federal courts.

This matter was considered by the Supreme Court of the United States, in the case of *Colson* vs. *Thom-*

son, reported in 2 Wheaton, 336; where the rule was announced to be as follows:

> "The contract which is sought to be specifically executed ought not only to be proved, but the terms of it should be so precise as that neither party could reasonably misunderstand them. If the contract be vague or uncertain, or the evidence to establish it be insufficient, a court of equity will not exercise its extraordinary jurisdiction to enforce it, but will leave the party to his legal remedy."

The same rule was adhered to in the case of *Purcell* vs. *Miner,* 4 Wallace; and again, in the case of *Preston* vs. *Preston,* 95 U. S., 200; in which latter case, Mr. Justice Field, speaking for the Supreme Court, says:

> "It is a familiar rule in this branch of the law that a contract, which a court of equity will specifically enforce, must be certain as well as fair in its terms; and the certainty required has reference both to the description of the property and the estate to be conveyed. Uncertainty as to either, not capable of being removed by extrinsic evidence, is fatal to any suit for a specific performance."

In the case of the *Minnesota Printing Co.* vs. *Associated Press,* 83 Fed., 850, 856, the court uses the following language:

> "But, waiving that question, it must be borne in mind that it is a well-established rule that courts of equity will not undertake to enforce an

agreement if any of its provisions are so far indefinite or ambiguous as to render it uncertain what were the intentions of the parties, and what obligations they intended to assume. A suit for specific performance can only be maintained where the terms of the agreement are so precise that they cannot be reasonably misunderstood. If the contract which a complainant seeks to enforce is vague or uncertain, a court of equity will not interfere, but will leave him to his legal remedy. *Colson* vs. *Thompson,* 2 Wheaton, 336, 341. And, where a contract is clearly susceptible of different reasonable interpretations, a court of equity ought not to take the chances of decreeing its specific execution in a way which will possibly do violence to the intentions of the parties thereto. In all such cases, as well as where a contract is not fair and just in all its parts, or is tainted with illegality, the party seeking to enforce it should be remitted to his action for damages."

To the same effect are *Atwood* vs. *Cobb,* 26 American Decisions, 661; and *Walcott* vs. *Watson,* 53 Fed., 435; *Hildreth* vs. *Duff,* 143 Fed., 140, s. c. 148 Fed., 677.

Again, if the contention is sound, that the terms of the contract are so uncertain that they require parol testimony to explain them (which we do not concede), it follows that the contract is too uncertain to be enforced by a court of equity.

In the case of *Davis & Roesch Temperature Controlling Co.* vs. *Tagliabue, et al.,* 159 Fed., 712, the

court in discussing this character of uncertainty as affecting the right to specific performance says:

> "The language of the contract is not uncertain. Its meaning can be drawn from within the four corners of the instrument. No ambiguity is apparent. There seems to be no need of evidence of practical construction. And yet both sides have taken and presented a vast mass of testimony as to what the parties said, did, and wrote under the contract and with respect to it after it was executed. It is sufficient to say, regarding this testimony, that if the contract were so ambiguous and uncertain as to require testimony of subsequent dealings to make its meaning clear it would not be a contract which a court of equity would specifically enforce as against a purchaser for value with or without notice of its provisions. *Uncertainty as to the meaning of a contract is fatal to a claim for its specific performance.*"

These assignments of error raise still another point: It is a maxim in equity that "he who asks equity must do equity." One cannot compel another to do that which in equity and good conscience such other would do unless he has done those things in relation to the subject-matter which he in equity and good conscience should have done. It appears in the evidence in this case, that in October, 1909, the Oxford Company entered into an agreement with the appellant companies, under which it agreed to convey to them, among other things, a certain water right known as the Sheep Creek water right. That relying upon this agreement, the appellant companies constructed a

generating plant to utilize the water in relation to which this contract had been made; and expended in that behalf a large sum of money. A subsequent contract refers to this sum as a sum in excess of $100,000.00, but it must be a matter of common knowledge that a plant such as this costs greatly in excess of that sum. After this plant had been erected and during the month of January, 1911, suits were brought against them in relation to this water right, and then, for the first time, Mr. Shackleford learned of the existence of what is referred to as the Gilbert contract, from a document by which the rights, whatever they were under that contract, were assigned by Joseph T. Gilbert to the Alaska Perseverance Mining Company, which document was spread upon the records of the Juneau Recorder's Office, and thus brought to the attention of Mr. Shackleford.

(See evidence Shackleford, Record, p. 116.)

Whatever rights, if any, might exist in Joseph T. Gilbert or his assigns under this contract would depend of course upon such decision as the court might render when the contract was brought before it for construction; but a cloud was cast upon the water right which the Oxford Company, acting entirely in good faith and without knowledge of this Gilbert contract, had agreed to convey. In order, therefore, to protect the defendant companies, it executed contemporaneously with the deed of April 22,

1911, an agreement under which it agreed to indemnify the defendant companies against such rights as Gilbert or his assigns might establish.

(See evidence Shackleford, Record, p. 116.)
(See evidence Bradley, Record, p. 676.)

There can be no doubt, in view of the fact that the Oxford Company agreed to convey this water right, having no knowledge of this pretended outstanding claim, that it would have become the duty of the Oxford Company to relinquish this claim to the appellants under the facts in the case if by any manner or means the Oxford Company should at any time have succeeded to the rights of Gilbert, whatever rights they might be, under this Gilbert contract. Good conscience and fair dealing alike would require this. Nothing less would be equitable. Surely the Oxford Company could not ask for a specific performance of the Oxford contract unless it—having succeeded to the rights of Gilbert—first assigned and relinquished those rights whatever they might be to the appellants. We do not contend or concede that any rights exist under the Gilbert contract, but it is an apparent cloud upon the title; and the Oxford Company having sold the water right with this apparent cloud existing upon it, without its knowledge and in the best of faith to be sure, would owe nevertheless the duty to the appellants to remove this cloud when it became within its power to do so. Without

doing this, it would not have done equity. If this duty would rest upon the Oxford Company under the conditions named, it likewise rests upon the appellee at the present time. It has succeeded to the rights of the Oxford Company and has likewise succeeded to the rights of the Gilbert. As the assignee of the Oxford Company, it has no rights that the Oxford Company would not have had, and it owes every duty that the Oxford Company would have owed; and since it is the owner and holder of this Gilbert contract, it is but equitable and just that the cloud imposed thereby on the defendants' rights should be removed by it. Not having done so, it is in no position to ask the performance of the Oxford contract. The maxim is "he who asks equity must do equity."

The twenty-fourth, twenty-fifth, twenty-sixth, twenty-seventh, twenty-eighth, thirty-first, thirty-second, and thirty-third assignment of errors all relate to the same thing, and can, therefore, be discussed together.

The first five relate to conclusions drawn by the court from the facts found, and the thirty-first and thirty-second relate to conclusions which the court was requested by appellants to draw from the facts found, and the thirty-third relates to the decree entered by the court.

The language employed by the court in Conclusion of Law Number II is as follows:

"That the plaintiff herein is entitled to the

actual and beneficial use of an uninterrupted current of 300 real horse power."

(See Record, page 1160.)

The language employed by the court in Conclusion of Law Number III is as follows:

"That the plaintiff is entitled to all reasonable surges of power necessary in starting ordinary apparatus used in connection with mining, so that an uninterrupted and normal current of 300 actual horse power may be continuously used after the starting of such machinery."

(See Record, page 1160.)

The language employed by the court in Conclusion of Law Number IV is as follows:

"That the contract in question contemplated and referred to the use of real power and that the connections of the defendant companies with the transmission line of the plaintiff company be so established as to prevent the breaking of said circuit upon the use of said momentary starting surges, and that the circuit-breakers of the defendant companies be so installed so as to permit reasonable and momentary starting surges."

(See Record, page 1161.)

The language employed by the court in Conclusion of Law Number V is as follows:

"That the defendant companies so arrange their connection with the power line of the plaintiff

company that in addition to said starting surges the plaintiff company be enabled to draw 300 actual horse power uninterruptedly in their operations, and that the apparatus and devices installed by the defendants for the purpose of maintaining a circuit with the plaintiff company be set and regulated according to approved wattmeter readings so that the current will not be interrupted except when more than 300 actual horse power, according to wattmeter readings, is being taken by the plaintiff of the defendant companies."

(See Record, pages 1161, 1162.)

The language of the court in Conclusion of Law Number VI is as follows:

"That the plaintiff is entitled to have established upon the connection of the plaintiff with the defendant companies at the switch-board at the power plant of the defendant companies situated at Sheep Creek a thirty second inverse time relay circuit-breaker so as to provide for ordinary overloads necessary to starting surges."

(See Record, page 1162.)

The court was asked to conclude from the facts found as follows:

"From the facts found the court concludes that the defendant companies, in making available for the plaintiff's use an electric current in excess of 56.2 amperes with a voltage of 2300 impressed, have complied with each and all of the terms of the contracts entered into between the parties on their part."

(See Record, pages 1164, 1165.)

And the thirty-first assignment of errors relates to the refusal of the court to conclude as thus requested.

The thirty-second assignment relates to the refusal of the court to conclude that the bill of complaint should be dismissed.

The thirty-third assignment relates to the action of the court in entering its decree.

The decree of the court provides, among other things:

1. That the plaintiff is entitled to have and receive of and from the defendants under and by virtue of the contract set forth in the plaintiff's complaint the uninterrupted and beneficial use of 300 real or actual horse power to be supplied by electric current;

2. That the plaintiff is entitled to have and receive of the defendants all reasonable starting surges used in connection with the ordinary machinery used in mining for the application of 300 horse power or less and necessary to the starting of such machinery and to the beneficial use of an uninterrupted current of 300 horse power;

3. That the plaintiff is entitled to the use of real and not apparent power, the same to be measured by wattmeter, and that the plaintiff is entitled to use upon the circuit connecting it with the power-house of the defendants any ordinary motors used in mining operations (whether of the induction type or otherwise)

commonly and ordinarily used in mining operations consuming 300 horse power or less.

It is ordered, adjudged and decreed that the defendants herein so set and maintain their connections, circuit-breakers and other appliances with the plaintiff company that the actual uninterrupted and beneficial use of the before mentioned rights of the plaintiff shall not in any way be interfered with, and the defendants are enjoined from using any appliances which will deprive the plaintiff of the enjoyment of the rights above decreed to the plaintiff; and defendants are perpetually enjoined from maintaining any circuit-breaker or other appliance which will deprive the plaintiff of 300 actual horse power, or any part thereof, to be measured by wattmeters or which will deprive plaintiff of any reasonable starting surges necessary to the enjoyment of the uninterrupted use of the said 300 actual horse power.

The court further decrees that the plaintiff be allowed to install upon the switchboard connecting the plaintiff's power line with the defendant's powerhouse a wattmeter, voltmeter and ammeter, and that the same be installed in such a way that the plaintiff may have the same under lock and key for its information and inspection to check the wattmeter, voltameter and ammeter readings of the defendant companies at said point.

It is further ordered, adjudged and decreed in accordance with the foregoing that the contract of

October 14, 1909, be specifically performed by the defendants.

It is further ordered, adjudged and decreed that the defendants and each of them are hereby enjoined from doing any act or thing which will interfere with the enjoyment of the rights herein decreed to the plaintiff and against the defendants.

It is further ordered, adjudged and decreed that the defendants maintain and install upon the connection of the plaintiff's power line with the power house of the defendants at the switchboard at the power house at Sheep Creek an inverse thirty-second time relay circuit-breaker in such a manner as to provide reasonable starting surges in connection with the operation of the machinery of the plaintiff company upon said power line, which said circuit-breaker shall be set at all times so as to give an uninterrupted current of 300 real horse power as distinguished from apparent power, to be set and maintained in addition to the thirty-second resistance in the said circuit-breaker which is decreed for the purpose of providing to the plaintiff reasonable and adequate means of obtaining starting surges without interruption in their operations.

(See Record, pages 1166-1169.)

The matter presented for discussion by these assignments of errors deals with the question of whether or

not the conclusions and decree of the Court are warranted by the facts found.

As has already been observed the court found that the parties had made three contracts in relation to the subject matter of the suit, and the court further found other facts relating to the negotiations and dealings of the parties which led up to the execution of these contracts.

We will endeavor first to discuss the contracts themselves, in order to ascertain what the relative rights of the parties are under the contracts, and we will next endeavor to inquire into the findings made by the court with reference to the negotiations that led up to the execution of the contracts to ascertain if these can in any manner affect the conclusions that we may reach concerning the rights of the parties under the contracts themselves, if the findings of the court in this regard should be considered as material.

RIGHTS OF THE PARTIES UNDER THE CONTRACTS:

It will be observed that according to the first paragraph of the court's decree the plaintiff (appellee) is entitled to have and receive by and from the defendants (appellants) "the uninterrupted and beneficial use of 300 real or actual horse power to be supplied by electric current," and that according to the third paragraph of the court's decree the plaintiff (appellee) is entitled to the use of real and not apparent

power, the same to be measured by a wattmeter, and, further, that according to paragraph 2 of the court's decree, plaintiff (appellee) is entitled to receive in addition to the 300 actual horse power, starting surges or starting currents necessary to start apparatus having a running current of 300 horse power.

The decree further directs the defendants (appellants) to install a wattmeter for the purpose of measuring the power to be furnished and to install a time relay circuit-breaker so set as to enable the appellee to draw starting currents of thirty seconds duration, and the decree also provides that the plaintiff or appellee shall be allowed to install upon the switchboard at the power house of the appellants a wattmeter, voltameter, and ammeter, which it shall be allowed to install in such a way as to have the same under lock and key, for its information, so as to enable it to check the wattmeter, voltameter and ammeter readings of the appellant companies.

The appellants contend that the court's decree is erroneous in regard to these various matters.

According to this decree, the appellants are required to furnish the appellee 300 real or actual *horse power* as distinguished from an *electric current,* not to exceed 300 electric *horse power,* and are further required to furnish the appellee *starting surges or currents unlimited as to volume,* as distinguished from a current of not to exceed 300 electric horse power. In other words, under the court's decree, the thing to be

furnished on the one hand and received on the other is *power,* while it is contended by appellants that the thing to be received and furnished is not power, but *current* from which power can be developed.

Again, under the court's decree, the appellants are permitted to draw for thirty seconds at a time as much power as their convenience may require, regardless of the question whether the power thus drawn exceeds 300 electric horse power or not, while it is contended by appellants that under the contract the current to be furnished and made available on the one hand and to be received and drawn on the other can at no time exceed a current of 300 electric horse power.

The decree further provides that the appellants shall install a wattmeter and a thirty second time relay circuit-breaker, and in this connection the appellants contend the court had no right under the contracts to direct them or require them to install any particular kind of apparatus whatsoever. The matters to be discussed, therefore, present themselves under three heads, which we shall endeavor to discuss in their order.

UNDER THE CONTRACTS, APPELLANTS ARE REQUIRED TO FURNISH CURRENT AS DISTINGUISHED FROM POWER, AND SUCH CURRENT IS TO BE LIMITED AND MEASURED BY THE UNIT OF MEASUREMENT PROVIDED FOR IN THE CONTRACT.

The use of the terms "real" or "actual" power and the term "apparent" power, unless correctly understood, are apt to lead to confusion. At first glance, it may appear to one not familiar with the terms that real or actual power had reference to something which is real or actual, while the term "apparent" had reference to something which is only apparent, but which in point of fact is not real or actual. These terms, as used in connection with electricity have no such meaning and admit of no such construction. The term "power" in its most restricted sense refers only to energy available for doing work. It is only energy in this form, that is to say, energy which is available for doing work, that constitutes power. Electricity is a form of energy which is not available for doing mechanical work. Before it can be made thus available, it must be developed by means of a motor into mechanical power, that is to say, power on the shaft. Until it is so developed, it is not mechanical power. It only appears in the circuit as so much power that can be developed into mechanical power. The term "apparent" power then refers to the energy that circulates in the circuit and appears there as power that can be developed. While the term "actual" or "real"

power refers to that portion of the energy contained in the circuit that actually will be developed into mechanical power by use of the particular apparatus used in developing it, regardless of whether such apparatus develops all the energy in the circuit into mechanical power or only a portion of the energy there appearing into mechanical power, depending upon the efficiency of the apparatus used.

In ordinary electrical parlance, the term "power" is applied not only to mechanical power, but also to electrical current, and when used in connection with and applied to electrical current, it refers to the energy that appears in the current as undeveloped mechanical power, and this is referred to as apparent power. Electrical current is developed from mechanical power by means of a generator. That is to say, the generator is propelled by mechanical power and the output of the generator is a current of electricity. In other words, the generator is the apparatus employed for transforming mechanical power into electrical power or electrical current. The electrical current thus generated is in turn developed into mechanical power by means of a motor. That is to say, the motor is the device employed for transforming the electrical current or electrical power into mechanical power.

According to the decree of the court, the thing to be furnished by appellants is in effect mechanical power, that is to say, the output of the motor; accord-

ing to the contention of the appellants, the thing which they are required to furnish the appellee under the contract is not mechanical power, but electric current, the output of the generator.

The provisions contained in the three contracts set out at large in the findings of the court, in so far as they relate to the matter under discussion, are as follows:

Those occurring in the contract of October, 1909, are the following:

> "It is the intention of the lessees to erect, equip and maintain upon said premises a water power plant of substantial size and efficiency for the generation of electric power, and if at any time after two (2) years from the date hereof the lessor or its assigns shall elect to take a current of not to exceed three hundred (300) electric horse power which shall be taken from and at the generating plant to be installed upon the leased premises hereinbefore described, the lessees undertake, covenant and agree to deliver said current to the lessor or its assigns upon the execution and delivery by the lessor or its assigns to the lessee of a deed or deeds conveying said leased property herein described to the party of the second part. If prior to the expiration of nine years from the date hereof the lessor does not elect to convey to lessees or their assigns the property herein leased and accept in full consideration therefor the right to the use of the three hundred (300) electric horse power hereinbefore mentioned, the lessees may at their option prior to the expiration of the ten (10) years provided in this lease purchase the property herein leased absolutely from the lessor by paying to the

lessor the sum of twenty-five thousand dollars (25,000) in gold coin of the United States; . . .

"The provisions herein as to the delivery of three hundred (300) horse power at the generating plant to be installed on the premises herein described contemplates the delivery of an uninterrupted current, but the lessees shall not be liable for damages that may arrive from operating and physical causes beyond its control" (See Record, pp. 1182-1184).

The provisions occurring in the deed of April 22, 1911, are as follows:

"And, whereas, thereafter on the 31st day of October, 1910, the Oxford Mining Company, party of the first part herein, duly elected to take the electric current provided for in the said indenture and agreement, which said election was accepted and agreed to by the parties of the second part hereinbefore mentioned on the said 31st day of October, 1910" (See Record, p. 765).

And the provisions occurring in the contract relating to the Gilbert contract, which also bears date of April, 1911, are:

"And, whereas, thereafter on the 31st day of October, 1910, the water power plant provided for in the fourth paragraph of said agreement was duly erected and equipped prior to that time, and the party of the first part duly elected to take the current of electric power provided for in said indenture and agreement of October 14, 1909, which said election was agreed and consented to by the parties of the second part; . . .

"Now, therefore, pursuant to the agreement of the parties hereto of October 31, 1910, and the

election of the party of the first part to take the electric current provided in the agreement of October 14, 1909, formal conveyance of the said property has been made by the Oxford Company to the parties of the second part;

"Now, therefore, in consideration of the premises, it is hereby agreed that if the parties of the second part hereto are deprived at any time by Alaska Perseverance Mining Company, Joseph T. Gilbert, his or their successors or assigns, of any of the water now appropriated and used by the second parties out of Sheep Creek at the power plant, then the party of the first part shall only be entitled to the three hundred (300) horse power of electric current provided in the agreement dated October 14th, 1909, decreased by the number of horse power that could be generated by the second parties at their plant, with the water of which the second parties may have been deprived by the Alaska Perseverance Mining Company, Joseph T. Gilbert, his or their successors or assigns" (Record, pp. 1044; 1050).

In going over these various provisions, it will be noted that in each instance the thing referred to as the thing to be furnished, is a current from which mechanical power can be developed, as distinguished from mechanical power already developed and ready for use.

The first provision in the contract of October, 1909, reads: "and if at any time after two (2) years from "the date hereof the lessor or its assigns shall elect "to take a *current* of not to exceed three hundred "electric horse power which shall be taken from and "at the generating plant to be installed upon the

"leased premises hereinbefore described, the lessees "undertake, covenant and agree to deliver said *current* "to the lessor or its assigns" (Record, p. 1064).

The second provision reads as follows: "If prior "to the expiration of nine years from the date hereof "the lessor does not elect to convey to lessees or their "assigns the property herein leased and accept in "full consideration therefor the right to the use of "the three hundred (300) electric horse power here-"inbefore mentioned" (Record, p. 1064). Here the word current is not repeated, but by describing the thing referred to as *hereinbefore mentioned;* whatever was said about the thing referred to in the previous recital becomes a part of this recital in the same manner as though it were repeated in full instead of being abbreviated as is often done, not only in connection with the drafting of contracts, but in all other kinds of writings as well.

The third provision likewise relates back to what had been previously said in the following language: "The provisions herein as to the delivery of the three "hundred (300) horse power at the generating plant "to be installed on the premises herein described con-"templates the delivery of an uninterrupted *current*" (Record, p. 1066). Under this provision, however, it is clearly stated that the thing to be delivered or dealt with is a *current.*

Again, in the deed executed on the 22nd day of April, 1911, occurs the following provision: "And,

"whereas, thereafter on the 31st day of October, 1910, "the Oxford Mining Company, party of the first "part herein, duly elected to take the *electric cur-* "*rent* provided for in the said indenture and agree- "ment" (Record, p. 1027). Here again, the language used is clear and unequivocal. The thing dealt with being electric *current* provided for in said indenture and agreement, meaning the agreement of October, 1909.

Again, when the remaining agreement bearing the same date as the deed was executed, the parties first use this language "and the party of the first part duly elected to take the *current* of electric power provided for in said indenture and agreement" (Record, p. 1049). In a succeeding paragraph this language is used: "And the election of the party of the first part to take the *electric current* provided for in the agreement" (Record, p. 1050). And a still subsequent provision, provides as follows: "then the party of the first part shall only be entitled to the three hundred (300) horse power of *electric current*" (Record, p. 1050).

It will be seen, therefore, that whenever the parties dealt with the matter under consideration, the dealings always referred to the current as the thing to be furnished.

Again, the first provision in the contract of October, 1909, provides that the current shall be taken from and at the generating plant (Record, p. 1064);

this provision would preclude the idea that the thing referred to was developed mechanical power as distinguished from current capable of being developed into mechanical power, even though the further provisions of the contract were not clear upon this point; for developed mechanical power is not developed at the generating plant. Generating plants generate current, not developed mechanical power. So also the provision is clear upon the point that this current is to be taken by the Oxford Company from and at the generating plant to wherever it sees fit, and developed or used in whatever manner it sees fit. However, all the other provisions of the various contracts are so clear upon this point that even though this provision did not occur in the contract, no question could arise, but what the parties intended that the thing to be furnished on the one side and received on the other was to be a current from which power could be developed, and not mechanical power already developed. And this is also the construction placed upon the contract by all the parties of the action.

When the Oxford Company got ready to use the current it built its transmission lines so as to connect them with the bus bars of the generating plant and convey the current by means of these lines to the place of intended use, and there installed its own motors to develop it (Record, pp. 1077, 1078—Finding of Fact IX). Upon this point there is no con-

troversy, and the matter would not have been referred to in detail were it not for the fact that the trial court misinterpreted the contract in this regard and that such misinterpretation led the court to the erroneous conclusions reached.

It will be noted from the decree that the trial court held that under the terms of the contract the appellee was entitled to 300 actual or real horse power (Record, p. 1093), irrespective of the quantity of electric current that it might require or use in developing such power. Hence, the thing to which the horse power as a unit of measurement is applied by the trial court is not the current from which the mechanical power is developed, but to the power which is actually developed.

At first glance, it might seem as though it would make but slight difference where the energy was measured whether in the current or in the developed mechanical power, and it is in point of fact true that it would make little or no difference if the current were developed, as it is claimed by appellants that it should be, in such a manner that all the energy existing in the form of electric current were transformed into energy existing in the form of mechanical power; but the appellee has installed a motor that does not develop all the energy existing in the form of electric current, into energy existing in the form of mechanical power, but leaves in the circuit a large per cent. of the energy existing therein undeveloped, and

in that manner wastes so much of the current as is not developed into mechanical power.

The appellee claims it has a right to do this; that it is immaterial how much current it uses up in developing 300 horse power so long as it does not develop in excess of 300 horse power, and the trial court took this view of the matter.

An electric current as generated by a generator, has two characteristics, that is to say, it has pressure and it has flow. The pressure is spoken of as the voltage, and the unit by which its pressure is measured is the volt. The flow is referred to as the amperage and the unit by which the flow is measured is the ampere.

One ampere multiplied by one volt is equivalent to one watt, which is the unit of electric power, and 746 watts constitute one electric horse power.

In order, therefore, to measure an electric current by the unit electric horse power, we need only to multiply the number of volts by the number of amperes, which gives us the number of watts, and then divide the product so obtained by 746, this being the number of watts contained in an electric horse power, and in the case of a three phase circuit, such as the circuit maintained by the appellant companies, it is necessary to multiply the result thus obtained by the square root of three.

56.2 amperes, with a voltage of 2300 impressed upon a three phase circuit, constitutes a current of 300 electric horse power calculated in this manner, and

it is such a current so measured that the appellants have made available for the use of the appellee in compliance with the terms of the contract before the court. The current so furnished, if developed by means of a synchronous motor, or by means of a motor of the induction type supplied with a synchronous condenser, can be and will be developed into 300 mechanical horse power, and the same result can be and will be obtained if the current is applied for lighting purposes.

The appellee, however, is developing the current furnished into mechanical power by means of a motor of the induction type not supplied with a synchronous condenser, and is conveying the current a distance of four or five miles from Sheep Creek to the Perseverance Mines.

The use of this type of motor, as well as the use of this long transmission line results in a phase displacement. That is to say, the inductive effect of motors of this type so distorts the electric current that a portion of it, depending in extent upon the extent of the phase displacement, is rendered useless, and the use of the transmission lines has a like effect, all other things being equal, the longer the line the greater the phase displacement. It must here be noted that the extent of the phase displacement in the electric circuit is further affected by the transformers and other apparatus used in connection with the development of the current into mechanical power as well as

by other matters connected with the condition of the load. And it should further be noted that this phase displacement is in no wise the result of, nor is its extent in any wise affected by, any apparatus connected with the generating plant.

(See Evidence, Record, pages 506; 371.)

Where motors of the induction type are used not supplied with synchronous condensers, the extent of the phase displacement depends in the first instance upon the efficiency of the particular motor or motors used, the length of the transmission wires, the transformers and other apparatus used in connection with the development of the current into mechanical power and upon the manner in which such motors, transmission wires and other apparatus are installed and operated, and after the apparatus is placed in operation, the extent of the phase displacement varies from moment to moment, depending upon the conditions of the load.

(See Evidence, Record, pages 507, 508.)
(See Evidence, Record, page 362.)
(See Evidence, Record, page 452.)

The term "power factor" is employed to indicate the per cent. of the apparent power, that is to say, the power appearing in the circuit in the form of electricity that will or can be developed by the particular apparatus employed in developing the current into

mechanical power. That is to say, the power factor depends altogether upon what per cent. of the current is so distorted as to render it useless. Thus, the ratio between the power that can be developed from a circuit and the power that will be developed from it is the result of the particular form or type of apparatus employed; the greater the distortion of the current or phase displacement, the lower the power factor. That is to say, if 25 per cent. of the current is so distorted as to render it useless, the power factor is 75 per cent. If half of the current is so distorted as to render it useless, the power factor is fifty per cent. If all of the current is so distorted as to render it useless, the power factor is zero. The power factor then depends upon the extent of the phase displacement and may be anything from nothing to 100 per cent.

The phase displacement from the use of motors of the induction type and the use of other apparatus having an inductive effect, such as the motors and apparatus used by the appellee, can be obviated by installing a synchronous condenser operated in such a manner that all the energy appearing in the circuit as apparent power will and can be developed into mechanical power. That is to say, the apparatus employed by the appellee, if supplied with a synchronous condenser, could be operated in such a manner that the result will be the same as though a synchronous motor had been installed.

Under the decree of the court, however, the ap-

pellee has a right to install not only motors of the induction type not supplied with a synchronous condenser, but it has a right to use the most inefficient kind of motors of that type, motors which are so inefficient, if it should see fit to use them, that the current would be distorted to such an extent that no mechanical power whatever could be developed from it. Further than this, the appellee, under the decree, has the right to transmit the current to whatever point it may see fit, even if the transmission would have the effect of so distorting the current that no power whatever could be developed from it. And further the appellee is not required to exercise even the slightest degree of skill or care either in installing its motors, transmission wires, transformers and other apparatus, or in operating the same, nor are any restrictions placed upon it by which it is required in any manner to regulate the conditions of the load. It has the right to use whatever motor it may see fit to develop the power at any place whatsoever and in any manner whatsoever, and to draw from the bus bars of the appellants current sufficient to enable it to develop 300 mechanical horse power by means of whatever apparatus at whatever place and in whatever manner it sees fit.

The quantity of current that the appellee has a right to receive and which the appellants are compelled to furnish and supply under the decree of the court, does not depend in any manner upon the terms

of the contract itself. It is not measured by any unit of measurement whatsoever. It is entirely unlimited in extent, both as to pressure and flow and depends entirely upon the convenience or caprice of the appellee. The appellee may, if it sees fit, install apparatus, and so develop the current into mechanical power that 56.2 amperes will supply it with 300 mechanical horse power, or it may so develop it as to require not only all the current generated at the appellee's generating plant, but a current of much greater volume and pressure than the current there generated in order to develop the 300 mechanical horse power to which the court decrees it to be entitled.

It will be seen, therefore, that it is a matter of great importance to determine in connection with the construction of the contract in question, whether the thing to be furnished, made available, and measured on the one hand and received on the other under the contract is *electric current* or *mechanical power.*

True, the court does not require the appellants to develop the power and furnish the developed power, but only requires the appellants to furnish the current from which the appellee will develop the power, but the court does not attempt to measure the current to be furnished, but measures the developed power, so that the effect of the court's construction of the contract is that the thing to be furnished and measured is not current but mechanical power, for no limit upon

the quantity of current to which the appellee is entitled under the contract is in any wise fixed by the court.

The language of the contract is clear and explicit. It provides that the thing to be supplied is an electric current of not to exceed 300 electric horse power. If, then, the thing to be furnished on the one hand and to be received on the other is an electric current defined, described, and limited as to quantity and flow, as a current of not to exceed 300 electric horse power, it only remains to be seen what current would fill the requirements of a current not to exceed 300 electric horse power.

It will be seen that the unit by which the current to be made available is to be measured is the electric horse power.

The electric horse power can be used as a unit by which current is measured. When so used, as we have already seen, the volts are multiplied by the amperes, which gives us the number of watts, and the product divided by 746, this being the number of watts in an electric horse power.

Mr. Foster, in his "Hand Book on Electricity," commencing at the foot of page 5, defines electric power and gives the formula for calculating the same as follows:

> "Electric power (symbol p) is measured in watts, and is represented by a current of 1 ampere under a pressure of 1 volt, or 1 Joule per second.

> The watt equals 107 absolute units, and 746 watts equals 1 horse power. In electric lighting and power the unit kilowatt or 1000 watts is considerably used to avoid the use of large numbers."

It will be observed from a reading of the contract that the current is to be taken from and at the generating plant, that is to say from the bus bars of appellant.

Now, it is the contention of appellants that the current so taken from the bus bars is to be measured by the unit electric horse power, and that whenever a current containing 300 of such units is drawn from the bus bars, the contract is complied with.

Under the decree of the court, the *current* as so drawn is not to be measured at all, but the *output of the motor* is to be measured and the unit horse power is to be used in measuring such output.

This view is clearly erroneous, since the output of the motor is not current, but mechanical power, and the thing to be furnished is *current* at the bus bars at the generating plant.

Clearly, if it was the intention of the parties to furnish a current, as we have shown that it was, it must have been the intention of the parties to measure the thing to be furnished, and this intention cannot be carried out except by measuring the power appearing in the current, that is to say, the "apparent power."

To illustrate: We will suppose that the appellant companies were engaged in the business of cutting saw

logs; that they made a contract with the appellee under which it would be entitled to take from its log boom a quantity of logs not to exceed 300 thousand feet. Now, the unit by which the logs to be furnished would have to be measured would be 1000 feet. This unit can be employed in measuring logs, just as the unit horse power can be employed in measuring current. It likewise can be employed in measuring lumber, the thing taken from the logs, just as the unit horse power can also be employed in measuring mechanical power, the thing developed from the current.

Now, logs can be cut into lumber by means of band saws so as to convert practically all the material existing in the log into lumber, or by means of circular saws so inefficient as to waste a large per cent. of the material contained in the log, just as current can be developed into mechanical power by means of synchronous motors or motors of the induction type, supplied with a synchronous condenser, by which the energy existing in the form of current will be developed into energy existing in the form of mechanical power, or by means of motors of the induction type carelessly operated, installed and kept in a poor state of repair, so that a large per cent. or even all of the current is distorted, rendered useless and wasted. That is to say, a saw mill can be operated at a lumber factor of much less than 100 per cent., just as a motor can be operated at a power factor of less than 100 per cent.

To carry the illustration further, the log contains no lumber. It merely contains the wood that can be transformed into lumber. In other words, the lumber contained in the log is apparent lumber and not real lumber. It appears there in the form of wood. It is merely apparent, and it is only after it has been cut into lumber that the lumber becomes real. Just so in the case of an electric current. The energy existing in the current is only apparent power. It does not become mechanical power, or power that can do mechanical work until it has been developed by means of a motor. Until it is so developed, the mechanical power existing as energy in the form of electricity is only apparent, just as the lumber existing in the form of wood contained in the saw log is only apparent.

Now, let us suppose that the appellee was operating a saw mill equipped with a circular saw of very poor efficiency, so that only one-half of the lumber apparent in the saw log could be cut into actual, real lumber, which is equivalent to saying that the appellee would be operating a circular saw having a lumber factor of 50 per cent. Would any court hold that under the supposed contract for the delivery of logs, the appellee would be entitled to sufficient logs to enable it to cut 300 thousand feet of lumber from the logs furnished with its inefficient circular saw operating at a lumber factor of 50 per cent.? If the court would not so hold, then why should the court hold that the appellee being entitled to a current of electricity of 300 electric

horse power, shall have the right to whatever current it may require to develop 300 horse power by means of an inefficient motor having a power factor of probably 50 per cent.?

Nor does it help the matter any to say that the appellee when operating at a power factor of less than 100 per cent. is not using that portion of the electric current which has been distorted because of the use by it of appliances that result in a phase displacement, and that such portion of the current is permitted by it to remain in the circuit and there circulate. Such a contention would be equivalent to saying that the saw mill operator whose mill operated at a lumber factor of less than 100 per cent. did not appropriate the saw dust wasted by this inefficient machinery. Further, the contract itself settles the question as to where the current is to be measured. It is expressly provided in the contract that the current shall be taken from and at the generating plant. It is at the generating plant, then, that the current must be measured, and at the generating plant all the current presents itself for measurement including that part of the current which has been distorted.

So far in this discussion, we have measured the current by means of the unit electrical horse power, and have done so in the only manner that this unit can be employed as a unit for measuring current. However, if instead of using as a unit of measurement an electrical horse power as we have hereto-

fore done, an attempt should be made to measure the current in units of mechanical horse power, the result would be the same.

A mechanical horse power as a unit for measuring mechanical power consists of that quantity of power which will lift 550 lbs. one foot per second.

Now electric current as such is not mechanical power of which the mechanical horse power is the unit of measurement, nor is power as such electric current; but while power and electric current are not the same thing they are different forms of the same thing—energy. Energy in a certain form manifests itself as mechanical power, the only difference in the two forms of energy being that in the case of an electric current, the energy is not available for doing mechanical work, while energy in the form of mechanical power is available for doing such work. To transform the electric current into mechanical power it is necessary that the energy contained in the current be made available to do work. For this purpose motors and other apparatus used in connection with them are employed. Since energy in the form of an electric current can thus be transformed into energy in the form of power, electric current can be made available for the doing of mechanical work by means of a motor. The current is thus transformed into mechanical power; again the mechanical power could in turn be transformed into current by installing a generator and applying the

mechanical power thus obtained from the current to operate the generator, and produce another current equal to the first current less the slight loss resulting from friction and other causes in connection with the operation of the machines. The energy, therefore, can be readily transformed from one form into another, and while the units by which a current is measured are volts and amperes, or by what amounts to the same thing, by the products of the volts and amperes divided by 746, which as we have seen gives us the electric horse power apparent in the circuit, and the unit by which mechanical power is measured is the mechanical horse power, each can be measured by employing the unit of measurement designed to measure the other, since one is thus capable of being transformed into the other and adapt itself to the unit of measurements employed for measuring such other. It follows, therefore, that current of 300 horse power measured in volts and amperes, or in what is equivalent to the same, under the electrical horse power employed in measuring the power apparent in the circuit, is a current that contains the energy contained in 300 horse power, in other words is a current that can be transformed into mechanical power equivalent to 300 horse power. For it is fundamental that unless a current contains as much energy as is contained in 300 horse power, it cannot be transformed into it. To do this would not only require transformation,

it would require creation. If, therefore, a given amount of current can be developed into 300 mechanical horse power, it is a current of 300 horse power.

It is urged, however, that when motors of the induction type are used, less than 100% of the energy contained in the current is developed into actual mechanical power, that is to say, these motors operate at a power factor of less than 100%, and for that reason the current that would be a current of 300 horse power when developed by means of a synchronous motor, would not be a current of 300 horse power when developed by means of a motor of the induction type. This position, however, can readily be shown to be untenable. The reason that motors of the induction type do not develop 100% of the energy contained in the current into mechanical power is found in the fact that the use of these motors results in a phase displacement, and that the power factor of the motor depends upon the extent of this phase displacement; the greater the phase displacement, the less the power factor. Such phase displacement does not decrease the amount of energy contained in the current, it merely renders a portion of such energy unavailable, unless some means or apparatus is used to correct such displacement. When a phase displacement occurs, the quantity of the energy in the circuit is not affected either one way or another. The percentage of the energy ren-

dered unavailable by reason of phase displacement does not leave the circuit, but continues to circulate therein. Unless corrective devices are used, it produces no power, that is to say, the energy contained in it is not transformed into energy in the form of mechanical power, but it is and remains in the circuit nevertheless. This is proved by the fact, that as soon as a synchronous motor, a rotary condenser or other device having a similar effect is installed, the energy contained in the current which could not theretofore be transformed into mechanical power, can upon the installation of such devices be again utilized to its fullest extent and transformed into mechanical power available for doing work. And since none of these devices generate or transmit energy, it follows that the energy must have been in the current all the time and that the reason why it was not developed into mechanical power, was because the apparatus employed was not such as could develop it.

If, therefore, a current is to be supplied that contains energy equivalent to the energy contained in 300 mechanical horse power it is and remains a current of 300 horse power, regardless of the form or type of motor or other apparatus used to develop it. That is to say, if such current were developed by means of a motor operating at a power factor of 50%, only 150 horse power would be developed, but this would not change the fact that the current was

a current of 300 horse power, because energy equivalent to the energy contained in an additional 150 horse power would remain in and be left in the circuit. The phase displacement resulting from the use of the particular apparatus employed to develop the current would so affect the current that 150 horse power only could be developed by means of this apparatus, but notwithstanding this, energy equivalent to 300 horse power would be circulating in the circuit, and this energy would be available for use, and would be developed into 300 actual horse power as soon as the phase displacing the effect of the motor or other apparatus employed, was overcome by the installation of a rotary condenser or other similar device designed for that purpose. Again, if a 300 horse power motor of the induction type operating at a power factor of 50% were connected with a circuit with a view of developing 300 actual horse power, the current required would not be a current of 300 horse power, but a current of 600 horse power, for the motor would cause a phase displacement that would so affect one-half of the current flowing in the circuit that the energy contained in it would not be transformed into mechanical power, but while one half of the current would thus be rendered useless, the quantity of energy contained in the current would remain the same, and would be equivalent to the energy contained in 600 horse power, and 600 horse power could be developed from it, either by means

of a synchronous motor, or by means of a motor of the induction type supplied with a rotary condenser, or other device that would restore the synchronism of the current.

The operation of a motor at a power factor less than 100% amounts to nothing less than a *waste* of the current not developed. While the current continues to circulate in the circuit, and the electric energy (undeveloped by reason of the low power factor of the motor), remains in the circuit, generating capacity equivalent, not to the power actually developed, but to the power the equivalent of which is circulating in the circuit in the form of electric energy, is used up. That part of the generating capacity which is employed in generating current left in the circuit undeveloped, is wasted.

The Court so construed the contracts before it that appellee is given the right to install whatever type of motor it may desire at whatever place it may see fit, and to operate it in any manner that it may desire. Under the decree the appellee may, if it chooses to do so, develop all the energy in the circuit into useful mechanical power, or if it does not choose to do so, it may develop the smallest per cent of the electric energy floating into the circuit into mechanical power and demand that the quantity of electric energy furnished it be increased until the small per cent developed will supply it with the required 300 horse power.

In other words, the Appellee is given the right to drain from appellant and waste as much electric energy and current as it sees fit without the slightest loss to itself.

The power factor of a circuit is affected by the transmission wires (the longer these wires, all other things being equal, the lower the power factor) by the transformers; by the motors and other apparatus used in developing the current into power. It depends upon the length and character of the transmission wires, the character and efficiency of the transformers, the form and type of motor and other apparatus used, and varies from moment to moment according to the condition of the load. The court's decree leaves all these things entirely in the control of and to the discretion of the Appellee. Under the decree the appellee has a right to convey the current to any point without regard to the distance of such point from the generating plant. Yet the power factor of the circuit depnds to a large extent upon the length of the transmission wires. It has a right to use as many transmission wires as it sees fit. Yet each transformer used affects the power factor. It has a right to use any form or type of motor it chooses, regardless of whether such motor operates at 100 per cent power factor or at any other power factor between 0 and 100 per cent.

The Appellants have absolutely no control over any of these matters. The contract provides that

the current is to be taken from and at the generating plant so that the control of Appellants over the current ceases as soon as it leaves the generating plant. Since the power factor of the circuit is thus left entirely to the control of the Appellee, it would, if the lower Court's construction of the contract is upheld, have the right not only to use but to waste the entire current generated at appellants' generating plant, and if it operated at a power factor of 19 per cent, this result would be brought about.

(See Evidence Proebstel, Record, p. 382.)

True, electric apparatus does not usually operate at so low a power factor, but it is equally true that the users of electric apparatus do not usually enjoy this remarkable privilege. If it were the usual thing for the users of electric apparatus to enjoy this privilege, it is quite reasonable to assume that the power factor of the circuits of such users would be very much lower than it now is.

The witness Proebstel testified upon the hearing (See evidence Proebstel, Record, p. 383) that he actually saw electric apparatus operated at a power factor of 20 per cent., and we confidently predict that if the decree of the lower court should be upheld, it would not be long before we would again see electric apparatus operated at a power factor at least as low as 20 per cent. This might result, even though it would not be accompanied by any wilful or vicious motives

on the part of the appellee. The power factor of the motor employed by the appellee at the present time does not much exceed 60 per cent. The witness Wallenburg testified that the power factor of appellee's circuit was at the time of the trial about 70 per cent.

(See Evidence Wallenburg, Record, p. 295.)

It was shown that on this circuit were a number of lights. These lights used up current at a power factor of 100 per cent., and in that way increased the power factor of the circuit. The motor, therefore, must have been operated at a power factor considerably less than 70 per cent., probably not more than 60. Whether this power factor of appellee's circuit is due to the fact that the motor is inefficient or to the fact that the transmission wires extend over it a considerable distance, or are not properly placed, or to some other cause in connection with the development of the power, cannot, of course, be determined, but the fact remains that the power factor of the motor employed by the appellee does not far exceed 60 per cent.

Now, all mining companies in the District of Alaska do development work, sometimes at points quite remote. Suppose the appellee had development work to do at Berner's Bay or some other point equally distant, it would certainly be to its advantage to employ this particular power instead of other power available for use, because the low power factor that would necessarily result from transmitting the current over so

great a distance would not result in any loss to itself but to the appellants. If, then, the power were used at Berner's Bay and the long transmission lines affected the power factor so as to reduce it to 19 per cent., the appellee would have under the decree of the court the unqualified and undoubted right to use all the current that could be developed at the Sheep Creek power plant of the appellants. Yet, no one can accuse the appellee of doing anything that others would not do under like circumstances. As has already been seen, the appellee under the decree of the court has the right to waste all the current that the appellant companies generate or can generate at the Sheep Creek plant, and should the appellee desire to operate at a power factor of less than 19 per cent., which it has a right to do under the decree of the court, it would not only take all the power generated at the Sheep Creek plant of the appellant companies, but the appellant companies would be required to install a larger plant so as to be in a position to furnish the current that would be required, and in the event of their not doing so, they would be in contempt of court for failing to comply with the court's decree. Not only does the appellee have the right to waste the entire output of the Sheep Creek generating plant, but as much more current as it sees fit, and it has the right to do this without the slightest loss or inconvenience to itself. It can save money by installing cheap and inefficient machinery which necessarily operates at a

low power factor. It has the right to use the current in distant and remote places so as to supply power at such remote places for prospecting and development work, and it may do this without regard to the extremely lower power factor that must result from the length of the transmission wires.

Surely the court erred in so construing the contracts before it. Even if the contracts were open to such construction, the court was not justified in so construing them, for the contracts admit, as we have seen, of a more reasonable construction, and it is a well settled rule of construction that where an instrument admits of two constructions, one of which is reasonable and the other unreasonable, the court will adopt that construction which is reasonable.

> "Where the language of a contract is contradictory, obscure, or ambiguous, or its meaning is doubtful, so that the agreement is fairly susceptible of two constructions, the more natural, probable, and reasonable interpretation should be adopted. *Bell* vs. *Bruen,* 1 How., 169, 186, 11 L. Ed., 89; *Pressed Steel Car Co.* vs. *Eastern Ry. Co. of Minnesota,* 57 C. C. A., 635, 637, 121 Fed., 609, 611; *American Bonding Company* vs. *Pueblo Investment Company,* 80 C. C. A., 97, 108, 150 Fed., 17, 28, 9 L. R. A. (N. S.), 557, 10 Ann. Cas., 357; *Coghlan* vs. *Stetson* (C. C.), 19 Fed., 727, 729; *Jacobs* vs. *Spaulding,* 71 Wis., 177, 186, 36 N. W., 608; *Russell* vs. *Allerton,* 108 N. Y., 288, 292, 15 N. E., 391."
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> *Barndall Oil Co.* vs. *Leary,* 195 Fed., 731.

Again the construction placed upon the contracts by the court not only leads to unreasonable conclusions, but it leads at the same time to unjust and inequitable results. The appellants have expended many thousands of dollars in connection with the construction of the Sheep Creek generating plant and are constantly spending large additional sums in connection with its maintenance and operation. The appellee under the contract is entitled to the first 300 electric horse power that can be developed from the current generated. For a considerable portion of the year this is all the current that the generating plant can generate owing to the shortage of water. All the appellants get is the surplus and they get only such surplus when it exists.

All that the appellee's predecessor gave for its right to the use of a current of not to exceed 300 electric horse power was a water right and some other pieces of property upon which the contract places a value of $25,000, which, calculated at 8 per cent., would make the power at the present time cost $6.66 per horse power year.

The contract itself, then, places the value of the current to which the appellee is entitled at $25,000. Another expressed provision in the contract fixes the rental of this current at $125 per month, which is equivalent to $5 per horse power year. The evidence shows that the Alaska Juneau Gold Mining Company, a corporation under the same management with the appel-

lant companies, is temporarily supplied with electric current by the appellant companies to do a certain piece of development work. This company pays $65 per horse power year for the current supplied it and the current is calculated and measured at unity or 100 per cent. power factor; that is to say, the current supplied the Alaska Juneau Gold Mining Company is measured in the same manner that it is contended by appellants the current to be furnished the appellee should be measured, which in fact is, as we have shown, the only manner in which current can be measured.

See Evidence Kinzie, Record, p. 555, and Contract between Alaska Juneau and others, Record, p. 793.

The Alaska Juneau Company is not given the privilege of wasting any of the current supplied it. It uses a motor of the induction type on its circuit, but it appears that it pays for and the *current* furnished it, regardless of how much or how little *power* it actually develops from such current. Yet, it is paying appellant companies for the current furnished $65 per horse power year.

If the contract admitted of any such construction as that placed upon it by the Court, the *low* valuation placed upon the current to be furnished by the parties themselves according to the expressed provisions of the contract certainly shows that the parties never in-

tended that the appellee's predecessor should be endowed with the remarkable rights and privileges that are conferred upon the appellee by the court's decree. The generating plant erected and maintained by appellants at Sheep Creek generates, when operated at its capacity, an electric current of 2600 electric horse power; that is to say, 2600 horse power can be developed from the current generated by the generating plant, if all the current is developed into useful mechanical power and none of it is wasted as the result of phase displacement. When, however, the current generated is developed by apparatus operated at a power factor of 19 per cent., the entire current which can be generated at the Sheep Creek power plant of 2600 horse power capacity is required to develop 300 horse power. Clearly, it would be more equitable to permit the appellants to enjoy the use of the surplus current generated at their generating plant (after deducting a current of 300 electric horse power measured as appellants contend it should be measured), than merely to allow the appellants what is left after the appellee has taken all the current required to develop 300 horse power by such methods or means as it might see fit to adopt.

Here again we call to our aid another well known rule of construction which provides that where an instrument admits of two constructions, one of which would be inequitable and the other equitable, the court will adopt that construction which is equitable as

against that which would work an injustice and fail to do equity as between the parties.

> *"When a court of law is construing an instrument, whether a public law or a private contract, it is legitimate, if two constructions are fairly possible, to adopt that one which equity would favor."*

Wash. & Idaho Rd. vs. *Coeur d'Alene Ry. Co.,* 160 U. S., 77, 101:

Again, the decree of the court has involved the whole matter in a maze of uncertainty, since the power factor depends upon so many things, including the length and character of the transmission wires, the transformers, the type and character of motors employed, the manner in which these are installed and operated, and the changes from moment to moment depending upon the conditions of the load. The court's decree places the appellants in a constant state of uncertainty, since they can never know from moment to moment what the current demands will be at the next moment. They must of necessity regulate their own operations in such a way that they will always have a surplus supply of current on hand with which to meet the demands that may be made upon them at any moment by a change in the power factor on appellee's circuit; the extent of this change in the power factor, and consequent additional demands for current can, of course, never be foretold. This feature of the decree not only adds to the inequitableness of

the construction placed on the contract by the court, but it also leaves the decree so uncertain as to make it impossible for the appellants to comply with it on the one hand or the court to enforce it on the other. The quantity of current to be delivered is not fixed or determined by the decree of the court. It may be much and it may be little. It may be 56.2 amperes as the appellants contend that it should be, and on the other hand it may require the entire capacity of the Sheep Creek generators, or, if the power factor is low enough, it may require the capacity of several such generators. The quantity of current, therefore, does not depend upon the decree of the court, but upon the ever changing and ever fluctuating power factor of appellee's circuit. Aside from the fact that it would require a veritable jumping Jack in constant attendance to set and re-set the circuit-breaker as the demands for current changed from moment to moment, it would be clearly impossible to show by evidence at any time whether or not the appellants had complied with or had violated the court's decree.

Under the court's decree there is no fixed unit by which the current to be furnished is to be measured. The unit is whatever the appellee chooses to make it, and the quantity of current to be furnished is not only left wholly uncertain, but wholly undetermined by the terms of the decree. Clearly, the parties could not have had in mind such a construction when the contract was made. The making of such a contract would

be equivalent to making a contract for the delivery of dry goods in which the seller agreed upon a fixed consideration to deliver to the buyer let us say 300 yards of a certain class of dry goods, with the understanding that the number of feet each yard should contain at the time the dry goods were to be delivered and measured was left entirely to the will and discretion of the buyer so that the buyer might exact dry goods measured with a yard stick three feet in length, or he might with equal propriety demand that the dry goods be measured with a yard stick 100 feet in length.

On the other hand, if the current to be supplied were measured and calculated in the manner that the appellants claim it should be measured and calculated, all uncertainty would be removed and the decree entered would be certain and definite. The court would be enabled to say definitely and with certainty what the quantity of electric current contracted for was, and thus place the parties in a position where one party would know what it would be required to furnish, and the other what it would be entitled to receive at all times and under all circumstances. While we do not for a moment concede that this contract is open to two constructions, or that the construction placed upon it by the court is a possible construction, yet, if such a construction were possible, we would be able to determine the matter by calling to our aid another well settled rule of construction that whenever an instrument is such that it admits of two constructions, one

of which will lead to certainty and the other to uncertainty, that construction which is most certain will be adopted.

It must be borne in mind that the contract before the court is not a power contract. The obligation is not to furnish power, but to furnish current, nor is it a power contract in the sense that that term is frequently used as a contract between a power company on the one hand and a customer on the other; when such contracts are made, the customer has certain definite power demands which must be provided for, and the power company contracts to supply such demands. The contract may, of course, be for a definite quantity of current, but in many cases, especially where power is sold to small customers, the power companies agree to furnish the fixed amount of power.

When contracts of that character are executed the customer has a definite use to which the power bargained for is to be applied, a definite way of applying it and a definite place at which it is to be developed, so that the question of what the power factor will be, can be calculated and determined upon at the time the contract is executed, and the rate to be charged can be passed upon and calculated from the amount of power actually developed, or it can be based upon the quantity of current used in developing it. Where small quantities of current are sold and various kinds of small motors are used for loads the extent of which is frequently difficult to determine in advance, con-

tracts are undoubtedly made with great frequency in which it is stipulated that the actual power developed is to be paid for, but in such contracts will be found also the provisions providing that the apparatus used in developing the power shall not be operated at less than a fixed power factor, or what amounts to the same thing, the contracts will be found to provide expressly how and where the power is to be used and what apparatus is to be employed in developing it. But where these provisions are omitted in the contract, it is assumed that the parties dealt with reference to a unity power factor or a power factor of 100 per cent. That is to say, in calculating the amount to be paid for the power used, the price fixed in the contract will be regarded as the price per kilowatt developed at unity power factor. If the motor developing it operates at a power factor less than unity, the price per kilowatt will be accordingly increased. This rule follows because no other rule would be possible. When a unity power factor is assumed as having been the power factor with reference to which the contract was made, or when we say that a unity power factor was assumed, we are using an expression that is not technically correct, for in such cases nothing is in fact assumed, the question of power factor does not in reality enter into the construction of the contract at all. One party agrees to furnish to another electric energy. The law will presume that such party will neither waste nor dissipate it without any express per-

mission to that effect. And unless he wastes or dissipates it, the electric energy furnished him will supply him with the equivalent in mechanical power. The term unity power factor simply means that the electric energy contained in the circuit, and which appears there as so much power (hence, the term apparent power) is a unit with the electric energy contained in the mechanical power developed therefrom. The term is equivalent to the term 100 per cent. power factor, which, of course, means 100 per cent. of the electric power contained in and appearing in the circuit as actually developed into power available for doing work. In other words, where a unity or 100 per cent. power factor occurs, all the energy put in at one end in the form of electricity is taken out on the other end in the form of power available for doing work. The legal presumption of course would be that this would take place unless it were otherwise stipulated in the contract, hence when it is assumed that the parties contracted with reference to a unity power factor, no assumption is really indulged in, but resort is merely had to an ordinary well-known legal presumption. On the other hand, if a power factor less than 100 per cent. were assumed as having been intended, the court would have to presume that the parties intended that a certain amount of the current furnished was to be wasted or dissipated.

And it may be said here, that while in certain cases it may be an advantage to install apparatus that is

not operated at unity power factor for reasons applicable to such specific cases, it is nevertheless true that where such installation is made, a part of the current is so affected as to render it useless, which as we have already seen is equivalent to wasting or dissipating it.

The necessity of assuming in connection with the construction of contracts (where power is contracted for without reference to the amount required to develop it), that all dealings (where no power factor is mentioned), are intended to relate to a power factor of unity or 100 per cent. is a practical one. And this is in accordance with the rule adopted by electrical engineers, as testified to by such men as Mr. Kennedy, the assistant superintendent of these companies; Mr. Proebstel, the electrical engineer in charge of their electrical operation; Professor Cory, professor of electricity in the University of California; Mr. Davis, engineer in charge of the Pacific Coast division of the General Electric Company; Mr. Heise, engineer in charge of the Westinghouse Company; Mr. Quinn, engineer in charge of the Allis-Chalmers Company, and Mr. Hunt, a consulting engineer of well known reputation. The position occupied by all these men qualified them to speak authoritatively upon any subject connected with electricity.

(See evidence Kennedy, Record, p. 461.)
(See evidence Proebstel, Record, p. 370.)

(See deposition Cory answer to Int. No. 11, p. 819.)

(See deposition Davis answer to Int. No. 11, p. 858.)

(See deposition Heise answer to Int. No. 11, p. 934.)

(See deposition Quinn answer to Int. No. 11, p. 963.)

(See deposition Hunt answer to Int. No. 11, p. 872.)

All the reasons that compel those construing power contracts which are required to deliver *power* as distinguished from *current* to assume a unity power factor, apply to the construction of the contract before the court, but any other course is impossible. This is not a contract to furnish power, but a contract to furnish current, nor is it a contract between a power company and a customer.

The evident object of the contract was to divide the current to be generated between the parties to the contract. Whatever the size of the generator installed might be, the current generated would be a current from which mechanical power equal to the capacity of the generator measured in horse power could be developed at unity power factor. Clearly in making a division of the current, the parties must have had in mind the unit of measurement by which the total quantity of current generated would be measured, and that unit would necessarily be a kilovolt ampere or its

equivalent measured by the unit of mechanical power, which would be horse power at unity power factor.

That portion of the decree by which it is decreed that the appellee is entitled to peaks, surges, or starting currents which exceed a current of 300 electric horse power (such excess peaks, surges or starting currents to be used in connection with the starting of apparatus), places no limit upon the extent of these peaks, surges or starting currents. No matter how large or small these may be, whether slightly in excess of the running current or so much in excess thereof as to require all the current generated at the Sheep Creek plant or even many times the current generated at that plant, the appellants much furnish them. The only limitation that the court places upon these peaks, surges, or starting currents is that they shall not exceed 30 seconds in point of time and shall be used for starting purposes, limitations which as we shall hereafter endeavor to show are of little or slight advantage to the appellants since they will be required to keep in reserve this excess current at all times in order to be able to meet the demands when made for thirty seconds and since the starting currents required by various types of apparatus and by the same apparatus when operated under different conditions, vary so greatly that the limitation furnishes no assistance in calculating what the demands for excess currents will be at any time or at any moment.

The first thing to do in ascertaining whether or not

the trial court was correct in so construing the contracts before it as to look to the contracts themselves and see what is there said with reference to the matter of the provisions of the three contracts relating to the current to be furnished, have already been stated at length in this brief in connection with the discussion of the subheading next preceding, and will not, therefore, be repeated here.

The contract of October, 1909, was the first under which the rights of the parties in regard to this matter were defined. The controlling provision in the contract which was clearly intended to define, limit and circumscribe the rights of the parties with reference to the matter now inquired about, read as follows:

> "If at any time after two (2) years from the date hereof the lessor or its assigns shall elect to take a current of *not to exceed* three hundred (300) electric horse power which shall be taken from and at the generating plant to be installed upon the leased premises hereinbefore described, the lessees undertake, covenant and agree to deliver said current to the lessor or its assigns upon the execution and delivery by the lessor or its assigns to the lessee of a deed or deeds conveying said leased property herein described to the party of the second part."

All the other provisions contained in this agreement, as well as the provisions contained in the subsequent agreements refer back to the provision just quoted.

The language of this provision is clear and explicit. It does not admit of more than one construction. It states in express terms that the current to be taken is

a current of *not to exceed* 300 electric horse power. No words contained in the English language could be employed that would more clearly and explicitly limit the current to be taken to 300 electric horse power. To contend that the plaintiff would be entitled, under this provision, to starting surges or peaks of more than 300 electric horse power for the reason that these surges or peaks would be of short duration, looks almost like quibbling.

In order to reach this conclusion, the following process of reasoning must be resorted to: a starting surge or current which actually and in point of fact exceeds 300 electric horse power, does not exceed 300 electric horse power, because it is only drawn for a short period of time. Nor can it be argued that because two subsequent provisions in the contract refer back to this first provision, and do not again contain this limitation "of not to exceed 300 horse power," the limitation should be read out of the first provision. It will be observed that the next time reference is made to this current in the contract, the parties expressly refer back to this first provision. The language employed is: "If prior to the expiration of nine years from the date hereof the lessor does not "elect to convey to lessees or their assigns the property "herein leased and accept in full consideration there- "for the right to the use of the three hundred (300) "electric horse power *hereinbefore mentioned.*" By employing the words *"hereinbefore mentioned"* the

parties avoid the necessity of again defining in detail the current to be delivered and all the limitations imposed upon that current by the first provision are expressly imposed upon it by reference to the first provision made by the second provision. This would follow without such express reference, since it is a rule of construction that where inconsistent clauses occur in a contract the earlier provisions prevail, and the later and repugnant provisions are disregarded unless the repugnant provisions can be reconciled so as to give effect to all the provisions contained in the contract.

Lachmund vs. *Lope Sing,* 102 Pac., 598.

There is, however, nothing inconsistent in these two clauses. The first provides for "not to exceed 300 electric horse power," and the second refers back to the first provision for 300 electric horse power. Now, 300 electric horse power does not exceed 300 electric horse power; hence there is no repugnancy.

Nor is the contention sound that 300 electric horse power cannot be utilized unless starting surges or peaks in excess of 300 electric horse power are provided. In the first place, even though the contentions were correct that starting currents in excess of the running currents were necessary in order to start the machinery, it would not follow that a current of 300 electric horse power could not be utilized without permitting starting currents in excess of 300 electric horse power. It would simply follow that the 300 electric

horse power could not be utilized at all times, but could be utilized only when the machinery was being started. While this might not be utilizing the full amount of the current all the time, it would be utilizing the current.

Let us suppose that under the contract, the appellants were required to furnish the appellee 300 horses instead of 300 horse power. Now, 300 horses would be able to pull, if they were doing their utmost, a much heavier and larger load than they could start. Let it be supposed that it would require 900 horses to start a load that 300 horses doing their utmost could pull. No one would argue that under a contract to furnish 300 horses, or to furnish the use of 300 horses, the appellants would be required under the circumstances mentioned to furnish the appellee with 900 horses at such times as it might desire to start the load in order that it might be able to utilize all the pulling strength of the 300 horses at all times. Yet, there would be as much reason in contending that the appellee would be entitled to 900 horses to start the load which would require 300 horses to pull after the same was started as there is in contending that the appellee would be entitled to a current of 900 electric horse power under a contract to provide it with a current of 300 electric horse power, assuming that it would require three times the current to start its machinery that would be required to operate it.

However, the contention that current in excess of

300 electric horse power is necessary when the machinery is being started in order to use up and apply a current of 300 electric horse power while the machinery is in actual operation, is not correct. For by installing proper devices and applying the current to use in a proper manner the starting current required is not greater than the running current.

If several small motors are installed and started one at a time, the larger ones first, no difficulty would, of course, be experienced in starting such small motors without regard to the form or type in use and without supplying the same with starting devices; but where one large motor is used requiring the entire quantity of current provided, that is to say, where a motor of 300 horse power is installed upon a circuit supplied with no more than 300 electric horse power, starting devices would have to be provided, or other methods such as the removal of the load from the motor when being started, would have to be resorted to. More especially is this true in the case of a squirrel cage motor which requires a much larger starting current than a motor of the "slip ring" type or any other type of motor made; but even the form K squirrel cage motor of the induction type of 300 horse power can be started with a current not to exceed 300 electric horse power, provided that either the load is taken off at the time the motor is started or the motor is sup-

plied with a suitable starting device manufactured for that purpose and in general use.

(See evidence Cory, Deposition, questions 24 and 25, p. 821.)
(See evidence Quinn, Deposition, questions 24 and 25, p. 974.)
(See evidence Davis, Deposition, questions 24 and 25, p. 866.)
(See evidence Heise, Deposition, questions 24 and 25, p. 931.)
(See evidence Thane, Rec., p. 193.)

However, the provision in the contract merely refers to the use of a current of 300 electric horse power, and it is left entirely to the appellee to use it as it sees fit. It may make a very poor use of it by installing a motor of comparatively small size having a large starting torque and starting it under full load conditions so as to use up the greater part of the current of 300 electric horse power in starting the small motor, or it may make the best possible use of the current by installing a number of small motors, or a large motor and either supplying the same with proper starting devices or removing the load when the motor is started. In any event, whether the current is used as starting current or used as a running current, the appellee would get the use of a current of 300 electric horse power. None of the witnesses called by the plaintiff denied this fact.

Nor will it do to say that since this demand for excessive current is momentary and of short duration so that the quantity of current actually overdrawn is exceedingly slight, therefore the appellants should be required to furnish these starting surges or peaks, their value to the appellee being greater than their cost to the appellants. Aside from the fact that the appellee's necessities can in no case limit the appellants' rights, it is not a fact that the appellee needs this starting surge or current, nor is it a fact that their value to the appellee is greater than their cost to the appellants.

We have already seen that the appellee could utilize the current either by installing more than one small motor or by using a large motor and disconnecting it with the load when starting it, or if that is not practical by supplying the motor with starting devices. True, this might cause the appellee slight inconvenience, and possibly if starting devices were installed some slight expense, but the expense thus necessarily incurred would in any event be trifling. It would simply place the appellee in a position where it would be required to adopt business and workmanlike methods in the place of methods that are at once wasteful and slipshod. On the other hand, if the appellants were required to furnish these starting surges or currents whenever the demand was made for them, they would be obliged to keep in reserve at all times suf-

ficient generating capacity to generate such currents, for which a demand might be made at any time.

The monetary value of the excess current actually supplied calculated at a fixed rate per horse power year would, of course, be insignificant since the demands for this excess current are always of slight duration. But the expense incurred, in installing, maintaining and operating the additional generating apparatus required to meet the demands for these excess currents or surges would be just as great in a case where the demand would be of momentary duration, as it would be in a case where the demand would be constant and continuous. This is especially true in a case like the case under consideration, where the power plant was installed for the express purpose of furnishing current to operate other motors used in connection with mining operations. How these surges or starting currents would affect the operation of the vanners, cyanide plant and other appliances used in connection with a mine such as that operated by the defendant companies, has been explained in detail by witness Kinzie, witness Kennedy and witness Proebstel, and all the other experts whose evidence was taken upon this question. We desire to especially call the court's attention to the testimony of Mr. Kinzie, found on page 502 *et seq.* of the record. Also to the testi-

mony of Professor Cory, Mr. Quinn, Mr. Davis, and other experts as detailed in the record.

(See evidence Cory, Record, pp. 823, 830.)
(See evidence Davis, Record, pp. 862, 865.)
(See evidence Quinn, Record, pp. 967, 972, 973.)
(See evidence Hunt, Record, pp. 896, 901.)
(See evidence Kinzie, Record, pp. 502, 504.)
(See evidence Kennedy, Record, p. 457.)
(See evidence Proebstel, Record, pp. 377, 378.)

Mr. Kinzie on the pages referred to, explains in detail the effect that such surges or starting currents would have upon the generating plant and upon the mining operations of the defendant companies, and says that it would not only entail inconvenience and financial loss, but would likewise endanger the safety of a large number of employees. These effects could be avoided in but one way, and that would be by keeping sufficient generating capacity in reserve to take care of all such incoming surges or peaks, and to do this would require the outlay necessary to install and equip a plant having such excess capacity, and even this would, of course, not meet the requirements unless sufficient water power were available to operate a generator of such increased size.

Counsel for appellee propounds two cross interrogatories numbers 19, and 20, to each of the experts

whose depositions were taken and received in evidence. These interrogatories read as follows:

Cross Interrogatory No. 19: Assuming horse power to be worth $87.00 per annum, what is the value of a thirty second starting surge of 600 horse power?

Cross Interrogatory No. 20: Assuming ordinary stoppage at a mining plant and the lightening of loads at change of shift time and a monthly stoppage of three to four hours per month in using a current of 300 horse power, would not these stoppages ordinarily more than compensate for starting surges of thirty seconds occurring from four to five times during a month?

Professor Cory's answers to these interrogatories are as follows (Record, p. 830):

Answer to Cross Interrogatory No. 19: The value of a thirty-second starting surge of 600 horse power based solely upon what a horse power is worth per annum would result in a practically negligible value of the starting surge lasting thirty seconds. Specifically, if the horse power is worth $87.00 per annum, the value of a single thirty second starting surge of 600 horse power would not exceed five cents, but the cost to the power company of providing machinery and transmission lines of sufficient size to allow such starting surges of twice the normal use would be very considerable, particularly if the start-

ing surge of 600 horse power is a relatively large fraction of the total capacity of the plant.

Answer to Cross Interrogatory No. 20: A monthly stoppage of three or four hours in the use of current, or the reduction of the loads at change of shift time would not in any degree compensate for starting surges, even of only thirty seconds duration, if the power is furnished from the plant in question, which I know to have only 2600 horse power capacity, even when there is all the water necessary available. These surges require an increase in the size of the plant, increasing the investment necessary, and what is of more serious consequence, such surges interfere with the service given by the plant to all other circuits or customers. These starting surges require current of very low power factor in the starting of the induction motors, which low power factor more than anything else interferes with the satisfactory operation of the electrical machinery in the power house.

The answers of Mr. Davis to these interrogatories are (Record, p. 865):

Answer to Cross Interrogatory No. 19: The value in kilowatts of a thirty second starting surge of 600 horse power as measured by the amount of water used will be 5c, but the value as representing interest charges, maintenance and operating costs applying to

generator, transformer and distributing capacity will vary from $20,000 to $50,000 per annum.

Answer to Cross Interrogatory No. 20: No, on account of the bad effect on the regulation of a system such as the one under consideration, which I am informed has a capacity of only 2000 kw. The effect of the low power factor of a 300 horse power squirrel cage induction motor when starting would ordinarily be three to nine times as bad as would be the case if the motor were started at unity power factor. The indirect losses from such injury to the regulation might prove to be a serious matter.

The answers of Mr. Hunt (Record, p. 901) to these same interrogatories are:

Answer to Cross Interrogatory No. 19: Assuming the intent of the question to be to state that one horse power is worth $87.00 per annum, my answer is:

If by "a thirty second starting surge of 600 horse power" is meant that starting from any stated horse power this is increased instantly by 600 horse power, which increased load continues for 30 seconds, and then drops instantly to the stated amount, the amount of work performed by the 600 horse power of energy acting for the thirty seconds is equivalent to approximately .00057 of a horse power year; .00057 of a horse power year at $87.00 per horse power year is 5.959 cents. However, this is not a measure of the value of such a surge.

The amount of such a surge in relation to capacity of plant may be such as to require an investment in electrical apparatus, greater than the total investment for such apparatus for handling 300 horse power without such surges.

Answer to Cross Interrogatory No. 20: The lightening of load and stoppages as assumed in the question would presumably tend to reduce the average rate of power used as much or more than four or five surges per month would increase it, but I should not consider them as compensating one for the other. Such surges do have a very serious effect upon the operation of a generating plant, especially when the ratio of the amount of such surges to the plant capacity is considerable, and the operation of other connected loads may be seriously interfered with under such conditions. Such interference may be so serious as to make the power which the plant is capable of producing absolutely unfit for some uses.

The answers of Mr. Quinn (Record, pp. 972, 973) to these interrogatories are as follows:

Answer to Cross Interrogatory No. 19: The value in United States Gold Coin of a 600 horse power starting surge continuing during a period of 30 seconds is practically insignificant. The value of keeping such a surge off the supply system cannot be measured in dollars and cents. Such a surge under some

conditions might cause the suspension or shutting off of all mining operations which were receiving their electric power from the source of supply affected by such a surge.

Answer to Cross Interrogatory No. 20: The three conditions as mentioned would not compensate for the harm done by such a heavy starting surge. Assuming that the source of power is limited and such a surge occurred, and that the source of supply was furnishing electric current to operate electrically driven pumps handling cyanide solutions, the stoppage or interference with the duty of these pumps would possibly cause a very large monetary loss.

If a motor of 300 horse power requires 600 horse power to start, it is reasonable to assume that the supply company must at all times have available 600 horse power to start the motor, and if the motor under full load used but 300 horse power there would necessarily be 300 horse power standing idle. Assuming that the cost of installing 1 horse power is $100.00 this would represent an investment of $30,000.00, which at 6% per annum would amount to $1800.00. To this there should be added depreciation on the idle machinery, which under usual engineering practice in a plant of this kind is computed at 7% per annum, which would amount to $2100.00 for depreciation.

The testimony of all these witnesses concerning the necessity of installing an instantaneous circuit breaker given in response to Direct Interrogatories 30, 31 and 32, is to like effect, and more fully explains and amplifies the answers above quoted.

(See evidence Cory, Record, p. 822.)
(See evidence Hunt, Record, p. 896.)
(See evidence Davis, Record, p. 862.)
(See evidence Quinn, Record, p. 966.)
(See evidence Kinzie, Record, pp. 498-504.)

EFFECT OF THE FINDINGS OF THE COURT RELATING TO MATTERS OUTSIDE OF THE WRITTEN CONTRACT.

The court does not anywhere find that the parties made any agreement, or for that matter made any statement to the effect that the appellee should be entitled to sufficient current whatever the quantity of current might be to enable it to generate 300 mechanical horse power, nor is there anything in either the findings or the evidence to show that the appellee as the successor to the Oxford Company would be entitled to anything except a current of 56.2 amperes; that is to say, a current measured by the unit 300 electric horse power calculated by multiplying the volts by the amperes and dividing the product by 746, that being the current from which 300 mechanical horse power can be developed, and will be developed if all the energy contained in the

current is transformed into mechanical power. Neither is there anything in the findings of the court or in the evidence upon which these findings are based that would indicate that the parties did not intend that the express limitation of *not to exceed* 300 electric horse power was intended to limit the current at all times to current not greater in extent than 300 electric horse power, in order that the Oxford Company and its assigns might have the right to draw starting currents or peaks to be used for starting machinery and apparatus. This matter of starting currents and peaks, like the matter of power factor, was never either mentioned or discussed by the parties.

(See evidence Shackleford, Record, p. 111.)

Nor does the court find that it was so discussed. The court finds that Mr. Bradley represented to Mr. Endicott and others that 150 horse power would be sufficient to operate the Sheep Creek mines equipped with a thirty stamp mill, the stamps being light and undersized, and that Mr. Bradley stated that 200 horse power would be at least ample for that purpose. This matter was afterwards submitted to Mr. Thane, who gave it as his opinion that 300 horse power would be required, whereupon 300 electric horse power was substituted in the contract in place of 200 electric horse power. Certainly there is nothing in these findings or in this evidence that tends to support the conclusions of the court. The question

of whether 56.2 amperes now furnished the appellee by the appellants will develop 300 mechanical horse power depends altogether upon the manner in which it is developed, and this is, of course, under the control of the appellee. It can develop the current so as to convert it into 300 mechanical horse power, and if it does this, it can use it either in operating the Sheep Creek mines or use it elsewhere. Again, the question of whether it needs a starting current in order to start its apparatus depends entirely upon the equipment and the manner of using. If the motors are equipped with starting devices in general use for that purpose, or if the load is taken off at time of starting, no starting currents would be necessary. There is nothing in the findings of the court in this regard, therefore, that would indicate that the parties ever intended that the current should not be limited as by the contract expressly provided, and that the words *"not to exceed"* were inserted in the contract in order that there might be no future misunderstanding on that subject.

To start with, Mr. Bradley's object in installing this generating plant, was not to erect a power plant with a view of selling power to this and that customer, but to procure power to be utilized in connection with the operation of the mines owned by the defendant companies. The damage that would result to the mining operations of the defendant companies if the Oxford Company or its successors were

permitted to make momentary demands for current greatly in excess of 300 horse power dealt with, was explained by the witnesses in detail and has already been considered.

Mr. Bradley's well-known ability as a mining engineer and his extensive knowledge of all matters pertaining to mine operation is such that there can be no doubt but that he had all these things in mind at the time the contract was executed; and that he sought to protect himself by insisting upon an express provision in the contract himself which limited the demands for current to a current of not to exceed 300 electric horse power. Nor is there anything in the negotiations or statements made by the parties from which it can be inferred that those carrying on the negotiations for the Oxford Company had anything else in view. Mr. Shackleford testified that the matter of peaks, starting surges, or current, was never mentioned (see evidence Shackleford, Record, p. 111). And the objects sought to be effected by the contract were certainly such as to preclude the idea that any one connected with the Oxford Company ever expected to have the right, under the contract to be executed, to draw starting surges or peaks in excess of 300 horse power.

When this contract was made Mr. Bradley at least considered the Sheep Creek water right as having been forfeited by reason of non-user, but whether forfeited or not it had never been used except to fur-

nish power in connection with the operation of the Sheep Creek mines, and the water right of the Oxford Company and its predecessors was limited by the amount of water necessary for that purpose. The rights of the Oxford Company and the International Trust Company to the use of the waters in Sheep Creek extended only to so much of the waters as had been appropriated by them and applied to a beneficial use. All the balance of the water flowing in the creek was subject to appropriation and could have been appropriated by Mr. Bradley without carrying on any negotiations with these companies. The most that Mr. Bradley could hope to procure from the International Trust Company or the Oxford Company was the right that these parties actually possessed, in addition, of course, to the mill sites and other pieces and articles of property to which the contract relates. And the evident object of the parties in endeavoring to arrive at the quantity of current that was to be furnished as compensation for the water and other properties to be conveyed was a current necessary to operate the Sheep Creek mines and the 30 stamp mill then on the ground.

Now, it is a uniform rule so well known in all mining communities that all are familiar with it, that in calculating the power necessary for mining purposes, five horse power is calculated as the power necessary to do the mining and milling for each stamp installed. That is to say, it is not calculated that five

horse power is necessary to operate the stamps for each stamp installed, but to operate the stamps, necessary crushers, vanners, drills, air compressors, and the like. So that a mine having a 10 stamp mill would require 50 horse power to operate its drills, compressors, crushers, vanners, stamps and all other necessary machinery.

It is also well known that where electric current is used, considerably less power is required than where the power is developed by some other means. It appears in evidence that the stamps in the 30 stamp mill on the Sheep Creek property were undersized and light stamps, so that the power requirements ordinarily would be less than normal. But figuring at the normal rate, a mine having 30 stamps would require five times thirty, or one hundred and fifty horse power to operate. Mr. Bradley in answer to Cross Interrogatory No. 1, discusses in detail the power requirements of the Sheep Creek mine with a thirty stamp mill, and says that 150 horse power was ample for that purpose. This is also in accord with his letter to Mr. Endicott. Mr. Bradley was asked concerning this letter and in answer to Cross Interrogatory No. 11, says:

> ". . . If the current provided for by the contract should be efficiently and economically used it would provide more power than was utilized for driving the 30 stamp mill machinery on the property prior to August 19, 1909.
>
> ". . . So, in stating in my letter to Mr. En-

dicott that the 30 stamp mill was amply large enough for the mine and that 150 horse power was all that was ever required for operating both the mines and 30 stamp mill and in allowing 33 1/3% margin, or a margin of 50 horse power, afterwards increased to a margin of 150 horse power, I was absolutely fair and frank in my letter. Especially in view of the fact that my letter had definite reference to the 30 stamp mill operation, and for such operation the motors would necessarily be of small units and could be easily started up one at a time without exceeding the then proposed limit of 200 electric horse power, which was afterwards increased to a limit of 300 electric horse power."

When this matter was afterwards taken up by Mr. Shackleford with Mr. Endicott, and others in Boston, Mr. B. L. Thane was called in and the matter was submitted to him, and he advised them to insist on 300 electric horse power instead of 200, and this was afterwards agreed to by Mr. Bradley. Surely Mr. Thane would not advise anyone, that any mine in Alaska required 10 horse power to the stamp, and in addition to this occasion starting currents of several horse power in excess. Mr. Thane as a mining engineer must have known that the actual power requirements for operating the Sheep Creek mine would not exceed 150 horse power. According to Mr. Thane's statement of January 12, 1911. Mr. Thane states that the 300 electric horse power provided for in the Oxford Contract will run the Perseverance 100 stamp mill, and besides this furnish power to drive the

Gastineau Tunnel (see Bradley's deposition, answer to Direct Interrogatory No. 19, Record, p. 671).

Surely, if the 300 horse power would be sufficient for this purpose in 1912, 200 horse power would be sufficient to operate the mine equipped with 30 light stamps at Sheep Creek in 1909. Nor did Mr. Thane testify upon the trial that 150 horse power would not be sufficient for that purpose.

Testimony was also offered on the part of the plaintiff to show that it would require in excess of 150 horse power to operate the various pieces of machinery situate at Sheep Creek, in the year 1909, but Mr. Bradley and Mr. Kinzie both testified that they did not take these pieces of machinery into consideration, as many of them were useless, and that the estimate of 150 horse power was an estimate based upon the actual power requirements of the mine, and it is equally certain that neither Mr. Shackleford nor the Oxford Company, nor the International Trust Company, nor any one else, took into consideration the existence or non-existence of these pieces of machinery, or ever believed that the power reserved by the Oxford Contract was to be utilized in operating these machines. For many of these very machines were transferred from the Oxford Company to the defendant companies under this very contract. The compressor, for instance, that is at present used by the Alaska Juneau Gold Mining Company at Snow Slide Gulch Tunnel, was turned over to the defendant

companies under the contract of October, 1909. Surely it could not have been the intention of the Oxford Company, or of Mr. Shackleford, Mr. Thane, or any other party whatsoever, to reserve power for the use of the Oxford Company to be used in operating this compressor which was at the same time being conveyed and turned over to the defendant companies. This same is true of the other pieces of machinery described in and referred to in the Oxford Contract, and which were situate on the mill sites conveyed. This absolutely negatives the idea that any of the parties ever calculated to supply the Oxford Company with power with which to operate this machinery.

There is no room for doubt that 150 horse power is more than enough power to operate the Sheep Creek mine and 30 stamp mill. That being true, Mr. Bradley's estimate that 200 horse power would be amply sufficient to take care of all contingencies, as stated by him in his letter to Mr. Endicott, was at least a fair and liberal estimate of all the power that would ever be required. As has already been stated, the mine could not be operated with one motor, it would be necessary to install several very small motors; further, no one would install squirrel cage motors in connection with permanent mining operations. These motors, owing to their simplicity in design, may have their use in connection with rough work, but every operator desiring to install motors of the induction type

in connection with permanent operations, will install a slip ring type of motor, which could be started with from 125 to 150% under full load. This being the case, the mine could readily be operated with 150 horse power, either by installing starting devices, removing the load when starting, or by starting the motors one at a time, the larger ones first, and the smaller ones last; and the additional 50 horse power would be necessary only if the power factor were permitted to get below unity, or needlessly careless and wasteful methods were resorted to. And the substitution of 300 for 200 horse power makes the margin so large as to render entirely unnecessary any further discussion of the subject.

We desire, however, to again call the court's attention to the low price fixed upon the current to be furnished by the parties themselves, that is to say, the price of $25,000, or $5 per horse power year calculated at 6 per cent., or $6.66 per horse power year calculated at 8 per cent., as against $65 per horse power year now paid appellants by the Alaska Juneau Gold Mining Company for current measured just as appellants claim the appellee's current should be measured.

It is to be observed in this connection that the Alaska Juneau Company not only pays for the current furnished, calculated at unity power factor, but the appellee has placed upon its circuit an instan-

taneous circuit breaker so that no peaks or starting currents can be taken by the Alaska Juneau Company.

(See evidence Proebstel, Record, p. 373.)

True, Mr. Kinzie testified that no charge was made the Alaska Juneau Company for starting currents when these were required, but he also testified that the Alaska Juneau Company had installed a motor of the slip ring type, that is to say, a Form M General Electric, and that these motors have a very slight starting torque. Motors of this type, according to Mr. Davis, engineer in charge of the General Electric Company's business at San Francisco, can be started with a starting current of about 25 per cent. in excess of the running current.

(See evidence Davis, Record, p. 861.)

And, furthermore, the Alaska Juneau Company is under the same management with the appellant companies, so that these starting currents can be furnished without the inconvenience and expense that it would to furnish the same if they were furnished to an outside corporation. If the parties had intended that the current to be furnished the appellee under the contract was to be limited in quantity so that the appellee or the Oxford Company's predecessor could employ any sort of a motor which was fit to develop it, or that the appellee might draw starting currents of unlimited extent, they would have placed a val-

uation upon the current far in excess of $25,000, or $5 per horse power year, the value fixed by the contract itself.

True, the court finds that motors of the induction type are and were generally used in connection with mining operations, and this is undoubtedly true, but it is equally true that synchronous motors are in general use in connection with such operations and also that synchronous condensers are in general use for the purpose of correcting the phase displacement where motors of the induction type are used.

This finding of the court finds no basis for the conclusion that the parties must have contracted with reference to the use of motors of the induction type, for as we already stated, these motors were not the only ones in use, but even if they were the only motors in use such finding could not form the basis of a conclusion that the parties contracted with reference to their use, for the reason that the extent of the phase displacement resulting from the use of motors of the induction type depends upon the particular motor employed. To say that a motor of the induction type is being used, is equivalent to saying nothing. A motor of the induction type, even when supplied with a synchronous condenser, can be operated at a very high power factor. That is to say, it can be operated so as to develop nearly all the electric energy contained in the current into mechanical power. To illustrate: The circuit of the appellant companies,

upon which at the time of the trial the motors of the induction type had been installed, had a power factor of from 85 to 95 per cent.

(See evidence Proebstel, Record, pp. 359, 387.)

Again, these motors may be such as to operate at a very low power factor. This is illustrated by the fact that the squirrel cage induction type motor used by the appellee was at the time of the trial being operated at a power factor of approximately 60 per cent.

(See evidence Wallenburg, Record, p. 295.)

The witness Wallenburg testified that the power factor of the appellee's circuit was 70 per cent., and when it is considered that a considerable portion of the current was used for lighting purposes, it would have a tendency to improve the power factor and bring it nearer to unity, the power factor of the motor must have been much more than 60 per cent.

THAT PORTION OF THE DECREE BY WHICH APPELLANTS ARE DIRECTED TO INSTALL A WATTMETER AND A TIME RELAY CIRCUIT BREAKER.

The court in its decree also provides that the appellants shall install a wattmeter at their power plant to be used in connection with the measuring of the current to be furnished and a time relay circuit

breaker so set by the appellee can draw starting currents of thirty seconds' duration.

There is nothing in any of the contracts before the court or in any of its findings, or in any of the testimony adduced that in any wise warrants this part of the decree. Here the court not only directs what appellants are required to furnish the appellee, but in addition to this directs the appellants to use certain apparatus in furnishing the thing to be furnished. The contract makes no reference to the apparatus used whatsoever, nor were any statements made by the parties prior to the execution of the contract with reference to the use of this or that apparatus. The court might with equal propriety have required the appellee to do away with its present generating plant and erect another. Aside from the fact that the court would not warrant it in asking the appellants to install apparatus of this type, the installation of the time relay circuit breaker would be ruinous to appellants and the installation of the wattmeter would be useless.

The wattmeter is a device placed upon a circuit for the purpose, not of measuring the current, but for the purpose of measuring the quantity of power actually developed by the motor. It measures the number of watts drawn by the motor from the circuit without any reference to the quantity of current taken from the bus bars of the generating plant. The device was not intended to measure current but to measure

power, and cannot be used for the purpose of measuring current.

(See evidence Davis, Record, p. 860.)
(See evidence Cory, Record, p. 820.)
(See evidence Hunt, Record, p. 894.)
(See evidence Heise, Record, p. 931.)
(See evidence Quinn, Record, p. 964.)

The only device manufactured by which electric current can be measured is the instantaneous circuit breaker. When this device is used an ammeter is used to measure the number of amperes made available and the circuit breaker set accordingly. In cases where the voltage is kept constant, as it is at the Sheep Creek generating plant, no other device is necessary, for the number of volts being known, it is only necessary to fix the number of amperes in order to determine the number of watts, since the number of watts are equal to the product of the volts and the amperes. This is the only manner in which electric current can be measured.

(See evidence Cory, Record, p. 820.)
(See evidence Davis, Record, p. 860.)
(See evidence Hunt, Record, p. 894.)
(See evidence Heise, Record, p. 931.)
(See evidence Quinn, Record, p. 964.)

The instantaneous circuit breaker is placed upon the circuit in order that the current to be drawn shall at all times be limited to the number of amperes

determined upon. So far the instantaneous circuit breaker is used to measure the current, but the instantaneous circuit breaker has its other uses. This is the only device by which other machinery operated by current furnished from the same source from which the current is furnished to the circuit upon which the circuit breaker is placed can be protected against incoming peaks and short circuits. Unless the appellants are permitted to use this type of circuit breaker to protect themselves current cannot be with safety withdrawn from the Sheep Creek generators, and used in connection with appellants' mining operations. An incoming peak whether occasioned by a starting current or otherwise or a short circuit would either slacken down or stop the motors upon appellants' circuit, depending upon the extent of the peak or short circuit; the effect that such slackening of the speed would have upon the gold solutions in the cyanide plant, upon the operation of the vanners and other machinery used in connection with mining operations is apparent and is fully explained by the witnesses.

(See evidence Kinzie, Record, p. 502.)
(See evidence Cory, Record, pp. 823, 830.)
(See evidence Davis, Record, pp. 862, 865.)
(See evidence Heise, Record, p. 933.)
(See evidence Hunt, Record, pp. 896, 901.)
(See evidence Quinn, Record, pp. 967, 972, 973.)
(See evidence Proebstel, Record, pp. 377, 378.)

SUMMARY.

The contention of the appellants may be summarized as follows:

It is contended that the contract set up in the complaint being continuous in its nature in that it is unlimited as to time, and being for personal service in that it requires personal service of a high degree of skill to construct and operate a generating plant, maintain and keep the same in repair, is such a contract as a court of equity will not decree the specific performance of it, and that the court erred in overruling the demurrer raising this point.

It is next contended that the court erred in allowing the introduction of parol testimony to prove the negotiations, statements, conversations, correspondence and other matters that led up to the execution of the contract for the reason that all these matters were merged into the written contract.

It is next urged that the court erred in not allowing testimony of electrical experts offered for the purpose of proving a technical meaning of the phraseology employed in the contract.

The next contention is that the trial court erred in not permitting the witness Kinzie to testify to facts showing the non-compliance with the contract before the court on the part of the appellee and that the court further erred in that connection in not per-

mitting an amendment to the answer more specifically setting up such non-compliance.

Appellee at the close of the testimony again urged the point that the character of the contract sued upon is such that a court of equity will not specifically enforce it, this point having been again raised by reason that the demurrer had been overruled. The matters urged upon the demurrer, to wit: That the contract was of a continuous nature and was for a personal service requiring a high degree of skill, were renewed at this time, and in addition to the matters so urged, others which arose upon the evidence offered were called to the attention of the court, the first of these being that the construction placed upon the contract by the court involves the whole matter in so much uncertainty that the contract cannot be specifically enforced, in this, that under the court's decree the quantity of current to which the appellee is entitled no longer depends upon the performance either of the contract or the decree, but entirely upon the subsequent acts of the appellee. So that it is impossible to say what the quantity of current to which the appellee will be entitled may be at any time in the future. In this connection it is, therefore, urged, that if the court hold that there is any merit in the contention that the contract was so uncertain as to require parol testimony to explain it, that fact alone would be a bar to its specific performance.

In this connection it is further urged that because of the outstanding Gilbert contract and the contract of April 22, 1911, made between appellants and the Oxford Company in relation to the Gilbert contract the quantity of current to be furnished under the contract of October, 1909, might be materially diminished, if not entirely done away with, should the court at a future time hold that Gilbert or his assigns were entitled to anything under the so-called Gilbert contract. In this connection it is further urged that since the appellee has become the holder of the Gilbert contract as Gilbert's assignee, it failed to do equity in not surrendering that contract or relinquishing all its rights thereunder before the commencement of this suit, and that not having done equity, it is in no position to ask equity. For these various reasons it is urged that specific performance should have been denied at the close of the testimony and the appeal dismissed.

The next point urged deals with the construction of the contracts themselves. It was conceded in the complaint and the court found that the appellants were at the time of the commencement of the suit making available for the use of the appellee a current of approximately 60 amperes with a voltage of 2300 impressed upon a three phase circuit. This it is claimed by appellants was in compliance with the terms of the contracts on their part in that they made available for appellee's use an electric current of not to exceed 300

electrical horse power to be taken from and at the generating plant.

The court, however, held that the current was not to be measured as the same was taken from and at the generating plant, but that the appellee had the right under the contract to use motors, long transmission wires and other apparatus having such characteristics that their use would result in a phase displacement so that a portion of the current taken from and at the generating plant only would or could be developed into useful mechanical power, and that the appellants were required to furnish the appellee with sufficient current to enable it to develop 300 real mechanical horse power by the use of such motors as it might install without regard to the length of the transmission wires or other apparatus used, and without regard to the efficiency of the motor or the manner of installing or operating the same. And further, that the appellee was entitled to draw starting surges or currents in excess of 300 horse power without placing any limit upon the extent to which such starting surges or currents might exceed 300 electric horse power provided that the same did not continue over a period of more than thirty seconds, and, further, that the appellants would be required to install a wattmeter and a time relay circuit-breaker, and in addition to this permit the appellee to install apparatus upon appellants' panel at the generating plant in such a manner that the appellee would have the same under lock and key. It

is contended that the court erred in all these respects and that the error so committed by the court is fraught with most serious consequences to the appellants.

Appellants are the owners of large mines requiring a vast quantity of power in connection with their operations. The Sheep Creek generating plant was constructed by appellants at an enormous expense with a view of generating current to meet these requirements for power, with the belief and understanding that a portion of the current generated only was to be placed at the disposal of the Oxford Company and the appellee, as its successor. That is to say, sufficient of the current to meet the requirements of a current not to exceed 300 electric horse power, and that this much current was to be made available for the Oxford Company's use at any and all seasons of the year regardless of whether there was water enough in Sheep Creek to develop any current in excess of that amount or not, the only limitation being that while the contract contemplated the delivery of an uninterrupted current, the appellants would not be liable for damages resulting from physical or operating causes beyond their control. The balance of the current generated, however, to go to appellants. The plant erected by appellants has a capacity of 2600 horse power. That is to say, the generators installed can generate a current of 2600 electrical horse power measured in the same manner that appellants contend the current of 300 elec-

trical horse power to be made available for the use of the appellee should be measured.

The current so generated by appellants in excess to that furnished to the appellee was designed for use in connection with their mining operations, and is valued only when appellants can rely upon the same being at their disposal at all times during the season when there is sufficient water in Sheep Creek to generate it without interruptions.

Under the decree of the court the appellee is given the right not merely to take such portion of the current generated, as it was clearly intended that it should have a right to take a little more than one-ninth of the total capacity of the plant when there was sufficient water to operate the plant to its fullest capacity, which portion was to go to it regardless of whether there was water enough in Sheep Creek or not; but the appellee is given the right to take not only all the current generated when the generator is working to its capacity but to take many times the total capacity of the generating plant, and it is given the right to do this in two ways: It may install inefficient motors, use long transmission wires, or other apparatus that will result in so distorting the current generated at the generating plant that current far in excess of that which the present plant is able to generate will be required to enable it to develop 300 horse power. Again, the appellee is given the right to draw from the bus bars starting currents or surges which may far exceed

the total generating capacity of the plant, and these it may draw as often as it sees fit provided that such starting surges or currents do not exceed thirty seconds in duration.

It has already been shown that this limitation placed upon the starting surges or currents is in practice of no advantage to the appellants for the reason that the appellants are compelled to keep in reserve generating capacity to meet these excess demands for current at any and all times, so that they might as well be drawn at all times as far as the practical effect is concerned.

Not only has the appellee in this second provision of the decree a right to take not only the generating capacity of the Sheep Creek plant, but the capacity of many such plants; but the appellee is at present with the apparatus it is now using practically appropriating all the current that the Sheep Creek plant can generate. That is to say, it is operating a squirrel cage motor of the induction type at a power factor of about 60 per cent., which means that it is wasting 40 per cent. of the current drawn from the bus bars, so that they are drawing a current of 540 horse power in order to develop 300 horse power. That is to say, drawing a little more than one-fifth of the total generating capacity of the plant at such times as the machinery is actually in operation. Now, the starting current of a squirrel cage motor is from three to five times as great as its running current. If the starting current in this motor is five times as great as its running current,

it will require five times 540 horse power to start it, or 2700 horse power, which is 100 horse power more than the total generating capacity of the Sheep Creek plant. Since the appellee has the right under the decree to thus take all the current generated and may exercise that right at any time, the appellants are unable to rely upon the generating plant at Sheep Creek for current to develop power in connection with their own operations, and being unable to so rely upon the Sheep Creek plant for that purpose, must, if the decree of the trial court is sustained, make other provisions for power with which to operate their mines. In practical effect, therefore, the decree of the court absolutely destroys the value of the Sheep Creek plant to appellants. Not only does the decree destroy the value to appellants because they are so situated that the current must be such that they can make calculations to rely upon it for mining purposes, but it also destroys the market or sale value of the plant, for certainly no one could be induced to purchase a generating plant from which another had a right to draw all the current. Again, as has already been stated, that portion of the decree which directs the appellants to install a time relay circuit-breaker, makes the plant useless to appellants for their purposes for the reason that such circuit-breaker will not protect the motors and other apparatus employed upon appellants' circuit against incoming peaks and short circuits, and in this connection it is contended that there is nothing in the

contracts that will warrant the court to direct the appellants to install any particular kind of apparatus or machinery whatsoever, nor is there anything in the contract that requires appellants to permit the appellee to install machinery upon their premises.

Not only does the decree of the court totally destroy the value of the Sheep Creek plant to appellants, but it does so without giving the appellee any particular advantage. It merely permits the appellee to waste the current generated at the plant without deriving any advantage therefrom, except such slight advantage as may come to it from money saved as the result of using cheap and inadequate machinery and appliances.

The court found that the appellee was entitled to the beneficial use of 300 horse power. We contend that the appellee should be compelled to make a beneficial use of the current furnished it and not dissipate or waste it.

Laying aside all the technical features connected with this contract, it occurs to us that it can be construed in a common sense way by adopting this line of reasoning. The generating plant installed by appellants generates a current of 2600 horse power. That is to say, it generates a current which is a current of 2600 horse power if the volts are multiplied by the amperes and the result divided by 746, that being the unit by which the current purchased by appellants is measured and that is what it amounts to for the appel-

lants in installing a generating plant merely expend their money in exchange for so much current. It is but fair and equitable that the same unit of measurement should be used when the current is either sold to another or is divided with another under a pre-existing arrangement. If a seller employs the same unit of measurement in selling that he employs in buying, the transaction certainly appears fair, and it is the right to do this and nothing more that appellants ask for in this case.

Contending that the trial court erred in misconceiving the rights of the parties and in its rulings relative to the evidence, we state (for convenient reference) the following proposition advanced on the part of appellants with the authorities referred to in support of each, respectively as follows:

I. THE APPEAL BEFORE THE COURT BEING AN APPEAL IN EQUITY, BRINGS UP FOR REVIEW THE QUESTIONS OF FACT AS WELL AS THE QUESTIONS OF LAW PRESENTED BY THE RECORD.

> "The writ of error, in cases of common law, remains in force, and submits to the revision of the Supreme Court only the law. The remedy by appeal is confined to admiralty and equity cases, and brings before the Supreme Court the facts as well as the law."
>
> *The San Pedro,* 15 U. S., 132, 141.

If findings presented for review on appeal are clearly erroneous or unsupported by any evidence, they will be set aside.

"We are not unmindful that both the Circuit and District Court came to a conclusion different from ours as to the alleged fault of the steamer.

"Their judgments are entitled to, and have received, our most respectful consideration. Their concurrence raises a presumption, *prima facie,* that they are correct. Mere doubts should not be permitted to disturb them. *But the presumption referred to may be rebutted. The right of appeal to this court is a substantial right, and not a shadow. It involves examination, thought, and judgment. Where our convictions are clear, and differ from those of the learned judges below, we may not abdicate the performance of the duty which the law imposes upon us by declining to give our own judicial effect."*

The Ariadne, 80 U. S., 475, 479.

"If the court below neglects or refuses to make a finding, one way or the other, as to the existence of a material fact which has been established by uncontradicted evidence, *or if it finds such a fact when not supported by any evidence whatever, and an exception be taken, the question may be brought up for review in that particular. In the one case the refusal to find would be equivalent to finding that the fact was immaterial; and, in the other, that there was some evidence to prove what is found, when in truth there was none. Both of these are questions of law, and are proper subjects for review in an appellate court. The*

Francis Wright, 105 U. S., 381, 387; *The E. A. Packer,* 140 U. S., 360."

City of New York, 147 U. S., 72, 77.

"The plaintiff duly excepted to the findings and conclusions, and it is well settled that *exceptions to alleged findings of facts because unsupported by evidence present questions of law reviewable in courts of error."*

Laing vs. *Rigney,* 160 U. S., 531, 540.

"At the same time there has always been recognized the right and the duty of this court to examine the record, and if it finds that the conclusions are wholly unwarranted by the testimony it will set the verdict or report aside and direct a re-examination. And after having carefully examined the record in this case we are constrained to the conclusion that there is no testimony which justified the answer returned to the second question. On the contrary, if a will is set aside upon such a flimsy showing as was made of undue influence, few wills can hope to stand."

Beyer vs. *LeFevre,* 186 U. S., 114, 118.

"Appeals from the final decrees in these (Circuit) courts extend to an examination of the facts as well as the law. While upon such review this court will generally accept the concurrent conclusions of the trial and appellate courts, yet, as was said by Mr. Justice Brewer in *Beyer* vs. *LeFevre,* 186 U. S., 114, 119: 'There has always been recognized the right and duty of this court to examine the record, and if it finds that the conclusions are wholly unwarranted by the testimony it will

set the verdict or report aside and direct a re-examination.'"

De LaRama vs. *De LaRama,* 201 U. S., 303, 309.

"Now, coming to consider the evidence in the light of this rule, we are constrained to the conclusion that the premise upon which the courts below acted, that is, the existence of a list of notes left by Tracy, is without any support in the evidence, and, indeed, rests but upon a mere mistaken assumption."

Darlington vs. *Turner,* 202 U. S., 195, 220.

See also:

The Juniata, 93 U. S., 337, 339;
Mammoth Mining Co. vs. *Salt Lake Mining Co.,* 151 U. S., 447, 451;
Stuart vs. *Hayden,* 169 U. S., 1, 14;
Tomson vs. *Moore,* 173 U. S., 17, 24;
Brainard vs. *Buck,* 184 U. S., 99, 105;
The Iroquois, 194 U. S., 240, 247.

II. THE CONCLUSIVE PRESUMPTION IS THAT THE WHOLE CONTRACT WAS REDUCED TO WRITING AND THAT ALL PRIOR NEGOTIATIONS AND REPRESENTATIONS WERE MERGED IN THE WRITTEN CONTRACT.

"It has been said, that by looking at the preliminary agreement, the court will see that terms of a more limited nature are there used. Be it so. But will that justify the court in resorting to it to

explain or limit the legal import of words in a solemn instrument, which contains no reference to it? If we could resort to it, the natural conclusion would be, in the absence of all contrary proof, that the last instrument embodied the real intent of the parties; that the preliminary agreement either imperfectly expressed their intent, or was designedly modified in the final act. *The general rule of law is, that all preliminary negotiations and agreements are to be deemed merged in the final, settled instruments* executed by the parties, *unless a clear mistake be established.*"

Van Ness vs. *City of Washington,* 29 U. S., 232, 285.

"Verbal agreements between the parties to a written contract, made before or at the time of the execution of the contract, are in general inadmissible to vary its terms, or to affect its construction. *All such verbal agreements are considered as merged in the written contract.*"

Emerson vs. *Slater,* 63 U. S., 28, 41.

"Verbal agreements, however, between the parties to a written contract, made before or at the time of the execution of the contract, are not in general admissible to contradict or vary its terms or to affect its construction, as all such verbal agreements are considered as merged in the written contract."

The Delaware, 81 U. S., 579, 604.

"We think it equally clear, that the terms of the contract having been reduced to writing, signed by one party and accepted by the other at

the time the premium of insurance was paid, neither party can abandon that instrument, as of no value in ascertaining what the contract was, and resort to the verbal negotiations which were preliminary to its execution, for that purpose. The doctrine is too well settled that all previous negotiations and verbal statements are merged and excluded when the parties assent to a written instrument as expressing the agreement."

Insurance Company vs. *Lyman,* 82 U. S., 664, 670.

"Verbal agreements between the parties to a written contract made before or at the time of the execution of the contract are, in general, inadmissible to vary its terms or to affect its construction, *as all such agreements are considered as merged in the written contract."*

Platt's Administrator vs. *United States,* 89 U. S., 496, 506.

"All this is irrelevant matter. The written contract merged all previous negotiations, and is presumed, in law, to express the final understanding of the parties. If the contract did not express the true agreement, it was the claimant's folly to have signed it. The court cannot be governed by any such outside considerations."

Brawley vs. *United States,* 96 U. S., 168, 173.

"No principle of evidence is better settled at the common law than that when persons put their contracts in writing, it is, in the absence of fraud, accident, or mistake, 'conclusively presumed that

the whole engagement, and the extent and manner of their undertaking, was reduced to writing.'"

Bast vs. *Bank,* 101 U. S., 93, 96.

"It was also decided in that case that the legal effect of the final instrument which defined and declared the intentions and rights of the parties, could not be modified or controlled by proof of any preliminary negotiations or agreement. 'The general rule of law is,' said the court, 'that all preliminary negotiations and agreements are to be deemed merged in the final settled instruments executed by the parties, unless a clear mistake be established.'"

Potomac Steamboat Co. vs. *Upper Pot. S. Co.,* 109 U. S., 672, 681.

"The third proposition, that the court erred in excluding evidence of an antecedent conversation between the salesman and one of the plaintiffs in error, is disposed of by the well-settled rule, that 'when parties have deliberately put their engagements into writing, in such terms as import a legal obligation, without any uncertainty as to the object or extent of such engagement, *it is conclusively presumed that the whole engagement of the parties, and the extent and manner of their undertaking, was reduced to writing;* and all oral testimony of a previous *colloquium between the parties . . . as it would tend in many instances to substitute a new and different contract for the one which was really agreed upon, to the prejudice, possibly, of one of the parties, is rejected.*'"

De Witt vs. *Berry,* 134 U. S., 306, 315.

"The principle was clearly announced in *Brawley* vs. *United States,* 96 U. S., 168, 173, where it was said:

"'All this is irrelevant matter. *The written contract merged all previous negotiations, and is presumed, in law, to express the final understanding of the parties.* If the contract did not express the true agreement, it was the claimant's folly to have signed it. The court cannot be governed by any such outside considerations.'"

Simpson vs. *United States,* 172 U. S., 372, 379.

III. THE COURT ERRED IN ADMITTING PAROL EVIDENCE WHICH VARIED THE WRITTEN CONTRACTS OF THE PARTIES.

"Parol evidence is certainly not admissible to contradict, vary, or control a written contract."

Moran vs. *Prather,* 90 U. S., 492, 502.

"The rule which excludes parol testimony to contradict or vary a written instrument has reference to the language used by the parties. That cannot be qualified or varied from its natural import, but must speak for itself."

Peugh vs. *Davis,* 96 U. S., 332, 336.

"The rule which excludes parol testimony to contradict or vary a written instrument has reference to the language used by the parties. That cannot be qualified or varied from its natural import, but must speak for itself."

Brick vs. *Brick,* 98 U. S., 514, 516.

"Parol evidence is inadmissible to contradict or vary the language of a valid written instrument by which is meant that the language employed by the parties in making it, and no other must be used in ascertaining its meaning. 1 *Greenl. Evid.* (12th ed.) Sect. 277."

West vs. *Smith,* 101 U. S., 263, 271.

"It is a fundamental rule, in courts both of law and equity, that parol contemporaneous evidence is inadmissible to contradict or vary the terms of a valid written instrument. This rule is thus expressed in *Greenleaf on Evidence,* Vol. 1, Sec. 275, 12th ed.:

" 'When parties have deliberately put their engagements into writing, in such terms as import a legal obligation, without any uncertainty as to the object or extent of such engagement, it is conclusively presumed that the whole engagement of the parties, and the extent and manner of their undertaking, was reduced to writing; and all oral testimony of a previous colloquim between the parties, or of conversation or declaration at the time when it was completed, or afterwards, as it would tend in many instances to substitute a new and different contract for the one which was really agreed upon, to the prejudice, possibly, of one of the parties, is rejected.'

"The rule is thus expressed by *Starkie,* 587, 9th Am. ed.:

" 'It is likewise a general and most inflexible rule, that wherever written instruments are appointed, either by the requirement of law or by the compact of the parties, to be the repositories and memorials of truth, any other evidence is excluded from being used, either as a substitute for such instruments or to contradict or alter them. This is a

matter both of principle and policy; of principle because such instruments are in their nature and origin entitled to a much higher degree of credit than parol evidence; of policy, because it would be attended with great mischief if these instruments upon which men's rights depended were liable to be impeached by loose collateral evidence.' "

Northern Assur. Co. vs. *Grand View Bld'g Assoc.,* 183 U. S., 308, 318.

See also:

Brown vs. *Spafford,* 95 U. S., 474, 480;

U. S. vs. *Fossatt,* 20 How., 413, 427;

Keene vs. *Meade,* 3 Pet., 1, 8;

Ross vs. *McLurg,* 6 Pet., 283, 289;

Weather Lead vs. *Basperville,* 11 How., 329, 357;

Hurt vs. *Rousmanier,* 8 Wheat, 174;

Shanklord vs. *Washington,* 5 Pet., 390, 394;

Philadelphia Railroad Co. vs. *Stimpson,* 14 Pet., 448, 461;

Clark vs. *Manufacturers' Ins. Co.,* 8 How., 235;

Brick vs. *Brick,* 98 U. S., 514, 516;

Meyerson vs. *Tart,* 167 Fed., 965, 967 (Circuit Court of Appeals, Second Circuit);

Gammino vs. *Town of Dedham,* 164 Fed., 593, 597 (Circuit Court of Appeals, First Circuit);

Hirsh vs. *Georgia Iron & Coal Co.,* 169 Fed., 578, 816 (Circuit Court of Appeals, Sixth Circuit).

IV. THE CONTRACT ITSELF IS FREE FROM AMBIGUITY; THEREFORE IT WAS IMPROPER FOR THE COURT TO TAKE EVIDENCE FOR THE PURPOSE OF PLACING ITSELF IN THE SITUATION OF THE PARTIES.

"And the court cannot, without evidence authorizing it to be done, import words into the contract which would make it materially different in a vital particular from what it now is. There is no occasion to introduce parol evidence to explain anything in the contract, because there is no ambiguity about it, and it is not competent by this sort of evidence to alter the terms of a contract, by showing that there was an antecedent parol agreement or understanding between the parties different in a material particular from that which the contract contained."

Gavinzel vs. *Crump,* 89 U. S., 308, 319.

"In the light of the surrounding circumstances, the meaning of the two contracts is plain and is not open to construction, especially to a construction which relieves one party of all the obligations assumed by him and puts them upon another, who had not assumed them at all."

Baltzer vs. *Raleigh & Augusta Railroad,* 115 U. S., 634, 644.

"If the language is clear and unambiguous it must be taken according to its plain meaning as expressive of the intention of the parties, and under settled principles of judicial decision should not be controlled by the supposed inconvenience or hardship that may follow such construction. If parties think proper, they may agree that the right

of one to maintain an action against another shall be conditional or dependent upon the plaintiff's performance of covenants entered into on his part. On the other hand, they may agree that the performance by one shall be a condition precedent to the performance by the other. The question in each case is, which intent is disclosed by the language employed in the contract?"

Loud vs. *Panama Land & Water Co.*, 153 U. S., 564, 576.

"The single question is whether the contract between the parties required all the sugar to be brought to Philadelphia in the Empress of India, upon which it was originally shipped. This depends upon the meaning of the terms of the writing in which the parties must be assumed to have embodied and expressed their whole intention, and to have defined all the conditions of the contract. The court is not at liberty, either to disregard words used by the parties, descriptive of the subject matter, or of any material incident, or to insert words which the parties have not made use of. *Norrington* vs, *Wright,* 115 U. S., 188; *Filley* vs. *Pope,* 115 U. S., 213; *Watts* vs. *Camors,* 115 U. S., 353; *Cleveland Rolling Mill* vs. *Rhodes,* 121 U. S., 255; *Seitz* vs. *Brewers' Refrigerating Co.,* 141 U. S., 510; *Bowes* vs. *Shand,* 2 App. Cas. 455; *Welsh* vs. *Gossler,* 89 N. Y., 540; *Cunningham* vs. *Judson,* 100 N. Y., 179; *Iasigi* vs. *Rosenstein,* 141 N. Y., 414."

Harrison vs. *Fortlage,* 161 U. S., 57, 63.

"It is true that in cases of ambiguity in contracts, as well as in statutes, courts will lean toward the presumed intention of the parties or the legis-

lature, and will so construe such contract or statute as to effectuate such intention; but where the language is clear and explicit there is no call for construction, and this principle does not apply. Parties are presumed to know the force and effect of the language in which they have chosen to embody their contracts, and to refuse to give effect to such language might result in artfully misleading others who had relied upon the words being used in their ordinary sense. In construing contracts words are to receive their plain and literal meaning, even though the intention of the party drawing the contract may have been different from that expressed. A party to a contract is responsible for ambiguity in his own expressions, and has no right to induce another to contract with him on the supposition that his words mean one thing while he hopes the court will adopt a construction by which they would mean another thing more to his advantage."

Calderon vs. *Atlas Steamship Co.,* 170 U. S., 272, 280.

"The contract, being free from ambiguity, no exposition is allowable contrary to the express words of the instrument."

United States vs. *Gleason,* 175 U. S., 588, 606.

See:

O'Brien vs. *Miller,* 168 U. S., 287, 298;

Crimp vs. *M'Cormick Const. Co.,* 72 Fed., 366 (Circuit Court of Appeals, Seventh Circuit).

V. THE ONLY POINT OF AMBIGUITY WHICH APPEARS TO HAVE BEEN CONSIDERED BY THE TRIAL COURT IS THAT THE WORDS "HORSE POWER" ARE OF UNCERTAIN MEANING.

See Decision of Lower Court, Vol. III Record, p. 1196.

VI. THE WORDS "HORSE POWER" ARE NOT OF UNCERTAIN MEANING.

"The learned trial judge was right in excluding the testimony offered for the purpose of showing the trade meaning of the word 'gas' used in the lease between the plaintiff and Guffey and Queen. The purpose was to show that in the oil and gas business the word 'gas' as used in such contracts, means gas derived from a gas well, and not from an oil well. The lease granted the right to drill and operate for 'petroleum oil or gas,' and provides that if gas is obtained in sufficient quantities to utilize, the consideration therefore should be $500 per annum for each well drilled on the premises. The meaning of the word is neither ambiguous nor uncertain, but is well understood. Nor does the connection in which it is used give it a meaning requiring parol evidence to explain it. The offer was in effect not to explain, but to contradict, the explicit provisions of the contract, by showing that the lessees were to pay for the gas only on condition that it was produced or derived from a gas well. This would have been in direct opposition to the agreement, and in conflict with its terms. The lease, as we have seen, granted the right to drill for oil and gas, but the consideration to be paid for the gas did not depend on whether it was derived from an oil well or a gas well, but

whether the gas was 'obtained in sufficient quantities to utilize.' Parol evidence is not admissible for the purpose of making a new and different agreement for the parties, and hence the evidence, the rejection of which is complained of by the appellant, was properly excluded."

Burton vs. *Oil Co.,* 204 Pa. St., 344; 54 Atl., 266, 268.

"Where a written contract was for the sale of beans 'delivered East St. Louis,' parol evidence as to the meaning of 'delivered' was properly excluded, as the contract was plain and unambiguous."

Lippert vs. *Saginaw Milling Co.,* 84 N. W., 831, 833.

"Neither do we think that the clause, 'as long as they could make it pay,' has any special signification in this case. It is not in any sense ambiguous, and can have no different meaning when applied to mining than it has in any mechanical or agricultural employment. It is a term used daily in all the different enterprises and occupations in which men are engaged, and its scope is so well understood that no evidence is necessary to show what it is, or that it means anything different in one case than in another. When a party agrees to sell articles of merchandise, or deliver the productions of his labor to another at a certain price as long as he can make it pay, every one must clearly understand that the term is dependent on conditions over which the promisee has no control, and, in so far as any one has the power to make the term effective, it is lodged solely in the promisor, who by judicious purchases or skilful manipulations of

labor may be able to make a transaction pay when a more careless, negligent, or improvident person would be unable to do so."

Davie vs. *Lumberman's Min. Co.*, 53 N. W., 625, 626 (Mich.).

"The instrument, it occurs to us, was in no wise ambiguous or uncertain, so as to call for extrinsic evidence to render certain the meaning of language which, without it, would be obscure or unintelligible. It required no explanation as to what the 'wholesale price' meant. The words 'wholesale price' have a fixed, certain, and well-defined meaning in the mercantile world. They mean the price fixed on merchandise by one who buys in large quantities of the producer or manufacturer, and who sells the same to jobbers, or to retail dealers therein. Neither can it be successfully claimed that the written contract leaves it a matter of doubt or uncertainty as to what wholesale price should be used in determining the value of the paper. The plaintiff or his assignor, by the plain terms of the contract, had a right to demand its fulfillment whenever he chose so to do. The contract was by its terms to be satisfied by delivery of wall paper at wholesale price, the delivery to take place on demand. It was then a contract in all respects complete and perfect as to the parties, the subject-matter, and the delivery."

Fawkner vs. *Lew Smith Wall Paper Co.*, 55 N. W., 200, 201 (Iowa).

VII. IF IT BE CLAIMED THAT THESE WORDS WERE EMPLOYED BY THE PARTIES IN A SPECIAL OR TECHNICAL SENSE, THEN IT WAS PROPER FOR THE COURT TO RECEIVE EVIDENCE TENDING TO SHOW THE SPECIAL OR TECHNICAL MEANING WHICH THE PARTIES INTENDED THESE WORDS TO EXPRESS.

"Cases arise undoubtedly in which the testimony of expert witnesses is admissible to explain terms of art and technical words or phrases, and it may be admitted that a written instrument may be so interspersed with such technical terms that it would be error in the court to exclude the testimony of persons skilled in such matters, if duly offered by the proper party in the litigation.

"Terms of art, in the absence of parol testimony, must be understood in their primary sense, unless the context evidently shows that they were used in the particular case in some other and peculiar sense, in which case the testimony of persons skilled in the art or science may be admitted to aid the court in ascertaining the true intent and meaning of that part of the instrument, but the words of the instrument which have reference to the usual transactions of life must be interpreted according to their plain, ordinary, and popular meaning; and the rule is that parol evidence is not admissible to contradict or vary such an instrument."

Moran vs. *Prather,* 90 U. S., 492, 494.

VIII. BUT SUCH EVIDENCE SHOULD HAVE BEEN LIMITED AND CONFINED TO A DEFINITION OF THE AMBIGUOUS WORDS, SO AS TO SHOW WHAT SPECIAL MEANING WAS CONTEMPLATED AND INTENDED BY THE PARTIES, BECAUSE THE RULE IS THAT ORAL EVIDENCE MAY NOT BE RECEIVED TO "CONTRADICT OR VARY THE TERMS OF A VALID WRITTEN CONTRACT," BUT ONLY TO EXPLAIN SOME LATENT AMBIGUITY WHICH IT CONTAINS.

"In the construction of all instruments, to ascertain the intention of the parties is the great object of the court; and this is especially the case in acting upon guarantees."

Mauron vs. *Bullus,* 41 U. S., 527, 533.

"The question always is, what did the parties intend by the language used? When such intention is ascertained it is ordinarily the duty of the court to carry it out. See also *Clement* vs. *Cash,* 21 N. Y., 253, 257; *Little* vs. *Banks,* 85 N. Y., 258, 266."

U. S. vs. *Bethlehem Steel Co.* 205 U. S., 105, 119.

"The construction of a contract is nothing more than the gathering of the intention of the parties to it from the words they have used."

Di Sora vs. *Phillips,* 10 H. L. Cas., 628, 683.

IX. THE COURT CANNOT RELIEVE A PARTY FROM THE EFFECT OF A CONTRACT LEGALLY MADE BY HIM, BECAUSE IT TURNS OUT TO BE HARSH, IMPROVIDENT, DISAPPOINTING, OR INEFFECTUAL FOR HIS PURPOSE, UPON THE THEORY THAT IT IS CORRECTING AN ASSUMED AMBIGUITY, AS, FOR EXAMPLE, WORDS OF AMBIGUOUS MEANING.

"If, then, the agreement was not founded in a mistake of any material fact, and if it was executed in strict conformity with itself, we think it would be unprecedented, for a court of equity to decree another security to be given, not only different from that which had been agreed upon, but one which had been deliberately considered and rejected by the party now asking for relief; or to treat the case, as if such other security had in fact been agreed upon and executed. Had Rousmaniere, after receiving the money agreed to be loaned to him, refused to give an irrevocable power of attorney, but offered to execute a mortgage of the vessels, no court of equity could have compelled the plaintiff to accept the security so offered. Or, if he had totally refused to execute the agreement, and the plaintiff had filed his bill, praying that the defendant might be compelled to execute a mortgage instead of an irrevocable power of attorney, could that court have granted the relief specifically asked for? We think not. Equity may compel parties to perform their agreements, when fairly entered into, according to their terms; but it has no power to make agreements for parties, and then compel them to execute the same. The former is a legitimate branch of its jurisdiction, and in its exercise, is highly beneficial to society; the latter is without its authority, and the exercise

of it would be not only an usurpation of power, but would be highly mischievous in its consequences."

Hunt vs. *Rousmaniere,* 1 Peters, p. 1, 13.

"However harsh or exacting its terms may be, as to the appellee, they do not contravene public policy, and, therefore, a refusal of the court to give effect to them, according to the real intention of the parties, is to make a contract for them which they have not chosen to make for themselves."

Cheney vs. *Libby,* 134 U. S., 68, 78.

The trial court appears to have struggled as if to relieve plaintiff from some hardship imposed upon it by the contracts involved. The contracts being plain there was no room for any equitable consideration.

"Courts have no power to make new contracts or to impose new terms upon parties to contracts without their consent. Their powers are exhausted in fixing the rights of parties to contracts already existing."

New Orleans vs. *N. D. Water Works Co.,* 142 U. S., 79, 91.

"It is immaterial to consider the reasons for the conditions or provisions on which the contract is made to terminate, or any other provision of the policy which has been accepted and agreed upon. It is enough that the parties have made certain terms, conditions on which their contract shall continue or terminate. The courts may not make a contract for the parties. Their function and duty,

consist simply in enforcing and carrying out the one actually made."

Imperial Fire Ins. Co. vs. *Coos County,* 151 U. S., 452, 462.

"And, as this was not done, but on the contrary, as the obligation to pay for the cane was stated in the contract as arising from the sale, and was separated from the obligations of the lease by the reservation of a privilege and lien on the bounty money, the rule of strict interpretation precludes us from so reading the contract as to enlarge its terms to import a privilege not necessarily resulting therefrom."

Burdon Sugar Co. vs. *Payne,* 167 U. S., 127, 146.

X. THE REAL CONTENTION OF PLAINTIFF APPEARS TO BE THAT DEFENDANT, BY VIRTUE OF THE WRITTEN CONTRACT UNDER CONSIDERATION WARRANTED IN EFFECT THAT AN "ELECTRICAL CURRENT NOT TO EXCEED THREE HUNDRED HORSE POWER" DELIVERED AT ITS GENERATING PLANT WOULD DEVELOP A MECHANICAL POWER EQUIVALENT TO THREE HUNDRED HORSE POWER AT THE OPERATING PLANT OF PLAINTIFF. BUT THERE IS NO SUCH WARRANTY, EXPRESS OR IMPLIED, FAIRLY DEDUCIBLE FROM THE CONTRACT IN FAVOR OF PLAINTIFF OR FROM ANY SHOWING MADE BY THE RECORD.

"There is no pretense here of any fraud, accident or mistake. The written contract was in all respects unambiguous and definite. The machine which the company sold and which Seitz bought was a No. 2 size refrigerating machine as constructed by the company, and such was the machine which was delivered, put up and operated in the brewery. A warranty or guaranty that that machine should reduce the temperature of the brewery to 40° Fahrenheit, while in itself collateral to the sale, which would be complete without it, would be part of the description and essential to the identity of the thing sold; and to admit proof of such an engagement by parol would be to add another term to the written contract, contrary to the settled and salutary rule upon that subject.

"Whether the written contract fully expressed the terms of the agreement was a question for the court, and since it was in this instance complete and perfect on its face, without ambiguity, and embracing the whole subject-matter, it obviously could not be determined to be less comprehensive

than it was. And this conclusion is unaffected by the fact that it did not allude to the capacity of the particular machine. To hold that mere silence opened the door to parol evidence in that regard would be to beg the whole question."

Seitz vs. *Brewers' Refrigerating Co.,* 141 U. S., 510, 517.

See also:

Osborn vs. *Nicholson,* 13 Wall, 654, 657;
Wilson vs. *New United States Cattle Ranch Co.,* 73 Fed., 994, 998 (Circuit Court of Appeals, Eighth Circuit);
Reynolds vs. *General Electric Company,* 141 Fed., 551, 556.

We urge that the court should direct a dismissal of this case for want of equity.

Respectfully submitted,

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