

the circumstances in respect of the character and value of the lands, the wildness and remoteness of the region and the difficulties surrounding the work of the surveyors, the failure to run the lines with more particularity was not unreasonable and we are constrained to agree with the lower court in holding that the waters of the lake and not the traverse line constitute the boundary.

The decrees of the Circuit Court of Appeals in all the cases are, therefore,

*Affirmed.*

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FOLEY, ADMINISTRATRIX OF GATHMANN, v.  
UNITED STATES.

APPEAL FROM THE COURT OF CLAIMS.

No. 203. Argued January 12, 1923.—Decided January 29, 1923.

1. G wrote to the Navy Department, with respect to his invention for drying materials, that, in consideration of the Department's building a testing apparatus at its own expense, he gave it the option of using the method, if it found it to its advantage, by paying so much for each pound of material so dried. The Department accepted the proposition, saying that it had ordered an experimental apparatus on G's plan, which would be tested and, if it worked satisfactorily to the Bureau of Ordnance, would pay him as proposed. After the test, the Bureau notified G that the test proved unsatisfactory and was abandoned. *Held:*
    - (a) Not a contract that the Department would use the method, but an option, or at most a conditional obligation subject to be terminated by the Department when the test proved unsatisfactory. P. 675.
    - (b) By remaining silent and inactive for five years after receiving notice from the bureau that the relations between them were terminated, G acquiesced. P. 675.
  2. Patents 763,387 and 763,388, issued to Gathmann, for a method of drying materials, with the aid of a "vaporous atmosphere" were either anticipated, or not infringed, by the "closed-circuit method" used by the Government in this case for drying smokeless powder. P. 676.
- 56 Ct. Clms. 303, affirmed.

APPEAL from a judgment of the Court of Claims.

*Mr. Charles J. Pence*, with whom *Mr. L. T. Michener* and *Mr. P. G. Michener* were on the brief, for appellant.

*Mr. Melville D. Church*, with whom *Mr. Solicitor General Beck* and *Mr. Assistant Attorney General Lovett* were on the brief, for the United States.

MR. JUSTICE MCKENNA delivered the opinion of the Court.

Appeal from judgment of the Court of Claims dismissing petition of appellant in which she prayed judgment against the United States for the sum of \$236,750.

A summary of the allegations of the petition is as follows:

The Government was engaged in the manufacture of smokeless powder at its station at Indian Head, Maryland. Gathmann had under consideration, with a view to application for patents, methods of drying the materials of the powder, and in consequence of conversations with the Chief of the Bureau of Ordnance of the Navy Department, he made to the Bureau the following proposition:

“ 1839 Vernon Ave., N.W.,  
Washington, D. C., March 24, 1903.

SIR:

The undersigned has made an invention ‘Method of drying materials,’ for which patent has been filed Feb. 9, 1903, Series No. 142,653.

Now, in consideration of the Navy Department building an apparatus for testing this method, without expense to me, I hereby give the Navy Department the option of using my method of drying materials, if they find it to their advantage, by paying to me, my heirs, or my legal

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representatives, \$0.01 (one cent) for each pound of material dried by my method.

Very respectfully,

LOUIS GATHMANN.

Admiral O'Neil,

Chief of Bureau of Ordnance."

He delivered with the proposition a plan or drawing for an experimental apparatus.

To the proposition the Chief of the Bureau of Ordnance replied as follows:

"Address Bureau of Ordnance, Navy Department, and refer to No. 3585.

Washington, D. C., March 26, 1903.

SIR:

Referring to your communication of March 24th, 1903, offering the Navy Department the option of using your method of drying materials, on payment of one cent per pound on materials so dried:

The Bureau has to inform you that it accepts your proposition, and has ordered one experimental apparatus for drying smokeless powder, constructed in accordance with plan submitted by you. This apparatus will be tested without expense to you, and, if it works satisfactorily to the Bureau, the Bureau agrees to pay you, your heirs or legal representatives, one cent for each pound of smokeless powder dried by the method covered by your application or applications filed or to be filed with the U. S. Patent Office, provided a patent or patents is or are issued to you therefor.

Respectfully,

CHARLES O'NEIL,  
*Chief of Bureau of Ordnance.*

Mr. Louis Gathmann,  
1839 Vernon Avenue,  
Washington, D. C."

At the time of the conversation of Gathmann with the Chief of Ordnance and his proposition and the reply to it Gathmann contemplated applying for patents for his methods, and on February 9, 1903, and subsequent dates, he made applications for patents and patents were issued to him for his methods, and at various times from April, 1909, to April, 1915, the Government made use of the processes and methods covered by the patents in the manufacture of smokeless powder to the amount of 23,675,061 pounds thereof, and became indebted to the estate of Gathmann in the sum of the petition, to wit, \$236,750.

A general traverse was filed to the claim. Upon the issues thus formed and upon considering the evidence taken, the Court of Claims made findings of fact, and from them deduced, as conclusions of law, that appellant was not entitled to recovery and dismissed her petition.

The court decided that the proposition made by Gathmann's communication and the reply thereto presented an option only, and not a contract, and that it was terminated by the Bureau by a letter addressed to Gathmann, October 14, 1904, which was as follows:

"Referring to your apparatus for drying powder, installed at the naval proving ground for trial: The bureau forwards herewith a copy of the report made by the inspector of ordnance in charge of that station for your information. After carefully considering this report the bureau is of opinion that this apparatus has failed to demonstrate anything that would warrant further experiment with it, and the bureau has instructed the inspector of ordnance in charge of the naval proving ground that, when the drier can hold no more samples the whole amount be put in the dry house until dried to the proper volatiles."

The court decided, besides, that the Government had not used Gathmann's methods. Appellant attacks both

rulings but concentrates her attention upon the first. The existence of the second, she assumes, is demonstrated by the physical laws of nature, of which the court will take judicial notice.

The specifications of error against the first ruling are as follows:

“(1) The letters made an express contract of license for the full term of the patents; (2) the license could not be renounced or ended in any manner, except by mutual consent or the fault of Mr. Gathmann; (3) he had the right after the receipt of the letter of October 14, 1904, to regard the license as still in force and to sue for the unpaid royalties, the Government having used the inventions thereafter; (4) what was said prior to the letters of March 24th and 26th, 1903, should not be considered; (5) the Court of Claims should not have considered the development and state of the art prior to the issuance of the patents; (6) the licensee is estopped from denying the validity of the patents.”

To estimate these contentions, the findings of the court must be considered. A summary of them, stated narratively, is as follows:

The material of smokeless powder in its first stages is in a plastic condition, containing about 40% of moisture due to the presence of ether and alcohol, called the “solvent.” To make the powder ready for use the solvent must be reduced to between 4% and 7% according to caliber. The process requires several months’ time. The elements of the solvent were expensive and it became an object to the Government and its manufacture of the powder to save them for re-use.

As early as 1900 the Government had used along with other methods of drying what was known as the closed-circuit method of drying and solvent recovery. In this method there is, generally speaking, a heating chamber, a powder chamber and a condensing chamber, with the

necessary connecting pipes or conduits and means for effecting circulation of the air in the circuit, as by fan or by gravity. In operation the warm air from the heating chamber passes on to the powder chamber, where it absorbs solvent from the "green" powder, then passes on to the condensing chamber, where the solvent carried by it is condensed to liquid form, the air then passing on to the heating chamber again for reheating and repetition of the cycle.

When the powder is newly made, or "green," the solvent is given off rapidly; but as the percentage of the solvent in the mass is reduced, it volatilizes less rapidly and comes off less freely. When the solvent is reduced to about 10%, this closed-circuit process is discontinued and the drying of the powder is completed in the ordinary drying houses.

The plans of the apparatus used by the Government in 1900 were secured from the California Powder Works, of California, by whom the apparatus was understood to have been originated. It illustrates "the closed-circuit method."

Louis Gathmann was an inventor and was interested in improving the method of expediting the manufacture of smokeless powder and had discussed the question with Admiral O'Neil. The Government at times had two systems; one for merely drying by hot air, and the other for both drying and recovery of the solvent. Gathmann claimed a method that would do both in a very much shorter time and proposed that a test be made. The letters we have quoted grew out of the conferences between Gathmann and Admiral O'Neil and Gathmann's representation furnished the chief inducement to the Admiral to enter into the agreement shown by the letters.

Pursuant to the agreement or option shown by the letters, the United States under the direction and supervision of Gathmann, at its own expense, constructed and

exhaustively tested at its Indian Head (Maryland) powder plant the experimental apparatus and method so proposed by Gathmann. The apparatus and method were substantially the same as those shown and described in Gathmann's letters patent.

The tests began in October, 1903, and continued until October, 1904, during which time reports of the results obtained by the tests, comparative and otherwise, were periodically made by the officer making the tests, comparison being made with results obtained from concurrent operations under the regular Government method. In making the tests, the instructions and wishes of Gathmann were complied with except that he desired a continuous and unbroken operation, though he had acceded at first to the closing down of the operation of the Government plant on Sundays. His desire was not acceded to.

In the tests the time required for drying the powder was not reduced, nor did it appear that the former methods used and results obtained by the Government in drying and solvent recovery were otherwise improved upon, nor did Gathmann's apparatus work satisfactorily to the Bureau of Ordnance, and at the close of the tests, Gathmann was so notified by a letter from the Acting Chief of Ordnance.

No change was made in the Government's solvent recovery and drying processes as a result of the test of Gathmann's method.

On June 28, 1904, a patent, No. 763,387, in pursuance to his application of February 9, 1903, was issued to Gathmann. On the same day there was granted to Gathmann and his assignees of a fourth interest therein, United States patent No. 763,388. These patents and the applications upon which they were granted were the applications and patents in contemplation by Gathmann, and Admiral O'Neil in their respective letters of March 24th and 26th, 1903.

Beginning in 1907 the Navy Department at various times in the manufacture of smokeless powder used drying and solvent-recovery apparatuses and methods.

They are illustrated by figures attached to the findings. From August 1, 1910, to 1916, an apparatus known as the box-type method was used in which "the circulation is gravity circulation, induced wholly by the heating and the cooling of the air in the different parts of the circuit." It is not necessary to reproduce the illustrations, and the processes need but little explanation. They are all of the closed-circuit method of drying and solvent recovery. All have a heating chamber, a powder chamber and a condensing chamber with connecting pipes or conduits and means of effecting circulation of air in the circuit, as by fan or by gravity. It is not necessary to compare their mechanisms. We think that the apparatus received by the Bureau from the California Powder Works did not differ in essential structure from them and, of course, it differed from that of Gathmann's apparatus. And differed from them necessarily, otherwise Gathmann would have had no purpose in submitting a proposition to the Bureau. The difference was in the method—amount of vapor, means "provided," to quote the patent, "to produce a vapor-laden atmosphere in the drying chamber" and "so as to maintain", to quote the patent further, "a substantially vapor-saturated atmosphere in the drying chamber nearly to the end of the operation of drying . . ." In other words, the vapor from the moisture of the materials was added to "by admitting vapor as steam."

Considering the methods, their illustrations, and the letters exchanged by Gathmann with the Bureau of Ordnance, the conclusion of the Court of Claims was that a contract was not created. "At most," the conclusion was, "a mere option was granted by Gathmann to the Government to use his method if found suitable after mak-

ing a test of certain apparatus furnished by him, which he continued to improve or change." And again, "There was never any agreement between the parties to use Gathmann's method, and all we have is, as has been stated, an option granted, declined, and terminated."

This conclusion appellant resists, and insists here, as she insisted in the Court of Claims, that a contract was created with its comprehensive and determining effect, it having continued, is the contention, after the date of the letters. That a contract existed or continued we cannot concede to appellant. But whether option or contract, we think it was terminated. There was an election given to the Government to be exercised by it according to the judgment of its officers of a test of the "experimental apparatus" submitted by Gathmann. The test was made, judgment was exercised and its effect notified to Gathmann in the letter of October 14, 1904. Gathmann's letter gave "the option of using" his "method of drying materials, if they [Navy Department] find it to their advantage, by paying to" him, his heirs or legal representatives "0.01 (one cent) for each pound of material dried by" his "method."

Clearly, therefore, there was a conditional proposal and an acceptance upon the condition that the apparatus, after test, should work "satisfactorily to the Bureau." It did not so work and the Bureau so declared to Gathmann.

It is true that there was no response by Gathmann to the letter of the Bureau. His silence, however, was tantamount to acquiescence. It does not appear when that silence was broken. The original petition was filed in this case April 17, 1915, that is, more than ten years after the Bureau's action in declining the proposal. We think that he could not keep the Government in obligation, uncertainty and restraint all that time, or even until April, 1909, the first date alleged of the use by the

Government of his apparatus. He, therefore, must be considered as having accepted the decision of the Bureau and the termination of the relation created by the letters whether it was obligation or option, "right" or "privilege." Responding, therefore, to the contention of appellant that a contract (license, to use appellant's word) can "not be renounced or ended in any manner, except by mutual consent or the fault of Gathmann," we think there was such consent—that which must be considered as tantamount to consent.

We do not think it is necessary to review the claims of the patents and wherein either of them is an advance upon the uses and knowledge of the world, and, necessarily, including the methods of the Government. The Court of Claims has done this and, we think, so satisfactorily, that we content ourselves by referring to its opinion. We need only to say that Gathmann emphasized the distinction of his patents from all that preceded them as using a "vaporous or vapor-laden atmosphere," and that such necessarily existed or will occur in the methods used by the Government.

It is counsel's contention that it is "inevitable that vaporous and vapor-laden atmosphere would be created the instant the heated air came in contact with the green powder, and would continue vaporous and vapor-laden until all the alcohol and ether were extracted from the powder or the powder be removed from the drier." And of this, it is asserted, this Court takes judicial notice as "the law of physics," and the further assertion is that, "Of course this contact of the heated air with the alcohol and ether caused the air to become vapor laden whether the defendant wished it or not." The assertions prove too much. They leave the patents without basis and the distinction they express and dwell on as merely verbal. If the asserted result was inevitable in the method of the patents, it was inevitable in the method

in use prior to the patents, and, we repeat, the patents are left without justification.

The conclusion, therefore, must be that if the methods of the patents are different from the prior art by reason of the "initial vapor-laden atmosphere by admitting vapor as steam" the Government does not use it; if that be not its distinction, and the methods of the prior art inevitably have it, the patents are no advance upon that art and are invalid.

*Judgment affirmed.*

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CONLEY v. BARTON.

ERROR TO THE SUPREME JUDICIAL COURT OF THE STATE OF  
MAINE.

No. 193. Submitted January 9, 1923.—Decided January 29, 1923.

The obligation of a mortgage contract under which the right of redemption is barred after lapse of one year from entry and taking possession by the mortgagee to foreclose, is not impaired by a state law, enacted after the date of the mortgage but before breach of condition, and requiring the mortgagee, if he would sustain such a foreclosure, to make and record, within three months after its completion, an affidavit of the facts. P. 680. 119 Me. 581, affirmed.

ERROR to a judgment of the Supreme Judicial Court of Maine, affirming a judgment for the plaintiff in a suit to redeem property from a mortgage foreclosure.

*Mr. H. A. Hegarty* and *Mr. J. B. Flynn* for plaintiff in error.

*Mr. Frank H. Haskell* for defendant in error.

MR. JUSTICE MCKENNA delivered the opinion of the Court.

Suit to redeem from a mortgage which was executed by defendant in error to one George W. Towle to secure his