officials, as the result of investigations authorized to be made by themselves, none more noticeable than in the great mass of municipal and other public bonds which have been supported by the courts on the strength of the certificates of local officers, directed to make findings of the preliminary conditions required by statute. We think its application to this case makes it clear that, with the possible extreme exceptions which we have characterized, the statute vests in the commissioner of patents authority to issue all such patents as on examination he deems proper to issue: that none thus issued are issued ultra vires; that all such are within the scope of his powers, within the meaning of the expressions we have cited from the supreme court: and that there is nothing in this case which excepts it from this general rule. But we have pursued the matter already further than was necessary. It is clear, on this part of the case, that we are barred from taking jurisdiction by reason of the statute provisions which give special remedies to an applicant whose patent is refused, and, passing by this, that also the issue of this patent was within the scope of the authority of the commissioner; and no mistake being proven, and no other equitable ground appearing, we cannot revise his action in this suit.

The United States have filed a motion in this court praying that, if we find for the appellants, we will reserve leave to the circuit court to permit an amendment at bar, alleging that the American Bell Telephone Company did directly agree with the representatives of the Drawbaugh application that the determination by the patent office of the question of priority should abide the decision in The Telephone Cases; that these parties, acting in concert, did procure the commissioner of patents to consent to such postponement; and that thus the American Bell Telephone Company, by its own act, procured the postponement of the decision of priority, without necessity or right, in violation of its duty to speed the patent for the We have already found that, as the record now stands, microphone. it contains no proof to sustain an allegation of this character. Therefore, an amendment of this nature would require the opening of the record below for further proofs. It is not at all a case where a complainant has proved his case, but his allegations are found by the appellate court to be inapt. To grant this motion would, under the circumstances, violate all the rules requiring diligence from parties complainant.

The decree of the circuit court is reversed, and the case remanded to that court, with directions to dismiss the bill.

CHEMICAL RUBBER CO. v. RAYMOND RUBBER CO. et al.

(Circuit Court, D. New Jersey. May 15, 1895.)

1. PATENTS-CONSTRUCTION OF CLAIMS.

Claims for treating rubber waste with sulphuric acid, designated as "strong," "of sufficient strength," etc., *held* to be indefinite and insufficient in themselves, and requiring reference to the specifications to ascertain what degree of strength was required.

2 SAME.

Where the specifications of a patent for treating rubber waste with sulphuric acid stated that "diluted" sulphuric acid was useless for the purpose, and that the invention rested upon the discovery that the rubber in the waste would resist the action of "strong" sulphuric acid, and that the strength would depend upon the proportion of fiber in the waste, *held*, that the claims should be construed as covering the use of sulphuric acid of practically the full strength.

8. SAME.

Where the terms used in the specification and claims indicate so clearly a particular meaning that no other can be reasonably attached to them, the patent must be construed in that sense, even if this renders it impracticable and valueless. McClain v. Ortmayer, 12 Sup. Ct. 76, 141 U. S. 419, followed.

4. SAME-PROCESS OF TREATING RUBBER WASTE.

The Mitchell patents, Nos. 300,720 and 249,970, for a method of recovering rubber from waste by treating it with strong sulphuric acid at boiling heat, construed and limited, and *held* not infringed.

This was a bill by the Chemical Rubber Company against the Raymond Rubber Company and others for alleged infringement of certain patents relating to the art of treating rubber waste for the recovery of rubber therefrom.

B. F. Lee, for complainant.

Francis T. Chambers, for defendants.

DALLAS, Circuit Judge. Of the several letters patent mentioned in the bill, two only are now relied upon, viz. patent No. 300,-720, dated June 17, 1884 (application filed May 5, 1881), to N. Chapman Mitchell, for recovering rubber from waste, and patent No. 249,970, dated November 21, 1881 (application filed May 19, 1881), to the same patentee, for recovering rubber from rubber waste. It is insisted that all the claims of these two patents have been infringed by the defendants. Patent No. 300,720, expressly embraced muriatic acid as well as sulphuric acid, but by disclaimer filed on January 8, 1894, all mention of muriatic acid was omitted. Waiving, as not material to my consideration of the case, the objection which has been urged against this disclaimer, the claims may be stated in conformity therewith, as follows:

"(1) As an improvement in the art of treating rubber waste for the recovery of the rubber therefrom, boiling said waste in sulphuric acid of a strength sufficient to eliminate and destroy the fibrous material with which the waste is combined, substantially as set forth. (2) The within-described process of eliminating woolen fiber from rubber waste containing the same, said mode consisting in boiling the waste in sulphuric or equivalent acid of sufficient strength to eliminate said woolen fibers, as set forth. (3) As an improvement in the art of treating rubber waste for the recovery of rubber therefrom, the process herein described, said process consisting in first boiling the waste in strong sulphuric acid, and then washing the mass resulting from the acid treatment, all substantially as set forth."

The only claim of patent No. 249,970 is as follows:

"As an improvement in recovering rubber from rubber waste, wherein the rubber waste is boiled in strong sulphuric or muriatic acid, the process of bringing such acid into immediate contact with all portions of the mass, which consists in ejecting steam into the strong acid in the tank containing the mass, whereby the steam penetrates every portion of the mass and carries the acid with it, as specified."

Several questions have been very ably argued by counsel which it is not necessary for me to discuss, for upon that one of them to which attention has been chiefly directed I have reached a conclusion which is decisive. What significance is to be ascribed to the words "of a strength sufficient," "of sufficient strength," and "strong sulphuric acid," as they occur in the claims of patent No. 300,720; and to the words "strong sulphuric or muriatic acid," as contained in the claim of patent No. 249,970? This inquiry is of controlling importance, because, unless the phrases quoted are to be so interpreted as to include sulphuric acid when very substantially diluted, the defendants have, unquestionably, not infringed. Much stress has been laid upon the fact that the defendants' expert has said that "it is, of course, true that if the claims be read without reference to the specification of the patent they may fairly be considered to be concise descriptions of the process used by the defend-This witness assumed, however, that the claims should be ants." read in connection with the specification, and was of opinion that, being so read, they "should all be understood to refer to the use of very strong acid," and in this I entirely agree with him. It may be conceded that the defendants use acid of sufficient strength, and, consequently, that what they do is concisely described in the claims; but still the fact remains that the claims themselves neither indicate what strength of acid is sufficient nor define what is meant by strong acid. Upon this most material point they supply no information whatever, and consequently a reference to the specification, which as to this matter is the same in both patents, is of necessity invited for such "exact description" of the invention as is requisite to enable any person skilled in the art to use the same (Rev. St. § 4888); and that such reference was contemplated by the patentee himself is made quite apparent by the circumstance that in the specification the information which the claims do not furnish is The specification states that subjecting the waste to fully given. the action of heated solutions of caustic alkali or diluted sulphuric acid had been found to be valueless: but that the patentee had discovered "that the rubber in the waste will effectually resist the action of strong sulphuric acid heated to a high temperature." Thus we have strong acid opposed to, and contrasted with, diluted acid, and the natural deduction would seem to be that no acid which is substantially diluted can be the strong acid of the patent. Further on, it is said that "the strength of the acid and the quantity employed in respect to the quantity of material treated will depend upon the proportion of fiber and impurities in the waste." This, of course, suggests that where, but only where, less than the usual proportion of fiber is present, a weaker acid may be used, but this may mean that, under such circumstances, the inherently weaker acid—muriatic as compared with sulphuric—can be relied upon; and, be this as it may, it plainly appears, from what is further said in the same connection, that wherever the ordinary

proportion of fiber is to be dealt with, sulphuric acid of practically the full strength of 66 degrees Baumé, which the patentee says he had used in practice, must be employed, and that even to such acid "about one-twentieth of its weight of fluoric"-a stronger-"acid" may be advantageously added, "to facilitate the operation." From these statements, it is, I think, manifest that the sulphuric acid which the patentee intended to be used in the practice of his process is the strong sulphuric acid of commerce. But it is contended that, even if the acid is, at the outset, to be undiluted, yet the instructions of the patent involve its dilution in pursuing the process. This contention, however, is in conflict with the terms of the specifica-Its requirement that the acid shall, in the first instance, be tion. of practically full strength, is not more clear than the direction that it shall remain so. "In carrying out my invention," says the specification, "the acid is first deposited in the bottom of a tank or vat, into which the waste is then introduced, and the tank or vat closed." There can be no question as to the meaning of this language; and the procedure which it describes is so absolutely and unqualifiedly enjoined as to forbid any implication that it may be departed from or varied. No water is to be placed in the tank before the acid is put into it, for the acid is "first deposited"; no water is to be added before the introduction of the waste, for, having deposited the acid, the waste is "then introduced": and water is not to be afterwards added, for, upon the introduction of the waste, the tank is "closed," and, as the specification continues, "the acid is then heated." and the treatment proceeds to its conclusion. Furthermore, we are told that the invention "is based upon the discovery that the rubber in the waste will effectually resist the action of strong sulphuric or muriatic acid heated to a high temperature," and this is said with reference to a French patent (to Faure, No. 91,665, dated April 3, 1871) which calls for "sulphuric acid indicating 53 degrees to 58 degrees Baumé," which, though not quite of the strength which this patentee says that in practice he had used, is still a very strong acid. But, says the patent in suit, "Sulphuric acid, however, if employed at ordinary temperatures, or at any of the temperatures set forth or suggested by Faure, acts injuriously upon the rubber." The conclusion seems to be inevitable that Mitchell's invention, as he understood it, and intended that others should understand it, rested upon his alleged discovery that sulphuric acid of the same strength as suggested by Faure, or even of greater strength, might be used, when heated as Mitchell proposed it should be; and in patent No. 249,970 it is especially mentioned, evidently as showing that the injection of steam "into the strong acid in the tank" would have no harmful effect, that "there can be no appreciable dilution of the acid by condensing steam." Throughout, and in both patents, it is made apparent, not only that dilution of the acid was not intended, but that any appreciable dilution of it would be inadmissible; and I am unable to accept the theory set up for the plaintiff, that a man of competent skill, in carrying out the process, would, of course, assume that a considerable quantity of water was to be added to the specified contents of the tank. This theory has been vigorously supported by the experts for the complainant, and has been, with equal emphasis, combated by the expert for the defendants. I have read their testimony with care, but need not refer to it in detail. It is sufficient to say that the patent is not simply silent on the subject of adding water, but, upon the natural and reasonable understanding of its terms, it positively precludes the addition of water. The necessity for adding water could be learned only by independent experiments of a nature, not merely unwarranted, but which could not be conducted except in direct defiance of the directions of the specification. In short, I am convinced that any man, however skilled, who should undertake to practice the patented process, would necessarily be led, by its terms, to take the view of it which was urged upon the patent office by the solicitor of the patentee, viz. that it "involves the subjection of the rubber waste to boiling in a strong undiluted commercial acid"; and that, therefore, the use of acid and water would be a material departure from it. It is objected to this construction of the patents that it renders them valueless, and the invention, as claimed, impracticable: but as no other construction can, in my opinion, be reasonably put upon them, any consequence which results, however serious, must be regarded as unavoidable. As "the language of the specification and claim shows clearly what he desired to secure as a monopoly, nothing can be held to be an infringement which does not fall within the terms the patentee has himself chosen to express his invention." McClain v. Ortmaver, 141 U. S. 419, 425, 12 Sup. Ct. 76.

The other matters which have been set up in defense do not call for discussion. If the patents are to be limited as I have indicated, the charge of infringement is without foundation; and upon this ground the bill is dismissed.

THE CITY OF CHESTER.

NORFOLK & C. R. CO. v. THE CITY OF CHESTER.

(District Court, E. D. Virginia. June 24, 1895.)

COLLISION-STEAMERS IN HARBOR-CROSSING COURSES.

Only a dire emergency will excuse a steamer navigating a harbor from complying with rule 16, which requires her to keep out of the way of another steamer with which she is on crossing courses, when the latter is on her starboard hand; and she is not excused by the fact that a third steamer is on crossing courses with her, in such a position as to be required to keep out of her way, there being sufficient room for both to avoid danger by a timely observance of the rule.

This was a libel by the Norfolk & Carolina Railroad Company against the steamboat City of Chester to recover damages for a collision.

Sharp & Hughes, for libelant. Richard Walke and A. P. Thom, for respondent.