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# Case No. 5,508. SILVER ORE SEPARATING CO. V. UNITED STATES DISINTEGRATING ORE CO. ET AL.

[6 Blatchf. 307; 3 Fish. Pat. Cas. 489.]<sup>1</sup>

Circuit Court, S. D. New York.

March 8, 1869.

### PATENTS-INTERFERENCE-ACT OF 1836.

- 1. Two patents interfere, within the meaning of section 16 of the act of 1836 [5 Stat. 123], only when they claim, in whole or in part, the same invention. The interference intended is of the same character with that spoken of in sections 8 and 12 of the same act
- 2. Letters patent granted to the assignee of Melchor B. Mason, January 3, 1865, for an "improved method of desulphurizing and oxydizing metallic ores," *held* to interfere with reissue No. 1988 of letters patent granted to the assignee of William E. Hagan, March 8, 1861, for an improvement in stoves; and, in so far as they interfere, the patent of Mason adjudged to be void.

This was a final hearing, on pleadings and proofs. On the 8th of March, 1864, letters patent [No. 41,897] were granted to John B. Gale, as assignee of William E. Hagan, for an "improvement in stoves." On the 6th of June, 1865, this patent was surrendered, and reissued, in two separate reissues, to the Hagan Manufacturing Company, and William E. Hagan, as assignees, by mesne assignments, of William E. Hagan. One of the two, No. 1,988, was for an "improvement in furnaces for treating ores by superheated steam." On the 3d of January, 1865, letters patent No. 45,803 were granted to C. V. De Forest Amos Howes, and George E. Van Derburgh, as assignees of Melchor B. Mason, for an "improved method of desulphurizing and oxydizing metallic ores." At the time of the bringing of this suit the legal title to the said reissue No. 1,988, was vested in the plaintiffs, and the legal title to the said patent No. 45,803, for the territories of Nevada, Idaho, and Montana, was vested in the defendant Mason, and, for the rest of the United States, in the other defendants.

The bill alleged, that Hagan was the original and first inventor of the improvements claimed in said reissue No. 1,988; that the invention claimed therein was identical with that covered by said patent No. 45,803; that It was necessary, for the protection of the rights of the plaintiffs, that this court should determine whether Hagan was such original and first inventor; and that the said patent No. 45,803 was invalid, and should be adjudged void. The bill prayed that the said patent No. 45,803 might be adjudged to be void. The answer set up, that the original patent to Gale was not for the same invention as that patented by said patent No. 45,803; that "the inventions patented by said last named patent were not known prior to the invention thereof by said Mason; that the said reissue No. 1.988 was procured for the purpose of fraudulently covering the inventions so made by Mason and patented, and was fraudulent and void; that it was not for the same invention as was the original patent, and was not limited to what was described or made known

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in the original, or by any filed model which belonged to the application for the original, but was broader than the invention described in the original, and fraudulently covered inventions not described in the original, or represented by any model deposited in the patent office on the application for the original, and fraudulently covered inventions of which Hagan had no knowledge at the time he applied for and obtained the original, and inventions of which Hagan was not the first inventor, and not the original inventor, and of which he knew nothing until he had learned them from the invention of Mason, and inventions which he did not intend to patent by the original, and was expanded beyond any invention described in the original, for the fraudulent purpose of covering improvements of which Mason was the first inventor; that the inventions covered by the said patent No. 45,803, and the inventions sought to be claimed by the said reissue No. 1,988, were made and used by Mason long before any invention thereof by Hagan, or any other person; and that the said patent No. 45,803 was valid. The answer prayed that the court would decree that the said reissue No. 1,988 was void, and that the said patent No. 45,803 was valid.

Charles M. Keller, for plaintiffs.

George Gifford, for defendants.

BLATCHFORD, District Judge (after stating the facts). The jurisdiction invoked by the plaintiffs in this case is that conferred by the 16th section of the act of July 4, 1836 (5 Stat 123), which provides, that "whenever there shall be two interfering patents, \* \* \* any person interested in any such patent, either by assignment or otherwise, \* \* \* may have remedy by bill in equity, and the court having cognizance thereof, on notice to adverse parties, and other due proceedings had, may adjudge and declare either the patents void in the whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent, or

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the inventions patented, \*\*\* as the fact of priority of right or invention shall in any such case be made to appear."

The first question to be determined is, whether the reissue No. 1,988, and the patent No. 45,803, are, within this 16th section, "interfering patents." A considerable portion of the argument of the counsel for the defendants was devoted to maintaining the point, that the two patents do not, in whole or in part, claim the same thing, and that, therefore, they do interfere. But no such point is taken in the answer. The bill avers, substantially, that the inventions covered by the two patents are identical. The answer, while it avers that the invention covered by the original patent to Gale was not for the same invention as the patent No. 45,803, no where alleges that the reissue No. 1,988 and the patent No. 45,803 do not claim and cover the same inventions. On the contrary, the answer avers, in substance, that the two do cover and claim the same inventions. It states that the original patent to Gale was reissued for the purpose of covering the inventions patented by the patent No. 45,803; that the reissue No. 1,988 was expanded beyond any invention described in the original, for the purpose of covering improvements of which Mason was the inventor; and that the inventions covered by the patent No. 45,803, and those sought to be claimed by the reissue No. 1,988, were made by Mason long before any invention thereof by Hagan or any other person. If these averments in the answer do not constitute an admission that the two patents, which are claimed to interfere, cover and claim, in whole or In part, the same inventions, they have no meaning. Two patents interfere, within the meaning of the 16th section, only when they claim, in whole or in part, the same invention. The interference intended is of the same character with that spoken of in the 8th section of the same act, which refers to an interference between two pending applications for patents, and to one between a pending application for a patent and an unexpired patent previously granted, and with that mentioned in the 12th section of the same act, which refers to an interference between two applications where "the specifications of claim interfere with other."

Independently, however, of any admission in the answer, there can be no doubt that the two patents in question do interfere with each other, in the sense thus defined.

The claims of the reissue No. 1,988 are three in number: (1) The employment or application of superheated steam, in the manner as, or substantially as, described and set forth, for the purpose of refining or reducing metals, and for the removal of sulphur, arsenic, phosphorus, or other impurities, from ores or minerals; (2) the employment or application of superheated steam, as, or substantially as, described, for the purpose of calcining and disintegrating quartz rock containing silver, gold, or other metals; (3) the employment or application of superheated steam for the refining of iron, and for the converting of iron into semi or pure steel, in the manner substantially as described and set forth.

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The patent No. 45,803 contains two claims: (1) The improved process of Mason for removing sulphur, arsenic, phosphorus, and antimony from auriferous, argentiferous, or other metallic ores, and for oxydizing the said ores, by treating them with hydrogen and carbonic acid gases, substantially in the manner set forth; (2) as a part of the improved process of Mason, the admission of steam into the chamber wherein the metallic ores are heated, desulphurized and oxydized, substantially in the manner and for the purpose set forth.

It is impossible not to say that there is an identity, in substance, between the first claim of the reissue No. 1,988, and the first claim of the patent No. 45,803. The former claims the employment of superheated steam, in the manner described, to refine or reduce metals, and to remove sulphur, arsenic, phosphorus, or other impurities—from ores or minerals. The latter claims the process of Mason for removing sulphur, arsenic, phosphorus, and antimony, from metallic ores, and for oxydizing such ores, by heating them with hydrogen and carbonic acid gases, as set forth.

The manner described in the reissue No. 1,988, in which superheated steam is employed to refine or reduce metals, and to remove impurities from ores or minerals, is to discharge superheated steam directly into the body of a fire, so that the highly rarified aqueous vapor shall impinge upon, and be brought in contact with, the incandescent fuel, without admixture of atmospheric air, while, at the same time, combustion is supported in part by the admission of air to the fire by way of draft. The specification states, that, when superheated steam, without admixture of atmospheric air, is caused to impinge directly upon ignited carbon, it undergoes decomposition into hydrogen and oxygen; that, if a reverberating furnace is properly arranged in connection with the fire chamber of such furnace, and mineral ores are placed on the bed of the furnace, and superheated steam is thus introduced into "the fire and decomposed, and the liberated hydrogen is thrown in amongst such ores, it will, by its affinity for sulphur, phosphorus, and other volatile substances, in the ores, carry them off in a gaseous form, and, by the combined action of the heat and the hydrogen, the ores will be thoroughly disintegrated and purified, so that they can be crushed with facility. Adequate mechanical means for conducting these operations are described in the specification.

The process of Mason, described in the patent No. 45,803, for removing impurities from metallic ores, and for oxydizing such ores by treating them with hydrogen and carbonic acid gases, is to arrange a furnace with a

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chamber for the ores, in connection with a chamber to generate the gases. This last chamber is a chamber of combustion, and the specification states, that superheated steam is to be allowed to escape into the fire in fine jets; that the steam will be decomposed, and the hydrogen in it be liberated, while carbonic acid gas will also be generated, from the fact that a current of atmospheric air is admitted to support combustion; and that the hydrogen and carbonic acid gases will pass into the reducing chamber, and permeate and heat the ores, carrying off the impurities, and desulphurizing and oxydizing the ores. Proper means are described for effecting these results.

The processes in the two specifications are identical, and the first claim in each patent embraces, in effect, a claim to the process of decomposing superheated steam, by so introducing it into the fire that it shall be decomposed, while combustion is supported in part by a current of atmospheric air, and of then throwing the resulting gases which are generated, upon ores, metals, and minerals, to produce such effect as such gases will produce in the way of refining, purifying, and reducing, and working such other chemical changes as must inevitably follow from the contact of such heated gases with the articles so subjected to their action. The first claim of the patent No. 45,803 must, therefore, be held to interfere with the first claim of the reissue No. 1,988.

I do not perceive that the second claim of the patent No. 45,803 interferes with any claim in the reissue No. 1.988. That claim embraces merely the admission of steam into the reducing chamber where the ores are heated, desulphurized, and oxydized, so as to prevent excessive heat, and control and regulate the temperature, and avoid the fusion of the sulphurets which are disengaged from the ores in the process.

The next subject of inquiry is, whether Hagan or Mason was the first inventor of the process which is claimed by each of the two patents. Hagan's evidence rests very much upon two caveats filed by him in the patent office, one on the 3d of February, 1802, and the other on the 28th of February, 1802. The first caveat, which was accompanied by drawings, describes a fire-box; the admission of air thereto; and the introduction of jets of highly heated steam directly into the ignited fuel. It also refers to the fact, that hydrogen and oxide of carbon, and other combustible gases, are evolved in the process. The second caveat states that the steam, admitted in proper quantity to contact with incandescent carbon, will be decomposed; that the intent of the invention is the production of hydrogen and its combustion in a nascent state; and that the objects sought to be attained are economy in heating and warming, the prevention and combustion of smoke, and the deoxydation and desulphurization of mineral ores. Hagan satisfactorily carries back to December, 1858, his invention of applying jets of superheated steam directly to incandescent fuel, unmixed with atmospheric air, but in combination with the application of a draft of atmospheric air to the fuel. He also satisfactorily carries back to January, 1802, his application of the gases evolved by such plan of combustion to metallic ores, for the purpose of

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desulphurizing them, resulting in their complete desulphurization and disintegration. The apparatus and the process thus used by Hagan were the same as those described in the reissue No. 1,988. That Hagan intended to claim, in the original patent, the specification of which was signed by him, the invention covered by the first claim in the reissue No. 1,988, can admit of no doubt; and that that reissue, so far as the first claim in it is concerned, is for the same invention intended by Hagan to have been patented by the original patent, and was a proper and valid reissue, is equally clear. It is useless to go over the proofs on that subject, as they are uncontradicted, and all tend to the conclusions stated.

The evidence on the part of the defendants, if it tends to show that Mason did anything, prior to his being brought into communication with Hagan, beyond attempting to desulphurize and disintegrate ores by throwing superheated steam into the ore chamber without first decomposing it in the fire chamber, does not go to prove any thing but abortive, inconclusive, and unpractical experiments on the part of Mason, down to a period as late as August, 1864, in decomposing superheated steam, and applying the gases generated in the process to the purification and reduction of ores. The weight of the evidence is very preponderating that Mason borrowed directly from Hagan all that is embodied in the first claim of the patent No. 45,803.

The allegation in the answer, that Hagan was not the first inventor of what is claimed in the reissue No. 1,988, is not sustained by the evidence, so far as respects the particulars in which the reissue No. 1,988 and the patent No. 45,803 are held to interfere, either as regards a prior invention thereof by Mason or otherwise.

The prayer of the answer, that the reissue No. 1,988 may be decreed to be void, and that the patent No. 45,803 may be decreed to be valid, must be denied; and there must be a decree adjudging the patent No. 45,803 to be void, so far as the improved process of the defendant Mason, therein described, for removing sulphur, arsenic, phosphorus, and antimony, from auriferous, argentiferous, and other metallic ores, and for oxydizing the said ores, by treating them with hydrogen and carbonic acid gases, substantially in the manner set forth in said patent No. 45,803, employs or applies superheated steam in the manner as, or substantially as, described in the said reissue No. 1,988.

The defendants must be charged with the costs of the suit

<sup>1</sup> [Reported by Hon. Samuel Blatchford, District Judge, and by Samuel S. Fisher, Esq., and here compiled and reprinted by permission. The syllabus is from 3 Fish. Pat. Cas. 489, and the statement and opinion are from 6 Blatchf. 307.]