

FRAZER AND OTHERS *v.* GATES & SCOVILLE
IRON WORKS.

Circuit Court, N. D. Illinois.

August 9, 1884.

PATENTS FOR INVENTIONS—ORE AND STONE
CRUSHER—RUTTER, REISSUE NO.
3,633—VALIDITY OF CLAIM: 1—INFRINGEMENT.

The first claim of reissued patent No. 3,633, granted to J. W. Butter, September 7, 1869, for an ore and stone crusher, the original patent being No. 88,216, dated March 23, 1869, construed, and *held* valid and infringed by defendant.

BLODGETT, J. This suit is brought for the alleged infringement of reissued patent No. 3,633, granted to J. W. Butter, September 7, 1869, the original patent being No. 88,216, dated March 23, 1869, and for an accounting for profits and damages. Complainants claim as assignee of Butter, and no question is raised as to their title. Infringement is insisted upon only as to the first claim of the patent. The machine described in this patent is an ore or stone crusher, and consists of a hollow cylinder within which an oscillating cone revolves, crushing the material to be operated upon between the outer periphery of the cone and the inner lining of the outside cylinder or casing. The testimony in the case shows that prior to the date of this patent crushers had been known and used, having an outside casing or crushing chamber, and where the crushing was produced by the revolving of a crushing cone in a conical orbit, but in all the prior devices disclosed in the proof the power operating the crushing cone had been applied at the top of the crushing cone instead of the base, but in the Butter device the power is applied at the base, or rather below the base of the cone, whereby a much more effective crushing force is secured; and this change increases the working power and usefulness of the machinery to such a degree as

to seem to me to constitute a patentable difference between this and prior devices in the art. Butter describes his device as follows:

“The invention relates to that class of crushing and grinding machines in which a conical grinder or crusher, with concentric and eccentric bearings, is operated within a stationary upright cylinder or chamber, or in which the crushing chamber is made conical and the crusher straight, and the invention consists in a universal or ball and socket support above the cylinder, from which the crushing cone is suspended on an oscillating arbor, rigidly connected with a rotating eccentric box, carrying its lower extremity, and which is fitted in the hub of a horizontal gear-wheel so as to rotate in an annular conical orbit within said gear-wheel, but having no rotation on its own axis, whereby a grinding or rubbing action as well as crushing effect is produced, instead of a crushing action only, as in similar machines wherein the cone rotates around its own axis.”

And the claim of the patent which it is alleged defendant, infringes is upon the portion of the device described in the foregoing language, being for “the cone, B, on the arbor, D, when sustained and operated in such manner as to swing in a conical orbit around the axis of its surrounding cylinder without rotating around said arbor, substantially 440 as set forth.” The defendants manufacture a crushing-machine which shows a crushing cone upon an arbor, suspended by a universal joint within a cylinder in such manner as to swing in a conical orbit around the axis of the surrounding cylinder. In other words, all the elements and distinctive characteristics of the Rutter device are found in the defendants’ machine. The cone, the cylinder, the arbor or shaft upon which the cone is suspended, the driving-wheel by which the cone is revolved in a conical orbit by means of an eccentric box in the driving-wheel, are all found in the

defendants' machine, and performing the same function which those parts perform in the Rutter device. The defenses set up are:

(1) That this first claim is such an enlargement and expansion of the patent, as originally issued, as to be substantially for a new invention, not found in the original specifications and drawings. (2) That by the terms of the specifications and drawings of the reissued patent the cone, B, must be rigidly fixed, not only to the arbor, D, but also to the horizontal gear-wheel, G; while in the defendant's machine the arbor, D, revolves so as to impart a double or compound motion to the cone.

It will be noticed that the reissue in this case followed very soon after the issue of the original patent; the original being dated March 23d and the application for reissue having been filed July 20th of the same year; so that this reissue is not obnoxious to the charge of laches, which was so prominently characteristic of the reissued patents in the cases of *Miller v. Brass Co.* 104 U. S. 350, and *James v. Campbell*, Id. 356.

It seems to me that the invention described in this first claim is obviously found in the drawings and specifications of the original patent. He certainly, in his specifications, describes the outer cylinder, A, the crusher, B, the oscillating arbor, D, the ball and socket joint, B, by which the arbor carrying the cone is suspended in the outer cylinder, and the gear-wheel and eccentric box by which the cone is made to swing in a conical orbit around the axis of the outer cylinder. This is shown, not only in the specifications, but in the drawings, and if, by inadvertence or mistake, a claim for it was omitted in the original patent, certainly no complaint can be made that the patentee did not make proper haste to have it corrected. It seems to me that the-reissued patent is for nothing which was not clearly shown in the original specifications and

drawings, and if Rutter was the first inventor of the combination or arrangement of parts shown, arranged to operate as shown, then he was entitled to cover it by this first claim of the reissue. I find much more difficulty with the second objection made to this patent than with the first. It must, I think, be admitted that the specifications are obscurely drawn, and that much difficulty is encountered in giving them a construction or ascertaining what kind of a machine the inventor really intended to describe and direct the construction of. This difficulty centers around the question as to whether the crushing cone is to be connected rigidly 441 with the rotating eccentric box, by which the conical motion at the base is obtained. His language of the description is: "The crushing cone is suspended on an oscillating arbor rigidly connected with a rotating eccentric box, carrying its lower extremity, and which is fitted in the hub of a horizontal gear-wheel, so as to rotate in an annular orbit within said gear-wheel, but having no rotation on its own axis;" and then again, after describing in detail the different parts, and their mode of operation, he says: "In this arrangement the crusher, B, does not rotate on its own axis."

It is further contended by the experts who have been examined in behalf of defendant that the drawings necessarily show that this patentee intended that the crushing cone should not only be fixed rigidly upon the arbor, but that the arbor should be stepped or fastened rigidly into the eccentric box, so that neither the arbor nor the cone would have any rotating motion, except such as is given by the driving-wheel, G, carrying both the cone and arbor around the inner surface of the crushing cylinder, without allowing the cone to revolve on the arbor, or the arbor to revolve on its own axis. The patentee also says that he intends his cone shall have a grinding and rubbing action, as well as a crushing effect upon the material to be operated

upon; and all agree that this compound effect of grinding and rubbing, as well as crushing, can only be obtained by allowing the crushing cone to rotate, either upon the arbor or with the arbor; that is, either the cone must turn upon the arbor, or else the arbor must turn and carry the cone with it. If the true construction, as contended by the defendants, is that this cone is to be rigidly fixed so as to have no rotation either upon its own axis or with the arbor, then all the witnesses concur that a practicable crushing-machine could not be constructed under these specifications, because the effect of fastening the crushing cone rigidly so that it would simply gyrate or swing around in a conical orbit inside the cylinder, having only the squeezing or crushing, and not the grinding, action, upon the material to be operated upon, would not make a useful or practicable stone breaker or crusher. The complainant, however, insists that it is not necessary to construe this description, either in the claim or in the body of the specifications, so as to require this rigid adjustment of the crushing cone; and, after a careful study of the specifications, drawings, and model, I conclude that the description of the invention in the body of the specifications should be read: "The crushing cone is rigidly suspended on an oscillating arbor connected with a rotating eccentric box, etc.," thus transposing the position of the word 'rigidly,' so as to express, as I think, what the patentee really meant by the description which he used. The same reading may, perhaps, as contended by the complainant's counsel, be obtained by changing the punctuation, and placing a comma or semicolon after the word "rigidly," as the words are arranged in the specifications, instead of placing it where it is, after the word "arbor," and the proof from the 442 file wrapper shows that Butter did not punctuate this claim, but the punctuation was probably made by the printer or some person equally unauthorized.

By the reading I have suggested we have the direction to suspend the cone rigidly on the arbor, and the drawings show a square arbor passing through a square hole in the cone, thereby making the cone rigid on the arbor, and it will be noticed, in examining the drawings, that after the arbor passes through below the cone it is shown as a round shaft; that is, it is a square shaft where it passes through the cone and around shaft below that where it stands upon or is inserted in the eccentric box, by which it is carried in an eccentric orbit around the cylinder. No provision is shown for rigidly locking or fastening the arbor, so that it cannot revolve in the eccentric and carry the cone with it inside the cylinder; on the contrary, all that is shown in the drawings would seem to indicate that it was the purpose of the patentee to pivot or step the lower end of the arbor into the eccentric box, so that the arbor would be free to revolve in either direction while swinging in a conical orbit around the axis of the cylinder; and this view is strengthened by the certified patent-office model in evidence in the case. It is true that the proof shows that this model passed through the fire in the patent-office of 1877, but there is no proof that it has been changed, and the fidelity with which the drawings follow the model produced in evidence satisfies me that the model, as now shown, is substantially the same it was at the time the drawings were made; in other words, I conclude that the drawings were made from the model, and show the condition of the model at the time the drawings were made. The model shows a round shaft stepped into the eccentric box in the driving-wheel so as to give a free rotating motion to the arbor and the cone while swinging in the performance of the work assigned to them. The model, as I understand the rule, is not to be resorted to for the purpose of constructing the patent, except in cases where the specifications are ambiguous or uncertain; but here, I

think, there is doubt as to what the patentee meant by the language used in his specifications, and therefore we have the right to resort to all sources which will throw light upon his meaning; and this model certainly does aid in showing what kind of machines Butter intended to construct under his specifications. I do not understand from the proof that this model was entirely destroyed by the fire of 1877 in the patent-office, and has been reproduced, but only that it was somewhat injured and has been repaired, but the material feature whether the arbor was rigidly fixed to the eccentric box could hardly have been changed, unless the model had been destroyed and reconstructed, of which there is no proof. Certainly the model, as it now appears, shows the arbor revolving in the eccentric box.

It was further urged that figure 2 of the drawings shows the arbor to be a square shaft, with its square lower end inserted into the eccentric 443 box, so as to permit of no rotating motion in the arbor; but I am satisfied that figure 2, which purports to represent a horizontal section through the line, *x, x*, does not represent the base of the machine or point where the arbor is attached to the eccentric box, but this line, *x, x*, which is not shown in the drawings, by some omission of the draughtsman, should be and is near the base of the cone, and not a section through the top of the driving-wheel, or through the driving-wheel; in other words, that it does not represent the manner in which the arbor is stepped or inserted into the eccentric box, but represents the shape of the arbor where it passes through the cone. I am conscious that these specifications are ambiguous and uncertain, and give much weight to the position taken by the defendant in this case as to the mode in which a machine is to be built under these specifications, and fully agree with the learned counsel for the defense that, if their construction of these specifications and claim is correct, and that a Butter machine must have

the rigid cone and arbor, so that there shall be no rotating of the cone within the cylinder, then there is no infringement of this patent, because if Butter's idea, as embodied in his description, required a rigid arbor, that is, a cone, having no rotating motion either upon the arbor or with the arbor, then the defendants do not infringe this first claim of the reissued patent. But, as already said, I think the true construction of this patent not only allows but requires that the arbor shall be so fixed to the eccentric box as to be free to rotate, carrying the cone with it, and, this being the case, the defendants, in my estimation, have palpably infringed this claim.

It will be noticed that the claim of the reissued patent is for a cone that does not rotate around the arbor, and the palpable meaning of the specification is that the cone is to be rigidly fixed to the arbor; but I find no such provision that the arbor shall not rotate and carry the cone with it.

If it is deemed material that proof shall be put into the record as to the true reading of the drawings in regard to the line, *x, x*, I will allow such proof to be taken and filed.

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