

GAGE v. HERRING.

1. Where, within four months before their expiration, letters-patent, covering a single claim for a combination of several elements, are reissued and extended, with the same description as before, but containing in addition to the original claim one for a combination of some of the elements only, the reissue is invalid as to the new claim.
2. Letters-patent for a combination of several elements are not infringed by using less than all the elements.
3. In letters-patent for an improvement in cooling and drying meal during its passage from the millstones to the bolts, the claim was for the arrangement and combination of a fan, producing a suction blast; the meal chest; a spout forming a communication between the fan and the meal chest; a dust room above, to catch the lighter part of the meal thrown upwards by the current of air; a rotating spirally-flanched shaft in the meal chest, conveying the meal to the elevator; a similar shaft in the dust room, conveying the meal dust to the elevator; and the elevator, taking the meal to the bolts. Within four months before the expiration of the letters, they were reissued and extended, with two claims, the one a repetition of the original claim, and the other for the combination of the fan, the communicating spout, the meal chest with the conveying shaft in it, and the elevator, but omitting the dust room with its conveying shaft. *Held*, that the reissue is valid for the old claim only; and is not infringed by the use of the fan, spout, meal chest with its conveying shaft, elevator, and dust room, without any conveying shaft in the dust room, or other mechanism performing the same function.

APPEAL from the Circuit Court of the United States for the Northern District of New York.

The case is stated in the opinion of the court.

Mr. George Harding for the appellants.

Mr. Edwin S. Jenney and *Mr. Benjamin F. Thurston* for the appellees.

MR. JUSTICE GRAY delivered the opinion of the court.

This is a bill in equity for the infringement of letters-patent for an improvement in means for cooling and drying meal, reissued to John Denchfield, and duly assigned to the plaintiffs. The original letters-patent to Denchfield were dated 20th April, 1858. The reissued letters-patent were dated 16th January, 1872, and extended for a period of seven years from 20th April, 1872. The Circuit Court held that the first claim of

the reissued patent was valid and had been infringed, and entered a decree for the plaintiffs. See 14 Blatchf. 293. The defendants appealed to this court.

The original patent begins by stating that Denchfield has invented "a new and improved arrangement of means for cooling and drying meal, during its passage from the grinding stones to the bolts." The reissued patent omits, in this connection, the words "during its passage from the grinding stones to the bolts." But both the original and the reissue, after referring to the same accompanying drawings, proceed as follows, the words in brackets being inserted in the reissue only:

"This invention consists in the peculiar arrangement of a suction fan, [conveyor or] conveyors, and elevators, as herein-after described, whereby the meal, during its passage from the grinding stones to the bolts, is thoroughly dried and cooled within a limited space, the whole forming a simple and economical device."

Then follows a description, which is the same in the original patent and in the reissue, and is in substance as follows:

The millstones, A, and curbs, are arranged in the ordinary way on the bed, B. Spouts, C, carry the meal from the stones down into a chest, D, which is placed horizontally on the flooring of the mill. This chest is equal in length to the bed, so that all the spouts of the several stones may communicate with it; and it is divided horizontally lengthwise by a zigzag partition having openings in it. Within and at the bottom of this chest is placed a longitudinal shaft, F, having a spiral flanch on it. With one end of this shaft an elevator, F', communicates, which discharges its contents at *e*. A fan, G, is placed in a suitable box, H. This box communicates with a spout, I, the lower end of which communicates with the chest D, and the upper end with one end of a chest, J, in the uppermost part of the mill. Within that chest a series of vertical partitions, *i*, is so placed as to form a winding passage from its communication with the spout I to an opening at the opposite end of the chest. That chest also contains a longitudinal shaft, K, having a spiral flanch on it. Both shafts, F, K, are rotated by any proper means.

The rest of the specification, and the claim, both in the original patent and in the reissue, differing only by inserting in the reissue the parts printed below in brackets, are as follows:—

“The operation is as follows: The meal passes from the stones A down the spouts C and into the lower part of the chest D, and is conveyed by the spirally-flanched shaft F into the elevators F', the shaft F, which is a conveyor, moving the meal in the direction indicated by the arrows 3. The meal is carried up by the elevators and discharged at *e* directly into the bolts or into troughs, and may be conveyed by hopper-boys or any suitable conveying device into the bolts. While the meal is thus passed through the stones A, spouts C, and the chest D, a suction blast is produced by the fan G, said blast absorbing the moisture or vapor which the meal contains, and which is heated or warmed by the friction of the stones A. The meal, therefore, is dried and cooled, and, in consequence of the time consumed during its passage through the spouts C and chest D, will be perfectly acted upon by the blast, so that all free moisture will be absorbed. A portion of the finer and lighter particles of flour will follow the blast, and will be ejected up through the spout I and through the serpentine or winding passage formed by the parts *i*, and will settle in the outer end of the chest J, and be conveyed by the conveyor or flanch shaft K to a spout, *j*, through which it falls into the elevators F' and unites with the meal which is received by the elevators direct from the chest D. [This compound arrangement for operating on the meal while passing through the chest D, and on the escaped flour in the chest J, returning the latter to the elevators, while it is extremely well adapted for large flouring mills running at high speeds and with a strong suction blast, may not be either necessary or even practicable in all cases. When the grinding friction evolves only a moderate degree of heat, the chest J and its apparatus may be dispensed with, for, the blast being moderated to correspond, so small a quantity of the fine flour will be drawn through the spout I, that such flour may be ejected on the mill floor, and be disposed of in any convenient way so as to enter the bolts.]

"I do not claim forcing a current of air between a pair of millstones, while the same is in operation, for the purpose of keeping the stones in a cool state and preventing the heating of the grain; for such means, although not very efficient, have been previously used. But I am not aware that parts arranged as herein shown, so as to allow the meal to be subjected to the blast during its entire or nearly entire passage from the stones to the bolts, and insure the perfect drying and cooling of the meal, have been previously used.

"I claim, therefore, as new, and desire to secure by letters patent —

"[1. The arrangement and combination of the suction fan G and spout I with the meal chest D, receiving the meal from the grinding stones, and provided with a conveyor shaft F and elevator F', substantially as and for the purpose set forth.]

"[2.] The arrangement and combination of the chest[s] D J, shafts F K, elevators F', fan G, and spout I, substantially as and for the purpose herein shown and described."

No new device was invented by Denchfield, but his improvement consisted in a new combination of old means and devices. That combination, as described in the specification of his original patent, includes seven elements, namely: 1. The meal chest D at the bottom of the mill, into which the meal falls through the spouts C from the millstones. 2. The conveying shaft F, which takes the meal from this chest into the elevator F'. 3. The elevator F', which carries up the meal and discharges it into the bolts or hopper-boys. 4. The fan G, creating a suction blast, which cools and dries the meal during its passage through the millstones, the spouts C and the chest D. 5. The spout I, communicating with the fan, and through which the meal dust, following the blast of air, is thrown upwards into the chest J at the top of the mill. 6. The chest J, in which the meal dust settles. 7. The conveying shaft K, by which the meal dust is carried from this chest into the elevator.

The only devices, indeed, which take part in cooling and drying the meal, are the meal chest at the bottom of the mill with the rotating shaft in it, the spout by which that chest

communicates with the fan, and the fan itself. The other chest or dust room at the top of the mill collects and saves the lighter part of the meal thrown upwards by the fan. The rotating shafts in each chest convey all the meal, after it has been cooled, dried and collected, to the elevator, and the elevator takes it to the bolts.

But the fan, with its communicating spout and meal chest, the dust room, the two conveyors, and the elevator, tend to one result, the cooling and drying of the meal, without waste or loss, "on its passage from the grinding stones to the bolts," "the whole," as stated at the beginning of the specification, "forming a simple and economical device;" and the single claim in the original patent is for the arrangement and combination of the seven elements, designating them all with equal distinctness by appropriate letters.

The reissue was granted more than thirteen years and eight months after the date of the original patent, and less than four months before that patent would have expired; and contains two claims, the second of which is a repetition of the claim in the original patent.

The first claim in the reissue is for a combination of the "fan G and spout I with the meal chest D, receiving the meal from the grinding stones, and provided with a conveyor shaft F and elevator F'"; and omits all mention of the dust room J and its conveyor shaft K. This claim then is for a combination of five of the seven elements of the combination for which the patent was originally granted. The effect is to enlarge the claim; for, while the original claim was only for these five elements in combination with the other two elements, and would not have been infringed by the use of a combination of the five without the other two, the new claim covers a combination of the five elements, whether used with or without the two others. *Prouty v. Ruggles*, 16 Pet. 336; *Vance v. Campbell*, 1 Black, 427; *Gould v. Rees*, 15 Wall. 187.

The statute in force at the time of the issue of the original patent authorized a surrender and reissue whenever any patent was "inoperative or invalid, by reason of a defective or insufficient description or specification, or by reason of the patentee claiming in his specification as his own invention more than he

had a right to claim as new." The statute in force at the time of the reissue made no change in this, except by striking out the words "description or." Act of July 4, 1836, c. 357, sect. 13; Rev. Stat., sect. 4916.

The plaintiffs do not contend that in the original specification the patentee claimed as his own invention more than he had a right to claim as new; or that there is any defect or insufficiency in any part of the description or specification, other than the final claim. The descriptive part is, word for word, the same in the original and in the reissue. It is argued that the claim in the original patent was too much restricted by including in the combination elements which were no part of the real invention, and that this mistake might properly be corrected in the reissue. But there being no error in the descriptive part of the specification, any mistake in the claim, which is the more important part, and upon which other inventors and the public have the right to rely, as defining the limits of the invention patented, would be apparent on the face of the patent and could not escape the notice of any person reading it with the least care and attention.

It is plausibly suggested that "the claim could be made perfect in form, and consistent with the description of all that portion of the apparatus which relates to the invention, by simply striking out the letter of designation for the upper chest, J, and the letter of designation for the conveyor shaft of that chest, K." But that the inventor did not and does not intend so to amend his claim is conclusively shown by his having repeated the same claim, including these very letters of designation, in the second claim of the reissued patent. His attempt is, while he retains and asserts the original claim in all particulars, to add to it another claim which he did not make, or suggest the possibility of, in the original patent, nor until that patent was about to expire.

To uphold such a claim, made so late, would be to disregard the principles governing reissued patents, stated upon great consideration by this court at the last term in the case of *Milner v. Brass Company*, 104 U. S. 350, and since affirmed in many other cases. *James v. Campbell*, id. 356; *Heald v. Rice*, id. 737; *Mathews v. Machine Company*, 105 id. 54; *Bantz v.*

Frantz, 105 U. S. 160; *Johnson v. Railroad Company*, id. 539; *Moffitt v. Rogers*, 106 id. 423.

The invalidity of the new claim in the reissue does not indeed impair the validity of the original claim which is repeated and separately stated in the reissued patent. Under the provisions of the patent act, whenever through inadvertence, accident or mistake, and without any wilful default or intent to defraud or mislead the public, a patentee in his specification has claimed more than that of which he was the original and first inventor or discoverer, his patent is valid for all that part which is truly and justly his own, provided the same is a material and substantial part of the thing patented, and definitely distinguishable from the parts claimed without right; and the patentee, upon seasonably recording in the Patent Office a disclaimer in writing of the parts which he did not invent, or to which he has no valid claim, may maintain a suit upon that part which he is entitled to hold, although in a suit brought before the disclaimer he cannot recover costs. Rev. Stat., sects. 4917, 4922; *O'Reilly v. Morse*, 15 How. 62, 120, 121; *Vance v. Campbell*, above cited. A reissued patent is within the letter and the spirit of these provisions.

The decree of the Circuit Court proceeds upon the ground that the first or new claim of the reissue has been infringed; but the plaintiffs' bill is not so restricted, and alleges generally that the defendants have infringed the reissued patent. If the defendants have infringed the second or old claim, the plaintiffs, upon filing a disclaimer of the new one, are entitled to a decree, without costs, for the infringement of the old and valid claim. Considering that the question of the validity of the new claim in the reissue is a question of law upon the face of the patent, and that its validity has been sanctioned by the Commissioner of Patents in granting the reissue, and upheld by the Circuit Court, there has been no unreasonable delay in entering a disclaimer; for the plaintiffs were not bound to disclaim until after a judgment of this court upon the question. *O'Reilly v. Morse*, above cited; *Seymour v. McCormick*, 19 How. 96.

The question then remains to be considered whether the evidence before us shows an infringement by the defendants of the entire combination.

It is proved, and not denied, that the apparatus in the defendants' mill is substantially like that described in the plaintiffs' patent, so far as regards the first meal chest, the fan, and the spout connecting with the fan, and also so far as regards the elevator, and the conveying shaft from the first meal chest to the elevator; in short, so far as regards the cooling and drying apparatus proper, and the devices for collecting and conveying the greater part of the meal, after being cooled and dried, to the bolts.

The defendants are also proved to have a dust room, by which the light meal dust thrown upwards by the fan through the spout is collected and saved. This part of their apparatus is not, indeed, in form exactly like that of the plaintiffs'. The plaintiffs' patent, with the accompanying drawings, describes a single dust room with vertical partitions attached alternately to the floor and to the ceiling, and extending part way of the height, against which partitions the meal dust, as it passes in a serpentine course over one partition and under the next, strikes, and falls to the floor; with an opening at the further end of the room to carry off the air after the meal dust has been deposited. The defendants' dust room consists of two or three successive chambers, communicating by spouts or conductors, against the walls or ceilings of which chambers the meal dust, as it is carried along by the current of air, strikes, and to the floors of which it falls; with a ventilator at the top of the uppermost chamber, through which the current of air passes out, after depositing the meal dust. The defendants' dust room of several chambers, with a ventilator at the top of the uppermost one, performs the same function in substantially the same way, and produces substantially the same result, as the plaintiffs' dust room with the partitions across it. In short, the defendants' dust room, or contrivance for collecting and saving the light meal dust thrown upwards by the fan, is a substantial equivalent for that of the plaintiffs. The defendants have therefore infringed this part also of the plaintiffs' combination. *Gould v. Rees*, above cited; *Ives v. Hamilton*, 92 U. S. 426; *Machine Company v. Murphy*, 97 id. 120.

The remaining part of the plaintiffs' combination is the conveyor shaft in the dust room, by which the fine meal dust, after

it has been collected and saved in that room, is transferred to the elevator and reunited with the rest of the meal. This conveyor performs indeed a subordinate function, analogous to that which the other conveying shaft and the elevator perform in regard to the principal part of the meal. But the patentee, in his specification and in his only valid claim, has made each of the conveyors, as well as the elevator, a material part of the combination invented and patented by him. He describes the conveyor shaft in the dust room with the same particularity as the other parts of his combination, and he claims it with equal distinctness.

As was said by Mr. Justice Bradley in *Water Meter Company v. Desper*, 101 U. S. 332, 337, "the courts of this country cannot always indulge the same latitude which is exercised by English judges in determining what parts of a machine are or are not material. Our law requires the patentee to specify particularly what he claims to be new, and if he claims a combination of certain elements or parts, we cannot declare that any one of these elements is immaterial. The patentee makes them all material by the restricted form of his claim. We can only decide whether any part omitted by an alleged infringer is supplied by some other device or instrumentality which is its equivalent."

The defendants' mill contains no conveyor shaft in the dust room, and no mechanism which performs the same function of removing the meal there collected. So far as the evidence shows, the meal deposited upon the floor of that room remains there until it is shovelled or swept up by manual labor. Its removal by such means affords no equivalent, in the sense of the patent law, for the automatic action described in the plaintiffs' patent. *Eames v. Godfrey*, 1 Wall. 78; *Murray v. Clayton*, Law Rep. 10 Ch. 675 note; *Clark v. Adie*, id. 667, 675, 676, and 2 App. Cas. 315.

The new claim in the reissue being invalid, and the defendants not having infringed the entire combination set forth in the repetition of the old claim, the decree below can neither be upheld upon the new claim, nor modified so as to apply it to the other claim, but must be reversed and the case remanded with directions to

Dismiss the bill.