

v.39F, no.1-3 CONSOLIDATED ROLLER-MILL CO. V. COOMBS.

Circuit Court, E. D. Michigan.

May 20, 1889.

1. PATENTS FOR INVENTIONS—MECHANICAL EQUIVALENTS.

A patentee, whose claims have been restricted by the action of the patentoffice, is not thereby limited to the exact language of his substituted claims, nor deprived of the benefit of the doctrine of mechanical equivalents.

2. SAME—INFRINGEMENT—PRIOR STATE OF THE ART.

What will be considered an infringement of such claims depends largely upon the state of the art as it existed at the time the patent was issued.

3. SAME—CONSTRUCTION.

The prime object in construing a patent should be to preserve to the patentee his actual invention, if this can be done consistently with the language he has himself chosen.

4. SAME—ROLLER-MILLS MACHINERY.

Patent No. 222,895, issued to Gray for an improvement in roller grindingmills, is valid, and is infringed by what is known as the “Mawhood Machine,” although the devices used in the latter differ in form and location from the patented devices.

5. SAME—NOVELTY.

Patent No. 289,518. issued to Daniel E. Dowling for a feed mechanism for roller mills, is invalid for want of novelty.

6. SAME.

Patent No. 274,508, issued to D. W. Marmon for a simultaneous adjustment of both ends of the counter shaft of a roller-mill, is invalid for the want of novelty, and also because the same device had previously been patented to Marmon and Warrington.

7. SAME—RIGHT TO PATENT.

A concession of priority by a patentee to a later applicant for a patent upon the same device, after the prior patent has been issued, does not justify the issue of a second patent.

8. SAME—REISSUE.

No one can take out a patent, either severally or jointly with another, for an invention, and, after the patent is issued, without reservation in his original application, obtain a second patent, with broader claims, for the same device.

9. EQUITY—OBJECTION TO JURISDICTION.

The objection that plaintiff's remedy is at law should be taken by demurrer if the want of jurisdiction appears upon the face of the bill; if not, it should be set up by plea or answer, and called to the attention of the court at the earliest opportunity. The objection comes too late if made at a hearing upon the merits.

In Equity.

This was a bill to recover damages for the infringement of letters patent No. 222,895, issued to William D. Gray, December 23, 1879, for "an improvement in roller grinding-mills;" patent No. 289,518, issued to Daniel E. Dowling, December 4, 1883, for a "feed mechanism for roller-mills;" and patent No. 274,508, issued to D. W. Marmon, March 27, 1883, for a "roller-mill." The invention covered by the Gray patent was stated in the preamble to consist "in a peculiar construction and arrangement of devices for adjusting the rolls vertically as well as horizontally, whereby any unevenness in the wear of the rolls, or in their journals or bearings, may be compensated for, and the grinding or crushing surfaces kept exactly in line," and also "in the special devices for separating the rolls when not in action, and in other details." The Dowling patent was essentially for an agitator centrally located within the hopper of the roller-mill, above the grinding-rolls, "and provided with teeth or fingers arranged to reciprocate immediately above the surface of the feed-roll, and lengthwise thereof. * * * To loosen and disintegrate the material and distribute it in a free condition upon the surface of the feed-roll, in such manner that its delivery from the hopper is effected in a thin continuous sheet, which is delivered from the surface of the feed-roll directly to the surface of the grinding-rolls thereunder." The Marmon patent related to a counter-shaft parallel with the roll-shafts, and simultaneously adjustable at each end, so as to tighten or loosen the belts at both ends of the machine at one operation.

The defendant, by his answer and proofs, made the following defenses: (1) That the Gray patent is so circumscribed by reason of the limitations voluntarily made by the applicant or imposed by the commissioner of patents, and accepted as a condition precedent to the grant, that it does not cover defendant's machine, or any part thereof. (2) That the features of defendant's machine are found in many prior patents recited in the answer, and introduced in evidence. (3) That in view of the state of the art, as shown by prior patents and publications, the Gray patent is invalid for want of novelty. (4) That the plaintiff has never been engaged in the manufacture, sale, or use of the alleged inventions covered by its patents, denies that the same are of value, or that plaintiff is entitled to damages. The chief defenses to the Dowling and Marmon patents are want of invention, in view of the prior state of the art.

Rodney Mason, for plaintiff.

Joseph G. Parkinson and *Robert H. Parkinson*, for defendant.

BROWN, J. The ancient system of reducing wheat to flour by grinding between revolving stones, which obtained from the earliest historical period, has, within the last 20 years, largely given place to the system

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of crushing between rolls, which seems to have originated in Buda-Pesth, in; the kingdom of Hungary. These roller-mills, which, soon after their invention, were introduced into this country, and have practically superceded in all large flouring-maills the old-fashioned method of grinding, consist generally of two or more pairs of rollers mounted in a strong frame, and, as a rule, lying in the same horizontal plane. One of these rolls is fixed, and mounted in a stationary bearing, but is susceptible, of course, of revolution. The other is mounted upon an adjustable bearing, which permits it to yield or give way in case any hard substance enters between them. While these rolls are not in actual contact when grinding, they are very nearly so and their adjustment is a matter of extreme nicety. That the wheat may be ground, and not merely crushed, it is necessary that the rolls be corrugated upon their surfaces, and driven at differential speeds, so as to give them a rubbing or tearing, as well as a crushing action; and, when driven by belts it is customary to drive one roll in each pair by a belt at one end of the machine, and the other roll by a belt at the opposite end. A counter-shaft is run through the machine from end to end, beneath the rolls, and driven by a line-shaft or suitable motor, and provided with pulleys over which the belts at each end of the machine are thrown, thereby driving the rolls with which these belts connect. It is desirable that the axes of the rolls shall always be parallel with each other, and to accomplish this the bearings of the moveable roll are made independently adjustable, both vertically, to bring the two rolls of a pair axially into the same plane, and horizontally, so that their surfaces may be exactly parallel, or else they will grind unequally. This adjustment should be so arranged that it can be made with one hand, while the other is feeling the product of the mill as it issues from the rolls. The adjustment must be absolutely rigid, so that the work may be uniform; and yet the faces must never come in contact, since that would ruin their surfaces. Above the grinding rolls is arranged a hopper, at the bottom of which is a long narrow opening, parallel with and above the line of the two rolls. This opening is nearly closed by a feed-roller, which by its revolution is intended to carry the material in an even, regular stream to fall between the grinding-rolls.

The Gray patent relates to the adjustment of the rolls, both to preserve their parallelism, their grinding distance, and the pressure of the movable against the fixed roll. The Dowling patent relates to the feeding of the material in the hopper to the rolls; and the Marmon patent to the adjustment of the counter-shaft to tighten or loosen the belts at each end of the machine simultaneously.

THE GRAY PATENT.

We will proceed to consider the Gray patent, No. 222,895,—the first and most important in this case. As before stated, this patent relates to the means for adjusting the rolls both vertically and horizontally, the requisites of such adjustment being that it must be

fixed and permanent, and at the same time be capable of yielding to a breaking strain, in case a hard substance enters between them, and at the same time of returning

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to their original position without a readjustment. They must also be capable of a vertical adjustment, or an adjustment for "tramming," as it is called, so that in case of irregular wearing of the surfaces or bearing the axes may be brought exactly in line. Seven claims are made in the patent, the second; third, fourth, and fifth of which are alleged to be infringed. That part of the preamble which refers to devices for adjusting the rolls vertically as well as horizontally, relates to the subject-matter of the second and third claims, and that clause referring to the special devices for separating the rolls, relates to the subject-matter of the fourth and fifth claims.

An important question connected with this patent is the construction to be given to it in view of the limitations or restrictions imposed upon the original claims by the commissioner of patents. In his original specifications filed with his application, Gray stated his invention to consist "in devices for adjusting the rolls, vertically, as well as horizontally, whereby any unevenness in the wear of the rolls or their journals or bearings may be compensated for, and the grinding or crushing surface kept exactly in line," and also, "in the devices for separating the rolls when not in action." His claims correspond with his evident belief that he was the inventor, broadly, of devices for a roll adjustable both vertically and horizontally, and were as follows:

"(2) In combination with a stationary roll, an adjustable roll, mounted substantially in the manner described, whereby it may be adjusted both vertically and horizontally.

"(3) In a roller grinding-mill, a roll mounted at its ends in arms or supports, arranged to be independently adjusted, both vertically and horizontally, substantially in the manner described.

"(4) In combination with the roll, C, the independent arms or supports, D, mounted upon eccentrics, substantially as shown, whereby either end of the roll may be adjusted vertically.

"(5) In combination with the stationary roll, B, and adjustable roll, C, means substantially such as described, for drawing the roll, C, to a fixed point."

His application, in such form, was refused by the commissioner of patents in a letter dated August 14, 1879, notifying Gray that "the invention alleged and claimed in this case is not generic in view of the English patent No. 3,328, of 1877, this being known as the 'Lake English Patent.'" Gray thereupon concluded to submit to this opinion of the commissioner, and immediately amended his application by two insertions in the preamble, so that, instead of reading "consists in devices for adjusting the rolls vertically as well as horizontally," it reads "consists *in a peculiar construction and arrangement* of devices for adjusting the rolls vertically as well as horizontally," and by inserting the word "special" before, the words "device for separating the rolls when not in action." Pursuant to the same intimation of the patent-office, Gray also amended his claims to read as follows:

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“(2) In a grinding-mill, the combination of a roll, an upright, swinging arm at each end of said roll; an eccentric, adjustable pivot located at the lower end of said arm; and devices, substantially such as shown, acting against the upper end of the arm.

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“(3) The combination of a roll and upright, swinging arms, having their lower ends mounted on vertically adjustable pivots, the latter thus serving both to sustain and adjust the rolls.

“(4) In combination with the movable roller-bearing, the rod, G, adjustable stop-devices, to limit the inward movement of the bearing; an outside spring, urging the bearing inward, and adjusting devices, substantially such as shown, to regulate the tension of the spring.

“(5) In combination with the roller-bearing, the adjusting rod, provided at one end with a stop to limit, the inward movement, a spring, and means for adjusting the latter, and provided at the other end with a stop and holding devices, substantially as shown and described.”

Now, if the plaintiff be limited to the literalism of these claims, and is denied the benefit of the ordinary doctrine of equivalents, as contended by the defendant, then it is clear the defendant does not infringe, since he has neither an eccentric adjustable pivot, nor a pivot located at the *lower* end of the swinging, sustaining arm, nor devices of any kind acting against the *upper* end of the arm. Authority for the proposition that plaintiff is limited to the exact language of his claims, where limitations and restrictions have been imposed upon the original claims by the patent-office, is claimed to be found in numerous decisions of the supreme court, to the effect that limitations introduced by the applicant are binding upon him, even if his actual invention be larger than his claim; that claims accepted by the patentee cannot be enlarged, and, when a claim is restricted as to specific elements, all are regarded as material; that this is particularly true of limitations introduced after rejection; and to ascertain what these limits are the court is not confined to the face of the patent, but may take into consideration the proceedings in the patent-office, in construing the meaning and scope of the claims, and for that purpose can go to the file-wrapper and contents of the original applicants. In the recent case of *Rodebaugh v. Jackson*, 37 Fed. Rep. 882, we had occasion to consider the most prominent of these cases, notably that of *Sargent v. Lock Co.*, 114 U. S. 86, 5 Sup. Ct. Rep. 1021, in which it is broadly stated in the opinion of the court—

“That in patents for combinations of mechanism, limitations and provisos, imposed by the inventor, especially such as were introduced into an application after it had been persistently rejected, must be strictly construed against the inventor and in favor of the public, and looked upon as in the nature of disclaimers.”

Upon an examination of the other cases upon the same subject, however, we came to the conclusion that nothing more was intended than that where, under the state of the art and the action of the patent-office, a patentee of a combination has modified and limited his claims, he shall be held strictly to his combination as he has described it. What shall be considered as an infringement must depend largely upon the state of the art as it exist-

ed at the time the patent was issued. It has always been the law that a patentee is limited by his claims, even though his invention be broader, and that, if he include a certain element in a combination, he is not at liberty to say that such element is immaterial. *Vance v. Campbell*, 1 Black, 427. At the same time it is equally true

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that a combination patent covers, not only the elements named, but also such as maybe substituted therefor and are known as mechanical equivalents. Practically, all which the rejection of a claim' by the patent-office means is that, after the patentee has limited his claim, he shall not be permitted by construction to, have the benefit of his claim as originally presented. *Leggett v. Avery*, 101 U. S. 256. But what shall be deemed a mechanical equivalent for his claim depends so largely upon the state of the art at the time his patent was issued that it is impossible to gather from the general language of the courts with respect to the construction of claims what should be the construction in any particular case. When we find a court using language which indicates that the patentee should be strictly limited to his claim, and to the restrictions and the provisos he has inserted therein, we shall generally find that the invention is only a trifling deviation from or improvement upon what has gone before. When, upon the other hand, the case shows the doctrine of mechanical equivalents to be vigorously asserted and liberally applied, it will usually appear that the patent is a pioneer, or a marked improvement upon any device which has previously existed. The prime object in construing a patent should be to preserve to the patentee his actual invention, if this can be done consistently with the language he has himself chosen. Occasionally it will happen that the patentee will, by inadvertence or mistake, claim less than he is entitled to, and the courts be powerless to help him, but their disposition is and should be to deal liberally with those who have made valuable contributions to the natural sciences. In this connection we fully coincide in the opinion of Judge SHIPMAN in *Shellinger v. Gunther*, 11 O. G. 831, that a strict construction should never be given to the claim where such construction would be a limitation upon the actual invention. Similar language is used by Judge SHEPLEY in the case of *Estabrook v. Dunbar*, 2 Ban. & A. 427, in which he says:

“The technical claims in a patent are to be construed with reference to the state of the art, so as to limit the patentee to, and to give him the full benefit of, the invention he has made. They are also to be construed in connection with the specification, so as to limit the patentee to, and give him the full benefit of, the invention he has described. The general terms, and sometimes special words, in the claims must receive such a construction as may enlarge or contract the scope of the claim, so as to uphold that invention, and only that invention, which the patentee has actually made and described, when such construction is not absolutely inconsistent with the language of the claim.”

Indeed, the general principle is sustained by abundance of authority to the point that claims of patents should receive such interpretation as will enlarge or restrict them so as to cover the actual invention, when not absolutely inconsistent with the language used by the patentee. *Winans v. Denmead*, 15 How. 330; *Van Marter v. Miller*, 15 Blatchf. 562. If, upon the one hand, the state of the art shows the invention to have been a narrow one, a strict interpretation will be given the claims. *Manufacturing Co. v. Ladd*, 102 U. S.

408. And it is of no practical consequence whether such restrictions are imposed by the patent-office or not.

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Toepfer v. Goetz, 41 O. G. 933, 31 Fed. Rep. 913. If, upon the other hand, the patentee has taken a decided step in advance of the state of the art at the time his application was filed, the courts will, if possible, construe the language of his claim so as to give him the full benefit of his improvement. *Turrill v. Railroad Co.*, 1 Wall. 491; *Rubber Co. v. Goodyear*, 9 Wall. 788.

In the case under consideration, Mr. Gray claimed broadly, in his second original claim, the combination of the stationary and movable rolls, mounted in such way that they could be adjusted both vertically and horizontally. In his third claim he limited himself only to "a roll mounted at its ends in arms or supports arranged" for vertical and horizontal adjustments. These claims were rejected in view of the Lake patent, and Gray thereupon reformed and limited them. While, of course, we are bound to acquiesce in his action, we are not fully satisfied that he was not entitled to broader claims than he actually submitted to. Undoubtedly a horizontal adjustment was provided for in the Lake patent, and some of the drawings would indicate that a vertical adjustment was also possible, but there is some doubt as to whether it was such a vertical adjustment as is contemplated in the Gray patent. It is true that Lake, in his preamble, states that his invention "relates particularly to means for varying the relative heights of the axes of the rollers to each other, and also their relative horizontal distances," but he also states that it was "for the purpose of producing a greater or less pressure of the one roller on the other;" and he further states that "the pressure of one roller upon the other depends upon the variations of the relative height of their axes to each other. This height may be altered, according to the pressure required, by displacing the block carrying the axle with the eccentric, and by adjusting the set-screws arranged beneath the bearings of the adjustable roller." In all the drawings of the Lake patent where a vertical adjustment is provided for, it appears that the two rollers are not upon the same horizontal plane, but at an angle of 45 degrees or less to each other, and that the adjustment was intended to regulate the pressure of one upon the other, and not an adjustment for tramming as provided in the Gray patent. It may be doubtful, however, whether this makes any difference in the principle, since it appears that there was provided an effective, though somewhat primitive, means of vertical adjustment, by a set-screw beneath the movable roller.

But, conceding that in the matter of the double adjustment, Gray was anticipated by Lake, it is quite evident that his machine, at least so far as concerns the vertical adjustment, is decidedly in advance of the other, if such adjustment was not provided for a different purpose. The means used to accomplish these adjustments in the Gray patents are so unlike those employed by Lake that the questions of patentability, novelty, and of superior utility can hardly be considered open ones. Indeed, their dissimilarity is such that it is quite immaterial to point out in detail the points of difference. About the only fea-

ture common to both is the use of a lever and an eccentric, though in Lake's patent they are used only for the purpose of horizontal adjustment, while in Gray's they are also

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used for vertical adjustment. Perhaps Gray was entitled to broader claims that he actually made, but, at any rate, we are satisfied that he is entitled to a liberal application of the doctrine of equivalents

None of the devices claimed as anticipations, except that of Lake, show a combination of horizontal and vertical adjustment, although devices representing the different elements of plaintiff's combination are numerous. It is clear that his patent cannot be defeated by proof that part of his combination is found in one mechanism and part in another. Walk. Pat. § 66; *Bates v. Coe*, 98 U. S. 48; *Parks v. Booth*, 102 U. S. 104. Thus, the Dingier model for grinding paint shows three rolls, the middle one of which is fixed, and the outer ones movable horizontally by springs in the shape of a bow, at each end of the rolls, connecting each movable bearing to a rod, which is also connected with an eccentric mounted upon a shaft. This device is not used for opening or adjusting the distance between the rolls, but merely for the purpose of keeping up a constant pressure of the two adjustable outer rolls against the fixed roll. There is no stop to prevent actual contact of the rolls, and determine the grinding adjustment; the only object of the eccentric being to increase or diminish the pressure, as coarse or fine grinding is desired, but never to separate the rolls. In the Nagel and Kaemp patent there are means provided for simultaneous horizontal adjustment of the two ends of a movable roll by a yoke or bell-crank lever of the first order. Not only is there no vertical adjustment, but there are no means of adjusting the two ends of the movable roll separately, or adjusting for "tram," as it is called. The only adjustment possible is that of both ends of the roll simultaneously for grinding.

Practically the same may be said of the Schacht machine, which also contains means for the simultaneous adjustment of the two ends of the movable roll, but no vertical adjustment, and, of course, no provision for tramming. In the Mechwart American patent, No. 251,124, there is a horizontal adjustment provided by means of a lever held in position by weights instead of springs, and in this arrangement it bears some resemblance to the Lake patent, but it appears to be but a clumsy contrivance, as compared with the American machines. There is here also no arrangement for vertical adjustment. Indeed, while the practice of crushing wheat by roller action was adopted by American millers, the mechanism of the foreign mills for adjusting these rollers proved so clumsy and inadequate that the machines themselves speedily wept out of use.

In short, none of these prior patents, except Lake's, contain a suggestion of the underlying principle of plaintiff's patent, and are chiefly valuable as showing the extremely imperfect state of the art at the time Gray made his application. In the Lake patent there is, it is true, a provision for vertical, as well as horizontal, adjustments, sufficient, probably, to disentitle Gray to the broad claims of his original application; but it is very doubtful, in our mind, whether the Lake machine was ever intended to be or is susceptible of anything

more than the regulation of the pressure, and his adjustments were accomplished by such rude devices, as compared with those of Gray, that we think his claims, unnecessarily

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restricted perhaps, are entitled to great liberality in construction.

Coming now to the question of infringement, we are compelled to analyze in some detail the elements of plaintiff's combination, and to compare them with corresponding features of defendant's machine. The second and third claims contain substantially four elements: (1) A roll; (2) upright or sustaining swinging arms at each end of the roll; (3) an eccentric vertically adjustable pivot located at the lower end of the arm; (4) devices substantially as shown, acting upon the upper end of the arm. The first two of these elements are undoubtedly contained in the Mawhood roller-mill, represented by defendant's machine, except that the swinging arm or lever of the Mawhood device is pivoted in its *center*, instead of at its *lower* end; in other words, it is a lever of the first, instead of a lever of the second, order. This is admitted by defendant's expert to be immaterial, as the different "orders of levers may be interchanged indiscriminately so far as the lever functions are concerned in modifying and converting motions." The third element is not exactly reproduced in defendant's machine. Instead of an eccentric, adjustable pivot, located at the *lower* end of the arm, there is a non-adjustable pivot located in the *center* of the arm, midway between the ends, which means merely that his lever is of the first, instead of the second, order; while the adjustable pivot is contained at the outer end of the cross-arm, supporting the main arm which carries the roller. The operation of the two is practically identical. Indeed, the adjustable pivot might have been located in the main arm, had the device regulating the grinding adjustment been located above, instead of below, the rollers. It is notable in this connection that Gray, in the sixth and seventh figures of his drawing, contemplated, as an alternative of the devices shown in Fig. 1, a lever pivoted in the middle, and operated at the outer end by a screw, to elevate or depress the swinging arm, D, located at the other end. It may be said in general that anything named by the patent as an equivalent will be so regarded by the court. *Hayden v. Manufacturing Co.*, 4 Fish. Pat. Cas. 86. And while the defendant has not adopted the exact device suggested by Gray, we think the deviation too trifling to avoid the charge of infringement.

Before considering the parts of defendant's devices corresponding to the fourth element of Gray's second and third claims, it is desirable to analyze his fourth and fifth claims, which define more particularly the devices acting against the upper end of the arm. The fourth and fifth claims are for a combination of (1) a movable roller-bearing; (2) the rod, G; (3) an adjustable stop device to limit the inward movement of the bearing; (4) an outside spring, urging the bearing inward; (5) means for adjusting the spring; and (6) a stop and holding device at the opposite end of the rod from the spring. There is no doubt the first two of these elements are also found in defendant's machine. It is true that in the Gray patent the rod, G, is located above, and in defendant's machine below, the rollers; but the location is not specified in the claim, and, even if it were, it would be immaterial. The change of the location of an element in a combination, where there is no new

function performed by such element in its new location, will not avoid the charge of infringement. *Adams v. Manufacturing Co.*, 3 Ban. & A. 1; *Ives v. Hamilton*, 92 U. S. 426; *Knox v. Mining Co.*, 6 Sawy. 430. Nor is it of any greater consequence that Gray's operated as a draw-rod to coerce the two devices together, while defendant's is a thrust-rod, operating in a different direction. *Ives v. Hamilton*, 92 U. S. 426; *Rodebaugh v. Jackson*, 37 Fed. Rep. 882. The third element, viz., the adjustable stop-device, to limit the inward movement of the bearing, is represented by the nut, "1," of the Gray patent, and by the nut, "1," outside the spring of the Mawhood machine.

(4) The outside spring urging the bearing inward is lettered, "H," in both patents. What is meant by the term "outside spring" is somewhat uncertain. The expert See defines it as "a spring located on the outside of the thing it is intended to exert its operative pressure upon, as distinguished from a spring located on the inner side, pressing outwardly against the thing which it is to exert its pressure upon." Plaintiff's expert Smith considers the word "outside" as a word of description only, and not a word of limitation. "In the machine of the defendant the spring acts against the lower end of the bearing, D. In order that the movable roll may be moved towards the fixed roll, or inward, the lower end of the bearing must be moved outward by the spring. In the machine of the patentee the spring acts against the upper end of the bearing; and, in order that the roll may be urged inward, the upper end must be pressed inward by the spring." However this may be, there is no doubt but that both springs operate alike, to press the movable roll against the fixed roll, and that the different kinds of springs—as for instance, those operated by contraction, instead of expansion—are, like the different orders of levers, mere matters of mechanical contrivance, or of convenience, or ease of construction. The object of the spring in both cases is to permit the movable roll to recede from the fixed roll whenever any foreign, hard substance passes between them, so that the surfaces of the roll may not be damaged.

(5) The means for adjusting the tension of the spring, the hand-nuts, *j*, in both cases, differ only in the fact that in plaintiff's machine this nut is located outside, and in the defendant's machine inside, the spring. Their operation is identical.

(6) The stop and holding devices at the opposite ends of the rod, G, are an eccentric, shown in Fig. 8 in plaintiff's patent, operated in one case by a wheel and in the other by a lever.

In short, we regard defendant's entire machine as simply a re-arrangement of the Gray combination, for the obvious purpose of an attempt to avoid his patent. The result attained by both combinations is the same. The means adopted to attain such result differ only in the location of the several elements, and such dependent differences as are made necessary by such change of location. As we had occasion to observe in *Rodebaugh v. Jackson*, the rearrangement of an old combination, where each element operates practical-

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ly as before, is not patentable, unless a new or greatly improved result is obtained. Walk. Pat. § 41; *Woodward v. Dinsmore*, 4 Fish. Pat. Cas. 163, 169.

THE DOWLING PATENT.

Plaintiff also claims for an infringement of the first, third, and fourth claims of the Dowling patent. The fourth claim contains the clearest statement of the combination, and is the only one which is necessary to be considered. It reads as follows:

“(4) In a grinding-mill, the combination of two grinding-rolls, the feed-roll above the same, a hopper above the feed-roll, and a toothed agitator centrally located within the hopper and extending lengthwise above the feed-roll, and mechanism for reciprocating said agitator in a lengthwise direction.”

The prominent feature of this combination is the centrally-located agitator, introduced for stirring up the material, and thereby keeping a continuous and uniform flow. The tendency of the material is to bank up or bridge over in the hopper when soft. This reciprocating comb prevents the bridging of the material, by working out the center, and permitting the loosened material to fall on the feed-roll. This impediment in the flow is most liable to occur in the reductions of the wheat after the first reduction, of which there are usually six or seven. It is also liable to occur in the soft material incident to finishing the middlings reductions. Agitators of this description, for the purpose of breaking up lumps in such material as plaster, ashes, lime, or manure are not uncommon, and their modes of operation are practically the same. In Cains's patents, No. 78,423, and No. 137,051, for an improved machine for sowing fertilizers and seeds, there is shown a revolving stirrer, “E,” corresponding to the Dowling feed-roll, “D,” and a reciprocating agitator, “F,” having saw-like teeth on its lower edge resting on or near the feed-roller. The rod of this agitator is reciprocated by a cam, substantially in the same manner as the plaintiff's. It is true, this agitator is not centrally located within the hopper, but lies flat against one of its sides. But the patent to T. J. West—No. 100,573—has an adjuster which is centrally located in a machine, for sowing fertilizers, and the patent to H. E. Keeler—No. 254,140—shows a similar device similarly located, in a fanning-mill. Like devices are shown in other patents offered in evidence. In short, Dowling's combination of the two grinding-rolls, the feed-roll above the same, a hopper above the feed-roll, (used in all roller-mills,) and the toothed agitator of the Caine, West, Keeler, and Mahaffy patents, centrally located, as in the West and Keeler patents, and the mechanism for reciprocating such agitator in a lengthwise direction, is but an aggregation of old elements adapted to a new machine, but producing practically the same results. We do not think that any invention is involved in putting these devices together, and placing them in the hopper of a flouring-mill.

THE MARMON PATENT.

Plaintiff also claims an infringement of the first, second, and third claims of the Marmon patent, the first of which only it is necessary to notice. It reads as follows:

“The combination, in a roller-mill, of the supporting frame-work, the roll-shafts, a counter-shaft extending from end to end of the machine, substantially

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parallel with said roll-shafts, pulleys on the several shafts, belts connecting the same, and means for adjusting both ends of said counter-shaft simultaneously, whereby the belts at both ends of the machine are tightened or loosened at one operation, substantially as set forth.”

This claim consists of six elements, viz.: “(1) The supporting frame, which is a rigid casting in one piece, supporting all four grinding-rolls and a counter-shaft; (2) the roll-shafts; (3) a counter-shaft, extending from end to end of the machine, substantially parallel with the roll-shafts, receiving motion at one end from the main driving belt, and communicating the motion to one roll of each pair at the other end; (4) pulleys on the roll-shafts and counter-shafts; (5) belts on the roll and countershaft pulleys, arranged to give reversed and differential movement to the two rolls of each pair; (6) means substantially such as described for simultaneously adjusting both ends of the counter-shaft, by which means all the roll-belts may be tightened or loosened by one operation, and of which means a great variety is shown in the drawings accompanying the patent. As Gray’s prior patent, No. 228,525, is admitted to contain the first five of these elements, the only question is whether the sixth element, viz., means for adjusting *simultaneously* both ends of the counter-shaft, are found in prior patents. It will be noticed that the patentee claims broadly any means of simultaneously adjusting both ends of the counter-shaft, and not specified devices for so doing, and the drawing accompanying his patent shows 12 different devices for that purpose, which are thereby made equivalents of one another. It follows that, if the defendant would be guilty of infringement by using *any* means of simultaneous adjustment, plaintiff’s patent would also be anticipated by the prior use of any such means. Means for the independent adjustment of each end of such counter-shaft are admitted to be found in Gray’s patent, No. 228,525. While defendant’s testimony has failed to establish a case of the simultaneous adjustment of both ends of a counter-shaft, there is shown in the Lane & Bodley saw-mill device for moving both ends of a shaft carrying a circular saw, for the purpose of tightening and loosening the belts; a similar device in Clark’s patent, No. 174,719, for a coal-breaker; and in the Odell patent, No. 250,954, there is shown a roller-mill containing a device for simultaneous adjustment of two short shafts carrying pulleys, each revolving in an opposite direction. The means adopted are not dissimilar, and in our opinion there is nothing beyond mere mechanical skill required in applying these means to the counter-shaft of a roller-mill. We agree with the defendant’s expert that it does not call for the exercise of the inventive faculty. *Aron v. Railway Co.*, 26 Fed. Rep. 314.

Beyond this, however, there is produced a prior patent to Marmon and one Warrington, dated October 10, 1882,—or about six weeks before the filing of the application for the Marmon patent,—in which the same adjusting devices shown in Fig. 20 of the Marmon

patent are employed. This construction is made the subject-matter of the twelfth claim of the Marmon and Warrington patent, in the following language:

“The combination with the counter-shaft, M, of an adjusting mechanism consisting of the devices, N, the rods, O, and mechanism connecting said rods

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together, whereby they are operated simultaneously, all substantially as set forth.”

The construction and operations of the corresponding parts in the two patents are substantially the same, and the result produced by their action is the same. It is true that Marmon, in the patent under consideration, does not limit himself to any particular means for the simultaneous adjustment of the two ends of the counter-shaft, but he exhibits 12 different devices for such purpose, which are thereby made mechanical equivalents, each of the other. If this be so, then it would follow that his patent will be anticipated by the use of any one of these equivalents in the prior patent to Marmon and Warrington, since a patentee making use of any mechanical equivalent of the Marmon and Warrington combination would be equally liable as an infringer, as if he made use of the special devices therein set forth. Upon the face of these two patents there appears to be an anticipation of the claim sued upon in this case.

Plaintiff, however, seeks to avoid the force of this, by showing that Marmon and Warrington, the original patentees, conceded priority of invention to Marmon of the device in question. It appears from the file-wrapper and contents of the Marmon patent that in his application Marmon stated that “many of the devices and combinations shown and described herein are the invention of Jesse Warrington, or the joint invention of said Warrington and myself. They are therefore of course not claimed in this application, but are made the subject-matter of other applications for letters patent, either pending or in course of preparation. I regard myself, however, as the first inventor of a roller-mill having a counter-shaft extending from end to end of the mill, parallel with the roll-shafts, and simultaneously adjustable, as a whole, towards or from the roll-shafts. I therefore intend to claim the above invention broadly in this application, together with the specific means shown in the principal drawings, leaving the other constructions to be covered specifically by the other letters patent, the applications for which may have been made, or may be made, either by myself or by others.” There seems to have been some effort made to have the Marmon patent advanced and passed upon before the Marmon and Warrington patent, but this does not seem to have been done, since the Marmon and Warrington patent seems to have been issued before the correspondence on this subject took place. On December 22, 1882, the examiner writes to Marmon’s attorney, refusing claims 1, 2, and 3 of his patent, and stating that “an application cannot receive protection in a separate application for matter which was described, claimed, sworn to jointly by himself and another, and jointly patented prior to the filing of the subsequent application. Whatever rights the present applicant may have had, solely, for broad claims on the driving mechanism should have received protection prior to the filing of the application for the joint patent; or the right to apply for broader claims subsequently might have been saved by an express reservation in said patent.” In reply to this the attorney wrote that there was no dispute between the parties as to

the matter of invention; that “each is preparing further applications, which will show just what each is entitled to separately, and what jointly with the other, and the proper steps will be taken to put the record in shape, so that the objection urged by the examiner will be overcome;” and at the same time he forwarded to the patent-office a concession on the part of Marmon and Warrington of priority of invention to Marmon of the device for simultaneous adjustment. This was stated by the examiner not to be “sufficient to warrant the office in issuing two patents for the same invention,—a joint patent to two parties and a separate patent to one of them;” and how the second patent came to be issued does not clearly appear by the record. There is nothing before us to show that the first patent was ever canceled or reissued, nor do we see how a mere concession of priority by one patentee to a later applicant, after the prior patent had been issued, could be binding as against infringers. Indeed, we are unable to see upon what theory this concession and correspondence is admissible at all. If the first patent be valid, then any infringer could be prosecuted under it at any time within 17 years from the time the patent was issued, and if the second patent, which was issued nearly 6 months after the first, be also valid, infringements could also be prosecuted at any time within 17 years from the time *that* was issued, so that the monopoly of the invention might thus be indefinitely extended. No one can have two patents for the same device, either as joint inventors or as sole inventor. No one can take out a patent, either jointly or severally, for an invention, and, after the patent is issued, without reservation in his original application, obtain a second patent, with broader claims, for the same device. The authorities upon this point are numerous and conclusive. *Sickek v. Falls Co.*, 4 Blatchf. 508; *O’Reilly v. Morse*, 15 How. 62; *Odiome v. Nail Factory*, 1 Robb, Pat. Cas. 300; *Smith v. Ely*, 5 McLean, 76; *James v. Campbell*, 104 U. S. 356.

If there be anything in defendant’s point that plaintiff’s remedy is at law, the objection comes too late to be of any service. If such want of jurisdiction appears upon the face of the bill it should be taken advantage of by demurrer, (*Clark v. Flint*, 22 Pick. 231; *Ludlow v. Simond*, 2 Caines, Cas. 40, 56; *Underhill v. Van Cortlandt*, 2 Johns. Ch. 369; *Pierpont v. Fowle*, 2 Woodb. & M. 35; *Grandin v. LeRoy*, 2 Paige, 509.) if not, it should be set up by plea or answer, and called to the attention of the court at the earliest opportunity, (*Roberdeau v. Rous*, 1 Atk. 543; *Bank v. Railroad Co.*, 28 Vt. 470; *Livingston v. Livingston*, 4 Johns. Ch. 287.) The objection cannot be taken at the hearing. *Niles v. Williams*, 24 Conn. 279. It would be a great hardship in a case like this, where the parties have spent years of time and many thousands in money preparing for a hearing upon the merits, to deny the plaintiff relief upon the ground that it should have resorted to a court of law.

It results from this that the plaintiff is entitled to a decree for an injunction, and the usual reference to a master to assess damages upon the Gray patent, and that the defen-

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dant is entitled also to have inserted therein a clause dismissing the bill as to the Dowling and Marmon patents.