

MOORE ET AL. V. THOMAS ET AL.

[3 Ban. & A. 13;¹ 14 O. G. 1.]

Circuit Court, S. D. Ohio.

July, 1877.

PATENTS—IMPROVEMENT IN SEED-
 DRILL—CLAIMS—STRICT
 CONSTRUCTION—DILIGENCE.

1. The second claim of the letters patent granted to Hiram Moore, November 20, 1860, for improvements in seed-drills, was for the combination of the separate bearings of a cylinder for distributing the seed, with a single shaftbearing in the cylinder, shorter than the cylinder and larger than the shaft. In the defendants' machine the seed was distributed by a revolving wheel or disk with flanges upon the periphery. *Held*, upon the construction of the patent given by the court, that the claim must be limited to that class of machines having cylinders, and does not include those with flanged disks or wheels, and that consequently there was no infringement.
2. The third claim of the patent was for "a distributing-cylinder for seeding-machines, having a bevelled bearing substantially in the manner and for the purposes specified." *Held*, that as, upon the construction given to the patent by the court and upon the evidence, it appeared that the object of the bevel in complainant's patent was to prevent dust and other obstructions from entering the bearings, and that the construction of defendants' seed wheel was such that there was no liability of such obstructions entering the bearings, and further, that if there was any bevel in the defendants' machine more than was incident to the molding of it, it was so slight as to bear no part in the operation of the machine, such bevel did not constitute an infringement.
3. The sixth claim of the patent issued in 1861, to the same patentee, was for the combination of a removable driving-shaft, with a series 701 of seeding-cylinders having independent bearings, whereby said shaft could at pleasure be removed to allow any of said cylinders to be taken out for repairs, without displacing the rest. *Held*, that this claim was merely for a multiplication or aggregation of the seeding cylinders described in the first patent, and was not patentable.

4. The invention of the patentee, under which the defendants manufacture, having been completed at about the date of that described in the complainants' patent, and there being no lack of diligence in applying for a patent, the court construed complainants' patent strictly, to avoid infringement, and to sustain both grants.

This was a suit in equity for the infringement of letters patent No. 30,685, November 20th, 1860, and No. 31,819, March 26th, 1861, granted Hiram Moore for certain improvements in seed-drills. The defendants [Joseph W. Thomas and others] manufactured under the patent granted to Gilbert Jessup, June 25th, 1861, No. 32,627.

Bowman, Pringle & Scot, for complainants.

Wood & Boyd, for defendants.

BROWN, District Judge. Complainants claim to recover for an infringement of the second and third claims of Moore's patent of 1860, and for the sixth claim of his patent of 1861. I will proceed to dispose of these claims in their order. The second claim of the patent of 1860 is as follows: "2. I claim the combination of the separate bearings of the cylinder with a single shaft-bearing in the cylinder, shorter than the cylinder and larger than the shaft, in the manner and for the purposes substantially as specified."

To understand exactly the nature of complainants' invention, it is necessary to examine with some care the language of Moore's specification. After setting forth the general nature of his improvement, he says: "The object of my said improvements, is more evenly and equally to distribute the grain or seed to be sowed, and to render the machine more simple, and less liable to get out of order, and they relate particularly to that class of seeding-machines in which a toothed distributing cylinder is used at the bottom of a seed-box or hopper, in order to distribute the grain or seed. They consist, first, in combining a conduit or passage for the grain, arranged between the bottom of the hopper and the discharging-orifice, with the oblique

discharging-orifice and the distributing-cylinder. Second, in combining separate bearings for the cylinders with a single bearing in the cylinder for the shaft, in the manner hereinafter described. By this means we attain important advantages. The warping or twisting of the seed-box is a fruitful source of trouble in machines of this class, for the hopper, being rigidly fastened at the bottom of the seed-box, any warping or twisting of the latter will cause the hopper to change its position relative to the shaft, and if the cylinder be firmly fastened upon its shaft, it will bind against the sides of the hopper, and, in its bearings, producing much friction and increasing the draft of the machine and its liability to get out of order. By having the shaft-bearing in the cylinder larger than the shaft, and short, the evil effects of a displacement of the cylinder will be obviated in a great measure, as the axis of the cylinder need not be coincident or even parallel with the axis of the shaft, but may vary considerably from it without the cylinder binding upon the shaft, and the cylinder will still be controlled by the revolution of the shaft, the cylinder being retained in place within the hopper by its own independent bearings. I am aware that distributing-cylinders have before this been placed loosely upon shafts at the bottom of hoppers, but without separate bearings, so that they cannot retain their proper relative position within and to the hoppers, and consequently the flow of seed or grain is irregular and uneven.”

Bearing in mind that his actual invention was an improvement in machines in which a a tooth distributing-cylinder was used; that in his specifications he announces that his improvements relate particularly to that class of seeding-machines; that the cylinder is a prominent feature in all of his claims; that the evil, which the device set forth in the second claim was designed to remedy, “is said to be a fruitful source of trouble in machines of this

class," I think the words "shaft-bearing in the cylinder, shorter than the cylinder and larger than the shaft," were intended to be limited to that class of machines having cylinders, and not flanged disks or wheels, for the distribution of seed. When they are applied to machines having toothed distributing-cylinders, the value of complainants' invention is at once manifest. If the shaft-bearing were made the whole length of the cylinder, the shaft would have to be made smaller than the bearing, in order to get the lateral play so essential to prevent binding and friction, and the longer the bearing the smaller would have to be shaft. But if the bearing be very short, a difference of one thirty-second of an inch between the shaft and the bearing will allow sufficient play. The value, too, of an independent bearing for the cylinder is no less obvious. By this means the cylinder is retained in its exact relative position to the hopper, while its position to the shaft may constantly change without binding, or impairing the operation of the machine.

Defendants' device is constructed on a different principle. In his machine, the seed is distributed by a revolving wheel or disk, with flanges upon the periphery. There is nothing in the wheel which answers the definition of a cylinder, unless this word be extended and construed to include the hub. Webster defines a cylinder to be "a long, circular body, of uniform diameter, and its extremities forming equal parallel circles."

I think the application of this term to the hub of the wheel is unwarranted by the definition, or by the common acceptance of the term. 702 Moore states in his specifications, that distributing-cylinders have, before this, been placed loosely around shafts at the bottom of the hoppers, but without separate bearings, so that they cannot retain their proper relative position within and about the hoppers, and consequently the flow of seed or grain is irregular and uneven. Now,

it being conceded that the shaft may be made smaller than the bearing without infringing the second claim, and admitting that separate bearings may be used for the hub or cylinder, provided that the short shaft-bearing be not also used, it seems to make no practical difference in the operation of defendants' devices whether the shaft-bearing in the hopper be made shorter than the hub, or not. If defendants' witnesses, Blanchard, Bogle and Ludlow, are to be believed, and they seem to be uncontradicted, there is no liability to warping or twisting in their machine, and hence, no utility in a shaft-bearing shorter than the hub. I think complainants' exhibit, "defendants' seed-cup," is not an infringement of this claim even upon complainants' theory, since the bearing is of uniform size throughout the whole length of the hub, with the exception of slight and immaterial coring out in the middle; neither do I regard defendants' exhibit, "Thomas, Ludlow & Rogers' seeder," an infringement, since the flanged wheel has no hub at all, but simply a square hole in the centre for the reception of the shaft, and, hence, no separate bearings, the wheel dropping upon its periphery when the shaft is removed. It is true there is a hub or thimble upon one side of the wheel, separate from the wheel, which revolves with the shaft upon a bearing of its own within the casing, and perhaps this might constitute a separate bearing for the wheel, within the meaning of the patent; but, as the square apertures through the hub and the wheel are the same size, the shaft-bearing cannot be said to be shorter than the cylinder, unless the other side of the hopper, which contains a round hole for the passage of the shaft, be also construed as a part of the cylinder. I do not think it will warrant this construction.

There is more difficulty about complainants' exhibit, "defendants' hopper, with seed-cup and driving shaft;" and upon complainants' theory of the construction of their patent there would be an

infringement, inasmuch as the hub has a separate bearing of its own, and a shaft-bearing shorter than the hub and larger than the shaft, but holding, as we do, that complainants' patent was intended to apply to a different class of machines, and that the short hub of the vertical distributing-wheel or disk used by defendants is not embraced in the word "cylinder," used so often in complainants' specification, we also feel bound to hold there is no infringement in defendants' device.

There are strong equities in favor of the defendants arising from the respective dates of their inventions. It is well settled, that an invention is not patentable until a machine has been perfected; and, if not actually used, made capable of useful operation. *Agawan v. Jordan*, 7 Wall. [74 U. S.] 583; *Seymour v. Osborne*, 11 Wall. [78 U. S.] 552; *Goodyear v. Day* [Case No. 5,569]; *Coffin v. Ogden*, 18 Wall. [85 U. S.] 120. Within this definition Moore's invention was not patentable until the spring of 1859, although it seems that as early as the summer of 1857 he had made some experiments, and completed rough drawings of his invention, in the state of Michigan, in or near Grand Rapids. In the spring of 1858 he seems to have had a contrivance substantially in the form of his invention, which he kept in his house, and worked as a model. He left Michigan in March, 1858, and moved to Wisconsin, and during the winter of 1858-59 had a full-sized drill completed, containing seed-cups like his exhibit, operated by a square wooden shaft, which was experimented with by his nephew in sowing wheat on his farm, on or about April 27th, 1859. From all this testimony, I think we are not authorized to conclude that his invention was perfected before the spring of that year.

While these experiments were going on, one Gilbert Jessup, in another state, and some hundreds of miles distant, with no opportunity or suspicion

of piracy, was perfecting an invention embodying the substantial principle of defendants' device. While the exact day upon which his invention was so far perfected as to be patentable cannot be ascertained, the testimony shows that he had completed twelve machines by May, 1859. It is scarcely probable that he would have made that number of machines until after he had perfected his invention, and I think, under all the circumstances, we are authorized to conclude that he was entitled to a patent quite as soon, if not sooner than Moore. He appears to have commenced proceedings to obtain a patent as soon as May, 1860, but owing to some delay on the part of his solicitors in New York, his application was not placed upon file until after the Moore patent had been issued. It is very difficult to fix the precise relative dates of these inventions, but in view of the fact that no suspicion of bad faith attaches to Jessup; that his invention was at once put into practical operation and the manufacture of machines commenced on a large scale, we think the court is bound to sustain his invention, if possible, particularly as the principle upon which it operates is quite different from that of the complainants' device.

The third claim of complainants' patent of 1860 is as follows: "I claim a distributing-cylinder for seeding-machines, having a bevelled bearing, substantially in the manner and for the purposes specified." Here again complainant limits himself to distributing-cylinders, evidently having reference to the periphery feeding-cylinder set forth in his specifications. The value of a bevelled bearing in cylinders of this kind results from the tendency of particles of earth, chaff and dust, carried 703 on the periphery of his wheel, to work toward the end and into the hearings, whence they are discharged with the seed. If we are to believe the testimony of defendants' witnesses upon this point, it would appear that the construction of their seed-wheel is such as to prevent the dust and chaff from

entering the heelings of the seed-wheels, the repeated revolutions of the wheels having a tendency to throw such particles toward the periphery, and that the taper of the hub performs no function whatever in sowing the grain. It seems, too, that the operation of molding both hub and periphery is assisted by a slight taper from the centre outward, and if the bevelling in the hub is greater than the convenience of molding requires, it is so slight as apparently to play no part in the operation of the machine. Upon this point defendants' witness, Bogle, testifies as follows:

"I have never discovered any difficulty arising from the effects of dirt or straw getting into the bearings of the seed-wheel and casing. In fact, the seed-cups referred to as manufactured by our company are so constructed that there is no liability whatever of dirt, straw or obstructions getting into said bearings, the hub of the distributing-wheel being entirely incased by casing, said casing being so formed that it affords a conducting surface by means of which the grain is carried over the bearing down into the seed and against the vertical face of the distributing-wheel, thus being prevented from coming in contact with the bearings of said wheel, in any manner. The said casing is fitted closely to the vertical face of the distributing-wheel, and the rotating motion of the wheel inclines the grain or other material finding its way into the seed-cup, toward the inner periphery of the carrying-flange found upon the vertical face of the wheel, thus conducting it directly away from contact with the bearings of the wheel and casing, and if the space between the casing and face of the wheel was even large enough to permit dirt, straw or other obstructions to pass through, the motion of the wheel, aided by gravity, would tend to carry such obstructions immediately toward the flange of the wheel, as above stated, thereby preventing any trouble whatever that

might occur under a different construction of the seed-cylinder and its casing.”

The sixth claim of Moore’s patent of 1861 is for “the combination of a removable driving-shaft with a series of seeding-cylinders having independent bearings, whereby said shaft can at pleasure be removed to allow any of said cylinders to be taken out for repairs without displacing the rest, substantially as described.”

The same principle of construction allied to the two prior claims will also limit this to the toothed distributing-cylinders described in the specifications. It seems to me, too, that so far as this claim is concerned, there is nothing in the patent of 1861, not already found, or at least suggested to a mechanic of ordinary intelligence, in the patent of 1860. The shaft used in the earlier patent, being smaller than its bearing, must have been removable, and as the later patent does not claim any particular device for removing, it is satisfied by any shaft which is removable. Nothing else is set up in this claim but a multiplication of the seeding-cylinders described in the first patent. This is not patentable. The bill must be dismissed.

{For another case involving these patents, see *Westcott v. Wayne Agricultural Works*, 11 Fed. 298.]

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