GRAIN-DRILL MANUFACTURERS' CO. *v.* HART AND OTHERS.

Circuit Court, N. D. Illinois. July 26, 1886.

1. PATENTS FOR INVENTIONS—REISSUE 4,091—GRAIN-DRILLS.

Claims 12 to 15 of reissue letters patent No. 4,091, to Thomas, Mast, and Gardiner, improvement in grain-drills, considered, and *held* that, while the device covered by these claims may have been an improvement upon the ruder devices of earlier patents, the changes necessary to make it were purely mechanical, and did not involve invention.

2. SAME—CONSTRUCTION OF CLAIM.

The claim of letters patent No. 97,817, to J. S. Rowell, for an improvement in grain-drills, reads: "The sliding shell-cylinder, C, constructed with radial slots, and arranged upon the feed-cylinder, F, and shaft, B, so that the adjustment is effected by the horizontal movement of the shell-cylinder, C, while the feed-wheel, F, remains stationary as regards the case, H, M." *Held,* that a ledge or offset, which was the "M" of the claim, was not an element or part of the claim.

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3. SAME—NO. 157,478—GRAIN-DRILLS.

Letters patent No. 157,478, to P. P. Mast, for an improvement In grain-drills, construed, and, in view of the prior state of the art, *held,* that there was no patentable novelty in the device set out in said patent.

Wood & Boyd and *Charles C. Linthicum,* for complainants.

Thomas Cratty and *Hill & Dixon,* for defendant.

BLODGETT, J. The bill in this case charges infringement of three patents owned by complainants, viz.: Reissued letters patent No. 4,091, granted August 7, 1870, to Thomas, Mast, and Gardiner, the original patent having been granted August 3, 1869; patent No. 97,317, granted November 30, 1869, to J. S. Rowell; and patent No. 157,478, granted December 8, 1874, to

P. P. Mast. Infringement was also charged in the bill of a fourth patent, granted May 2, 1876, to Kuhns and Scholz, but no proofs have been made of infringement, and no decree is asked respecting this patent. As to reissue No. 4,091, infringement is charged of claims 12 to 15, inclusive. Patent No. 97,317, to Rowell, has only a single claim; and infringement is charged as to the three claims of the P. P. Mast patent.

The Thomas, Mast, and Gardiner patent, of which infringement is alleged in this case, shows an arrangement by which the planting-hoes in a grain-drill can be shifted into two lines, one in the rear of the other, and the claims 12 to 15, inclusive, apply to a device by which the conductors which lead the seed from the seed-box down through the hoes, to the ground, are made adjustable, so as to accommodate themselves to the change in the position and pitch of the hoes; and this is accomplished by hanging or pivoting the spouts or conductors upon the lower side of the seed-box, so that they will oscillate, or swing back and forth, as the hoes change their position. The claims in controversy are as follows:

"(12) In combination with adjustable hoes, which, when arranged in two rows, are in planes respectively in advance and in rear of the plane of all the hoes when arranged in one row, adjustable conductors, pivoted below, and connecting the hopper with the hoes through the instrumentality of the tubes, Y, substantially as set forth. (13) In combination with hoes, and adjustable, in one or more rows, conductors, K, pivoted so as to hang below the hopper or cups, and automatically maintain the connection between the hopper or cup and the hoes through the instrumentality of the tubes, Y, whether the latter are arranged in one or more rows, substantially as set forth. (14) In combination with hoes and drag-bars, and mechanism to shift the hoes into one or more rows without detaching the drag-bars, the oscillating

conductors pivoted below the hopper, and maintaining the connection between the hopper and the hoes through the instrumentality of the tubes, Y, whether in one or more rows, substantially as described."

The defenses set up to this patent are (1) that it is void for want of novelty; and (2) that the reissue is void as being for a different device than that described in and covered by the patent.

It appears satisfactorily from the proof that it was not new with these patentees to shift the drill-teeth, or planting hoes, into different 369 lines. In fact, these patentees say: "We are aware that machines have heretofore been constructed with hoes which may be adjusted in two rows, or one row, at the discretion of the operator; and I think it must be obvious that when the relation of a portion of the hoes to the hopper, or seed-box, was changed, it became a necessity, from the organization of the machines, that the spout, or conductor, by which the seed was carried down through the hollow drill-tooth to the ground, should also change its position so as to carry the seed into the tooth, or hoe, in its changed position; and it would therefore seem that some arrangement to effect this end must have existed in machines of this character prior to that covered by this patent, where the hoes could be arranged in different rows; and an examination of the proof in the case shows that Charles F. Davis obtained a patent in February, 1868, for a device by which the planting hoes could be changed into two lines. The main purpose of this device was the shifting of the hoes into zigzag positions or rows; bat Davis testifies that he made an operating machine, in the season of 1867, in which he had a device by which the seed conductors adjusted themselves to the different positions of the hoes by hinging or pivoting the conductors. The testimony shows that after Davis had invented his drill he visited the manufactory of Thomas & Mast, at Springfield,

Ohio, and there put upon a drill of their manufacture his device for shifting the hoes, and also, necessarily, his device for changing the pitch of the conductors, or seed-spouts.

Thomas & Mast took a license from Davis to manufacture seed-drills under his patent, and when they came to manufacture under this license, they used a swinging tube, substantially, I presume, like that which is now covered by their patent, and which they may have considered better adapted to the purposes than the swinging tube which Davis had used, although he had not covered it by his patent. Davis testified that this swinging device which they put upon his drill did not differ essentially from the old one which he had used in 1867; that it was the same in principle. But the idea of an adjustable conductor must have followed immediately upon the idea of changing the lines of the hoes, because the hoes would not plant or drop the seed unless it was conducted into them from the seed-hopper, and some device became an immediate necessity when the position of the hoes, or a part of them, was changed.

A patent was issued April 20, 1869, to Peter J. Schmitt, for an "improvement in grain-drills," showing adjustable feed-tubes pivoted to the under side of the hopper, and arranged to swing backwards and forwards as the position of the hoes was changed. An attempt was made to show that the complainants made their invention at an earlier date than that of the Schmitt patent, but I think the testimony carries the invention of the Schmitt device as far back as the invention of the complainants' device. See the testimony of Morris Henzel, Def. R. 39-52, and George Siegel, Def. R. 59. 370 The proof also shows a patent issued September 8, 1868, to L. M. Olden, in which an adjustable spout leading from the hopper into the drill-tooth is shown. This patent, as well as several others shown in the evidence antedating complainant's patent,

simply establishes what I have already suggested, that in all devices changing the working lines of the drill-teeth in relation to each other, so as to adjust them in different ranks or rows, it became necessary to adopt some device for changing the line or inclination of the seed conductors, or spouts. I have, therefore, no doubt but what the substantial principle involved in the complainants' adjustable conductor, covered by the four claims in controversy, was anticipated by the older art. The special device shown in the complainants' patent may have been an improvement upon the ruder devices of earlier patents, because the complainants had the benefit of the experience of their predecessors in overcoming the practical difficulties which they encountered; but the changes made by Thomas, Mast, and Gardiner seem to me to have been purely mechanical, and not to have involved invention, after what Davis and other inventors had done before them.

The Rowell patent, No. 97,317, is for a mode of adjusting the feed of a seed-drill by means of a shell cylinder made to slide on a bucketed or recessed feed-cylinder, so as to allow the seed to be taken up only by so much of the bucketed or feed cylinder as is not covered by the shell. It has but one claim, which is:

"The sliding shell-cylinder, C, constructed with radial slots, and arranged upon the feed-cylinder, F, and shaft, B, so that the adjustment is effected by the horizontal movement of the shell-cylinder, C, while the feed-wheel, F, remains stationary as regards the case, H, M."

The case, H, M, in which the feed-cylinder revolves, shows an offset, or ledge, M, which was evidently intended to prevent the grain from being crushed or ground between the revolving cylinder or shell and the case; but this ledge, or offset, M, is not made a part of the claim. The claim, as I read it, is only for a sliding shell-cylinder, so arranged upon a feed-

cylinder and shaft that the adjustment of the amount of feed is effected by the horizontal movement of the shell upon the feed-cylinder, while the feed-wheel or feed-cylinder does not move or change position in the case. It was conceded upon the argument that unless this ledge, or offset, M, in the cylinder case, could be read into the claim, defendants do not infringe this patent; and my construction of the claim is that this ledge or offset, M, does not form any part of the claim, but is only referred to for the purpose of showing that the feed-cylinder does not change its place in the case when the feed is changed by the shell-cylinder sliding horizontally upon it. But even if I am not right in this particular, an offset or ledge in the cylinder case or feed-drill, for the purpose of preventing the grain from being crushed or ground between the revolving feed-cylinder and the side of the case, was not new with this patentee, but is found in the old Van Brunt patent of July, 1862, 371 as well as in several of the older devices having a feed-cylinder revolving in a case. I am therefore of opinion that the defendants do not infringe the Rowell patent.

Patent No. 157,478, to P. P. Mast, is for a device regulating the feed of a grain-drill as maybe desired without changing the speed of the feed-wheel, and consists of a feed-cylinder revolving in a case, with an outer shell moving horizontally upon it, so as to make a space between the ends of the outer shell and the disk of the feed-wheel, which may be enlarged or diminished by sliding the outer shell upon the feed-wheel, or cylinder, horizontally. With the older devices of Van Brunt, Esler, and Rowell, showing the means of adjusting and regulating the feed of grain-drills by adjusting or enlarging the aperture through which the grain escapes from the hopper into the conductors or spouts, to carry it through the drill-teeth, by moving the cylinder or shell upon the grooved feed-cylinder, I do not see that there was any patentable novelty in

the device covered by this patent. I do not see how it can be called a forced feed, any more than the Van Brunt or the Rowell was a forced feed. They both operated upon the same principle: that of carrying the grain through the opening made between the shell and the grooved or recessed cylinders; and the recesses or grooves in the old-feed cylinders, it seems to me, were in all respects as much adapted to regulating or forcing the feed as are the corrugations or notches upon the vertical ends of the two wheels shown in the Mast device. Rowell notched or recessed his feeding cylinder horizontally; Mast showed vertical notches or corrugations in his, but says, expressly, that these notches or corrugations may be omitted, so that, as I construe his patent, they were not a necessary part of it, and are not covered by his claim. I am therefore of opinion that defendants do not infringe this patent.

The bill is dismissed for want of equity.