

GILBERT *v.* WEIR PLOW CO.

Circuit Court, N. D. Illinois. November 24, 1884.

PARENTS FOR INVENTIONS—ANTICIPATION.

Where the devices used were all anticipated by devices used in older inventions, the mere circumstance of a different method of producing the same result in a combination will not entitle a claimant to the exclusive right to the use of such combination.

In Equity.

Geo. W. Dyer, for complainant.

West & Bond, for defendant.

BLODGETT, J. This is a suit to restrain the infringement of patent No. 88,413, issued as of March 23, 1869, to John G. Robinson, for an “improvement in gang and trench plows,” and for an accounting for profits and damages. This patent covers several devices, but the only one in controversy in this suit is what the patentee describes “as a device for adjusting the depth of the furrows.” It consists of a movable arm or wheel-journal for the right hand, or furrow-wheel, with an angular lever so connected with this movable arm that this wheel-arm can be raised above or lowered below the end of the axle. The wheel-arm or journal is fastened horizontally to a grooved vertical plate, which is arranged to move on a plate fixed vertically to the end of the axle, and an angular lever fulcrumed on the axle is connected by a pitman with the grooved plate which carries the wheel, so that the axle may be raised or lowered by the movement of this lever in the notches of a ratcheted bar with which it is held in engagement by a spring. This feature of the patent is covered by the first claim, which is:

(1) “The combination of the angular lever, A, ratchet, C, and spring, B, with the pitman, D, and

sliding axle-tree arm, E, in the manner described and for the purposes set forth.”

The defenses are (1) that defendant does not infringe; (2) that the patent is void for want of novelty.

The proof in this case shows that wheel-arms, which could be moved upon the end of the axle of a wheeled cultivator or plow so as to bring the axle, or one end of it, above or below the center of the wheel, are old, and were well known long prior to the issue of this patent. In fact, it is only the axle inside the hub of the wheel which moves up or down in the complainant's device, or any of the devices shown in the proof, as the wheel always rests upon the ground, and the axle is the part of the device which changes its position. We find in the patent of Joseph Vowles, for a cultivator, issued in February, 1860, a wheel-spindle, vertically movable on the end of the axle, the slides, or plates, to which the spindle or wheel-arms were fixed, having a rack, and levers being arranged with teeth to engage with the teeth or cogs of the rack, so as to move the wheel-arm up or down with these levers.⁴²⁹ Robinson, the patentee of complainant's device, also obtained, in December, 1860, a patent for an “improvement in plows,” wherein he showed a wheel-arm arranged to be moved up or down so as to raise or lower the plows; but he showed no levers for this operation, the movable plate carrying the wheel-arm being held in place by pins, which were taken out to make the adjustment, and then replaced in other holes, as provided. In May, 1861, another patent was issued to Vowles for an “improvement in cultivators,” showing the same device for a movable wheel-arm that was shown in his patent of February, 1860. In the patent of Edwin J. Fraser, issued April 23, 1861, for an “improvement in plows,” a movable wheel-arm is shown, by which the axle is raised and lowered so as to adjust the axle horizontally when one wheel is running in the furrow. This adjustment is made by

means of a lever with an eccentric or sector fulcrumed on the top of the vertical guide or socket in which the wheel-arm, was moved. In the patent granted to J. L. & W. L. Black, December 19, 1865, a movable wheel-arm is shown, actuated; that is moved up or down by means of a chain fixed to the slide which carried the movable wheel-arm which is worked by a bent or angular lever connected with the chain. So, too, the patent issued to A. Hammond, issued March 27, 1866, shows a wheel-arm movable up and down by means of a screw engaging in a toothed rack on the plate, to which the movable arm is fixed.

It therefore clearly appears that devices for adjusting the height of one or both ends of the axle in relation to the center of the wheel when applied to cultivators and plows was old before, the patent now before the court was granted, and that in all the prior patents substantially the same mode of securing the movability of the axle was adopted, that is, the wheel-arm was made fast to a vertical plate, which is either grooved so as to slide on a vertical plate fixed to the end of the axle, or the plate fixed to the end of the axle is grooved, and the plate fixed to the end of the arms slides in such grooves. We also find that in the Vowles patents of 1860 and 1861 the wheel-arm is actuated by means of a lever having a toothed segment at the end which engages with the teeth or cogs of a rack attached to the plate which carries the wheel-arm; this segmental lever being fulcrumed on a pin so as to move, the plate up or down without the aid of a connecting link or pitman. In the Fraser patent of 1861 a sector or eccentric is applied to raise or lower this movable wheel-arm. In the patent of Black of December, 1865, a bent or angular lever is shown attached; to a chain connected with the sliding-plate fixed to the wheel-arm; and it also shows an arched or segment-shaped notched bar so arranged as to engage

with or hold the lever in any place within its range; in other words, a ratchet bar.

Here we have in these older devices, as it seems to me, all the elements of the first claim of this Robinson patent. Vowles' two patents show levers with segments or eccentrics, and the teeth or cogs 430 on this segment engage with teeth upon the plate which carries the movable wheel-arm so as to raise or lower the wheel-arm. This segmental lever is the equivalent of a bent or angular lever, the rounded or segmental surface with its teeth or cogs making it unnecessary to use a pitman or link in order to obtain the necessary vertical movement of the plate carrying the wheel-arm. In the Eraser patent the lever and sector or eccentric performs the same office as the angular lever, and is the mechanical substitute or equivalent of the angular lever. In the Black patent of 1865 an angular or bent lever is shown operating with a ratchet exactly in the same manner and for the same purpose as the lever, A, and ratchet, C, in the first claim of this Robinson patent, while the chain performs the same function as the pitman, B, in Robinson's combination. It is true, there is no spring shown or described like the spring, B, in Robinson's patent, but it is so palpable that a lever, in order to operate with a ratchet, must have some device to hold it in engagement with the ratchet that I think any mechanic would assume, from an examination of the drawings of the Black patent, that it was intended that the levers should have sufficient spring or elasticity in a flat or side-wise direction to make a separate spring unnecessary as a locking device. The Hammond device, working by means of screws, did not require, so the patentee says, any device for locking the wheel-arm in place, as the screw would remain as it should be set.

The problem which Vowles, in both his patents, and Fraser and Black were attempting to solve was to raise or lower this movable wheel-arm by means of a

lever to be actuated from the driver's seat or standing place. They all used substantially the same device for making the axle arm movable; they all used levers, which were either angular levers or the usual and well-known mechanical substitutes for the angular lever. The toothed segment of Vowles and the Fraser lever, with the sector or eccentric at the end, are all nothing but angular or bent levers, while Black used an angular lever with a notched ratchet to hold it in place, the chain acting as a pitman, having side elasticity enough to keep it in the notches where it might be set by the operator. But, even if it should be thought that all the minor elements of this claim are not found combined in either of those older devices, it is enough to say that the levers shown supply, by their own peculiar structure, the parts, such as the pitman and spring, and make the pitman and spring of Robinson's patent unnecessary. Suppose, for illustration, that Robinson had been the first to make a movable wheel-arm on the end of an axle, so as to give to a plow or cultivator the means for adjusting the height of the axle above or below the center of the wheel, and had adopted the Vowles device of a lever with a toothed segment, and cogged or toothed vertical plate; would not any one who should afterwards adopt a bent lever and pitman, to accomplish the same result, be held to be a most palpable infringer?⁴³¹ It seems to me these old devices of Vowles, Fraser, and Black are interchangeable with the combinations shown in this patent. They were all old and well-known devices for obtaining the desired result, which was to move this wheel-arm up or down by means of a lever; or, in other words, to obtain from the lever the desired line of motion, as all know that the movement of the ends of a lever are in the arc of a circle, and if a right line of motion, either vertical or horizontal, is required it is obtained either by cogs or a link or bent or angular lever; and these inventions, prior to Robinson,

having shown by their devices how this could be done, there is no novelty nor anything that rises to the merit of invention in the combination shown in this patent. This Robinson patent shows the device for raising or lowering the wheel-arm, as applicable to the furrow-wheel, and he says it is his device for regulating the depth of the furrows, while defendant's plows show the adjusting device upon the land-wheel, and defendant's claim is that this adjusting device has nothing whatever to do in their organization with regulating the depth of the furrow, but says it is solely for the purpose of leveling the axle so as to make the plows run flat or level, when one wheel is in the furrow, or the plow is running on a side-hill.

The complainant's experts have, at considerable length, expounded the dynamics of plowing and attempted to prove that the depth of the furrow, even with a plow mounted upon wheels, is wholly determined by the draught from the clevis at the end of the plow-beam, and insist that Robinson's idea of regulating the depth of the plowing by the height of the axle is all a fallacy. It will be noticed, however, that in Robinson's organization his plow-beams are placed on top of his axle-tree, and I cannot understand how the depth of the furrow is not, to some extent, controlled by the height of the axle. If, by the operation of the draught upon the clevis, the plows have to run more shallow than the limit of the height of the beams upon the axle admits, then the beams must carry clear of the ground the wheels and the entire structure of the wheel-carriage; while it is plain that the plow can, under no circumstances, no matter what may be the relation of the draught from the clevis, run deeper than is allowable by the axle under it; in other words, the plow must run level. It is pivoted on the axle, if it is to go deeper than the level determined by the height of the axle, it must drop its rear end down, and the moment this is down, it begins

to run out of the ground, while if the forward end drops down, under the action of the draught from the team on the clevis, the heel or rear of the plow rises, and it runs on its point, as the plowmen say.

It must be admitted that even if Robinson believed at the time he made his invention that its chief merit or utility was to regulate the depth of the furrow, and it has turned out in practice that he was mistaken in that regard, he is still entitled to whatever merit there is in his device, even if it does not operate as he expected; and ⁴³² therefore, if the chief feature of utility in his device was that of leveling the axle, so as to make the plow run level or flat, he is entitled to that merit if it was his invention; but we find that Fraser, in 1861, designed and arranged his movable wheel-arm expressly for the purpose of leveling his plows, while Hine, in 1863, Black, in 1865, and Harhmond, in 1866, changed the height of the axle for the purpose of leveling the plow. Vowles' machines of 1860 and 1861 were both cultivators, and his device for raising and lowering the axle was to lift the plows or cultivator teeth out of the ground, for the purpose of turning at the ends of the rows, or transporting the machine from field to field. The point is made by complainant's experts, and was also insisted upon in argument that Vowles' cultivators were not "practical machines by reason of their size and complication of parts, but I apprehend this does not affect the question for which they were cited here; he certainly shows in his specifications and drawings a device for movable wheel-arms and levers for actuating them, by which the axle can be raised or lowered, which is as equally applicable to a plow as to a cultivator; indeed, a cultivator is but one form of a plow, and I think, therefore, for the purpose of determining the question of the novelty of Robinson's patent, or limiting its claims, these cultivator patents of Vowles are entirely admissible.

Upon the question of infringement, I do not think the device used by defendant for raising or lowering the wheel-arm of the land-wheel in their plow shows the same combination claimed in the Robinson patent for raising and lowering his furrow-wheel, because the defendant does not use what can be technically called a pitman; but it uses a bent lever connected with the sliding plate by a link, and defendant holds the lever in place on the ratchet by a trigger and spring which is different in its action and construction from complainant's flat spring, B; while it clearly appears from the proof that the means for fixing the movable arm to the end of the axle and the levers by which the arm is moved for the purpose of adjusting the height of the axle are all shown in the older art to such an extent as to have fully anticipated all that is shown in the complainant's patent. The older art certainly shows, in the patents I have cited, the sliding wheel-arm, E, and angular and segmental levers and sectors by which this wheel-arm is moved up and down, so as to change the plane of the end of the axle, and, as I have already said, it seems to me by entirely equivalent means to those shown. In the claims of the complainant's patent. Indeed, the defendant's plow seems to me more nearly a mere mechanical modification of Fraser's and Black's devices than an imitation, either in form or principle, of the Robinson device. The bill is therefore dismissed for want of equity.

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