That the patentee's device secures all these advantages is apparent from the specification and drawings. Some of these advantages, however, were secured by like instrumentalities already employed for such purposes. Other of the patentee's instrumentalities are obviously those of an ordinary skilled workman. Thus, a radial arm, bent over so as to clasp the roll and prevent its slipping off the reel, is shown in Cockcroft, and the use of double arms is suggested. The hollow center axle is also found in the art, and it certainly was not invention to punch nail holes in the arms so as to fasten the device against a post, nor to bend the end of the coil over a nail to keep it from reeling out when not in use. Nowhere in the prior art, however, is there found the device for "braking," whereby the arms are tightened upon the coil or loosened if required. In view of the evidence as to the favorable reception accorded by the trade to the Cary reel, I am not prepared to hold that there was no invention in his combination, which obtains from the old instrumentalities this novel function, besides their old and obvious ones. The patent is an extremely narrow one. It would not be infringed by defendant's device if the latter had its arms rigid against compression, so that they could not act as a brake; but, on the proof as it stands, the combination of claim 2 seems to exhibit patentable novelty, and it is certainly convenient and useful. The claim does not specifically set forth this element of the combination functionally, but the reference therein to the "openings therein, d and d a fastening pins, substantially as and for the purpose set forth," is sufficient to warrant the court in reading into the claim, in order to uphold the patent, the function set forth in the specification in the sentence beginning, "Furthermore, the fastening nails," etc. Complainant may, therefore, take the usual decree on claim 2 of this No costs to either side. patent.

## UNION HARROW CO. V. ROBERT C. REEVES CO.

(Circuit Court, S. D. New York. July 22, 1898.)

PATENTS—Invention—Harrows and Cultivators.

The La Dow patent, No. 301,729, for improvements in disk-harrows, consisting mainly in the interposition of buffer-heads or equivalent mechanism between the inner ends of the disk-gangs for receiving their side thrust without coupling the axles together, held to involve patentable in-

This was a suit in equity by the Union Harrow Company against the Robert C. Reeves Company for alleged infringement of a patent. Final hearing on pleadings and proofs.

John M. Gardner, for complainant. Emanuel Jacobus, for defendant.

LACOMBE, Circuit Judge. The patent in suit is No. 301,729, issued July 8, 1884, to complainant's assignor, one Charles La Dow. The specification states that the invention—

"Relates to wheel-harrows and cultivators in which mechanism is employed for reducing friction, and for adjusting the angles of the disk-gangs, and also for adapting the gangs to better conform to the irregularities of the soil.

\* \* The objects of my invention are as follows: First, to provide the disk-gangs with mechanism between their inner ends to receive their side thrusts without coupling their axies together; second, to provide means by which the end friction of the journals of the disk-gangs will be reduced; third, to provide in a disk-harrow, having two opposing disk-gangs, bufferheads made with the inner ends of the gang-axles, whereby the inner disks of the opposing gangs will be held uniformly apart during all stages of adjustment or operation. \* \* One of the advantages gained by the organization of parts described in these objects of invention is that by the use of buffer-heads between the gangs the front edges of the inner disks can (when set at an angle to each other) be brought sufficiently near together to cut all the earth between the gangs, and the side thrust of one gang is counteracted by the side thrust of the other acting against the buffers, which are not inclosed in boxing, and, when set at an angle, revolve with a planetary motion around their respective centers, thus avoiding any rubbing friction between the gangs when set at angles or when vibrating," etc.

The claim alleged to be infringed is:

"(1) In a disk-harrow, the combination of a pole, crossbar, disk-gangs capable of being set at an angle to the line of draft, and buffer-heads or equivalent mechanism between their inner ends for receiving their side thrust without coupling their axles together."

The use of two gangs of disks set at an angle to each other prevailed long before the complainant's patent. If set at one angle, the tendency of the gangs when driven through the soil was to run apart; if set at another, to come together. If allowed to come together, the inner disks would soon be destroyed. It would seem, as defendant suggests, that it should not have required inventive talent to devise buffer-heads to take the strain and relieve the inner disks; but in the face of the evidence that the trouble existed for years, and that the manufacturers who were continually appealed to for a remedy produced only such devices as rigid axles, separating yokes, and universal joints, whose action was far from satisfactory, it must be concluded that there was invention in La Dow's device, simple though it be. which at once commanded extensive sales. The nearest, and indeed the only, approach to it in the prior art, is La Dow's own (patent 187,392, of February 13, 1877), which shows two balls fixed on the inner ends of the gang-axles, and inclosed in a box, so that they would not ride over each other or jam. The defects of this device are made plain by the testimony and the exhibits, but it seems to have required more than the ordinary workman's skill to discard the box, and flatten down the balls into buffer heads; otherwise, it would surely not have taken seven years to make the advance. Inspection of defendant's device demonstrates infringement. Complainant may take usual decree for injunction and accounting.

## EWAN v. TREDEGAR CO.1

(District Court, E. D. Virginia. April 20, 1882.)

DEMURRAGE-DELAY IN DISCHARGING.

If the ship is prevented, after getting into her dock, from securing a fit place for discharging by any cause over which she has no control, then

<sup>&</sup>lt;sup>1</sup> This case has been heretofore reported in 5 Hughes, 401, and is now published in this series, so as to include therein all circuit and district court cases elsewhere reported which have been inadvertently omitted from the Federal Reporter or the Federal Cases.