

SMITH ET AL. V. HIGGINS ET AL.

[2 Fish. Pat. Cas. 97.]¹

Circuit Court, S. D. New York.

Aug., 1860.

PATENTS—MACHINE FOR DYEING
YARN—COMBINATION.

1. Smith claimed “the method, substantially as specified, of parti-coloring yarns that have been reeled, by direct and free immersion, by means of frames carrying the reeled yarns and combined with the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said frame, and measure the extent of immersion substantially as set forth.” Held, that this was a claim for a combination of the frame carrying the reeled yarns and the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up said horizontal frame and measure the immersion; and not a claim for the parts.
2. A machine which dispensed with the horizontal frame, or its equivalent, and contained no arrangement for measuring the extent of the immersion of the yarn, was no infringement of the patent.

This was an action on the case [by Alexander Smith and others against Alvin Higgins and others] tried, by consent of parties, by Mr. Justice Nelson, without a jury, to recover damages for infringement of letters patent [No. 7,446], granted to Alexander Smith June 18, 1850, and reissued May 11, 1852 [No. 217] for an “improvement in apparatus for parti coloring yarn.” A report of a former trial, in which the jury disagreed, will be found in [Case No. 13,059]. The claims of the patentee will be found in the opinion of the court.

Charles M. Keller, for plaintiffs.

George Gifford, for defendants.

NELSON, Circuit Justice. This suit is founded on a patent for “the improvement in apparatus for parti-coloring yarn.” The patent was issued to Alexander

Smith, June 18, 1850, and surrendered and reissued May 11, 1852.

The patentee recites that yarns heretofore have been parti-colored either by printing, or dipping skeins in a vat of dyeing liquor, with the parts not to be colored tied or clamped so as to exclude the dye, and states the difficulties attending the use of these modes, and also the nature of his own invention—namely, that it consists in coloring yarns that have been reeled by direct immersion in the dye, by means of moveable frames, adapted to receive and hold the skeins, and so combined with the dye-vat as to admit of letting down the yarns to the determined measured distance, and then withdrawing and shifting them as required; and, after giving a detailed description of the machinery used by him, he winds up with his particular claim as inventor, and which is “the method substantially as specified, of parti-coloring yarns that have been reeled, by direct and free immersion, by means of frames carrying the reeled yarns, and combined with the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said frame, and measure the extent of immersion substantially as set forth.”

The yarns to be parti-colored are wound round two reels particularly described in the specification, and then the reel-frame is suspended on a horizontal frame also described; and as many of such reel-frames, containing the skeins of yarn as the horizontal frame will carry, can, in like manner, be suspended. A scale is then applied to one of the reel-frames, and, by turning a crank-handle, the whole is let down into the vat to the depth desired, as indicated by the scale, depending on the figure to be produced in the weaving of any given fabric, such as carpets and the like. These reel-frames may be inverted to dip the other end of the skeins in like manner, in the same vat, or in one of any other color, or the reels may be turned to bring other

parts of the skeins in position to be immersed in the same vat, or a vat of another color.

The claim, which we have given above verbatim, is not entirely free from difficulty in its construction. The phrase, "by means of frames carrying the reeled yarns," may embrace, not only the horizontal frame upon which the reels are suspended, but the reel-frames upon which the yarn has been reeled. 565 The difference in the construction is material, for, if the reel-frames are included, then the combination with the vat would be a different one from that on which the horizontal frame alone is embraced.

When this case was before us at the circuit, on the jury trial, we were inclined to think, and so held, for the purpose of the trial, that the combination embraced only the horizontal frame which carried the reels, and confined it to that in connection with the vat. From the view we have taken of the case upon the evidence, the difference in the construction would not change the result; but, we are free to say, that on further examination of the claim, in connection with the description, we think the better opinion is, that the reel-frames were intended to be embraced in the combination.

Assuming, however, for the present, that the horizontal movable frame only is embraced, then the claim consists of a combination of this frame carrying the reeled yarns, and the vat containing the dyeing liquor, by means of machinery adapted to let down and draw up the said horizontal frame, and measure the extent of the immersion, substantially as described. The parts are not claimed—the combination only.

The idea of parti-coloring yarns, in skeins, by free immersion in a vat containing the liquor, was not new, nor the measuring the extent of the immersion at the same time. The novelty consists in the machinery, or means by which the parti-coloring is effected in equal and measured proportions; and, conceding the novelty

of this combination, which we think is fully established by the evidence, the material question in the case is, whether or not the means or machinery used by the defendants infringe upon it?

In other words, do they use the combination of the horizontal frame, carrying the reeled yarns, and the vat by means of the patentee's machinery to let down and draw up the said frame, and to measure the extent of the immersion, or do they use the combination by equivalent means?

After the best consideration we have been able to give to the case, we have come to the conclusion that these questions must be answered in the negative.

We have already said that the idea of dyeing parti-colored skeins of yarn by free immersion into the dye, and, at the same time, gauging or measuring the extent of coloring of the skein, was not new—the idea is not the patentee's. He is entitled to the merit only of embodying it into machinery and adapting it to practical use in a new and superior mode to any that had preceded it. And, in order to establish an infringement against the defendants, he must show that they are employing substantially the same description of machinery. If they employ machinery of a different description, a different mode of accomplishing the same result, the patentee has no ground of complaint.

Now, in the first place, the defendants do not employ the reel-frames of the patentee, upon which the skeins of yarn are reeled or placed, at all; nor any equivalent for the same, nor, indeed, any arrangement resembling them. And hence there is no necessity for the horizontal movable frame found in the patentee's combination, in the defendants' arrangement, as this horizontal frame is important only as connected with the reel-frames. Nor is there, in fact, any frame resembling the peculiarities or functions of the horizontal frame employed by the defendants. And the machinery for letting down in, and drawing up the

skeins of yam from, the liquor in the vat used by the patentee, is altogether different from that used by the defendants, and there is no arrangement at all used by them for measuring the extent of the immersion by machinery in the process of letting the yarn down into the vat.

By the arrangement of the defendants, the skeins of yam are stretched upon two poles—one above the other; and while thus situated, the skeins are clamped by a clamp of wood at the distance from the bottom desired to be colored, or rather fixing the measure of the immersion. This clamp is attached to a frame independently of the two poles which support it. The poles are then withdrawn, and the clamp frame attached to and carried by a lever, operated by machinery, to the vat of liquor and lowered into it, the clamps, which float, determining the extent of the immersion. This extent is not determined by the machinery, as in the patentee's arrangement, but is fixed in advance by the band of the operator. There is no machinery adapted to let down and draw up the frame with the skeins of yarn, and at the same time, or in the same process, measure the extent of immersion. The functions of the machinery are simply to carry the clamp frame to the vat, and lower it into it, and afterward lift it out.

The measurement is by an independent operation, namely, by the clamp, which is fixed to the yarn by the hand. The truth is, that the defendants' device is but an ingenious improvement and adaptation of the old mode of parti-coloring by clamping the skeins of yarn, and immersing them in the vat. Instead of immersing the entire skein, separate parts or portions are colored at a time, the clamp serving to exclude or stop the coloring material, and, at the same time, determining the extent of the immersion, this depending upon the portion of the skein to which the clamp is applied. The germ of the device may be found in Graham's patent

of May 13, 1842, for “an improved manufacture of that kind of carpeting, usually denominated Kidderminster carpeting.”

I am entirely satisfied that judgment should be rendered for the defendants, with costs.

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