CHITTENDEN *v.* MALLORY *ET AL.*

Circuit Court, D. Connecticut. January 8, 1890.

1. PATENTS FOR INVENTION—PATENTABILITY—ANTICIPATION.

The improvement described in the seventh claim of letters patent No. 251,470, issued December 27, 1881, to James R. Russell, consisting, in a hat-felting machine, of a vertically adjustable roller combined with a foot lever and an adjustable buffer, consisting of an adjustable screw under the table of the machine, with a rubber end, raised or lowered by a hand wheel thereon so as to regulate the distance the foot lever can ascend, thereby regulating the adjustable roller, is not patentable, as machines had been previously used with two adjustable stops, and an English patent had been granted to William Grimshaw, in 1872, for a hat-felting machine which, though having no rollers, had a concave, adjustable surface, adjusted by a treadle and adjustable stop, as in the Russell patent.

2. SAME.

The first and second claims of letters, patent No. 344,166, issued June 22, 1886, to Harvey M. Chittenden for the combination, in a hat-felting machine, of a central shaft, a wooden roller made in sections, with grooved ends, and a metal cap with flanges and projections taking into grooves or indentations in the Wooden roller,

was anticipated by the Hill roller and cap, having similar construction, though the Chittenden cap has ribs lying in parallel straight grooves, while the Hill cap has radial ribs lying in radial grooves.

3. SAME.

The fifth and sixth claims, in such letters patent, for an adjustable journal box, secured to the frame of a felting machine, and adjusting itself in alignment with the shaft, was anticipated by the journal box forming part of the felting machine made by Yule in 1879; the minor details of construction claimed not being patentable.

4. SAME—IMPROVEMENTS.

The seventh and eighth claims, in such letters patent, for an adjustable stop consisting of a vertical screw attached to the under side of the table, with its lower end received within a tube attached to the treadle, which tube, in rising, strikes the hand wheel on the screw, is not a patentable improvement over a stop consisting of a similar adjustable screw, against the end of which strikes a treadle having no tube.

In Equity. Bill for infringement of letters patent.

Jonathan Marshall, for complainant.

M. B. Phillip and *A. M. Wooster,* for defendants.

SHIPMAN, J. This is a bill in equity to restrain the alleged infringement of the seventh claim of letters patent, No. 251,470, dated December 27, 1881, to James R. Russell, which were assigned to the complainant April 14, 1887, and of the first, second, fifth, sixth, seventh, and eighth claims of letters patent No. 344,166, dated June 22, 1886, to Harvey M. Chittenden. Each patent is for a machine for felting hat bodies. Upon the hearing the novelty of the first and fifth claims of the Chittenden patent was not insisted upon. Each of the claims which are alleged to have been infringed is for an improvement in the construction of an old part of a hat-felting machine, and each of the claims of the Chittenden patent relates to minor details of construction.

The seventh claim of the Russell patent is for the most important improvement. The following extract from the testimony of the complainant's expert gives a plain and easily-understood description of the alleged invention:

"It is an improvement in machinery for felting hat bodies. It has long been common to use machinery for this purpose having one or more rollers revolving in fixed bearings, and one or more rollers mounted above, with provisions for raising and lowering the upper roller by means of a foot lever, sometimes termed a 'treadle.' The soft masses of material, having the approximate shape of hat bodies, but too large and slazy, are rolled up into a bundle, and rolled and compressed by being introduced between those rollers. The rollers are usually provided with lags to induce a kind of kneading action on the bundle of hat bodies, and by this action, with a liberal supply of hot water, the hat bodies are treated many times, and finally reduced to the proper contracted and firm condition. It is common to have the hat bodies rolled up in a cloth of jute or some non-felting material, and to treat two bundles alternately,—one being rolled and squeezed by the rollers while the other bundle is unrolled, and opened out, and readjusted, ready for the next treat-

ment. It is found that the hat bodies require to be very delicately compressed during the first stages, and as the felting proceeds they may be treated more severely, or with greater pressure. The lags on the rollers make the action irregular; but in general it may be harder towards the last, and it must be gentle at first. One of the ways of attaining this end is to hold up the upper roller so as to prevent it from ever descending, in any of its irregular

motions, below a certain line. * * * The precise arrangement of the devices, as the invention was carried out in the patent, was to have a long screw inserted in a hole in a timber under the table or plank on which the man crozes the hat bodies; the screw extending down, and carrying on its lower end a foot, apparently of India rubber, held in the right position to be struck by the treadle when it rises, after he has relaxed the pressure of his foot thereon to allow the top roller to descend. There is a hand wheel fixed on that screw, to turn it by. When he wants to allow the top roller to descend a little lower, he reaches under the table, and gives a half turn, more or less, to that wheel, thus screwing up the screw, and stopping the treadle after it has gone a little further up, and consequently has let the top roller a little further down than before."

The seventh claim was as follows:

"(7) In a hat-sizing or scalding machine, a vertically adjustable roller, combined with a foot lever, and an adjustable buffer to fix the adjustment of such roller, substantially as described."

In the defendants' machine the roller is not vertically adjustable, but moves in the arc of a circle; and the adjustable stop is not provided with any elastic material to soften the force of the blow when pressure is suddenly removed from the treadle. If the patent demands the presence of these two details, there is no infringement. Otherwise, it is to be conceded that some of the defendants' machines infringe. It is not strenuously urged that the fact that the roller moves in the arc of a circle, rather than in a direct vertical line, is a matter of importance; but it is insisted that the claim demands that the adjustable stop shall be provided with some elastic or yielding material as a protection against concussion, and therefore shall be a buffer. Such a construction might relieve from the charge of infringement an imitator who had merely taken off the thimble of rubber from the bottom of the wooden stop, and would indicate a greater adherence to the letter than to the spirit of the patent. The question whether the improvement, with or without rubber, has a patentable character, is one of much more substantial interest and importance.

Before the date of Russell's invention, which was in March, 1881, hat-felting machines were in use which contained two adjustable stops or buffers, one upon each side of the machine. These stops limited the descent of the swinging frame which carried the adjustable roller; this roller being connected with a treadle so that it was moved to and from the other rollers by the foot of the operator. The Waring ratchet machine had an adjustable felting roller so attached to a swinging frame that it was nearly over the space between the two lower rollers. To the free end of the swinging frame one end of two pitmans was pivoted; the other end being connected with the treadle. The swinging frame, when released from the control of the treadle, came in contact with ratchet bars having pawl teeth, and upon the top of the bars, sockets, each containing a rubber buffer. The Waring screw machine had, in place of the ratchet bars and pawls, a screw-threaded rod

at each end of the machine, which worked in a threaded nut attached to the swinging frame. By

means of a hand wheel the rods were adjusted up and down. Whenever the swinging frame was free to fall, the lower end of the threaded rod came in contact with an Upright projection provided with a socket containing rubber. In the Yule machine, patented by letters patent No. 241,267, dated May 10, 1881, the top roller was secured to a swinging frame. The treadle, which was attached to the main frame, was connected to one end of the swinging frame so that it was caused to move to and from the main frame as the treadle was moved up and down. The main frame had two adjustable screws, which could be turned to adjust the position of the upper roller relatively to the lower rollers. These screws were provided with rubber at the point where they came in contact with the end of the swinging frame. The complainant's answer to the anticipatory character of this class of machines is that they all had two stops, one on each side of the machine, and all required two operations to adjust the approach of the felting rollers together, and neither one had an adjustable buffer, arranged to be operated at one point. I agree with the complainant that the buffer in the Russell machine is a single one, and is arranged so as to be operated at one place. I am not clear that when two buffers had been used to limit the line at which the top roller could descend and approach the lower rollers, the top roller being adjustable by the action of a treadle, and a single buffer never had been used, there would have been patentable invention, in having one adjustable stop, acting directly upon the treadle, and through the treadle upon the roll. It would seem to have been a mere mechanical question whether the treadle should strike against a single buffer, or the swinging frame which carries the roller should strike against a buffer at each end of the machine; but the hat-felting machine described in the English patent granted to William Grimshaw, in 1872, brings another fact into the case. This machine did not have the rollers of the machines which have been described, but had a lower curved felting surface, and an upper flat surface, which was moved backward and forward; the bundle of hats being placed between the two. The concave surface was adjustable. The machine had a treadle, the upward movement of which was limited by a screw working in a nut. The outer end of the treadle was connected with a lever which carried the concave surface. The machine had a single adjustable stop, which acted directly upon the treadle, and through the treadle upon one of the felting surfaces. The complainant earnestly insists that the Grimshaw machine was of a radically different class from the roller machines, and was useful only upon a very coarse grade of hats, and that it required invention to transfer the Grimshaw adjustable roller to the more modern machines. In as much as it was a machine for felting hat bodies, which subjected the roll of hat bodies to the action of two felting surfaces, although not two rolling surfaces, and the only thing to be done was to change two buffers in a roller machine into a single buffer, and the single buffer was found in the table machine, where it performed the same office in the same way in

which it now does, without any substantial change in the manner of applying it, there was no patentable

invention in substituting a single buffer for the two buffers of Waring or Yule, *Collins Co.* v. *Coes,* 130 U. S. 56, 9 Sup. Ct. Rep. 514.

The claims of the Chittenden patent, which were originally thought to have been infringed, are as follows:

"(1) In combination, a central shaft, a sectional roller with grooved or indented ends, and a cap plate with projections or flanges taking into said grooves or indentations; all substantially as described. (2) In combination with a central shaft and a wooden roller made in sections, with grooved ends, a cap fast to the shaft, and bearing flanges projecting into the grooves, and whereby the sections are clamped together; all substantially as described. (5) In combination with the frame of a felting or sizing machine, a shaft bearing a roller, and an adjustable journal box secured to said frame, and adapted to adjust itself in alignment with the shaft; all substantially as described. (6) In combination, the frame branched to inclose a journal box, with a sunken surface on one branch adapted to receive the rounded surface of the box, and a mortise in the other branch, the block movable in the mortise, and with its lower surface conforming to the rounded surface of the box, the plug bearing the flange, and the set-screw; all substantially as described. {7) In combination with the main frame of a felting-machine, a swinging frame bearing a roller, a treadle with rods connecting it to said frame, and a brace or like device having sliding sections, and an adjustable stop device; all substantially as described. (8) In combination with the main frame of a felting or like machine, a swinging roller frame, the treadle and connecting rods, and the brace composed of the tubular section and the rod section, the latter attached to a part on the frame and bearing a set-nut; all substantially as described."

These claims are in three pairs, the first and second being substantially alike, the fifth and sixth being not very different, and the seventh and eighth being substantially alike; so that if one of each pair of claims had been omitted the alleged invention would have been about as well secured. It is now admitted that the first claim was anticipated by the Hill roller and cap, a part of a hat-felting machine which was constructed and used before October 1, 1883. This roller consisted of a central metal shaft, around which was placed a wooden roller made in sections, and provided with a metal cap whose hub was secured to the central shaft. Each cap had flanges which took into grooves in the end of the wooden collar, and a flange which prevented the wooden roller from moving away from the shaft. This last mentioned flange was in the periphery of the cap in the Hill machine, and in the central portion of the cap in the Chittenden machine. The Chittenden cap has ribs lying in parallel straight grooves. Hill's cap has radial ribs lying in radial grooves in the wood. The Chittenden roller seems to me to be the better mechanical structure; but its peculiarities are those which naturally result from a new attempt to lock together the sections of a revolving wooden roller by a metallic cap, and are not such as to be properly called the result of invention.

The fifth and sixth claims relate to an adjustable journal box adapted to adjust itself in alignment with the shaft bearing a roller. The fifth claim is capable of a broader construction than the sixth, and is admitted to have been anticipated by the Yule split journal box, which

was a part of the hat-felting machines made by George Yule in 1879. As stated by the defendants' expert, the construction of both boxes is such that the frame which receives the box holds it inclosed between two sunken surfaces, and at the same time allows it to adjust itself in alignment with the journal of the roller with which it is used. The minor details, which are mentioned in the sixth claim and not in the fifth, I do not consider of patentable importance.

The seventh and eighth claims relate to the patented device for an adjustable stop, which consists of a vertical screw which is attached to the under side of the table; and its lower end is received within a tube which is attached to the treadle. On the screw above the tube is a hand wheel. By turning the hand wheel it is run down; and when the treadle is released from the pressure of the foot of the operator the tube on the treadle rises up, and strikes the under side of the wheel. The tube rises up and strikes the stop, whereas in the Russell machine the treadle rises up and strikes the stop. This particular kind of adjustable stop was apparently new, but a brace or a screw within a sleeve was not new; and there was no invention in having the sleeve or tube which was attached to the treadle strike the handwheel or the stop instead of having the treadle strike the stop. It was a modification of the previously existing stop mechanism, which had the advantage of strength, but was within the ordinary scope of the skilled mechanic. The bill should be dismissed.