

United States Patent Office.

HENRY MELLISH, OF WALPOLE, NEW HAMPSHIRE, ASSIGNOR TO DAVID LYMAN, WASHINGTON WHITNEY, AND GILMAN WAITE.

Letters Patent No. 63,415, dated April 2, 1867.

IMPROVEMENT IN MACHINES FOR CUTTING TOY PAILS FROM WOOD.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HENRY MELLISH, of Walpole, in the county of Cheshire, in the State of New Hampshire, have invented certain new and useful Improvements in Machinery for Making Toy Pails, Pails, Buckets, etc.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference thereon.

The nature of my invention consists in providing a ring and conical scroll combined, with suitable cutters attached, which if passed longitudinally over a suitably-prepared revolving cylinder of wood, helically cut conical shavings or pieces will be produced of suitable form to constitute bodies of toy pails, buckets, etc.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a perspective view of the machine.

Figure 2 is a ring and conical scroll combined, to which cutters are attached.

Figure 3 is a cross-section of the scroll, showing the arrangement of the cutters.

Figure 4 is a plan view of the machine, with a log or cylinder in place.

Figure 5 is a representation of the body of a pail as it comes from the machine.

Similar letters of reference indicate like parts in all figures.

A A¹ the frame of the machine, with the rails or ways B B¹ to fasten the tail centre-rest C to, and also for the slide-rest D to traverse on; and the rails E E for the head centre F, and the driving pinion and pulley-arbor, G, to turn in. The face plate or chuck H has its arbor, and the tail centre I arranged in front of and on a line parallel to the way B¹. This tail centre-rest is movable on the ways, and is made fast to them with bolts passing up through the rest, and hooking on to their lower edges by turning the nuts *a a* firmly down upon the rest. L is a hollow conical scroll, extending from the helical side *b*¹ of the ring *b*, which ring is cylindrical in its inner surface to the commencement of the scroll. This ring has an arm, *c*, extending from it, by which means it is attached to the under side of the slide-rest with the screws *d*, in such manner as to leave a space, *d*¹, between the rest and the scroll. At the opening or mouth of the scroll, the knife M is made fast to it with the screws *e*, and is for the purpose of paring the shavings or bodies of pails or ware to be manufactured from the log. The edge of this knife is crooked or gouge-shaped at the point *f*, for the purpose of cutting the crozing in the shaving or body of the ware to receive the bottom, (see *f*¹, fig. 5.) This knife is crooked at the end *h*, to give the required shape to the bottom end of the ware, (see *i*, fig. 5.) N is a cutter, attached to the ring *b*, in combination with the scroll, with the screws *j j*, which cutter bears between the pivots *k k* firmly upon the knife M, and is so bent or formed as to cut the upper edge of the ware to the required form. O is a cutter, attached to the scroll with the screw *l*, for the purpose of paring the core of the cylinder to fit the end *m* of the scroll, which end is cylindrical on its inner surface, into the scroll as far as the end *h* of the cutter M. The cutters M and N are arranged diagonally on the ring and scroll to give them a drawing cut, by which means the cutting apparatus will be drawn forward as required when operating the machine.

Operation.

Prepare a cylinder of wood to fit into the ring *b* of scroll L, with a kerf or scoring, *n*, on one side of it from one end of it to the other, (see fig. 4,) which scoring should be deep enough to give the required conical form and thickness to the shaving to be taken off; and having steamed the cylinder to render it so pliable as to be pared off without splitting, it is then suspended between the head and tail centres, (see P, fig. 4,) the scroll L having been previously thrown back over the tail centre. Now, it will be seen that if proper power is applied to the driving-pulley, and the ring of the scroll is drawn on to the end of the cylinder, bringing the diagonally arranged cutters M and N in contact with the timber, the revolving cylinder will be caught by the cutters, and they, by their drawing cut, will be drawn gradually along in a direction parallel to the axis of the cylinder, so as to cut helically around it, producing, at each revolution of the cylinder, a shaving of suitable form for the body of a toy pail, pail, or bucket.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. I claim the conical scroll cutter-head L, for supporting the knife or knives, arranged in the manner substantially as and for the purpose set forth.

2. I claim arranging or supporting the conical scroll cutter-head L in such a manner as to leave a space between the scroll and the frame of the slide-rest, to which it is attached, as and for the purposes set forth.

3. I claim the combination of the knife M and O with the conical scroll cutter-head L, when operating substantially as and for the purposes set forth.

4. I claim the helical ring b, with its cutter N, in combination with the scroll cutter-head L, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

HENRY MELLISH.

Witnesses:

FREDERICK VOSE,
JAS. W. MELLISH.