J. P. Kemp,

Peg Machine,

No. 26,398. Patented Dec. 6, 1859.

Fig. 1.

Fig. 2.

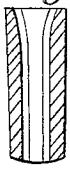
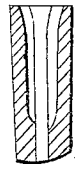


Fig. 3

Fig. 4.

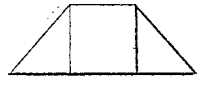


Witnesses:

J. D. Crosby

W. B. Gleason.

Fig. 5.



Inventor.

John P. Kemp

UNITED STATES PATENT OFFICE.

JOHN P. KEMP, OF CHARLESTOWN, MASSACHUSETTS, ASSIGNOR TO N. F. STEVENS, OF MOULTONBORO, NEW HAMPSHIRE.

PEG TUBE AND DRIVER.

Specification of Letters Patent No. 26,398, dated December 6, 1859.

To all whom it may concern:

Be it known that I, JOHN P. KEMP, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in the Form of Peg Tubes and Drivers Used in Pegging-Machines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form a part of this specification, is a description thereof so full and exact as to enable those skilled in the art to make and use my invention.

In many of the pegging machines now in common use the peg is guided, in its passage to the hole made in the sole for its reception, by means of a tube, which, when the peg is driven, is directly over the hole to be filled by the peg. In some of these tubes the knife forms one of the sides thereof, in others the knife is sometimes made separate from, and movable with regard to, the tube. In other tubes, used in machines which use separate pegs, and not "peg wood," so termed, from which the pegs are split, no knife is needed. The function of these tubes is to guide and support the peg under the action of the peg driver: without the support of the tube the peg is liable to bend and break under the action of the driver. Prior to my invention peg tubes were made with the exact size of the peg, or very nearly so, and as it is necessary to have the peg driver, in forcing the peg into the sole, come quite to that end of the tube which bears upon the sole, the driver could not be made larger than the peg, and consequently was so long and slender as to be easily broken.

The nature of my invention consists in so shaping the tube through which the peg is driven that it will admit a peg driver of much greater cross section than that of the peg, which is at the same time supported as formerly, and in making the peg driver of the form and increased section permitted by the new form of tube. And I may here state that I distinctly disclaim the invention of peg tubes broadly, with peg drivers arranged to operate within the peg tube; and consider my invention to be simply an improvement upon those in public use.

Figure 1 embraces an elevation and a cross section of a peg driver made in accordance with my invention: Fig. 2 vertical and cross sections of a peg tube made to coöperate with the driver seen in Fig. 1. Fig. 3 is similar to Fig. 1, showing a modification, in form, of the driver, and Fig. 4 is similar to Fig. 2, showing a peg tube matching the driver seen in Fig. 3.

Peg tubes have been variously made, but all have agreed in having, throughout the whole of their length, a hole the cross section of which is the same in area and shape as the cross section of the peg. In my invention the area of the hole through the tube is increased by extending the width of one of its sides and joining this extended side to the side opposite by sides forming an acute angle with the extended side and an obtuse angle with the other side, whose width remains equal to the width or thickness of the peg to be used; the distance of the long and short sides apart being equal to the thickness of the peg. It will be seen on inspection of the diagram, Fig. 5, where the lines in red show, on an enlarged scale, the size of the peg, and consequently the cross section of the hole in peg tubes as formerly used, and the lines in blue the change made by me in my improvement, that the peg has, in the angular form of the hole, full bearing on the extended side thereof, and also on the opposite side, and it is obvious that side movement of the peg cannot obtain without crowding it into the acute angle made by joining the long and short sides of the hole in the tube, and thus compressing the peg.

The peg tubes illustrated in Figs. 2 and 4 are made round and taper, and are intended to be fixed, by means of a set screw against them, in such pegging machines as are adapted to receive them, and are now in common use. For convenience of construction the tubes are made in two pieces, and the knife, which splits the peg from the peg wood, forms the widest side of the hole through the tube. In Figs. 2 and 4 it will be observed that the upper part of the hole is made slightly flaring, this prevents the end of the driver from striking on the upper end of the tube in its descent, and also permits the curvature and increase in size of the driver where it joins its haft. In Fig. 4, it will be observed, that, at the lower end of the tube, the flaring sides are made to approach, gradually, a right angle with the wide or narrow sides of the hole, so that as the peg descends from the tube into the

sole, and the resistance to its onward motion increases, and consequently its tendency to bend over, its support is increased in an equal ratio, while the driver is not at all weakened by the form it is then obliged to assume, as shown in Fig. 3.

By the use of my invention I am enabled to increase the section and strength of peg drivers acting in peg tubes, thereby rendering it practical to use peg tubes which so support and guide the pegs that they can be driven into smaller holes in soles than would otherwise be possible, and so to increase the efficiency and durability of all pegged work.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is—

Constructing the interior peg guiding portion of the tube of a form made up of corners or angles and surfaces substantially as described, and so that, while the cross section or area thereof is materially greater than that of the peg, to admit of a driver of increased strength and of materially greater cross section or area than that of the peg working thereon, said tube in its peg guiding portion serves by its corners or angles and surfaces to restrain the peg from lateral shake or play.

JOHN P. KEMP.

Witnesses:
J. B. CROSBY,
W. B. GLEASON.