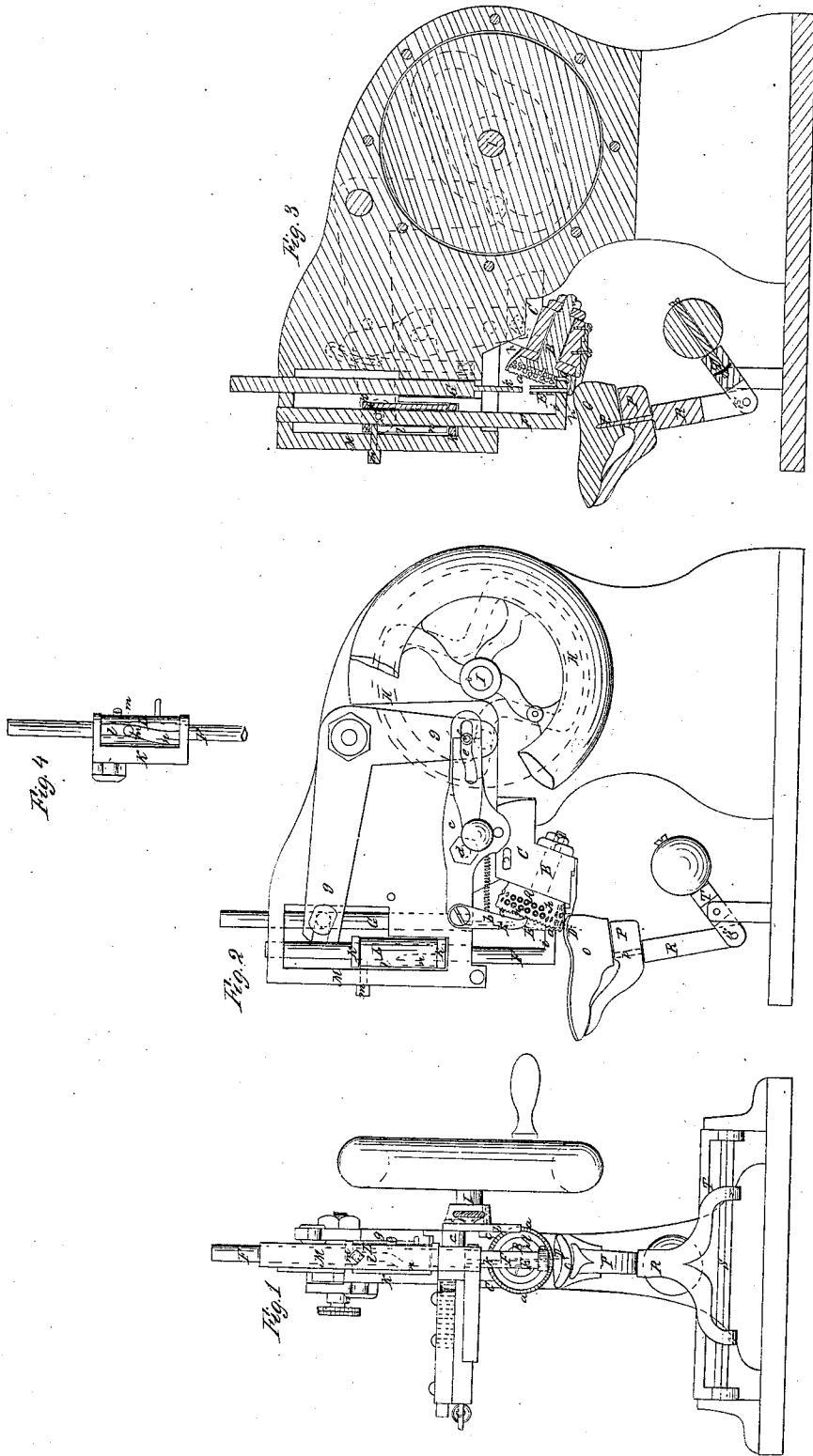


No. 17,998.

PATENTED AUG. 11, 1857.

B. F. STURTEVANT.
MACHINE FOR PEGGING BOOTS OR SHOES.



UNITED STATES PATENT OFFICE.

BENJAMIN F. STURTEVANT, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND
ELMER TOWNSEND, OF SAME PLACE.

MACHINE FOR PEGGING BOOTS AND SHOES.

Specification of Letters Patent No. 17,998, dated August 11, 1857.

To all whom it may concern:

Be it known that I, BENJAMIN F. STURTEVANT, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Machine for Pegging Either Boots or Shoes; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is a front elevation, Fig. 2 a side elevation, and Fig. 3 a vertical, central and longitudinal section of the said machine. Such other figures as may be necessary to the complete description and delineation of the machine will be hereinafter referred to and described.

This machine, in some of its features, is very similar to that which was invented by me, and on which Letters Patent, numbered 17544, were granted to myself, and Elmer Townsend, my present machine containing several improvements on the machine so patented, they being as follows: The first of these improvements is a bell or cap shaped feeding wheel and a particular arrangement of such with reference to the awl and peg carrier. The next has reference to feeding the shoe along in order that the pegs may be properly inserted in it.

In the said drawings, A, exhibits the bell shaped feeding wheel, it being constructed like a bell or cup and made to rotate on a journal, B, which is carried by a frame or slider, C, to which mechanism is applied for imparting thereto, reciprocating, intermittent, endwise movements in order that two rows of pegs may be inserted in the sole of a shoe at one and the same time. As this mechanism does not differ essentially from that described in the specification of the aforesaid patent, it will not be necessary for me to enter into a particular description of it. Ratchet teeth are made on the outer edge of the bell shaped feeding wheel, as shown at, *a*, such teeth being made to operate in connection with an impelling pawl, *b*, worked by a lever, *c*, arranged as shown in Fig. 2. This lever, *c*, turns on a fulcrum, *d*, and has a curved slot, *e*, in its rear arm. A stud, *f*, from a bent lever, *g*, enters the said slot, and while the lever, *g*, is in movement produces the movement of the lever such as may be necessary to cause the pawl *b*, to impart motion to the bell shaped feed wheel. Besides the above, the feed wheel is

constructed with one or more ranges of tapering holes, as shown at *h*, *h*, these holes being formed through its rim. Each of such holes is arranged so as to allow the awl to play down through it in manner as will be hereinafter described. Furthermore, each of the tapering holes is formed with the larger base of its taper on the outside surface of the wheel, such wheel having its axis not at right angles with the awl but inclined thereto in order that the peg driver may pass down into the feed wheel or work in front of it, and the awl extend and work through the lower part of the wheel as seen in the drawings. It is against the outer surface of the rim of the feed wheel, and particularly against the tapering holes made through the same, that the sole of the shoe is borne during the operation of pegging the said shoe, each tapering hole performing two functions, that is to say, it not only operates the awl or moves it laterally while the feed wheel is in rotation, but it takes a firm grasp on and holds in place the sole, while the awl is being raised out of the same and is in the process of descending toward the sole, the taper of the hole enabling the leather to be pressed into said hole to better advantage than would be the case were the hole formed cylindrical and of a size just sufficient to receive the awl. The holes in the feed wheel, in consequence of their tapering form, allow of the ready revolution of the feed wheel in order to feed the shoe along while the awl extends through a hole and into the sole of a shoe. I would also remark that the holes or perforations of the feed wheel should be of sufficient size to enable the wheel to rotate during the movement of the shoe or while the feeding of it takes place and the awl extends through the hole and into the shoe.

In order to operate the awl, D, and the tubular peg cutter carriage, E, I employ but one slider F, the awl and peg cutter carrier being made to project in opposite directions from an arm, *i*, extending from the lower part of said slider and within the feed wheel, as shown in the drawings.

The peg cutter carrier is constructed and made to operate on the pegwood and with the peg driver, shown at *k*, essentially as does the tubular peg carrier with the pegwood and peg driver, as described in the specification of the aforesaid patent. In the drawings, the peg driver, *k*, is repre-

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sent as extending downward from a slider, G, to which vertical motions are imparted by the bent lever, *g*, actuated by a grooved cam, H, fixed on the driving shaft I.

The slider, F, should be so applied to the mechanism for imparting to it the motions necessary to cause the awl and pegwood cutter carrier to perform their functions, as to enable the said slider to rotate laterally a short distance with the feed wheel and while the latter is in rotation. When the said feed wheel is in rotation, the awl should be within the sole, in order that by the pressure of the feed wheel against the awl, the awl and the arm of its slider, may be moved laterally and the shoe fed forward, the distance that may be required for the awl to make the next succeeding puncture in the sole. Thus it will be seen that through the combined action and coöperation of the feed wheel and the awl, the advance of the shoe is caused to take place; also, that after the awl has been withdrawn from the sole the feed wheel will hold the latter firmly in position until it again receives the awl. The slider turns freely around in a frame K, to which a vertical motion may be imparted by a lever, and cam or any other proper means. A cylinder, L, is fixed upon the slider concentrically with it and has a groove, *l*, made as seen in Fig. 3, and more particularly in Fig. 4, which is a separate side view of the said cylinder, the slider, F, and its frame, K. A stud, *m*, projecting from the frame, M, of the machine extends into the groove, *l*, and it is by the conjoint action of such stud and groove that the slider is turned laterally so as to carry the peg cutter carrier either toward or away from the pegwood as occasion may require. In order to permit the awl to be moved by the feed wheel for the purpose of moving the shoe as above described, a part, *n*, of the groove, *l*, is made wider than the rest of the groove.

O, exhibits the last on which the shoe is placed preparatory to being pegged. This last, O, is supported upon a jack or holder, P, which rotates horizontally on a pin or fulcrum, *p*, extending up from a standard

or slider, R, which is applied to and slides on a long rod, S, carried by a bifurcated weighted arm or lever, T, the whole being arranged as shown in the drawings. By means of such arm, the last is held firmly up against the feed wheel during the operation of pegging the shoe, the slider and rod in conjunction with the mode of applying the last holder to the said slider enabling the last, and the shoe on it to be moved around under the feeding wheel and by the feeding mechanism as occasion may require for the insertion of one or more rows of pegs within and around the entire sole.

By employing the slider and rod in connection with the weighted lever and the last holder, as specified, I am enabled to dispense with the universal joint as used under similar circumstances in my machine as hereinbefore patented as above mentioned, the slider and rod operating to much better advantage than the universal joint, as they cause the shoe not only to be better supported, but to be moved horizontally, whereas the universal joint will tip it more or less.

Having thus described my invention I claim—

1. The bell shaped feed wheel, A, and its arrangement with reference to the awl and pegwood carrier and provided with one or more ranges of holes substantially as described, the awl being made to work at an inclination to the axis of the feed wheel or from the axis toward and through the rim of the wheel as described.

2. I also claim the above described mode of feeding the shoe along, that is by the awl or its equivalent, and the feeder wheel, the latter not only assisting in feeding the shoe along by the pressure and action of the ranges of tapering holes but in holding the shoe in position while the awl is raised out of the hole.

In testimony whereof, I have hereunto set my signature, this 7th day of July, 1857.

B. F. STURTEVANT.

Witnesses:

R. H. EDDY,
F. P. HALE, JR.