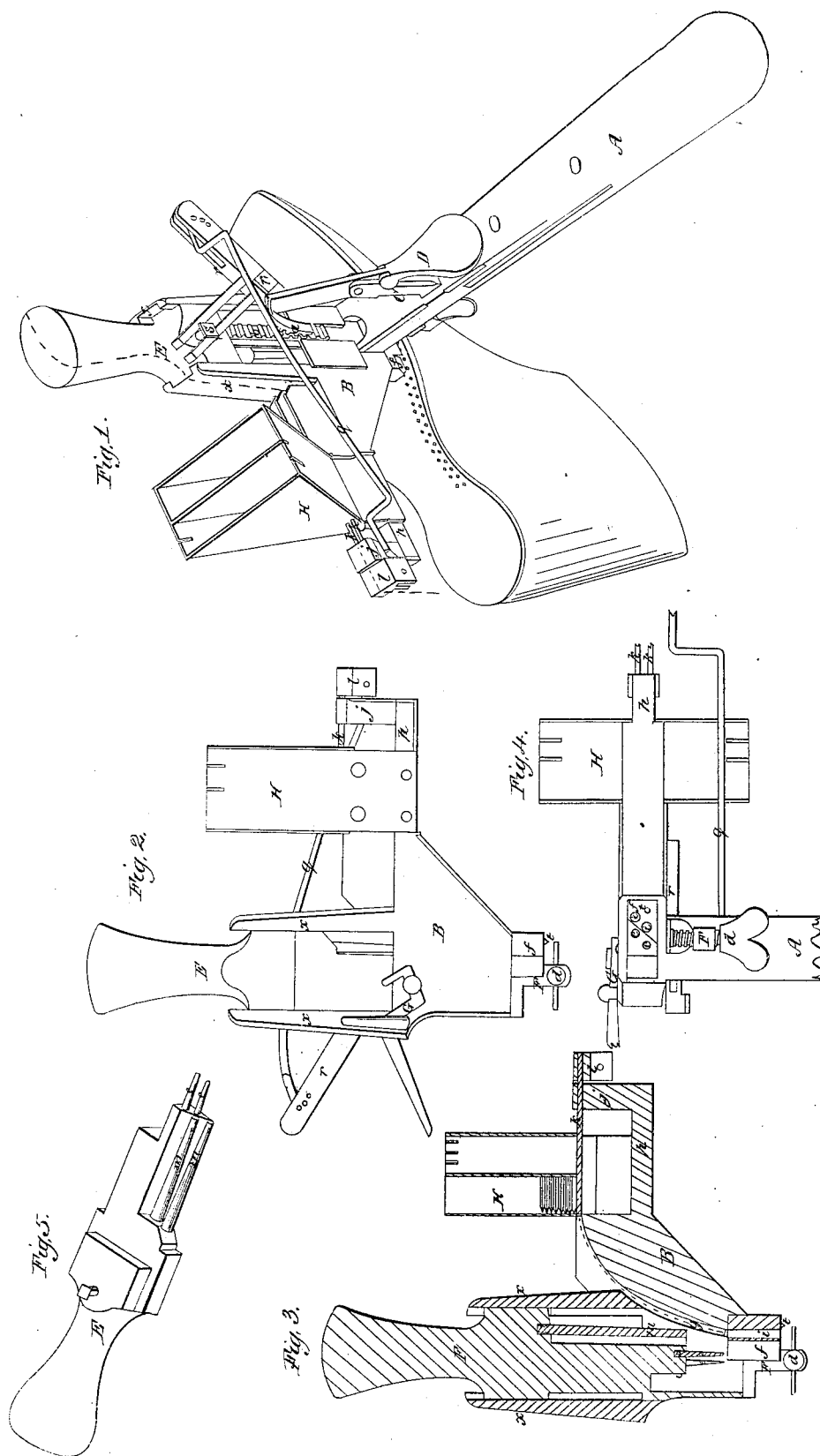


J. LA DOW.
MACHINE FOR PEGGING BOOTS OR SHOES.



UNITED STATES PATENT OFFICE.

JAMES LA DOW, OF GRANVILLE, OHIO.

MACHINE FOR PEGGING BOOTS AND SHOES.

Specification of Letters Patent No. 6,613, dated July 31, 1849.

To all whom it may concern:

Be it known that I, JAMES LA DOW, of Granville, in the county of Licking and State of Ohio, have invented a new and Improved Machine for Pegging Shoes and Boots, of which the following is a full and exact description, reference being had to the annexed drawings of the same making parts of this specification, in which—

Figure 1 is a perspective view of the machine arranged for pegging on the sole of a shoe, which is also seen. Fig. 2 is an elevation of the outer end. Fig. 3 is a section taken through the line *x x* of Fig. 1. Fig. 4 is a view of the under side of the machine, and Fig. 5 is a view of the awl and punch holder detached.

The same letters indicate the same parts in all the figures.

This machine is not designed to supersede manipulation, or essentially to modify the operation of pegging shoes as at present practiced by the artisan, but is merely intended to enable him to perform his work with increased convenience, accuracy, and dispatch.

In the accompanying drawings A is the handle by which the operator holds the machine, B is the stock which is attached to the front end of the handle, C is a standard erected upon the handle to support the fulcrum of the lever D which carries a toothed segment *a* on its front end, taking into a rack *b* which raises the sliding holder E of the awls and punches. On the under side of the handle a stud F projects to carry the set screw *d* which gages the distance of the rows of pegs from the edge of the sole. The awl and punch holder E is made with a head on its upper end, suitable to be struck upon by the hammer or mallet with which it is driven, and in its lower end sockets are formed to receive the awls *e* which are of the usual form; in the lower part of a projection on its side sockets are made to receive the punches *m* whose diameter corresponds with that of the vertical tubes *i* which receive and hold the pegs over the holes made by the awls in the leather; the awls and punches are respectively secured in the holder by means of pins, screws, or other suitable devices, and are so arranged

that the awls will puncture two rows of holes in the leather at the same time, the holes in one row being opposite the spaces between the holes in the other row. The awls go in advance of the punches, making one pair of holes simultaneously with the driving of the pegs by the punches in the holes last made. The awl and peg holder has ribs formed on its sides, which slide in vertical grooves made on the inner sides of the guides *x*, by this means uniformity and accuracy in its movements are insured.

When the awls are driven into the leather they are wedged in the holes very tight, and it requires considerable force to start them out again, which is very conveniently applied through the medium of the lever G, the projecting end of which is struck a smart blow by the hammer, simultaneously with the pressure of the thumb of the left hand upon the lever D which invariably causes the awls with their holders to rise up with great freedom and ease.

On the bottom of the stock is a projection *f* through which vertical holes *i* are made, directly beneath the punches to receive the pegs and hold them over the holes punctured in the leather, into which they are to be driven. These holes form the termini of the channels *g* through which the pegs are conveyed, from the hopper H. There is a conical point *t* on the bottom of the projection *f* which occupies the same position in relation to the punches that the outer punch does to the awls, and is for the purpose of guiding the operator in placing the machine properly, when its position is changed as the work progresses, it being always placed in the center of the peg last driven in the outer row. H is a hopper to contain the pegs, and is in the form of a hollow wedge, with its edge downwards, having two parallel and two converging sides, one of the parallel sides being adjustable for the purpose of varying their distance apart to suit the different sizes of pegs which are laid lengthwise between them with their points toward the awl. At the bottom of the hopper where the converging sides approach nearly together two channels are formed, being continuations of the channels *g*, these channels are each just large

enough to receive one peg and are open at both ends, and the top, the pushers or drivers *k* enter the ends of these channels farthest from the awl, each pushing before it one peg into the channels *g* by which they are conveyed into the holes *i*, the drivers are then withdrawn again to allow two more pegs to supply the places of those just driven out, and the operation of pushing them out is again repeated by the alternation of the drivers, and the operation is thus continued until all the holes around the shoe have successively been supplied with pegs.

The peg pushers *k* slide in guides made in the post *j* which is erected upon the projecting arm *p* of the stock *B* and are attached at their outer end to a head *l* to which is jointed the alternating rod *q* which is flexibly connected by its opposite end to the bent lever *r*, which turns upon the pin *r'* as a fulcrum. A pin *s* passes through a slot in one of the arms of the lever *r* into the side of the holder *E*, which pin raises and depresses the lever every time the holder is raised and lowered, and the lever thus oscillated communicates an alternating motion to the peg pushers *k* through the connecting rod *q*.

The hopper *H* and its appendages are all attached to the stock, the channels *g* being either formed in or attached to it. The stock, with the rest of the apparatus may be made in the form represented, or in any other deemed more convenient, and they may respectively be made of such materials as it is deemed best and most convenient to use, but I should prefer steel for the awls and punches, wrought iron or brass for the rods, and cast metal for the stock.

From what has already been incidentally said in the course of the specification in regard to the details of the operation, nothing in reference to that subject beyond a general description, will be required. The shoe or boot being secured in a clamp or holder, or held by a stirrup upon the knee in the usual manner, and having the sole accurately paired on its edges to the shape required; the machine properly charged with pegs is taken in the left hand, and the thumb placed upon the lever *D*, which is pressed down by it to raise the holder with the awls and punches, the set screw *d* is adjusted with the right hand, so that when placed against the edge of the sole it will allow the awls to reach over upon the leather just as far as it is required to make the rows of pegs within the edge; then, placing the awls at one end of the sole in the proper position, the top of the holder is struck by a hammer or mallet which is held in the right hand for the purpose, and the awls are driven into the leather and the peg pushers moved back, the outer end of the lever *G* is now struck a smart blow with the hammer which starts the awls

from the leather, and at the same time the lever *E* is pressed down by the thumb which starts the holder with the awls and punches, the former above the surface of the leather the latter out of the peg holes *i* in the block *f*, and simultaneously with the raising of the holder *E* the pusher *k* forces a peg out at the bottom of the hopper into each of the channels *g* and they run down and drop into the holes *i* as soon as the punches are withdrawn therefrom to be ready to be driven into the awl holes in the leather; the machine is now moved along until the pegs are placed on the holes punctured by the awls as above, and the holder again driven down by a blow of the hammer which brings the punches down upon the pegs, driving them into the holes, and at the same time causing the awls to enter the leather and puncture two more holes to receive in their turn a pair of pegs, the operation of raising the awls and punches, and supplying the punch holes *i* with pegs is repeated as before described, the machine is moved along until the point *t* is brought over the center of the outer peg last driven, the punches are then driven down upon the pegs forcing them into the holes last made, and two new holes are punched by the awls as before, and this operation is repeated until the sole is pegged around.

One of the awls and one punch may be taken out so that but one row of pegs is made at one operation, if such an arrangement be preferred.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The manner herein described of simultaneously punching one or more holes in the leather, and driving pegs into others previously made, by means of the awls and punches arranged as herein described, or in any other substantially similar manner.

2. The manner of supplying the pegs to be driven by the punches, by conveying them from the hopper in a channel which turns them from a horizontal to a vertical position with the points downward ready to be driven into the holes punctured in the leather for their reception.

3. The combination of the guide point *t* with the set screw *d* for regulating the distance of the pegs from each other, and from the edge of the sole.

4. The manner of raising the holder by means of a thumb lever, whether arranged and operating as herein described or in any other substantially similar manner.

5. The combination of the bent lever, connecting rod and pushers for the purpose of driving the pegs out of the hopper into the channels which convey them to the punch holes.

And generally, I wish it to be distinctly understood that I do not intend to limit my-

self to the precise form and arrangement
of parts herein described and claimed, but
expressly reserve to myself the right to mod-
ify the same in any way that I may deem
5 advisable so that I do not change the es-
sential character of the invention.

In testimony whereof I have hereunto

signed my name this second day of January
1849.

JAMES LA DOW.

Witnesses:

WM. D. WASHINGTON,

P. H. WATSON.