J. H. Bean,

Sole Machine.

No. 108,435. Patented Oct. 18. 1870.

Fig. 1.

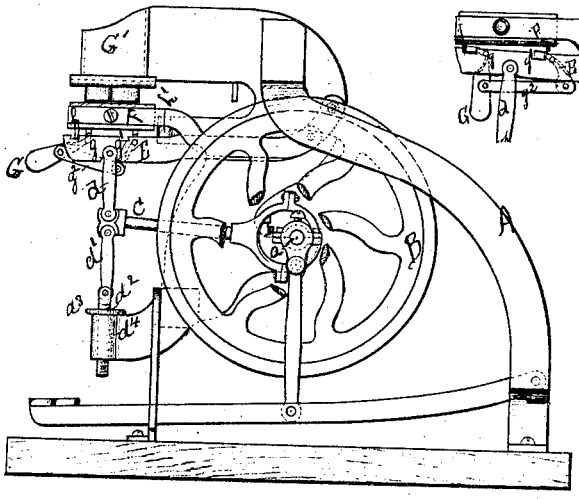


Fig. 5.

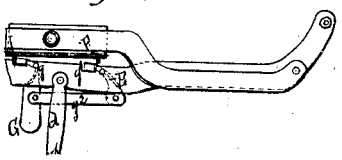


Fig. 3.

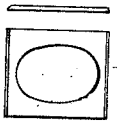


Fig. 4.

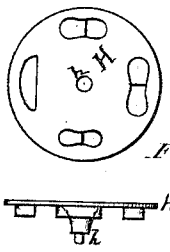
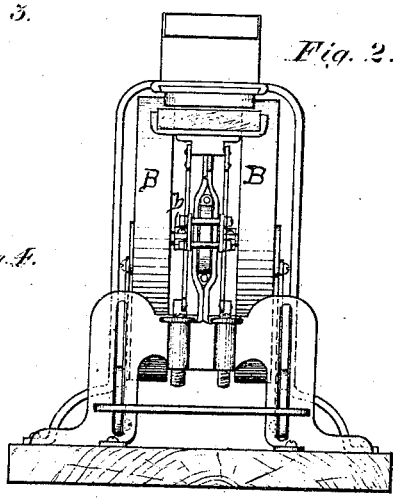


Fig. 2.



Witnesses:

H. G. Beadle

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United States Patent Office.

JOSEPH H. BEAN, OF MARIETTA, OHIO.

Letters Patent No. 108,435, dated October 18, 1870.

IMPROVEMENT IN MACHINES FOR CUTTING SOLES, &c., FOR BOOTS AND SHOES.

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, JOSEPH H. BEAN, of Marietta, in the county of Washington and State of Ohio, have invented a new and improved Dieing-Machine for Cutting Soles and other Forms of Leather for Boots and Shoes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention has for its object the production of a dieing-machine for cutting soles and other forms of leather for boots and shoes, and consists of certain details of construction, which will be fully described hereinafter.

In the drawing—

Figure 1 represents a side elevation;

Figure 2, a front elevation;

Figures 3 and 4 views of the cutters detached; and

Figure 5, a detached view of the pivoted frames E and F and the double lever G.

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

A A represent the frame-work of the machine, which may be constructed in any proper form.

B B represent fly-wheels upon a suitable shaft, *b*, which rests in bearings *a* of the frame A, as shown.

b' represents a disk, eccentrically attached to the shaft *b* at its center, about which is clasped the ring of the pitman C.

The other end of the pitman, is connected to the levers *d* d^1, which forms a toggle-joint of the ordinary construction.

The lower ends of the levers *d* are attached to threaded rods or standards d^2, supported in the sockets d^4 by screw-washers d^3.

The upper ends of the levers d^1 support the pivoted frame E.

F represents an auxiliary frame, pivoted to the frame E, which is provided with a suitable table, *f*, for the reception of the cutting-block, which is secured therein by means of a screw.

G represents a double lever, composed of similar parts *g* g^1, united by the bar g^2.

The lower portion of the part *g* is extended to form a convenient handle.

These levers are constructed with wide faces upon their short arms, which are caused to press against the table *f* of the frame F, by the action of the handle, when it is desired to raise the cutting-block up to the dies.

G' represents the die-holder, which is connected to the frame in any suitable manner.

It is provided with a box for the reception of the cut forms of leather, and with grooved flanges for the reception of the die-plates.

H represents a revolving die-plate, which is secured to the frame by means of a pin, *h*, which is forced into the socket *h'*.

This may be provided with any desired forms of dies, and is used in connection with the cutting-block in the ordinary manner.

To give the die proper bearing, a plain plate, having a suitable opening, should be inserted into the flanges of the die-holder.

To prevent the circular die-plate from being accidentally revolved, I provide a spring, *i*, upon the frame, which presses against it and secures it.

In fig. 1 is shown a die-plate of peculiar form, designed for cutting a pair of soles at one operation.

By means of this die the desired forms are cut without reversing the die or turning the leather, and also without waste.

The machine may be operated by any desired power.

If foot-power is used, treadles are attached to the fly-wheels by connecting-rods, in the usual manner.

The operation is as follows:

The bed of the cutting-block should first be made level by adjusting the levers *d*, by means of the screw-washers.

The auxiliary frame may then be raised by means of the double lever, and the machine is ready to work.

Revolving dies may be used, or the ordinary form, at will.

The machine, as a whole, is simple in its construction and effective in its action.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The revolving die-plate H, constructed as described.

2. The double lever G, constructed specifically as described, and combined with the pivot-frame F, for the purpose set forth.

3. The standards d^2, washers d^3, and sockets d^4, in combination with the toggle-joint *d* d^1, as described.

4. The combination of the adjusting devices d^2 d^3 d^4 with the double lever G, and pivoted frame E, as set forth.

This specification signed and witnessed this 23d day of July, 1870.

JOSEPH H. BEAN.

Witnesses:

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