J. HALL.

Machine for Making Ox-Shoes.

No. 161,782. Patented April 6, 1875.

Fig. 1.

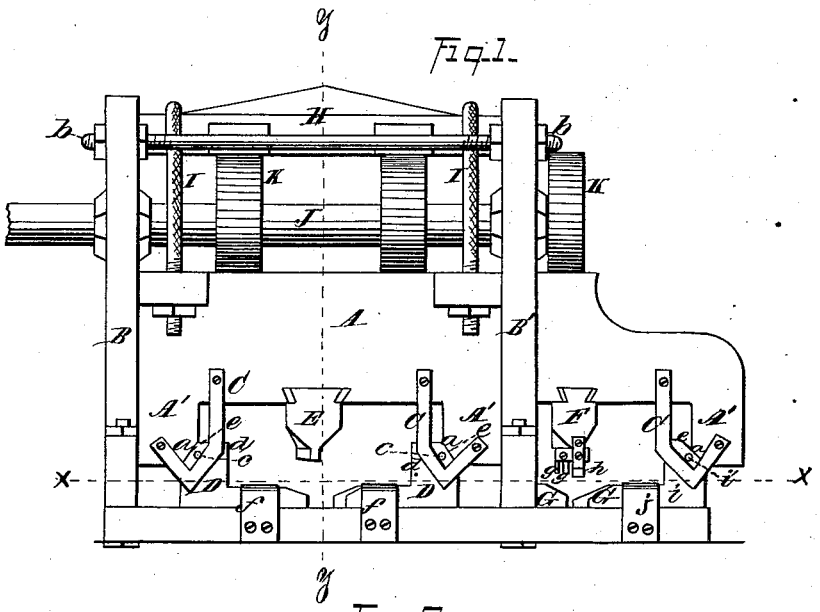


Fig. 2.

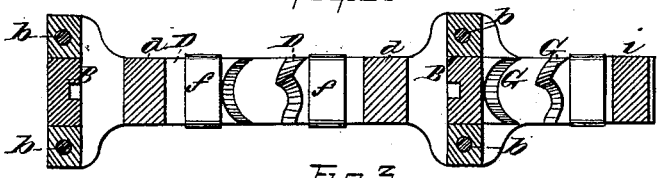


Fig. 3.

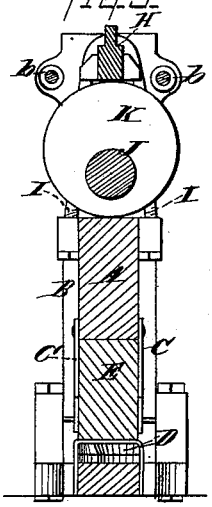
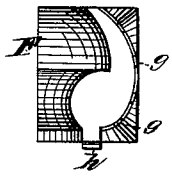


Fig. 4.



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# UNITED STATES PATENT OFFICE.

JOSEPH HALL, OF NAPANOCK, NEW YORK.

## IMPROVEMENT IN MACHINES FOR MAKING OX-SHOES.

Specification forming part of Letters Patent No. **161,782**, dated April 6, 1875; application filed February 27, 1875.

*To all whom it may concern:*

Be it known that I, JOSEPH HALL, of Napanock, in the county of Ulster and State of New York, have invented certain new and useful Improvements in Ox-Shoe-Making Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side or front elevation of my improved ox-shoe-making machine. Fig. 2 is a horizontal section thereof, taken through the dotted line *x x* of the above-mentioned figure. Fig. 3 is a vertical section of the same, taken through the dotted line *y y* of the same figure; and Fig. 4 is a view of the nail-hole marking and cutting or finishing die, looking at it from the lower side.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to a certain improvement in ox-shoe-making machines; and it consists in providing the die-beam with angular bars and projections or pendants for operating the female dies or presses, and of a nail-hole marking and cutting or finishing die, substantially as hereinafter more fully set forth.

In the annexed drawing, A refers to the die-beam, which moves, and is guided at one end, in a vertical groove in the upright B, and at a point a short distance from its opposite end in a slotted upright, B′. These uprights are bolted at their lower ends to a board or the floor, and connected together at their upper ends by the rods *b b*. Projections or pendants A′ A′ depend from the beam A, and are chamfered at *a a*. C C refer to angular metallic bars, attached at one end to the beam A, and at their opposite ends to the projections or pendants A′ A′, by which, and the said projections, the female dies or presses D D are operated—caused to approach and recede from each other—as the die-beam A moves up and down to bend or shape the iron into the shoe, the upper surface of the iron or shoe being operated upon by the die E of the beam A as the latter continues to descend. Projections *c c* on the vertical or upright portions *d d* of the dies or presses D D, engaged by the angular bars C C, assist the latter in throwing the said dies apart as the beam A ascends.

By chamfering the pendants or projections A′ A′, as shown at *a a*, and the uprights *d d* of the dies or presses D D at *e e*, the latter are allowed to recede, and brought in such a relation with the said pendants or projections as that when the beam A descends they will be operated upon by the said projections, so as to cause them to approach each other. The presses or dies D D slide in guides *f f*, suitably fastened in place to the board or bed-piece, upon which the dies slide and the uprights B B′ are secured.

F is the nail-hole marking and cutting or finishing die, detachably set in the beam A, and provided with the points or markers *g g*, for marking the nail-holes in the shoe, and the cutter *h* for cutting or finishing the shoe when inserted and held between presses or dies G G, the movable one of which is operated and guided in like manner as the dies D D, as seen at *i i′ j*. H is a cross bar or beam, moving and guided in grooves in the uprights B B′, and connected to the die-beam A by means of metallic yokes I I. Interposed between these beams, and having its bearings in the said uprights, is a shaft, J, with eccentrics or cams K K, which, as the said shaft is rotated, revolve against and simultaneously raise and lower the beams, giving motion to the dies.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The die-beam A, with the projections or pendants A′ A′ and angular bars C C, in combination with the dies or presses D D, substantially as and for the purpose set forth.

2. The nail-hole marking and cutting or finishing die F, having the points or markers *g g* and the cutter *h*, in combination with the beam A and dies or presses G G *i′*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH HALL.

Witnesses:
SAMUEL POST,
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