

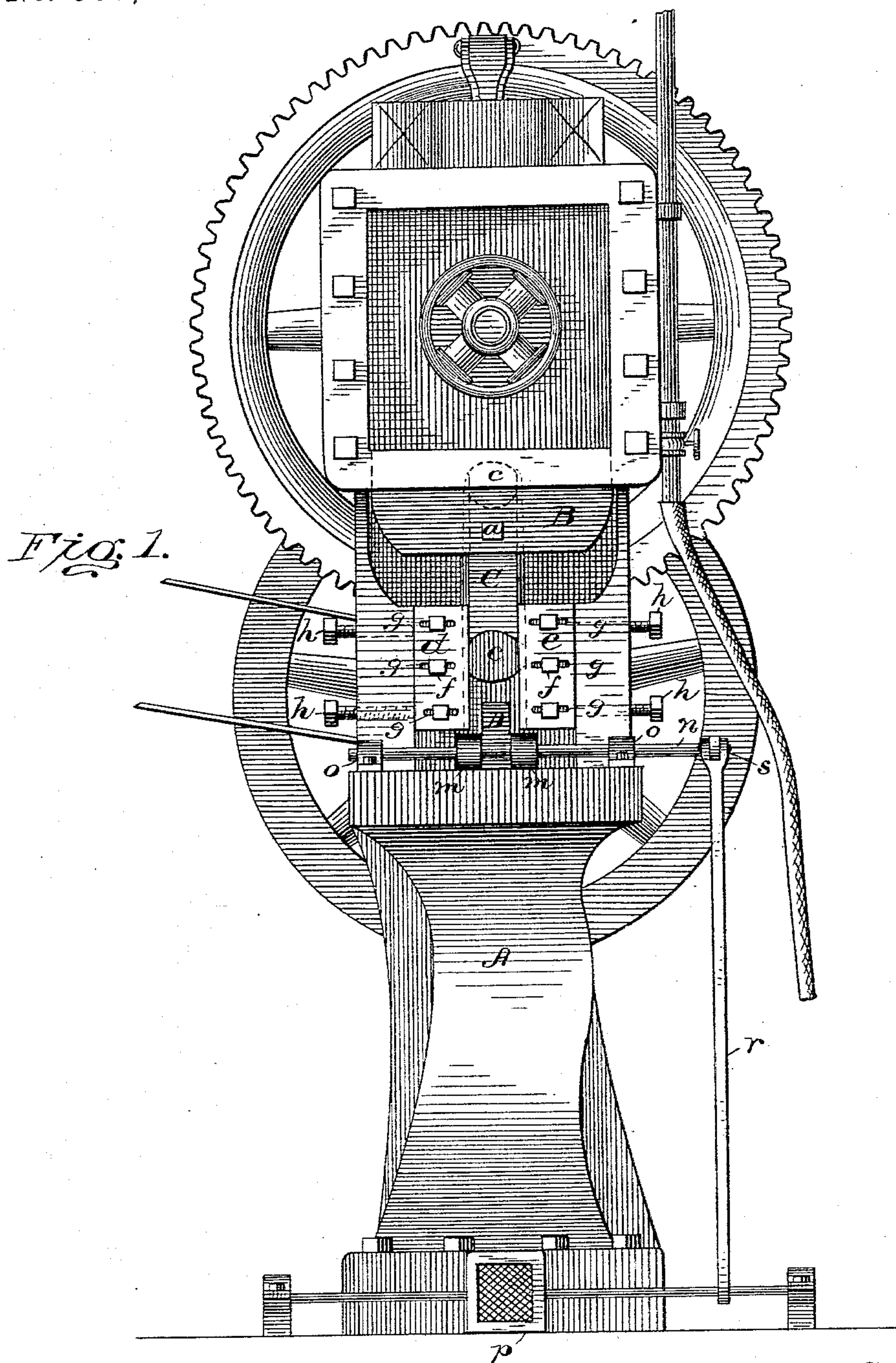
(No Model.)

3 Sheets—Sheet 1.

H. M. MYERS.
MACHINE FOR SPLITTING THE TANGS AND FORMING THE SOCKETS OF
SHOVEL BLANKS.

No. 369,360.

Patented Sept. 6, 1887.



Witnesses

Emf. Dannel
Wm. E. Dyer

Inventor

Henry M. Myers
By his Attorneys
Johnston, Reinohl & Dyer

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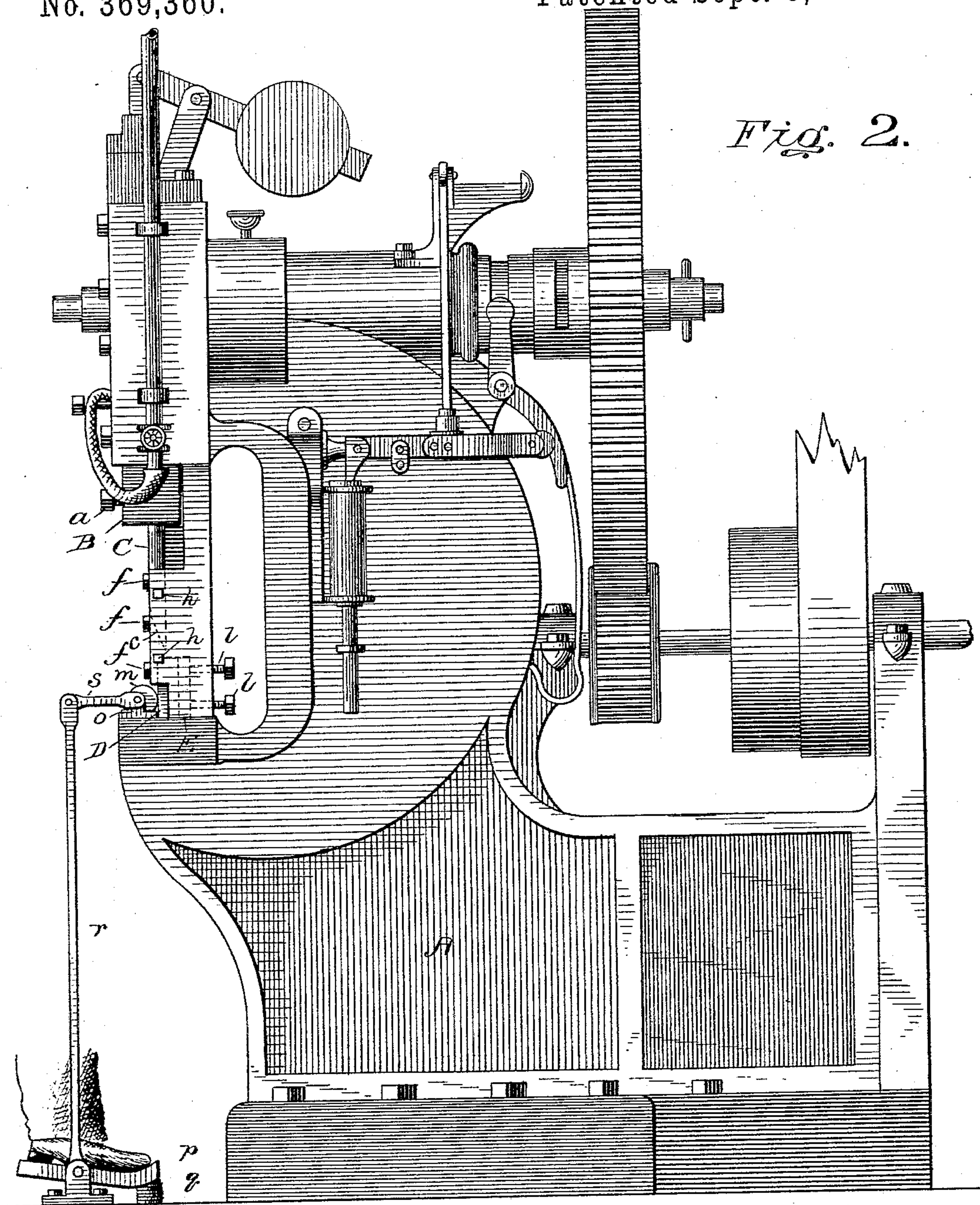


Fig. 2.

Witnesses
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Wm. E. Dyre.

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Henry M. Myers
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(No Model.)

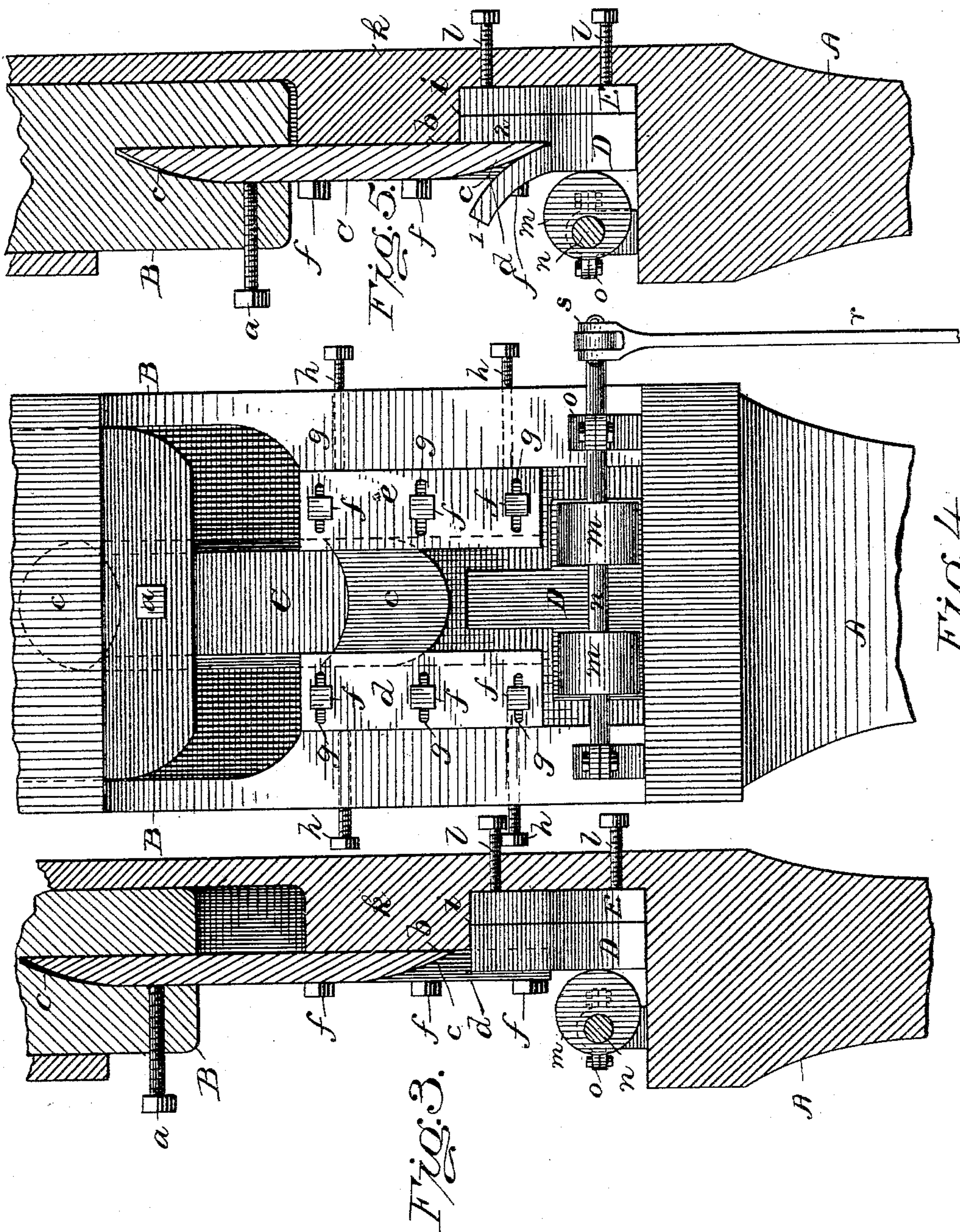
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Witnesses

Wm. J. Panner
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Inventor

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UNITED STATES PATENT OFFICE.

HENRY MILTON MYERS, OF BEAVER FALLS, PENNSYLVANIA.

MACHINE FOR SPLITTING THE TANGS AND FORMING THE SOCKETS OF SHOVEL-BLANKS.

SPECIFICATION forming part of Letters Patent No. 369,360, dated September 6, 1887.

Application filed March 31, 1887. Serial No. 233,187. (No model.)

To all whom it may concern:

Be it known that I, HENRY MILTON MYERS, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Splitting the Tangs and Forming the Sockets of Shovel-Blanks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to machines for splitting the tang and forming the socket in blanks for shovels, spades, and scoops, and has special reference to improvements in the splitting-machine shown in my patent, No. 348,037, dated August 24, 1886.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a front elevation of my improved machine; Fig. 2, a side elevation. Figs. 3, 4, and 5 are details on an enlarged scale.

Reference being had to the drawings and the letters marked thereon, A represents an ordinary punching-machine, having what is known as a "stop-motion," and in the reciprocating head B is secured by a set-screw, *a*, a double-ended splitting-knife, C. The knife is provided with a flat side, *b*, and beveled sides *c*, and reciprocates between guide-plates *d e*, which are secured in rabbets in the face of the machine by bolts *f*, which pass through elongated slots *g* in said plates, and are adjusted laterally to take up wear by bolts *h* in the sides of the machine.

D represents a shovel-blank, which fits in a recess, *i*, formed in the wall or plate *k*.

E is a back plate of the same configuration as the blank, is placed in the recess *i* in the rear of the blank, and is adjusted by screws *l l* for accommodating shovel-blanks of different thicknesses.

The blanks D are held in position while being split by eccentric cams *m m*, which are mounted upon a shaft, *n*, which is supported in suitable journal-boxes, *o*, and is operated by a treadle, *p*, under which is a spring, *q*,

for disengaging the cams from the blank, and is connected to the rock-shaft *n* by a link, *r*, and arm *s*.

The machine being constructed substantially as described, the operation is as follows: A blank, D, being placed in the recess *i*, the knife C descends and splits the tang of the blank, forming the bifurcated arms 1 2, and penetrates the body of the blank sufficiently to form the socket to receive the end of the wooden handle. As the knife descends, the beveled side *c* bends the arm 1 outward, while the flat side *b* of the knife and the walls of the recess *i* support the arm 2 of the tang. The cams *m m*, bearing against the outer surface of the blank under pressure exerted upon them by the foot of the operator, hold the blank firmly in its seat in the recess *i* and secure it against displacement by the knife as it descends through the tang into the body of the blank, and as the arm 1 is free to bend outward, the knife will pursue a straight or perpendicular course through the tang. After the tang has been split the spring *q* under the treadle *p* raises the latter and disengages the cam *m m* from the split blank, when it may be removed by any suitable means, such as tongs, a little cinder thrown into the split portion of the tang and the socket, and the arm 1 closed down upon the arm 2, when the blank is ready for the rolls for reducing it into a shovel-blade.

Instead of clamping the blank by means of a treadle, the rock-shaft *n*, carrying the eccentric-cams *m m*, may be connected to the reciprocating head B and the clamping action made automatic and synchronous with the splitting action.

Having thus fully described my invention, what I claim is—

1. A blank-splitting machine having a recess formed in a wall of the machine for supporting a shovel-blank, in combination with a knife for splitting the tang and forming the socket and suitable means for securing the blank against lateral displacement, substantially as described.

2. A blank-splitting machine having a recess formed in a wall of the machine, a back plate of the configuration of the blank, and adjusting-screws, in combination with a re-

ciprocating knife and clamping mechanism adapted to bear against one side of the blank, substantially as and for the purpose set forth.

3. A blank-splitting machine provided with
5 a recess for supporting the body of a shovel-blank and one arm of the tang while the latter is being split, in combination with a knife having a flat and a tapered side, the latter being adapted to bend the free arm of the tang

outward and to hold the other arm to its seat 10 in the recess as the knife advances into the tang, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY MILTON MYERS.

Witnesses:

J. F. MERRIMAN,
JOHN REEVES.