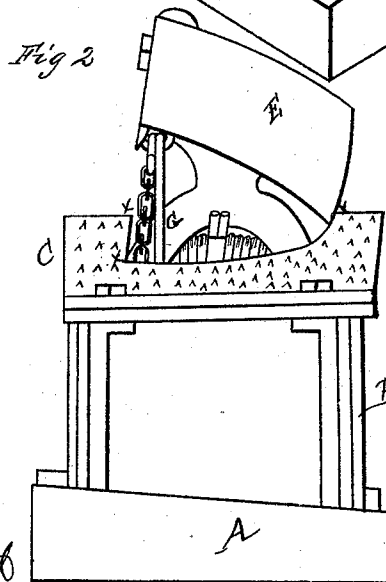
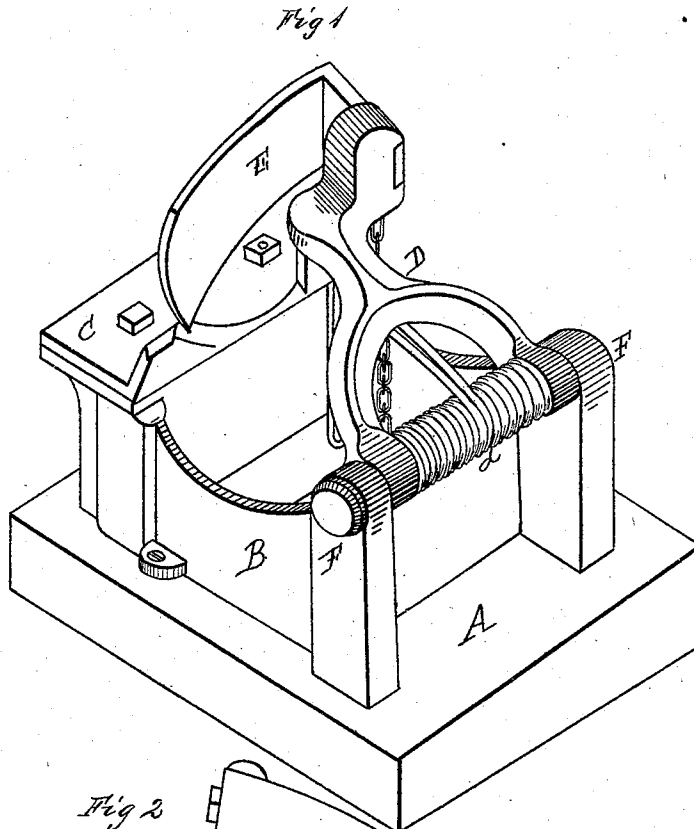


I. L. PENNEY.
Lock-Cutting Machines.

No. 138,815.

Patented May 13, 1873.



Witnesses:
Frank L. Curand
L. L. Ewert

Inventor.
Isaac L. Penney
per Alexander Mason
Attorneys.

UNITED STATES PATENT OFFICE.

ISAAC L. PENNEY, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN LOCK-CUTTING MACHINES.

Specification forming part of Letters Patent No. **138,815**, dated May 13, 1873; application filed April 3, 1873.

To all whom it may concern:

Be it known that I, ISAAC L. PENNEY, of Minneapolis, in the county of Hennepin and in the State of Minnesota, have invented certain new and useful Improvements in Coopers' Lock-Cutting Machine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of the devices, hereinafter described, for cutting locks in barrel-hoops, as will be set forth.

In the annexed drawing, A represents a wooden base, upon which is secured an iron frame, B. Upon one end of this frame B is secured the knife C, which is made of steel, as usual, and with a cutting-edge of peculiar shape, an outline of the same being seen in Fig. 2 from *x* to *x*. The face of the knife is roughened to hold more securely the hoop while the lock is being cut. D represents an arm, which is suitably hinged to the frame B at F. This arm is operated outward by means of a coiled or other spring. Upon the outer end of the arm D is a knife, E, which is curved upon its face, and has a square or rectangular offset in it corresponding somewhat in shape with the knife C. The knife E is secured to the arm D in such a position that when the said arm is carried downward the edges of the

two knives pass each other as shears, making a shear-cut. The curve in the knife E causes it to cut a concave face in the lock of the hoop, while its rectangular offset cuts a square shoulder, thus allowing the two ends of the hoop to meet and form a snug and secure lock.

The inclination and formation of the knives are such that the hoop while being cut is not forced away from the machine, or rather the cutting-edges, but is cut neatly, and that too very easily, with one downward stroke of the moving knife.

The arm D may be drawn or forced down by means of a rod or chain connected to its under side and passing to a suitable treadle.

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

The combination of the metallic frame B with the angular knife C with cutting-edge, as shown at *x x*, secured upon one end of the frame, and the inclined knife E attached to a bifurcated arm, D, hinged to a shaft at the other end of the frame, around which is coiled a spring, *d*, with one end projecting under the arm, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of March, 1873.

ISAAC L. PENNEY.

Witnesses:

VERNON BELL,
H. O. HAMLIN.