H. FOWLER.

Machine for Cutting Hoops.

No. 165,555. Patented July 13, 1875.

Fig. 1.

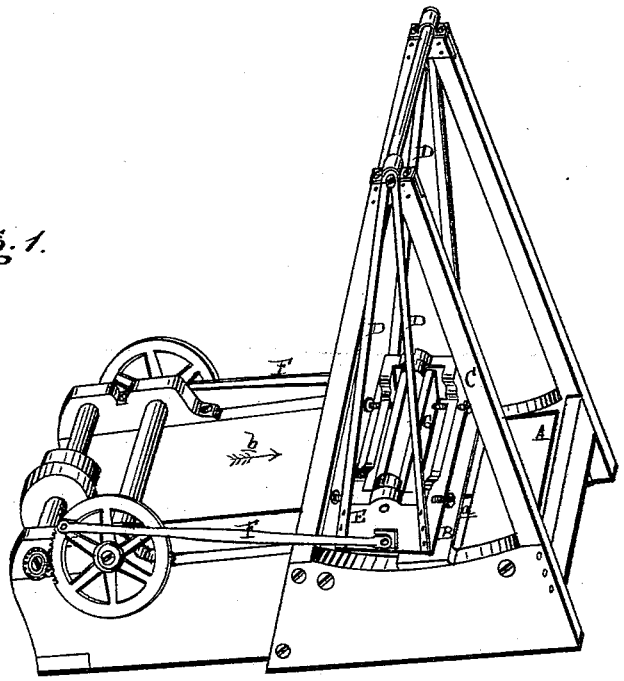
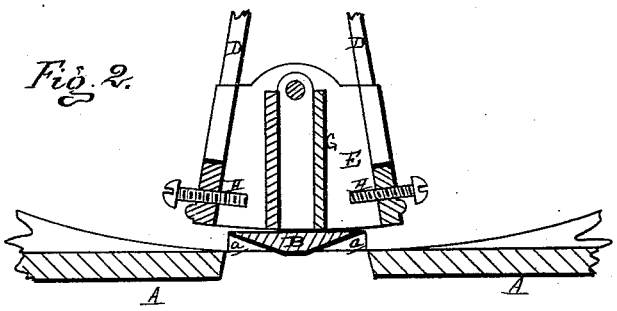


Fig. 2.



Attest:
H. F. Eberts
A. Sprague

Inventor:
Henry Fowler
per attorney
A. Sprague

UNITED STATES PATENT OFFICE.

HENRY FOWLER, OF DETROIT, MICHIGAN.

IMPROVEMENT IN MACHINES FOR CUTTING HOOPS.

Specification forming part of Letters Patent No. **165,555**, dated July 13, 1875; application filed May 22, 1874.

To all whom it may concern:

Be it known that I, HENRY FOWLER, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Machines for Cutting Hoops, of which the following is a specification:

The nature of this invention relates to certain improvements in machines for cutting hoops from bolts; and the object is to automatically cut the inner face of the hoops upon the necessary bevel to fit the swell or bilge of the barrel.

Figure 1 is a perspective of my improved machine. Fig. 2 is a cross-section through the head, vibrating bolt-holder, cutters, and bed.

Like letters indicate like parts in each figure.

In the accompanying drawings, A represents a horizontal bed, provided with throats *a*, through which the hoops fall after being cut. Above this bed, and in proper relation to said throats, is secured the two-faced knife or cutter B. If preferred, this cutter may consist of two knives, the edges of which project in opposite directions, while their backs are presented to each other. Suspended from the frame C, by means of the radial arms D, is the head E, and a swinging vibratory motion is given to it by the connecting-rods F, and any suitable motor. Within the head is pivoted, at each end, the oscillating bolt-holder G. Set-screws H, projecting through each side of the head, rest at their inner ends at the point necessary to arrest the oscillation of the bolt-holder at the point desired to give the necessary bevel to one side of the hoop.

The bolt, being prepared of the necessary thickness and length, is inserted in the holder, where it has sufficient play to allow it to fall onto the bed as fast as a hoop is cut off. The lower edge of the bolt is supposed to be square, or at right angles with the sides thereof. In the first forward motion of the head, as indicated by the arrow *b*, the side of the bolt, in being presented to the cutter, is arrested until the bolt-holder has swung back against the set-screws on that side of the head, by means of which the bolt is forced against the cutter at a sufficient angle to cut the hoop off with its inside face beveled. After passing the cutter the hoop has dropped through the throat, and the lower edge of the bolt is found to be beveled. It becomes necessary, therefore, that the next cut should be at right angles to the side of the bolt. The set-screws on the opposite side of the head should be used to compel this to be done. The whole is so arranged that the cut one way is a bevel one, and the other way is a straight one, and so that one complete revolution will cut two finished hoops.

I am aware of the machine for cutting veneers as patented to Peter Cook February 3, 1857, and disclaim any part thereof; but

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

1. In combination with the bolt-holder G and the head E, the set-screws H, for the purposes described.

2. The combination, with the bed A, provided with throats *a*, of the cutters B, oscillating holder or box G, pivoted within the head E, set-screws H, frame C, radial arms D, and connecting-rods F, all constructed and arranged as described and shown.

HENRY FOWLER.

Witnesses:
C. E. HUESTIS,
H. S. SPRAGUE.