A. W. MAHON.

MACHINES FOR CUTTING RIVET HEADS.

No. 182,685. Patented Sept. 26, 1876.

Fig. 1.

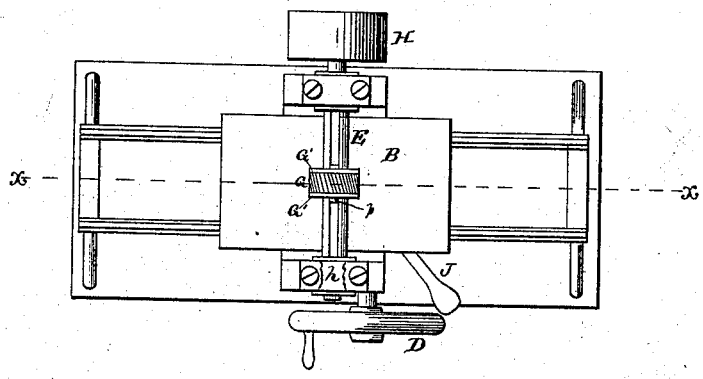


Fig. 2.

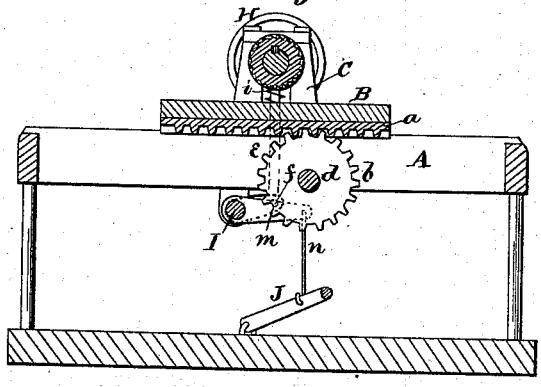
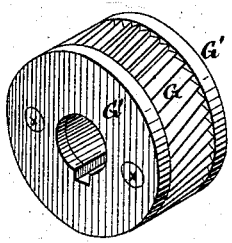
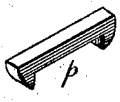


Fig. 3.





WITNESSES

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AURELIUS W. MAHON, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN MACHINES FOR CUTTING RIVET-HEADS.

Specification forming part of Letters Patent No. **182,685**, dated September 26, 1876; application filed June 7, 1876.

To all whom it may concern:

Be it known that I, AURELIUS W. MAHON, of city of Richmond, in the county of Henrico, and in the State of Virginia, have invented certain new and useful Improvements in a Machine for Cutting off Rivet-Heads without defacing the surface; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The object of my invention is to cut off projecting screw or rivet heads without defacing a finished or polished surface; and it consists in the construction and arrangement of a milling-tool and the machine in which it is used, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my machine. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a perspective view of the milling-tool.

A represents a rectangular frame of any suitable dimensions, the upper edges of the side pieces of which are shaped to form guides for the table B to travel on back and forth. On the under side of the table B is a rack-bar, *a*, into which meshes a pinion, *b*, secured on a horizontal shaft, *d*. This shaft passes through the side pieces of the frame, and through the lower ends of standards C C secured to the frame, and the shaft has a fly-wheel, D, with crank for the operator to move the table back and forth as desired.

The standards C are slotted vertically, and in each standard is a box, *h*, with downwardly-projecting pin *e*, surrounded by a spiral spring, *i*. In these boxes *h h* a shaft, E, has its bearings, which shaft, upon one end, has a pulley, H, to be connected by a belt with the driving-power.

The pins or rods *e e* from the boxes *h h* connect at their lower ends with arms *f f*, extending from a shaft, I, which has its bearings in projections from the lower ends of the standards C.

From the shaft I also projects another arm, *m*, which is, by a rod, *n*, connected with a treadle, J, so that the operator, by putting his foot on the treadle, can at any time press the shaft E down and bring the tool thereon close to the work. This tool consists of a toothed center-piece, G, having a hardened steel flange, G′, on each side the exact size of the diameter of the tool at the point of the teeth of the cutter, and these flanges are fastened to the cutter G by pins *x* or other suitable means. This tool is held by a key, *p*, on the shaft E, the key entering a longitudinal groove therein.

By means of the side flanges G′ the cutter G is prevented from cutting any more than the projecting portion of a screw or rivet, for as soon as the flanges touch the plate on either side of the screw or rivet it can go no deeper. It can be worked singly or in gangs. The tool, working free in the groove in the mandrel, can be moved at will.

This device is to be used on tobacco-flattening mills where polished plates are screwed or riveted on wooden blocks, or anything else where rivets or screw-heads are to be removed.

The ordinary method is by chipping and filing, which is very costly, and besides the rivets are often loosened by using the cold-chisel.

With my invention the work is done easily and quickly and without any liability of injuring the work.

The cutters may be made of any size desired to suit the work to be done.

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

1. The milling-tool G, provided with the side flanges G′, and keyed upon a rotating mandrel, E, as and for the purposes herein set forth.

2. The combination of the tool G G′ and the reciprocating table or carriage B, as and for the purposes herein set forth.

3. The combination of the tool G G′, shaft E, boxes *h*, rods *e* with springs *i*, shaft I with arms *f f m*, rod *n*, and treadle J, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of May, 1876.

AURELIUS W. MAHON.

Witnesses:
C. L. EVERT,
WM. B. REED.