(No Model.)

W. H. H. STEVENSON & M. H. PLUNKETT.

CUTTING AND PUNCHING PRESS.

No. 264,487. Patented Sept. 19, 1882.

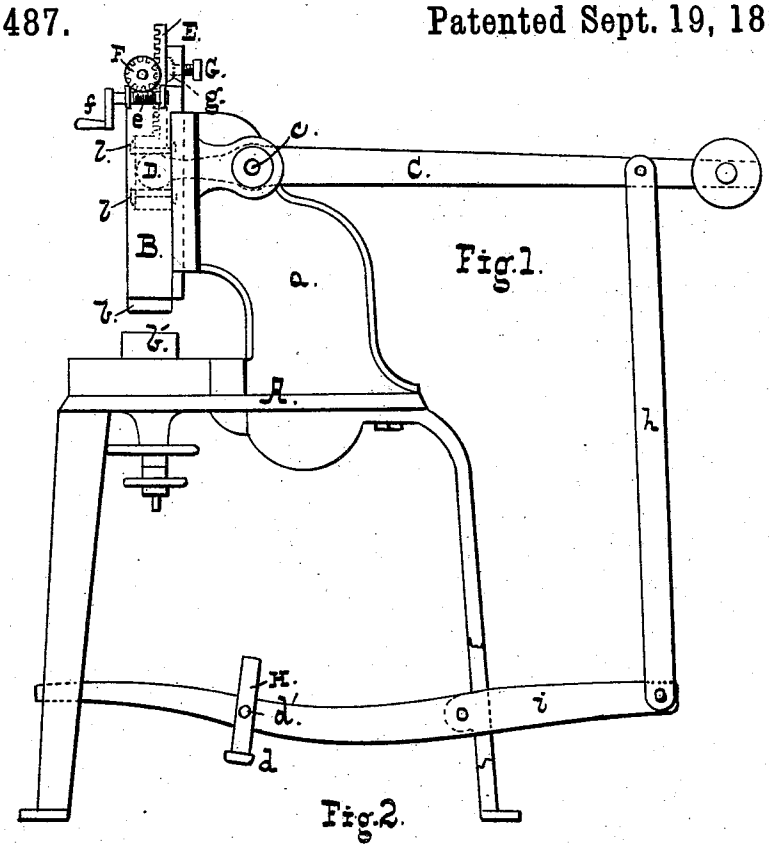
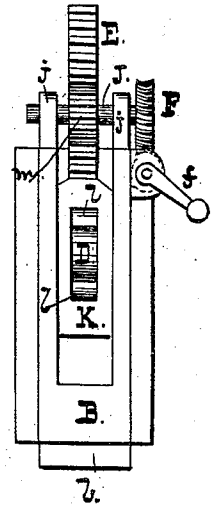


Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

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CUTTING AND PUNCHING PRESS.

SPECIFICATION forming part of Letters Patent No. 264,487, dated September 19, 1882.

Application filed April 1, 1882. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. H. STEVENSON and MICHAEL H. PLUNKETT, both of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Cutting and Punching Presses; and we hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the press, and Fig. 2 is a front elevation of the sliding head and its attachments.

Our invention relates to cutting and punching presses such as are used for punching and striking up various articles from sheet metal; and it has for its object to secure a nice adjustment of the sliding head, to lock it securely in its adjustable positions, and to take up wear of the bearings in which the end of the lever works, and to relieve the punch from the die; and to these ends our invention consists in certain combinations of parts, as hereinafter set forth and claimed.

In the drawings, A is the frame of the press, having an upright, *a*, provided with guides in which slides the head B, and *b b'* are the upper and lower dies.

C is a lever, pivoted at *c* in the upright *a*, and connected by means of an arm, *h*, with the treadle-lever *i*.

The sliding head B is slotted longitudinally, and in the slot is mounted a block, K, carrying a rack, E, with which a pinion, *m*, engages. The pinion is mounted upon a shaft, J, journaled in lugs *j*, and carrying on its outer end a worm-pinion, F, which is turned by means of a screw, *e*, and crank *f*.

A screw, G, passes through the rear of the head B, and is adapted to press a block, *g*, against the rack E and lock it securely.

The end D of the lever C is made circular, and by preference carries a roller. It enters a slot in the block K, and above and below the part D are gibs *l l*. When wear occurs it is only necessary to remove the pivot *c*, slip the lever back, and place a strip of paper or tin behind one of the gibs to take up the wear.

To the lever *i* is attached a rod, H, by means of a set-screw, *d'*, and on the end of the rod is a rubber or equivalent elastic buffer, *d*. The rod H being properly adjusted upon the lever *i* to strike the floor at the end of the stroke, the resiliency of the buffer causes the punch to rise and free itself from the die, whereby we are enabled to use a weight on the lever C barely heavy enough to lift the head B, and the labor of operating the press is greatly diminished.

In order to adjust the sliding head up or down, it is only necessary to release the block *g* and turn the crank *f*, which causes the head to rise or fall with reference to the block K. When the adjustment is complete the rack is locked by turning up the screw G. By the means employed great nicety of adjustment is attained and the bearings of the lever are securely locked with reference to the sliding head, so as not to be jarred out of adjustment.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination with the sliding head and block K, mounted therein, the rack, pinion, and worm-gear, substantially as set forth.

2. In combination with the sliding head and block K, the rack, pinion, and worm-gear, and a locking device for securing the rack, as set forth.

3. In combination with the treadle-lever of a cutting or punching press, a resilient buffer mounted thereon and adjustable to or from the fulcrum, whereby the dies are freed after the stroke and the length of the stroke is determined, as set forth.

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