A. SHOGREN.

Machine for Cutting and Punching Iron.

No. 39,757. Patented Sept. 1, 1863.

FIG. 2.

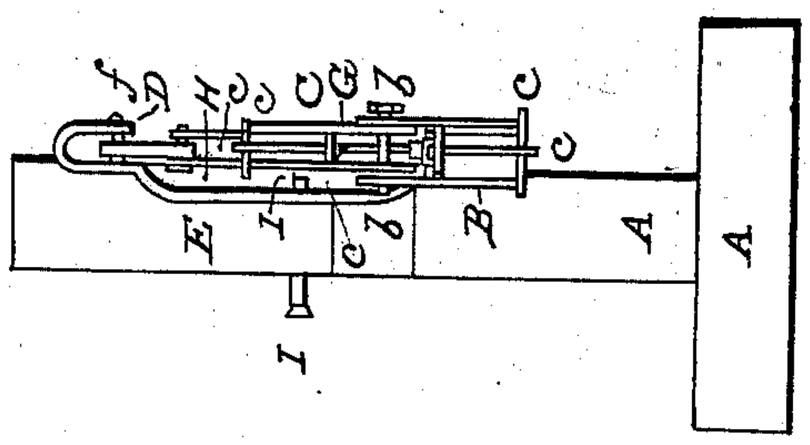
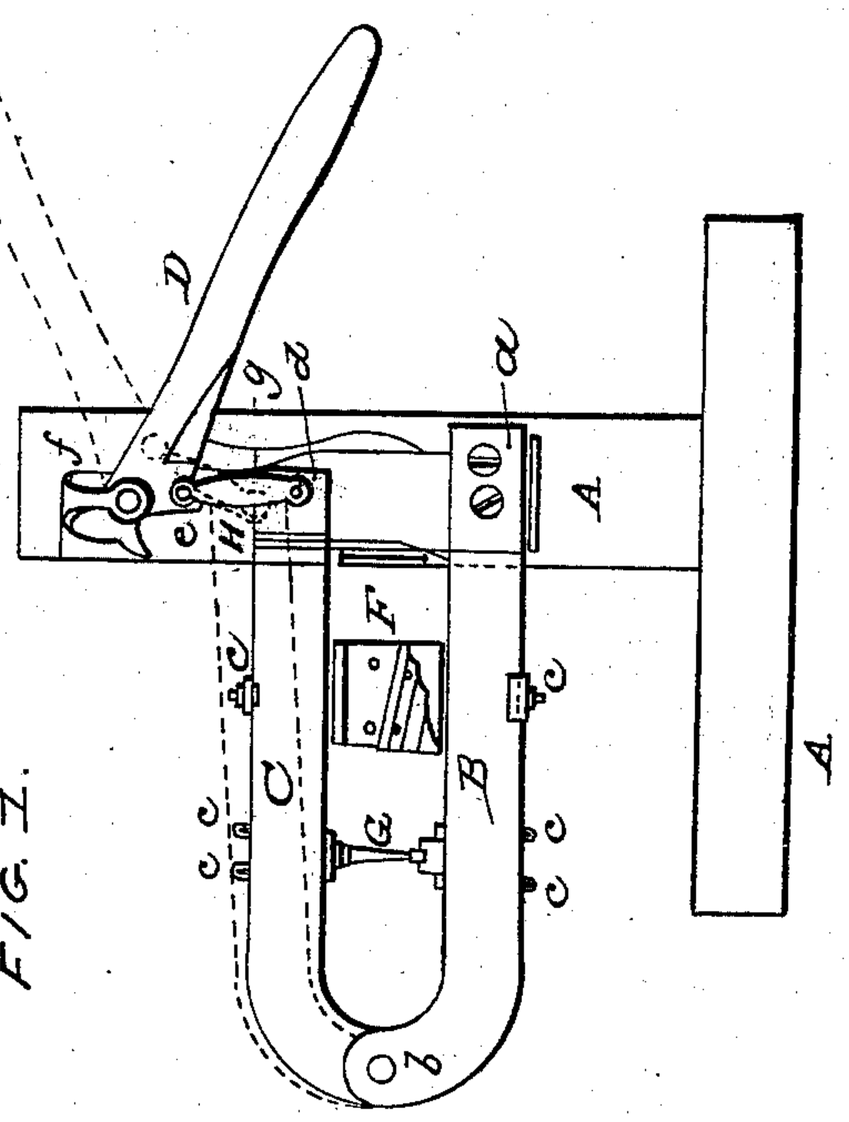


FIG. 1.



WITNESSES:

Edward Leal

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ANDREW SHOGREN, OF MISSION, ILLINOIS.

IMPROVEMENT IN MACHINES FOR CUTTING AND PUNCHING IRON.

Specification forming part of Letters Patent No. **39,757**, dated September 1, 1863.

To all whom it may concern:

Be it known that I, ANDREW SHCGREN, of the town of Mission, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Machines for Punching and Cutting Iron; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front view; Fig. 2, an end view.

Like letters refer to similar parts in both figures.

The nature of my invention consists in constructing a machine for punching or cutting iron in a simple manner, so that it can be successfully done in any ordinary blacksmith's shop; in providing such machine with a bed, B, constructed of parallel barsand connected with a prime lever, C, also made of parallel bars, so as to enable the operator to change the position of the tools placed therein, and by such change increase or diminish the power by which they are operated; in connecting such prime lever C with a hand-lever, D, by means of the connecting-bars H; in providing the standard A with a set-screw, I, or its equivalent, for adjusting the shears and punch, and in combining the bed B, prime lever C and hand-lever D with standard A and shears F or punch G, so as to produce a machine with sufficient power to cut iron and steel, either hot or cold, or punch them with ease.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the standard A and base of wood or other suitable material, of sufficient size and strength to sustain the other parts of the machine in operation. The standard is about four feet in height, and it will frequently be found convenient to dispense with a base and insert it in the ground or the timbers of the shop. The bed B is made of iron or other suitable material, and constructed in two parallel bars, which are brought together at the standard A and firmly attached to it by the bolts *a a*. This bed is extended horizontally about three feet from the standard. The outer ends of the parallel bars, commencing at the upward turn of the same, are widened sufficiently to admit the prime lever C and form a hinge-joint with it. The outer ends are also turned upward one-half of the desired distance between the bed and prime lever. The width of the parallel bars will be determined by the service required of the machine. The prime lever C is also made of parallel bars of iron of the same size as the bed, and are placed the same distance apart. The bars are brought together at the standard, and at the outer end are turned downward and hinged with the bed at *b*. Between these parallel bars I insert the shears F (which are made of cast or wrought iron faced, with steel, and of any desired size) and the punch G. I find the shears to work better when the blades are placed at an angle of about forty-five degrees with the line of the bed. One or both of them may be used at a time in this machine, and may be placed anywhere on the entire length of the bed, from the standard to the turn, and are held in place by the nuts or keys *c c*. The cutting of the shears is regulated by the set-screw I, Fig. 2, which is attached to the side of the standard or passes through it and presses against the back side of the prime lever C. It is also useful in adjusting the punch with its socket. The head of the hand-lever D is made of iron, and may be extended by the same material or with wood, or partly of both, to any desired length. This lever is hinged at *f* in an iron bar, E, which is attached to the standard, and extends from the bottom of the bed above the hand-lever D, where the top is turned over so as to form the hinge *f*. The head of the lever D is about four and one-half inches in width, and at the lower edge two connecting-bars, H H, are attached at *e*, connecting it with the prime lever C at *d*.

When it is desired to operated this machine by more than one person, the lever D will be placed on the opposite side of the standard, as shown; but when one person desires to operate it the lever will be turned over and placed directly over the prime lever C. It will also be best to turn the shears, in that event, as it gives them a better position. When not in operation, the lever D rests on the pin *g*, thus forming, when complete, a cheap and powerful machine, which may be used advantageously with any power, but is more particularly useful and desirable in blacksmithing,

where only muscular power is used, as it will cut or punch cold or hot iron of much greater strength and thickness than can be cut by any machine heretofore known or used, to my knowledge.

Having thus fully described my machine, I will say that I do not claim either the punch or shears, as they are both old and well known; but

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

1. The prime lever C, when constructed with two parallel bars, so as to be open nearly its entire length, and hinged at the outer end to a bed similarly constructed.

2. The combination of the bed B, prime lever C, hand-lever D, and its connecting-bars H H with the standard A and shears F or punch G, all being substantially as set forth and specified.

ANDREW SHOGREN.

Witnesses:

EDWARD TEAL,

J. SHOGREN.