

UNITED STATES PATENT OFFICE.

ALFRED WALLE, OF LUDINGTON, MICHIGAN.

FOOT-POWER HAMMER.

995,742.

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To all whom it may concern:

Be it known that I, ALFRED WALLE, a citizen of the United States, residing at Ludington, in the county of Mason and State of Michigan, have invented certain new and useful Improvements in Foot-Power Hammers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hammers worked by foot and adapted for use in blacksmiths' shops; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the hammer showing it attached to an anvil block. Fig. 2 is a perspective view of the socket which is secured to the block. Fig. 3 is a perspective view of the bracket which engages with the said socket.

A is the anvil, and B is its supporting block, these parts being of any approved make.

C is a socket formed of plates and bars of iron riveted together so as to form a slot *c*, and *c'* is a longitudinal row of pin holes in the said plates formed crosswise of the said slot. The socket is secured against the rear side of the block B.

D is an angle-shaped bracket having a shank *d* which is slidable in the slot *c*, and which is provided with a hole *d'* for a pin E. The pin E secures the bracket in the slot at any desired elevation, being pushed through the holes *d'* and *c'*.

E' is a pivot or bolt which projects upwardly from the horizontal member of the bracket D, and F is a curved fulcrum bracket which is pivoted on the pivot E' and provided with a hand-nut *f* for clamping it on the said pivot the upper part of which is screwthreaded to fit the nut. The curved fulcrum bracket F is formed of a bar which is twisted and bent upwardly and provided at its upper end with a fulcrum pin *g* for the hammer.

G is the hammer head, and H is a stout wooden handle secured therein. A clamp *h* is bolted on the hammer handle or shaft, and is pivoted on the fulcrum pin *g*.

I is a spring for striking the blow. One end of this spring is secured to eyes *i* on the fulcrum bracket F, and its other end is se-

cured to collars *i'* which are clamped on the hammer handle. Two eyes and two collars are provided, and the spring is interchangeable between these eyes and collars so that blows of four different degrees of strength may be struck.

The hammer head is preferably arranged over the middle of the anvil face, but the fulcrum bracket F can be adjusted on the pivot E so that the hammer head will work over either end portion of the anvil, as required.

J is a downwardly curved extension-bar provided with a socket *j* which is clamped over the rear end portion of the wooden hammer handle. The bar J is formed of iron or steel, and it is provided with a brace *j'* to stiffen it.

K is the foot lever which is pivoted on a pin *k* secured to one end of the anvil block, and provided with a foot-plate *k'* at its front end. The foot lever K has a short upwardly projecting arm *m* at its rear end having a series of holes *m'* in it.

N is a small clevis provided with a pin *n* for engaging with either of the holes *m'*.

P is a connecting-rod pivoted by a pin *p* at its rear end to the rear end of the extension-bar J, and having a hook *p'* at its front end which engages with the clevis N, thereby forming a universal joint at this point.

The front end portion of the foot lever K is normally held against a stop R on the anvil block by means of a light spring S secured to the anvil block and to the rear end portion of the foot lever.

T is a hook on the fulcrum bracket F for engaging with the extension-bar and holding the hammer in its highest raised position when the anvil is required for use without the power hammer.

The hammer is worked by the pressure of the foot on the foot plate, and the services of a striker to operate the hammer are not required.

What I claim is:

1. In a power hammer, the combination, with an anvil, and an anvil block; of a socket secured to the anvil block and having a vertical slot, an angle-shaped bracket slidable in the said slot and provided with a fastening device for securing it therein, a fulcrum bracket secured to the said angle-shaped bracket, a hammer helve pivoted to

the fulcrum bracket, and a foot lever pivoted to the said anvil block and operatively connected with the said hammer helve.

2. In a power hammer, the combination, 5 with an anvil, and an anvil block; of a bracket supported from the said block and provided with a horizontal member having a vertical pivot pin, a curved fulcrum bracket pivoted on the said pin and provided 10 with means for securing it on the pin, a hammer helve pivoted to the fulcrum bracket, and a foot lever pivoted to the said anvil block and operatively connected with the said hammer helve.

3. In a power hammer, the combination, 15 with an anvil, and an anvil block; of a fulcrum bracket supported from the said block, a hammer provided with a helve which is pivoted to the fulcrum bracket, fastening devices on the hammer helve and on the fulcrum bracket arranged at different distances 20 from the fulcrum pin, a spring which engages interchangeably with the said fastening devices to strike blows of different

strength, and a foot lever pivoted to the 25 said anvil block and operatively connected with the hammer helve.

4. In a power hammer, the combination, with an anvil, and an anvil block; of a bracket secured to the said block, a fulcrum 30 bracket pivoted to the said bracket and adjustable in a horizontal plane, a hammer helve pivoted to the fulcrum bracket and having a downwardly curved extension-bar at the rear end, a foot lever pivoted to the 35 said anvil block and having an upwardly projecting arm at its rear end, a clevis pivoted to the said arm, and a connecting-rod pivoted to the extension-bar and having a hook at its front end which engages with 40 the said clevis.

In testimony whereof I have affixed my signature in the presence of two witnesses.

ALFRED WALLE.

Witnesses:

FRANK PETERSON,
SAM PETERSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
