(No Model.)

G. W. RICE.

ANVIL ATTACHMENT.

No. 486,504. Patented Nov. 22, 1892.

Fig. 1

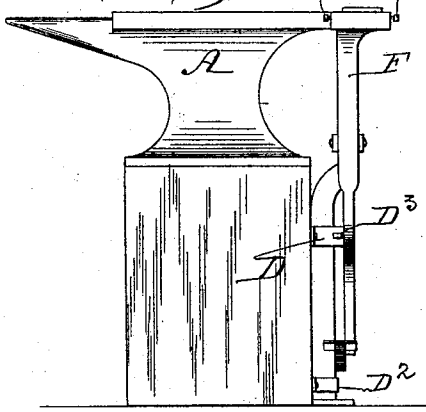


Fig. 2

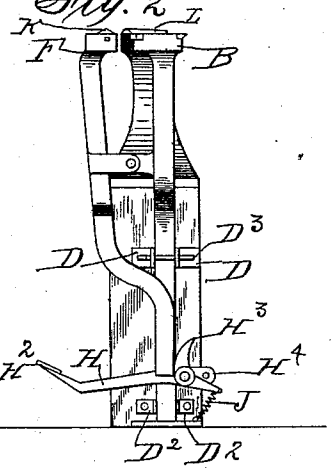


Fig. 3

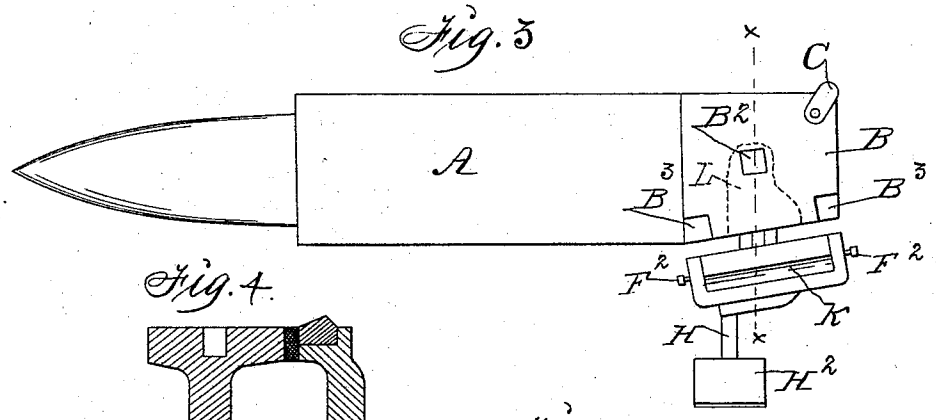


Fig. 4.

Fig. 5

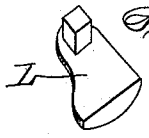


Fig. 6

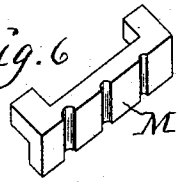
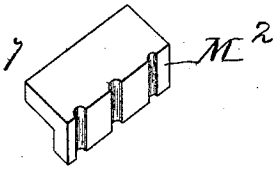


Fig. 7



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UNITED STATES PATENT OFFICE.

GEORGE W. RICE, OF DES MOINES, IOWA.

ANVIL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 486,504, dated November 22, 1892.

Application filed February 1, 1892. Serial No. 419,975. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. RICE, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Anvil Attachment, of which the following is a specification.

My object is to provide strong, durable, and convenient means whereby a horseshoe may be held in position by foot-pressure, as required, to form calks and clips thereon, to provide improved means for holding bolts, &c., while heads are being formed thereon.

My invention consists in the construction of an attachment to be applied to the end of an anvil, an adjustable jaw adapted to be operated by foot-power, and in the construction and combination of various swaging devices adapted to be connected with or clamped between the said jaws for the purpose of shaping horseshoes and forming heads on bolts, &c., as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of an anvil provided with my attachment. Figs. 2 and 3 are respectively end and top views of the same. Fig. 4 is a transverse sectional view through the line $x\ x$ of Fig. 3. Fig. 5 is a perspective view of a device adapted to be placed in an angular opening in one of the jaws to aid in forming the clips of horseshoes, &c.; and Figs. 6 and 7 are perspective views of the attachments adapted to aid in forming bolt-heads.

Referring to the accompanying drawings, the reference-letter A is used to designate an anvil.

B represents an attachment having an enlarged flat top surface. Its lower extremity is adapted to rest upon the floor and its top to provide a continuity of surface with the top of the anvil. Its one side is slightly beveled outward for convenience and also roughened to aid in clamping articles therein. In its approximate center is an angular opening B^2, adapted to admit and securely retain mating projections from a metal block. Formed on the corners of its jaw-surface are two angular openings B^3 B^3, adapted to admit projections from a device for forming bolt-heads.

C represents an attachment for forming clips on a horseshoe. It is preferably fixed to one corner of the stationary-jaw portion and has its top edges sharpened and rounded, as clearly shown in the accompanying drawings.

The part B is preferably detachably connected with the anvil-supporting block in the following manner: Two lugs D D, adapted to admit the upright portion of the part B between them and provided with angular openings in the outer ends, are fixed to the side of the said block and two lugs D^2 D^2 are fixed to the side of the said block. When it is desired to secure the part B thereon, it is placed between the said lugs and the key D^3 driven through the angular openings in the lugs D D, having its inner edge engaging the said part B, thereby securely clamping it therein.

F represents the movable jaw of the vise. It is provided with an enlarged top portion and a beveled and roughened side face in juxtaposition to the said fixed jaw, as required to mate therewith. Near its central portion it is pivoted to the upright portion of the stationary jaw and the lower end is bent to overlap the side of the said upright portion of the stationary jaw. Formed in the top face of the movable jaw is an angular cavity adapted to admit a block, and the set-screws F^2, extended through the sides of the said opening, provide means whereby the block may be clamped therein. To operate the said movable jaw relative to the said stationary jaw by foot-pressure, I provide the following mechanism:

H represents a lever having a treadle H^2, formed on or fixed to its one end. Near its other end is an opening adapted to serve as a bearing, and a cam-shaped projection H^3 is extended upward therefrom and adapted to engage the lower end of the movable jaw portion. This lever is pivoted to a perforated projection H^4, from the lower end portion of the stationary jaw. The said perforations are for the purpose of providing means for shifting the pivoted point of the said lever and thereby adjusting the distance of the said jaws relative to each other.

J represents a coil-spring connected with the outer end of the lever H and with the bars of the part B, as required to normally hold the treadle elevated. It will be obvious that the upper end of the movable jaw will nor-

mally incline outward by gravity, the top thereof being much heavier than the bottom portion.

K represents a block adapted to enter the cavity formed in the top of the portion F. Its top surface is beveled from the side upward and preferably at different angles.

When it is desired to form calks on a horseshoe, the shoe is placed between the jaws, having the part upon which the calk is to be formed extending upwardly above the jaws. The jaws are then clasped together by foot-pressure, as before described, leaving the hands free to form the calks by bending them over the block and hammering the upper surface thereof flat. This, it will be seen, will produce sharpened calks, as the block upon which they are formed is beveled.

L represents a block adapted to be placed on the opening B^3 and in position as indicated by dotted lines in Fig. 3. Its end extends to the edge of the jaw F^2 and provides a continuity of surface with the face of the said jaw, so that when a toe-calk is being formed the top surface of the shoe may be kept from bending in either direction.

To form heads on bolts, I insert the part M (shown in Fig. 6) in the angular openings B^3 B^3 in the stationary jaw and the angle-iron M^2 in the cavity in the movable jaw. I then clamp a bolt between their coinciding vertical grooves, so that its top end will project over the top surface of the parts M and M^2, as required, to allow it to be shaped into a head by means of a hammer in a common way. The said grooves may vary in number, as desired, and are preferably graduated in size to engage bolts of different diameters.

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

1. An attachment for anvils, adapted to aid in forming calks on horseshoes, comprising a part resting on the floor-surface, detachably secured to the anvil-block and providing a continuity of surface with the top of the angular end of the anvil, a movable portion adapted to be operated by foot-pressure, pivoted to the side of the aforesaid portion, the meeting edges of the said parts adapted for grasping articles between them, a metal block having its top surface inclined at two different angles and adapted to be detachably and reversibly connected with one of the said parts, and a block having a flat end surface adapted to be detachably connected with the other part to provide a continuity of surface with its end which is in proximity to the aforesaid jaw, substantially as set forth.

2. An attachment for anvils, adapted to aid in forming calks and clips on horseshoes, comprising a stationary jaw having a base adapted to rest on the floor, an upright portion detachably connected with the supporting-block of the anvil and having a smooth top surface adapted to provide a continuity of surface with the top of the anvil, a movable jaw pivotally connected with the upright portion of the said fixed jaw, means for operating the said movable jaw by foot-pressure, an angular metal block having its top surface inclined or beveled upwardly from the sides, detachably fixed in the said movable jaw, a metal block having a smooth end surface adapted to provide a continuity of surface with the inner edge of the fixed jaw, detachably connected with the said fixed jaw, and an extension adapted to aid in forming clips on a horseshoe, having its upper edge sharpened and rounded, fixed to one corner of the said fixed jaw, to operate substantially in the manner set forth, for the purposes stated.

3. An attachment for anvils, comprising the fixed jaw B, provided with the openings B^2 and B^3 B^3, the clip-forming attachment C, fixed to one corner thereof, the lugs D D and D^2 D^2, fixed to the anvil-block, the key D^3, the movable jaw F, the set-screws F^2 F^2 in the sides thereof, the lever H, having the treadle H^2 and cam H^3, pivoted to a projection H, extending from the side of the upright portion of the part B, the coil-spring J, the block K, and the block L, all constructed and combined substantially in the manner set forth, for the purposes stated.

GEORGE W. RICE.

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