(No Model.)

I. HULME.

RAIL PUNCH.

No. 388,977. Patented Sept. 4, 1888.

Fig. 1.

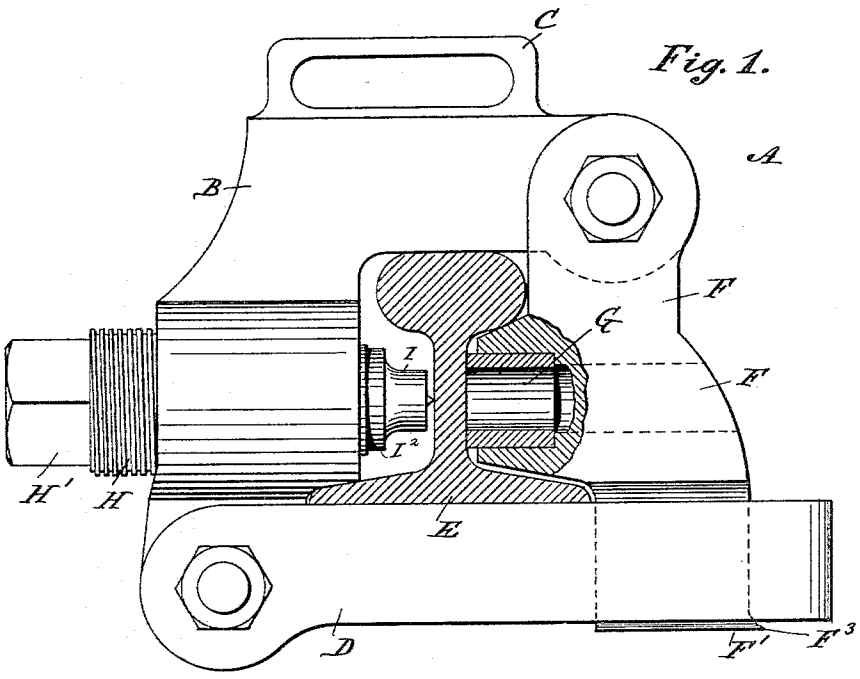


Fig. 3.

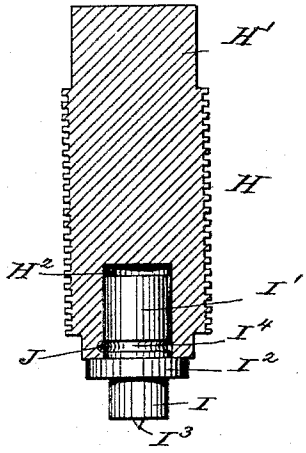
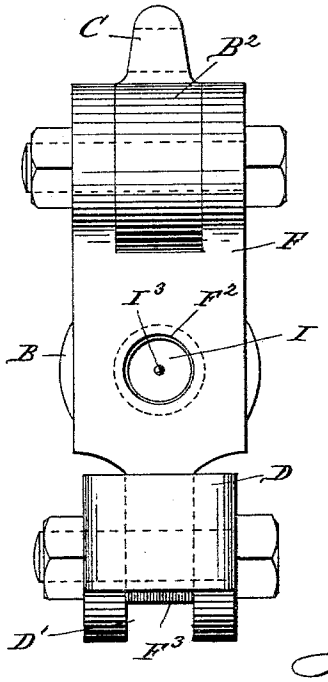


Fig. 2.



WITNESSES:

D. C. Reusch.

C. Sedgwick.

INVENTOR.

J. Hulme.

BY Munn & Co

ATTORNEY.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ISAAC HULME, OF YAQUINA, OREGON.

RAIL-PUNCH.

SPECIFICATION forming part of Letters Patent No. 388,977, dated September 4, 1888.

Application filed May 14, 1888. Serial No. 273,871. (No model.)

To all whom it may concern:

Be it known that I, ISAAC HULME, of Yaquina, in the county of Benton and State of Oregon, have invented a new and Improved Rail-Punch, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved punch specially adapted for punching apertures in rails for the passage of bolts to secure several rails together, and for other purposes.

The invention consists in certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of the improvement as applied to a rail shown in section. Fig. 2 is an end elevation of the improvement, and Fig. 3 is a sectional plan view of the punch.

The improved punch A is provided with an L-shaped frame, B, having at its upper arm a handle, C, for conveniently moving the device from place to place. On the end of the other arm of the frame B are pivoted the ends of a U-shaped bar, D, extending along the base of the rail E. On the outer end of the upper arm, B, is pivoted the vertical arm F, having a longitudinal aperture, F^2, and provided with a foot, F', passing through the opening of the U-shaped bar D and having an offset, F^3, adapted to engage the bottom of the middle part of the U-shaped bar D, as shown in Fig. 1. On the inner end of the arm F is held the die G, made in the form of a collar and opening into the aperture F^2. In the frame B screws the punch-screw H, provided on its outer end with a square or hexagon head, H', for applying a wrench or other instrument to turn the screw H. On the inner end of the latter is formed a recess, H^2, in which fits the shank I' of the punch I, provided with a collar, I^2, resting against the inner end of the screw H, as illustrated in Figs. 1 and 3. On the outer end of the punch I, and in its center, is formed the point I^3, adapted to fit into the centering-mark punched on the body of the rail E. A pin, J, secured in the screw H, passes through an annular groove, I^4, formed on the shank I' of the punch I, so as to secure the latter to the screw H. The central line of the screw H and punch I coincides with the die G when the several parts are properly adjusted, as shown in Fig. 1.

The operation is as follows: In order to place the punch A on the rail, the screw H is moved to its outermost position. The bar D is passed under the base of the rail E, so that the top arm of the frame B rests on the head of the rail E and across the same, as shown in Fig. 1. The arm F then hangs vertically and passes with its foot F' through the opening of the U-shaped bar D, and has its projection F^3 engaging the bottom of the middle part of the U-shaped bar D. The outer end of the die G then rests against one face of the body part of the rail E. The entire punch A is then moved longitudinally on the rail E until the point I^3 of the punch I is over the punched mark on the body of the rail E. The operator now turns the screw H by suitable means, so that the screw H moves inward and brings the outer end of the punch I against the face of the body of the rail E, opposite the die G. A further turning of the screw H causes the punch I to force an aperture in the body of the rail E, the punched part of the latter passing into the opening of the die G, which corresponds with the punch I. The punched part of the rail E can pass out through the opening F^2 in the arm F.

It will be seen that the apparatus is very simple and durable in construction, effective in operation, and is specially intended to supersede the ratchet and drill now generally in use for the same purpose.

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

1. In a rail-punch, the combination, with a frame, of a screw screwing in the said frame, a punch carried by the said screw, an arm pivoted on the said frame, a die carried by said arm, and a bar connecting the free end of said arm with the frame below the screw, substantially as shown and described.

2. In a rail-punch, the combination, with a frame, of a screw screwing in the said frame, a punch carried by the said screw, an arm pivotally connected with the said frame, a die held

in the said arm, and a bar pivotally connected with the said frame and serving to lock the said arm in place, substantially as shown and described.

3. The combination, with the angular frame B and the punch-carrying screw H, extending through the vertical arm, of the frame, the arm F, pivoted to the end of the horizontal arm of frame B and having a die and aperture to register with the punch, and a foot, F', on its free end provided with a projection, F^3, and the U-shaped bar D, pivoted to the frame below the screw and receiving the free end of the arm F, substantially as set forth.

ISAAC HULME.

Witnesses:
JAMES R. ABBEY,
CHAS. CLARK.