(No Model.)

G. H. WEBB.

PRESS FOR MAKING BOLTS.

No. 284,694. Patented Sept. 11, 1883.

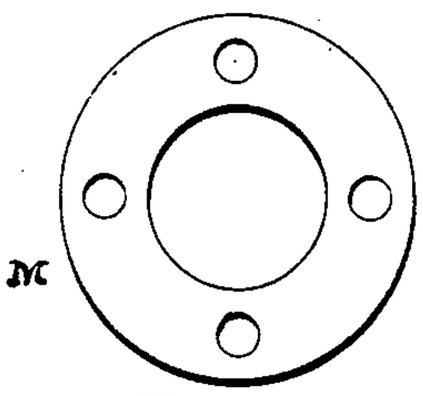

Fig. 3.

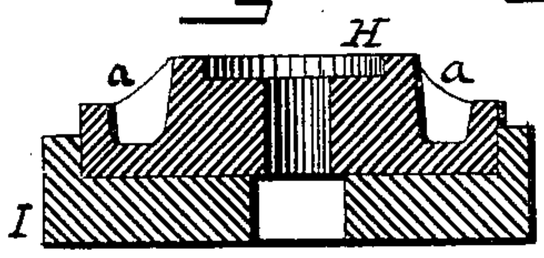

Fig. 5.

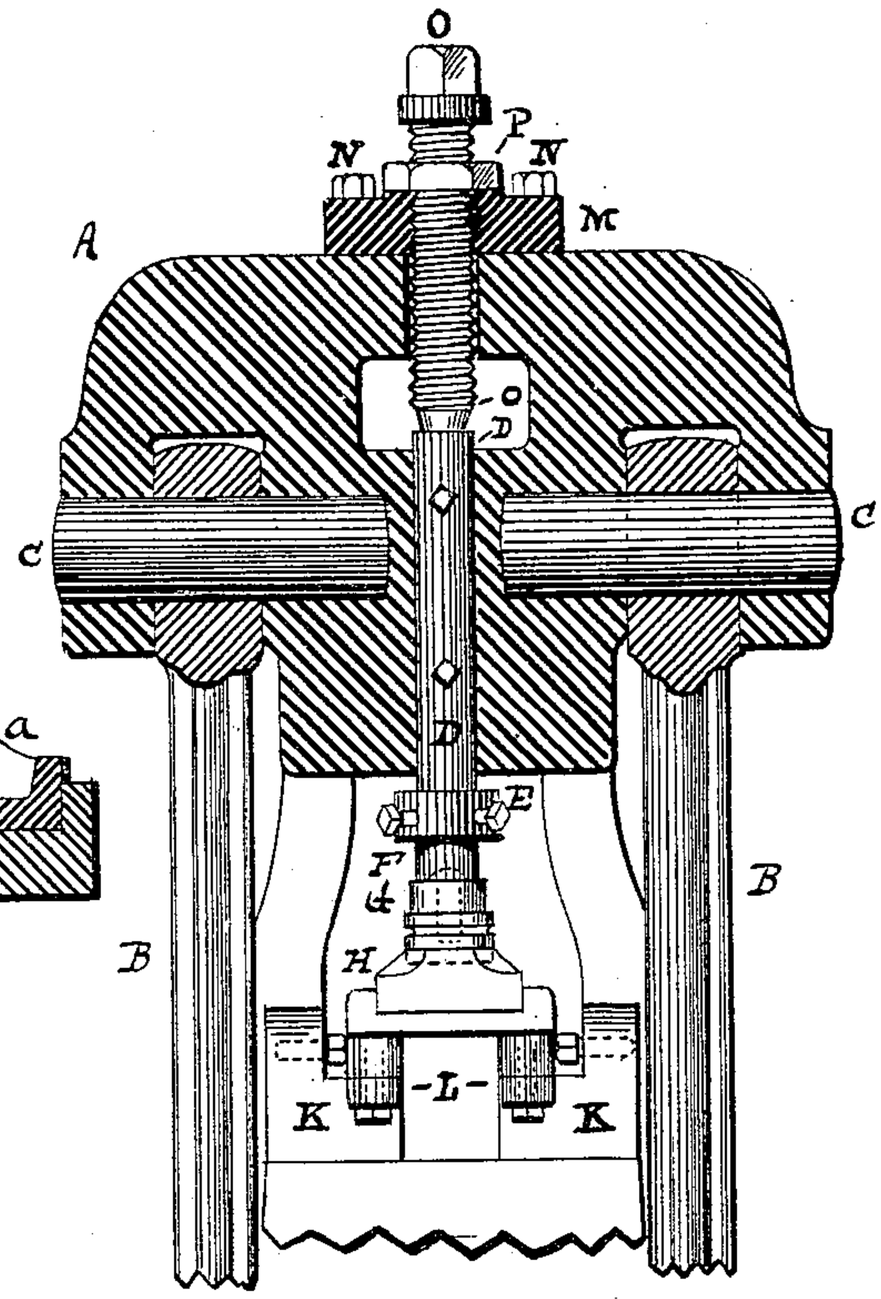

Fig. 1.

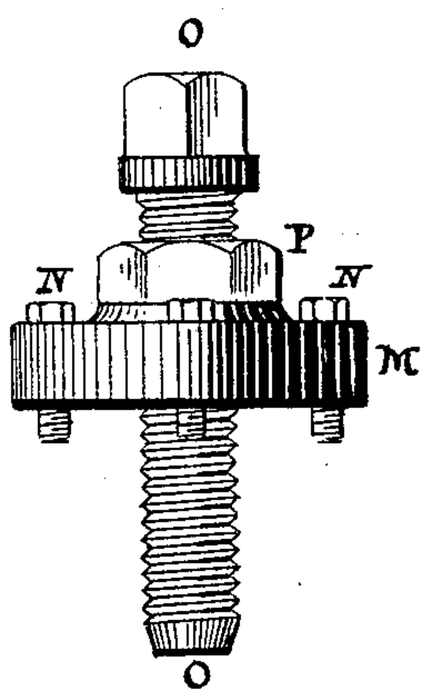

Fig. 4.

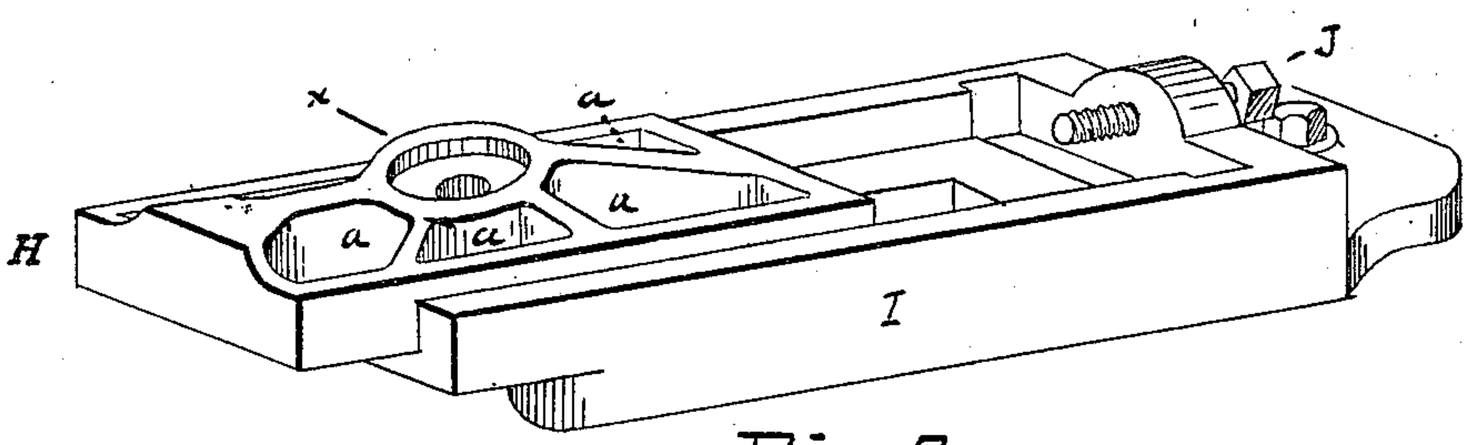

Fig. 2.

WITNESSES

George H Fowler

Warren R Pierce

INVENTOR

George H Webb

UNITED STATES PATENT OFFICE.

GEORGE H. WEBB, OF PAWTUCKET, RHODE ISLAND.

PRESS FOR MAKING BOLTS.

SPECIFICATION forming part of Letters Patent No. 284,694, dated September 11, 1883.

Application filed April 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. WEBB, of Pawtucket, in the county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Presses for Making Bolts; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 shows partly in vertical section and partly in elevation the several parts of my invention. Fig. 2 is a perspective view of the sliding block and its bed. Figs. 3 and 4 are detail views. Fig. 5 is a vertical section on the line *x* of Fig. 2.

My invention relates to the presses used in bolt-manufacture to form the heads of bolts; and it consists, first, of a screw-bolt adjusted to the top of the socket-bar of the plunger and engaging with a nut which is fastened to said plunger by screw-bolts; and, secondly, in forming catch-boxes in the sliding block to receive the scale waste, and thereby prevent clogging, as hereinafter fully specified.

In presses as heretofore constructed there is liability of breakage or serious damage of the machine whenever the bolt to be headed has too much stock, or is not properly upset, or whenever the tool or die carrying the bolt is not carefully set in the sliding block. In such cases the plunger cannot complete its downstroke, and, being arrested in its course by the obstruction, causes by its ponderous weight a breakage or distortion of some part of the machine, disabling or destroying its further use. I attach to the plunger screw-bolts and nuts so adjusted that in case of such obstruction the whole force of the shock or strain is received on the threads of said bolts and tears them from their connection. By this arrangement the breakage can happen only in this portion of the machine, where it can be conveniently, speedily, and cheaply repaired, and thus all liability of breakage or damage from this cause is prevented in all other parts of the machine.

In the drawings, A represents the plunger in vertical section, pivoted to and sustained upon the arms B B by the bars C C, as shown in Fig. 1. The arms B B have a simultaneous vertical reciprocating motion derived from eccentrics upon the driving-shaft in the usual manner, but which are not shown in the drawings. The socket-bar D and its socket E are centrally fitted to the plunger and travel with it. The socket E carries the top die, F, wherein the head of the bolt is formed, as shown in dotted lines in Fig. 1. The bottom die, G, containing an upset bolt, is fitted by the workman within the central opening of the block H, and is carried by said block H, sliding in its bed-piece I, to a position accurately centering with the top die, F, such adjustment being obtained by the adjusting-screw J, which limits the advance of the block H. The bed I is permanently fastened to the base K of the press by the lugs L L. Thus far the description shows a press of ordinary construction. To these parts I add the following: A threaded nut, *n*, is bolted in several places to the top of the plunger A by the screw-bolts N N. A screw-bolt, O, engages with said nut M and passes down through a cylindrical hole of the plunger A, and is adjusted to the top of the socket-bar D. A check-nut, P, confines it in such contact with the socket-bar. Whenever the plunger is stopped in its descent by any obstruction, the force of the shock is received upon the threads of the bolt O and nut M, which, being the weakest parts subjected to such force, are broken or torn apart, thus saving the remaining portions of the machine from injury.

I form in the sliding block H a series of cavities or catch-boxes, *a a*, the purpose of which is to receive the scales which fall from the bolt during the operation of heading, which waste material hitherto has fallen upon the surface of the sliding block and worked into the bed I, clogging the sliding of the block H and increasing the friction and wear of said parts. Other advantages of this construction of the sliding block H with cavities are that the block is much lightened by coring out the mass of the metal, and hence is more easily worked by the operative, and also

that the strength of the block is greatly increased by the larger scale-surface of the casting.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. The screw-bolt O, adjusted to the socket-bar D and checked by the nut P, in combination with the nuts M, fastened to the plunger A by the bolt N, substantially as and for the purpose specified.

2. In a press for heading bolts, a sliding block, H, having catch-boxes *a a*, substantially as described.

GEORGE H. WEBB.

Witnesses:
GEORGE H. FOWLER,
WARREN R. PERCE.