T. W. BAXTER & E. BROWN.

Improvement in Machines for Riveting Lock-Cases.

No. 128,205. Patented June 25, 1872.

Fig. 2.

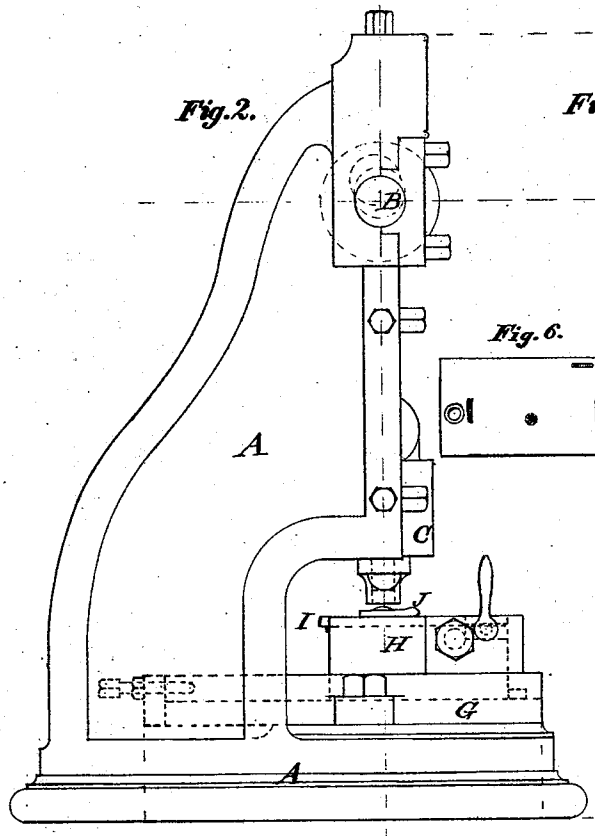


Fig. 6.

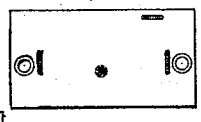


Fig. 1.

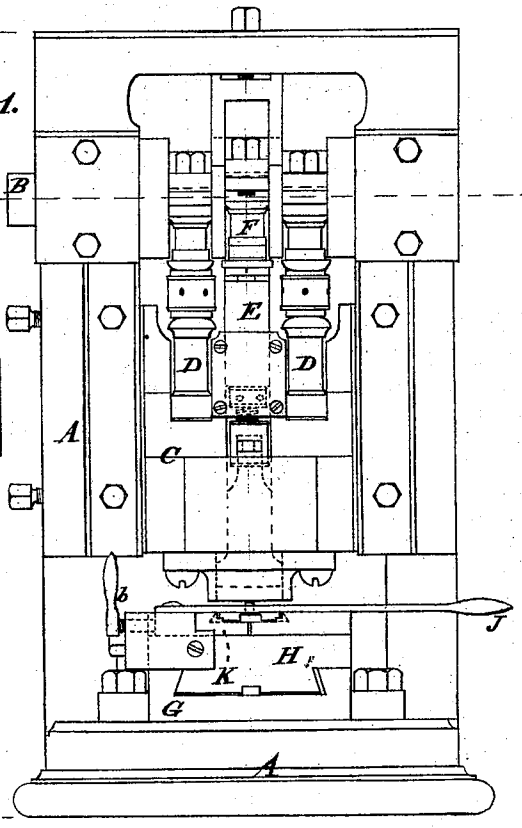


Fig. 3.

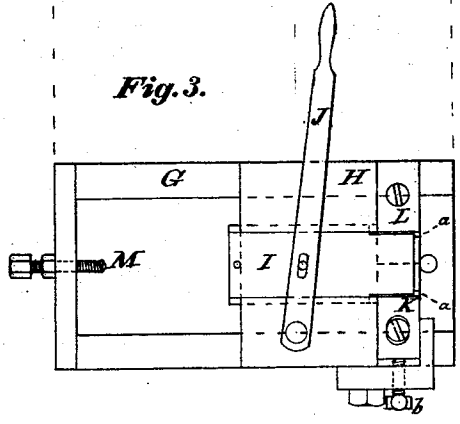


Fig. 4.

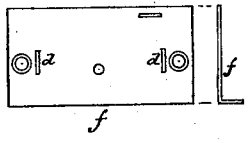
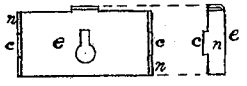


Fig. 5.



Witnesses:
Chas. H. Hudson
S. B. Burritt

Thos. W. Baxter,
Edward Brown,
By H. James Weston,
Atty.

UNITED STATES PATENT OFFICE.

THOMAS W. BAXTER, OF CHICAGO, ILLINOIS, AND EDWARD BROWN, OF GREEN POINT, NEW YORK.

IMPROVEMENT IN MACHINES FOR RIVETING LOCK-CASES.

Specification forming part of Letters Patent No. 128,205, dated June 25, 1872.

SPECIFICATION.

We, THOMAS W. BAXTER, of Chicago, in the county of Cook and State of Illinois, and EDWARD BROWN, of Green Point, in the county of Kings and State of New York, have invented a certain new and Improved Machine for Riveting, of which the following is a specification:

It consists in a new and improved combination of devices for holding the rivets or parts on which the rivets are formed, whereby one or more of such rivets or parts are tightly and solidly clamped and held in the desired position while the rivets are being swaged or pressed.

In the accompanying drawing, which represents a double-action press fitted up for riveting the back of a common drawer-lock to the front part, Figure 1 is a front elevation of the said press. Fig. 2 is a side elevation of the same. Fig. 3 is a plan of the devices by which the work is held while being riveted. Fig. 4 is a view in detail of the side and one end of the lock-back. Fig. 5 is a similar detail of the front part of the frame of the lock. Fig. 6 is a view in detail of the back of a finished lock.

A is the frame of the press; B, the driving-shaft; C, the gate, moved by cranks and the connecting-rods or pitmen D D; and E is the secondary slide, which is actuated by an independent crank or eccentric and a connection, F, to produce the double action or motion of the press. G is a bed or guide, in which the sliding block or head H is fitted. A second slide, I, is fitted in the slide H, and is operated by a lever, J. This slide I is fitted somewhat loosely, so that its forward end may have a small lateral motion, for a purpose which will hereinafter appear. The front part of the lock *e* is laid in the slot in which the slide I works, near the front end, its front edge resting against the stops *a a*. The slide I is then brought forward into the position shown in the drawing, and a slide, K, actuated by the screw *b*, is forced against the end of the lock-front *e*, tightly clamping it between the stationary jaw or block L, the slide I, and the slide or movable jaw K; the slide I yielding laterally, if necessary, to compensate for any variation in the thickness of the metal of which the lock-fronts are made. The slide I passes over the main part of the lock-front *e* and holds it down, while the studs or projections *c* project above the slide I to receive the lock-back *f*, which is placed upon them, the studs or projections *c* passing through the holes *d* in the back plate *f*. The head H is then pushed back till it strikes the stop M, and the power being applied to the driving-shaft B the gate descends and forces the back-plate down snugly into its place. The slide E then descends and swages or spreads the ends of the projections *c*, causing them to fill the holes *d*, and effectually riveting the parts together.

By the use of the yielding piece or slide I, interposed between the stationary block or jaw L and the movable slide or jaw K, the two sides *n* of the plate *e*, on which the studs or rivets *c* are formed, are tightly and solidly clamped or locked, so that when the pressure is applied to press or swell the rivets *c* the said sides of the plate *e* can neither bend nor otherwise yield. It is evident that when the sides *n* are made in two separate pieces the slide I may be dispensed with, and a piece having a lateral yielding motion only be secured between the jaws K and L in any convenient way, (as, for example, by a bolt passing through a slotted hole in said piece,) and be used as a substitute for the slide I. It is also evident that two or more such yielding pieces may be used between the stationary and the movable jaws in cases where it is desired to hold three or more pieces or rivets.

The relative positions of the cranks or eccentrics which produce the double action of the press are clearly seen in the small dotted circles in Fig. 2.

Many other kinds and forms of articles may be riveted together in the manner hereinabove set forth, it being necessary only to apply the proper tools for holding the pieces, and suitable punches for pressing or swaging the rivets to the double-action power press.

By the employment of the method above described various articles or parts of articles may be rapidly and strongly riveted together without danger of bruising, bending, or breaking, which is very liable to occur where the riveting is done by a blow; the parts are much

more closely united, and the work is accomplished at a much less cost, than it can be by any method heretofore in use.

Having thus fully described our invention, we claim—

1. The combination, with the head-block H and the stationary jaw L and sliding jaw K, of one or more intermediate yielding slides or blocks I, for holding two or more pieces or rivets while they are being riveted, substantially as set forth.

2. The combination, with the devices set forth in the first clause of claim, of the reciprocating slide or gate C and slide E, substantially as described.

3. The combination, with the head-block H, of the guide-bed G and lever J, for supporting, guiding, and reciprocating said head-block, substantially as described.

THOMAS W. BAXTER.
EDWARD BROWN.

Witnesses:
DAVID W. MCLEAN,
H. JAMES WESTON.