Feb. 14, 1939. R. E. BECKERT 2,147,480

STAMPING TYPE HOLDER

Filed July 21, 1937

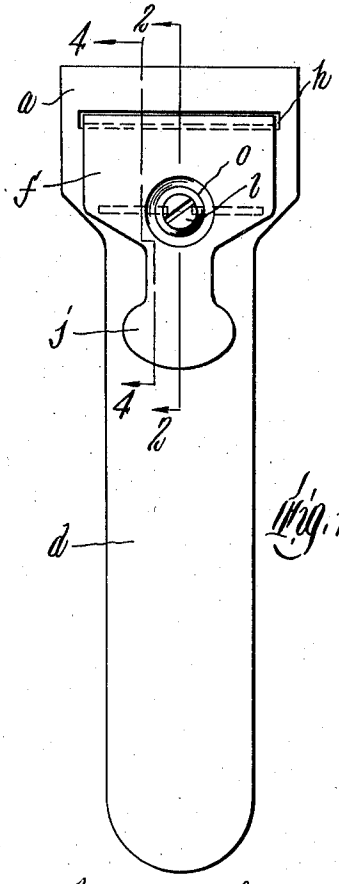


Fig. 1.

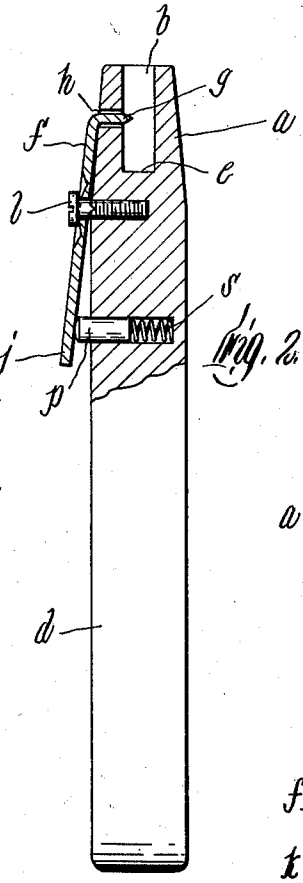


Fig. 2.

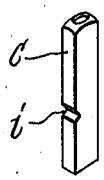


Fig. 5.

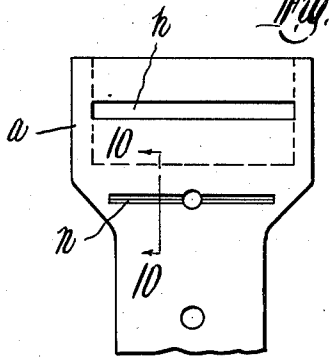


Fig. 6.

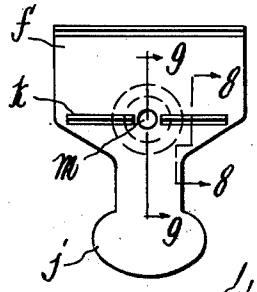


Fig. 7.

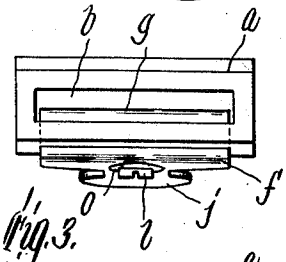


Fig. 3.

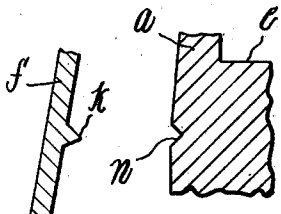


Fig. 8.

Fig. 10.

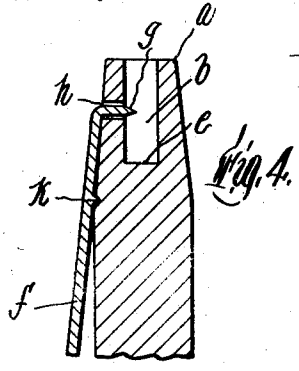


Fig. 4.

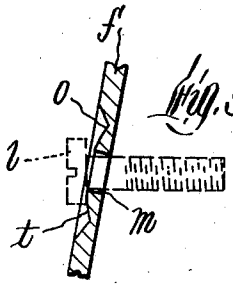


Fig. 9.

Inventor
Richard E. Beckert
by Wright, Brown, Quinby & Macy
Attys.

Patented Feb. 14, 1939 2,147,480

UNITED STATES PATENT OFFICE

2,147,480

STAMPING TYPE HOLDER

Richard E. Beckert, Revere, Mass., assignor to S. M. Spencer Mfg. Co., Boston, Mass., a corporation of Massachusetts

Application July 21, 1937, Serial No. 154,802

3 Claims. (Cl. 101—28)

The subject of this invention is a holder for receiving and securing removable type or dies of the class which are used for stamping figures, letters and other symbols in metal. Such type pieces or dies are usually made of steel, wherefore they are called steel type in the trade, and will be so called on occasion in this specification; but it is to be understood that such descriptive term is not in any sense a limitation of the scope of the invention.

Holders for type of this character have heretofore been made of various designs, and patented, such holders having releasable means for locking the removable type pieces in operative position. One such, shown in Patent 1,503,842, August 5, 1924, to J. H. Matthews, possesses a type lock which is formed of a strap or plate of steel normally lying against one side of the holder and secured to a bolt passing through the holder which is adapted to be pressed upon in order to withdraw the lock and release the type. This mode of releasing the lock is inconvenient because the location of the end of the bolt which is pressed upon, at the other side of the holder from the lock, requires the holder to be grasped in the hand in a particular way to avoid pressing in opposite directions at the same time on the bolt by the thumb and fingers of the operator's hand. That is, the operator must take care to grasp the holder in such a way that, when his thumb is pressed against the bolt, the other fingers are not placed across the lock and do not press on the lock in opposition to the pressure applied to the bolt. The grip of the operator's hand must be applied to the holder at one side of the line of thrust which is exerted on the bolt member of the lock, in order to leave the lock free to move.

The object of my invention is to eliminate the push bolt of the prior design and to locate the lock and the pressure member by which the lock is moved to release the type, all on the same side of the holder. This is accomplished in the embodiment herein illustrated, by making the lock as a two armed lever having a ledge or lip on one arm for engaging the type, and an operating arm at the opposite side of its fulcrum for receiving pressure from the user's thumb, and by connecting such lock to the type holder with a fulcrum engagement between its two arms.

The preferred embodiment of the invention is illustrated in the accompanying drawing, in which

Fig. 1 is a front elevation of my type holder in an inverted position approximating that in which it is held for insertion and removal of the type;

Fig. 2 is a side elevation partly cut away and shown in section on line 2—2 of Fig. 1;

Fig. 3 is a plan view of the holder in the position of the preceding figures;

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2;

Fig. 5 is a perspective view of one of the type used with the holder;

Fig. 6 is an elevation of the type receiving end of the holder with the lock removed;

Fig. 7 is an elevation of the type lock removed from the holder and turned so as to expose to view its side which in use is next to the holder;

Figs. 8 and 9 are fragmentary sectional views of the lock taken on lines 8—8 and 9—9 respectively of Fig. 7;

Fig. 10 is a fragmentary sectional view of the holder taken on line 10—10 of Fig. 6.

Like reference characters designate the same parts wherever they occur in all the figures.

The holder is made of any metal or metal alloy usually used or suitable for use in making articles of this character. It has a body part *a* in which there is a socket *b* at one end for receiving the steel type *c*, and a handle part *d* of convenient dimensions for being grasped and supported in the hand both when the type is being changed and when the holder is placed with its type faces against a work piece and the end of the handle is struck with a hammer. The innermost or bottom wall *e* of the socket is a type seat through which the stamping impact or pressure is applied to the type.

The locking member is preferably made of a single integral piece of sufficiently thick and stiff metal. Its portion *f* at and near one end is made approximately as wide as the length of the type socket *b* in the holder, and is provided at the outer end with a latch portion *g* extending substantially at right angles and adapted to pass through a slot *h* in the side of the holder body and enter the socket space. The type pieces have notches *i* in their side appropriately located to be entered by the inner extremity of the latch portion when the end of the type bears against the seat *e*. Preferably the latch extremity and notch has complementally inclined surfaces so disposed as to exert a wedging action to hold the inner end of the type against the seat.

The rest of the locking member is of a width less than the handle portion of the holder and terminates in a thumb-key portion *j* which is of

shape and dimensions convenient to be pressed upon by the operator's thumb.

Between its extremities the locking member is provided with alined V-shaped ridges *k* extending widthwise of the locking member and separated from one another in the mid width of the member sufficiently to leave room for the passage of the holding screw *l*, and the locking member is provided with a hole *m* for the screw. The ridges *k* are adapted to enter a V-shaped groove *n* in the side of the holder body parallel to the slot *h*, constituting one embodiment of a knife edge fulcrum bearing.

The screw *l* passes through the locking member into a tapped hole in the holder body, which is located at the proper distance from the slot *h* to enable the latch projection to enter said slot and to be retractable, without interference, far enough to release type pieces. The axis of the screw intersects the edge line of the ridges *k*. The head of the screw overlaps the rim of the hole *m* at the outer side of the locking member, and the surface of said member adjacent to the screw is provided with a circular groove *o* of which the surface next to the rim of the hole *n* is beveled with a convex, preferably spherical curvature in order to locate the bearing of the locking member on the screw head as close to the axis of the screw as possible and avoid either binding or looseness of the lock when it is operated.

A pin *p* is placed with a sliding fit in a socket in the side of the holder adjacent to the thumb-key *j* and is continuously pressed outward by a spring *s* so that it forces the latch *g* into engagement with the type through the reaction of the fulcrum screw *l* on the locking lever. In these conditions the surface *t* (Fig. 9) at one side of the hole *m* bears against the head of the fulcrum screw. When the thumb-key is pressed upon to withdraw the latch, the locking key is turned about the knife edge bearing, which serves as the fulcrum for this rocking movement. The height of the knife edge ridge *k* is enough greater than the depth of the groove *n* to hold the locking lever clear of the side of the holder and permit so much angular movement of the latch as suffices to clear it from the type. The fulcrum screw is set to leave enough space between its head and the adjacent side of the holder to accommodate the locking lever and permit its free rocking movement in the manner described.

It follows from this construction and arrangement that when the holder is grasped in the most convenient manner for bringing the operator's thumb against the key portion *j* of the locking member or, conversely, the knuckle of the forefinger against said key portion while the thumb is pressed against the opposite side of the holder, there is no possibility of the movement of the locking member being interfered with or impeded by the digit or digits of the operator's hand at the opposite side of the holder. Also the handle may be so grasped that the thumb and forefinger are directly opposite to one another in the axial line of the spring pressed pin, whereby the thrust applied to the holder through the pin by one digit is exactly balanced by the reaction pressure of the digit at the opposite side of the holder.

What I claim and desire to secure by Letters Patent is:

1. A stamping type holder comprising a body having a type-receiving socket in one end and a handle portion, a locking lever in rocking connection with one side of the holder, having a knife edge fulcrum bearing thereon, a retainer connected to the body and engaged with the locking lever to hold the latter in the said rocking engagement with the holder; said lever having a latch portion and a key portion at respectively opposite sides of the fulcrum axis, the latch portion being located to project partially across the socket into locking engagement with type set in the socket, and a resilient pusher bearing on the key portion of the locking lever and exerting force thereon tending to advance and retain the said latch portion in locking connection with the type.

2. A stamping type holder consisting of a body having a recess in one end to receive type, a locking lever connected to said body at one side thereof, a fulcrum screw passing through said lever intermediate its ends into the body and having a head overlapping the outer side of the lever, the lever having a rocking engagement with the body on a line intersecting the axis of the screw, and having at opposite sides of such line of engagement, respectively, a latch portion organized to protrude laterally into the socket, and an operating key portion so arranged as, when pressed toward the body, to retract the latch portion, combined with a pin set into the body back of said key portion and a spring engaged with the pin to press the latter outward against the key portion.

3. A stamping type holder comprising a body having a recess in one end to receive type, a locking lever having on one side a protruding straight ridge, V-shaped in profile, the body having in one side a groove in which said ridge is contained and on the bottom of which the crest of the ridge has rocking engagement, a headed stud passing through a hole in the lever into mounted connected with said body, and having a head overlapping the rim of such hole on the outer side of the lever, said stud and its head being symmetrically disposed with respect to the line of engagement between the ridge and holder body, and the outer face of the locking lever being beveled with a convex formation adjacent to the opposite edges of the hole; said lever having a latch portion and a key portion at respectively opposite sides of the line of said ridge, the latch portion being located to bear against the sides of types placed in said socket, and a resilient pusher bearing against said key portion and reacting against the body in the direction to press the latch portion toward the type-receiving socket.

RICHARD E. BECKERT.