

No. 771,723.

PATENTED OCT. 4, 1904.

W. L. DREW & S. STEPHENS.

PRINTER'S LOCKUP.

APPLICATION FILED MAY 18, 1903.

NO MODEL.

Fig. 1:

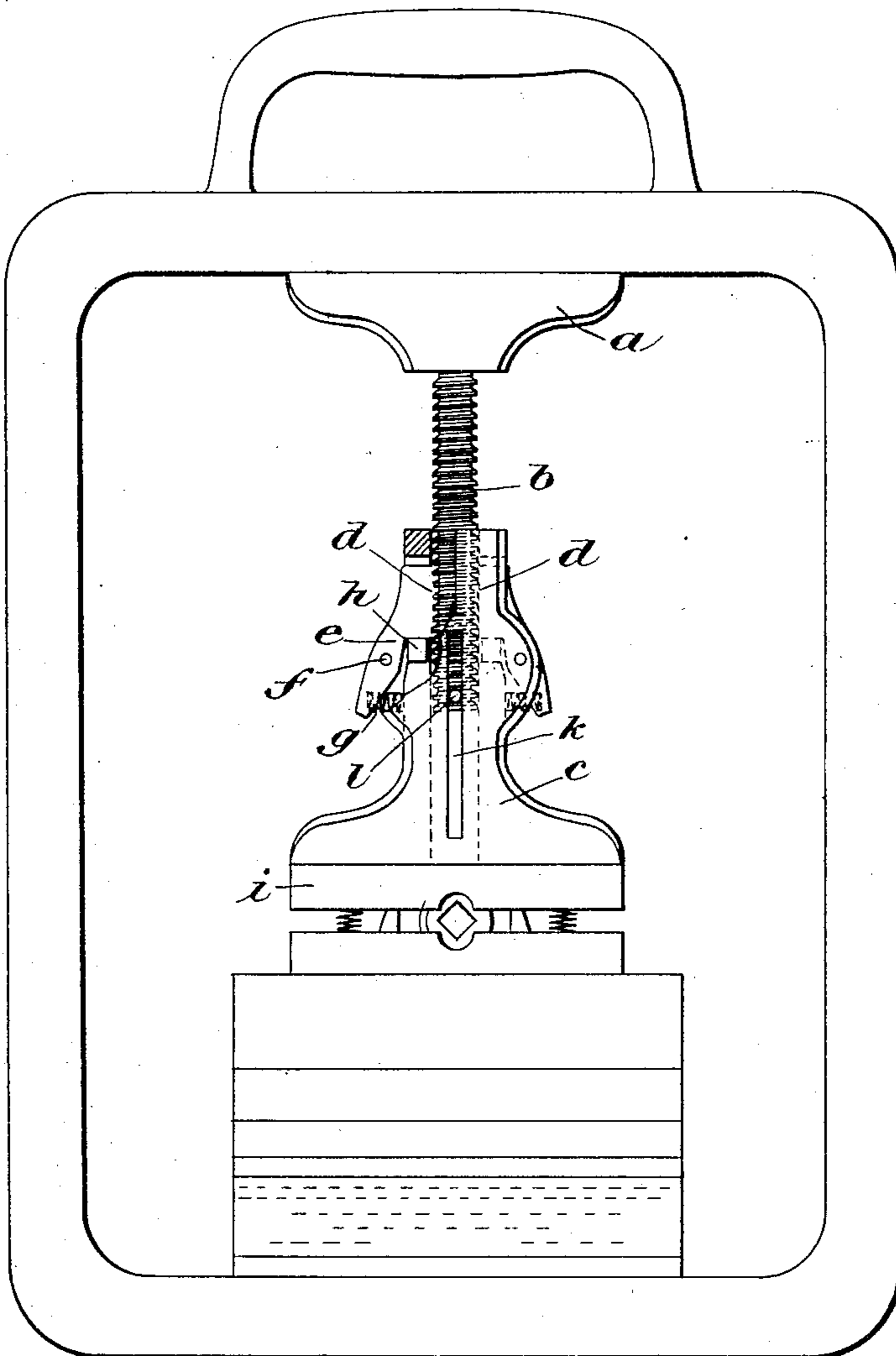


Fig. 2:

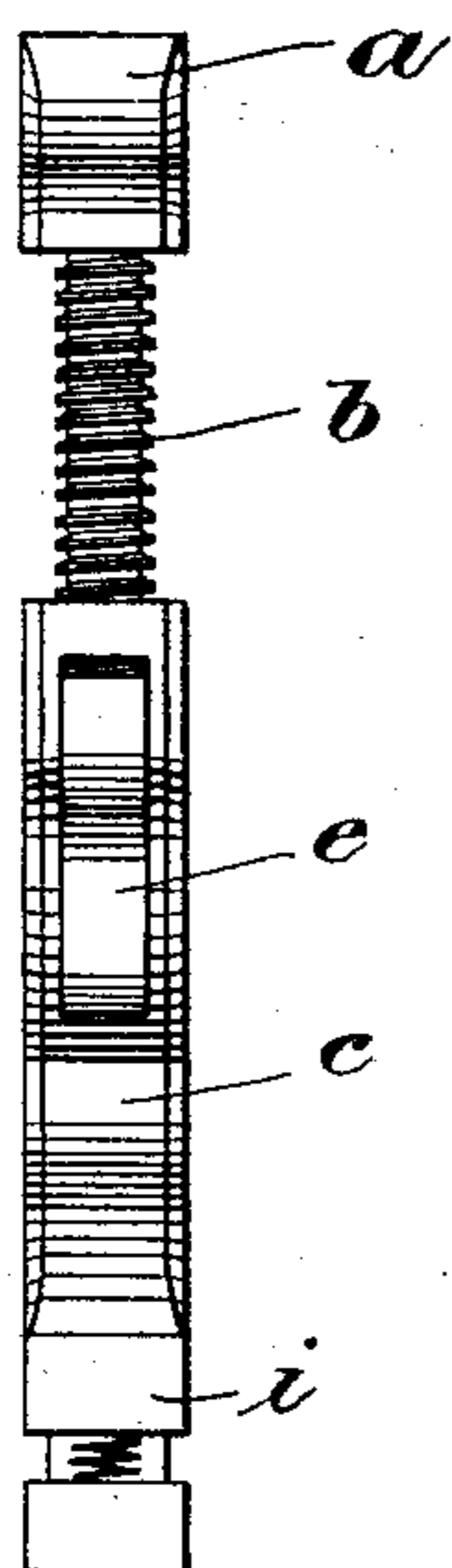
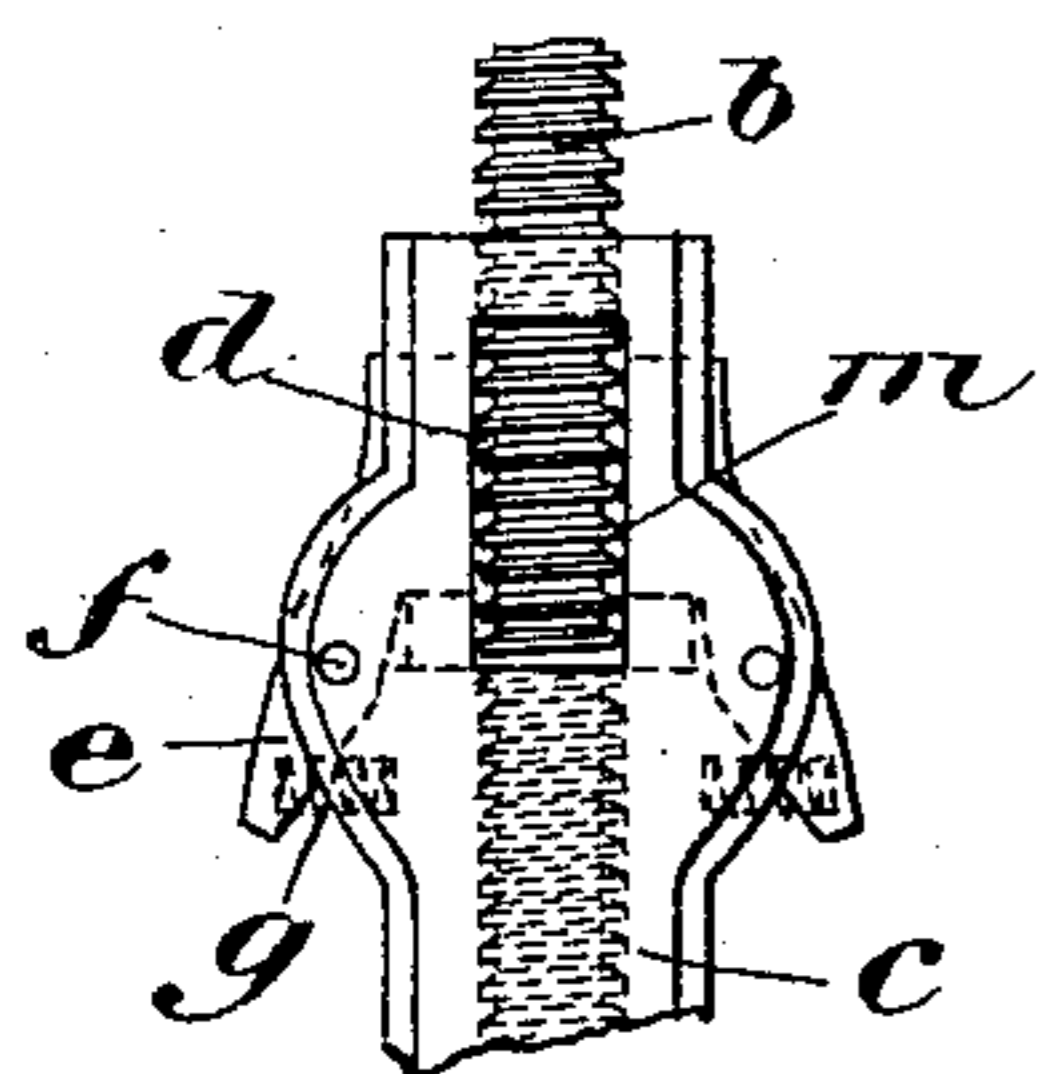


Fig. 3:



Witnesses,
Ernest J. Emery
Susan E. Haynes.

Inventors,
Wilbert L. Drew,
Samuel Stephens,
by *Fredwin L. Emery.*
Atty.

UNITED STATES PATENT OFFICE.

WILBERT L. DREW, OF ALLSTON, AND SAMUEL STEPHENS, OF SOMERVILLE, MASSACHUSETTS, ASSIGNORS TO WICKERSHAM QUOIN COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

PRINTER'S LOCKUP.

SPECIFICATION forming part of Letters Patent No. 771,723, dated October 4, 1904.

Application filed May 18, 1903. Serial No. 157,520. (No model.)

To all whom it may concern:

Be it known that we, WILBERT L. DREW, residing at Allston, in the county of Suffolk, and SAMUEL STEPHENS, residing at Somerville, in the county of Middlesex, in the Commonwealth of Massachusetts, citizens of the United States, have invented an Improvement in Printers' Lockups, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Our invention consists in an improvement in printers' lockups, and particularly in improved and readily-manipulated means for lengthening an extension-bar and maintaining the same in its locked up position.

In the drawings, Figure 1 is a side view of one form of our improved lockup in position within a frame. Fig. 2 is an end view of the lockup, and Fig. 3 is a detail of the base looking in the opposite direction from Fig. 1.

Referring to the drawings, the lockup shown comprises the head *a*, preferably fixedly secured to the shank *b*, herein shown as screw-threaded and adapted to slide within a suitable opening within the base *c*. The threaded surface of the shank *b* is adapted to be engaged by the correspondingly-threaded heads *d* on the oppositely-arranged dogs *e*, the latter being pivoted each at *f* upon a suitable and preferably fixed fulcrum and having the said threaded heads normally pressed into engagement with the shank *b* by the springs *g*, interposed between the heel of each of said dogs and an abutting surface within the base *c*. The upper or engaging surface of the thread, as shown in Fig. 1, presents a substantially flat surface to the engaging heads *d* of the dogs *e*, so that all downward movement of the shank and its superposed base is thereby prevented while such dogs are engaged therewith; but the lower surface of said shank-thread is cut upon a bevel sufficient to permit the withdrawal of the shank and head to any desired extent, the springs obviously yielding to permit the forcing of the dog-heads outward as

they slide over the successive beveled thread-surfaces upon the shank.

Although the fulcrum *f* may be made sufficiently strong to resist the thrust upon the same when the head is extended and forcibly locked into position, we preferably provide lugs *h*, adapted to engage with a shoulder beneath the head of each dog, whereby the thrust resulting from the separation of the head and the base and transmitted through the shank to the dogs is largely taken up by the said lug *h*, thereby bringing the said thrust directly upon the metal of the base structure. Connected preferably to the base we provide a suitable quoin *i*, which may be of any desired form, and we have herein conventionally shown a quoin of the construction described in Patent No. 453,226, dated June 2, 1891, although it is to be understood that the details of the same form no material part of our invention and are submitted for illustrative purposes only.

In the employment of this lockup the same is placed in any desired position, as within the frame *j*, the quoin *i* being held upon one of the surfaces or objects to be separated and the shank *b* being extended to bring the head *a* in contact or as near contact as possible with the other surface or object to be separated through the withdrawal of said shank. When in this position, the quoin is expanded to forcibly further extend the head and exert the desired separating pressure upon the surfaces to be separated thereby. To remove the lockup, it is only necessary to release the quoin, after which pressure upon the heels of the two dogs, which, it will be observed, are prominently arranged at the side of the base-pedestal and readily manually accessible, disengages the same from the threaded shank, and the latter may be slid inward to any desired position. It will be observed that the fulcrums *f* are outside of the line of thrust against the dogs, so that the latter are forced inwardly against the shank about their respective fulcrums as the separating pressure is increased.

In order to obtain at all times engagement between the shank and all the threads upon the heads *d* of the dogs, we preferably provide a slot in one side of the base, within which may slide the pin *l*, secured near the end of the shank *b*, so that when the last or lowermost thread upon said shank has been brought in engagement with the threaded dog-heads further extension of said shank is thereby prevented. On the opposite side of said base we also preferably provide the indicating-slot *m*, Fig. 3, of sufficient width and suitably located to afford observance of the position of the shank *b* at all times. Through the employment of the indicating-slot *m* we may dispense with the pin *l* and employ the base *c* with a plurality of shanks of different graded lengths, so that by employing the length of shank adapted to the needs of the work the single base and attached quoin may be employed irrespective of the length of shank desired, the indicating-slot always, however, indicating the position of the shank within the base.

It will be obvious that while we have in the embodiment herein described shown the shank as screw-threaded and while for the sake of simplicity we prefer so to construct the same the engaging surfaces of the said shank need not be spirally arranged, since the said shank does not necessarily perform the functions of a screw, but that the said engaging surfaces may be in the form of parallel separate circular grooves or of any such nature as to effect the necessary result.

It will be obvious that while we have specifically described our invention with reference to the embodiment herein illustrated the same is not limited to the specific details herein shown or the relative arrangement of parts, but may be widely varied therefrom without departing from the spirit and scope of the said invention.

We claim—

1. In a printer's lockup a head part, a base part, a shank secured to one of said parts, one

or more dogs fixedly fulcrumed upon the other of said parts at points outside the line of thrust on said dogs and engaging surfaces upon said shank to engage with said dogs, the latter normally permitting extension only of said shank; said dog-carrying part being also provided with thrust-receiving portions against which the heads of said dogs are brought by movement about their fixed fulcrum when the same are brought into engagement with the engaging surfaces upon said shank.

2. A printer's lockup having a head-piece, a shank secured thereto, a base having a central pedestal and adapted to receive said shank, laterally-extending ears on opposite sides of said pedestal, a pair of dogs pivoted upon fulcrum fixedly secured to said ears and cooperating engaging surfaces between said dogs and said shank to permit extension only of said shank during the normal position of said dogs, said dogs having laterally and oppositely projecting heels projecting beyond the laterally-extending ears of said central pedestal and on either side thereof to afford thereby ready manipulation thereof.

3. In a printer's lockup the combination of a head part, a base part, a shank secured to one of said parts and adapted to slide within the other, one or more fulcrumed dogs engaging said shank, the said part within which said shank slides providing a substantially complete inclosure for the engaging surfaces of said shank at and about the region of their engagement with said dogs and means at or near the region of engagement for avoiding the accidental disengagement of said shank and dogs.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILBERT L. DREW.
SAMUEL STEPHENS.

Witnesses:

THOMAS B. BOOTH,
EVERETT S. EMERY.