

(No Model.)

P. S. KELLOGG.
COMPOSING STICK.

No. 375,360.

Patented Dec. 27, 1887.

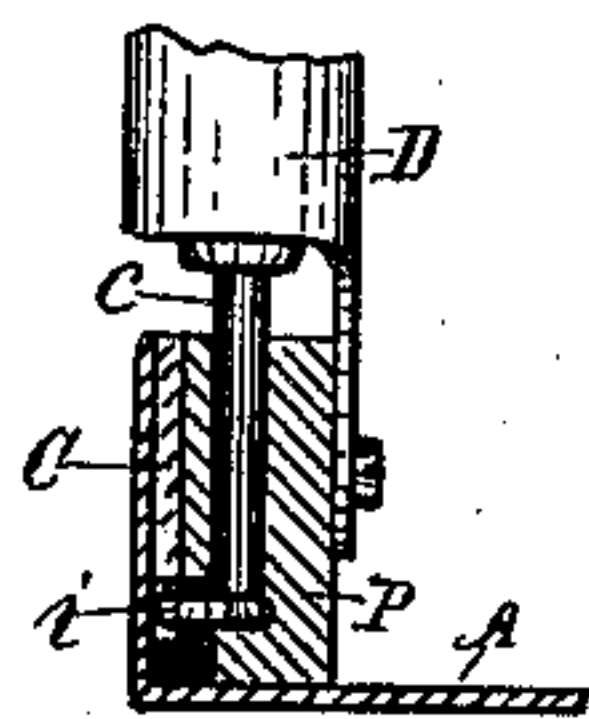


Fig. 4

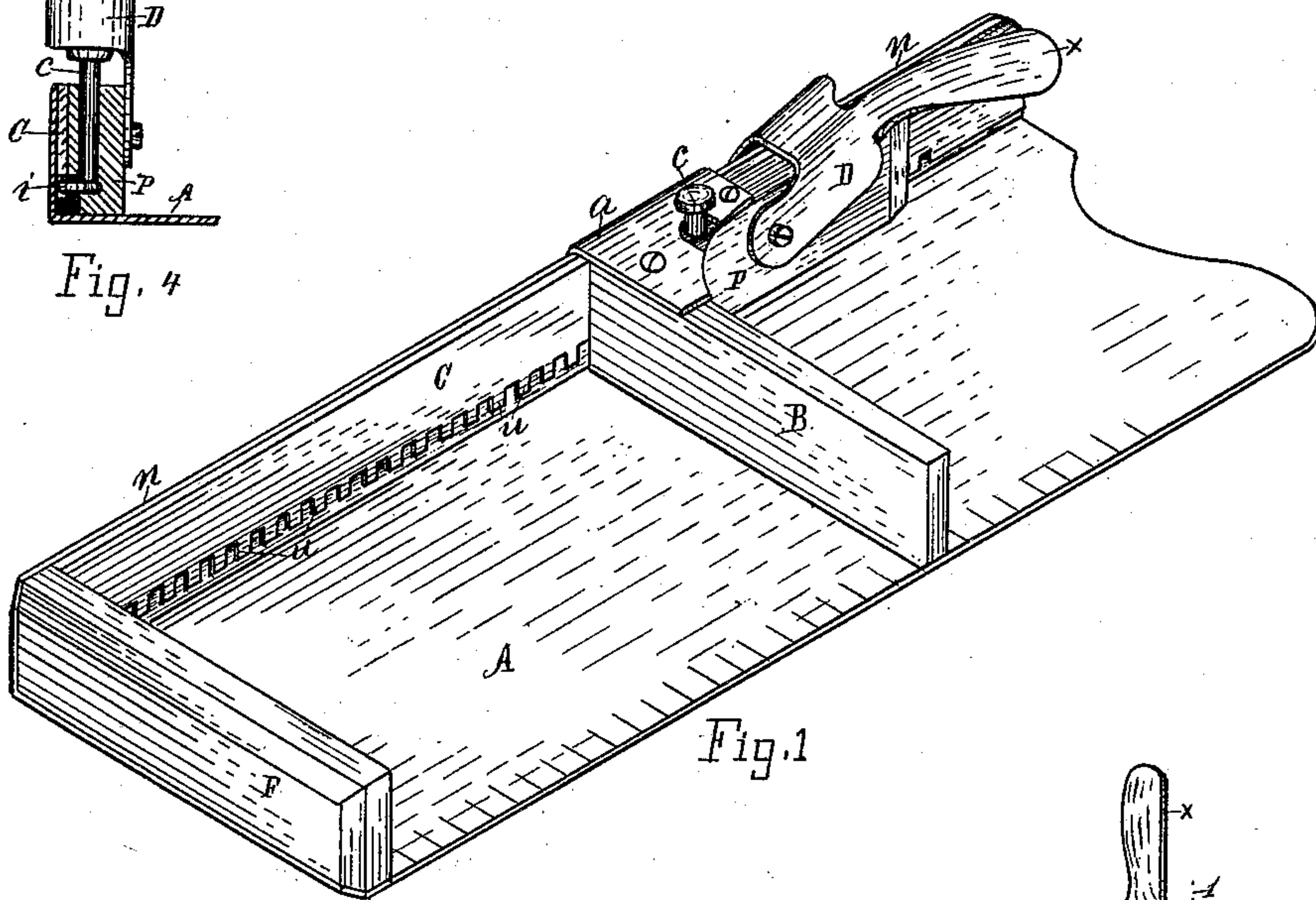


Fig. 1

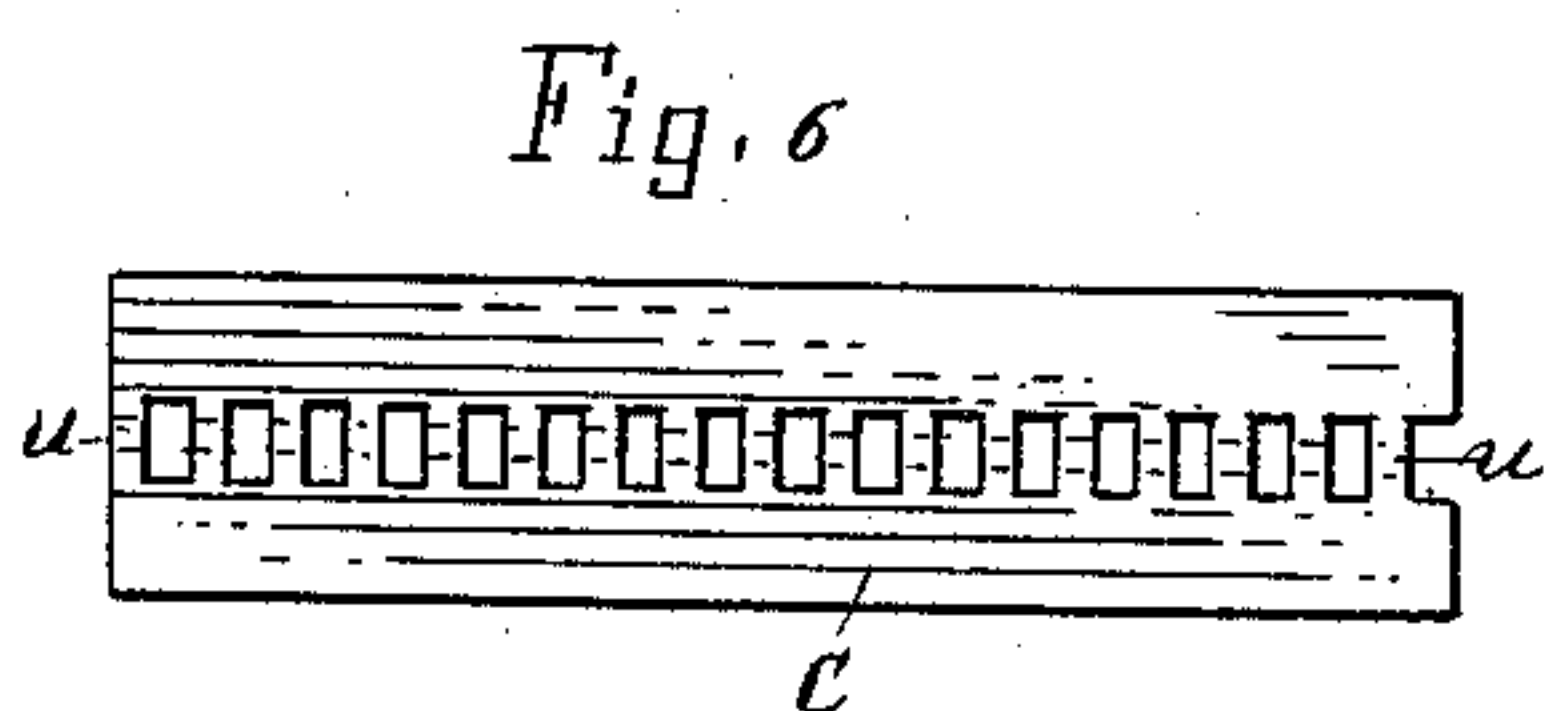


Fig. 6

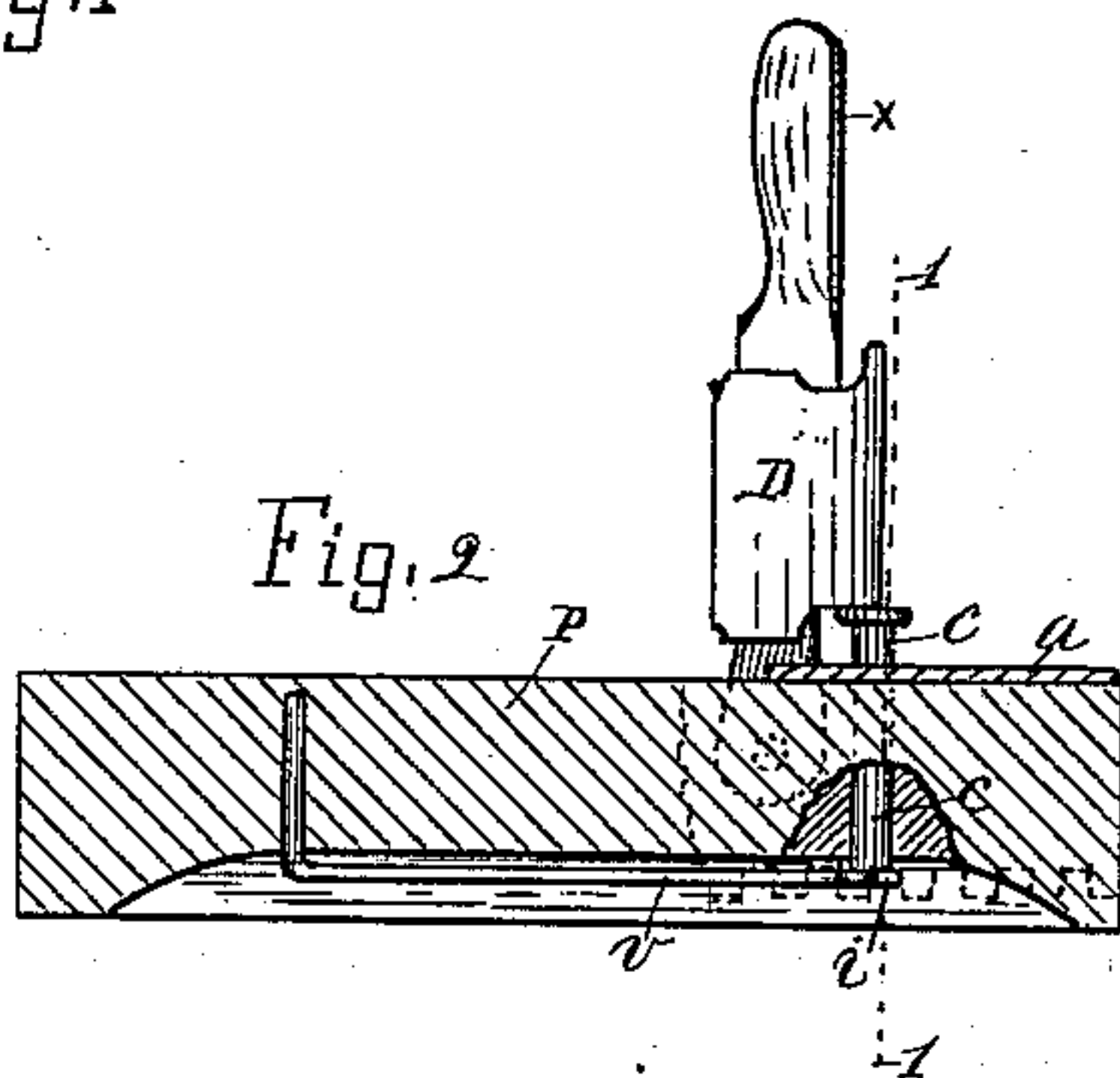


Fig. 2

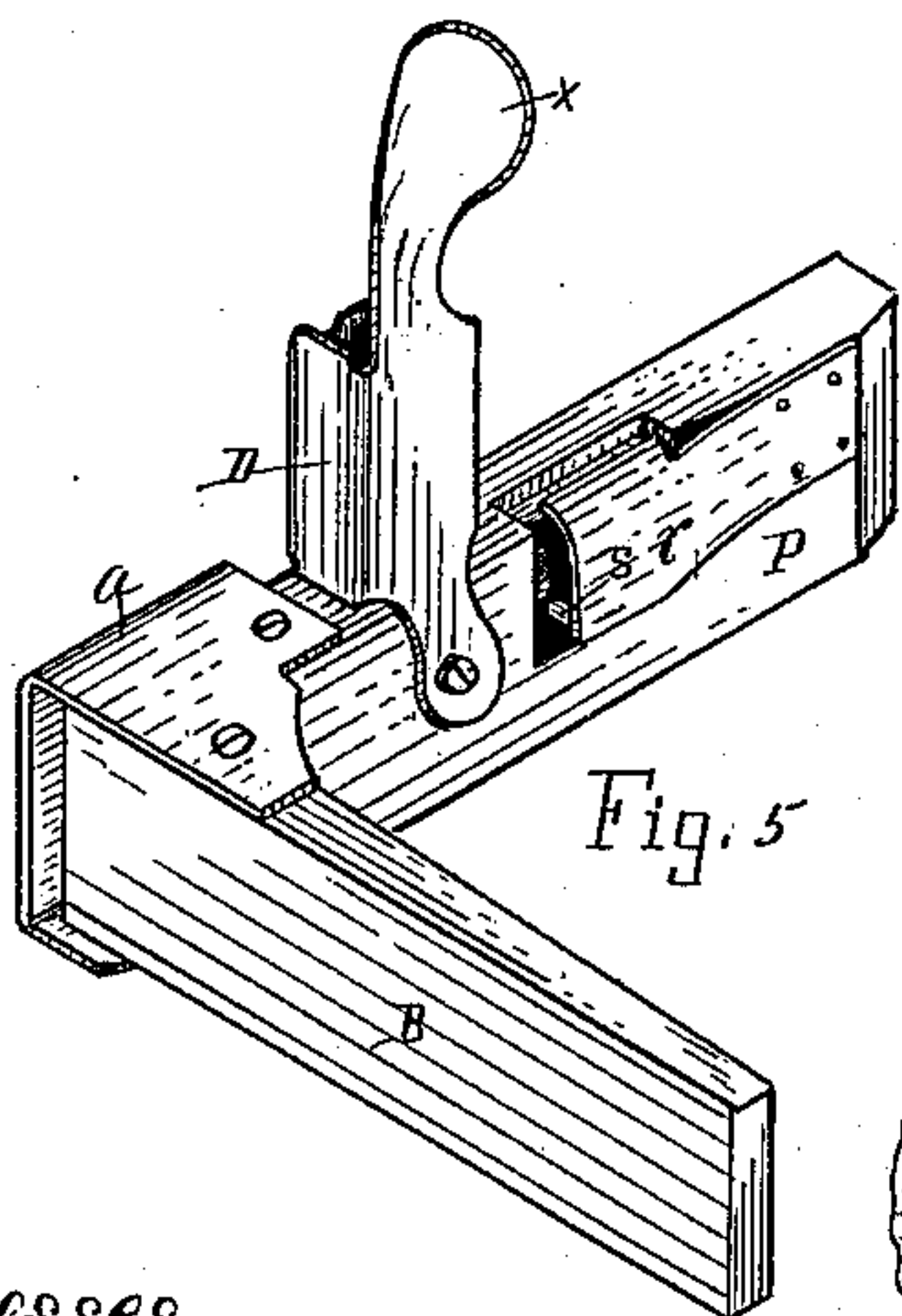


Fig. 5

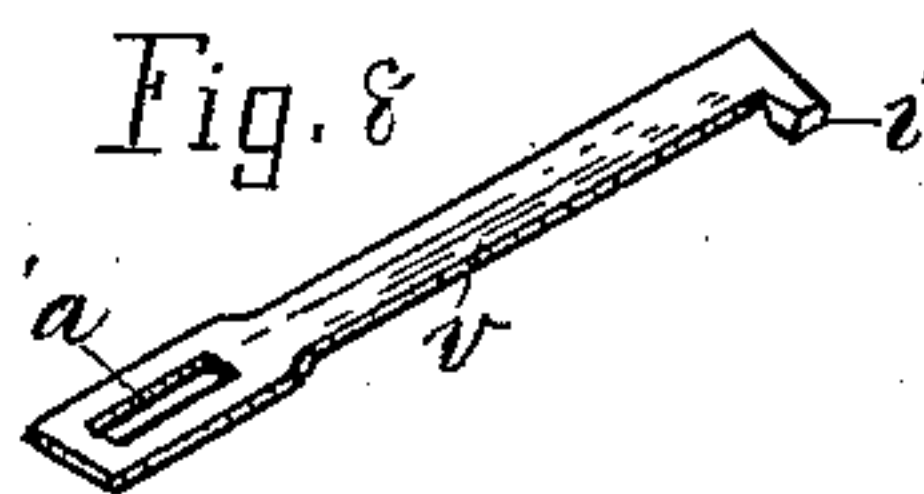


Fig. 8

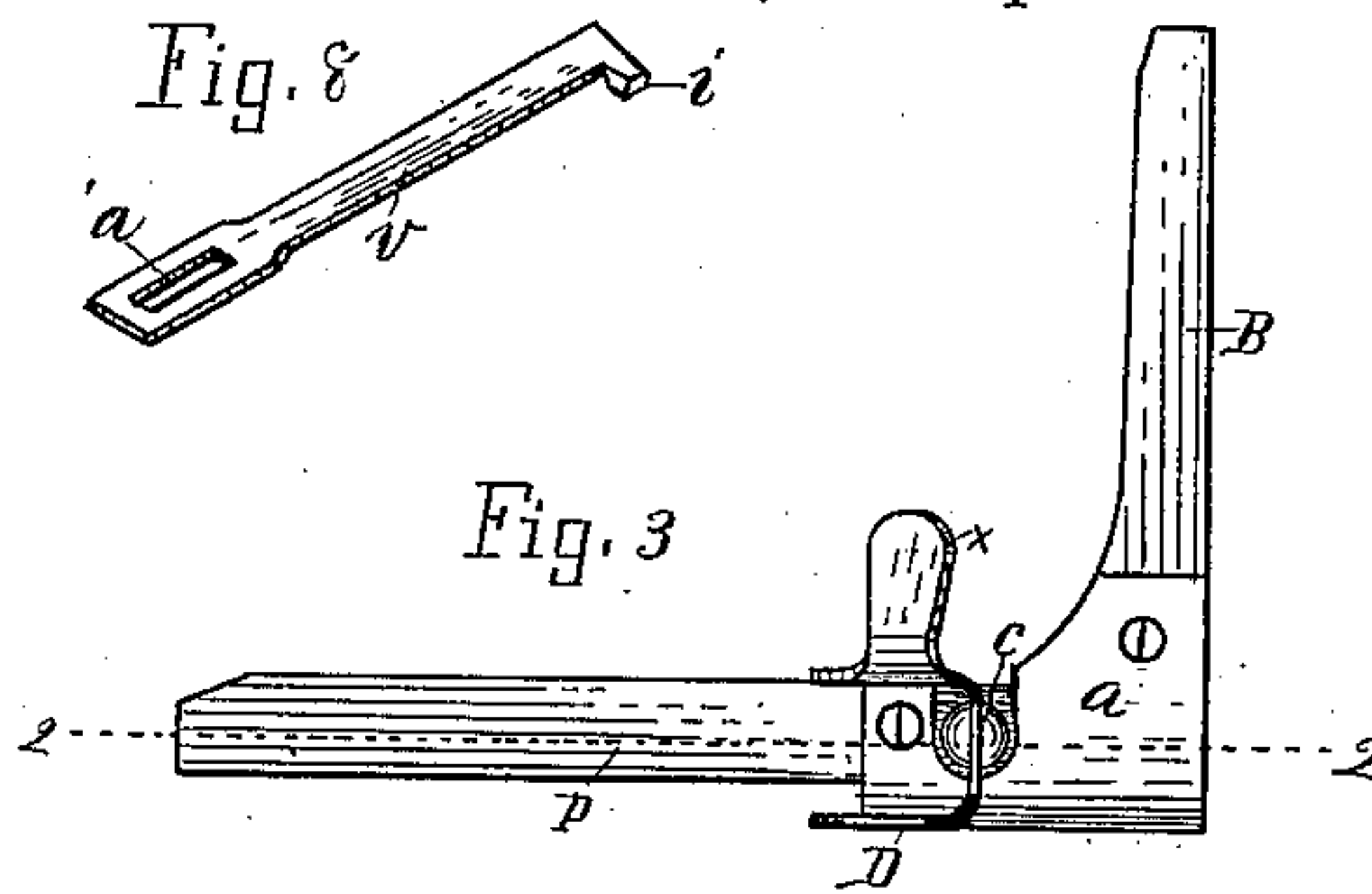


Fig. 3

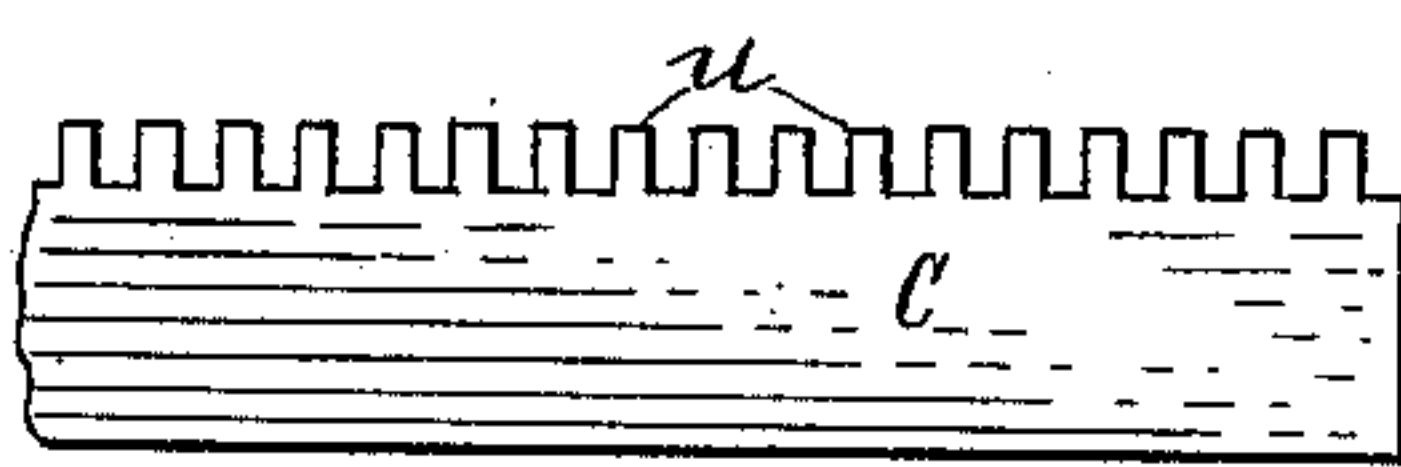


Fig. 7

Witnesses,

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UNITED STATES PATENT OFFICE.

PRESTON S. KELLOGG, OF BATTLE CREEK, MICHIGAN.

COMPOSING-STICK.

SPECIFICATION forming part of Letters Patent No. 375,360, dated December 27, 1887.

Application filed January 3, 1887. Serial No. 223,251. (No model.)

To all whom it may concern:

Be it known that I, PRESTON S. KELLOGG, a citizen of the United States, residing at Battle Creek, county of Calhoun, State of Michigan, have invented a new and useful Composing-Stick, of which the following is a specification.

This invention relates to the ordinary composing-stick used by printers in setting type.

My object is to effect certain improvements in connection with the locking of the movable jaw, substantially as below described and claimed.

In the drawings forming a part of this specification, Figure 1 is a perspective view of a composing-stick embodying my improvements; Fig. 2, a longitudinal section of one of the arms of the movable jaw on line 2 2 in Fig. 3; Fig. 3, a plan of said jaw; Fig. 4, a cross-section on line 1 1 in Fig. 2, showing connecting parts as when looking from a point at the right of the latter-named figure, but with the clip *a* omitted; Fig. 5, a perspective of the movable jaw, showing a change from Fig. 1. Figs. 6 and 7 are broken plates, showing modified forms of the lock-plate in Fig. 1; and Fig 8, a change from the detail lettered *v* in Fig. 2.

Referring to the lettered parts of the drawings, A is the base-plate, F the fixed jaw at the end, *n* the back wall of the stick, and B is the movable jaw, all substantially as in composing-sticks in ordinary use. The arm P of the jaw fits against the back wall of the stick, while the jaw proper, B, is parallel with the fixed jaw F. The movable jaw is kept in place by a clip, *a*, Fig. 5, which clip surrounds the back wall and slides thereon—that is, said wall is between the jaw and the clip, and the clip catches over the under side of the base-plate A. Fig. 5 clearly shows how the clip is made. The lock-plate C is of hardened metal. These plates are struck out by dies, or otherwise formed separate from the back wall, *n*, of the stick, and are provided with a series of slots, *u*, at the lower edge, as in Fig. 1, or the upper edge, Fig. 7, or at the longitudinal center, Fig. 6, or at other suitable points. The width of pica or half-pica type corresponds with the distance the slots are apart. Any suitable dog may be attached to the movable jaw, to interlock with the slots *u* and hold the jaw B at a proper location to establish the

desired longitudinal space between the two jaws B F.

The object of adjusting the jaw B and the spacing of the slots *u* will be readily understood by those skilled in the art without dwelling upon it here.

To illustrate the operation of a dog with the slots, reference may be had to the vertical plunger *c*, having at the lower end a rearwardly-projecting dog, *i*, Figs. 2 and 4, and the spring *v*, which has an upward resistance against a downward pressure of the plunger *c* upon it to cause the dog *i* to enter the slot in the lock-plate. The dog and means for operating it being connected with the movable jaw, the latter is locked at desired locations. Pressing down upon the plunger *c* frees the dog *i* by throwing it into the longitudinal space between the lower notched edge of the lock-plate C and the bottom of the stick, Figs. 1 and 4. When the movable jaw is moved, the operator keeps the plunger *c* pressed down, and the dog *i* traverses the said longitudinal space until the plunger is released, at which time the dog will enter the desired slot.

It will appear obvious that by slight changes in the construction and action of the dog the slots *u* in Figs. 6 and 7 are available.

Of course the slots might be formed in the inner face of the back wall of the stick, but not extending entirely through said wall to mar the appearance and to be rough to the hand of the operator; but forming the lock-plate separated from the stick is much more convenient, and being of harder metal will not so readily wear.

The lock-plate C may be secured to the inner face of the back wall by soldering or in any practical manner, and when thus secured really constitutes a part of the back wall. It is desirable that a set-screw or a clasp, or some other suitable means, shall be employed to clamp or hold the free end of the arm P against the wall *n*, to prevent its tilting away, and thus tilting the jaw B out of its true parallel relation with the fixed jaw. So far as the novelty in my plan of locking the jaw is concerned, it is not important what such means are.

I prefer to use the clasp D, pivoted to the arm P and operated by handle X. This clasp

is not new for clamping the parts P *n*, *per se*; but I construct and arrange it in a manner to coact with the plunger *c* to operate the dog *i*.

In Fig. 1 the use of the clasp D as a clamp is illustrated. When swinging the clasp upward to release the arm P, the lower end of the back of the clasp contacts with the top of the plunger *c*, forcing it down and freeing the dog, thus unclamping and unlocking the movable jaw under one action. Figs. 2 and 4 show the clasp contacting with the dog ready to be swung over a little farther to release the dog.

In Fig. 5 is shown an equivalent to the action just described. *r* is a spring-plate provided with a dog, *s*, which of course extends through the arm P. Shutting the clasp D down springs the plate *r* into the recess in the arm P, and forces the stud or dog *s* into a lock-slot in the inner face of the wall *u*. When the clasp is swung up, the spring *r* flies inward, as in Fig. 5, releasing the dog *s*, and thus unclamping and unlocking the movable jaw by a single action of the clasp D.

One or more dogs may be employed to lock with the slots *u*. The plan of dog in Fig. 5 illustrates an available one for use with the lock-plate in Fig. 6. Referring to Fig. 8, a spring, *v*, having dog *i*, is shown equivalent to the spring in Fig. 2, except that by means of the elongated slot *a'*, in which a set-screw may be passed to secure the spring to the part P, the dog may be adjusted to greater accuracy to conform to the desired position of the jaw B in relation to the pica or half-pica spaces represented by the notches *u*.

Having thus described my invention, what I claim as new is—

1. The combination of a base-plate having a stationary jaw, a back provided with a series of lock-slots a suitable distance apart, which open into space at one edge of the back, thereby being unconfined at one side, and a movable jaw having suitable means for interlocking with said slots, substantially as set forth.

2. The combination of a base-plate having a stationary jaw, a back provided with a series of lock-slots a suitable distance apart, and a movable jaw provided with a spring-actuated dog, and a pivoted clasp, whereby the action in swinging the clasp on its pivot to unclasp the jaw operates to free the dog from the lock-slots, substantially as set forth.

3. The combination of a base-plate having a stationary jaw, a back provided with a series of lock-slots, and a movable jaw provided with an adjustable spring terminating at the end in a dog for engaging said slots, substantially as set forth.

4. The combination of a base-plate having a stationary jaw, a back, a lock-plate of metal made separate from the back and secured to the inner face thereof, said lock-plate having a series of lock-slots at suitable distances apart, and a movable jaw provided with suitable locking means for engaging said slots, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

PRESTON S. KELLOGG.

Witnesses:

WM. T. DAVIS,
CHAS. E. ROBINSON.