No. 657,299. Patented Sept. 4, 1900.

W. G. SLAUSON.

PRINTER'S FURNITURE

(Application filed June 4, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

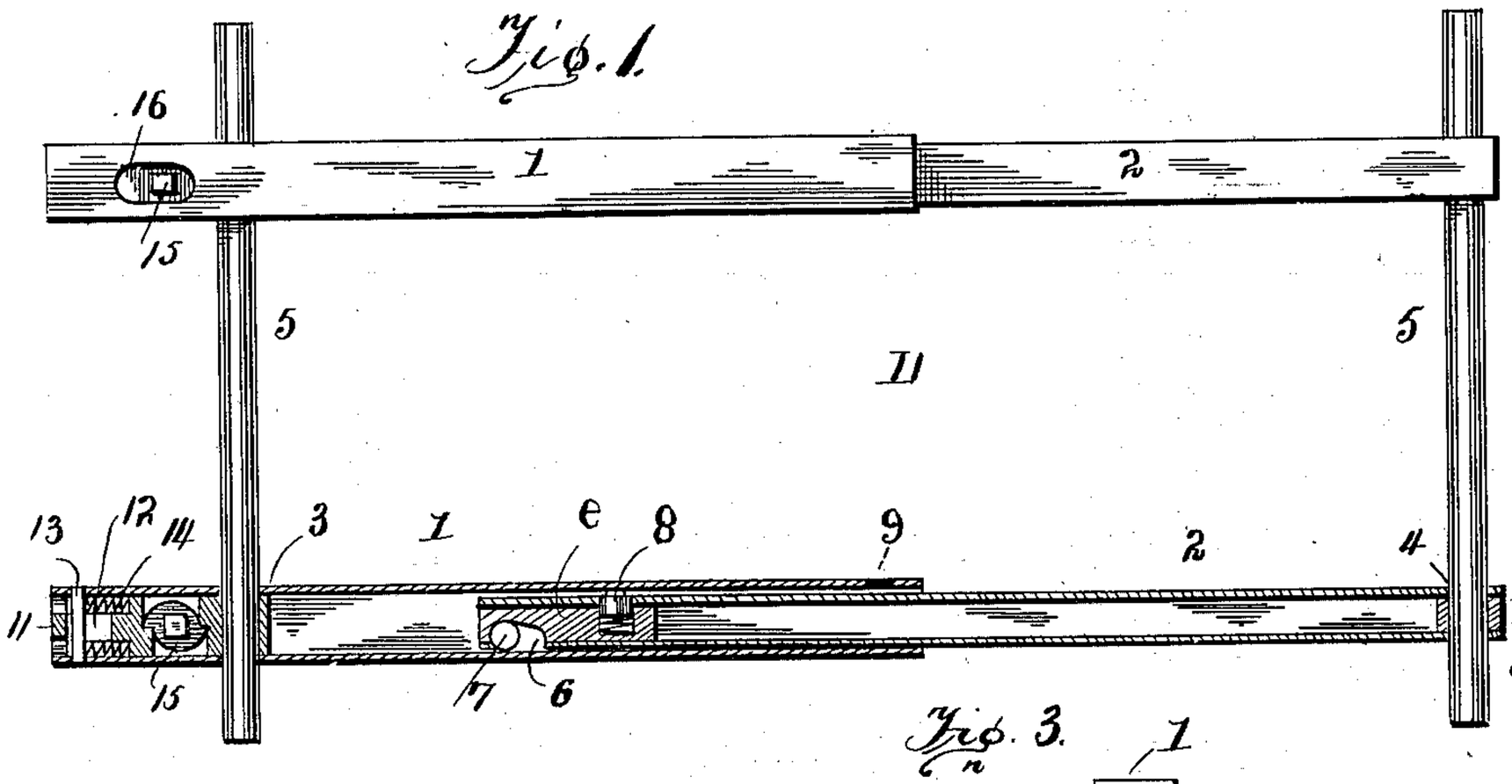


Fig. 3.

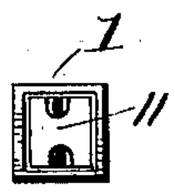


Fig. 2.

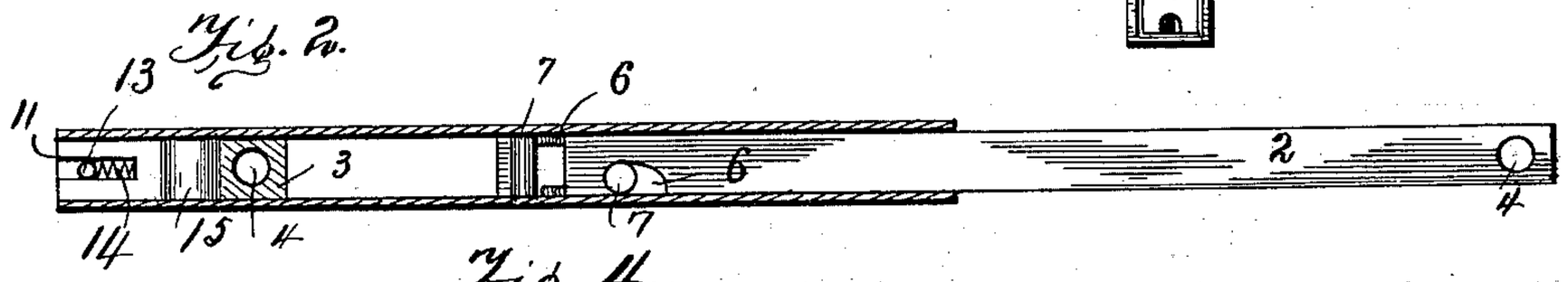
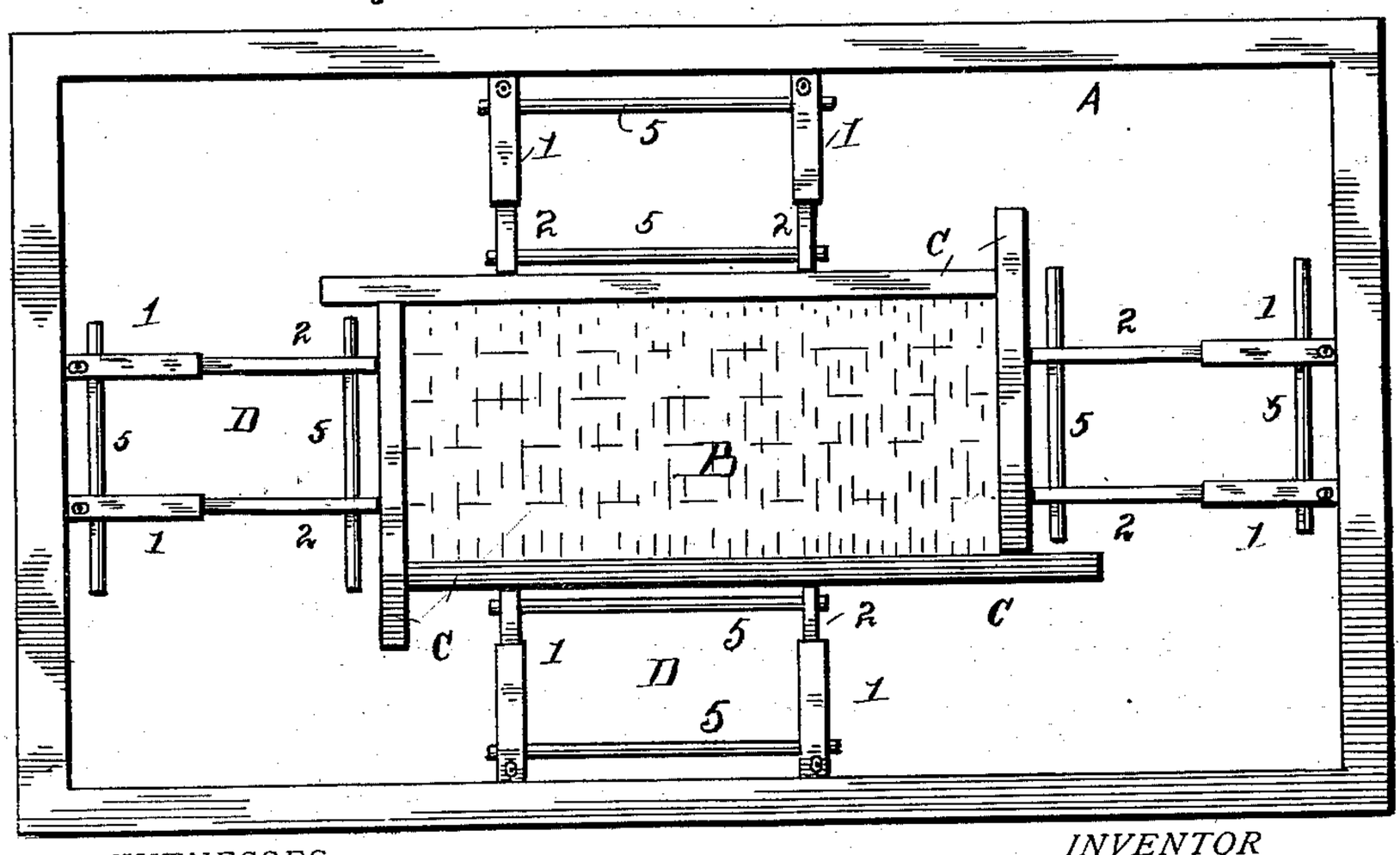


Fig. 4.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

Fig. 10.

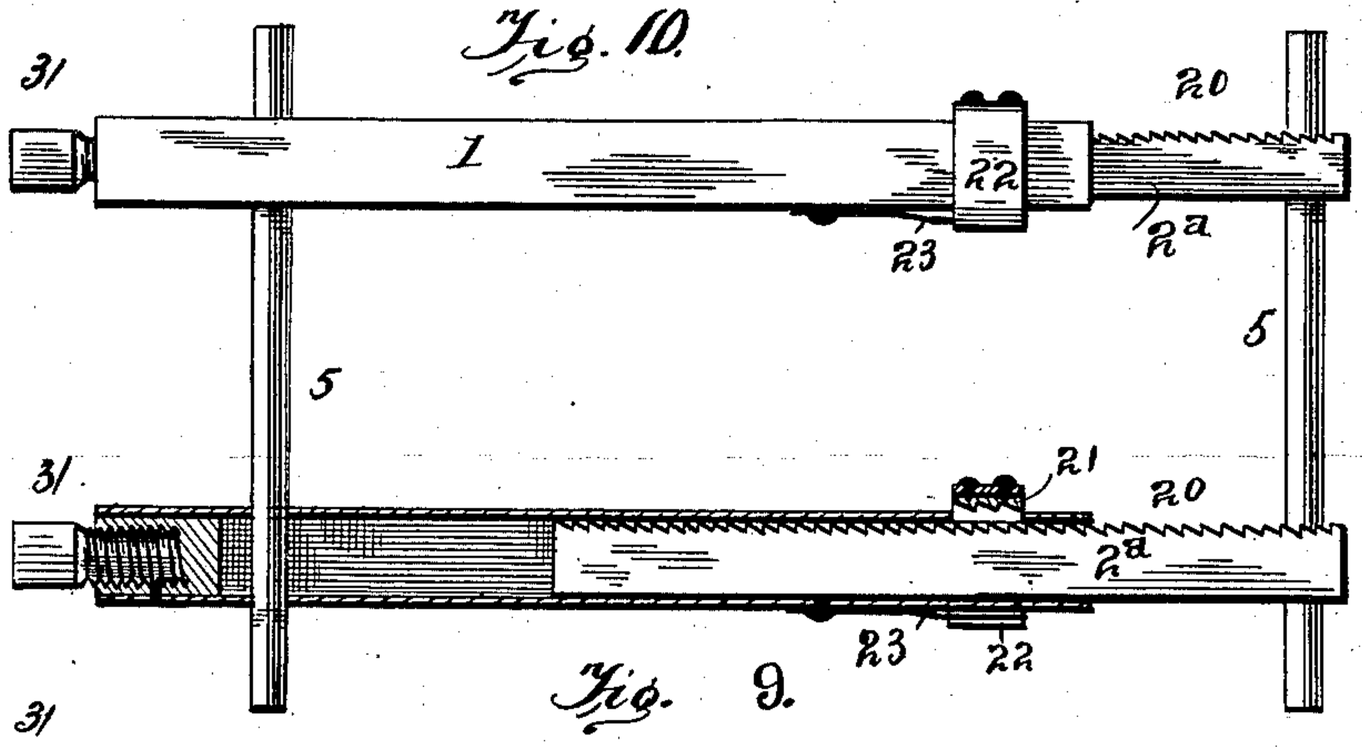
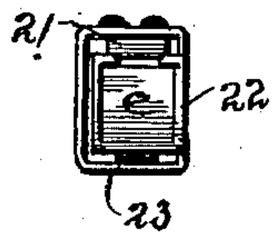


Fig. 9.

Fig. 11.



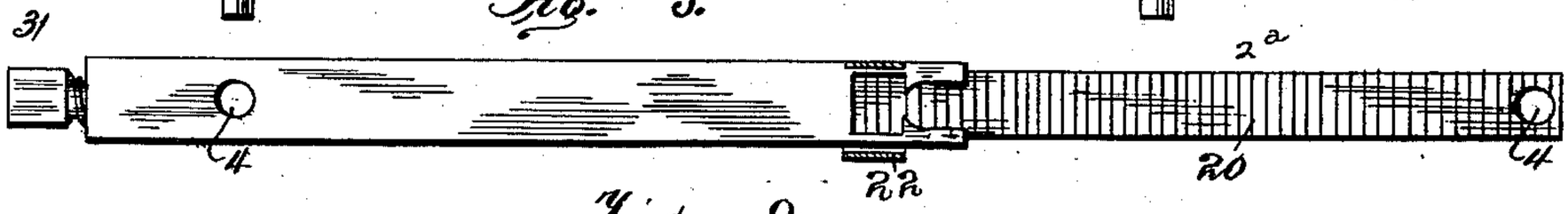


Fig. 8.

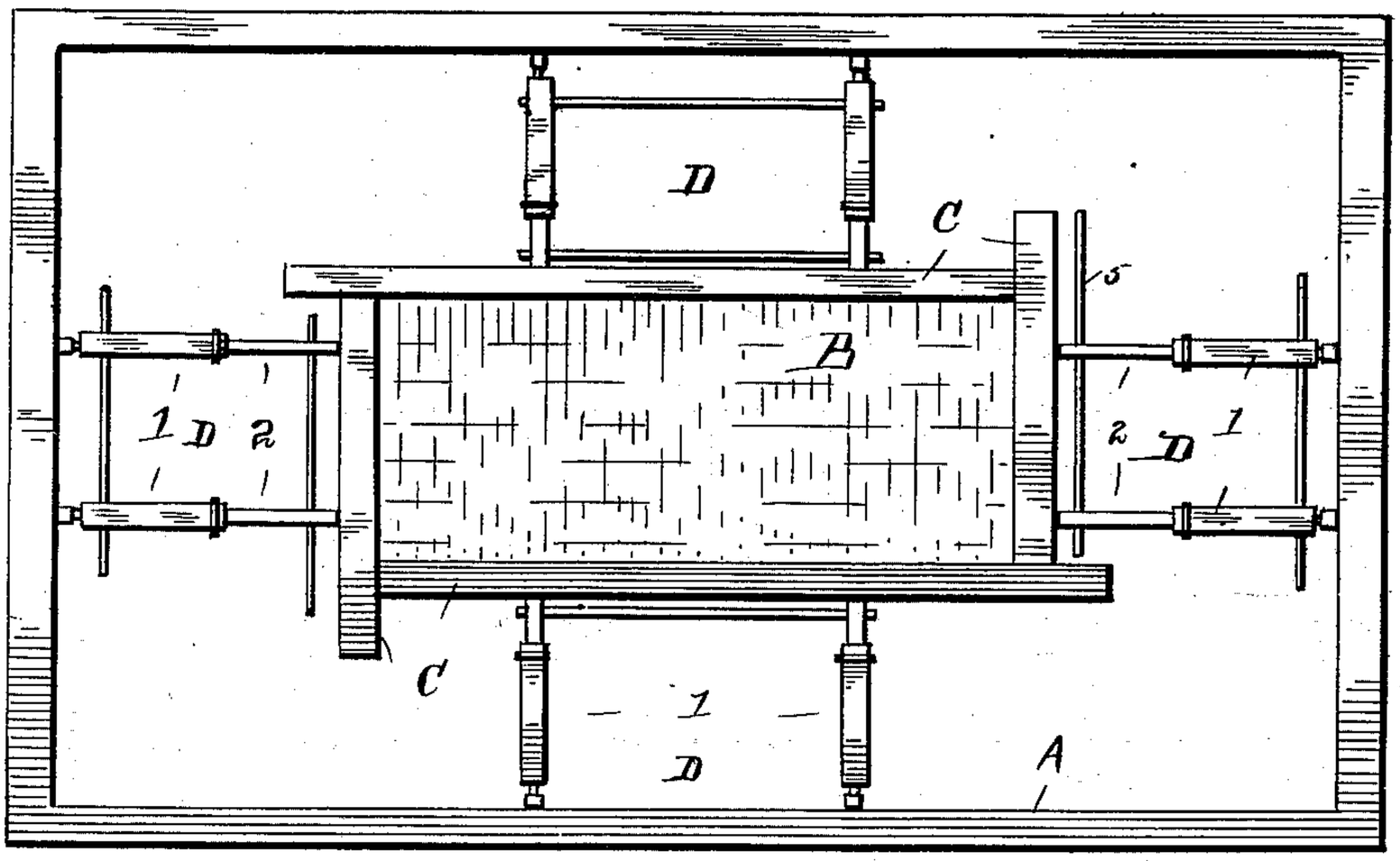


Fig. 5.

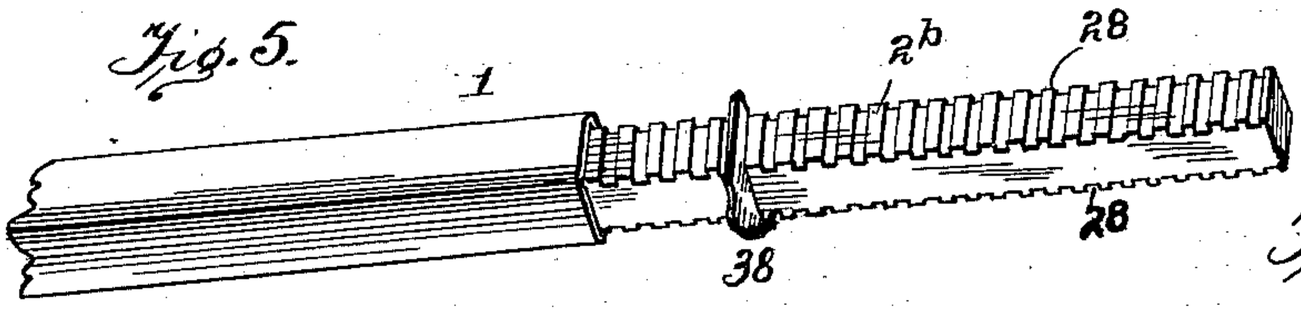


Fig. 6.

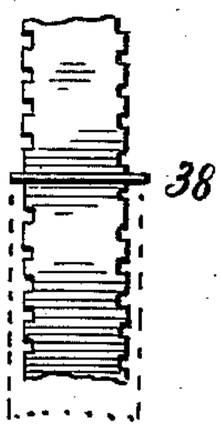
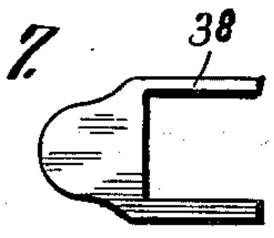


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM G. SLAUSON, OF MIDDLETOWN, NEW YORK.

PRINTER'S FURNITURE.

SPECIFICATION forming part of Letters Patent No. 657,299, dated September 4, 1900.

Application filed June 4, 1898. Serial No. 682,595. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. SLAUSON, residing at Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Printers' Furniture, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to "furniture" for printers' use intended for locking up printing-forms in chases or locking up chases in press-beds.

The object of the invention is to produce extensible furniture which can be expanded or contracted to fill a greater or less space in the chase or on the press-bed, and thus obviate the necessity of using a large quantity of wood or metal furniture when it is necessary to lock a small form in a large chase or a small chase in a deep press-bed.

Extension furniture has been heretofore constructed in which two side bars were connected by levers or lazy-tongs, and the side bars could be spread apart by changing the angular position of the connecting-levers. By my telescopic construction of furniture I am enabled to make lighter and better extensible furniture than any with which I am familiar. While not claiming to be the first to make extensible furniture for printers' use, I believe I have made great improvements therein.

Figure 1 is a plan and partial section of a block of extensible furniture according to the general principles of my invention. Fig. 2 is a horizontal longitudinal section of one of the extensible bars. Fig. 3 is an end view of the same. Fig. 4 is a plan of a chase with form locked up therein and four blocks of extensible furniture applied to fill the space between the chase and the pieces of rectangular furniture next to the form. Fig. 5 is a broken perspective view showing modification of one of the extensible bars. Fig. 6 is a broken plan of part of same. Fig. 7 is a detail of holding-clamp. Fig. 8 is a plan of form-chase and four modified extension-blocks. Fig. 9 is a side elevation of one bar, and Fig. 10 a plan and partial section of a block with spring-ratchet and pawl-catch. Fig. 11 is an end elevation of bar with ratchet and pawl-catch.

The chase A may be any usual printer's chase in which the form B is to be locked in any usual or desirable position. Such a form is usually placed between rectangular pieces of furniture, as C C C C, which furniture incloses the type-form. Other usual appliances of the printing-office may be substituted for furniture C, and my invention may be applied on the press-bed as well as inside the chase, as will be readily understood by practical printers. Inside the chase and outside the form, as shown, I apply as many extensible furniture-blocks D as may be needful to fill the space between the chase and the form support, and as these blocks are substantially similar I will first describe the block shown in Fig. 1.

The numeral 1 represents a rectangular metallic tube, preferably of brass or drawn steel, as such material does not corrode much under the treatment to which the type-forms are subjected. A rectangular slide-piece 2 neatly fits within the tube 1. If a solid metallic piece is used, more weight will be involved than is usually necessary. A rectangular brass tube with a wooden interior filler or fillers *e* makes a very good slide; but the piece 2 may be solid.

Near one end of tube 1 I insert a filler-piece 3, and a hole 4 extends through the tube and filler-piece. Cylindrical pieces or rods 5 are to pass through these holes 4 with a neat fit, so that the rods 5 may slide in holes 4, but not too easily. A similar hole 4 extends through the slide 2, and a similar rod 5 extends through this hole. A second extension-bar 1 2, applied to the two, completes the rectangle, which may then be enlarged or reduced in either direction within the capacity of the parts. Thus in Fig. 4 the upper block is shown with the side bars at about the extreme ends of rods 5 5 and the telescopic bars 1 2 contracted, while the blocks at the sides of the figure are shown with the telescopic bars extended, but adjusted nearer to each other on the rods 5.

It will readily be understood that the bars 1 2 may be "telescoped." It is necessary that

means be provided for holding these bars extended in order that the device should be operative in locking up forms. I have devised several mechanical means for holding the bars extended. In Fig. 2 I show the bars 2 notched out at 6 in inclined direction and a cylinder 7 inserted in the inclined notch. The notch and cylinder may be placed at one or more sides of piece 2 and all inclosed within tube 1. The cylinder 7 will then be in position to act as a wedge, and as it approaches the narrow end of notch 6 will bind or compress the part 2 against the tube 1. The cylinders 7 of metal can be placed by the action of gravity in the narrow or wide ends of the notch. Thus when the bar 1 2 is extended to about the desired distance the end 2 is turned downward, and the cylinders 7 will move to the narrow end of the slot and wedge the parts firmly, while to release the wedge the end 1 is turned down and may be tapped lightly to release the locking-detent. To prevent piece 1 from coming entirely out of tube 2, a spring-pin 8 in piece 2 may be made to engage a hole 9 in the tube when the parts are so far extended as to permit such engagement. To push the piece 2 back, this pin 8 may be pressed in by any suitable instrument.

The block D will be adjusted to the desirable length and width, the two side bars 1 2 being held in their extension by their locking-detent, and being held in parallelism and at the proper distance apart by frictional engagement with the two cross-rods 5 5. Then the block may be applied in the chase, form, or press when it should approximately fit the desired space, being a little short. The locking-quoins are then projected. Common screw or wedge quoins might be substituted.

The numeral 11, Figs. 1 and 2, shows a locking-quoin as applied to tube 1. This quoin is a rectangular piece of wood or metal having a mortise 12, through which a pin 13 passes from the sides of tube 1 to keep the quoin from falling out. Springs 14 bear on the pin and quoin and normally retire the quoin within the tube. A cam 15 is confined in tube 1 between the quoin 11 and filler-piece 3, and a polygonal hole in said cam permits it to be turned by a suitable key, the key being entered through a hole 16 in tube 1. This construction of cam operating on a quoin is not new, but the arrangement of an extensible quoin at the end of a telescopic bar is believed to be new.

In Fig. 10 I have illustrated a modification wherein the slide 2^a is provided with a rack 20. A spring-pawl 21, attached to tube 1, allows piece 2 to be drawn out of piece 1 freely. The pawl may be pressed out of engagement with the rack 20 by means of a sleeve 22, which incloses said pawl and is attached to spring 23, which spring is attached to tube 1. The pawl 21 works through a hole in the tube 1 and engages the ratchet on slide 2, thus forming the locking-detent. As a substitute for quoin 11 an extension-screw 31 may be employed, said screw having a polygonal head to which a wrench may be applied to turn the screw out or in, and thus lock or unlock the block D in its holding position.

Still another means for holding the slide 2^b extended is shown in Figs. 5, 6, and 7, in which case slide 2 has notches 28 in opposite sides. A fork 38, with its legs made to fit the notches, may be placed straddle of the notched bar, one of the legs of the fork resting in a notch if alternate or in both notches if opposite. The fork, clasp, or locking-detent 38 will thus prevent the slide from being forced into tube 1.

It will be understood from the foregoing that the extensible furniture may be expanded to various sizes and used in various positions. The extreme extension of the length of bars 1 2 permits such adjustment as will almost double the closed length of block D. When the rods 5 are removed from bars 1 2, the whole can be stored away very compactly.

A set of this extensible furniture for the use of a large printing-office will include the proper number of blocks of various lengths—say four inches extensible to nearly eight inches, seven inches extensible to about thirteen inches, and twelve inches extensible to more than twenty inches. Thus about three sizes of furniture will cover a great variety of uses.

Where the rods 5 are long, more than two extension-bars may be applied to a pair of rods. Various lengths of rods will be supplied with sets of furniture; but, preferably, these will all be of the same diameter, and the holes in bars 1 2 will correspond to such diameter.

It will be understood that the tube 1 and slide 2 may be used without the rods 5 for narrow forms or to fill out the blank columns, or that any number of the extensible pieces 1 2 may be used side by side without the rods 5. A printer will readily find use for this furniture.

What I claim is—

1. In printers' furniture, the block composed of parallel extensible telescopic bars and means to hold them extended, and parallel cross-rods passing through holes near the ends of said bars, substantially as described.

2. In printers' furniture, a rectangular metallic tube of a size to be inclosed within a form, an extension-slide telescopically connected to such tube, and a locking-detent to hold such slide extended, substantially as described.

3. The extension-bar for printers' furniture consisting essentially of a rectangular tube, a slide-piece closing into such tube, and means for locking the slide to the tube in an extended position, to prevent further closure into the tube, substantially as described.

4. In printers' furniture, the rectangular metallic tube, the rectangular slide entering

one end of said tube and having a notch in its edge, and a fastening-piece engaging said notch to hold the slide extended, all combined substantially as described.

5. The combination with a chase and form, of an extensible furniture-block consisting essentially of a rectangular tube, a slide-piece telescoping within one end of the tube, means for holding the telescopic piece extended, and an extensible locking-quoin at the end of the tube remote from the slide-piece, all substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM G. SLAUSON.

Witnesses:

J. C. ENTRIKIN,

W. J. ENTRIKIN.