

No. 711,829.

Patented Oct. 21, 1902.

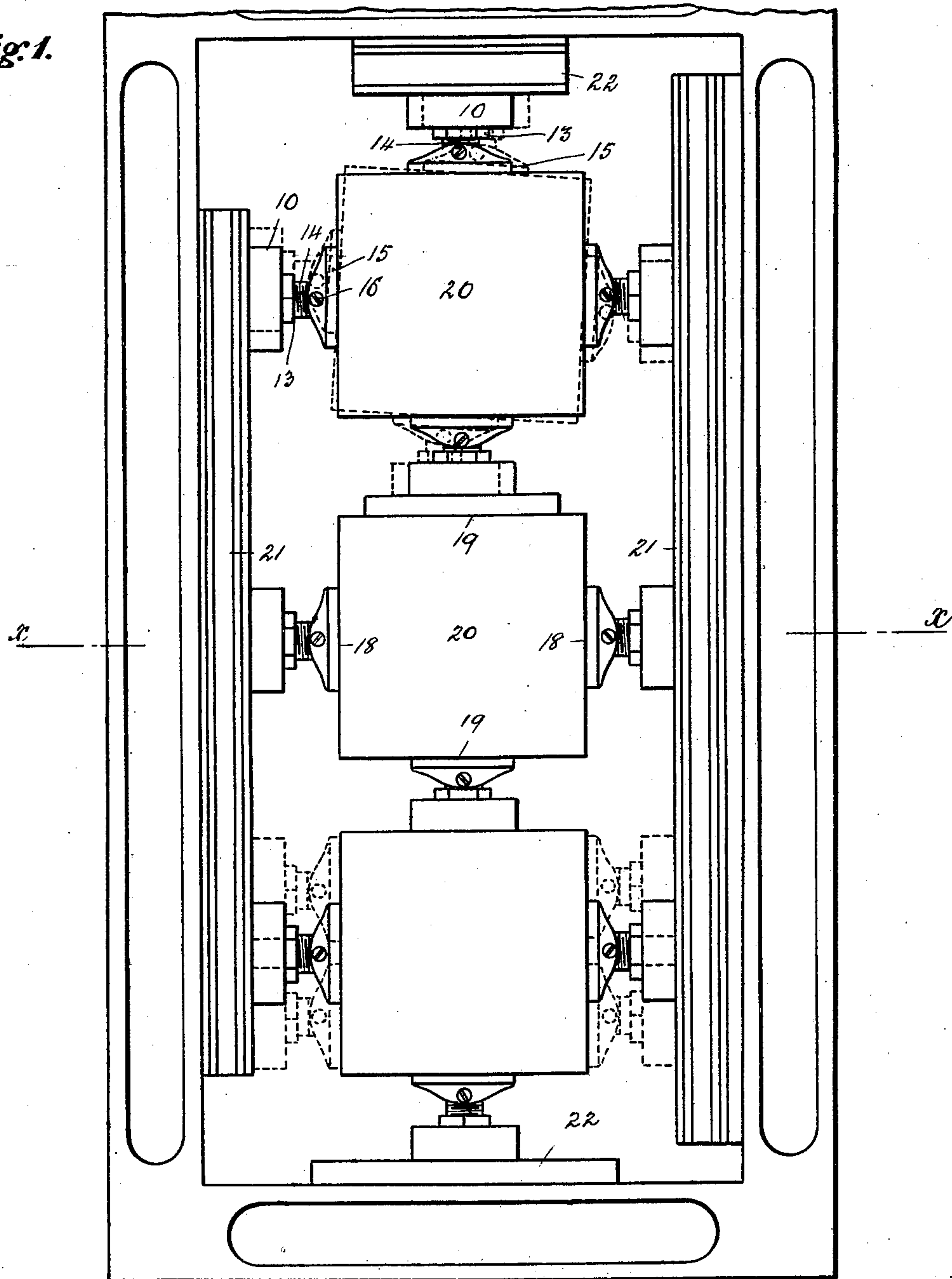
A. COX.
PRINTER'S QUOIN.

(Application filed Mar. 31, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES

W. B. Keeler
Bruce A. Elliott

Inventor

Arthur Cox

By *James L. Norrie*
Atty.

No. 711,829.

Patented Oct. 21, 1902.

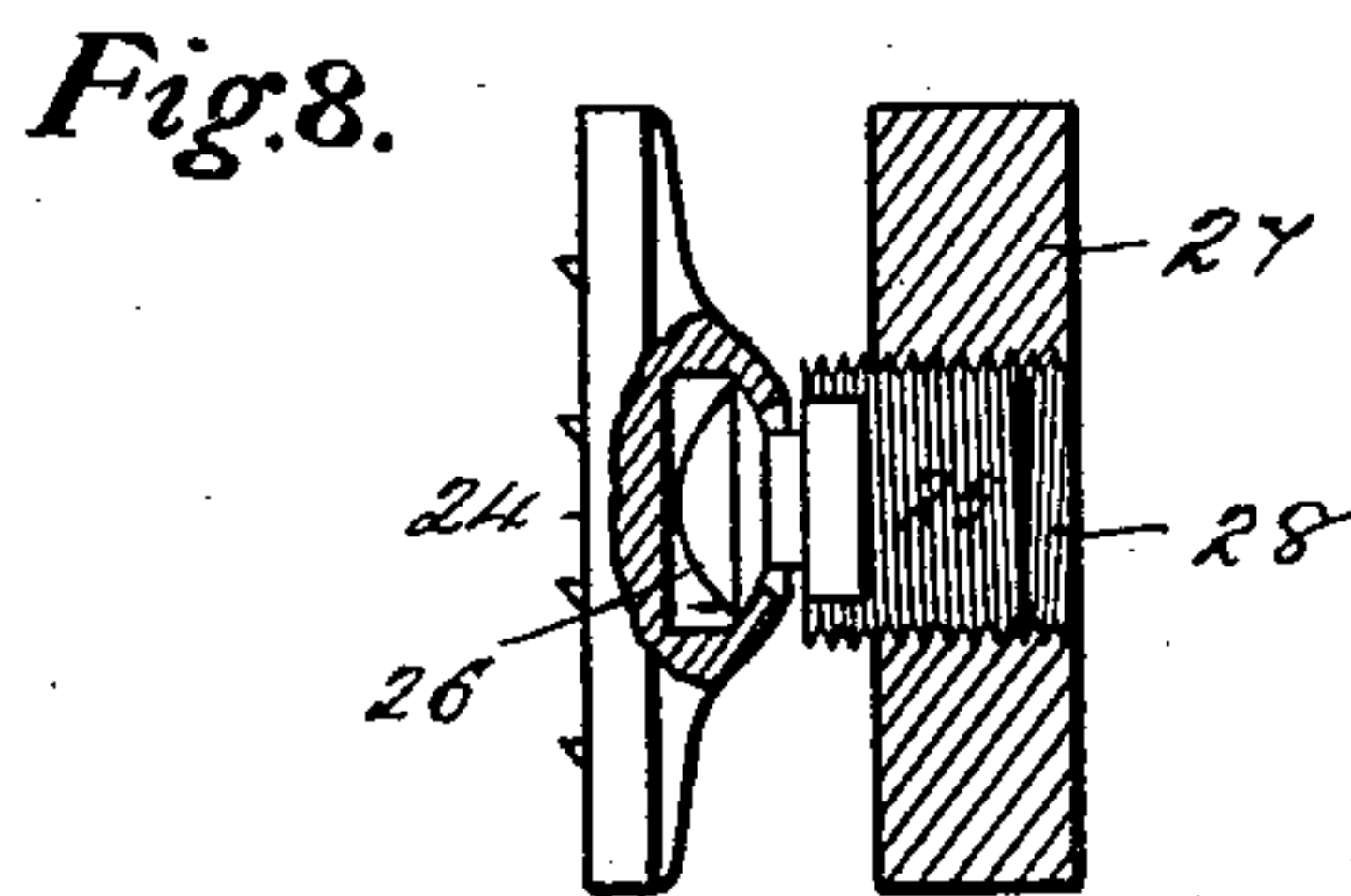
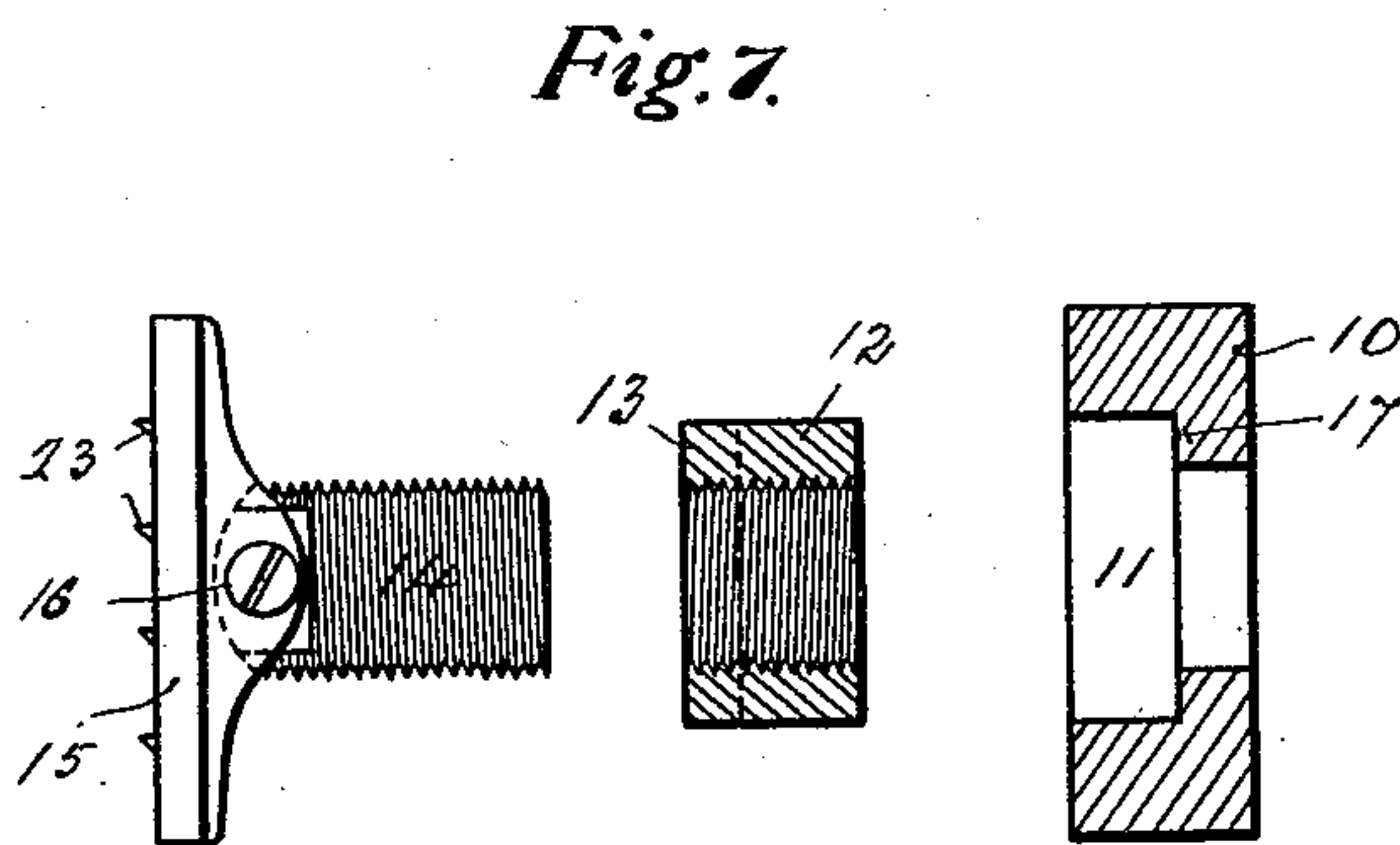
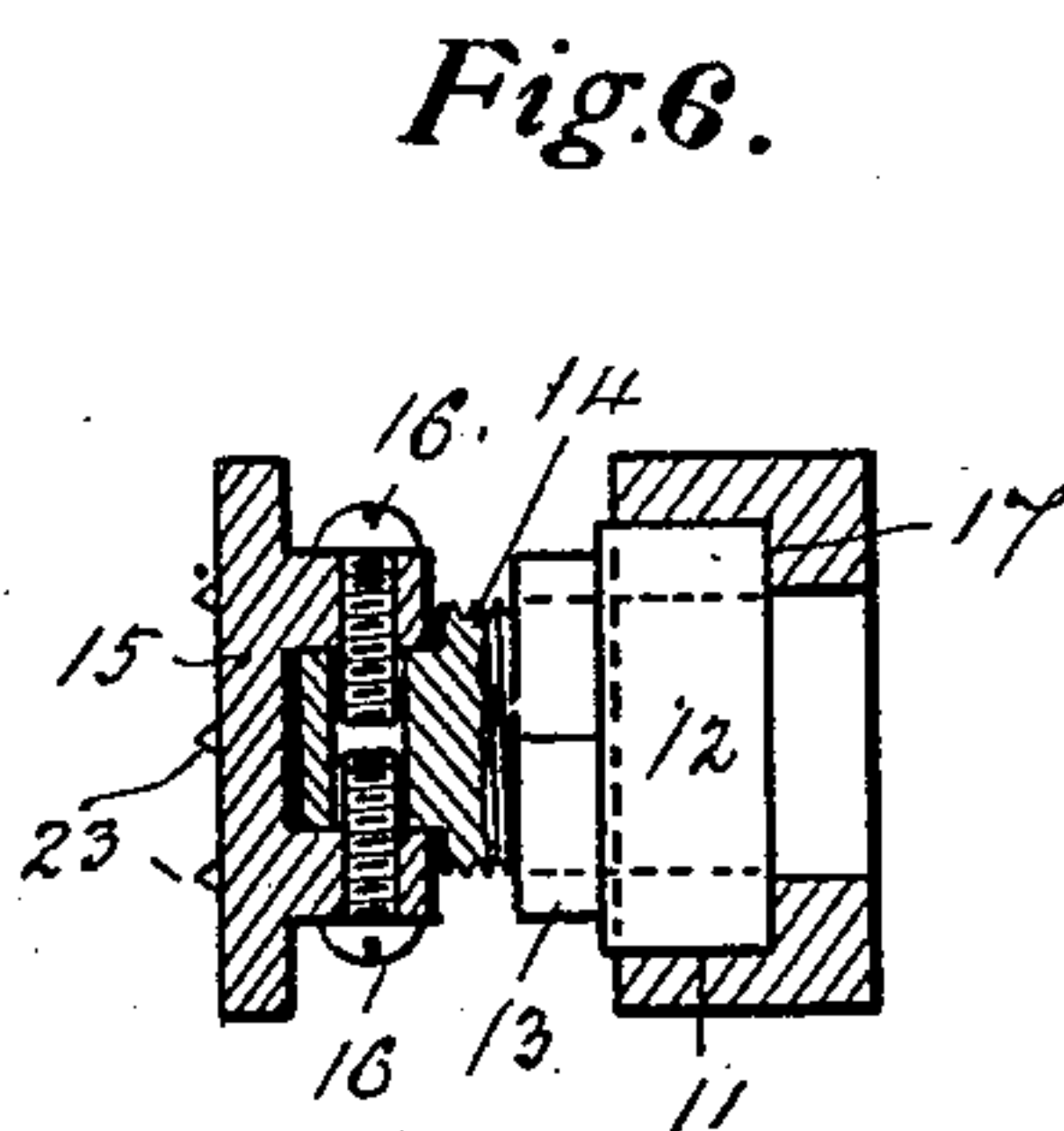
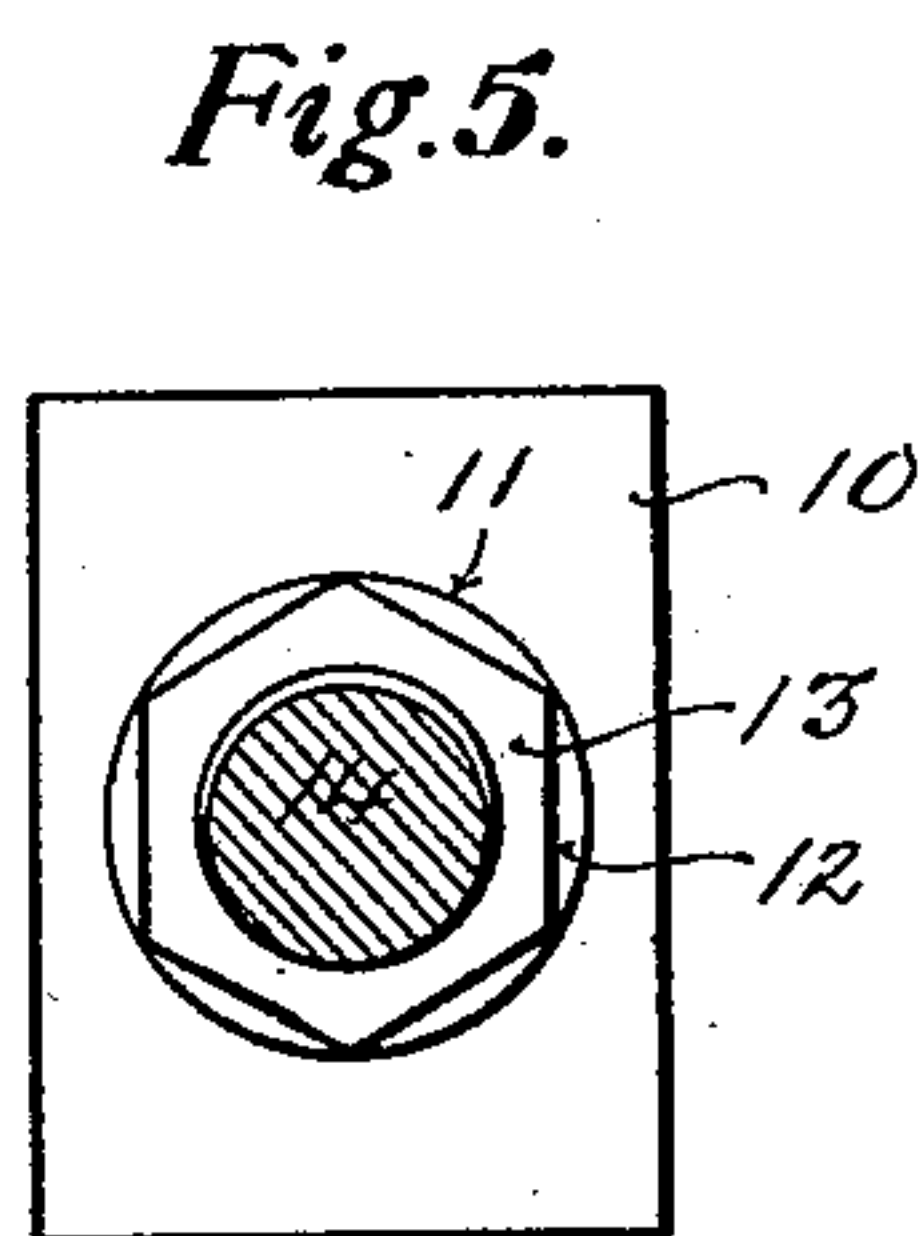
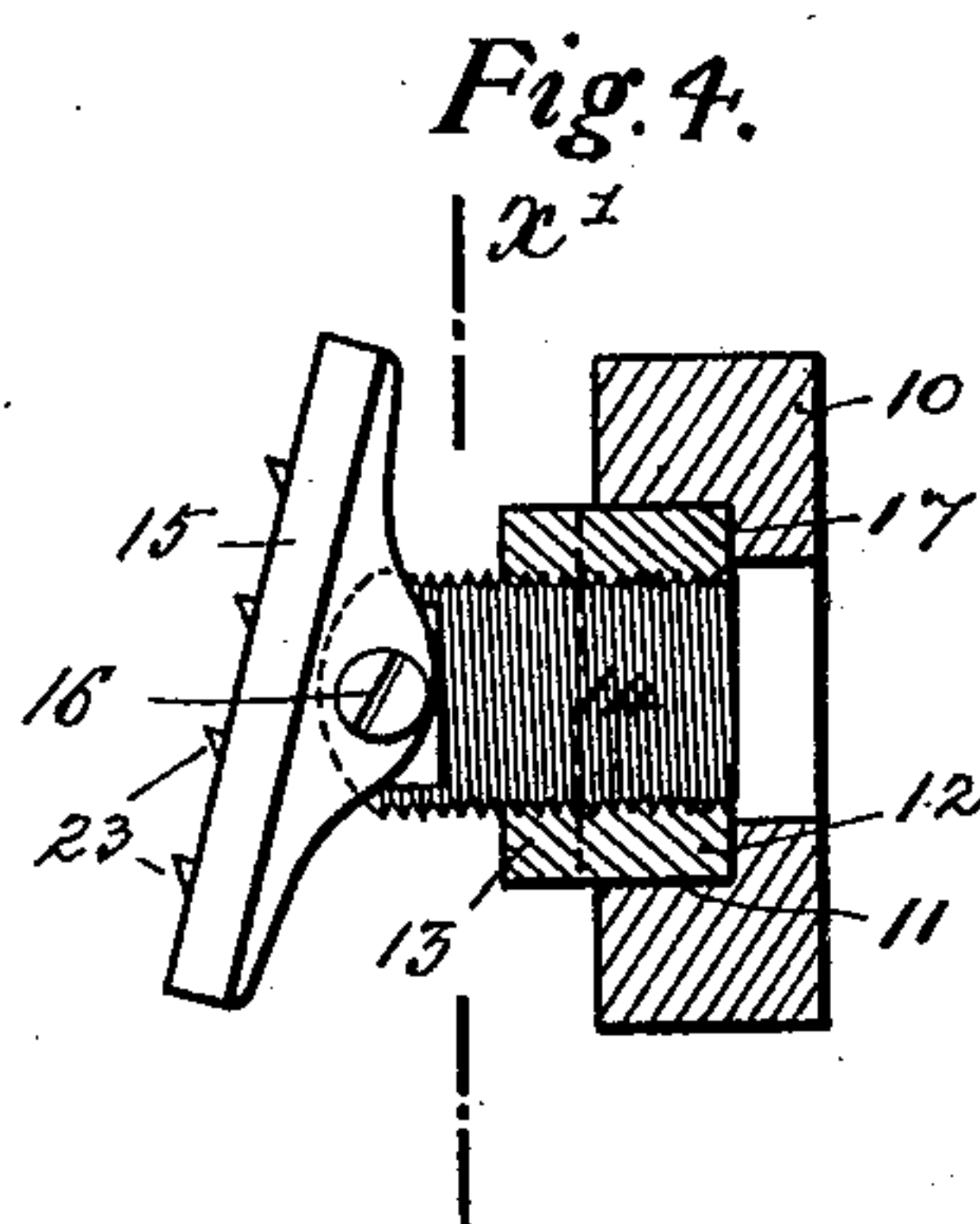
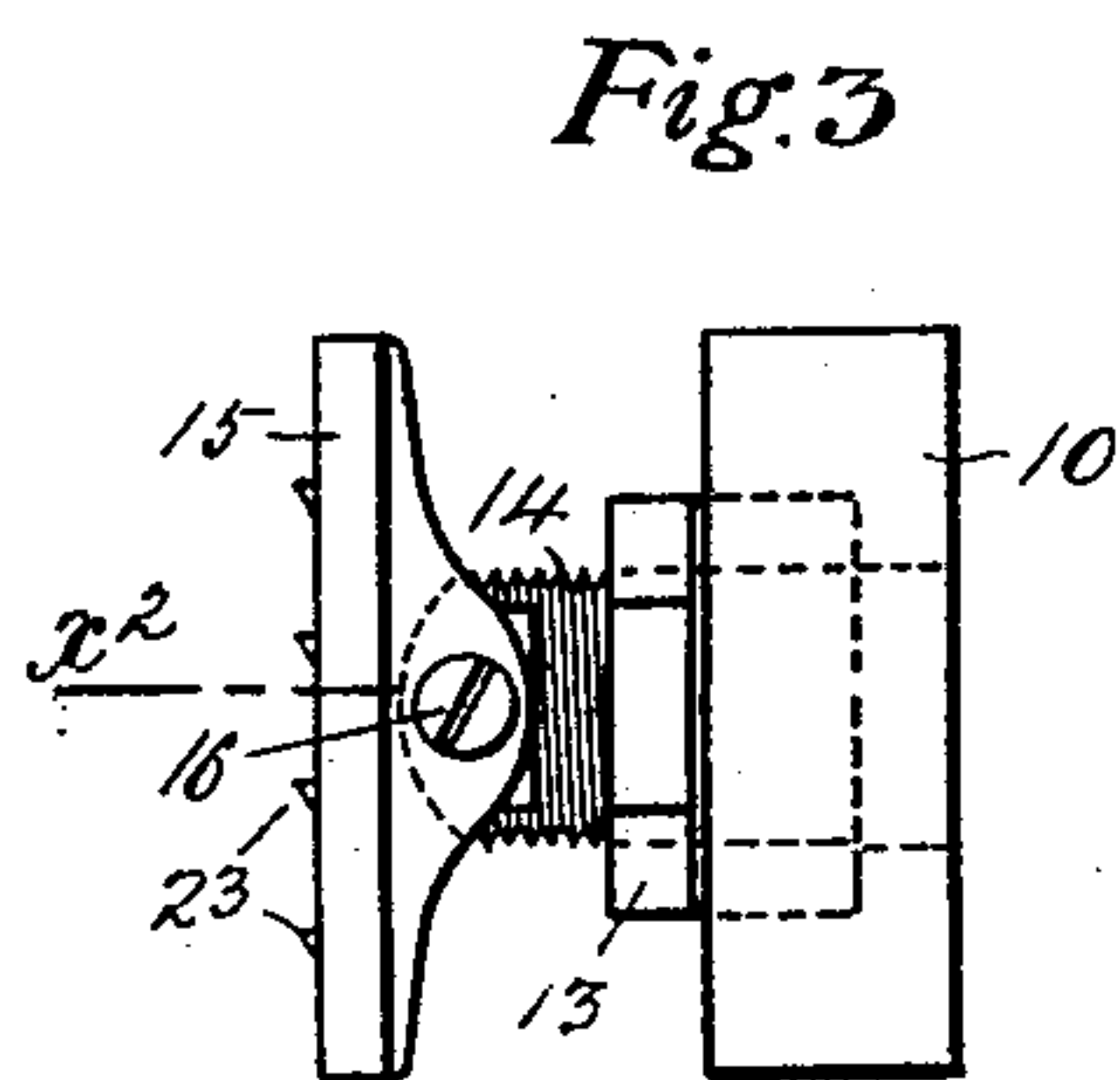
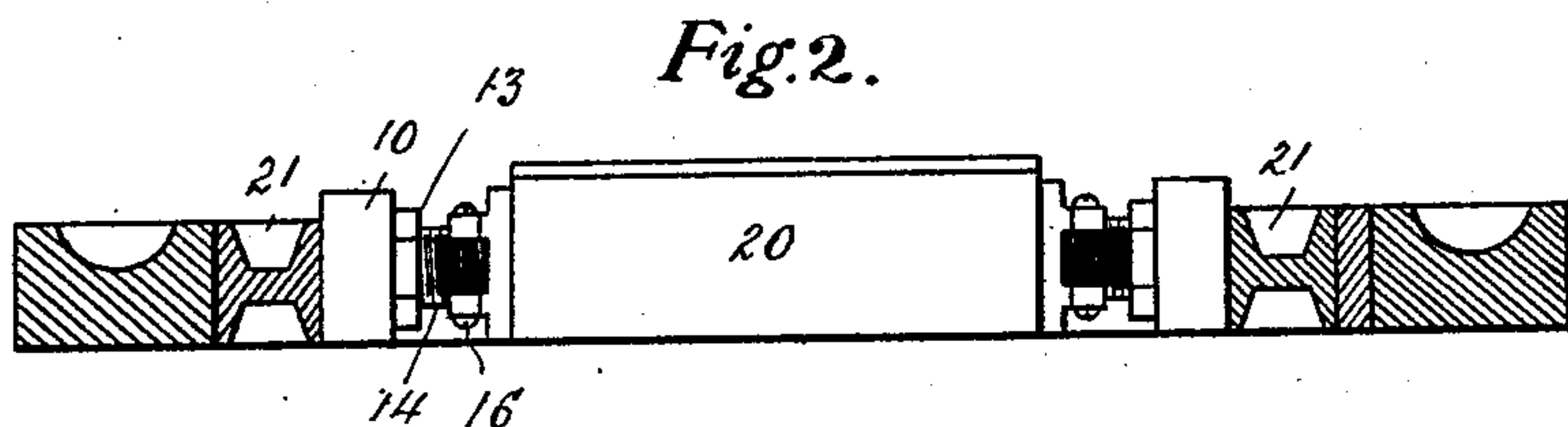
A. COX.

PRINTER'S QUOIN.

(Application filed Mar. 31, 1902.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES

W. B. Keefe
James S. Elliott

Inventor
Arthur Cox
By
James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

ARTHUR COX, OF ACOCKS GREEN, ENGLAND.

PRINTER'S QUOIN.

SPECIFICATION forming part of Letters Patent No. 711,829, dated October 21, 1902.

Application filed March 31, 1902. Serial No. 100,797. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR COX, photo-engraver, a subject of the King of Great Britain, residing at Victoria Road, Acocks Green, near Birmingham, England, have invented certain new and useful Improvements in Printers' Quoins, of which the following is a specification.

This invention has relation to quoins or devices for locking up blocks and the like within printers' chases, and has for its object to produce a simple form or adjustable quoin or locking-up device whereby the blocks may be easily, expeditiously, and accurately adjusted in order to insure exact registering in color and other printing. By the use of such devices a considerable saving of time may be effected in the final adjustment of the blocks within their chases or frames after the latter have been fixed in the machine, and this is particularly the case where a series of blocks are to be adjusted and locked within the same chase or frame for printing in stages or successive steps, as the improved quoins enable the form as a whole to be locked up before being placed in the machine, and then by the manipulation of the quoins any particular block of the series can be independently adjusted without having to unlock the form or disturb any of the other blocks of the series.

The improved quoin provides for the adjustment of the blocks both horizontally and laterally and also obliquely or angularly in a horizontal plane. In fact, the blocks may be adjusted universally in any direction to insure perfect registration between a series of blocks locked up in the same chase.

Figure 1 of the accompanying drawings is a view showing a series of printing-blocks locked up in the same chase by means of adjustable quoins constructed in accordance with my invention. Fig. 2 is a transverse vertical section of Fig. 1 upon the dotted line x . Fig. 3 represents, upon an enlarged scale, one of the improved adjustable quoins separately. Fig. 4 is another view of the said quoin, showing one part in section and with the bearer or thrust plate set in an angular position relative to the other part. Fig. 5 is a sectional view of Fig. 4 upon the dotted line x' . Fig. 6 shows a transverse vertical section of the quoin upon the dotted line x^2 , Fig. 3. Fig.

7 shows the principal component parts of the quoin separated or detached from one another and partly in section and partly in elevation. Fig. 8 is an elevation, partly in vertical section, of a modified form.

The same numerals of reference indicate corresponding parts in the several figures of the drawings.

The adjustable quoin represented in the figures consists of a base-plate or back block 10, having a stepped socket or internally-shouldered seating 11, adapted to receive the corresponding cylindrical end or shank 12 of a loose adjusting or traversing nut 13, which takes upon a screwed stem or stalk 14, to the inner end of which a bearer or thrust plate 15 is vertically pivoted at 16, so as to be capable of being tilted or rocked obliquely in the plane of the quoin itself for adjusting the relative angular positions of the block 10 and the bearer-plate 15. The said bearer-plate, with its jointed screw and the adjusting-nut, are separable or detachable from the block, and the internal step or shoulder 17 of the seating or socket part 11 forms a thrust-collar or abutment against which the cylindrical shank of the nut impinges on being rotated, and this rotation of the nut constrains the screw to travel one way or the other and either separate the base-block and bearer-plate or cause them to come closer together by a sliding action, according to the direction in which the nut is rotated, while the vertical pivoting of the bearer-plate to its screw (which may be done in any convenient manner) admits of the two parts of the quoin being adjusted angularly relatively to one another when blocks are to be locked up in a skewed or oblique position.

In use the quoins are interposed between the sides and ends 18 and 19 of the block 20 and the sidesticks 21 and footsticks 22 of the chase or between the block and the inside of the chase-frame, and when a series of blocks are to be locked up in the same chase, as shown in Fig. 1, quoins are also interposed between the opposed ends of the several blocks, and when so arranged the base-blocks of the quoins abut against the chase-frame or the side and foot sticks, as the case may be, while the pivoted bearer-plates come against the edges of the blocks to be adjusted and

locked up. Then after the lock-form has been fixed in the machine by the manipulation of the nuts of the proper quoins any one or more of the coins may be finally adjusted to insure perfect registering without interfering with the adjustment of any of the other blocks of the series. The quoins may also be arranged in pairs on each side of the block when the latter are required to be swiveled around or adjusted to take up any desired angular position before being rigidly locked up in the adjusted position.

The abutment-faces of the bearer-plates are preferably roughened, serrated, or provided with a series of teeth, such as 23, adapted to embed themselves into the wood at the edges of a block, and thus provide additional security against displacement of the said block when locked up within the chase.

Instead of the two adjustable parts of the quoin being fitted to one another by a loose socketing or other detachable connection the adjusting-nut may be permanently secured to the base-block, but is of course left free to rotate or swivel for traversing to and fro the screwed shank to which the bearer-plate is jointed.

Instead of pivoting the angularly-adjustable bearer-plate to the end of a non-rotating screw traversed to proper lateral adjustment by a nut the said plate may be swivelly connected to the end of a rotating screw working through a screwed hole in the base-block. By this arrangement, which is represented in Fig. 8, I obtain a more compact form of quoin, suitable for use between the opposed edges of a series of blocks locked up in the same. In the said figure, 24 is the bearer-plate, 25 the rotating screw swivelly connected to the plate at 26 in a manner which will admit of

the said plate being angularly adjusted, while 27 is the base-block, with screwed hole 28, through which the screw 25 works. As an alternative arrangement the bearer-plate may have an inclined surface on its outer side and is mounted to slide laterally in and out within a suitable frame or guide, which is also fitted with a longitudinally-sliding wedge, with its inclined surface opposed to that of the bearer-plate, this sliding wedge being traversed to and fro by means of a screw or a screw and nut or equivalent device, so as to cause the one inclined surface to work under the other, and thus adjust the bearer-plate and the block against which it impinges to the desired extent. Where angular or swiveling adjustments in a horizontal plane are required, then the frame in which the wedge and bearer-plate are mounted may be vertically pivoted to a suitable base or carrier.

Having fully described my invention, what I desire to claim and secure by Letters Patent is—

In an adjustable quoin for locking up blocks and printers' chases, an angularly-adjustable bearer-plate, a non-rotatable screw vertically pivoted to said plate, a base provided with a socket terminating in a shoulder, and a swiveling nut mounted upon said screw and provided with a cylindrical shank adapted to engage in said socket and bear upon said shoulder, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARTHUR COX.

Witnesses:

HY. SKERRETT,
ARTHUR T. SADLER.