

No. 755,409.

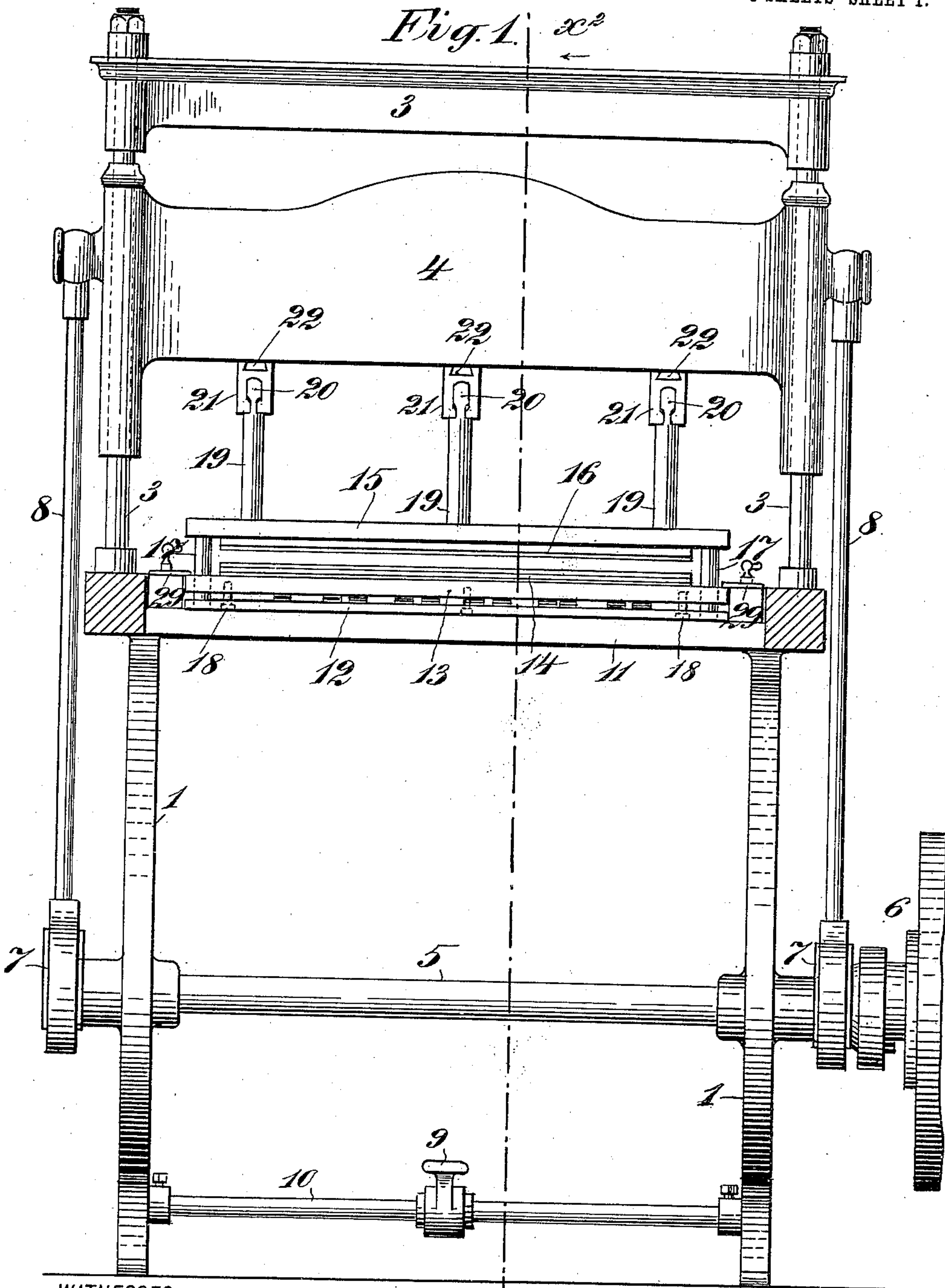
PATENTED MAR. 22, 1904.

E. B. STIMPSON.  
CREASING PRESS.

APPLICATION FILED JULY 15, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES:

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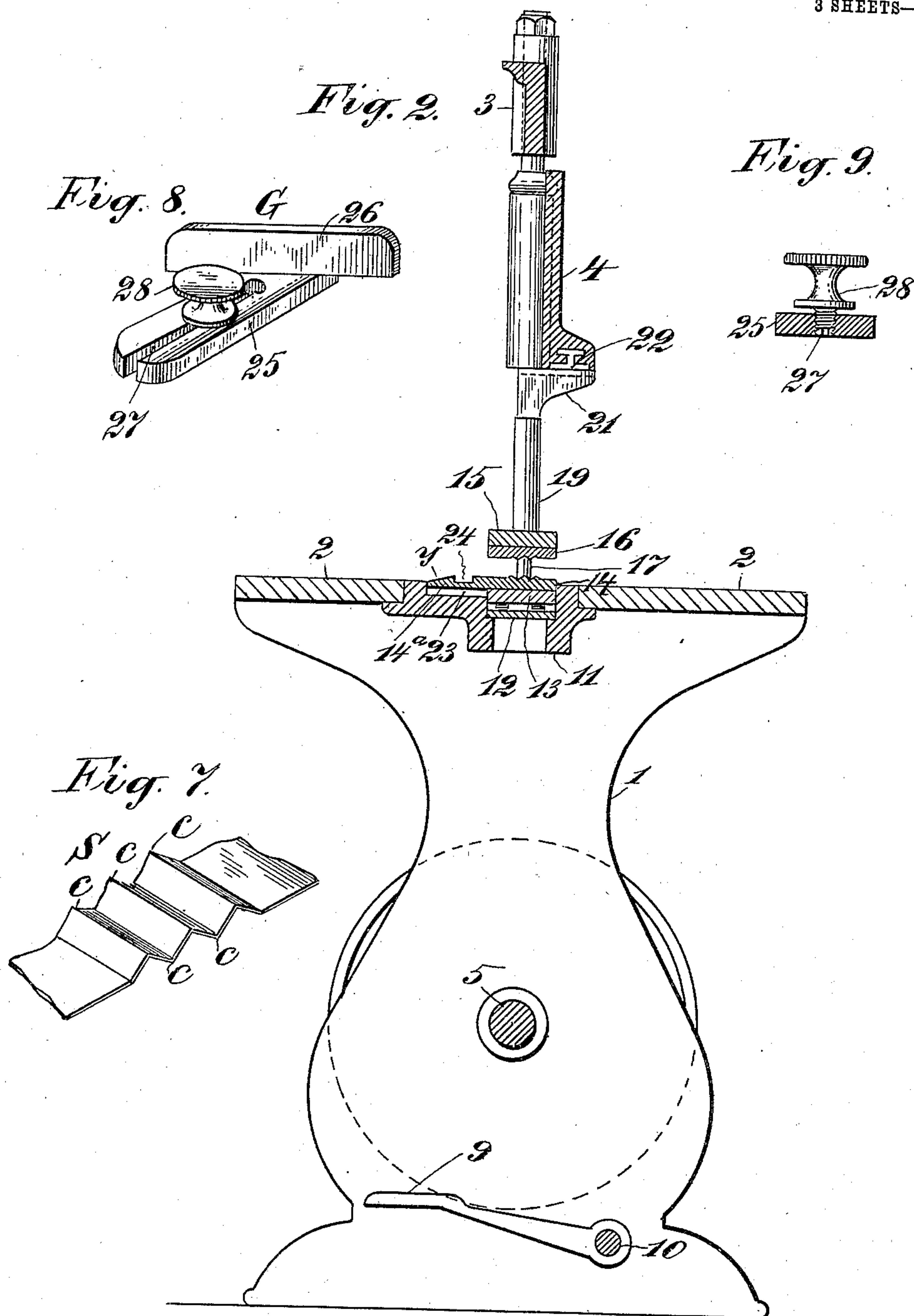
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NO MODEL.

3 SHEETS—SHEET 2.



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No. 755,409.

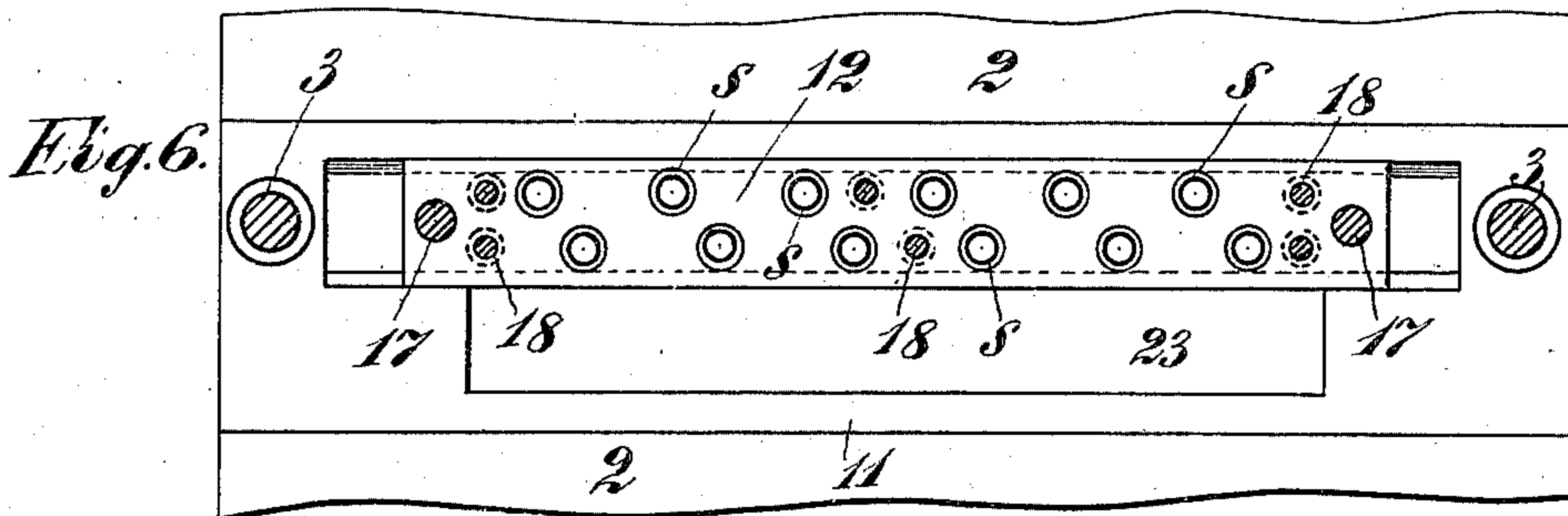
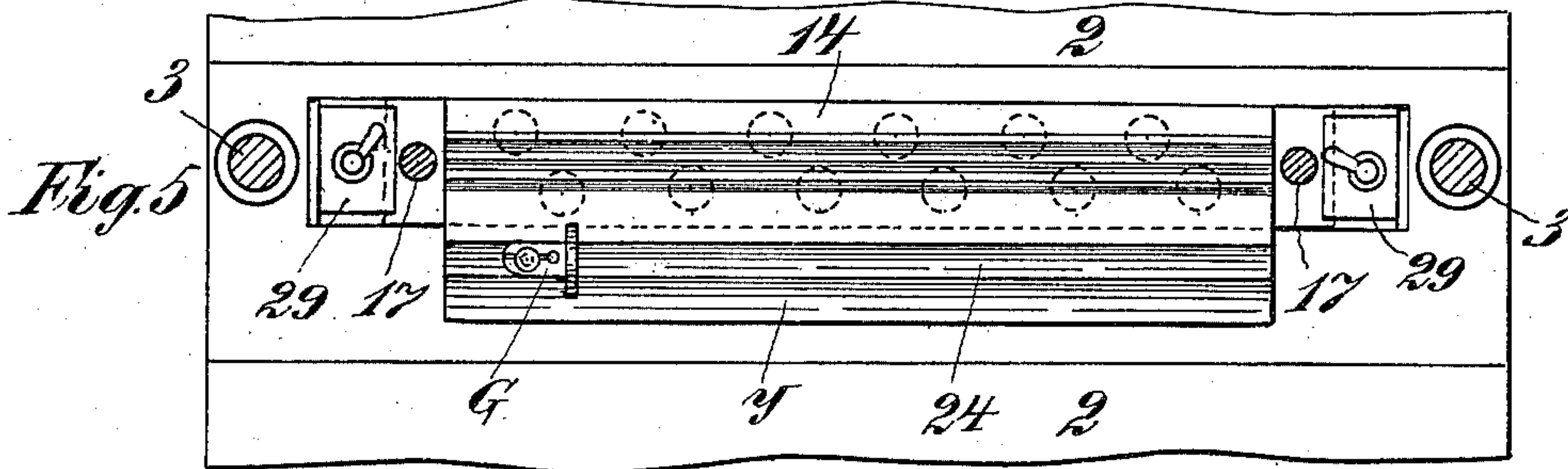
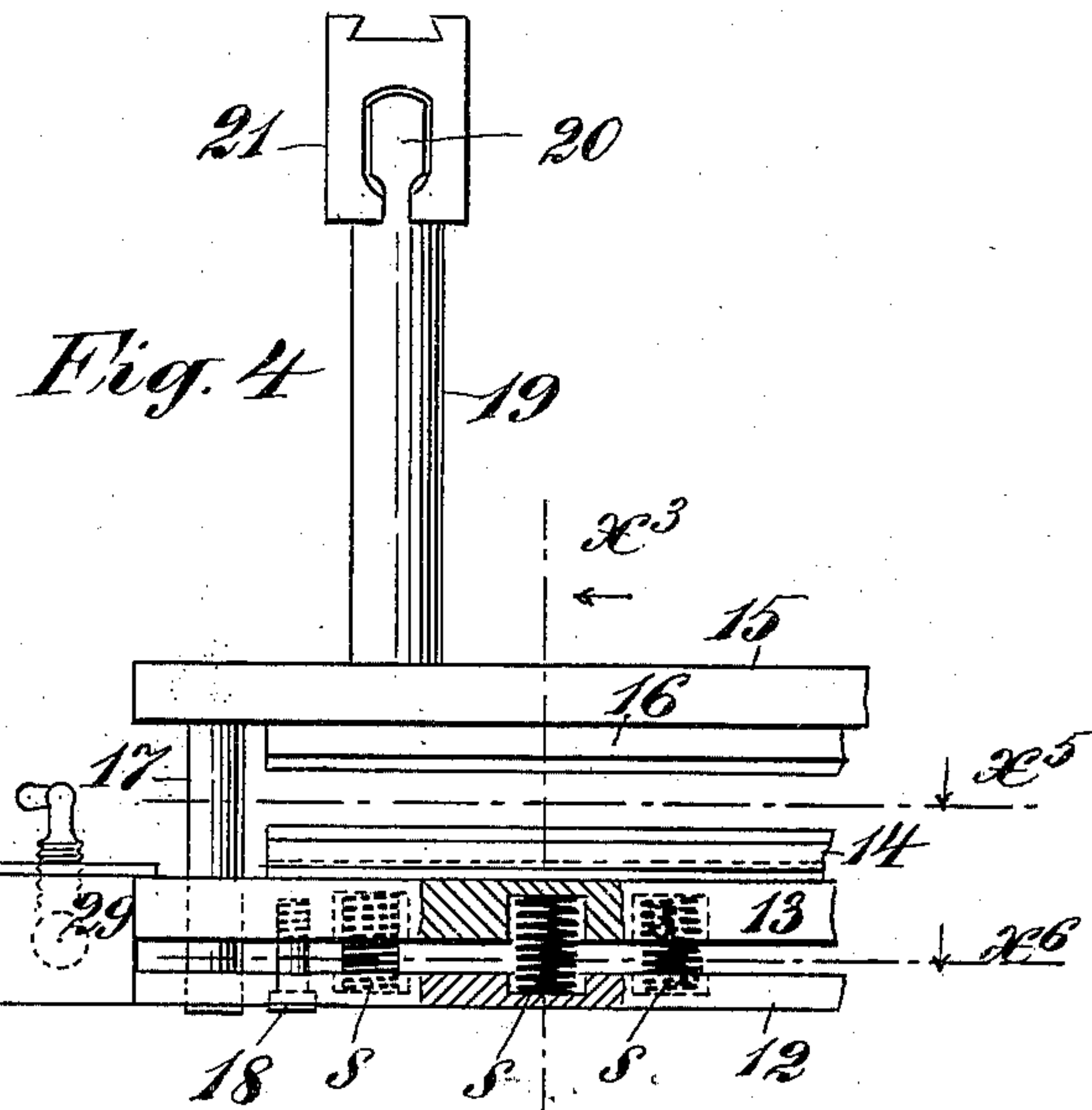
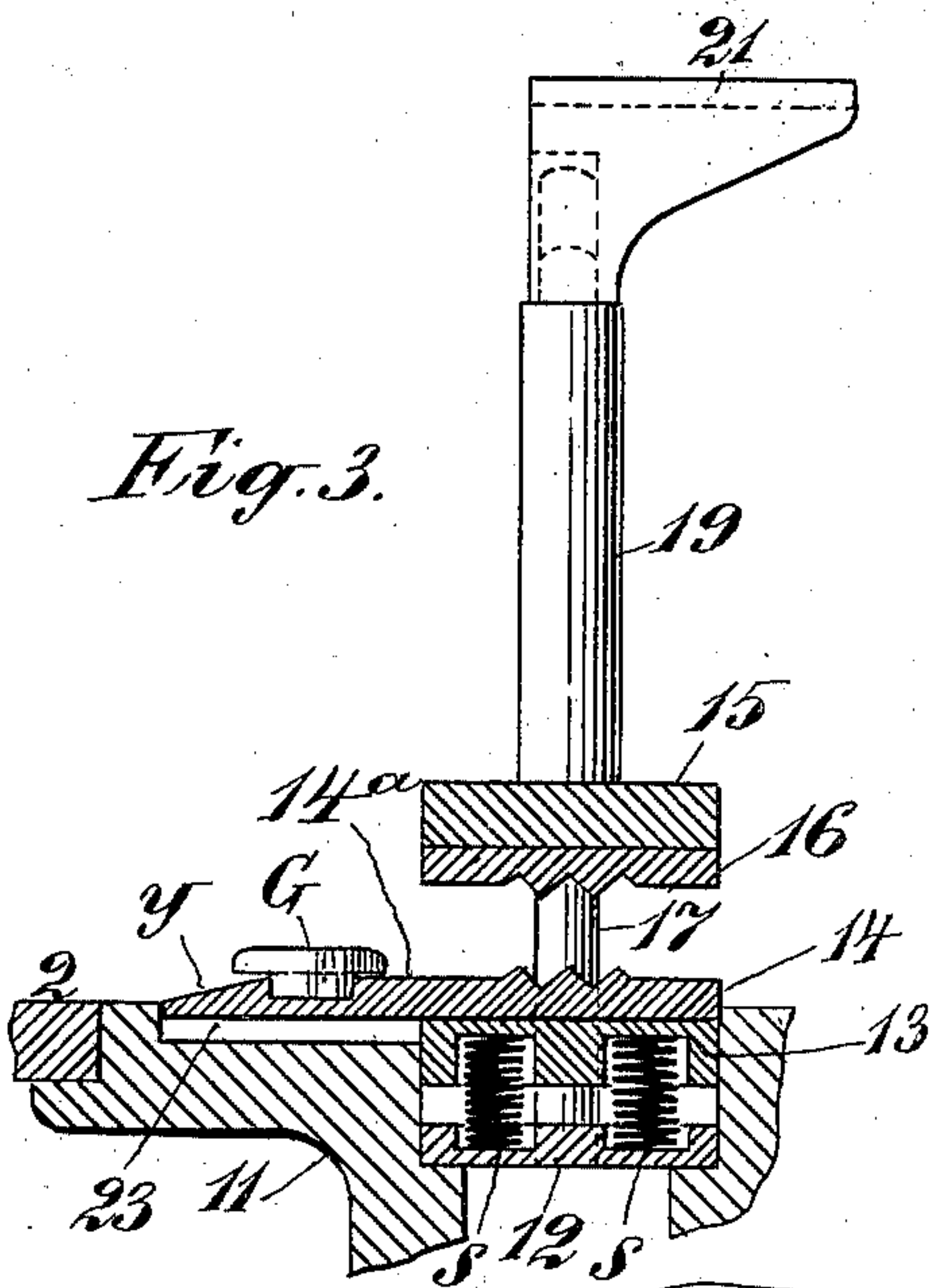
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APPLICATION FILED JULY 15, 1903.

NO MODEL.

3 SHEETS—SHEET 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWIN BALL STIMPSON, OF NEW YORK, N. Y.

## CREASING-PRESS.

SPECIFICATION forming part of Letters Patent No. 755,409, dated March 22, 1904.

Application filed July 15, 1903. Serial No. 165,702. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN BALL STIMPSON, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings, in the city and State of New York, have invented certain new and useful Improvements in Creasing-Presses, of which the following is a specification.

This invention relates to the class of presses, and has for its object to provide a convenient device for creasing sheets of paper and the like in parallel lines in order to impart a certain degree of flexibility to the sheet along said creases and for other purposes.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a front elevation of the press, on a relatively small scale, with the channel-piece in section; and Fig. 2 is a vertical transverse section of the same at line  $x^2$  in Fig. 1. Figs. 3 and 4 are detail views on a larger scale than Figs. 1 and 2 and showing the features wherein the invention is embodied. Fig. 3 is a cross-section of the dies at line  $x^3$  in Fig. 4, and Fig. 4 is a fragmentary front view of the same parts. Figs. 5 and 6 are on the same scale as Figs. 1 and 2, the former being a sectional plan in the plane indicated by line  $x^5$  in Fig. 4 and the latter a sectional plan in the plane indicated by line  $x^6$  in Fig. 4. Fig. 7 is a view showing a fragment of the crimped sheet. Fig. 8 is a perspective view of the guide detached, and Fig. 9 is a cross-section of same.

Referring, primarily, to the principal views, 1 designates the frame of the machine; 2, the table; 3, the upright guide-frame above the table; 4, the cross-head mounted slidably on the guides in said frame, and 5 the main shaft in the frame below and adapted to be driven by the usual means. On the shaft 5 are eccentrics 7, which impart a reciprocating movement to the cross-head 4 through rods 8. A treadle 9 for setting the shaft 5 to rotating is mounted on a rod 10 in the frame.

All of the above features are well known and are only shown herein by way of illustration. They may be seen in my United States Patent No. 665,702, of January 8, 1901. Ordinarily there is a clutch mechanism whereby

the treadle 9 sets the shaft 5 to rotating, and after it has made one revolution it stops automatically. This is a common and well-known device, (indicated at 6;) but it has not been fully illustrated herein.

In or forming part of the frame and situated under the cross-head 4 is a slotted metal channel-piece 11, in which is mounted the dies and their appurtenances now to be described. This channel-piece is seen in mid-section in Fig. 1.

12 is a base-plate supported on shoulders in the piece 11, and 13 is an upper plate over the plate 12. Between these plates are set a plurality of cushion-springs 8, the ends of which are seated in recesses in said plates 12 and 13. On the plate 13 is secured the lower die 14, and on the under side of a die-plate 15 is secured the upper die 16. The die-plate 15 has fixed in it two guide-pins 17, which extend down through holes in the plates 12 and 13 and play therein in the operation of the press. The upper plate 13 carries headed stop-pins 18, which play through apertures in the plate 12 below. The heads on these pins limit the upward movement of the plate 13 when this die-support is lifted out.

Fixed in the back of the die-plate 15 are two or more stems 19, having heads 20 to engage blocks 21, carried by the cross-head. The blocks 21 are movable from front to back on dovetail guides on blocks 22, which are adapted to be adjusted laterally in guideway in the cross-head. In the face of the block 21 is a recess to receive the head on the stem 19. This device for setting the blocks 21 is shown in my United States Patent No. 665,702 and is not specifically claimed herein.

Referring now particularly to Figs. 3 and 5 for illustration, it will be noted that the lower die 14 has a projecting portion or shelf 14<sup>a</sup> at its front edge, which shelf is depressed into a recess 23 in the channel-piece 11 when the pressure is put on the dies to close them, and this shelf is beveled or sloped at its front edge, as seen at  $y$  in Fig. 3, so that when the die is elevated and the dies are open for feeding the sheet may be fed from the table onto the lower die without catching on the edge of



said shelf. The dies themselves have each V-shaped ribs on their faces which enter V-shaped depressions between the ribs on the other die—that is to say, the dies have faces, as seen in Fig. 3, which will produce in the sheet clamped between them a crimping or creasing effect, such as may be seen in Fig. 7, wherein *c c* are parallel creases in a sheet S. A cross-section of the die presents a zigzag contour. The sheet is fed between the open dies and the treadle 9 depressed. The cross-head 4 descends, rises, and stops. The creased sheet is now removed and another sheet inserted.

In the upper face of the shelf 14<sup>a</sup> is formed a rectangular channel 24 to receive an adjustable guide G. (Seen on a small scale in place in Figs. 3 and 5 and shown more in detail on a larger scale in Figs. 8 and 9.) This guide, which is for guiding the edges of the sheets and presenting them squarely in the press, consists of a base-plate 25, which fits normally snugly but slidably in the channel 24 and has a guide-plate 26, which projects above the surface of the shelf. The base-plate 25 has in it a slit 27 to permit it to expand laterally, and a slightly-tapered thumb-screw 28, which is set in a hole tapped in the plate at said slot. To set the guide fast in the channel 24 when properly adjusted, the thumb-screw is driven in forcibly to expand the base-plate laterally and cause it to fit tightly in the channel.

The spring-support for the lower die, comprising the plates 12 and 13, the springs *s*, and the limiting-pins 18, is set in the channel in the channel-piece 11 and is prevented from lifting out and also from endwise movement by guide-blocks 29 in the channel, each of which has a lip to take over the plate 13. These guide-blocks may be set in their channel by the screw device seen in my United States Patents Nos. 703,747 and 703,749, dated July 1, 1902.

Having thus described my invention, I claim—

1. A press for the purpose specified, having a reciprocating upper die, a lower die, and a support for the lower die consisting of two plates having springs between them and means for limiting their movements apart.

2. The combination with the press-frame having a channel-piece, of the lower die, a cushioned support for same in the channel in said piece, the upper die, the die-plate carrying the upper die, the guide-pins on said die-plate, said pins extending down through the support for the lower die, the stems 19 on said die-plate, said stems having heads 20, the blocks 21, with recesses to receive said heads, the cross-head of the press, and the blocks 22, mounted in grooves in the cross-head and having each a groove to receive a block 21, substantially as set forth.

3. In a press for the purpose specified, the channel-piece 11, having in it a recess 23, the lower die having a projecting shelf to enter said recess 23, said shelf being beveled at its front edge, and a cushioned support for the lower die.

4. In a press for the purpose specified, the lower die 14, having a projection-shelf 14<sup>a</sup> provided with a groove 24, and a guide G set in said groove, said guide comprising a base-plate 25, provided with a slit 27, and a screw-hole in said slit, a guide-plate 26 on said base-plate, and a screw 28 set in hole in the base-plate and adapted to expand it laterally and cause it to fit tightly in said recess 23, substantially as set forth.

In witness whereof I have hereunto signed my name, this 1st day of July, 1903, in the presence of two subscribing witnesses.

EDWIN BALL STIMPSON.

Witnesses:

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WILLIAM J. FIRTH.