

No. 688,556.

Patented Dec. 10, 1901.

W. F. SPEIGHT.

CARD CUTTING ATTACHMENT FOR PRINTING PRESSES.

(Application filed June 10, 1901.)

(No Model.)

3 Sheets—Sheet 1.

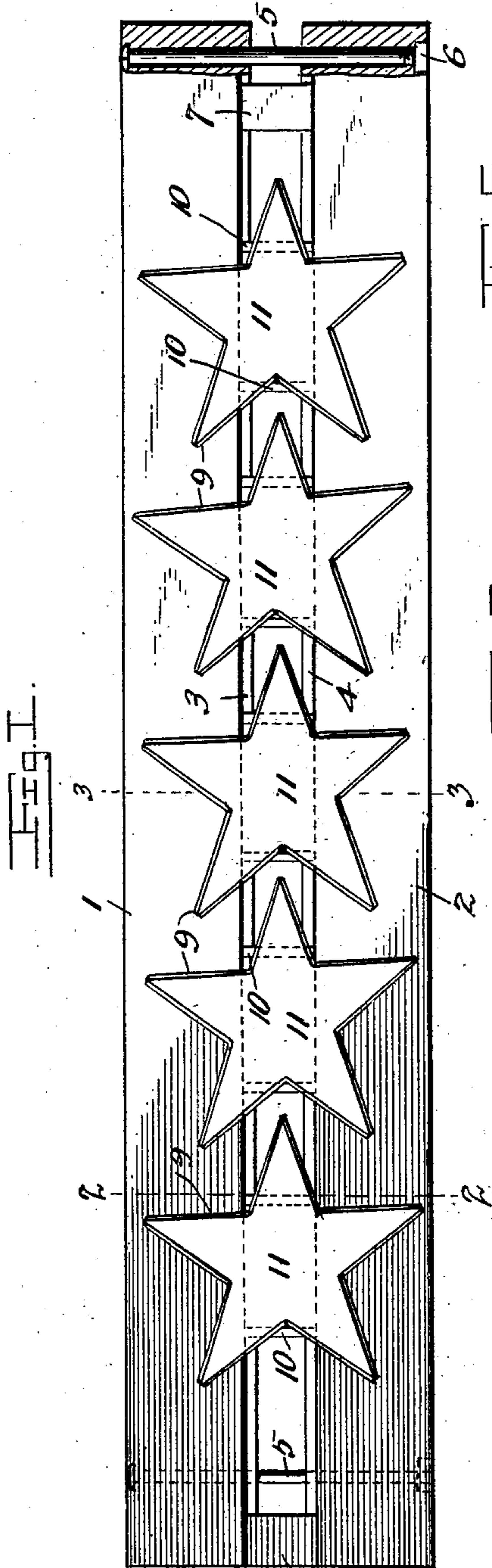


Fig. 1.

Fig. 2.

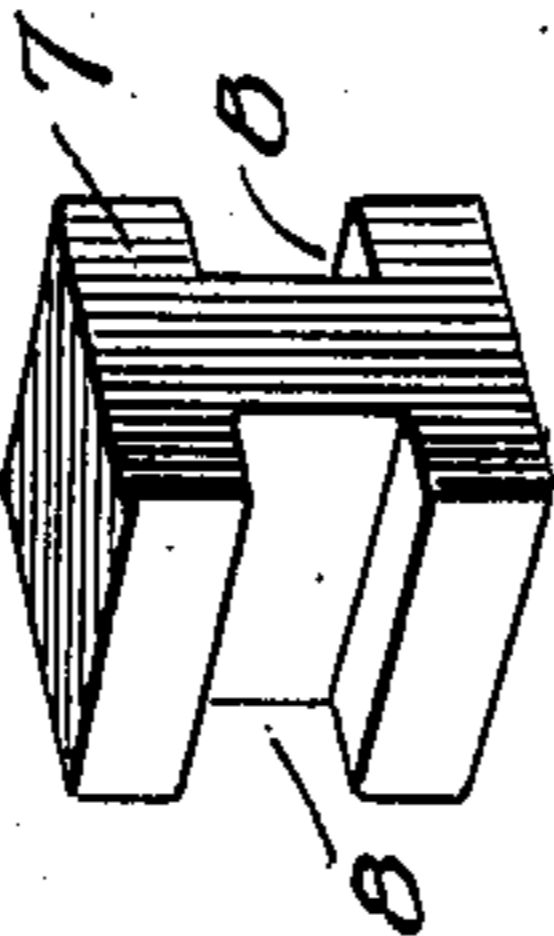


Fig. 3.

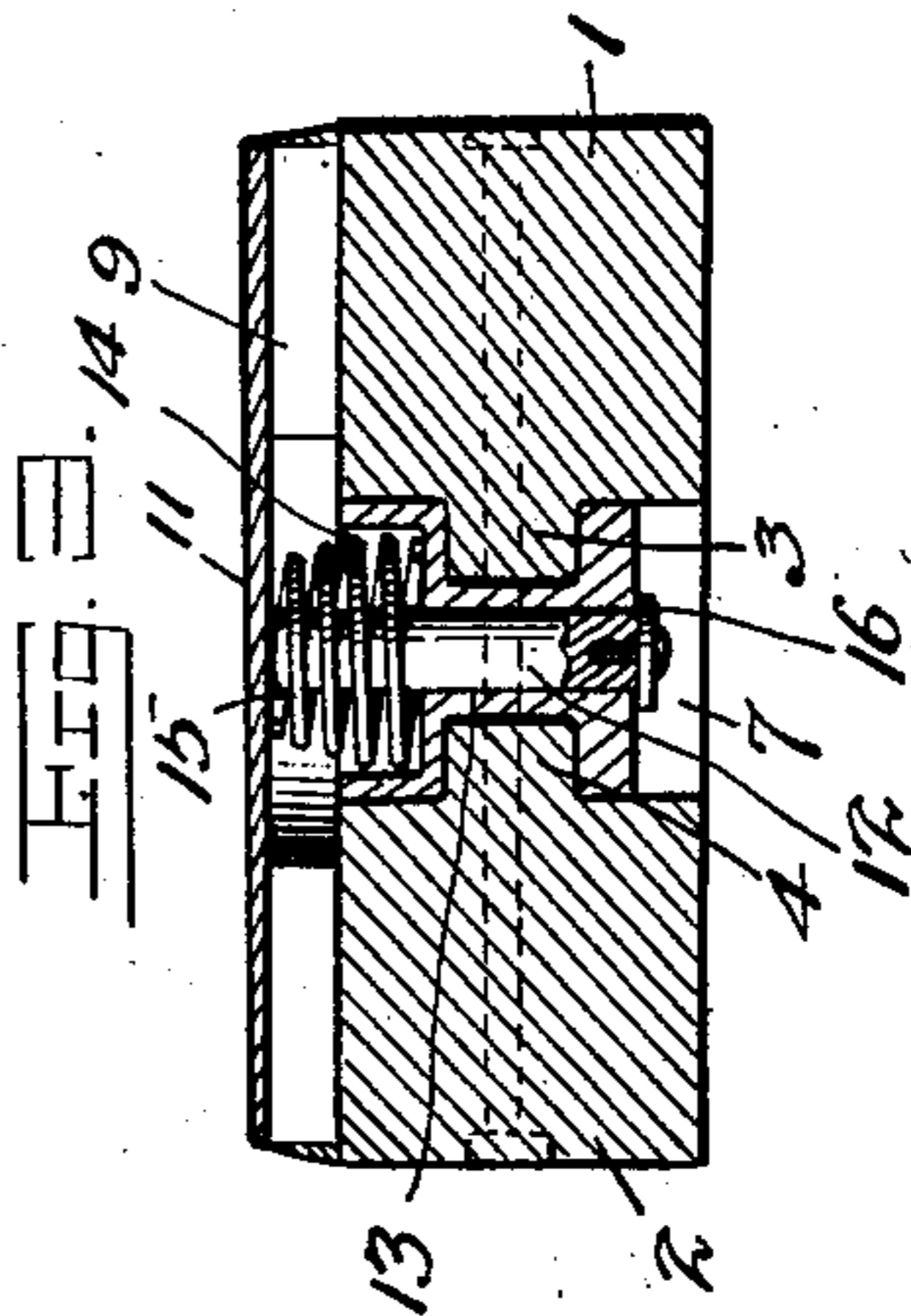
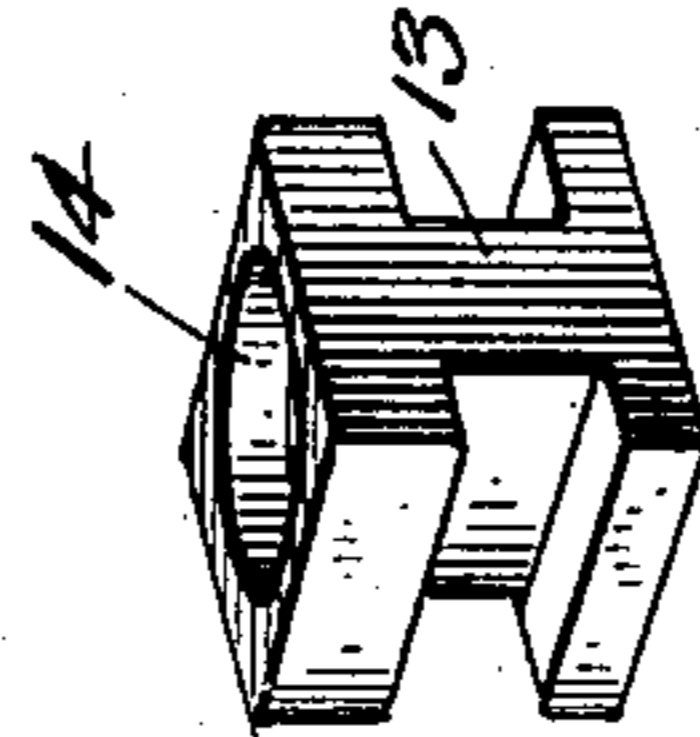
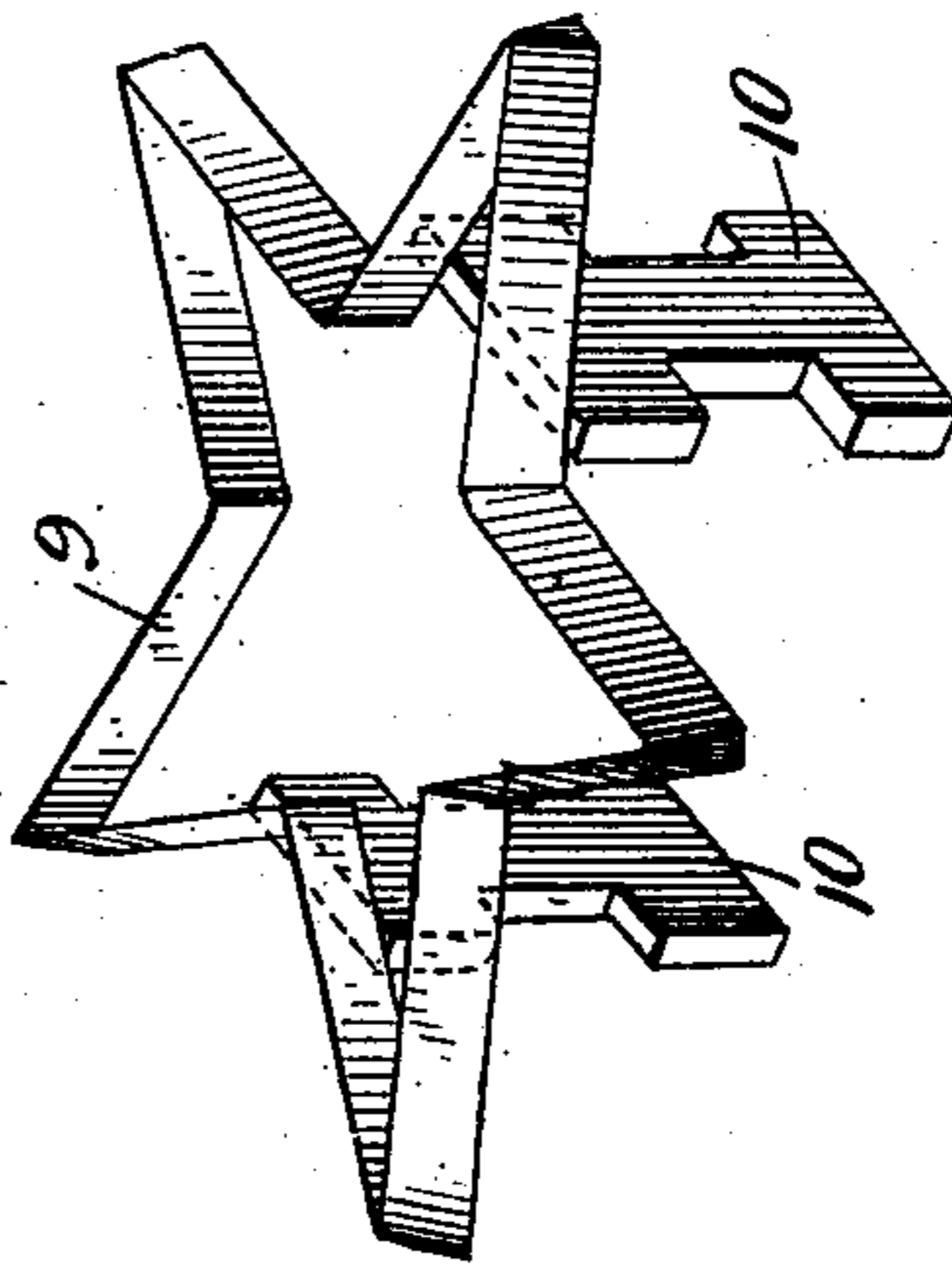


Fig. 5.



Witnesses

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Fig. 7.

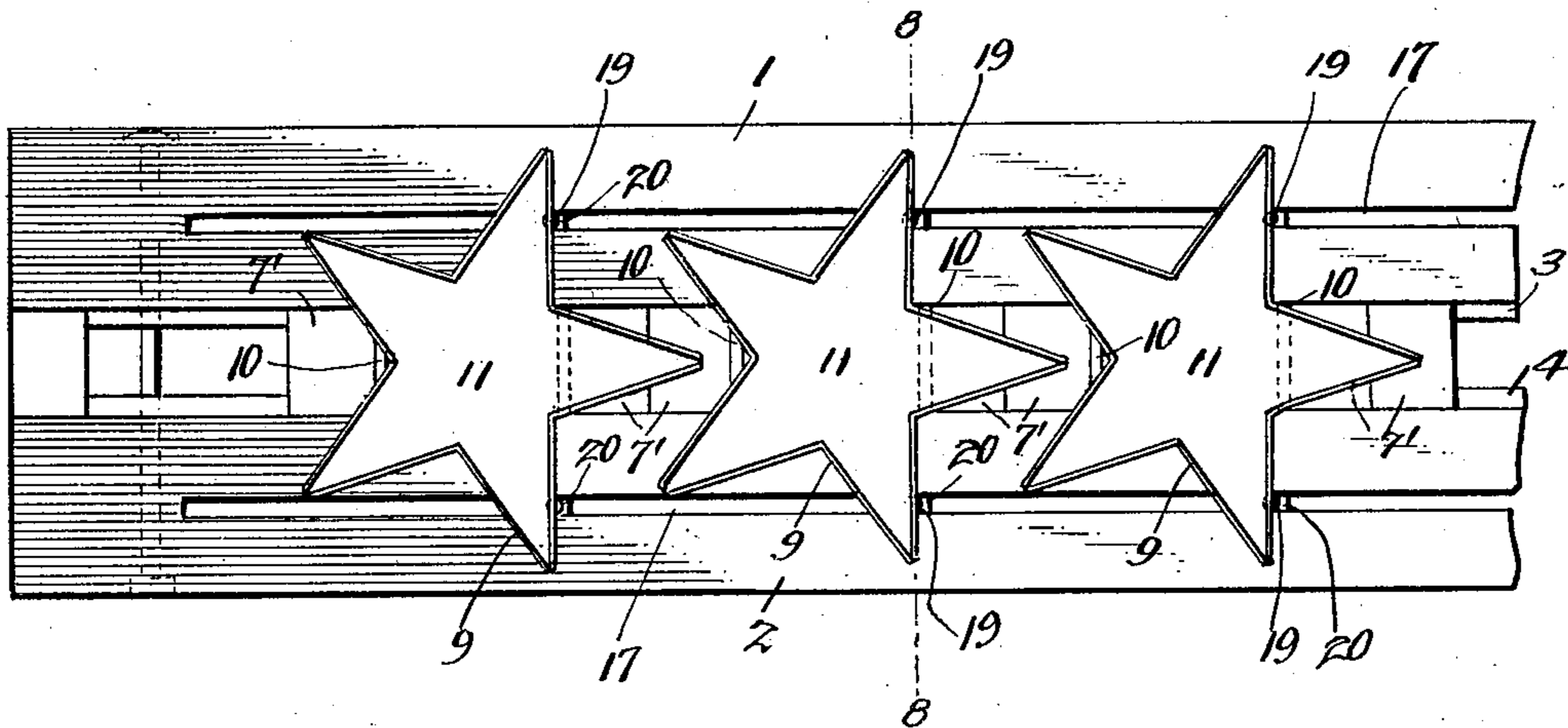


Fig. 8.

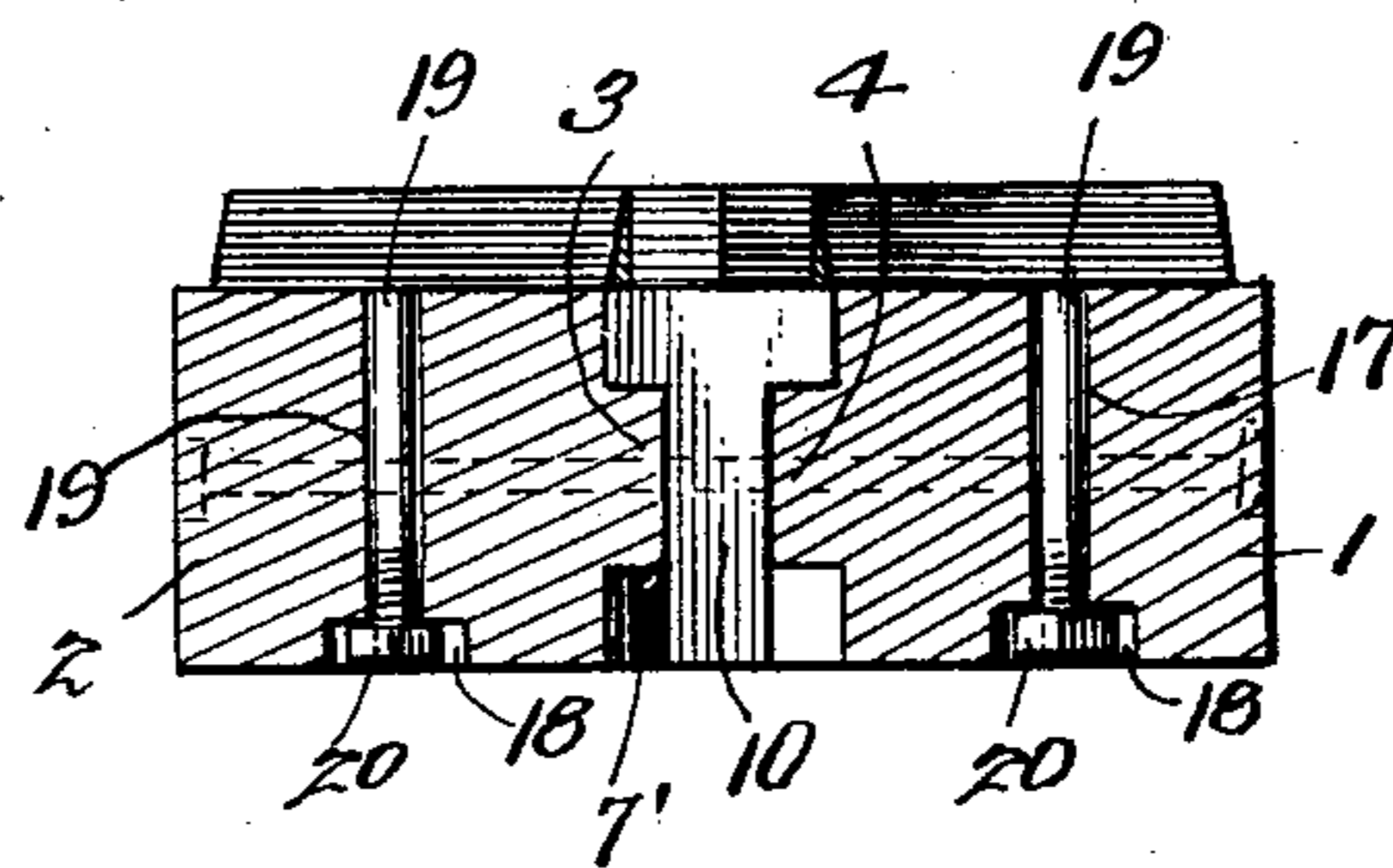


Fig. 9.

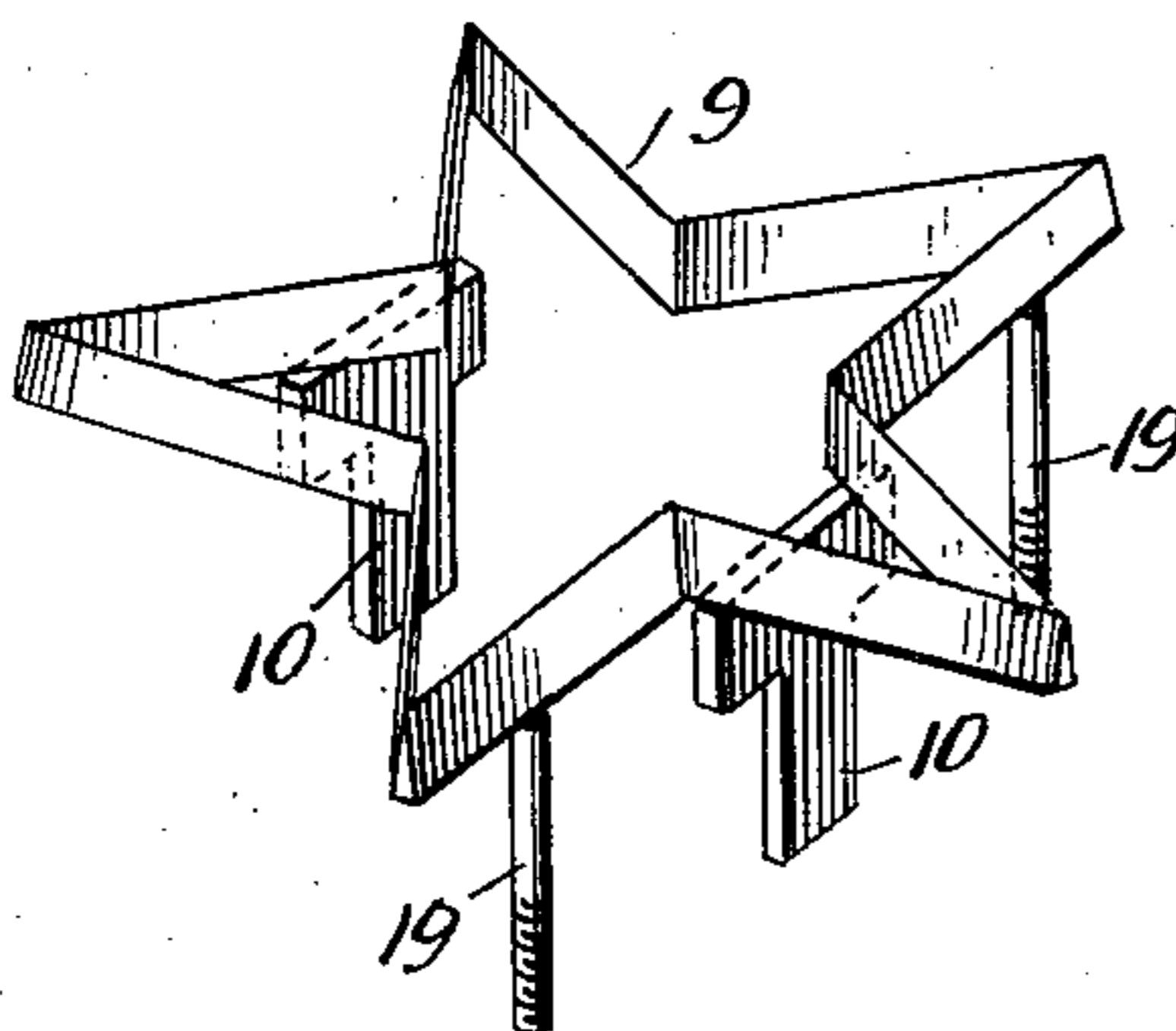
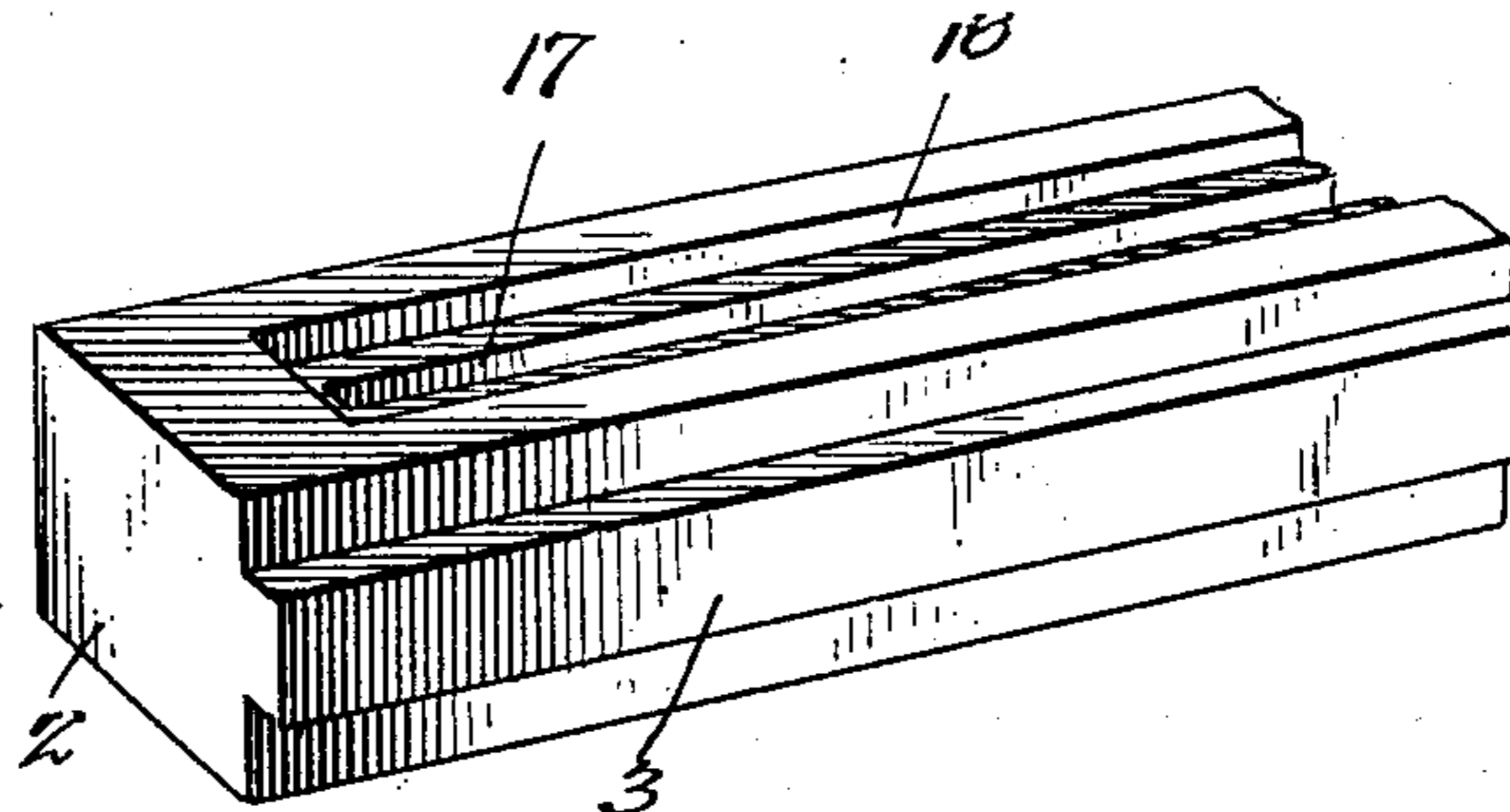


Fig. 10.



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FIG. 11.

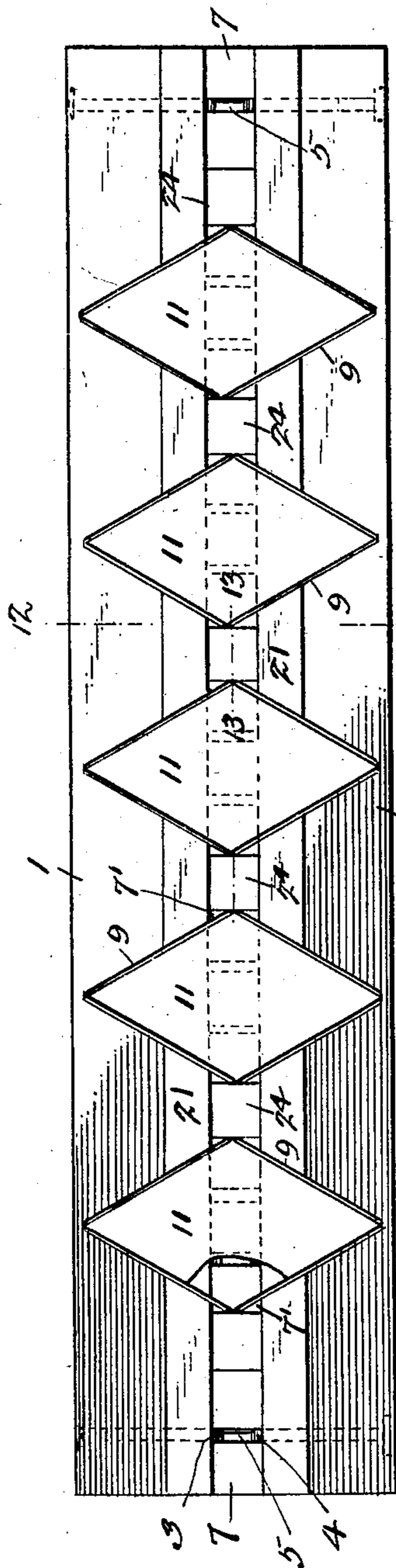


FIG. 12.

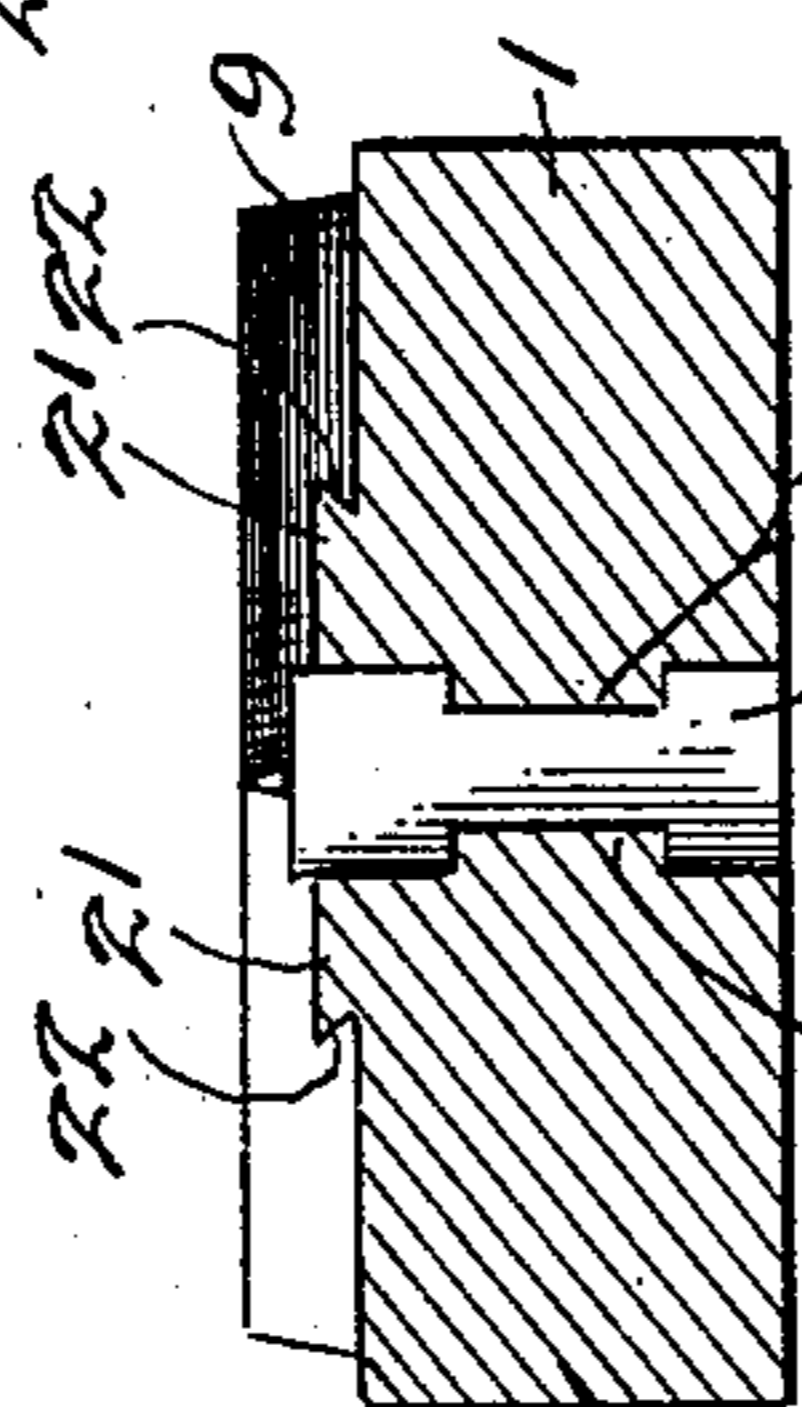


FIG. 13.

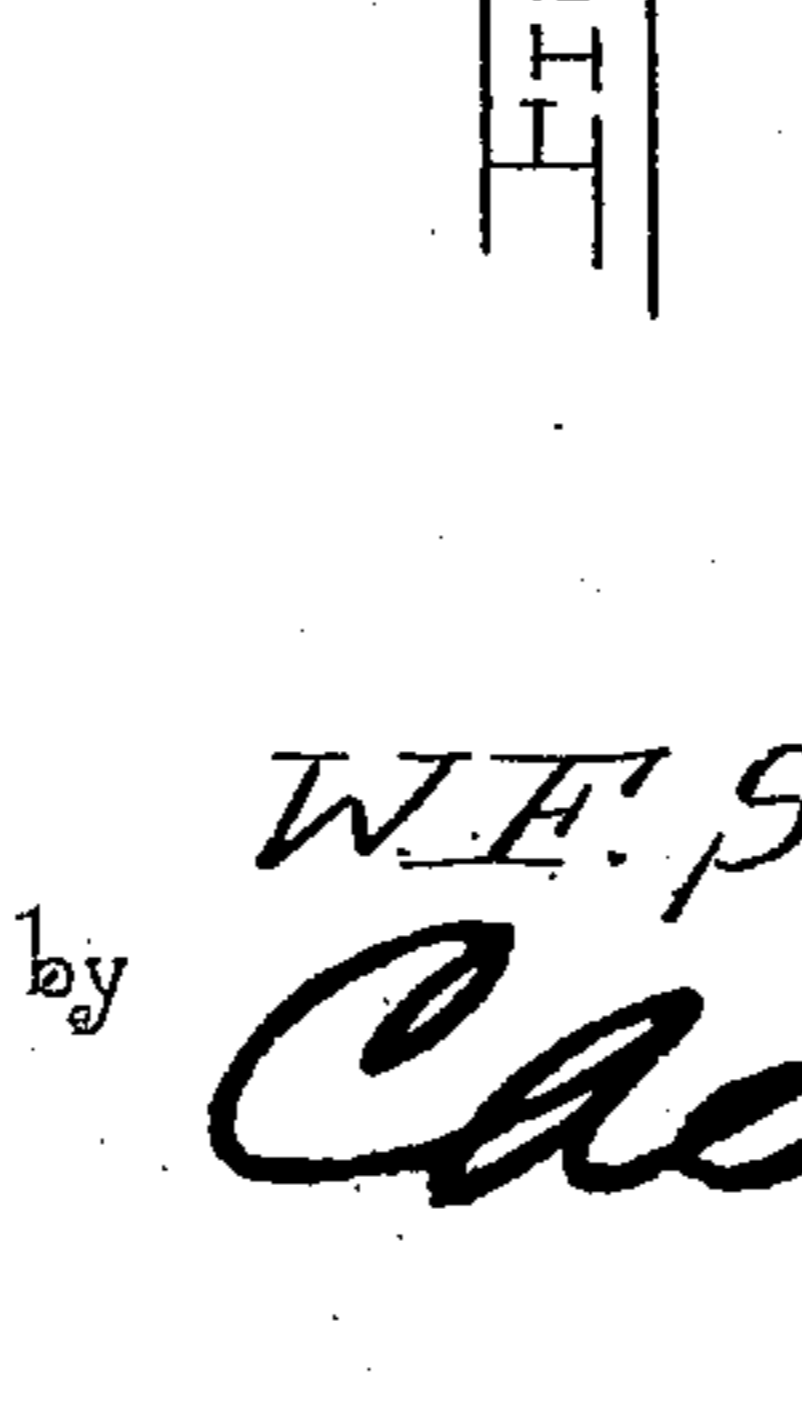


FIG. 14.

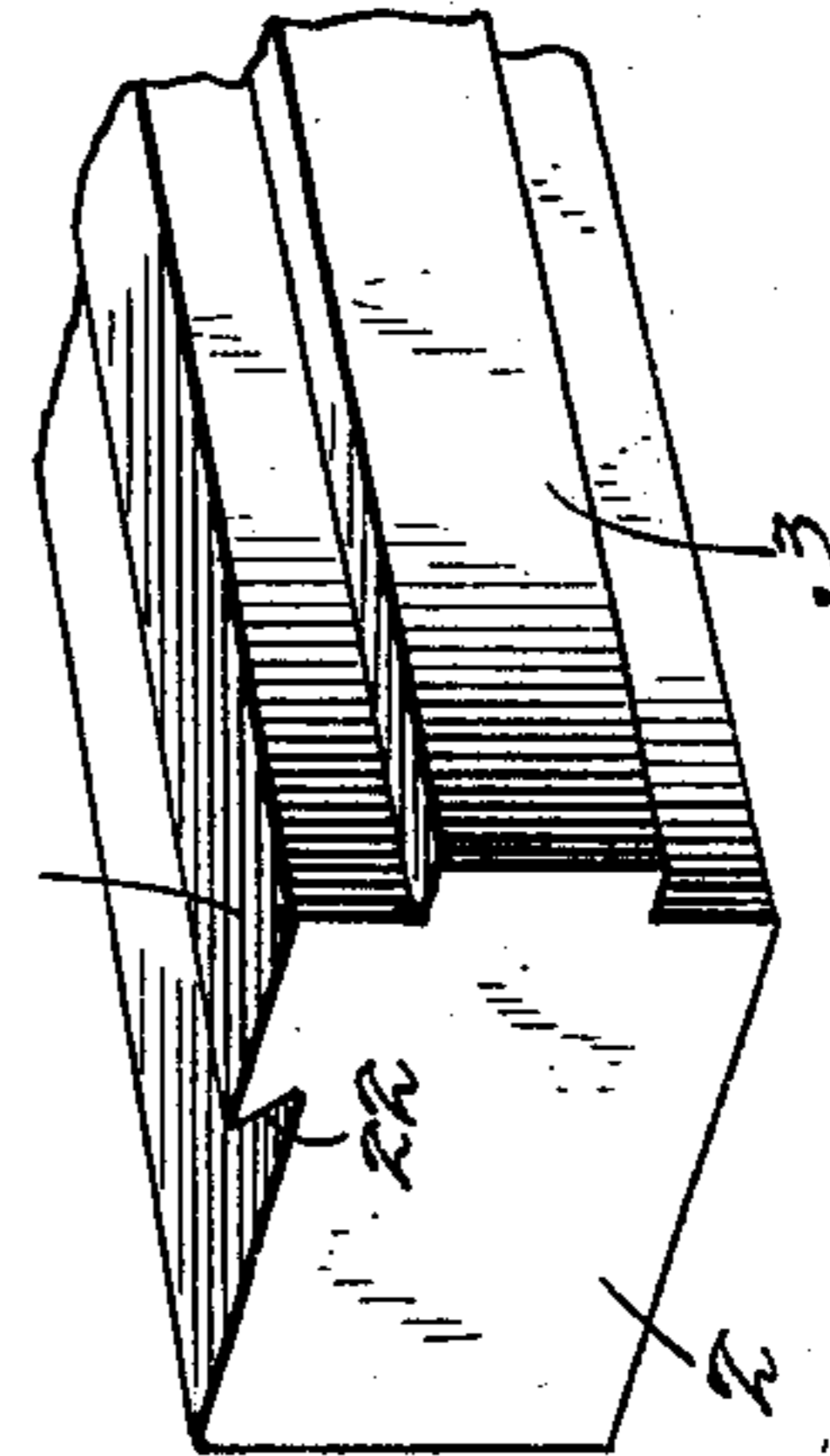
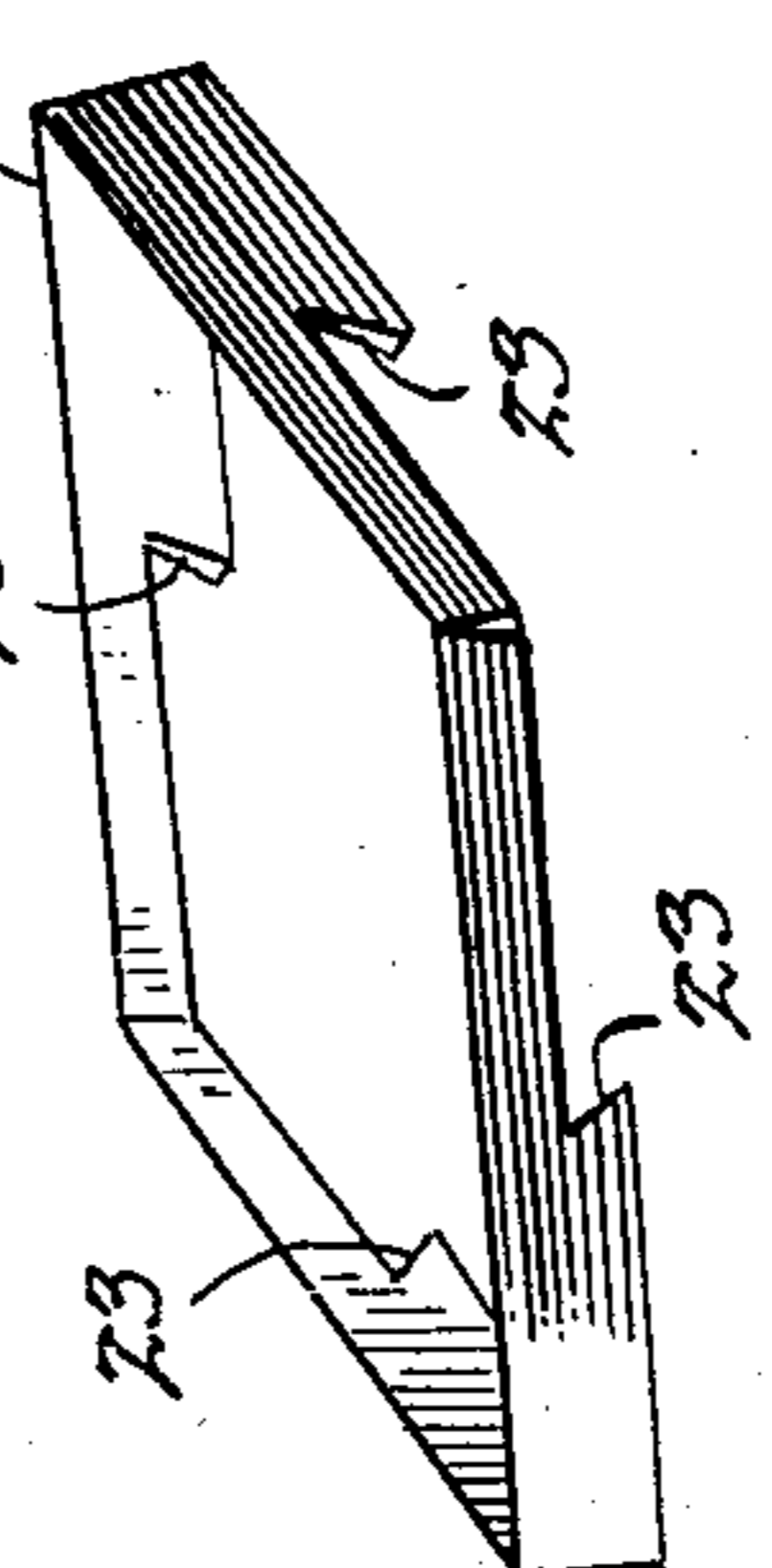


FIG. 15.



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UNITED STATES PATENT OFFICE.

WINCHESTER FRANKLIN SPEIGHT, OF AUSTIN, TEXAS.

CARD-CUTTING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 688,556, dated December 10, 1901.

Application filed June 10, 1901. Serial No. 63,976. (No model.)

To all whom it may concern:

Be it known that I, WINCHESTER FRANKLIN SPEIGHT, a citizen of the United States, residing at Austin, in the county of Travis and State of Texas, have invented a new and useful Card-Cutting Attachment for Printing-Presses, of which the following is a specification.

This invention relates to card-cutting attachments for printing-presses, and has for its object to provide for cutting a plurality of cards from a single sheet at each operation of the press. It is furthermore designed to provide for detachably connecting a plurality of dies to a single base, which in turn is arranged to be locked up in an ordinary chase for application to any ordinary printing-press, and a final object resides in providing for the convenient interchange of card-cutting dies of different shapes and sizes and to firmly lock the dies upon the base, so as to obviate looseness thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a top plan view of the present attachment, parts being broken away to show the die-clamping means. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a similar sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of one of the dies. Fig. 5 is a detail perspective view of one of the spacing-blocks for the sections of the base. Fig. 6 is a detail perspective view of one of the card-ejector sockets. Fig. 7 is a detail plan view of one end of a modified form of the device. Fig. 8 is a transverse sectional view on the line 8 8 of Fig. 7. Fig. 9 is a detail perspective view of the die employed with this form of the device. Fig. 10 is a detail inverted perspective view of one end of one of the base members. Fig. 11 is a plan view of another modified form of the device.

Fig. 12 is a transverse sectional view on the line 12 12 of Fig. 11. Fig. 13 is a detail longitudinal sectional view on the line 13 13 of Fig. 11. Fig. 14 is a detail perspective view of the die. Fig. 15 is a detail perspective view of one end of one of the base members.

Like characters of reference designate corresponding parts in all of the figures of the drawings.

In carrying out the present invention there is provided a base formed in opposite longitudinal half-sections 1 and 2, which are provided upon their inner faces with corresponding longitudinal ribs or tongues 3 and 4, respectively, which extend for the entire lengths of the sections or members. Each member is formed of wood or metal and is in the shape of an oblong block of any suitable length to accommodate any number of dies and to fit the press to which the attachment is to be applied. These members are clamped together by means of opposite terminal clamping-bolts 5, which pierce the tongue portions of the members and are provided at corresponding ends with nuts 6, whereby the members are detachably connected. To maintain a longitudinal space or slot between the members, there are provided the opposite terminal spacing-blocks 7, interposed between the members and against which the latter are held by means of the clamping-bolts. In order that each block may snugly fit the opposite inner sides of the base members, its opposite sides are provided with corresponding transverse grooves 8 for the reception of the respective tongues or ribs, this grooving of the blocks giving the latter a substantially I shape.

The dies will of course be of different shapes and sizes, a star-shaped die 9 being shown in Fig. 4 and provided with opposite substantially I-shaped stems 10, pendent from the bottom of the die, which is in the form of a marginal flange without a bottom. To fit the die to the base, one of the clamping-bolts and the adjacent spacing-block are removed, so that the stems of the die may be slid through the open end of the slot to the desired position upon the base, after which the spacing block and bolt are replaced and both bolts are then tightened to clamp the die-stems snugly between the base-sections. It will be understood that it is designed to

apply a plurality of such dies to the base, as shown in Fig. 1 of the drawings. As indicated in Fig. 2, the tongues of the base members fit snugly into the grooves in the stems, thereby preventing vertical looseness of the dies as well as lateral looseness thereof. Moreover, the stems form braces to support the dies across the slot or opening between the base members.

To provide for ejecting the card from each die, there is provided an ejector-plate 11, (best shown in Fig. 3,) corresponding to the shape of the die, but lying loosely within the same. From the center of the bottom of the plate there depends an ejector-stem 12, which is slidably projected through a substantially I-shaped socket 13, which is fitted between the base members in the same manner as described for the die-stems. The upper end of the socket is provided with a depression 14 for the reception of a helical spring 15, that encircles the ejector-stem and bears in opposite directions against the bottom of the depression and the ejector-plate, thereby holding the latter in an elastically-yieldable elevated position slightly above the cutting edge of the die. The bottom of the socket is terminated short of the bottom of the base, so as to permit of the downward endwise movement of the ejector-stem, and the lower end of the latter is provided with a removable head 16 to prevent upward displacement of the ejector.

To support that point of the star-die which lies across the slot between the base members, it is designed to use a plurality of supporting-blocks 7', which are duplicates of the blocks 7, so as to fill up the slot from end to end, thereby to prevent looseness of the dies in a direction endwise of the base.

In the preferred form of the device just described it is necessary to apply the dies from the ends of the base, and to avoid this I employ the form of device illustrated in Figs. 7 to 10, inclusive, in which each base member is provided with a longitudinal slot 17, which extends through from the top to the bottom thereof and terminates short of the opposite ends of the member, there being a laterally-enlarged groove 18 formed at the bottom edge of the slot. The dies are provided with the usual stems 10, with the exception that the lower and greater portion of the stem has no lateral projections, whereby the die may be inserted downwardly. There are also provided the opposite screw-threaded pendent pins or fastenings 19, secured to the under edge of the die and passed downwardly through the slots of the respective base members, nuts 20 being applied to the outer ends of the pins and lying within the respective grooves, so as to obviate projections at the under side of the base; otherwise the device is the same as the first form.

The remaining figures of the drawings illustrate a further modification in the manner of securing the dies to the base, the dies shown

being diamond-shaped. Each base member is provided upon its upper face with a longitudinal rib 21, which is flush with the inner edge thereof and has its outer longitudinal edge undercut, as at 22, whereby the opposite ribs combine to form an upstanding dovetailed rib. The opposite under edges of the die are provided with corresponding dovetailed grooves 23 for the reception of the combined dovetailed ribs, the die being slid thereon from one end of the base.

To obviate lateral movement of the dies in the last-described form of the device, there is provided a plurality of blocks 24, which are slightly longer than the other blocks and are designed to project above the upper surface of the base or ribs, so as to bear against the adjacent edges of the dies and form stops therefor.

In all forms of the device the ejector is the same and varies only according to the shape of the die. Also the supporting-blocks 7' are employed in each form to support the intermediate portions of the dies which span the opening between the base members.

What is claimed is—

1. A card-cutting attachment for printing-presses, comprising a sectional base, means located below the upper plane of the base for clamping together the base-sections, and a die bearing upon the base and having a stem constructed to be clamped between the sections thereof.

2. A card-cutting attachment for printing-presses, comprising a sectional base, opposite terminal means for clamping together the base-sections, opposite terminal spacing-blocks interposed between the base-sections, and a die, having a stem constructed to be clamped between the base-sections.

3. A card-cutting attachment for printing-presses, comprising a sectional base, opposite terminal means for clamping together the base-sections, opposite terminal spacing-blocks interposed between the base-sections, and a die, having a stem constructed to be clamped between the base-sections, one of the clamping means and the adjacent spacing-block being removable to permit of the die-stem being slid inwardly between the base-sections.

4. A card-cutting attachment for printing-presses, comprising a sectional base, opposite terminal means for clamping together the base-sections, and a die, having a stem constructed to be clamped between the base-sections, the stem and the inner faces of the base-sections having a tongue-and-groove connection, and one of the clamping means being detachable to permit of the stem being slid inwardly between the base-sections.

5. A card-cutting attachment for printing-presses, consisting of a sectional base, the inner faces of the sections having corresponding longitudinal ribs or tongues, means for clamping together the sections, and a die having a stem to be clamped between the base-

sections, and also provided in opposite sides with transverse grooves for the reception of the respective tongues or ribs.

5 6. A card-cutting attachment for printing-presses, comprising a pair of base-sections, the inner faces of which have corresponding longitudinal ribs or tongues extending for the entire lengths of the sections, opposite terminal spacing-blocks interposed between the
10 sections and having opposite transverse grooves for the reception of the tongues or ribs, opposite terminal clamping-bolts piercing the sections, one of the bolts and the adjacent block being removable, and a die, hav-
15 ing a stem to be clamped between the base-sections, and provided with opposite transverse grooves for the reception of the tongues and ribs.

20 7. A card-cutting attachment for printing-presses, comprising a sectional base, means for clamping together the sections, a die, having a stem constructed to be clamped between the sections, a card-ejector working loosely within the die, and provided with a spring-
25 actuated stem projected between the base-sections, and a socket detachably clamped between the sections and slidably receiving the ejector-stem.

8. In a card-cutting attachment for print-

ing-presses, the combination of a sectional 30 base, means for clamping together the base-sections, and a plurality of ejector-sockets detachably clamped between the sections, and having longitudinal perforations.

9. A card-cutting attachment for printing- 35 presses, comprising a sectional base, means for clamping together the sections, a die applied to the upper face of the base, and a spring-actuated ejector, having its stationary part clamped between the base-sections. 40

10. A card-cutting attachment for printing- presses, comprising a sectional base, spacing- 45 blocks interposed between the base-sections and forming a slot therebetween, a die spanning the slot in the base, some of the blocks being located below and in engagement with the parts of the die that span the slot, and a spring-actuated card-ejector having a sta-
50 tionary part clamped between the base-sections.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WINCHESTER FRANKLIN SPEIGHT.

Witnesses:

W. W. WILLIAMS, Jr.,
T. S. MELTON.