

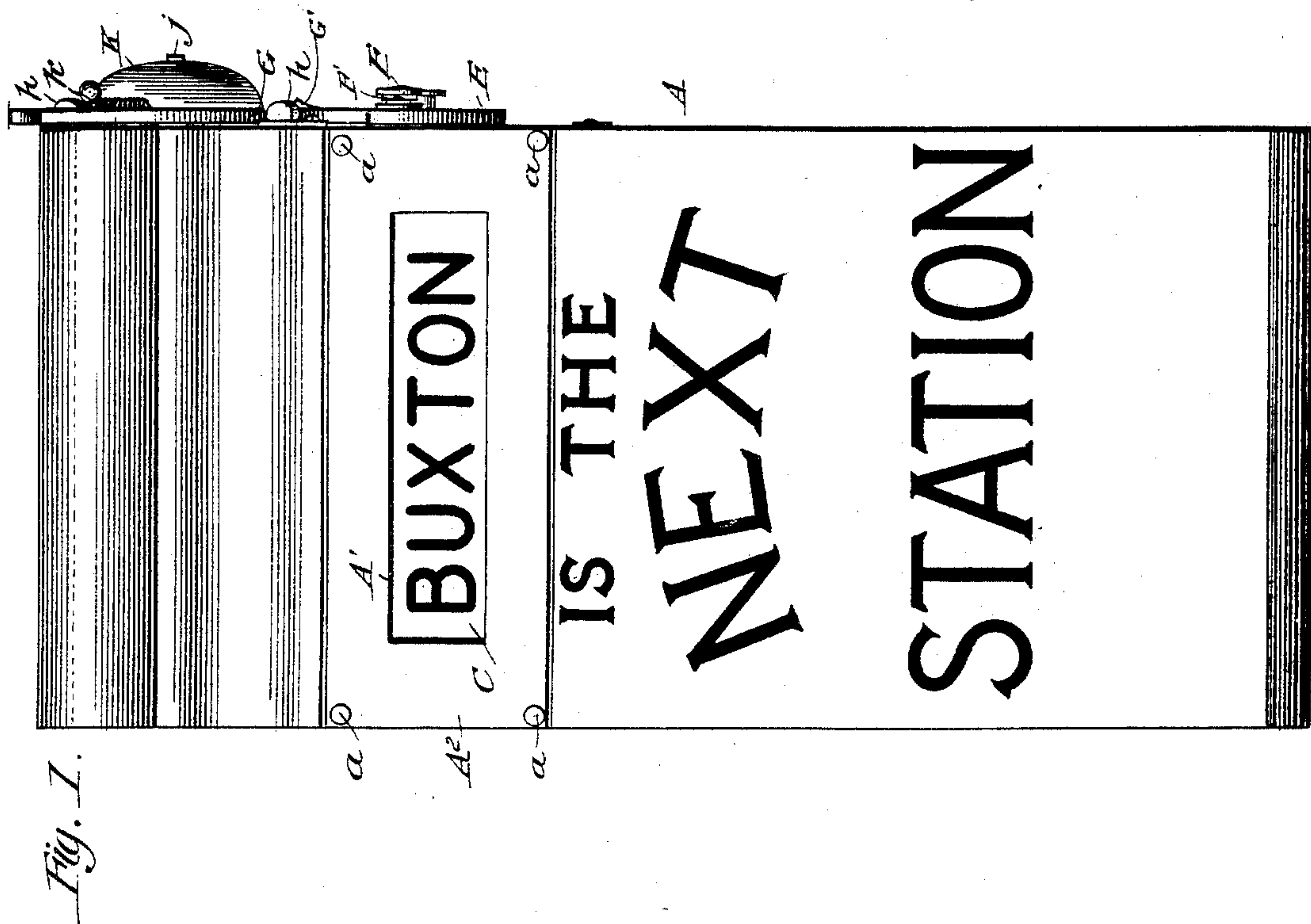
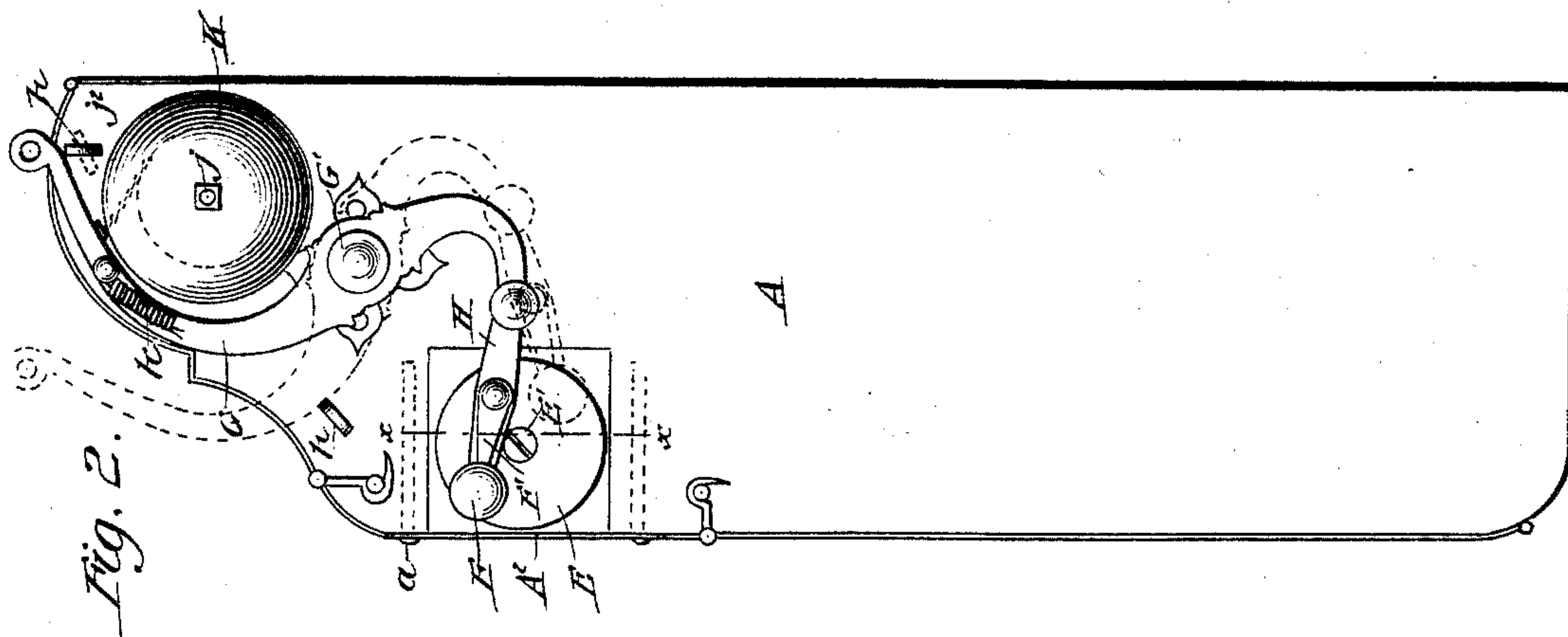
(No Model.)

2 Sheets—Sheet 1.

P. A. SHANKLIN & W. R. & W. SWAGER.
STATION INDICATOR.

No. 393,524.

Patented Nov. 27, 1888.



WITNESSES:

J. H. Clark,
C. Bedgwick,

INVENTOR:

P. A. Shanklin,
W. R. Swager,
BY *W. Swager,*
Munn & Co.
ATTORNEYS.

(No Model.)

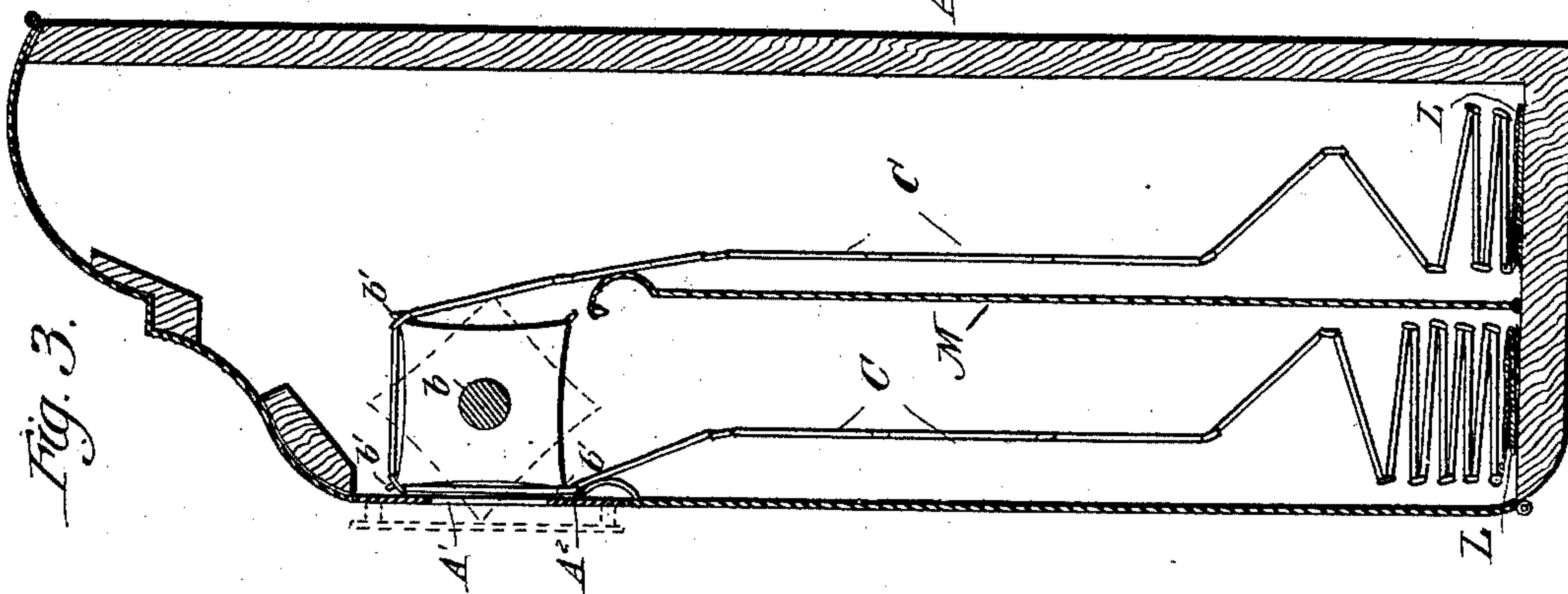
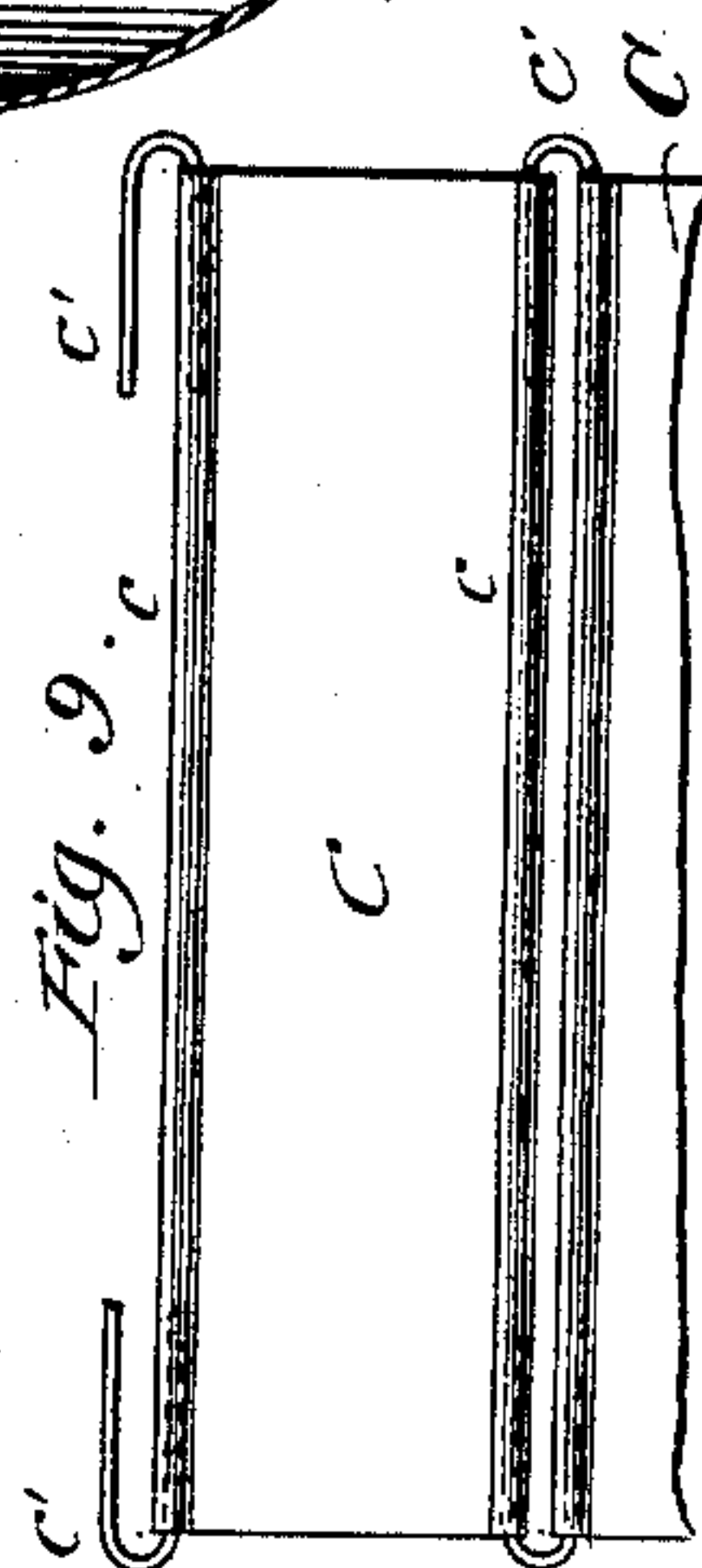
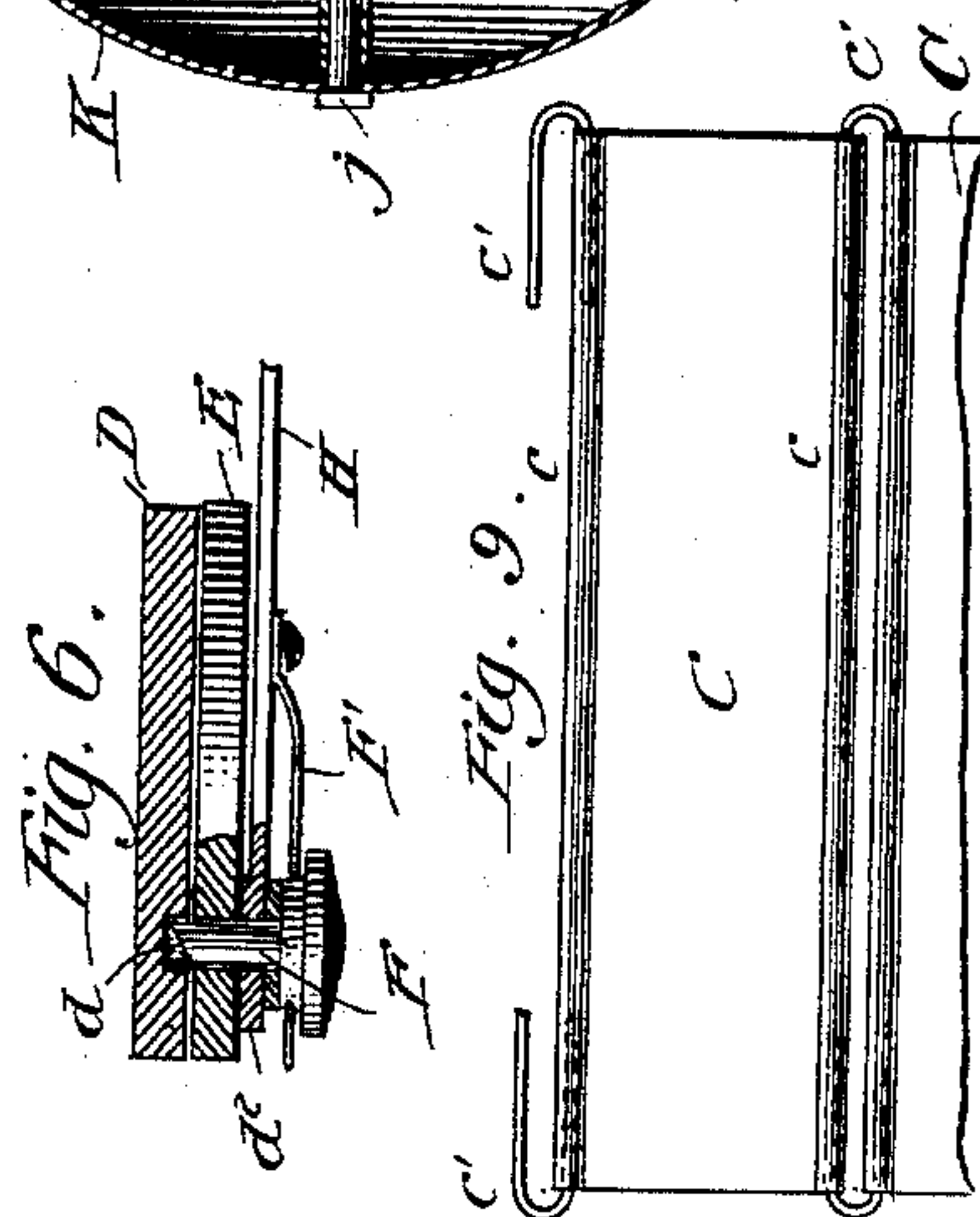
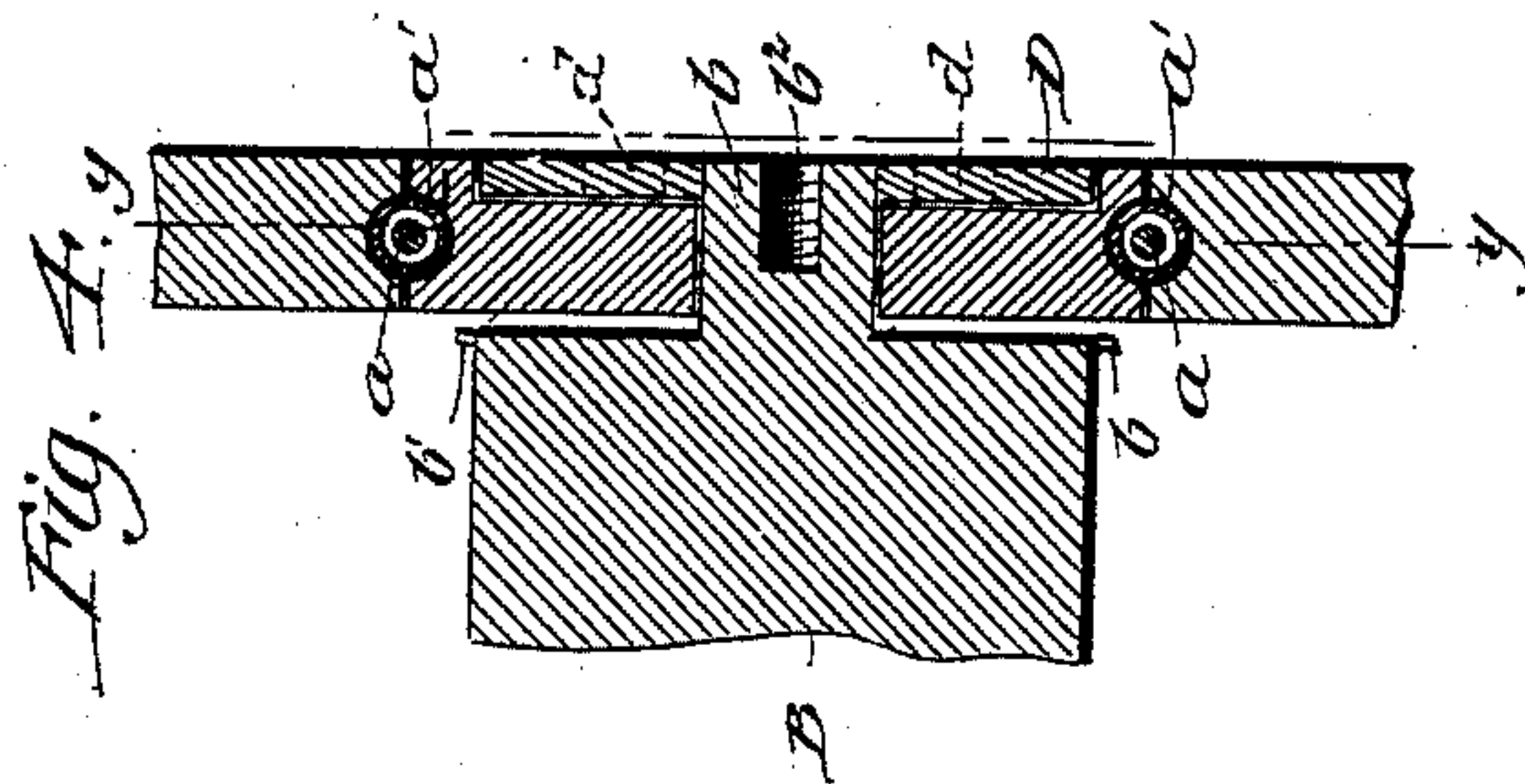
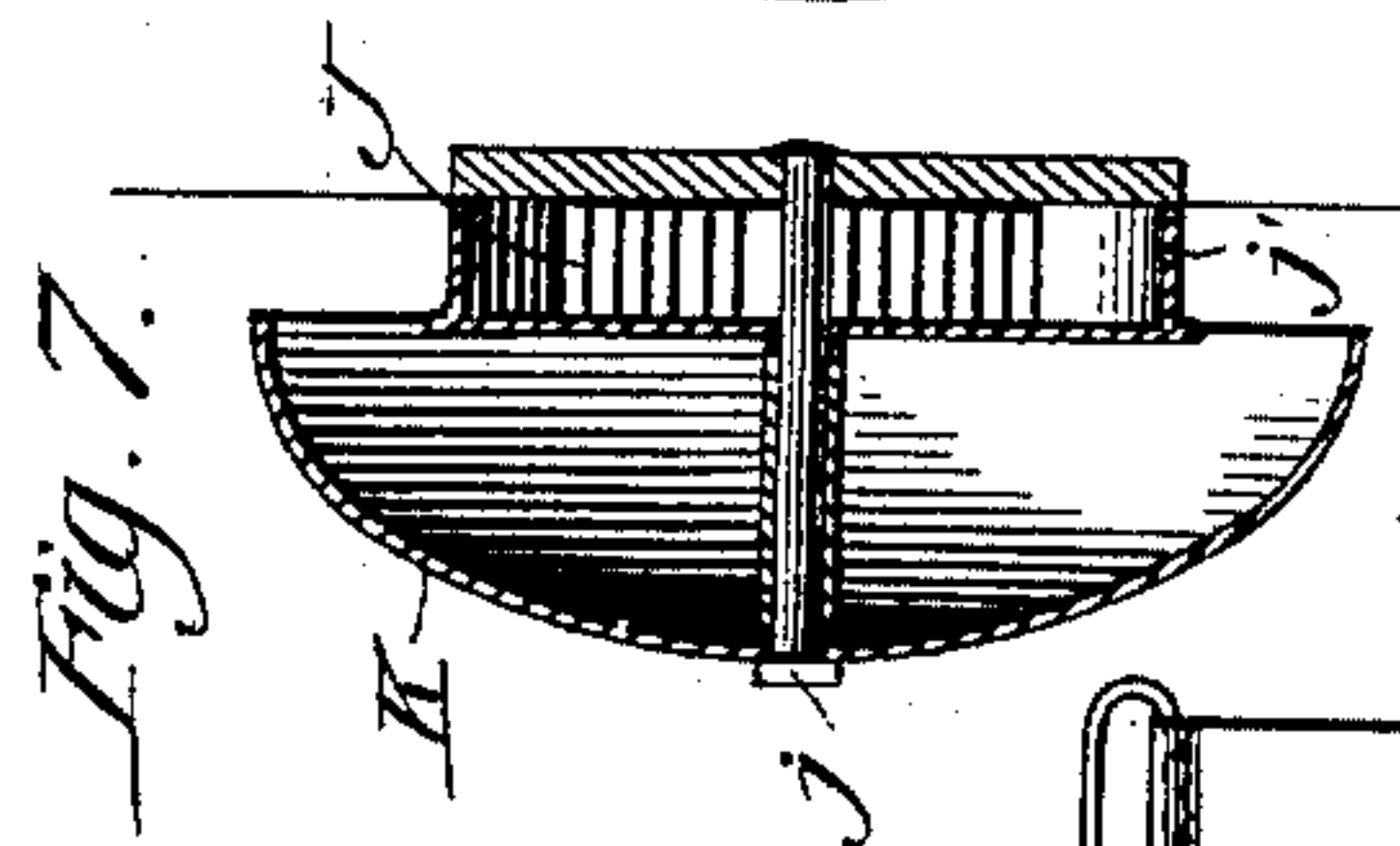
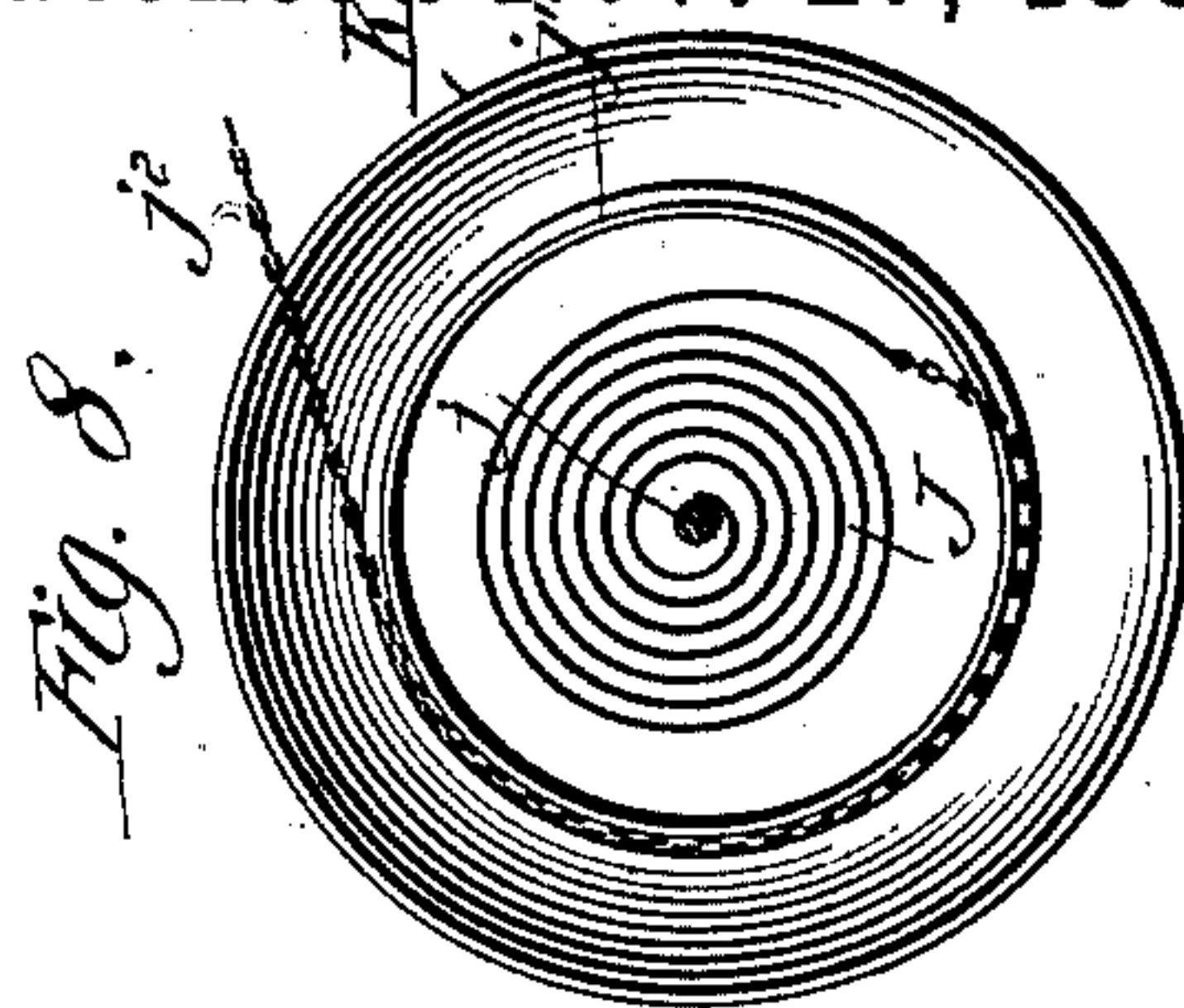
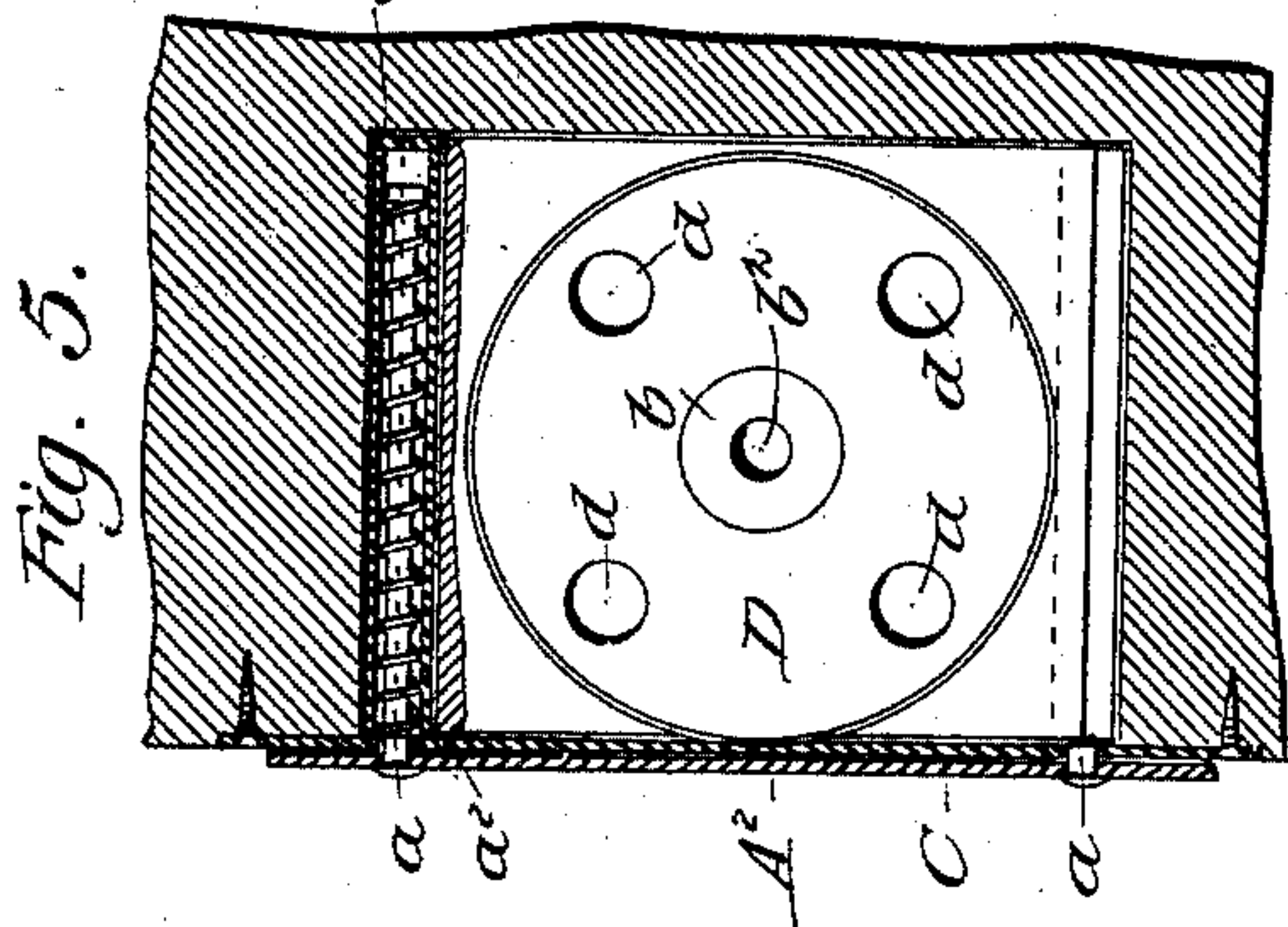
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

PHILIP A. SHANKLIN, WILLIAM R. SWAGER, AND WILLIAM SWAGER, OF
SANDOVAL, ILLINOIS.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 393,524, dated November 27, 1888.

Application filed September 20, 1888. Serial No. 285,868. (No model.)

To all whom it may concern:

Be it known that we, PHILIP A. SHANKLIN, WILLIAM R. SWAGER, and WILLIAM SWAGER, of Sandoval, in the county of Marion and State of Illinois, have invented a new and Improved Station-Indicator, of which the following is a full, clear, and exact description.

Our invention relates to a station-indicator designed for street and railway cars and adapted to be operated by a lever, pull-rope, or other power; and the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of our new and improved station-indicator. Fig. 2 is a side elevation thereof. Fig. 3 is a sectional side elevation. Fig. 4 is an enlarged detailed sectional view on line *xx* of Fig. 2. Fig. 5 is a similar view on line *yy* of Fig. 4. Fig. 6 is a detail view showing a portion of the lever, wheel, and spring-catch. Figs. 7 and 8 are respectively sectional and rear elevations of the bell and return spring for the operating-lever; and Fig. 9 is a front elevation of a portion of the connected plates C, on which the names of stations are painted.

A represents the main frame or box, which may be of any appropriate size and design, having an opening, A', in which the names of the different stations appear. This opening in this instance is made in a loose panel, A'', attached to rods *a a*, held in tubes *a' a'* set in the edge of the main frame and acted on by springs *a'' a''* in said tubes, so that said plate and springs act to assist in finishing each movement of the drum B, and also to clamp the plates C, on which the names are placed, against the flat surface of the drum B.

The drum B is, by preference, polygonal in form and journaled by gudgeons *b* in bearings in the sides of the main frame A. The ends of the drum are provided with points *b' b'*, to serve as sprockets to turn the chain of connected plates C to bring the names thereon successively in line with the opening A'. To the outer end of one of the gudgeons *b* is secured

the disk D, having as many holes or sockets *d* therein as there are sides to the drum B. Covering the disk D is another outer disk, E, held by headed screw or bolt E', screwed in the socket *b''* of the gudgeon *b*. The said outer disk, E, is free to turn on the screw or bolt E', and through it is formed the aperture *d''* (see Fig. 6) for the passage through the disk of the bolt F, the end of which is beveled and adapted to enter the sockets *d* of the inner disk, as shown clearly in Fig. 6. This bolt F acts as a spring-latch to lock the lower end of the operating-lever G to disk D for turning the drum, and said bolt is carried by the connecting-link H, pivoted to the lower end of the lever, and it is held in place by the plate-spring F', attached to the said connecting-link, the spring acting to constantly press the bolt inward, but permits it to be forced outward by the action of the beveled end of the bolt upon the edge of the recess *d* upon the forward movement of the operating-lever G. The spring F', attached to the connecting-link H and passing through the bolt F, as shown most clearly in Fig. 6, serves to always hold the bolt F in the right position for operation both in engaging with and disengaging from the lower disk, D. The said operating-lever G is pivoted at G', and may be reciprocated by hand by a rope attached to its upper end, or it may be reciprocated by any other power. After being drawn outward to the position shown in dotted lines in Fig. 2, it is returned to the position shown in full lines by means of the coiled spring J, attached to bolt *j*, inclosed in casing *j'*, and attached at its outer end to the lever G by a small chain or cord, *j''*. The bolt *j* also holds the gong K, which is struck by the spring-hammer *k*, attached to lever G, upon return of the lever.

When the connecting-link H is in the position shown in Fig. 2, the operation of the lever G will turn the drum B to lift the connected plates C from the front and carry them toward the back of the main casing. To reverse the action of the lever and cause it to carry the connected plates in the opposite direction, it is only necessary to draw the bolt F out of recess *d*, (and said bolt is provided with a knob for that purpose,) turn the limit-plate *h* to the po-

sition shown in dotted lines in Fig. 2, and press the connecting-rod H below the pivot E'. The limit-plate h is then to be turned to the position shown in full lines in Fig. 2.

5 The plates C are rolled at the edges to form small tubes c c, and the plates are connected together by the U-shaped links c' c', inserted in the tubes c c, so that by removing these links any plate may be taken out and another
10 put in place. These links are loose, but are prevented from coming out by their close contact with the sides of the main box.

The ends of the chain of connected plates C are attached to the bottom of the casing A by
15 cords or tapes L, and to prevent tangling we employ the hinged upright plate M as a partition between the two receiving-chambers, which separate the chain of plates in the main frame, as shown in Fig. 3.

20 Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. The main frame A, having the apertured front panel, A', pressed inward by spring a',
25 in combination with the polygonal drum B, connected plates C, and means for turning the drum, the panel and drum being arranged in such relative positions that the corners of the

drum press the panel outward against the tension of the springs, substantially as described. 30

2. The main casing having an apertured front panel, and the drum B, journaled in said casing and provided at its gudgeon b with the disk D, having recess d, in combination with the main operating-lever G, pivoted above the
35 gudgeon, the link H, pivoted to the lower end of the lever, the catch F, fitted in said link, and the disk E, pivoted in front of the disk D and formed with a passage for the said catch F, substantially as described. 40

3. The main casing having an open front panel, and the lever G, pivoted to the said frame and acted on by a spring and provided with the link H at its lower end, in combination with the catch F, fitted to the link, the
45 two disks E D, faced together, the drum B, and the limit-plate h, arranged in front of the lever G to limit its forward movement, substantially as and for the purposes set forth.

PHILIP A. SHANKLIN.
WILLIAM R. SWAGER.
WILLIAM SWAGER.

Witnesses:

E. H. CHAPIN,
JOHN A. DODDS.