

No. 682,177.

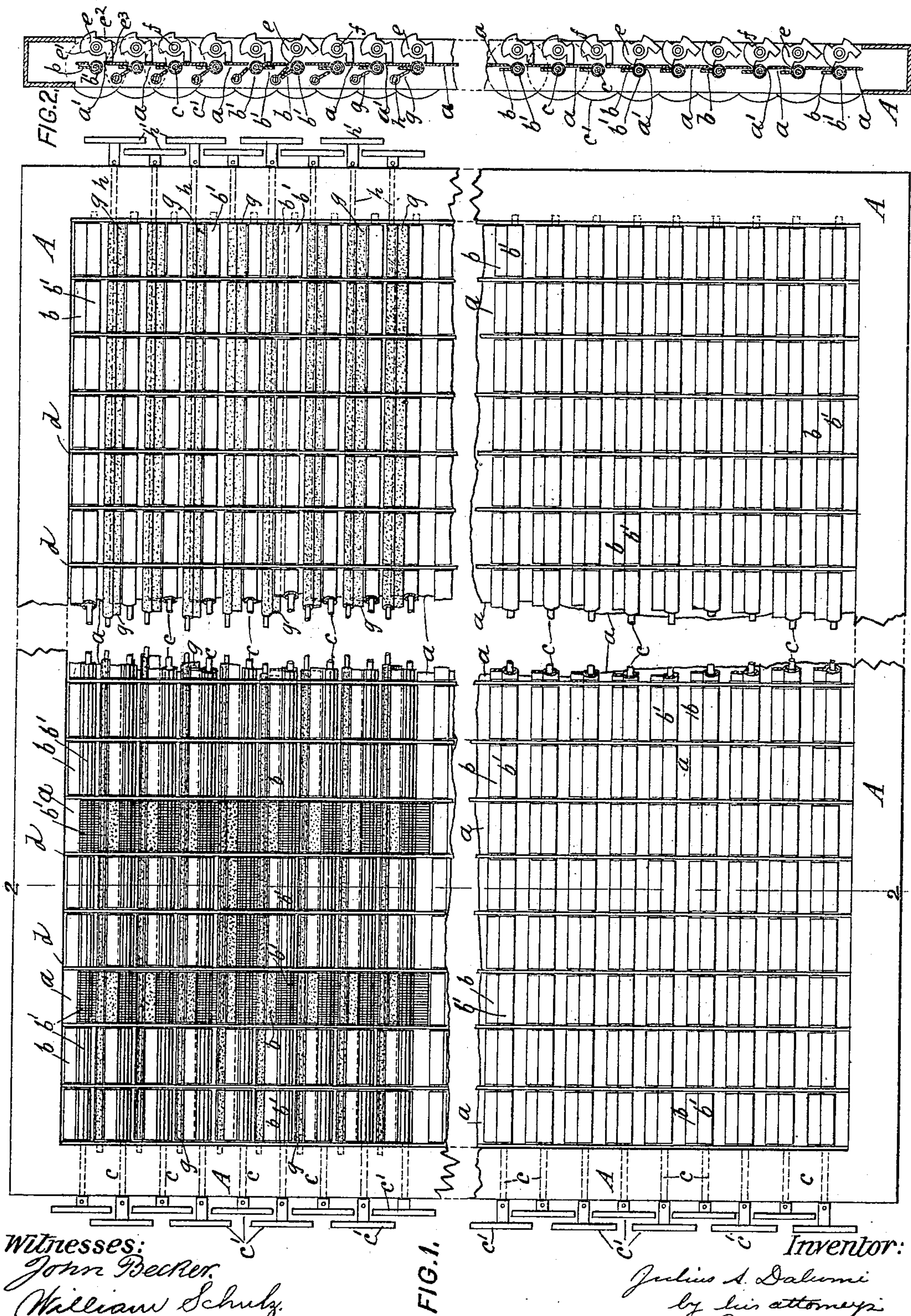
Patented Sept. 10, 1901.

J. A. DALUMI.
SIGN.

(Application filed Apr. 12, 1901.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:
John Decker.
William Schulz.

Inventor:
Julius A. Dalumi
by his attorneys
Roeder & Brien

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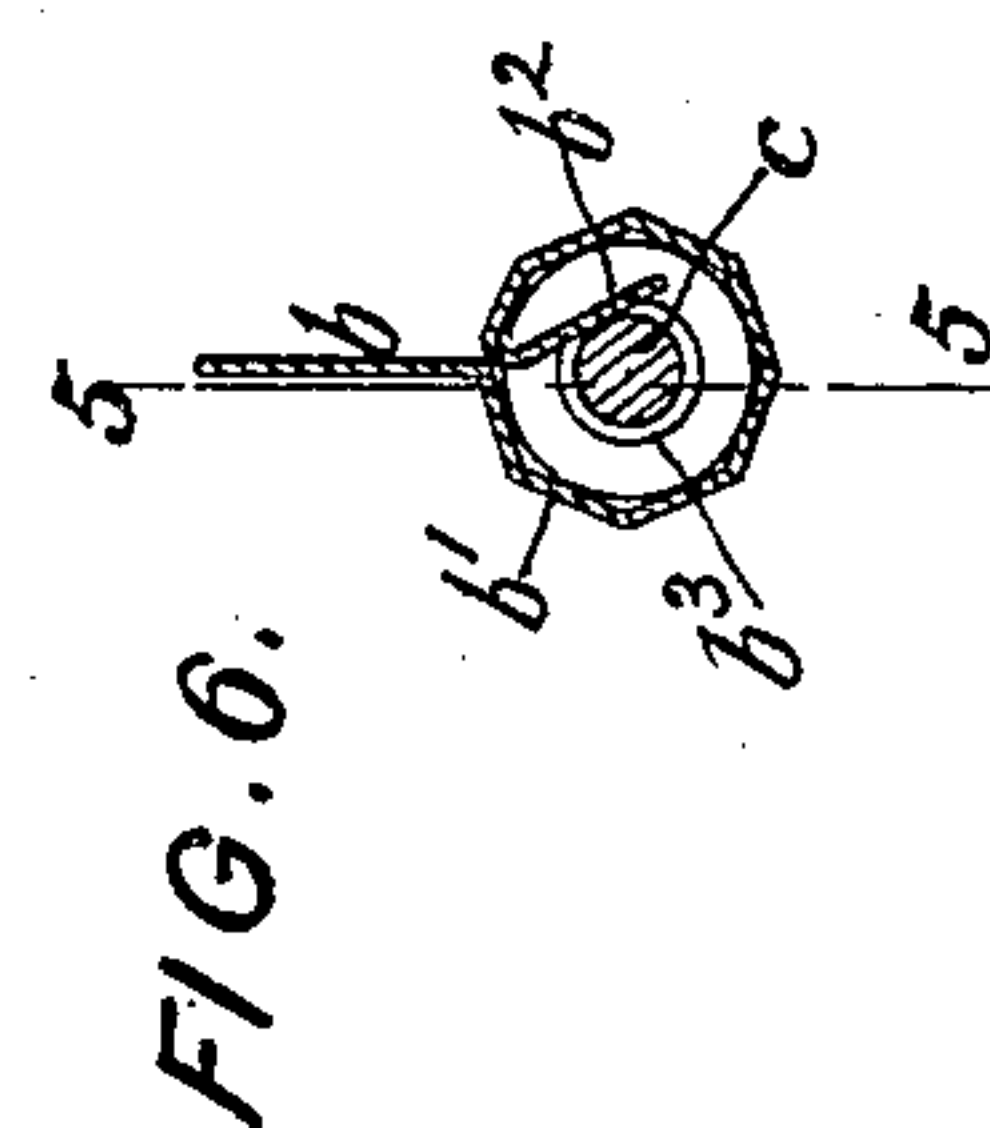
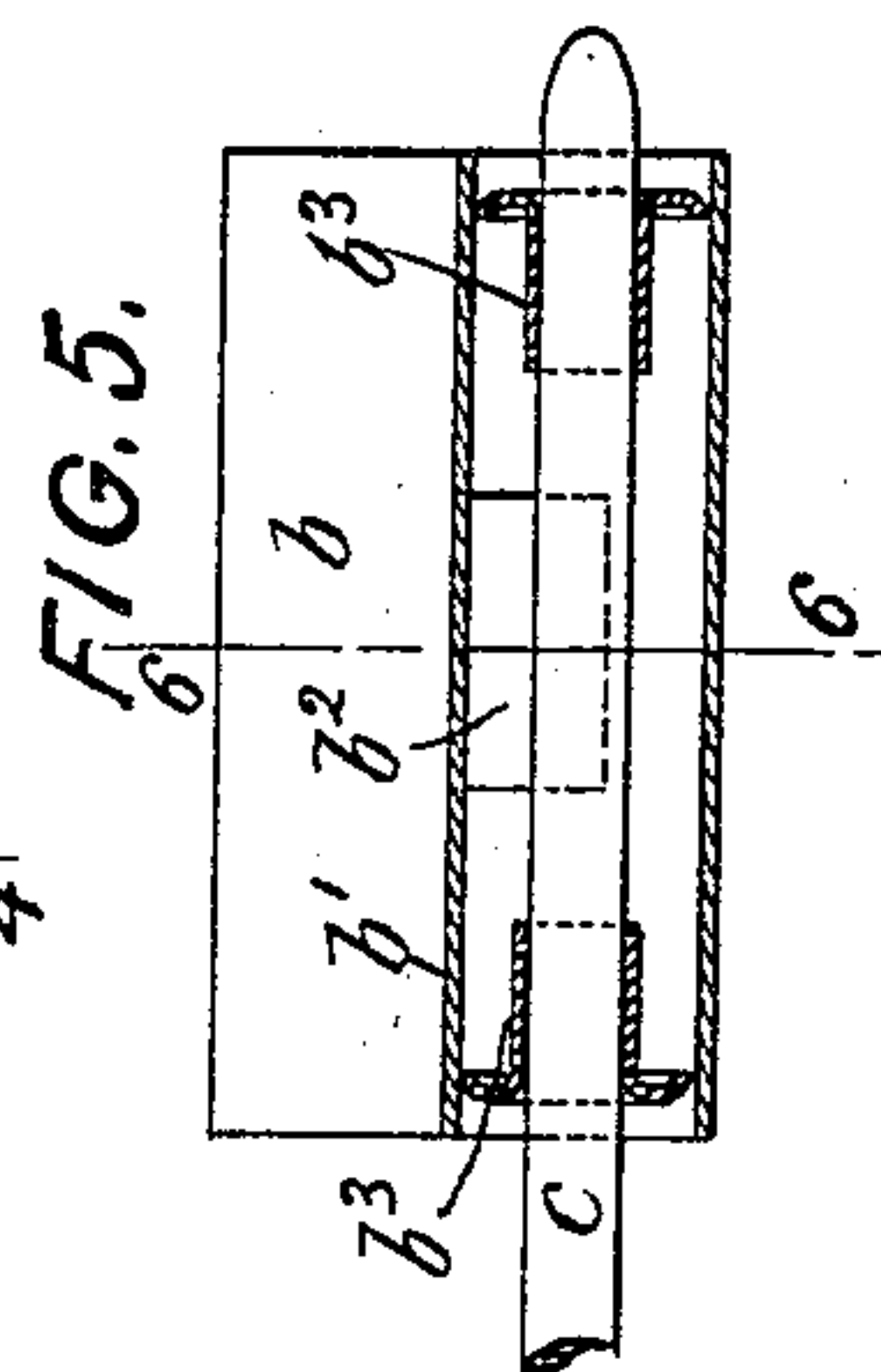
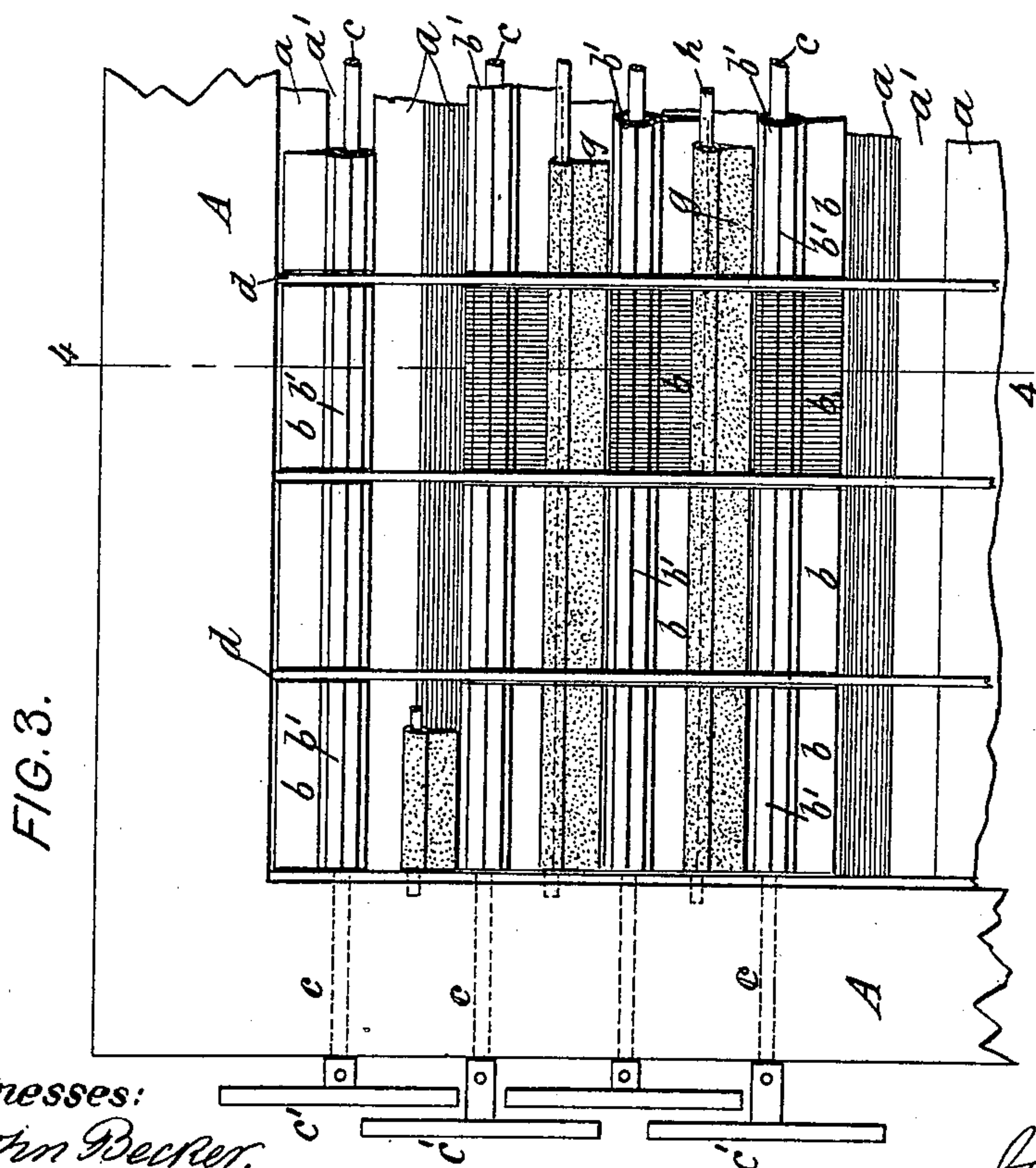
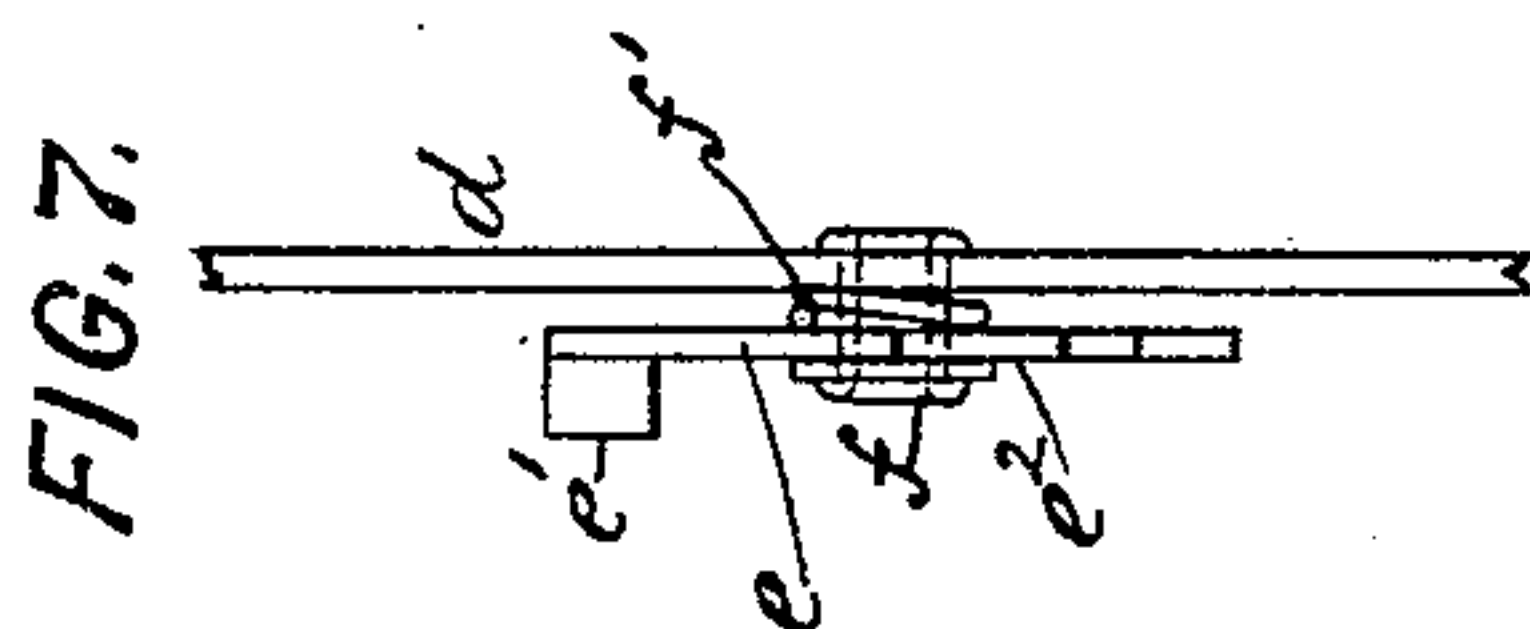
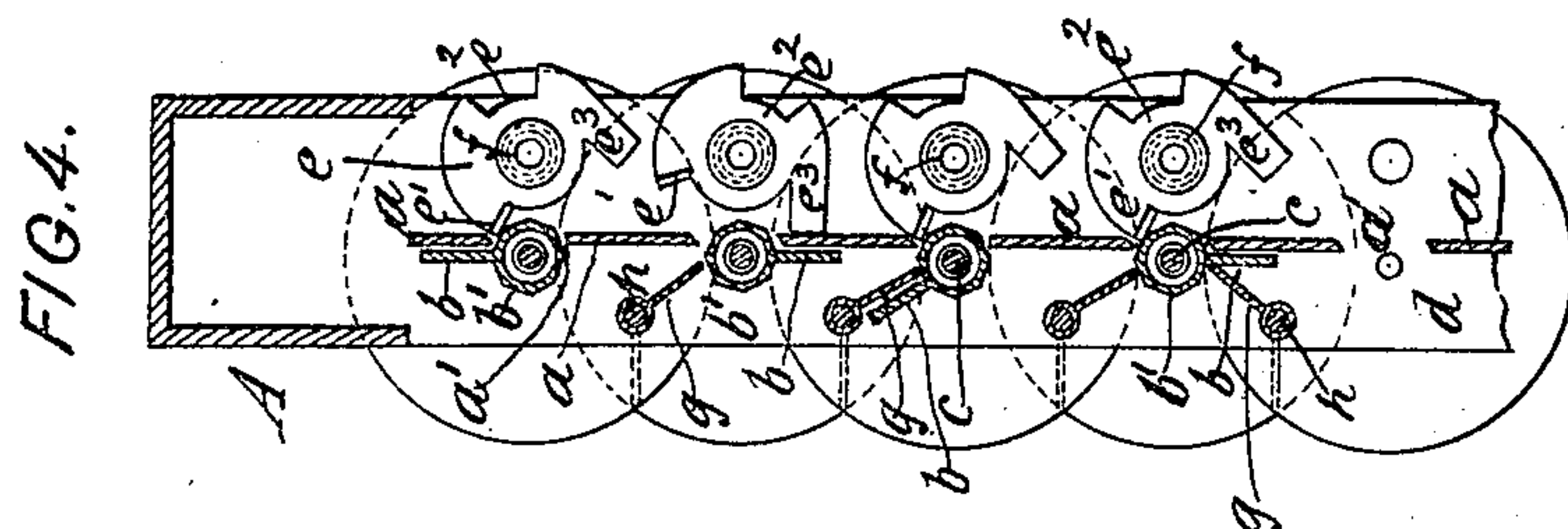
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3 Sheets—Sheet 2.



Witnesses:

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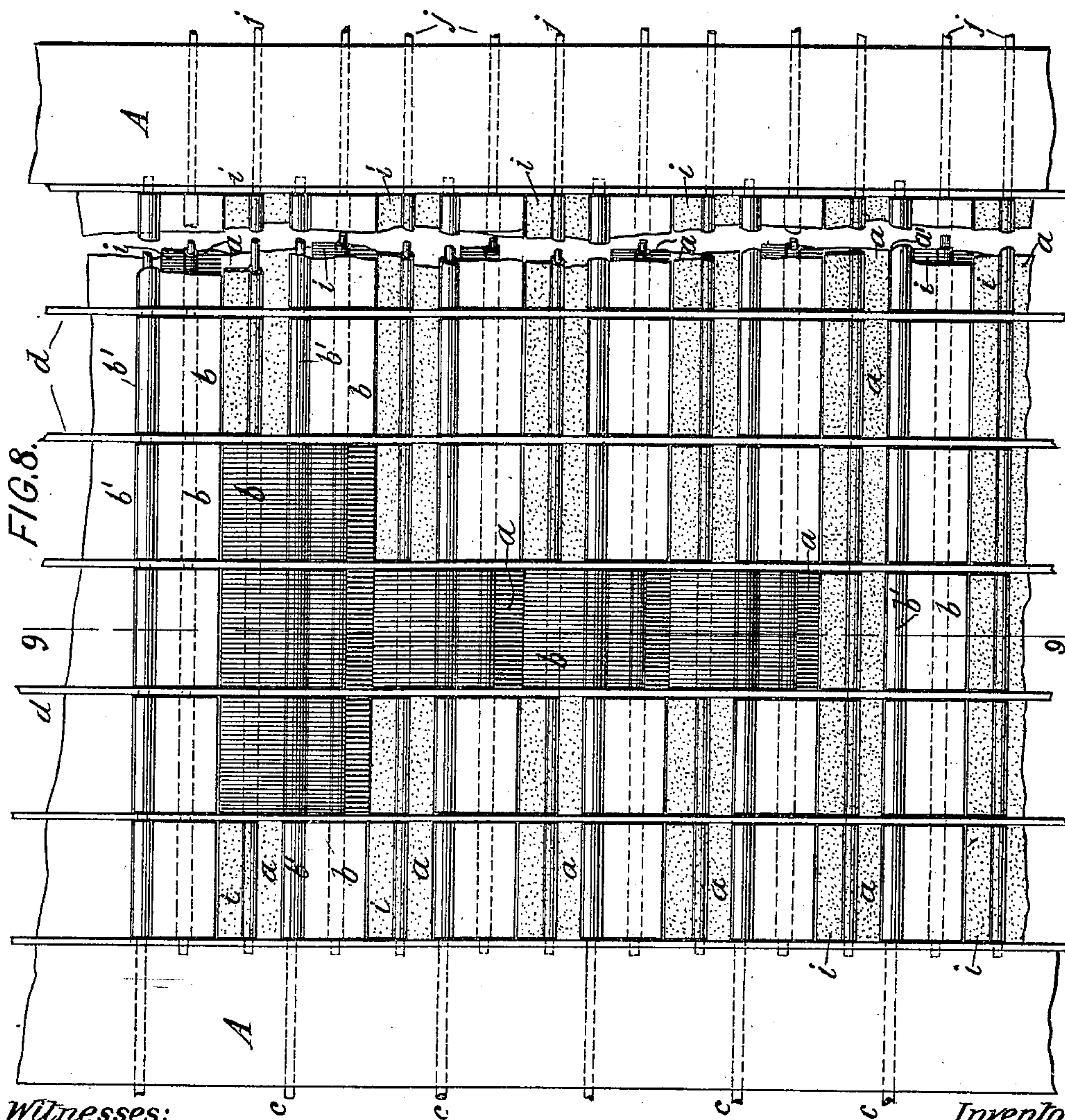
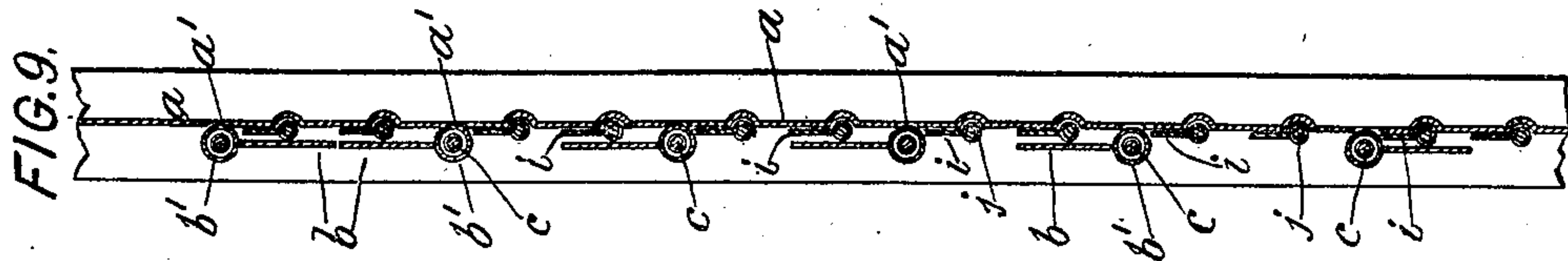
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SIGN.

(Application filed Apr. 12, 1901.)

(No Model.)

3 Sheets—Sheet 3.



Witnesses:

John Decker.
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Inventor:

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UNITED STATES PATENT OFFICE.

JULIUS A. DALUMI, OF NEW YORK, N. Y.

SIGN.

SPECIFICATION forming part of Letters Patent No. 682,177, dated September 10, 1901.

Application filed April 12, 1901. Serial No. 55,450. (No model.)

To all whom it may concern:

Be it known that I, JULIUS A. DALUMI, a citizen of the United States, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Signs, of which the following is a specification.

This invention relates to a sign of the class in which the lettering is formed by means of lids or shutters pivoted to a sign-board, such as described in Patents Nos. 532,032 and 567,379, granted to me January 8, 1895, and September 8, 1896, respectively.

The object of the present invention is to facilitate the setting of the sign and also to produce multicolor effects upon the letters and upon the background.

The invention consists in the various features of construction fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a front view of my improved sign, showing it partly broken away and with some of the color-plates removed. Fig. 2 is a cross-section on line 2 2, Fig. 1; Fig. 3, a detail front view of part of the sign; Fig. 4, a cross-section on line 4 4, Fig. 3; Fig. 5, a longitudinal section of one of the shutters on line 5 5, Fig. 6; Fig. 6, a cross-section on line 6 6, Fig. 5; Fig. 7, an end view of one of the stops *e*; Fig. 8, a front view of a modification of the sign; and Fig. 9 a cross-section on line 9 9, Fig. 8, with the stops and hand-wheels omitted.

The sign is composed of a series of parallel sections or slats *a*, embraced by a common frame *A* and separated by a series of parallel slots *a'*. Each slat *a* is made in two colors, being, for example, dark at its upper half and light at its lower half.

Between each pair of slats *a* there are pivoted, side by side, a series of shutters or lids *b*, differently colored at their front and back and of a height equal to one-half of the section *a*. Thus by swinging the lids up or down any suitable lettering may be produced on the sign, as more fully described in the patents hereinabove referred to. The pintles *c* of the lids are supported by perforated upright partitions *d*, arranged between vertical rows of shutters *b*. They pass through tubular leaves or knuckles *b'*, with which the shutters are provided, such knuckles extend-

ing rearwardly through the slots *a'*, so as to be accessible from the rear face of the sign-board. Each shutter is so mounted upon its pintle that it is held thereto by frictional contact, and that it will rotate together with the pintle unless such friction is overcome. To this effect a spring *b²* is interposed between knuckle and pintle, which is formed, preferably, integral with the knuckle, Fig. 6, while tubular bearings *b³* are fitted within the knuckle to receive the pintle, Fig. 5.

In order to set the sign quickly, and also to quickly obliterate the lettering, I provide each shutter with a stop which is adapted to engage the knuckle *b'*, and thereby retain the shutter in position while its pintle is being rotated. These stops *e*, Figs. 4 and 7, are arranged on the rear face of the sign-board and are rotatably mounted upon studs *f*, secured to the partitions *d*. Friction-springs *f'*, surrounding the studs *f* and impinging against the parts *d e*, hold the stops in any desired position. The stops *e* are shaped as shown in Fig. 4, being provided with a nose *e'*, a finger-notch *e²*, and a tailpiece *e³*. The nose *e'* is adapted to engage the knurled or polygonal face, Fig. 6, of the knuckle *b'*, while the tailpiece *e³* is adapted to contact with the slats *a*, and thereby limit the play of the stops. When the stop is swung inward, (upper stop, Fig. 4,) the nose *e'* will bear against the knuckle *b'* and hold the shutter in position, while when the stop is swung outward (second stop, Fig. 4) the knuckle is released and the shutter is free to turn with its pintle.

In order to readily turn the pintles *c*, they are provided at one end with the disks or wheels *c'*, which when passed over by the hand or a suitable tool will almost simultaneously rotate all the pintles in one or the other direction.

The operation as thus far described is as follows: To set the sign, the stops *e* are swung against the knuckles of those shutters which are not to be oscillated—say those that are to form the background of the lettering. The hand is now passed over the wheels *c'* to rotate all the pintles *c*, and to thereby swing all those shutters which are not locked, and which will thus form the lettering desired. The stops are then swung so as to release all the shutters, and by subsequently again pass-

ing the hand over the wheels *c'* the entire lettering may be obliterated.

The sign-board is preferably of such a height that two or more rows of lettering may be formed thereon. Thus while one row is exposed the stops for the next row are set, and if the lettering is to be changed this can be readily accomplished by simply rotating the wheels *c'*. In this way the blank section of the sign-board will be rapidly lettered, while the lettered section will become exposed.

In order to permit letters and backgrounds of more than two colors to be formed, I arrange additional rows of pivoted color-plates *g* between adjoining rows of shutters *b*. These color-plates are mounted upon pintles *h*, placed parallel to pintles *c* and having the hand-wheels *h'*. Each color-plate *g* is adapted to overlap and conceal either one-half of the slats *a* or the entire shutter *b*. Thus by manipulating any of the color-plates *g* so as to either overlap the shutter *b* or to be overlapped thereby or to conceal one-half of slat *a*, Fig. 4, a large variety of color effects may be produced. This effect may be heightened by painting alternate slats *a* in different colors.

In Figs. 8 and 9 two rows of color-plates *i*, mounted upon pivots *j*, are arranged between each two rows of shutters *b* in lieu of the single row illustrated in Fig. 2. In this modification also the color effect may be readily changed by manipulating any of the color-plates desired.

What I claim is—

1. A sign composed of a slotted sign-board,

pintles secured thereto, lids frictionally mounted upon the pintles and having knuckles that project rearwardly through the slots of the sign-board, and stops arranged on the rear face of the sign-board and adapted to engage the knuckles, substantially as specified.

2. A sign composed of a slotted sign-board, lids having knuckles and pivoted thereto, and pivoted stops having noses adapted to engage said knuckles, substantially as specified.

3. A sign composed of a slotted sign-board, lids having polygonal knuckles and pivoted thereto, and pivoted stops having noses adapted to engage the knuckles, and tailpieces adapted to engage the sign-board, substantially as specified.

4. A sign composed of a multicolored sign-board, lids pivoted thereto, and color-plates pivoted to the sign-board intermediate the lids, substantially as specified.

5. A sign composed of a multicolored sign-board, lids pivoted thereto and having differently-colored faces, and additional color-plates pivoted to the sign-board intermediate the lids, substantially as specified.

6. A sign composed of a multicolored sign-board, rows of multicolored pivoted lids, and intermediate pivoted color-plates adapted to be overlapped by the lids, substantially as specified.

Signed by me at New York city, county and State of New York, this 11th day of April, 1901.

JULIUS A. DALUMI.

Witnesses:

F. V. BRIESEN,
EDW. J. RAY.