

No. 685,251.

Patented Oct. 29, 1901.

L. BUCKSTEIN.
TRANSPOSABLE OR CHANGEABLE SIGN.

(Application filed Feb. 8, 1901.)

(No Model.)

2 Sheets—Sheet 1.

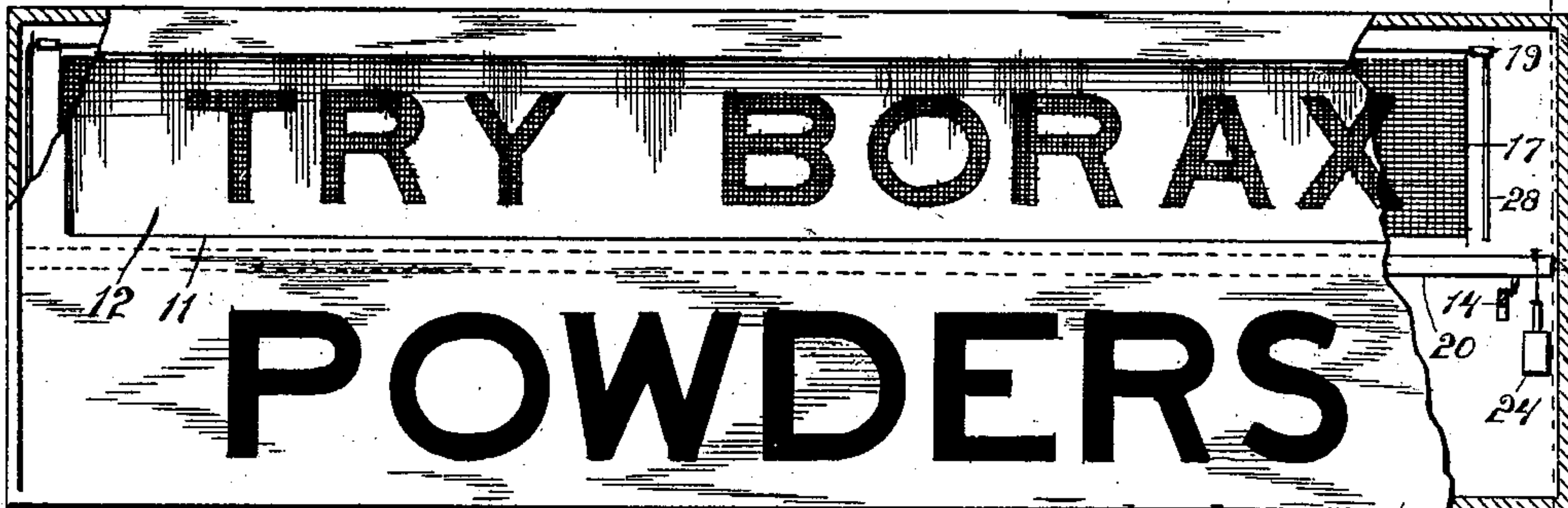


Fig. 1.

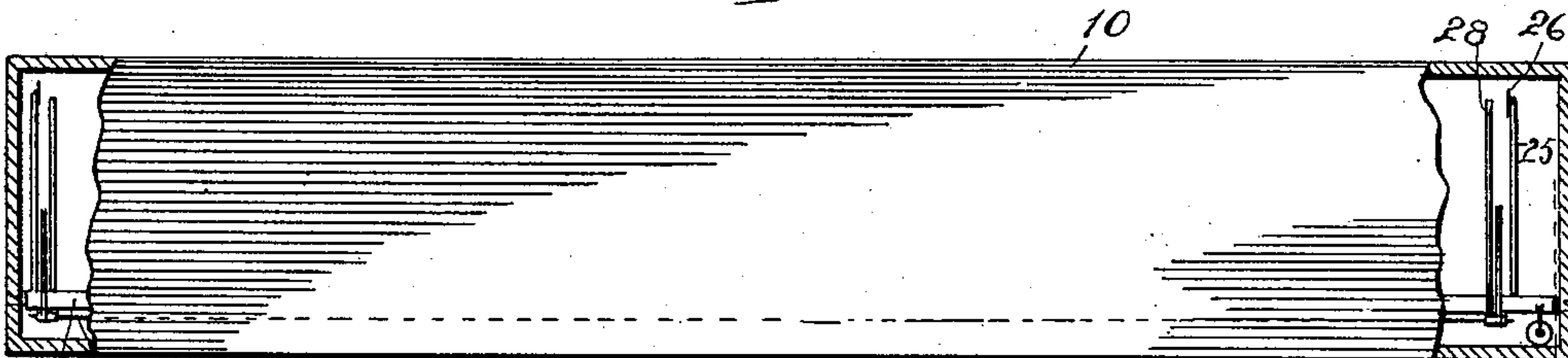


Fig. 2.

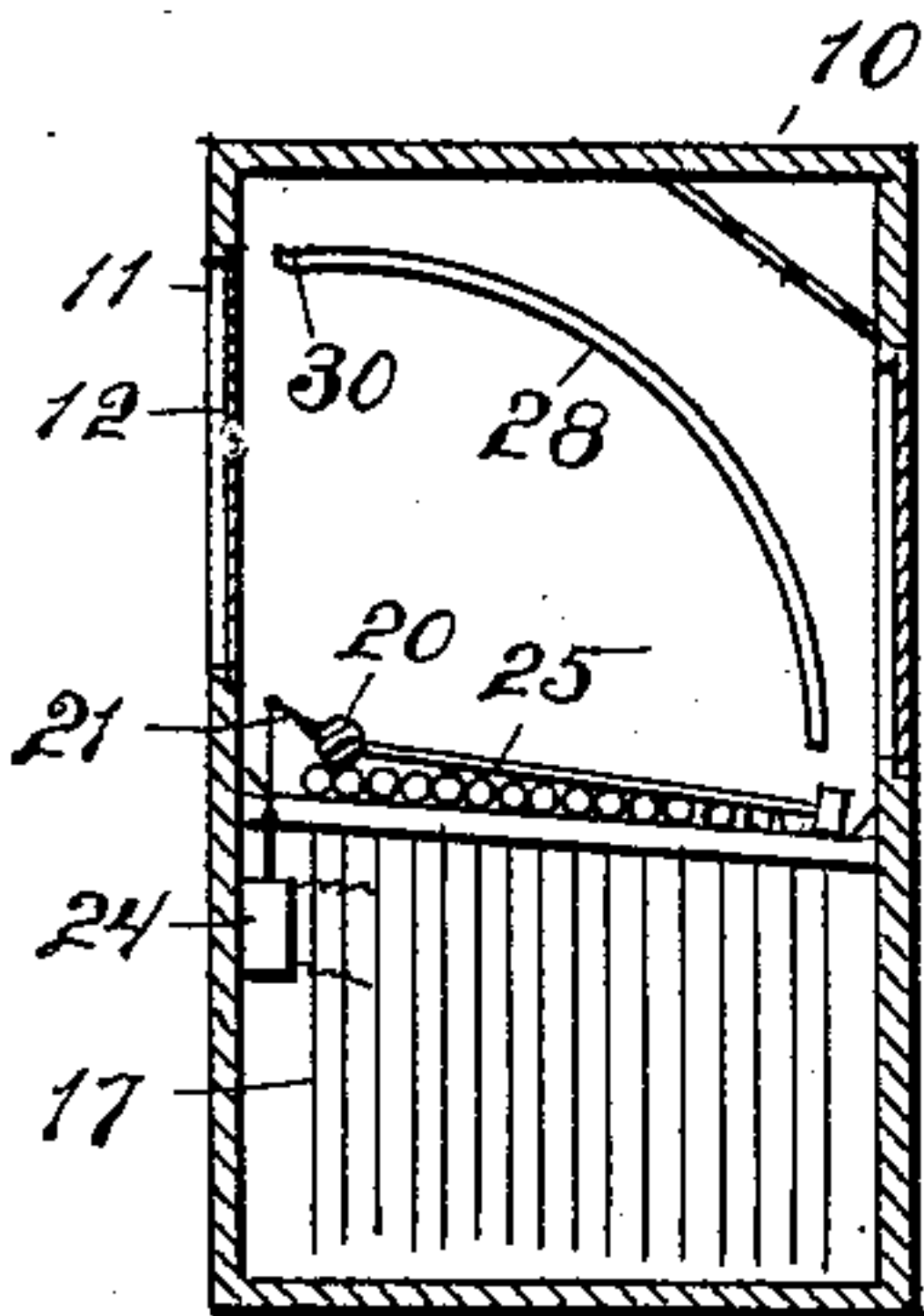


Fig. 3.

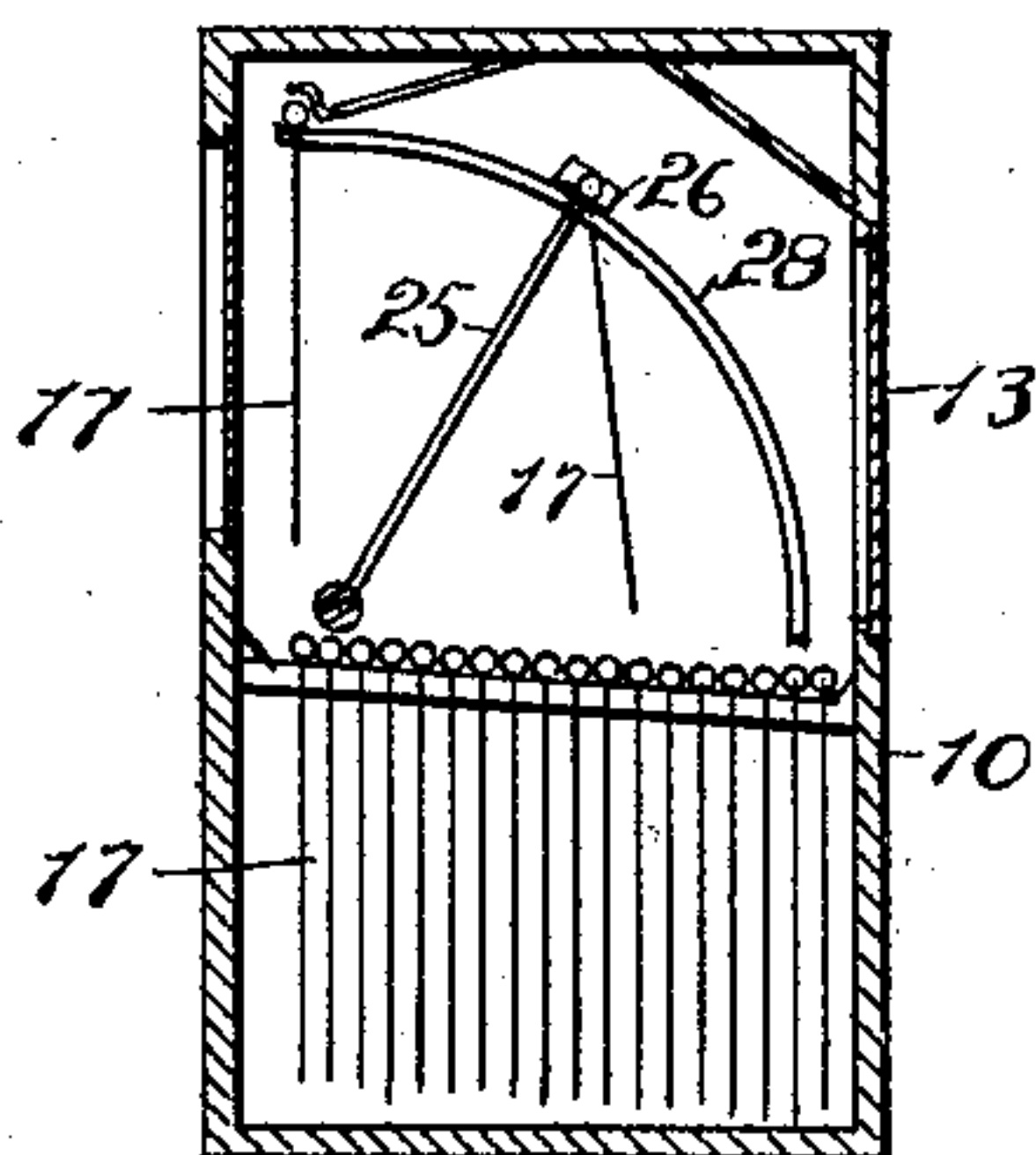


Fig. 4.

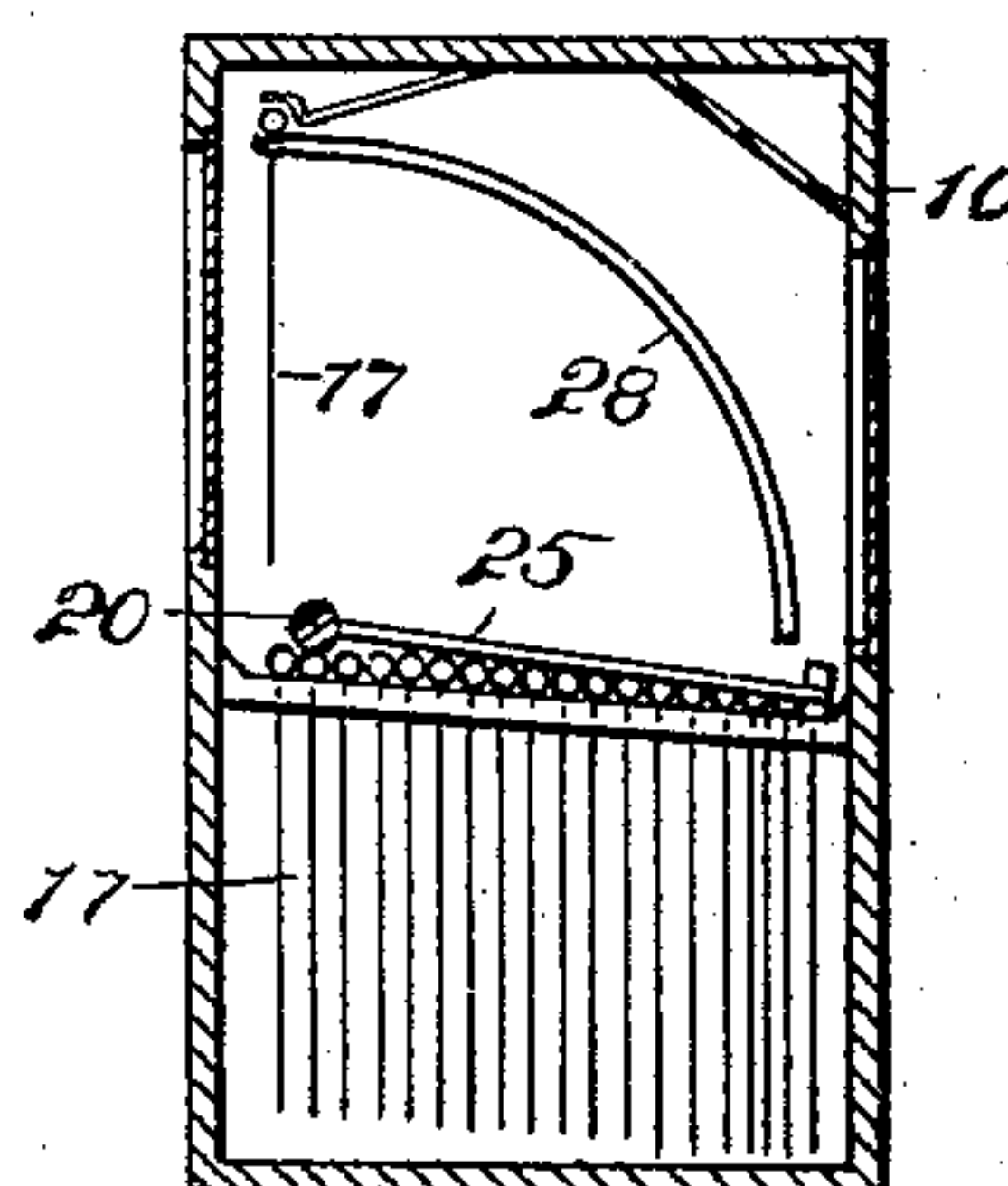


Fig. 5.

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2 Sheets—Sheet 2.

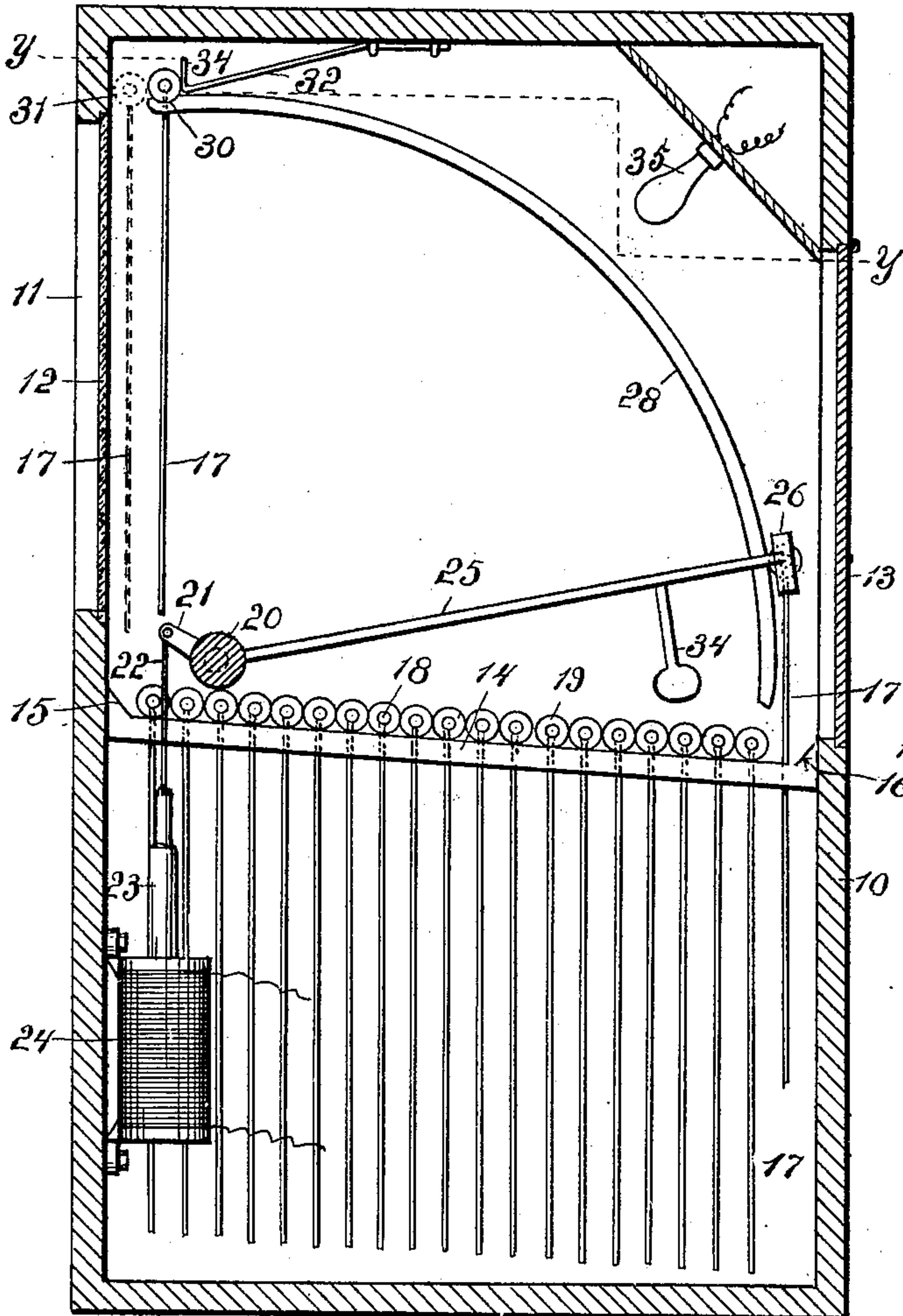


Fig. 6.

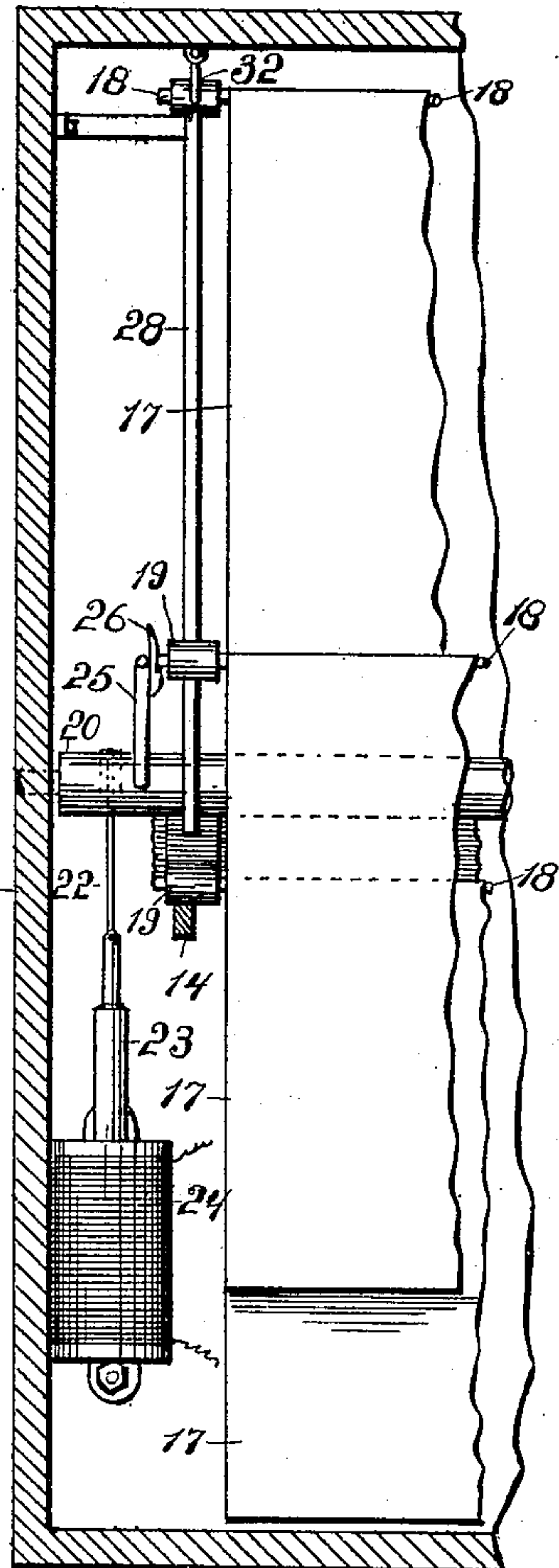


Fig. 7.

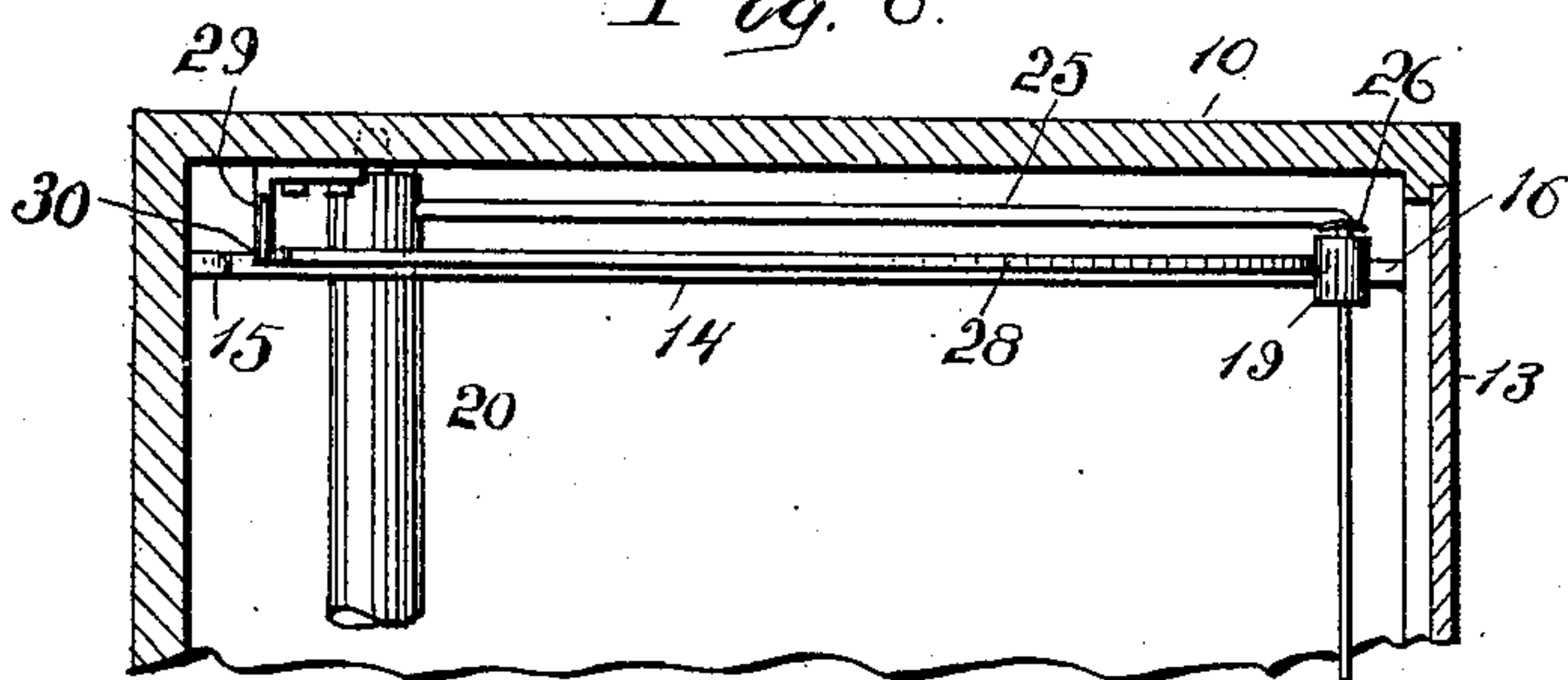


Fig. 8.

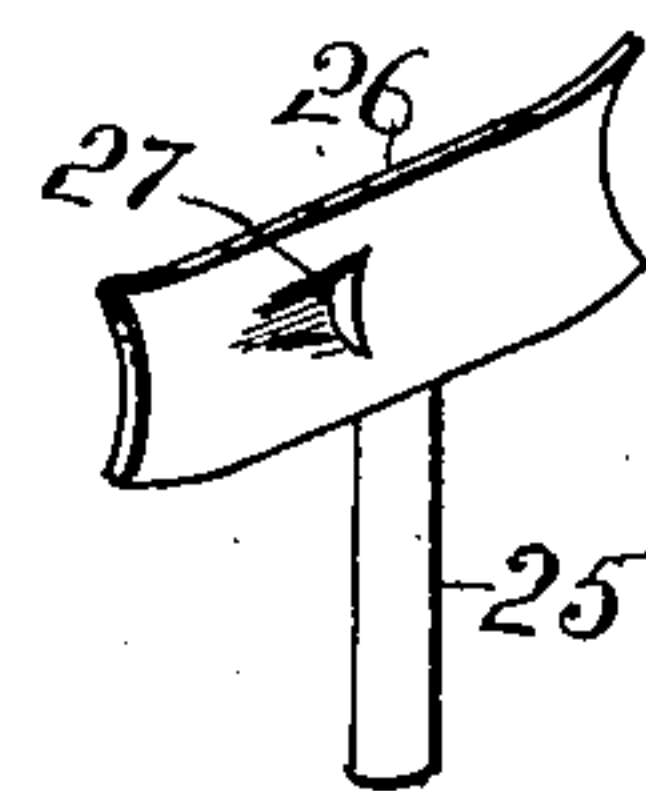


Fig. 9.

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UNITED STATES PATENT OFFICE.

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TRANSPOSABLE OR CHANGEABLE SIGN.

SPECIFICATION forming part of Letters Patent No. 685,251, dated October 29, 1901.

Application filed February 8, 1901. Serial No. 46,574. (No model.)

To all whom it may concern:

Be it known that I, LEO BUCKSTEIN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Transposable or Changeable Signs, of which the following is a specification.

The object of this invention is to provide an automatically-operated transposing or changeable sign so arranged that a plurality of signs may be constantly exposed at predetermined intervals in successive order; and it consists of a box, frame, or receptacle having in its front face a glass plate and provided within with a series of signs or transparent or translucent screens upon which advertising matter is placed, and these are so arranged on inclined guideways that when one of the screens is taken from the train at the lower end of the guideways the other screens will move down, so as to bring another screen in position. These screens are successively elevated by means of swinging arms, electrically operated, and, after being exposed a suitable length of time between the electric light within the box and the glass front, are automatically dropped as the next screen approaches, as will now be set forth in detail.

In the accompanying drawings, Figure 1 is a front view of my advertising-sign with the front wall partially cut away at the ends. Fig. 2 is a top view of the same; Fig. 3, a vertical cross-section of the casing along line *x* of Fig. 2, showing curved guard upon which the screens are elevated; Fig. 4, a cross-section of same, showing one screen in position and the elevating-arms raising the next screen; Fig. 5, a view showing one screen in position and the arms swung downward in position to grasp the next screen; Fig. 6, a cross-section with end of case removed, showing relative arrangement of the parts; Fig. 7, a longitudinal section of one end of the casing, showing electrical means for elevating the screens; Fig. 8, a horizontal section looking down on the casing on line *y*; Fig. 9, a perspective view of the finger for grasping the end of the screen.

In constructing my invention I provide a box or casing 10 of suitable size in length and

cross-section for the particular signs to be displayed, in the front side of which is an opening 11, closed by means of a plain glass 12, this opening being preferably in the upper half of the casing. In the rear wall of the casing is a door 13, which when opened permits access to the interior. Near each end of this casing or box and midway between the top and bottom is a horizontally-disposed bar 14, the rear end thereof being lower than the front end, and on the upper side at each end of this bar is an inclined stop, as shown at 15 16.

The screens 17, on which the advertising matter is placed, are composed of any transparent or translucent material, preferably flexible, so as to make them as light as possible, and the upper end of each screen is secured to a longitudinal rod or heavy wire 18, the wire at each end projecting beyond the screen and having thereon a roller 19. These rollers are so located that when the screens are in position they rest or roll on the inclined bars 14, so that the last one in the series will always rest against the incline 16 at the rear side of the box. In order to elevate these screens, I provide a cross-shaft 20, which is journaled in the ends of the box at a point directly above the bars 14 and back a short distance from the front wall. At one end is an arm 21, projecting therefrom, to the outer end of which is hinged a link 22, which connects with the armature 23 of a solenoid 24, attached to the front wall of the box. This solenoid is operated in the usual way by an electric current and need not be detailed herein. At each end of the shaft 20 is an arm 25, made of material, such as wire, to provide a slight spring to the end of the arm. The end of each arm has attached thereto a finger 26. (Shown more fully in Fig. 9.) This finger is a blade of metal secured at right angles to the arm 25, the blade being slightly curved from end to end and concaved on the side that faces the roller 19. Midway between the ends of the blade 26 is a depression or detent 27, which is adapted to receive the projecting end of the wire 18 of the screen 17 when the arms 25 are swung down. A circular guideway 28 at each end of the casing, secured at its upper end by means of right-angled bends 29 to the casing, extends down to a point near

the bar 14 and serves as a guideway up which the rollers 19 travel when carrying up a screen. The upper end of each curved guideway on its top side has a notch 30, in which the roller 19 temporarily rests after being elevated.

It will be observed that the upper end of the curved guideway 28 terminates a short distance from the front wall of the box. The object is to provide sufficient space between the end of the curved guideway and the wall to permit the roller 19 to pass down. Thus in Fig. 6 the dotted lines at 31 show a roller carrying a screen forced off the guideway by the last screen which was deposited in the notch 30 by the operation of the arms 25 and fingers 26. When the arms 25 are in a vertical position and are about to return to the horizontal position, it is necessary to provide a release for the fingers 26 from the rollers 19 or the wires which project therefrom. This is accomplished by a spring 32, secured to the top of the box and having a right-angled bend 33, which rests directly behind the roller 19 when it rests in the notch or detent 30. When, therefore, the arms 25 swing down, the spring-stop prevents the screen just elevated from rolling down the curved guideway, and when the next screen is elevated into position the former one is pushed off its seat and drops down to the bars 14, striking the abrupt inclines 15, thus forcing the entire series of screens which hang on these bars to move rearwardly.

In the rear side of the box I place a suitable number of electric lights, as shown at 35, so that as the translucent or transparent signs or screens 17 appear singly before the glass front 12 the light will illuminate the advertisement thereon, and thus make the same attractive, while at the same time the whole structure can be cheaply made and new screens substituted without interfering with the operation of the apparatus.

Suitable weights, as at 34, may be placed either on the arms 25 or on the shaft 20, so as to regulate the operation of the device.

What I claim as new is—

1. An automatically-transposable sign apparatus, comprising a suitable box, with a transparent front, a plurality of translucent or transparent screens within said box, each

having a roller at each end and a journal projecting therefrom, a pair of arms secured to a rock-shaft, each of said arms having a notched finger adapted to engage with the projecting journal of the rear screen in the train, a curved guideway on which said rollers travel in their upward course, a depression at the upper end of each guideway to receive the rollers, a spring-stop for arresting the return of the screen, and means for rocking the shaft, as set forth.

2. An automatically-transposable sign apparatus, comprising a suitable box, provided with a transparent front, a plurality of transparent or translucent screens mounted on transverse bars in the lower part of said box, provided with a roller at each end and a journal projecting beyond the end of each roller, a longitudinal rock-shaft within the box, having arms and fingers on said arms to engage with the journals which project beyond the rollers, a curved guideway at each end to receive the rollers, a depression at the upper terminal of each guideway, a spring-stop to prevent the return of the screen, said guideways terminating at such a distance from the front wall of the box as to permit the rollers to pass down, as set forth.

3. An automatically-transposable sign apparatus, comprising a suitable box with a transparent front, and an opening in the rear wall, in combination with a plurality of screens mounted on rollers at each end which travel down inclined bars, the journal-bearings of said rollers projecting beyond the rollers, a longitudinally-disposed rock-shaft having projecting arms with fingers thereon, adapted to engage with projecting journal-bearings, and means for elevating the same, curved guideways engaging with the rollers as they move upwardly, a depression at the upper end of each terminal on the guideway, a stop for arresting the return of said screens, and lights behind said screens, as set forth.

Signed at New York, in the county of New York and State of New York, this 21st day of January, A. D. 1901.

LEO BUCKSTEIN.

Witnesses:

C. F. DELANY,
A. J. ZERBE.