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PATENTED OCT. 27, 1903.

J. S. LEWIS, D. F. GROW & L. WOLF.

SHOW CASE.

APPLICATION FILED JUNE 23, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

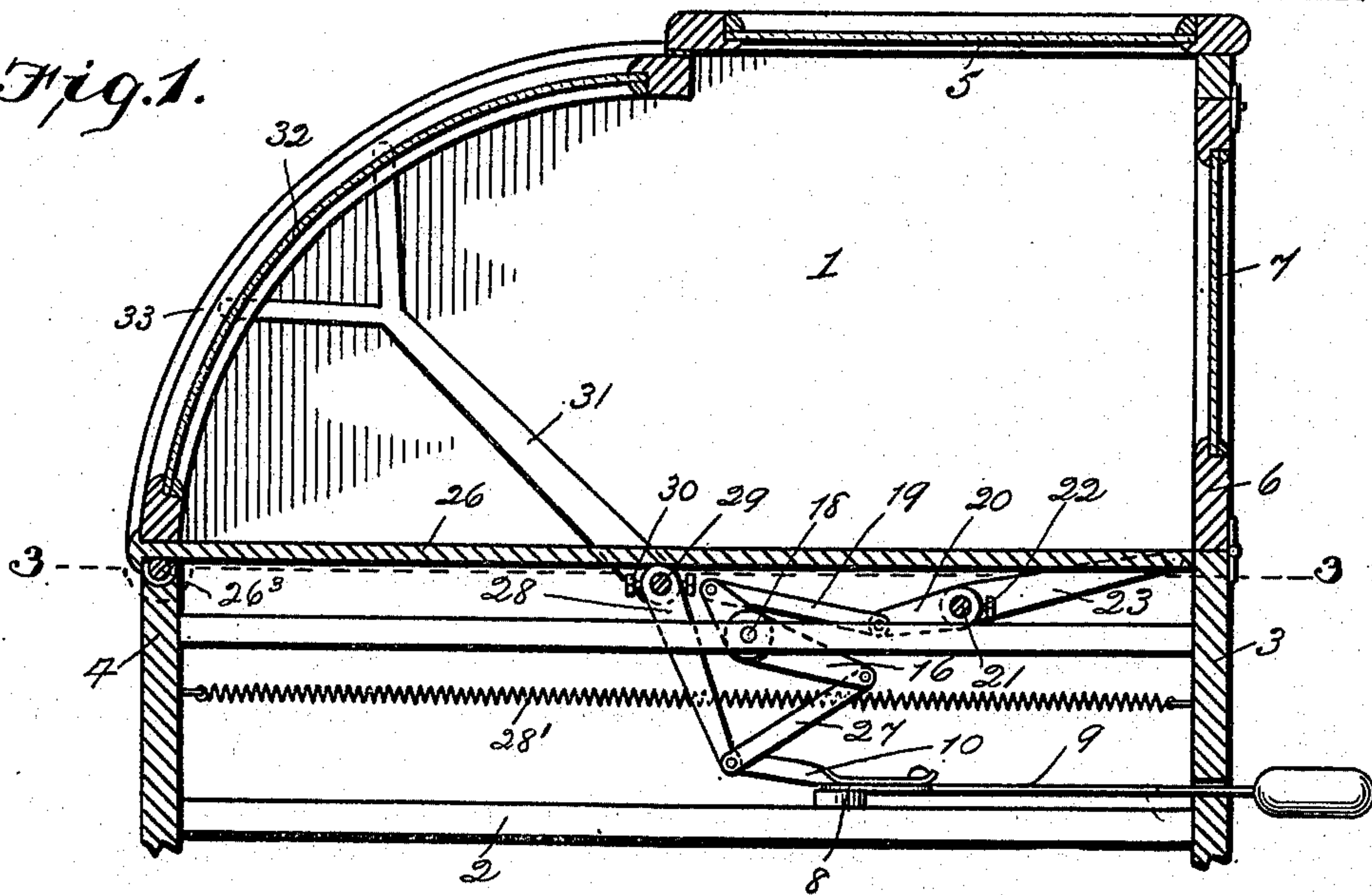


Fig. 2.

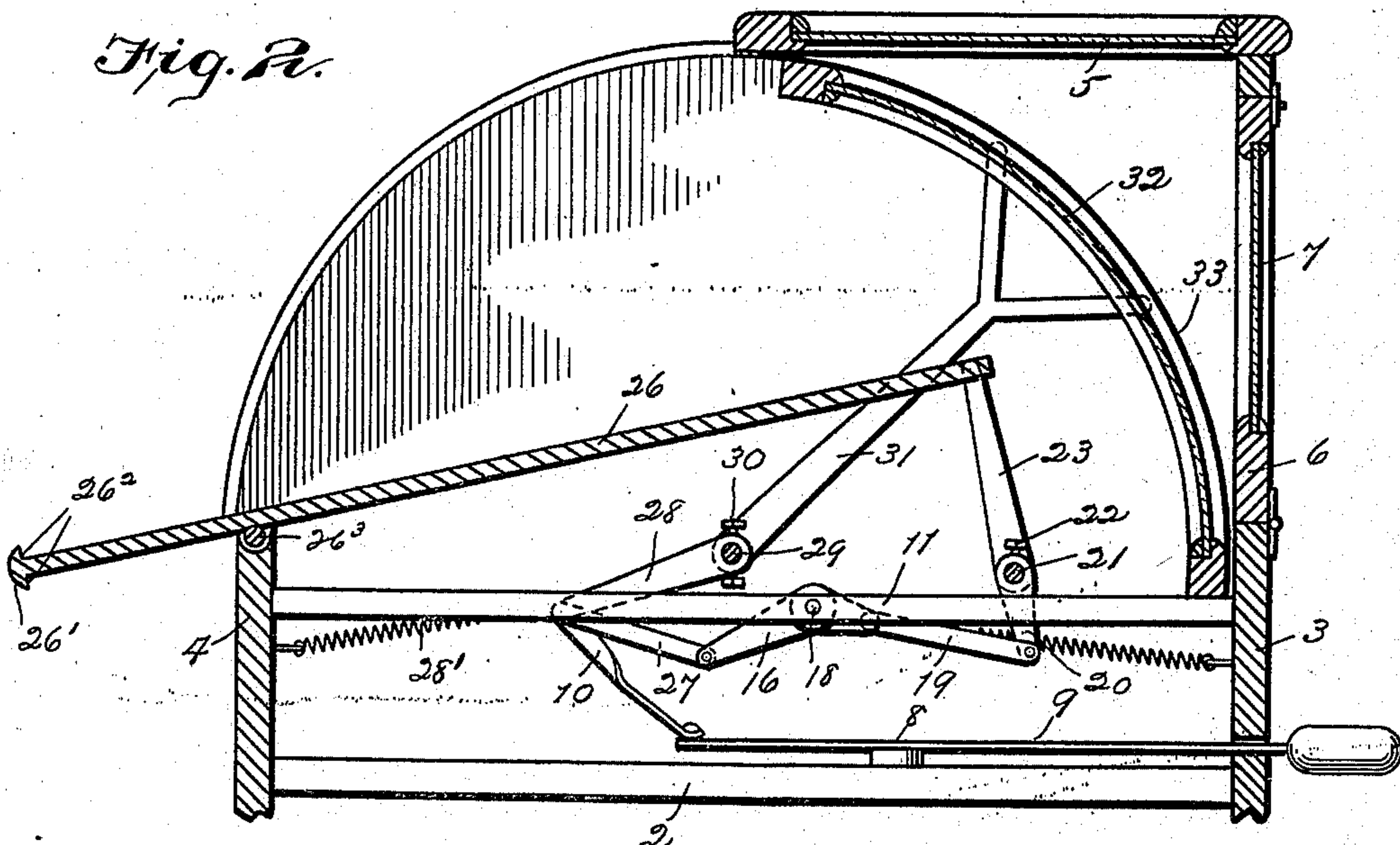
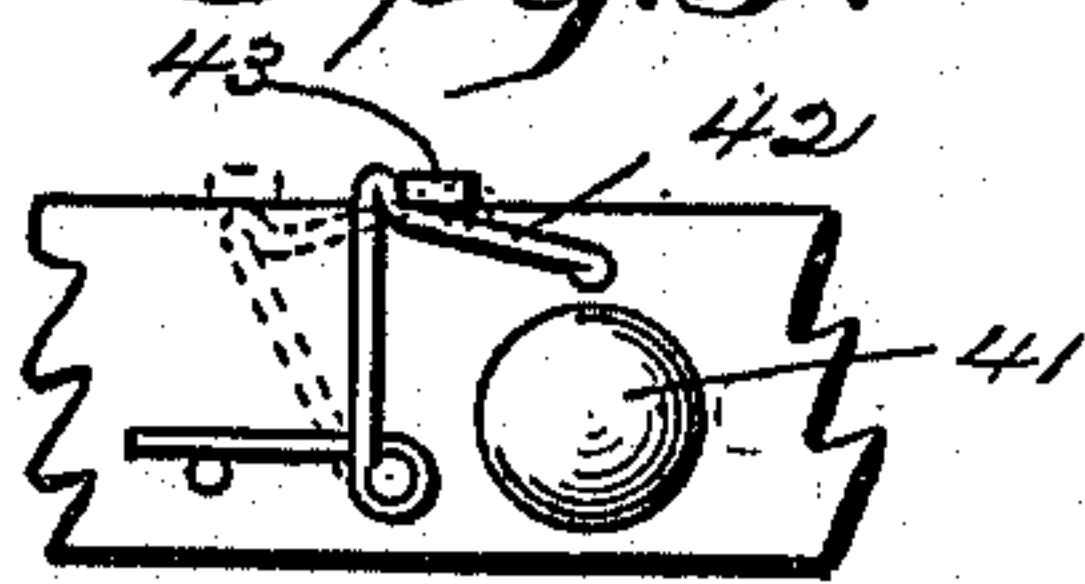


Fig. 3.



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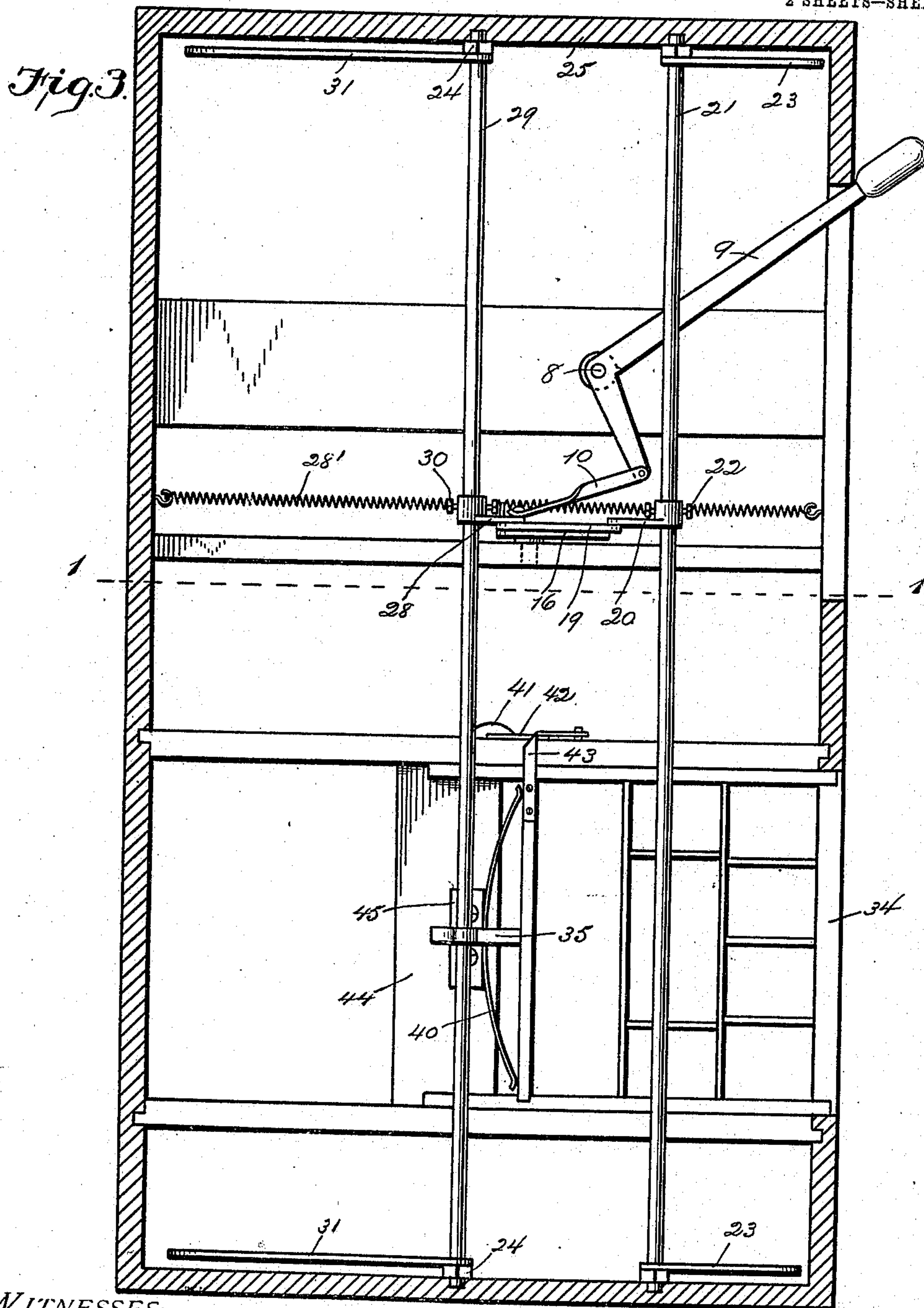
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2 SHEETS—SHEET 2.



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Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN S. LEWIS, DANIEL F. GROW, AND LUDWIG WOLF, OF WABASH,
INDIANA.

SHOW-CASE.

SPECIFICATION forming part of Letters Patent No. 742,459, dated October 27, 1903.

Application filed June 23, 1903. Serial No. 162,789. (No model.)

To all whom it may concern:

Be it known that we, JOHN S. LEWIS, DANIEL F. GROW, and LUDWIG WOLF, citizens of the United States, residing at Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Show-Cases; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to store-furniture, but more particularly to that class commonly known as "show-cases."

The object of our invention is to provide an apparatus of the said class which is an improvement on our Patent No. 704,056, dated July 8, 1902; and our invention particularly consists in simplifying the construction set forth in said patent, while the object in view, operation, and result obtained remain practically the same.

Our invention specifically consists in the operating mechanism of our show-case, in combination with the case.

Referring to the accompanying drawings, Figure 1 is a vertical cross-section taken on the line 1 1 of Fig. 3, showing case in closed position. Fig. 2 is a like view showing case in open position. Fig. 3 is a horizontal section taken on line 3 3 of Fig. 1. Fig. 4 is a detail view of drawer-tripping device. Fig. 5 is a detail of gong on drawer.

Like numerals of reference indicate the same parts throughout the several figures, in which—

1 is the show-case, having the solid bottom 2, back 3, front 4, and paneled glass top 5. In the back 3 is a door or series of doors 6, having therein a mirror 7. Pivoted to the bottom 2 at 8 is the operating-rod 9, shaped substantially like a bell-crank, and pivotally connected to said operating-rod is a link 10, which is pivoted to the crank 23, and pivoted to the said crank 23 at the same point is a link 27, which is pivoted at its rear end to a lever 16, fulcrumed at 18 to the support 11. Connected to said lever 16 is a link 19, piv-

oted at its other end to a crank 20, which is secured to the rod 21 by a set-screw 22. At both ends of said rod 21 are cranks 23, which are secured thereon by swaging the ends of said rods square and forming square openings in said cranks 23. A nut 24 is then tapped on the ends of said rod, and the extreme ends enter the sides 25 of the case to form a journal for the said rod. (See Fig. 3.) The ends of said cranks 23 are pivoted to the movable bottom 26. Pivoted to the lower arm-lever 16 is a link 27, which is connected to the crank 28, which crank is secured on the rod 29 by means of two set-screws 30. At both ends of said rod 29 are rocker-arms 31, having bifurcated ends which are attached to and support the movable curved front 32. Said rockers are secured to the rod 29 in the same manner that the cranks 23 are secured to the rod 21 or by any other simple and efficient means.

33 indicates a wood cap covering space between edges of movable front and case, so as to make a tight joint and exclude the air as far as possible.

It will be noticed we provide the forward edge 26' of the movable bottom 26 substantially semicircular, forming two flanges 26", which cover snugly the space between the front 4 and movable glass front 32, Fig. 1.

34 indicates a cash-drawer which is secured below the movable bottom and carries a spring-hook 35, secured to the back of said drawer. A pin 39 is carried on rod 29, Fig. 4, and secured behind said drawer is a spring 40, normally exerting a pressure upon said drawer and tending to push the same open. A gong 41 is secured in close proximity to said drawer, which is sounded by a spring-clapper 42, which is engaged by a lug 43, having a beveled end secured to the side of the drawer, said lug acting also as a stop to prevent the drawer from passing out.

44 indicates a board fastened under drawer-guides, which carries the block 45, to which the spring 40 is secured.

Having thus set forth our invention, its operation is as follows: The goods are displayed on the movable bottom in a manner similar to any ordinary show-case. When it is desired to allow a purchaser to inspect the

goods or to select therefrom, the operating-rod is grasped by the salesman and moved toward his left. This movement of said rod pushes the link 10 forward and raises crank 28, which revolves rod 29, the pin 39 thereon, Fig. 4, engaging the spring-hook 35 and raising the same out of engagement with the rod 29, thereby releasing said hook and allowing the spring 40 to force the drawer out, which motion of the drawer rings the gong by reason of the lug 43 tripping the spring-clapper 42. The forward movement of the link 10 acting on crank 28 carries it into position shown in Fig. 2. This movement of said crank acts on lever 16 by means of link 27 and moves link 19, which acts on crank 20 to revolve the rod 21, which carries and raises the crank 23, thereby raising the inner edge of the movable bottom and causing said bottom to be extended, as shown in Fig. 2. We provide friction-rollers 26¹ under said movable bottom in order to facilitate its movement. At the same time the link 19 is pushed back by lever 16 and the crank 28 is raised to revolve the rod 29, which rocks the rockers 31 and swings the movable frame back into position shown in Fig. 2. The movement of the operating-rod in the opposite direction reverses the operation just described and closes the case and lowers and draws in the bottom. It will be noticed that we have devised a simple means of balancing the movable front, which in a large case is of considerable weight. In order to accomplish this, we secure the spiral spring 28¹ to the front 4 and back 3 and connect the same to the crank 23. This arrangement tends to assist the raising and lowering of the front and guards against a too sudden or violent opening or closing of the front.

The simplicity of our operating mechanism is apparent, particularly so when seen in connection with our former patent, No. 704,056. It is also evident that the cranks 20 and 28 may be adjusted on the rods 21 and 29 to a nicety or in order to regulate the lift and extension of the bottom, as well as to regulate the swing of the front. It is also apparent that in our improvement we utilize no cogs, pinions, racks, segments, or any intricate and

expensive parts and castings, while we reduce the cost of manufacture to a great degree and provide an operating device which is about half the weight of our former device, while at the same time more durable and efficient.

We do not wish to be understood as limiting ourselves to the exact construction herein set forth, as various slight changes may be made therein by those skilled in the art, and we consider ourselves clearly entitled to all such changes and modifications.

What we claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a show-case, the combination of a movable front, a movable bottom, and an operating-rod, a lever adapted to be moved by said operating-rod, connections between one end of said lever and the movable bottom, and connections between the other end of said lever and the movable front.

2. In a show-case, the combination of a movable front, a movable bottom and an operating-rod, means for extending and tilting said bottom and raising said front, and means for adjusting the extension and tilting of said bottom.

3. In a show-case, the combination of a movable front, a movable bottom, and means for moving said movable front and movable bottom, means formed on the forward edge of said movable bottom for covering the opening through which said movable bottom extends, substantially as described.

4. In a show-case, the combination of a movable front, a movable bottom, rockers adapted to move and support said front, a crank adapted to move said rockers, a lever adapted to move said crank, a crank adapted to extend and tilt said bottom, means for connecting said crank to said lever, and means for operating said lever.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN S. LEWIS.
DAN. F. GROW.
LUDWIG WOLF.

Witnesses:

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