

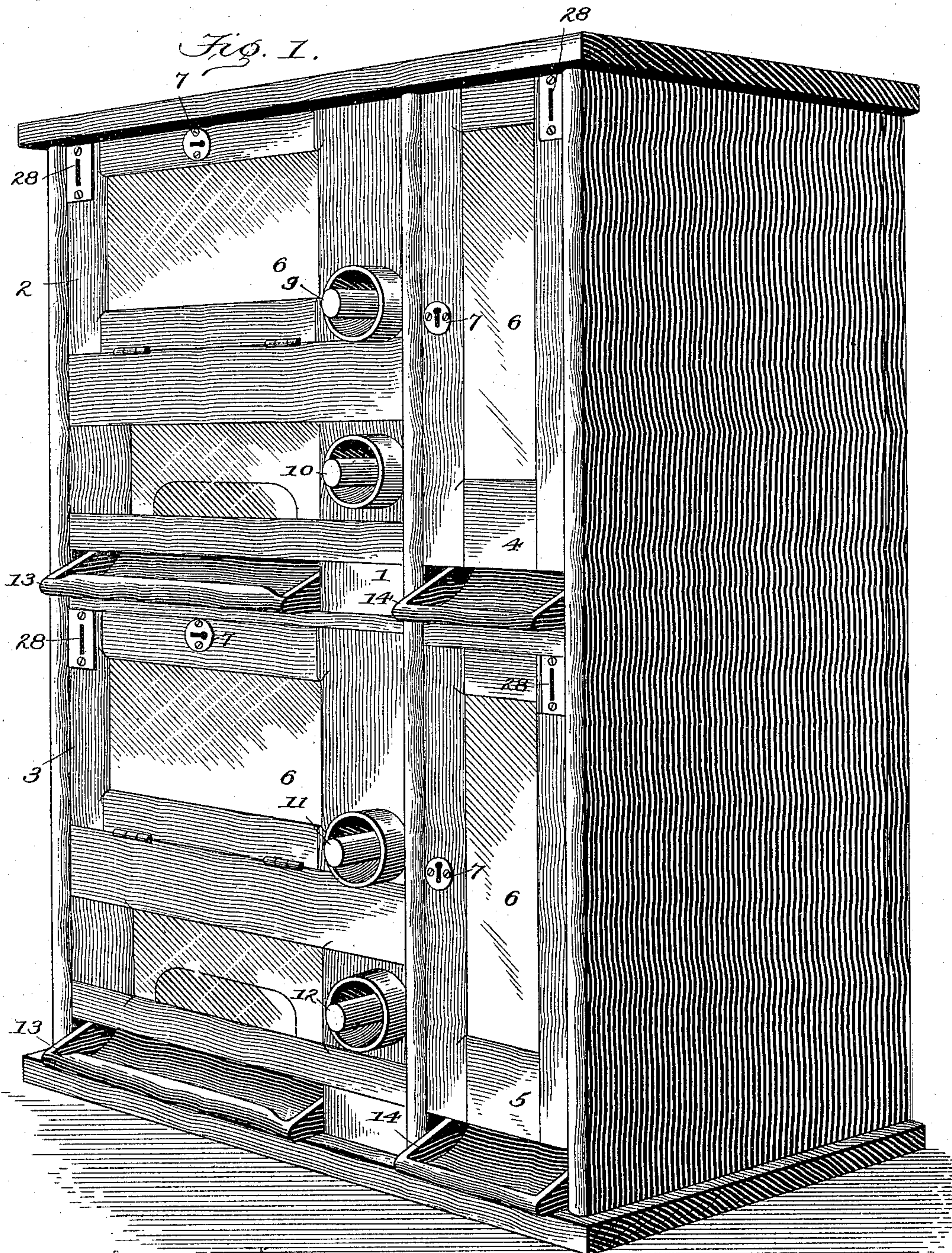
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7 Sheets—Sheet 1.

E. GLEASON.
AUTOMATIC VENDING MACHINE.

No. 598,288.

Patented Feb. 1, 1898.



WITNESSES:

INVENTOR

Edwin L. Bradford
L. A. M. Pherson, Jr.

Edgar Gleason
BY
R. M. Kacer
ATTORNEYS.

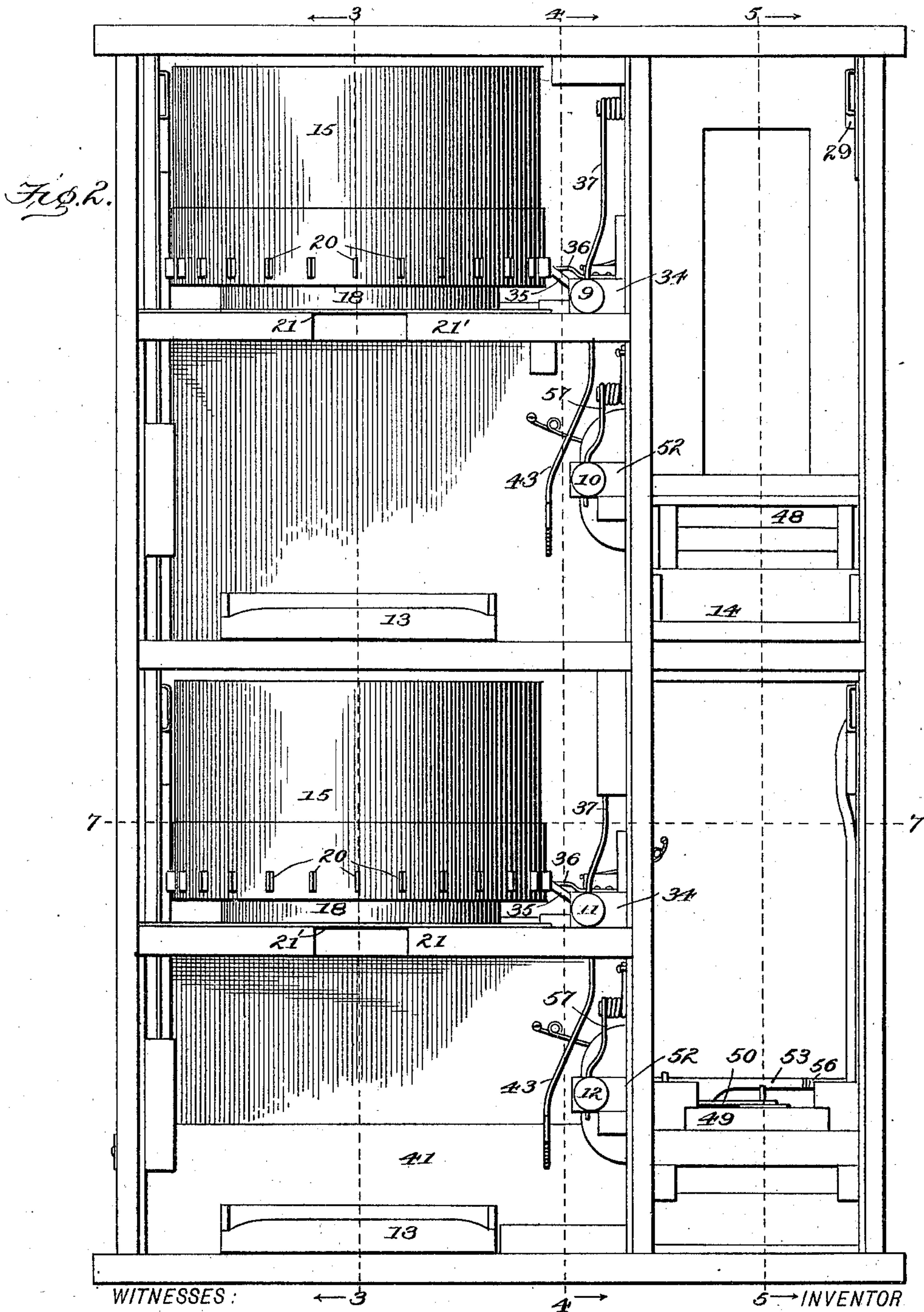
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Edwin L. Bradford
R. M. Pherson, Jr.

Edgar Gleason
BY
R. A. Racy
ATTORNEYS.

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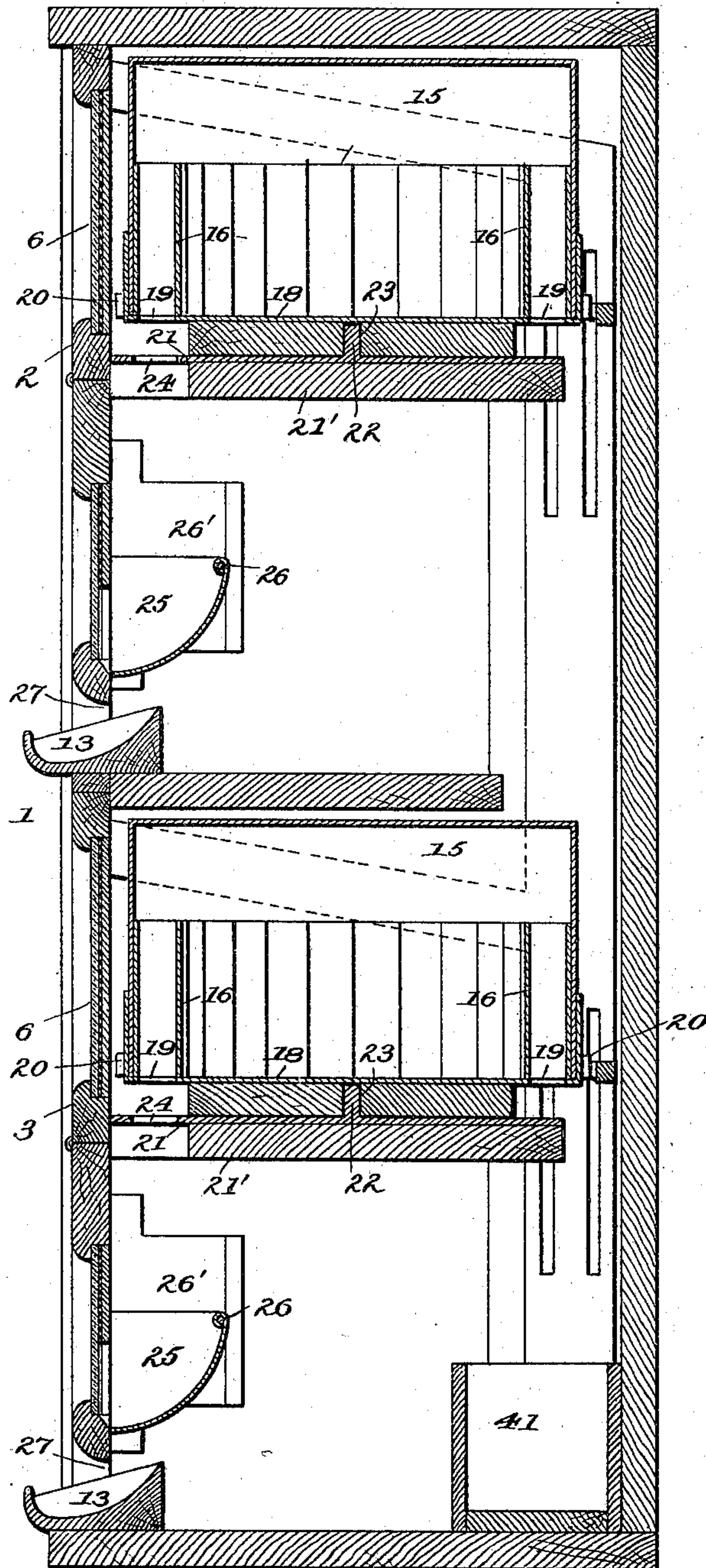
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Fig. 3.



WITNESSES:

Edwin L. Bradford

R. A. Pherson Jr.

INVENTOR

Edgar Gleason

BY
R. A. Racy
ATTORNEYS

(No Model.)

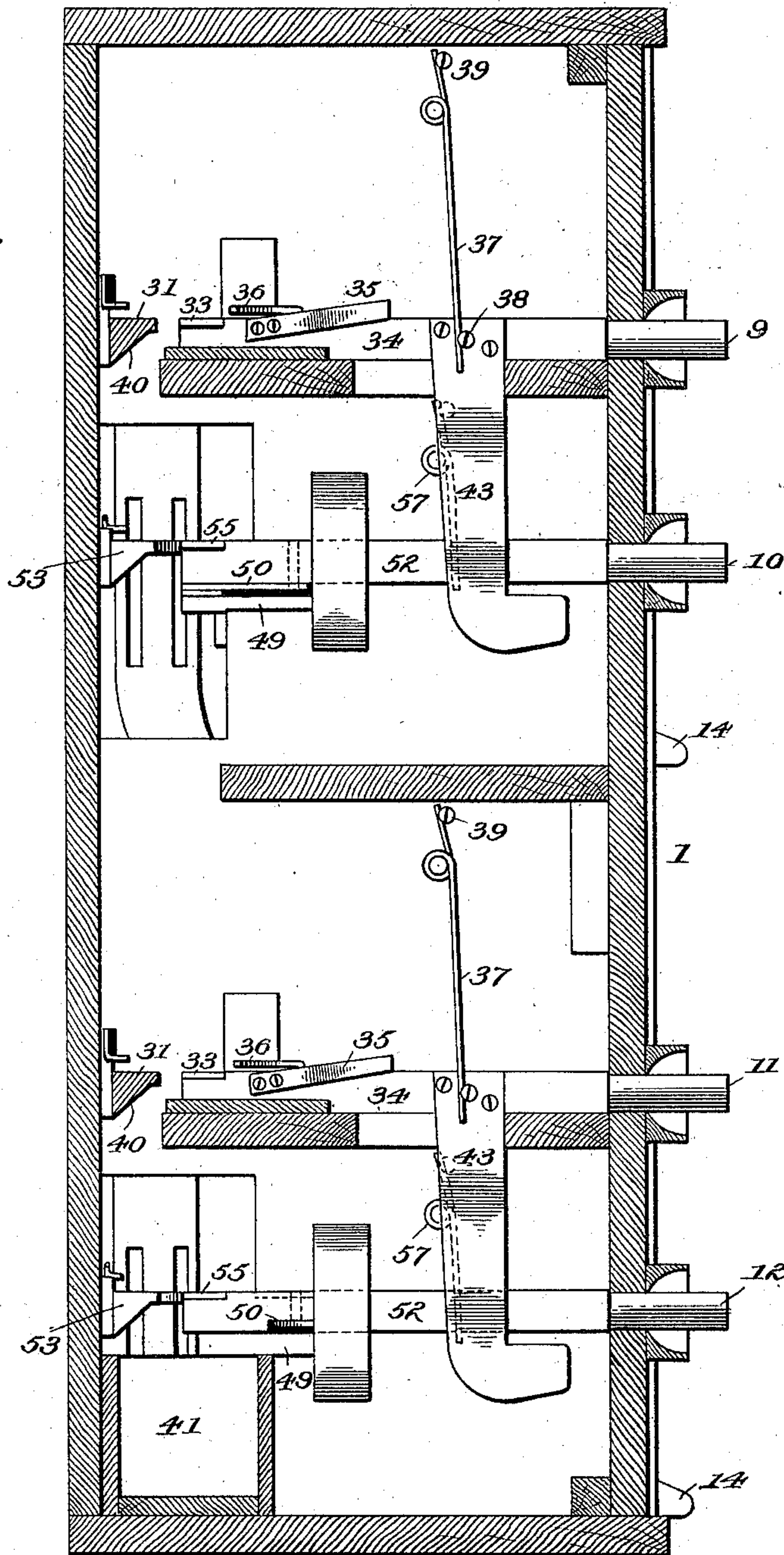
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Fig. 4.



WITNESSES:

Edwin L. Bradford
R. M. Pherson Jr.

INVENTOR

Edgar Gleason
BY
R. M. Pherson Jr.
ATTORNEYS

(No Model.)

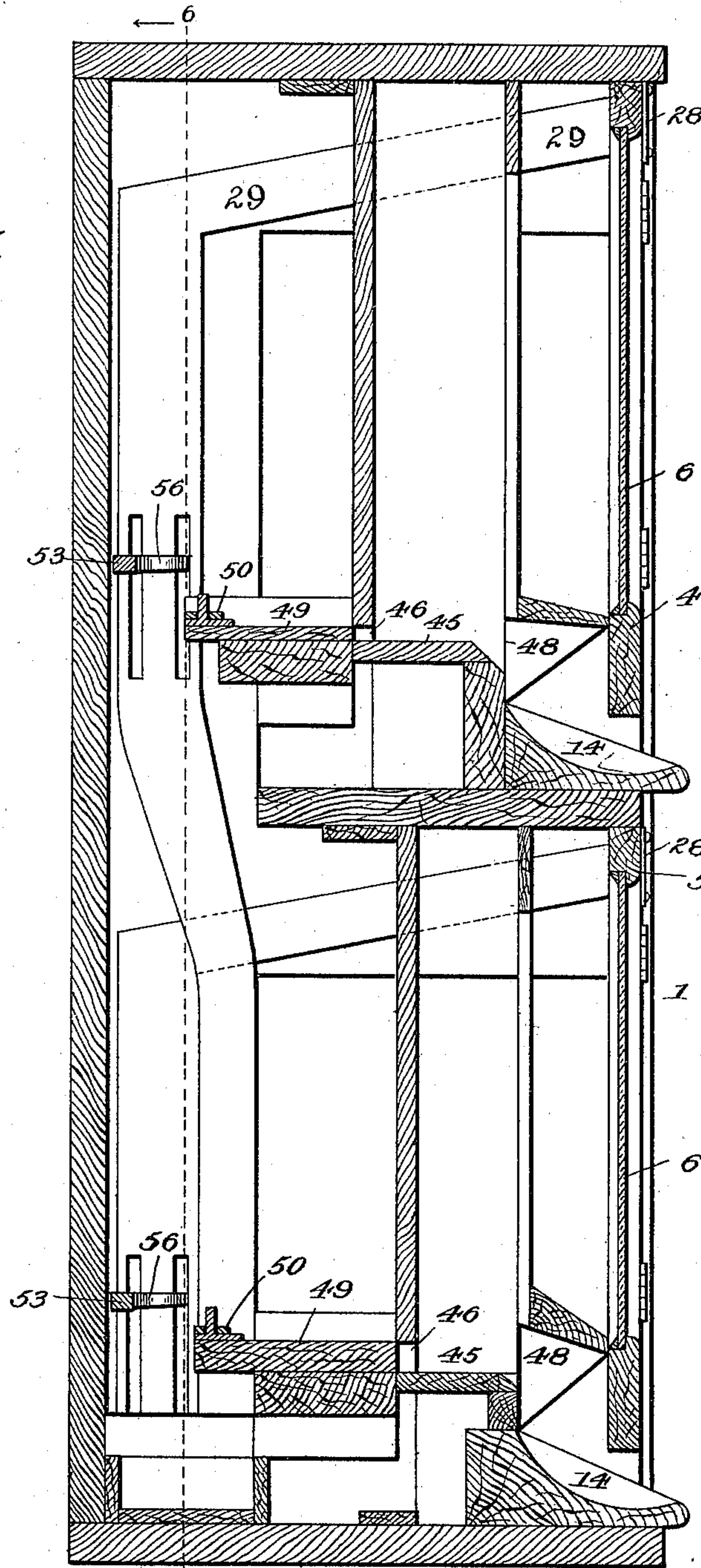
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Fig. 5.



WITNESSES: ← 6

INVENTOR

Edwin L. Bradford
R. M. Pherson Jr.

Edgar Gleason
BY
R. M. Pherson Jr.
ATTORNEYS.

(No Model.)

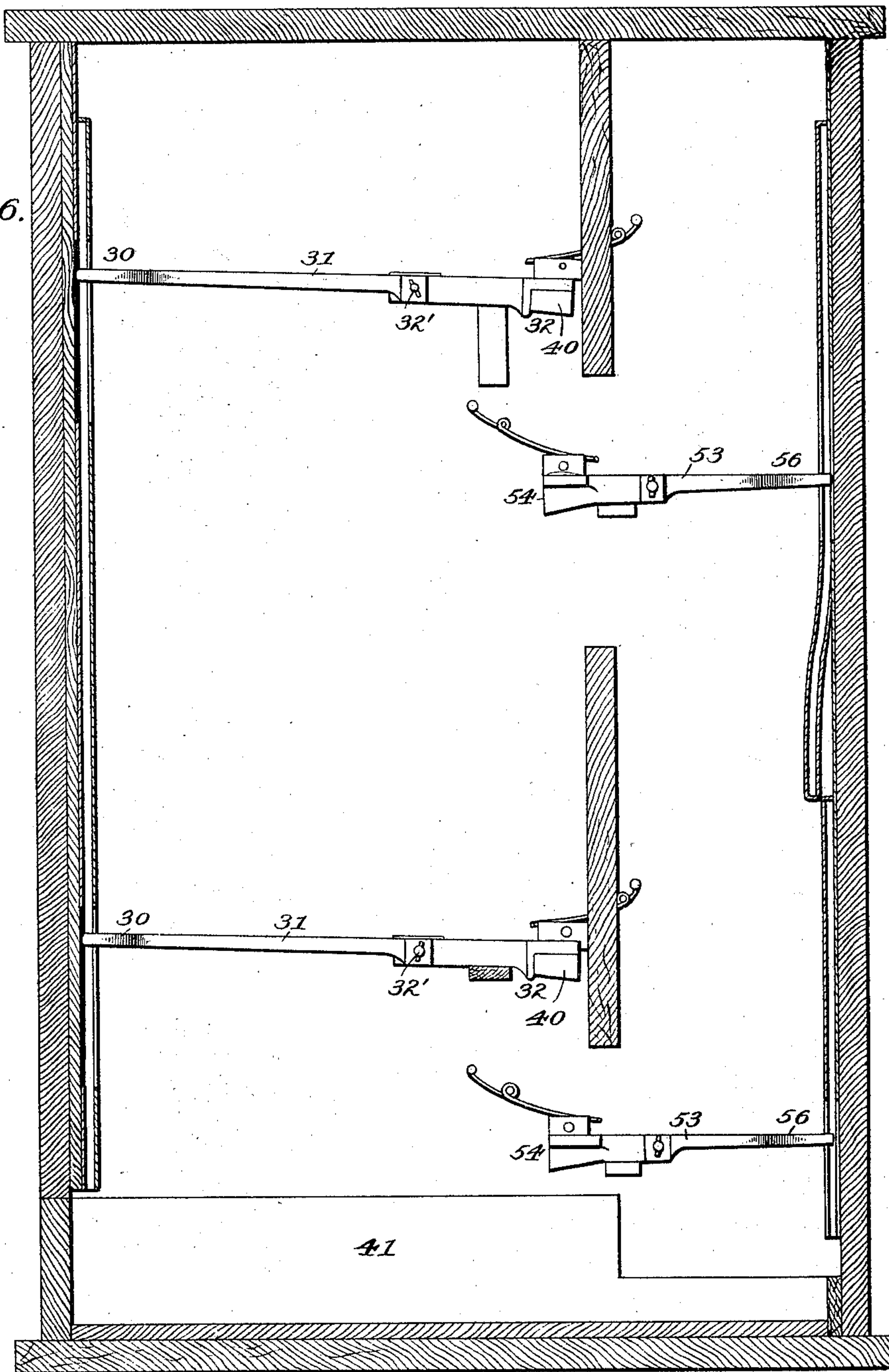
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Fig. 6.



WITNESSES:

INVENTOR

Edwin L. Bradford

Edgar Gleason

R. M. Pherson Jr.

R. M. Racy

ATTORNEYS.

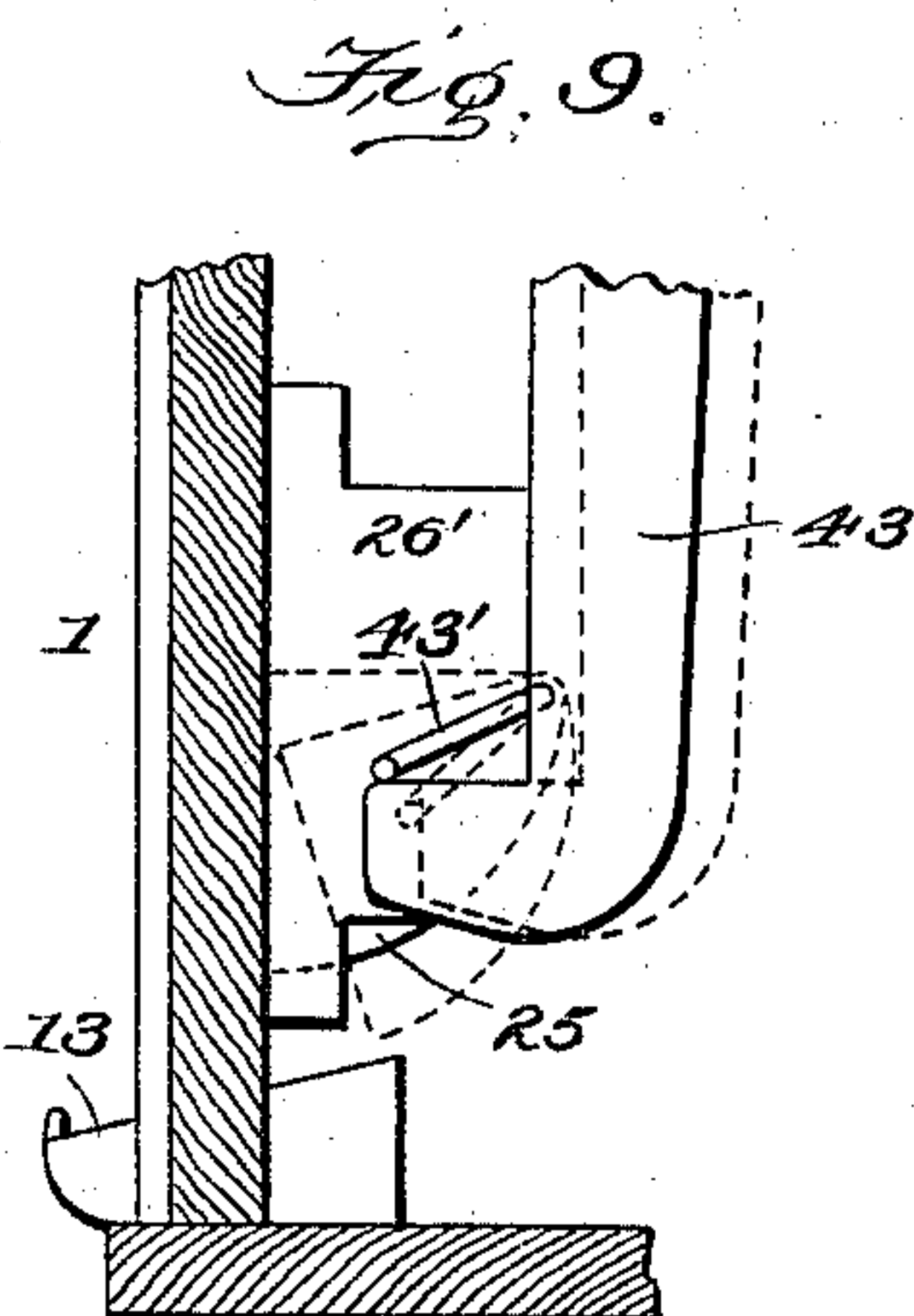
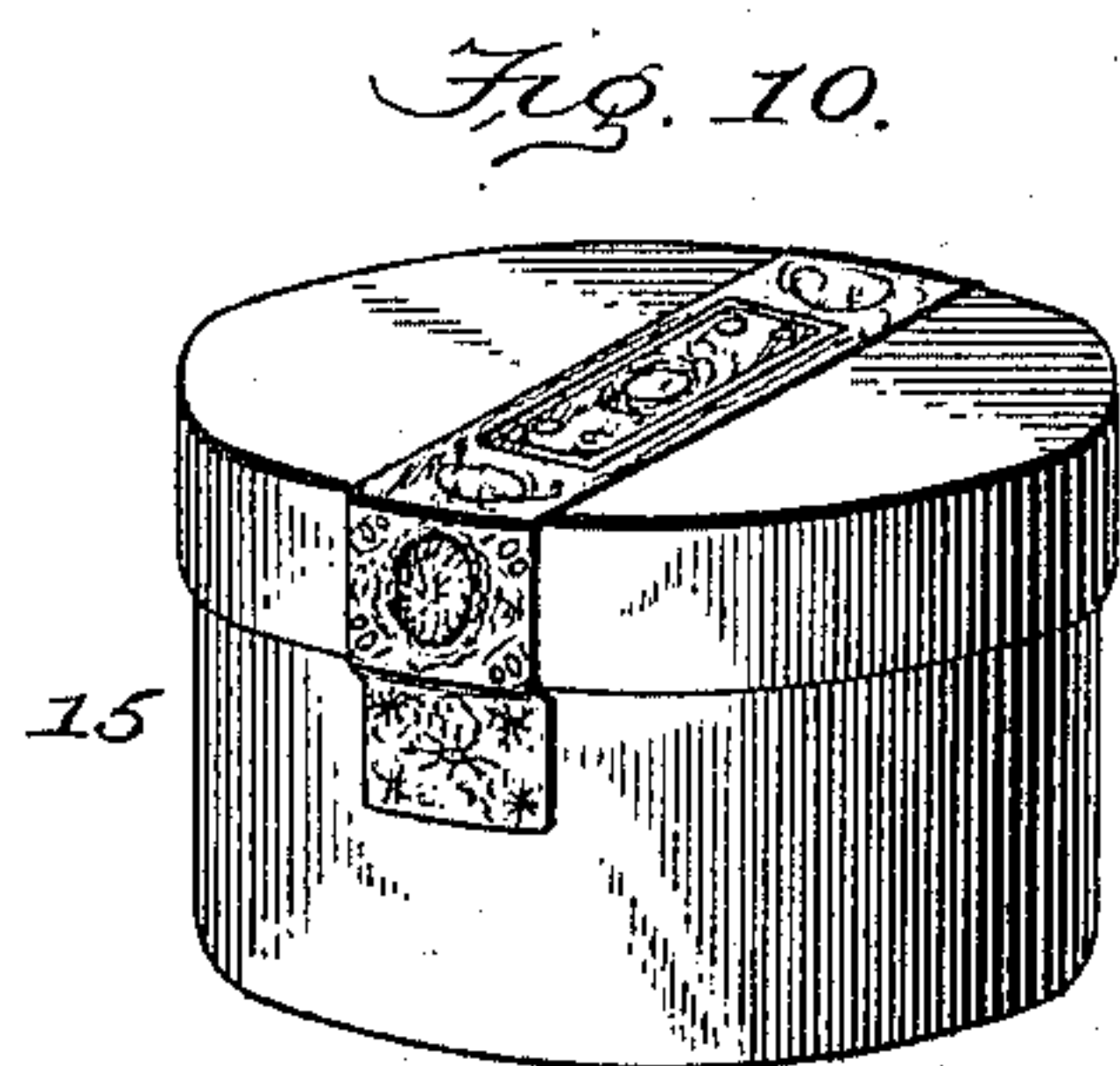
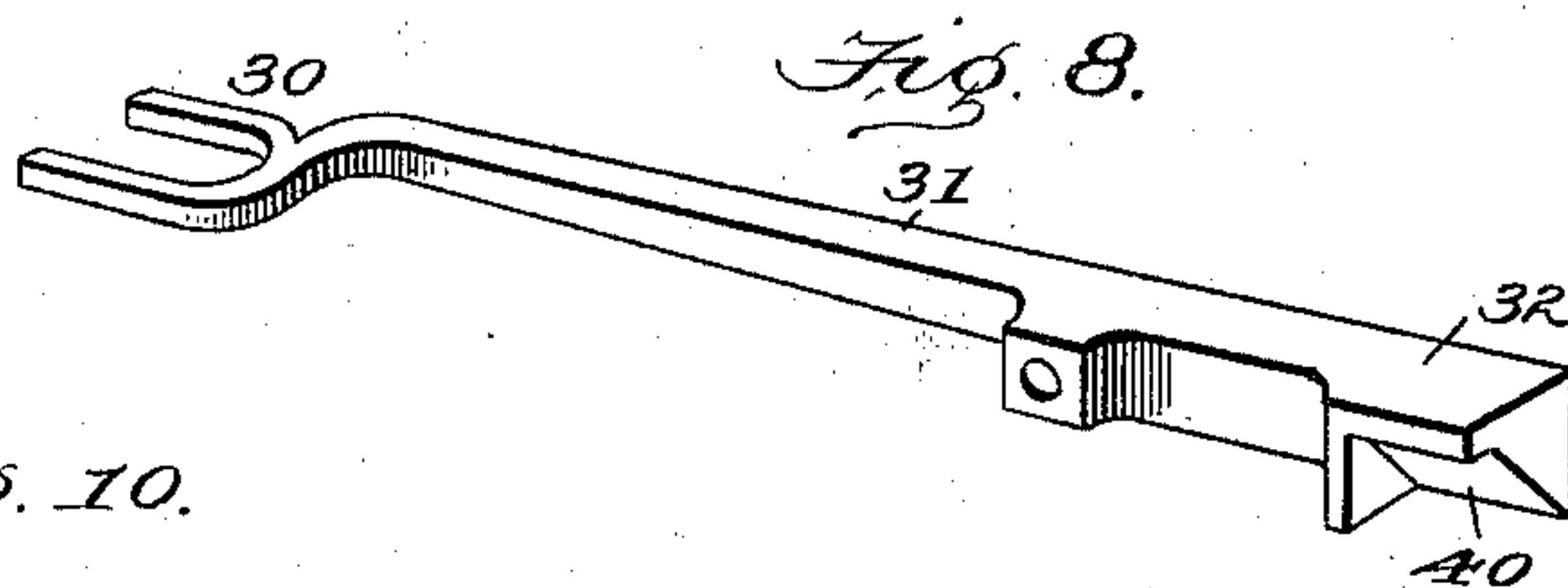
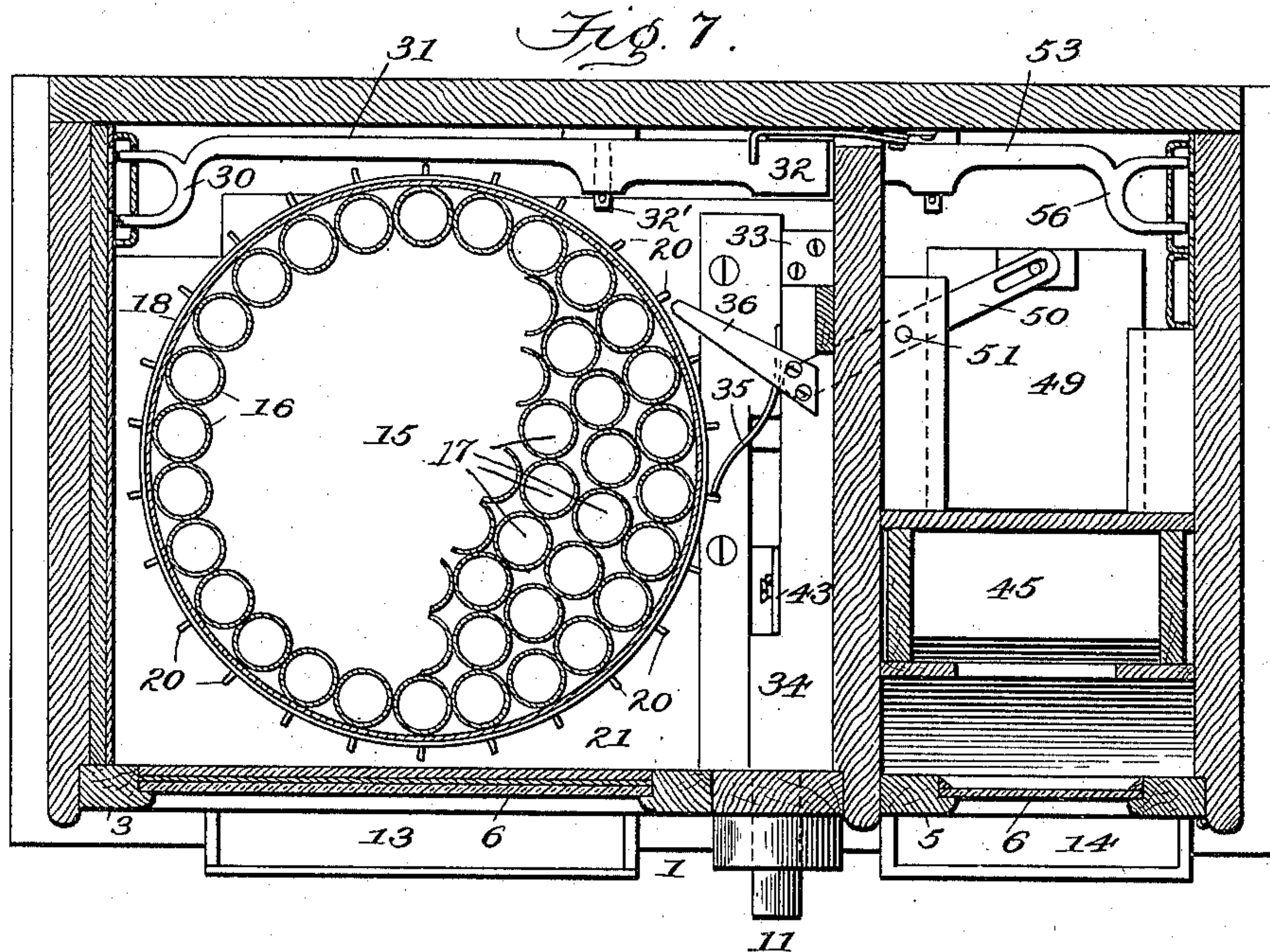
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Patented Feb. 1, 1898.



WITNESSES:

Edwin L. Bradford

R. A. McPherson

INVENTOR

Edgar Gleason

BY

R. A. McPherson
ATTORNEYS.

UNITED STATES PATENT OFFICE.

EDGAR GLEASON, OF ONALASKA, WISCONSIN.

AUTOMATIC VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 598,288, dated February 1, 1898.

Application filed April 3, 1897. Serial No. 630,575. (No model.)

To all whom it may concern:

Be it known that I, EDGAR GLEASON, a citizen of the United States, residing at Onalaska, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Automatic Vending-Machines; and I do hereby 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.

My invention has relation to automatic vending-machines; and the object is to provide a simple and reliable device for this purpose; and to this end the novelty consists in the construction, combination, and arrangement of the several parts of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a perspective view of my improved automatic vending-machine. Fig. 2 is a front elevation with the front removed. Fig. 3 is a transverse section on the line 3 3 of Fig. 2. Fig. 4 is a transverse section on the line 4 4 of Fig. 2. Fig. 5 is a longitudinal section on the line 5 5 of Fig. 3. Fig. 6 is a longitudinal section on the line 6 6 of Fig. 5. Fig. 7 is a horizontal section on the line 7 7 of Fig. 2. Fig. 8 is a detail perspective view of the coin-controlled locking-lever. Fig. 9 is a detail view of the pivoted shelf, showing the same in dotted lines as it appears when open to discharge its contents. Fig. 10 is a perspective view of the cylindrical cigar-case as it appears when filled and stamped at the factory.

1 represents the front of the case, provided with the horizontally-hinged doors 2 and 3, by which access is had to the cigar-vending compartments, and 4 and 5 represent the vertically-hinged doors of the tobacco and cigarette vending compartments. All of these are provided with glass panels 6 and locks 7.

9, 10, 11, and 12 represent the projecting ends of the plungers, there being one for each compartment.

13 13 represent the curved troughs, one for

each of the cigar-compartments, to receive the cigar after it has been discharged from the compartment.

14 14 represent the corresponding troughs for receiving the goods from the tobacco and cigarette compartments.

The construction and operation of each of the cigar-compartments is exactly the same, except that the upper one is limited to ten-cent cigars, and consequently will be operated by a silver dime, while the lower one is intended for five-cent cigars and requires the insertion of a nickel to release the cigar. The details of each compartment being the same the description of one will answer for both.

15 represents a vertical cylindrical case provided on its periphery with twenty-six cylindrical tubes 16, the size of which approximates the diameter and length of a cigar, and the space inside of these tubes 16 contain seventy-four similar tubes 17, making one hundred in all contained in the case 15. This cylindrical cigar-case is provided with the usual removable cover, and it is filled and stamped at the factory to legally comply in every particular with the United States internal revenue laws.

18 represents the horizontal bottom on which the case 15 rests, and it is provided with twenty-six orifices 19, which register with the corresponding series of tubes 16 in the case, and its periphery is provided with twenty-six radial teeth 20, one for each orifice 19.

21 represents a sliding platform resting on the fixed shelf 21, and it forms a support for the revolving bottom 18. A cylindrical stud 22, fixed in said platform, projects into a central orifice 23 in the bottom and forms a pivot or journal, on which it revolves and which permits the orifices 19 in the bottom 18 to be successively brought into alinement with the single vertical orifice 24 in the front edge of the platform, so that the cigar contained in each of the vertical tubes above it will drop through and fall upon a pivoted shelf 25, mounted in journals 26 26, fixed in brackets 26', secured to the front board, and by tilting said pivoted shelf, as will be hereinafter explained, the cigar will fall by gravity through the horizontal slot 27 in front of the

case and be deposited in the trough 13 ready for the customer.

28 represents the coin-orifice plate fixed on the door, and 29 is the coin-chute, extending rearwardly and downwardly, terminating at a point immediately above the money-drawer 41.

The horizontal locking-lever 31, fulcrumed on the stud 32' in the back of the case, is somewhat heavier on its front end 32, so as to overbalance the forked end, and in its normal position its front end 32 projects into the path of the rear end 33 of the rectangular plunger 34, having its cylindrical end projecting through the front of the machine.

35 represents a spring-pawl fixed on the side of the plunger, the outer end of which is adapted to engage the teeth 20 on the bottom 18 and move it one step for every movement of the plunger. 36 represents a rigid arm on the plunger extending into the path of said teeth to prevent the bottom being moved more than one tooth at a time.

37 represents a spring one end of which rests against the stud 38 on the plunger and the other against the fixed lug 39 on the frame to restore the plunger 9 to its normal position.

When the coin is dropped in the slot, it travels down the chute and rests crosswise on the forked end of the lever 31. This throws the front end 32 of the lever up out of the path of the rear end 33 of the plunger 34, and if the plunger be pushed in its rear end will strike the incline 40 on the front of the lever 31 to still further tilt the lever to withdraw the forked end out of the path of the coin in the lower end of the chute and allow the coin to fall by gravity into the drawer 41. When the plunger is released, its spring restores it to its former position and its spring-pawl 35 rotates the bottom disk one tooth, which brings the next successive tube 16 into alignment with the orifice 24 in the platform 21, thus allowing the cigar in said tube to fall through and be deposited on the tilting shelf 25.

43 represents an L-shaped arm fixed to the side of the plunger 34, with its free end in contact with the crank-arm 43', fixed on the tilting shelf 25, and which normally holds the lower end of the shelf against the front of the machine. The cigar falls on this shelf during the return motion of the plunger, and the plunger is then pressed inward a short distance the second time to release the shelf 25 and allow it to tilt.

Referring to the plug-tobacco and cigarette vending compartments, the plug-tobacco is cut into uniform rectangular pieces, and in case of the boxes or packages containing the cigarettes they are laid one on top of the other, the bottom package resting on the shelf 45 and in the same plane as the orifice 46 in the back of the box and the orifice 48 in the front, so that when the plate 49 is pushed forward it forces the plug of tobacco or a box of cigarettes forward through the orifice 48, whence

it falls into the trough. This plate 49 is pivoted at the center of its rear edge to the arm of the lever 50, fulcrumed on a fixed stud 51, and the opposite end of said lever is pivoted to the rear end of the plunger 52, the forward end 12 of which projects through the front of the case.

53 represents the coin-lever, the forward end 54 of which extends into the path of the lug 55 on the plunger 52 to prevent its action; but when a coin falls on the forked end 56 of said coin-lever 53 it raises the end 54, allowing the plunger to be forced inwardly to operate the plate 49 to deliver a plug of tobacco or a package of cigarettes, as the case may be. A spring 57 serves to restore the plunger to its normal position after it has been released.

Although I have specifically described the construction and relative arrangement of my invention, I do not wish to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. A coin-controlled vending-machine comprising a suitable revolving case 15, a series of independent tubes 16, 17 arranged within said case, the horizontal bottom 18 provided with the orifices 19, registering with the tubes 16 in said case, and having a series of radial teeth 20 on its periphery, the platform 21 provided with the orifice 24 the plunger 34, the spring-pawl 35 and rigid arm 36 fixed to said plunger and having their outer ends projecting into the path of the teeth on the bottom 18, in combination with the coin-actuated locking-lever 31 having its end 32 projecting into the path of the rear end of said plunger, and its forked end 30, projecting into the path of the coin and means substantially as described for conducting the coin to the forked end of said lever as and for the purpose set forth.

2. A coin-controlled vending-machine, comprising the cylindrical revolving case 15, the plunger 34 adapted to impart a step-by-step movement to said case, in combination with the pivoted shelf 25, provided with the crank-arm 43', and the L-shaped arm 43 fixed to said plunger and having its lower end projecting into the path of the arm 43' on said shelf, substantially as shown and described.

3. A coin-controlled vending-machine comprising the removable revolving case 15, the horizontal bottom 18, provided with the radial teeth 20, and orifices 19, the platform 21 upon which said case and bottom are mounted, and provided with a discharge-orifice 24, the plunger 34, provided with the spring-pawl 35 and the rigid arm 36 having their free ends projecting into the path of said teeth on the bot-

tom 18, in combination with the coin-chute
29, the coin-actuated lever 31 having its forked
end 30 extending into said chute and its
heavier opposite end 32 formed with an in-
cline 40 and extending into the path of the
5 rear end 33 of the plunger 34, substantially
as shown and described.

In testimony whereof I affix my signature
in presence of two witnesses.

EDGAR GLEASON.

Witnesses:

WALTER C. WINTER,
JOHN J. ESCH.