

(No Model.)

C. E. AKINS.

AUTOMATIC ADVERTISING DEVICE FOR SHOW CASES.

No. 307,515.

Patented Nov. 4, 1884.

Fig. 1.

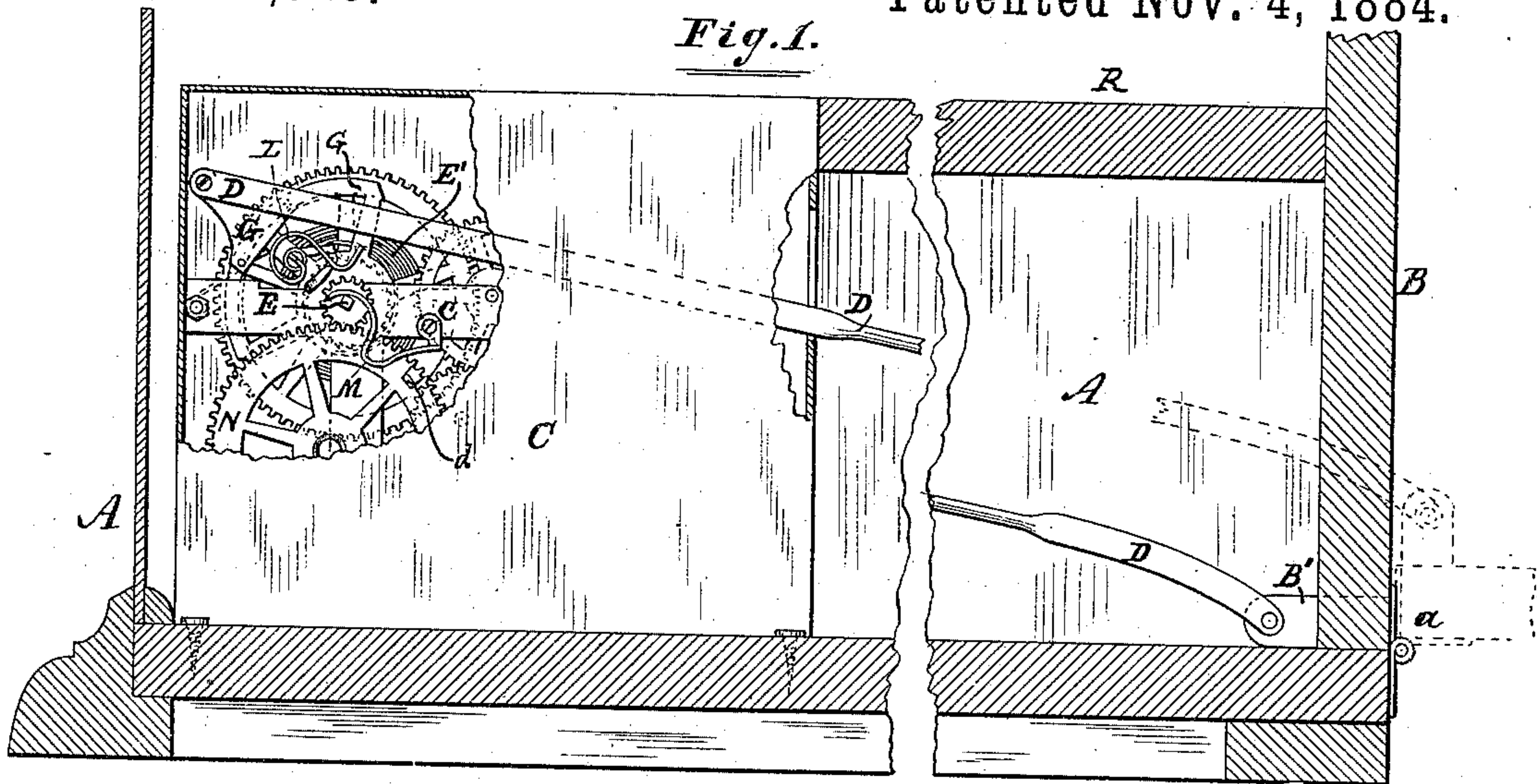


Fig. 2.

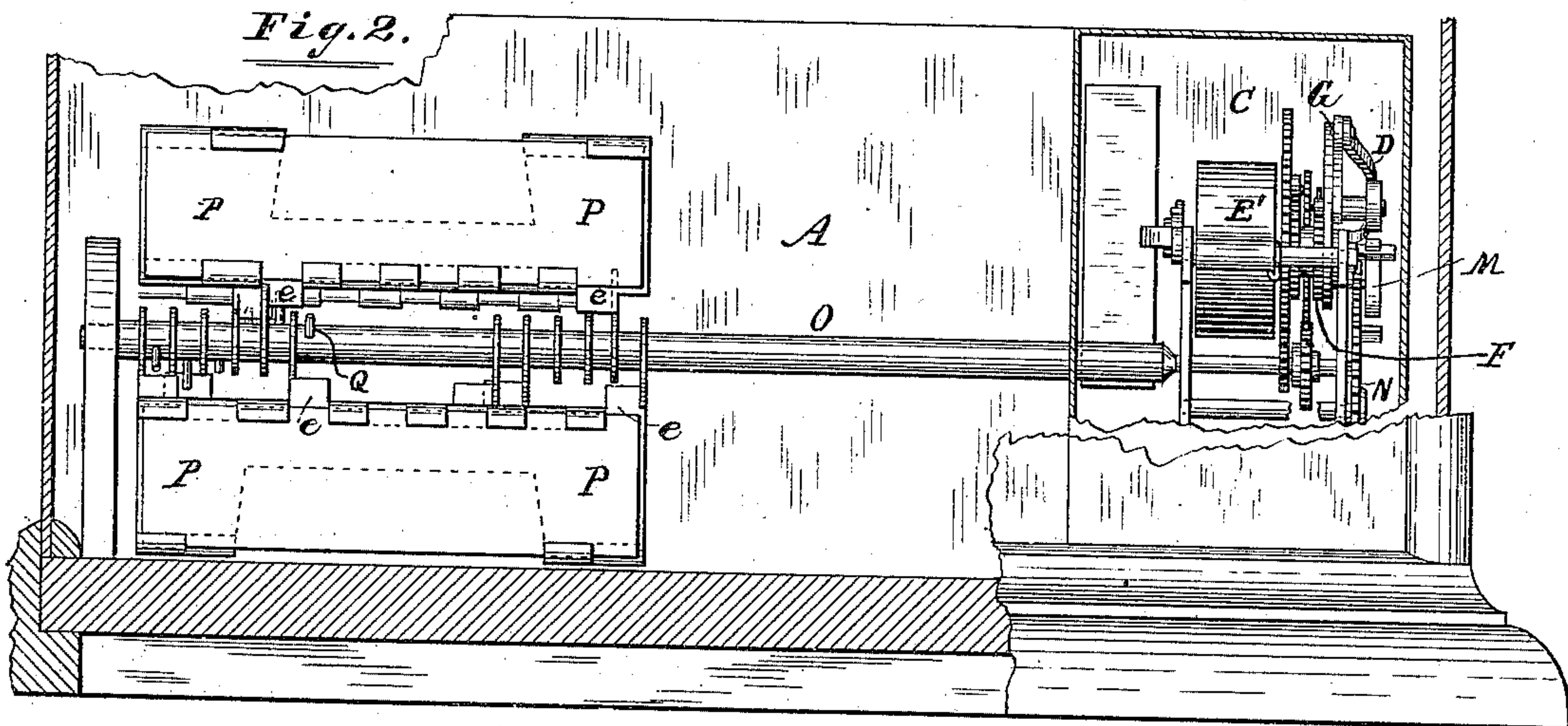
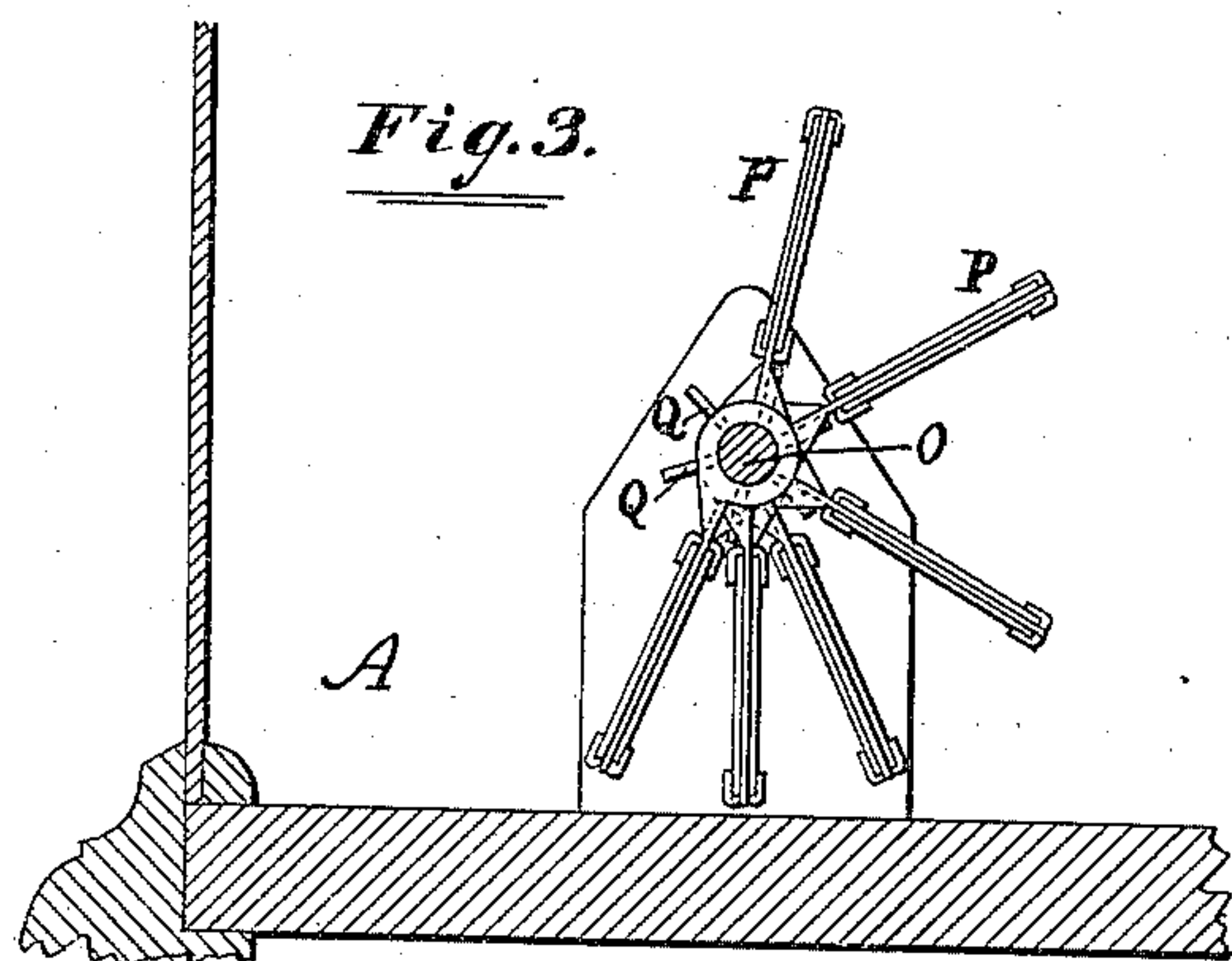


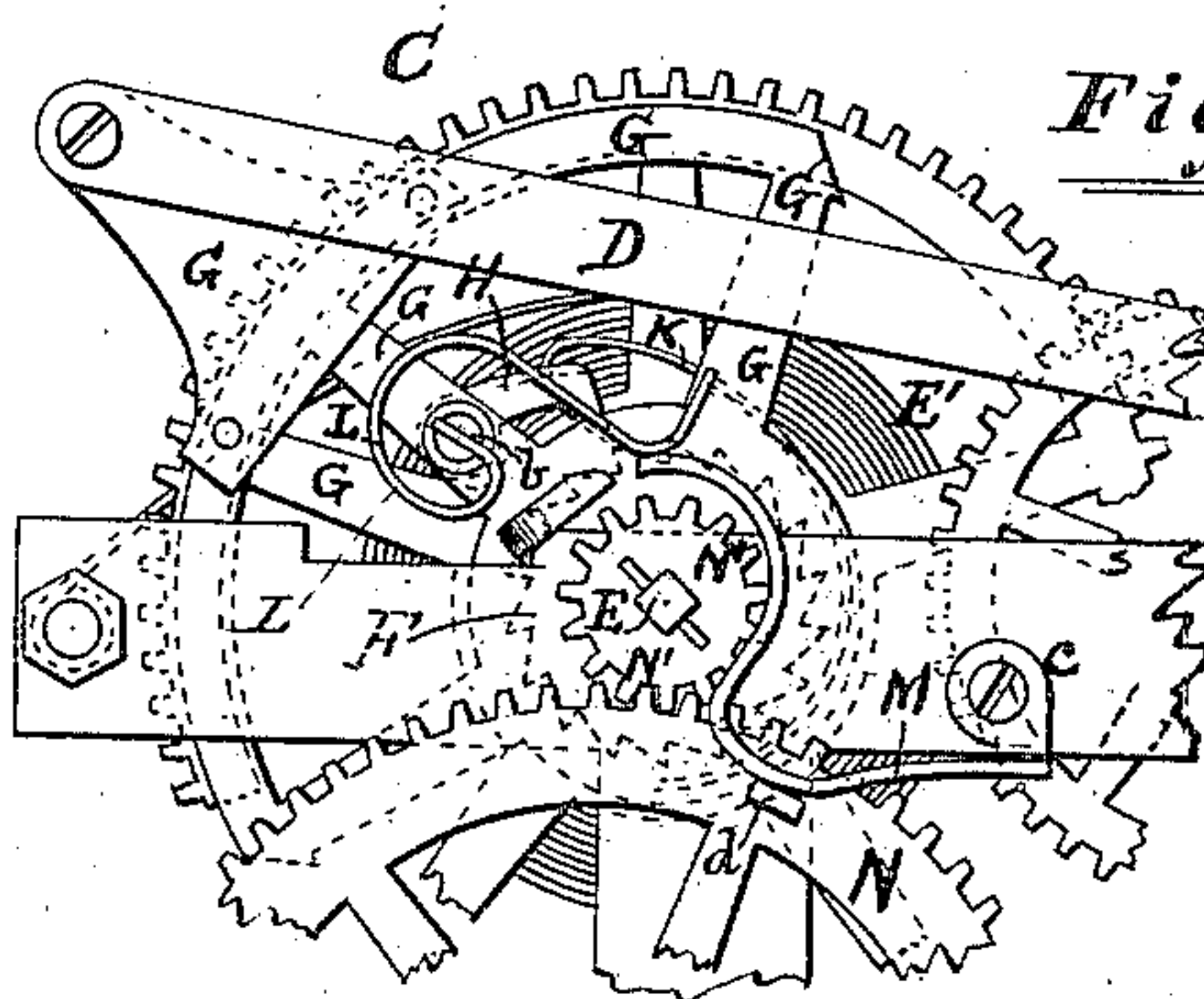
Fig. 3.



Witnesses:

W. L. Baker

Fig. 4



Inventor:

Charles E. Atkins
per F. F. Warner
his Attorney.

UNITED STATES PATENT OFFICE

CHARLES E. AKINS, OF CHICAGO, ILLINOIS.

AUTOMATIC ADVERTISING DEVICE FOR SHOW-CASES.

SPECIFICATION forming part of Letters Patent No. 307,515, dated November 4, 1884.

Application filed November 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. AKINS, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Advertising Devices for Show-Cases, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a vertical cross-section of a show-case containing an automatic advertising device embodying my invention. Fig. 2 is a front view of the same. Fig. 3 is a cross-section of the advertising-cards and the parts to which they are directly connected, and Fig. 4 is a detail enlarged of a portion of the motor and of the winding mechanism.

A represents the show-case, and B is one of its doors, which in the example shown opens or folds downward from the rear of the case, as indicated at *a*.

B' is an arm or lever connected to the lower part of the door B.

C is a clock-movement, and D is an arm or pitman connecting the winding mechanism to the arm B'.

The means employed for automatically winding the clock-movement by swinging the door B, and for preventing the said movement from being overwound or too tightly wound or injured, and thereby preventing the said door from being opened, as may be necessarily desirable, constitute the essential novel features relating to or combined with the clock-movement, excepting as hereinafter mentioned.

E is a shaft, to which one end of a main or driving-spring, E', is attached.

F is a ratchet-wheel rigidly attached to the said shaft or post.

G is a lever turning on the said shaft or post, and H is a push-pawl pivoted to the lever G and engaging the teeth of the said ratchet.

K is a spring attached to the said lever, and holding the pawl H to its engagement yieldingly with the ratchet F. The arm or pitman D is pivoted to the outer end of the lever G.

It will be perceived that by opening the door B the arm D will be drawn in such a direction as to pull the lever G around, so that the pawl H will push the wheel F around in such a direction as to wind the spring E',

the same as if a key be applied to the outer end of the post or shaft E for the same purpose, the said wheel being advanced one notch each time the door is opened, and the pawl retreating to engage another notch each time the door is closed. It will also be perceived, however, that a too frequent opening of the door B would overwind the clock-movement. I have therefore provided the following means for preventing such overwinding.

L is a spring attached to the outer end of the pin *b*, turning in the lever G, and to which the pawl H is rigidly attached. This spring is stiffer or stronger than the spring K.

M is a spring fastened at one end to the frame of the movement pivotally, as indicated at *c*. This spring is also stiffer than the springs K and L, and its free end is so arranged that when raised it will raise the spring L, ratchet H, and spring K. To raise the spring M in this manner I place upon one of the wheels of the movement—for example, upon a wheel, N—the lug or lifter *d*, arranged to strike and raise the spring M during each revolution of the said wheel. Consequently, by this means the pawl H will be automatically lifted from the ratchet F intermittently before the spring E' becomes overwound, it being understood that the wheel N makes its rotations frequently enough to perform that function, and that the door B, when opened, will not affect the winding mechanism while the pawl H is out of engagement with the ratchet F.

To insure the rotation of the wheel N with a frequency somewhat proportioned to the opening of the door B under ordinary circumstances, I cause it to engage a pinion, N', rigidly attached to the shaft or post E.

O is a shaft turned by some one of the movement-wheels mounted on it, and P P are advertising-cards mounted freely or turning loosely on the shaft O.

Q Q are pins projecting radially from the shaft O and passing between the cards P P, respectively, the said pins being in a spiral line around the said shaft and the said cards having projecting lugs *e e*, one for each card, and arranged for contact by a pin located for contact therewith as the shaft revolves, and located also so as not to come in contact with any other of the said pins. By this means, as

the shaft revolves the pins Q Q each pass up behind their respective cards, and move them up or around as the said shaft revolves, thus bringing each card in turn perpendicularly over the shaft, so that its face will be plainly exposed from or toward the front of the show-case. These pins are such distances apart in the spiral line in which they are set as to permit the upraised cards to fall over forward as soon as they pass the center of gravity, thus permitting the raised card to become pendant and expose its rear face, or, rather, both faces in turn, and two cards having their faces exposed at the same time, as is indicated in Figs. 2 and 3. R is a false bottom. I do not, however, here intend to claim either the clock-movement or the means for alternately exposing the faces of the cards, broadly, but,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the door of a show-case, of mechanism to wind a clock-movement by swinging the door of the case, said movement being adapted and arranged to automati-

cally operate a card-exhibitor in the case, substantially as and for the purposes specified.

2. The combination, in a card-exhibitor actuated by a clock-movement, of a show-case door, the connecting-lever or arm D, the winding-lever, pawl, and ratchet G, H, and F, respectively, and an automatic lifter for raising the said pawl from engagement with the said ratchet intermittently, substantially as and for the purposes set forth.

3. The combination of the door B, the arm or pitman D, the lever G, pawl H, ratchet-wheel F, springs K, L, and M, wheel N and its lifter d, wheel N', and the shaft or post E of a clock-movement, in connection with a rotary shaft for alternately exposing the cards of a card-exhibitor, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

CHARLES E. AKINS.

Witnesses:

HARRY G. MANN,
W. J. WILLSON.