No. 614,037. Patented Nov. 8, 1898.

L. J. TOFFELMIER & A. HEIRON.

ADVERTISING DEVICE.

(No Model.) (Application filed June 10, 1897.) 2 Sheets—Sheet 1.

Fig. 1.

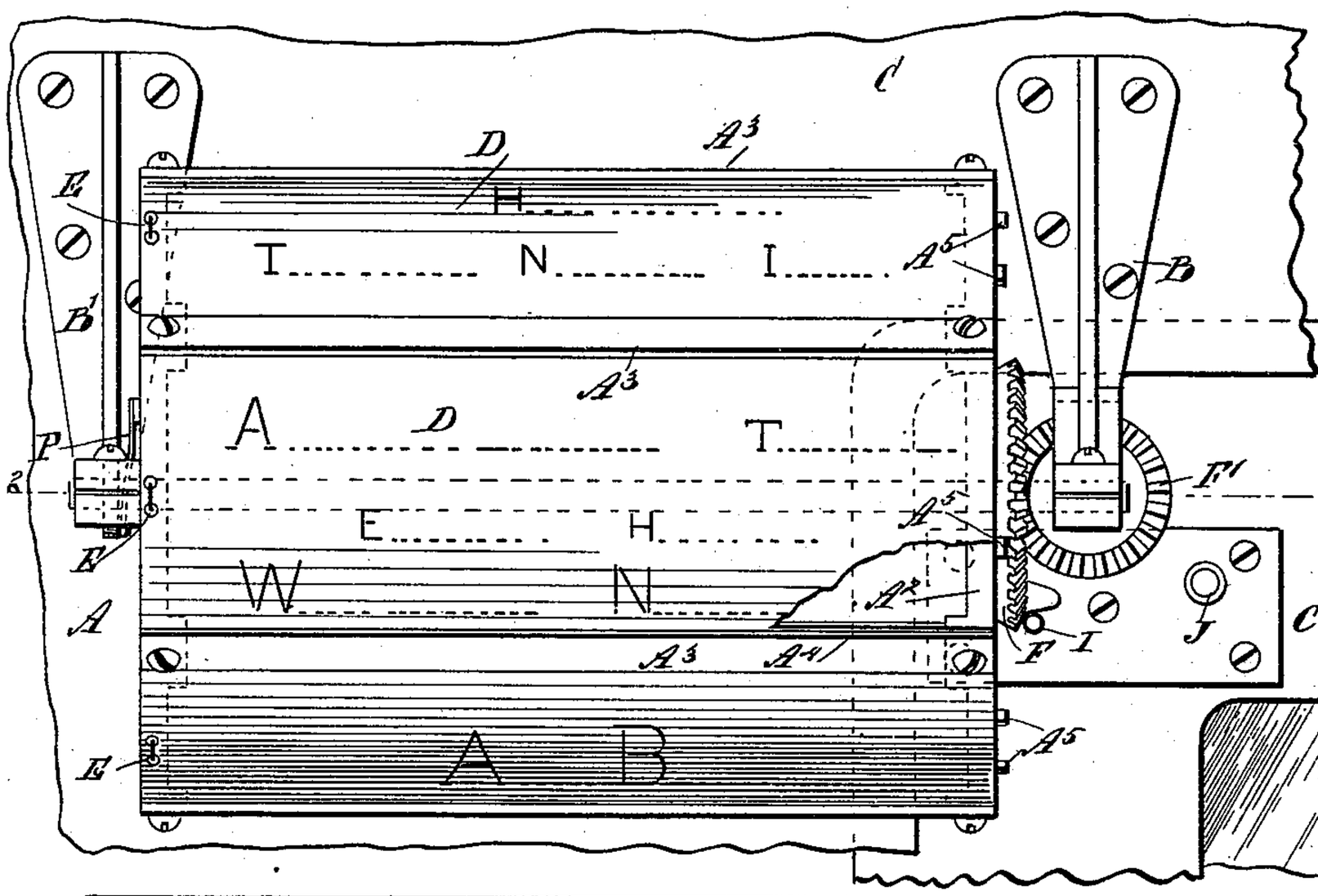
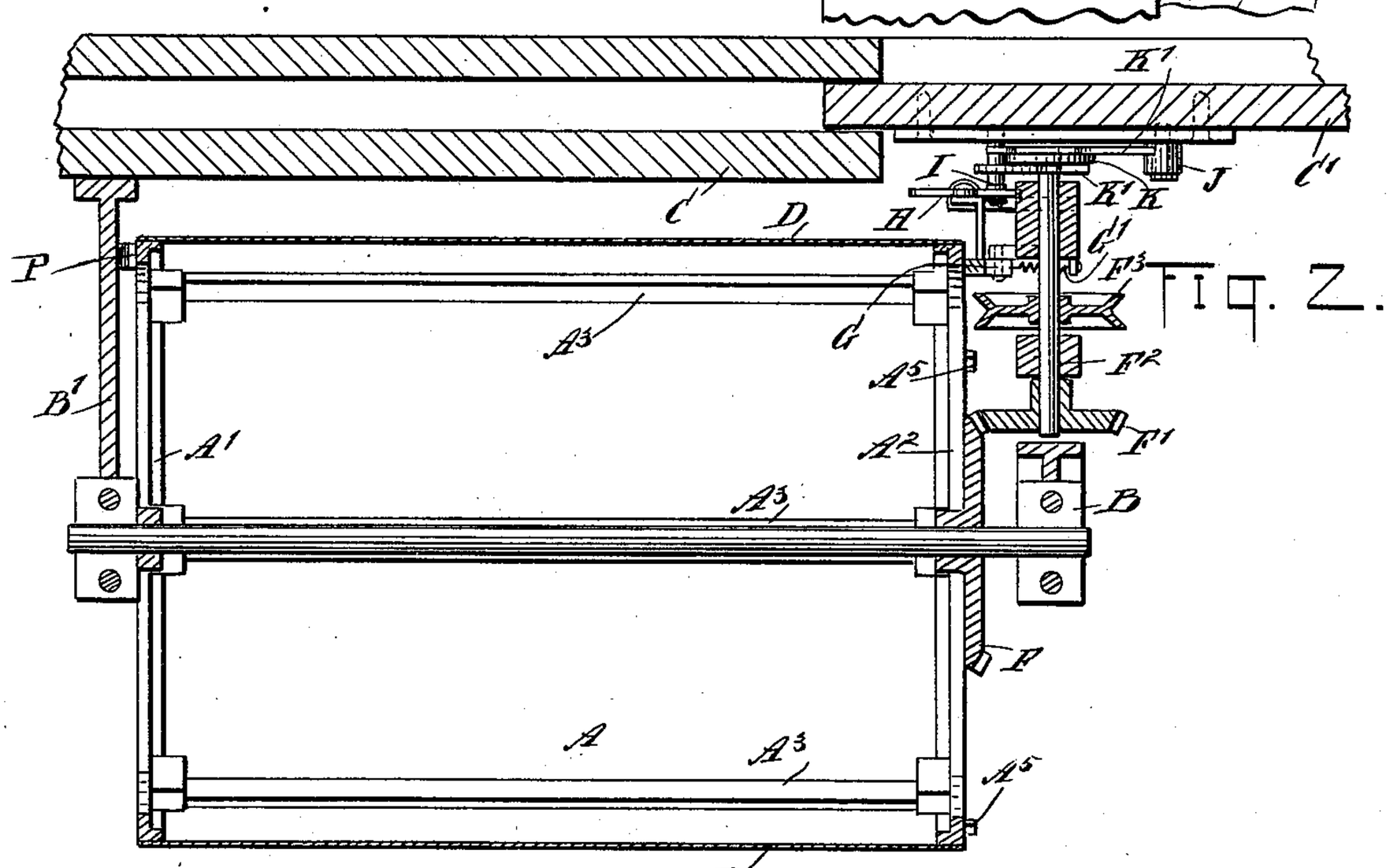


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

FIG. 3.

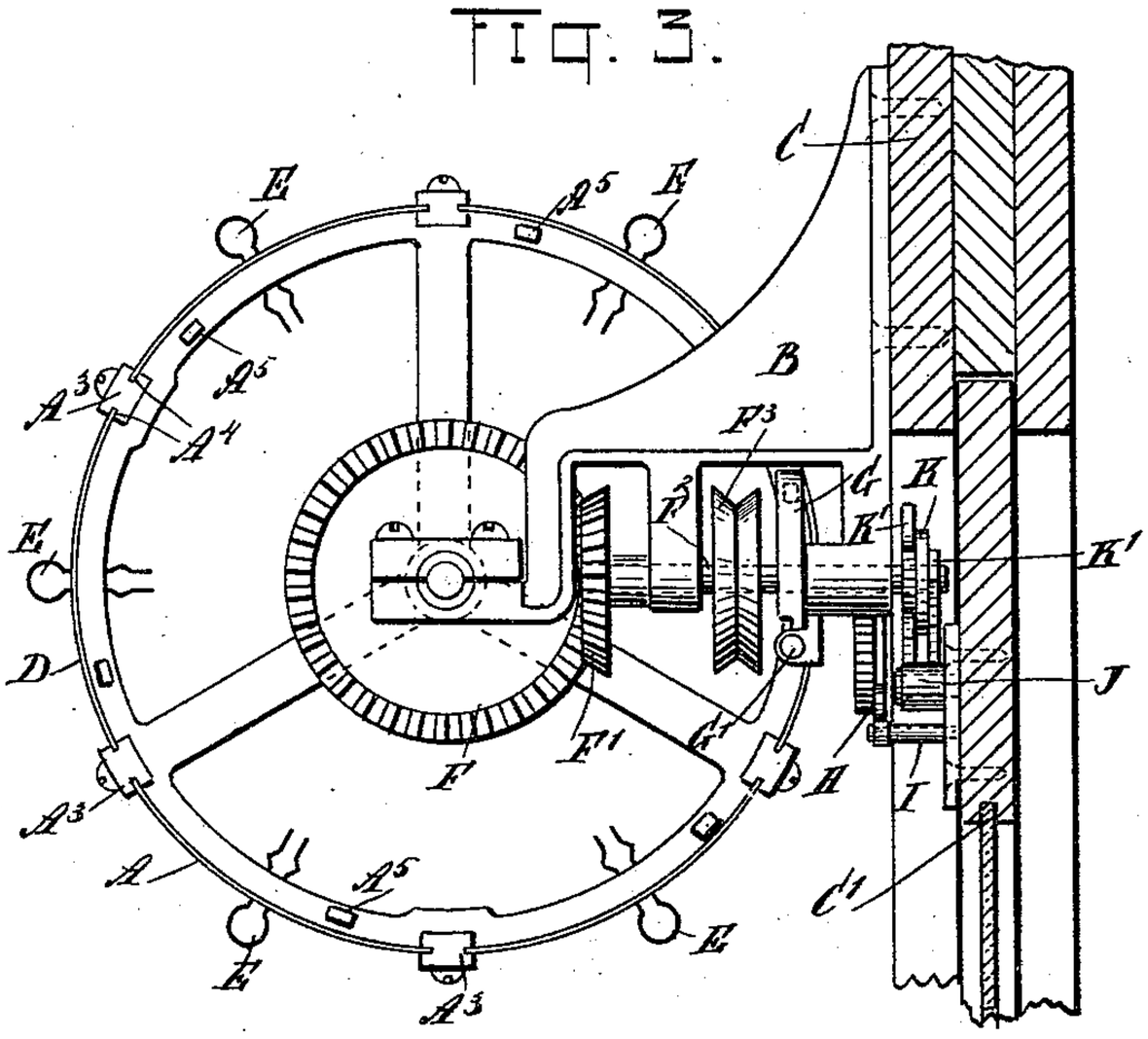


FIG. 4.

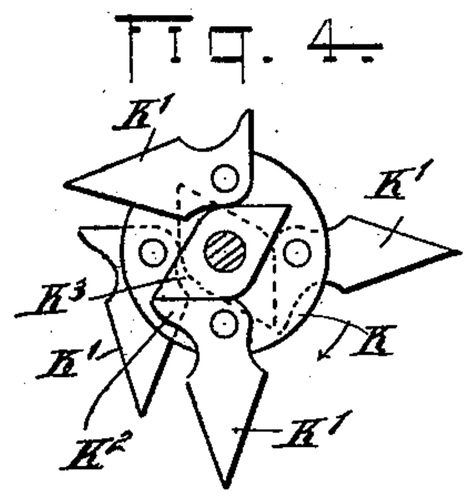


FIG. 5.

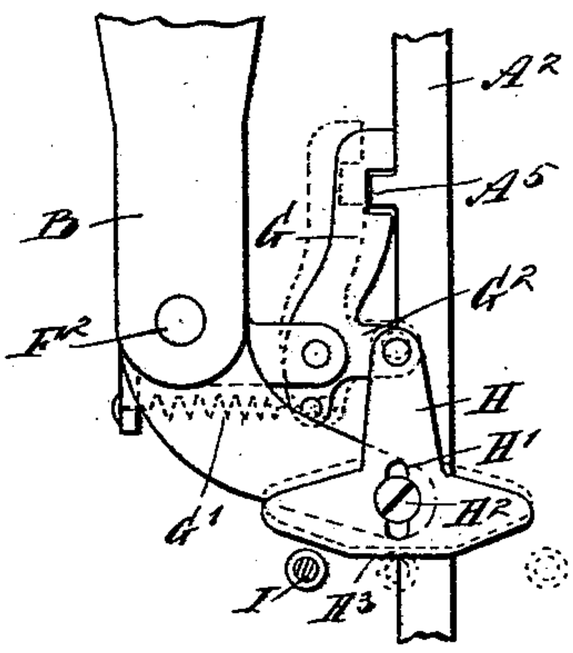


FIG. 6.

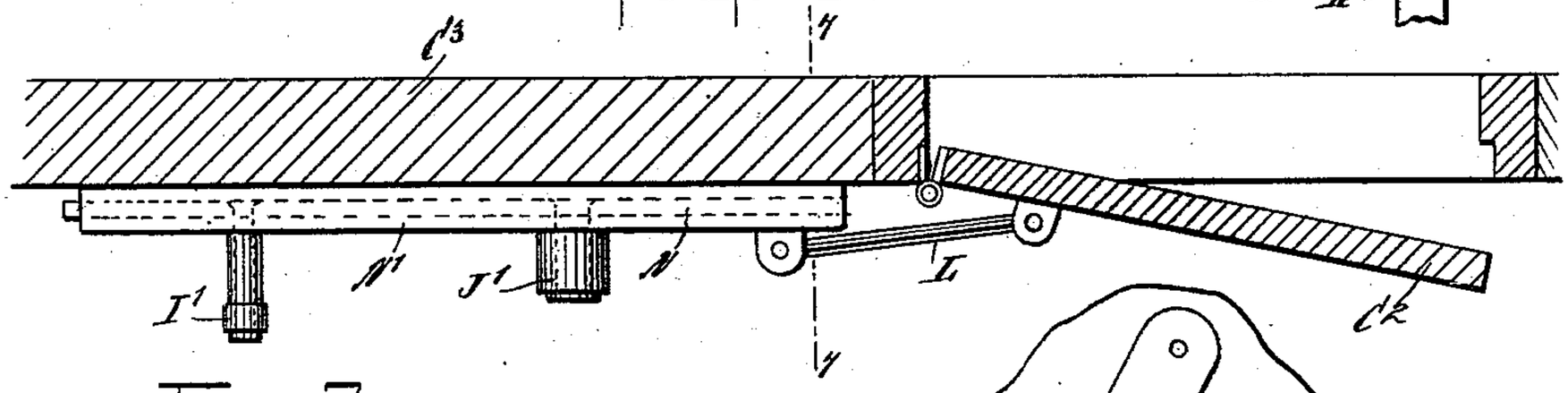


FIG. 7.

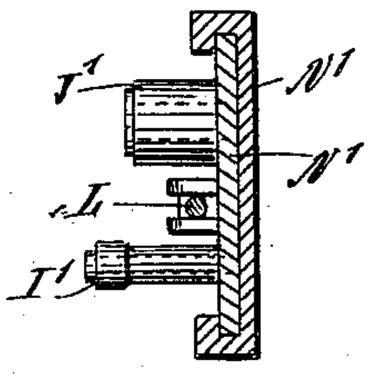
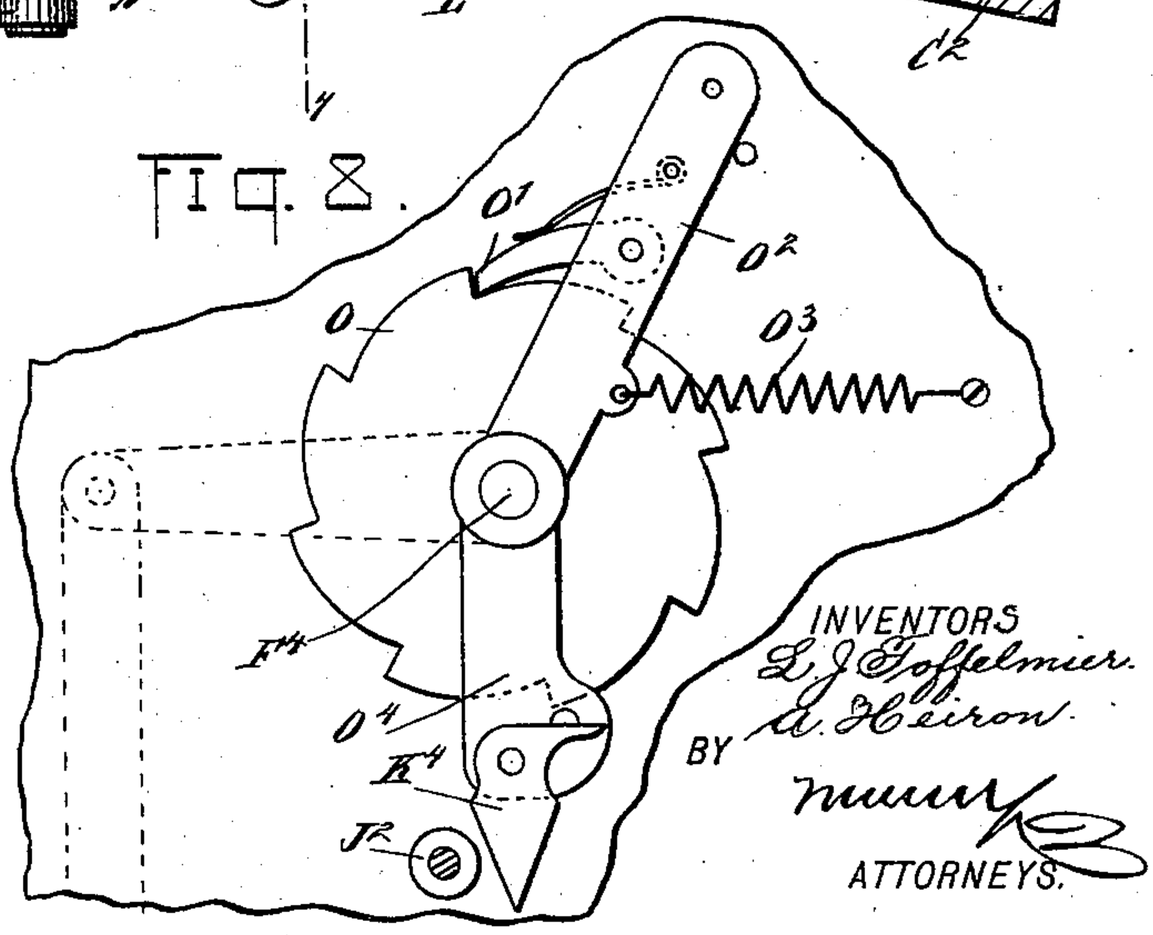


FIG. 8.



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UNITED STATES PATENT OFFICE.

LANCE JACOB TOFFELMIER AND ALBAN HEIRON, OF SAN LEANDRO, CALIFORNIA.

ADVERTISING DEVICE.

SPECIFICATION forming part of Letters Patent No. 614,037, dated November 8, 1898.

Application filed June 10, 1897. Serial No. 640,177. (No model.)

To all whom it may concern:

Be it known that we, LANCE JACOB TOFFELMIER and ALBAN HEIRON, of San Leandro, in the county of Alameda and State of California, have invented a new and Improved Advertising-Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved advertising-machine more especially designed for use in street and railway cars, public buildings, and other places and constructed in such a manner that the machine is actuated by a moving door, window, or the like to display the advertisements attractively and to the greatest advantage.

The invention consists principally of a revoluble cylinder adapted to carry advertising-cards on its periphery, a gearing for rotating the said cylinder, and a mechanism for intermittently rotating the gearing on the cylinder in one direction only, the mechanism being actuated by a hinged or sliding door, window, or other movable part.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of the improvement as applied on a sliding door, parts being broken out. Fig. 2 is a sectional plan view of the same on the line 2 2 of Fig. 1. Fig. 3 is an end elevation of the same with the sliding door in section. Fig. 4 is an enlarged face view of the star-wheel. Fig. 5 is an enlarged rear side elevation of the locking device for the cylinder. Fig. 6 is a sectional plan view of part of the improvement as actuated from a hinged door. Fig. 7 is a transverse section of the same on the line 7 7 of Fig. 6, and Fig. 8 is an enlarged side elevation of a modified form of the transmitting mechanism for the cylinder.

The improved machine, as illustrated in Figs. 1, 2, and 3, is provided with a cylinder A, journaled in suitable bearings formed in brackets B B′, attached to the door-casing C adjacent to a sliding door C′, which serves as a means for imparting an intermittent rotary motion in one direction only to the cylinder A upon repeatedly opening or closing the door, so as to display in rotation the advertising-cards D, held on the peripheral surface of the cylinder.

The cylinder A is provided with heads A′ A^2, connected with each other by bars A^3, formed in opposite sides with slots or recesses A^4, of which the opposite slots of adjacent bars are adapted to receive the sides of the advertising-cards D, so as to hold the latter on the peripheral surface of the cylinder. Each card D is locked in place by a cotter-pin E, the shanks of which pass through apertures in the card and into apertures in the head A′, as is plainly illustrated in Figs. 1 and 3. When the pin E is withdrawn, the corresponding card D can be readily removed from the bars and a new one inserted therein and locked in place by the cotter-pin, as explained.

On the outer face of the head A^2 is secured or formed a beveled gear-wheel F, in mesh with a beveled gear-wheel F′, secured on a transversely-extending shaft F^2, journaled in suitable bearings formed on the bracket B. On this shaft F^2 is secured a grooved pulley F^3, adapted to be connected by a belt with a similar pulley on a corresponding shaft for a second advertising-machine, held on the other end of the car, so that when the shaft F^2 is rotated the cylinder A receives a rotary motion to display its cards in rotation, and at the same time, a second advertising-machine, of a like construction, is actuated in the same manner and for the same purpose.

The cylinder A is locked in place between the intermittent rotations, and for this purpose the outer face of the head A^2 is provided with equidistant teeth or lugs A^5, adapted to be engaged by a catch G, (see Fig. 5,) fulcrumed on the bracket B and pressed on by a spring G′ to hold the catch in engagement with the said lug A^5. From the catch G extends an arm G^2, pivotally connected with a three-armed plate H, formed with a verti-

cally-disposed slot H′, engaged by a screw H^3, supported on the bracket B, the screw serving as a guide in the up-and-down sliding motion of the plate H to open and close the catch G relatively to the lug A^5.

The under cam-surface H^3 of the plate H is adapted to be engaged by a friction-roller I, supported on the sliding door C′, so that when the latter is opened the said friction-roller I moves in contact with the said cam-surface H^3 to lift the plate H, so as to impart a swinging motion to the catch G and move the latter out of engagement with the lug A^5. When this takes place, an intermittent rotary motion is given to the shaft F^2 to intermittently rotate the cylinder A, and for this purpose the sliding door C′ is provided with a second friction-roller J, adapted to engage at this time one of a series of teeth K′, pivoted on opposite faces of a star-wheel K, secured on the rear end of the shaft F^2.

Each of the teeth K′ (see Fig. 4) is provided with a foot-piece K^2, adapted to abut against a flat surface on the hub K^3 of the star-wheel, so that when the friction-roller J engages it upon closing the door C′ then the foot K^2 of the lowermost tooth K′ is in contact with the hub, and consequently the star-wheel is turned to rotate the shaft F^2 and impart a rotary motion to the cylinder A. When the door C′ is opened, then the friction-roller J in striking the teeth K′ simply imparts a swinging motion thereto, without, however, rotating the star-wheel K so that the cylinder A remains stationary during the opening of the door C′. When it is desired to actuate the device upon opening the door, then the star-wheel K is placed in a reverse position on the shaft F^2, so that the friction-roller J in closing the door simply imparts a swinging motion to the lowermost tooth K′, without rotating the star-wheel, but upon opening the door the wheel is turned by the friction-roller moving the tooth abutting at this time with the foot-piece K^2 on the hub K^3, as above explained. When the cylinder has been turned by the action of the friction-roller J on the star-wheel, as previously explained, then the catch G by the action of the spring G′ again engages the corresponding lug A^5 to lock the cylinder in place until the next closing of the door.

In case the door C^2 is hinged, as shown in Fig. 6, then the said door is pivotally connected by a link L with a slide N, mounted to slide longitudinally in suitable guideways N′, attached to the door-casing C^3, and on the said slide are held the friction-rollers J′ and I′ for actuating the star-wheel and the catch, as above explained.

Instead of using the star-wheel on the end of the shaft F^2, as above explained, a pawl-and-ratchet mechanism may be employed, as illustrated in Fig. 8. In this case the ratchet-wheel O, secured on a shaft F^4, connected by the gearing with the cylinder A, is engaged by a spring-pressed pawl O′, fulcrumed on a lever O^2, fulcrumed loosely on the shaft F^4 and pressed on by a spring O^3. The lever O^2 is provided with an extension O^4, carrying a tooth K^4 similar to the tooth of the star-wheel K and adapted to be engaged by the friction-roller J^2, moving with the door. In this case the door imparts a swinging motion to the lever O^2 when going in one direction, so as to impart an intermittent rotary motion to the shaft F^4 and the cylinder A. Upon the return movement of the door the tooth K^4 is simply given a swinging motion, without, however, imparting a like motion to the lever O^2.

A spring P on the bracket B′ presses on the head A′ of the cylinder to prevent the latter from being turned too far at each opening or closing of the door.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A machine of the class described, comprising a revoluble cylinder provided with means for temporarily securing advertising-cards on its periphery, a shaft having right-angular rotary connection with the said cylinder, a star-wheel on the said shaft having arms pivoted to swing to one side of the center only, and a friction-roller actuated from a movable door, window or the like, and adapted to engage the teeth of the said star-wheel, to impart an intermittent rotary motion to the shaft of the said cylinder, substantially as shown and described.

2. A machine of the class described, comprising a revoluble cylinder adapted to carry advertising-cards on its periphery, a shaft having right-angular rotary connection with said cylinder, a star-wheel on the said shaft having arms arranged to swing to one side of the center, a friction-roller actuated from a movable door, window or the like, and adapted to engage the teeth of the star-wheel, and locking means for said cylinder, comprising a spring-pressed catch adapted to engage lugs on the cylinder and lock the latter in place, a plate arranged to slide vertically and connected with the said catch, and a friction-roller held on a movable door, window or the like, and adapted to engage said plate to release the catch.

3. A machine of the class described, provided with a cylinder adapted to carry advertising-cards, a spring-pressed catch adapted to engage lugs on the said cylinder and lock the latter in place, a plate fitted to slide vertically and connected with the said catch, and a friction-roller held on a movable door, window or the like, and adapted to engage the said plate, and means for rotating the cylinder by a continued movement of the door or window, substantially as shown and described.

4. A machine of the class described, provided with a cylinder adapted to carry advertising-cards, intermittently-operated rotating mechanism actuated by a moving door, or similar member, a spring-held catch normally holding said cylinder against rotation, a plate engaging said catch and having a cam-surface thereon, and a movable member actuated from said door and engaging the cam-surface of said plate to free the catch.

LANCE JACOB TOFFELMIER.
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Witnesses:
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JOHN SINGLETON.