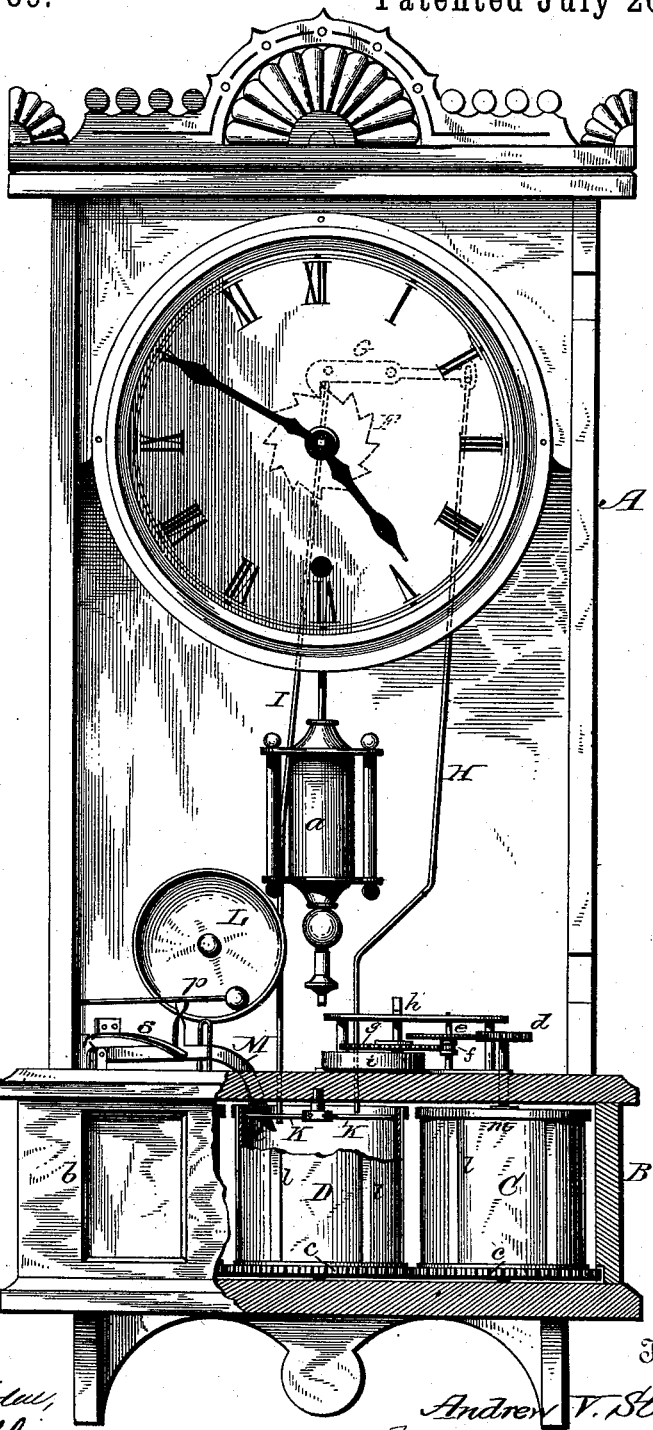
(No Model.) 2 Sheets—Sheet 1.

A. V. STRAIT.

ADVERTISING ATTACHMENT FOR CLOCKS.

No. 345,739. Patented July 20, 1886.

Fig. 1.



Witnesses
Wm. P. Preidel,
L. L. Miller.

Inventor
Andrew V. Strait.
By his Attorney Chas. H. Fowler

(No Model.) 2 Sheets—Sheet 2.

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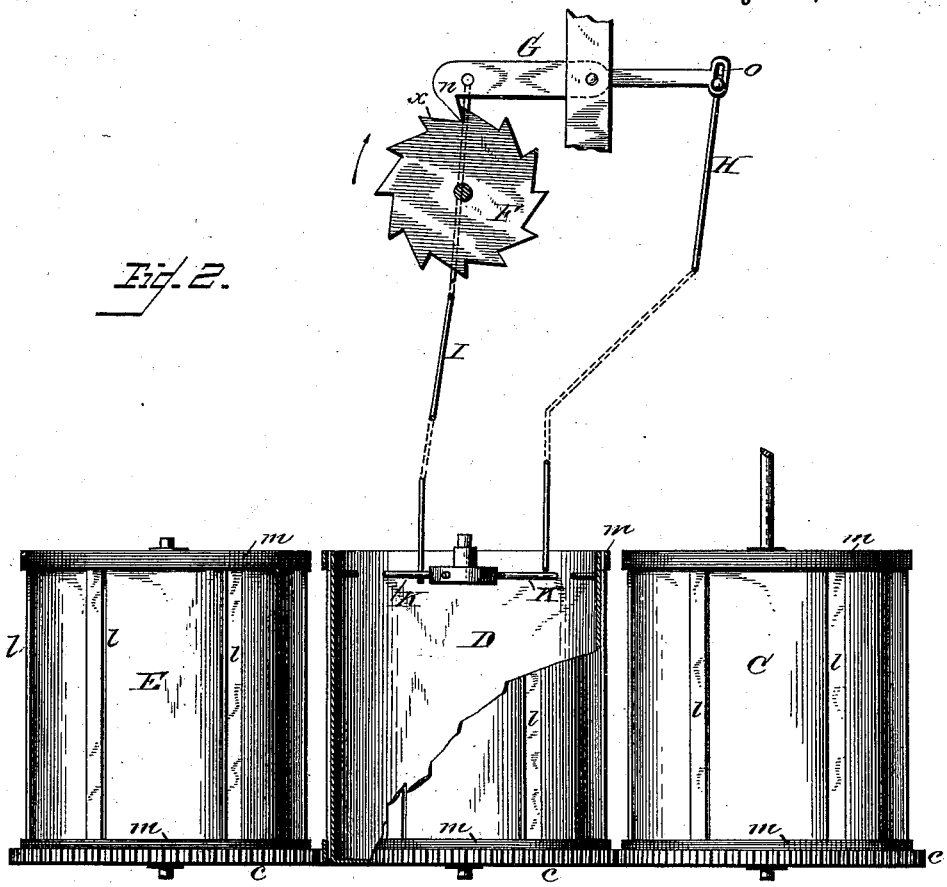

Fig. 2.

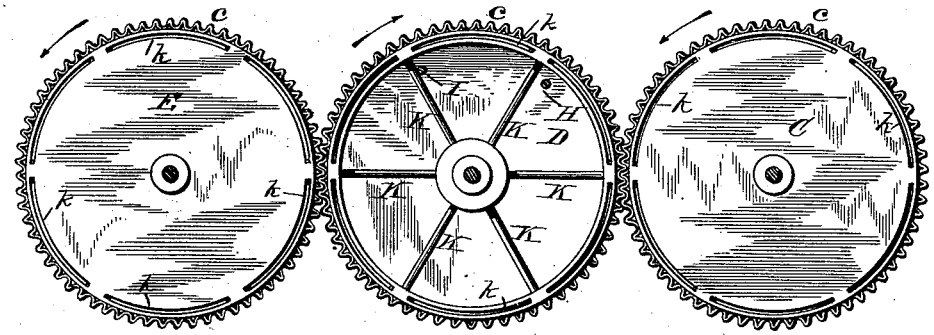

Fig. 3.

Witnesses
Wm. L. Spriden,
L. L. Miller.

Inventor
Andrew V. Strait.
By his Attorney Chas. H. Fowler

UNITED STATES PATENT OFFICE.

ANDREW V. STRAIT, OF SIDNEY PLAINS, NEW YORK, ASSIGNOR TO HIMSELF, FRANKLIN A. JENNINGS, STEPHEN M. THORNTON, PETER L. RITTON, AND EUGENE W. GRIGGS, ALL OF SAME PLACE.

ADVERTISING ATTACHMENT FOR CLOCKS.

SPECIFICATION forming part of Letters Patent No. 345,739, dated July 20, 1886.

Application filed December 21, 1885. Serial No. 186,321. (No model.)

To all whom it may concern:

Be it known that I, ANDREW V. STRAIT, a citizen of the United States, residing at Sidney Plains, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Advertising Attachments for Clocks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a front elevation of a clock provided with my improved advertising attachment; Fig. 2, a side elevation, partly in broken section, of the revolving cylinders and the stop and releasing mechanism thereto; and Fig. 3, a top plan view of the cylinders.

The object of the present invention is to provide a clock with an advertising device consisting of one or more revolving cylinders, which receive their motion by suitable spring and cog gearing. The cylinders carrying the cards or other advertising medium are caused to move around their axis at intervals by means of mechanism attached to the clock-works, as will be hereinafter described and claimed.

In the accompanying drawings, A represents a clock, of any suitable design, provided with the usual pendulum, *a*, and at its bottom or lower end a casing, B, formed with openings *b*, with glass fronts, through which to see the advertisements on the revolving cylinders, the number of openings corresponding with the number of cylinders used. I have shown in the present instance three revolving cylinders, C D E, and when more than one are used cogs *c* are employed, which extend around the circumference of each cylinder at the lower end thereof, the cogs on one cylinder engaging with those on the other, thus motion from the master-cylinder C being communicated to the others, as shown in Fig. 3.

In order to insure lightness of the cylinders, the cogs *c* are formed by bending strips of sheet metal in serpentine shape and securing them around the cylinders, thus having less weight to overcome, and consequently enabling them to revolve much easier with less power required in the driving mechanism. The shafts of the cylinders have their bearings in the top and bottom of the casing B, the shaft of the master-cylinder C extending above the top of the casing, and having fixed to it a cog-wheel, *d*. This cog-wheel upon the shaft of the master-cylinder meshes with the teeth of a wheel, *e*, and on the shaft of said wheel is a pinion, *f*, with which engages a large cog-wheel, *g*, suitably keyed to a post, *h*, for winding the gearing, said wheel having the usual pawl and ratchet-wheel and spring, *i*, connected to the post.

The above arrangement of gearing is very common, both in clocks and other devices where power is required, and therefore I lay no claim thereto, but reserve the right to employ any suitable arrangement of gearing that may be found most desirable to give motion to the cylinders.

The cylinders have curved slots *k*, for inserting the advertising-cards, which are retained in place by strips *l*, overlapping the vertical edges of the cards, the horizontal edges or ends of the cards being retained in place by the strips *m*, secured around the top and bottom of the cylinders. After the driving mechanism is wound up to impart motion to the cylinders, such motion is controlled by mechanism attached to the clock-work, so that the movement of the cylinders will be intermittent, or at intervals, and the extent of movement such as to enable one card only on each cylinder to be exposed to view. To attain this end I secure to the post of the clock a cam-wheel, F, provided with cam-teeth of sufficient length to operate on a pivoted lever, G, and trip it as each of the cam-teeth passes it, the time between each tripping of the lever depending on the length of the teeth and size of the wheel. The lever G at one end is hooked, as shown at *n*, and at its opposite end has a vertical elongated slot, *o*, in which works the end of a rod, H, a similar rod, I, being connected to the hooked end of the lever. These rods may be straight or bent, as shown, and are of sufficient length to extend down through and into the casing B between the radial spokes K of the cylinder D. As the wheel F

is moved around in the direction of the arrow, Fig. 2, the hooked end of the lever G will be elevated and the slotted end thereof depressed, and when the hook *n* of the lever rests at about point *x* on the tooth of the wheel the lower extremity of the rod H will be brought in front and below the plane of one of the spokes K, and a short distance away from it, as shown in Fig. 3. Immediately after this movement of the rod H the rod I is released, the lower end thereof being elevated above the plane of the spokes K, thus allowing the spoke in front of the rod I to be pressed against the rod H and hold it stationary. By means of the elongated slot *o* the end of the lever with said slot is enabled to be further depressed the extent of the remaining portion of the slot without acting on the rod, and as the hooked end of the lever drops onto the next tooth of the cam-wheel the rod I will be carried down on the opposite side of the spoke and the rod H released, allowing the cylinders to move a distance equal to the distance between the spokes. It should be understood that when the lever G is in the position shown in Fig. 2 the points of attachment of the rods H I to said lever are on different horizontal planes, the point of connection of the rod H being somewhat lower than that of the rod I, and consequently it has a less distance to travel and is brought in position previous to the release of the rod I.

Any preferred mechanism may be employed for operating the rods H I; but that shown I consider the most simple and practical, and, if desired, the spokes K may be in the form of short rods or arms extending radially from the inner or outer side of the cylinder, as found desirable. The teeth on the wheel F are in number to correspond with the number of spaces between the numerals on the clock-dial, so that the cylinders will move to exhibit a different advertisement at every five minutes, or when the long hand is on line with the numeral, as shown; but this, however, may be changed by increasing or decreasing the number and size of the teeth of the wheel according as the time desired between each movement of the cylinders.

In order to give notice that new advertising-cards are to be brought in view by the turning of the cylinders carrying said cards, a bell is sounded by means of the hammer *p* on the bell L, said hammer being connected to a cam-lever, M, pivoted at *r*, and kept depressed by a suitable spring, *s*. The lever M is so bent as to extend down between the spokes, and as the cylinder D revolves the spoke nearest the lever will press against the cam end *t* and elevate it, and as the lever is released by the spoke passing it the spring *s* will force the lever back and the hammer *p* against the bell, thus sounding the bell previous to each complete movement of the cylinders.

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

1. The combination, with a clock, of an advertising device consisting of one or more upright and horizontally-revolving cylinders, provided with radial spokes at their upper ends, and holding and releasing rods connected with the clock-works by intermediate mechanism, and engaging with the spokes, substantially as and for the purpose set forth.

2. The combination, with a clock, of one or more revolving cylinders, to which the advertisements are attached, radial spokes or arms extending from one of the cylinders, and a holding and releasing mechanism operated by the clock-works, and consisting of a cam-wheel, a pivoted lever hooked at one end and slotted at the other, and rods connected thereto and extending down between the spokes or radial arms, substantially as and for the purpose set forth.

3. The combination, with a clock, of an advertising device consisting of a series of cylinders connected with each other by suitable gearing, each cylinder having curved slots and retaining-strips for the insertion and holding of the cards containing the advertisement, mechanism for imparting to the cylinders a rotary motion, mechanism connected to the clock-work to impart to the cylinders a movement at intervals, and a bell operated by said cylinders, substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ANDREW V. STRAIT.

Witnesses:
ALVIN E. UTTER,
CHAS. W. OSTRANDER.