No. 669,198. Patented Mar. 5, 1901.

W. E. FOWLER, J. OWEN & S. H. METCALF.

ADVERTISING DEVICE.

(Application filed Apr. 17, 1900.)

(No Model.) 2 Sheets—Sheet 1.

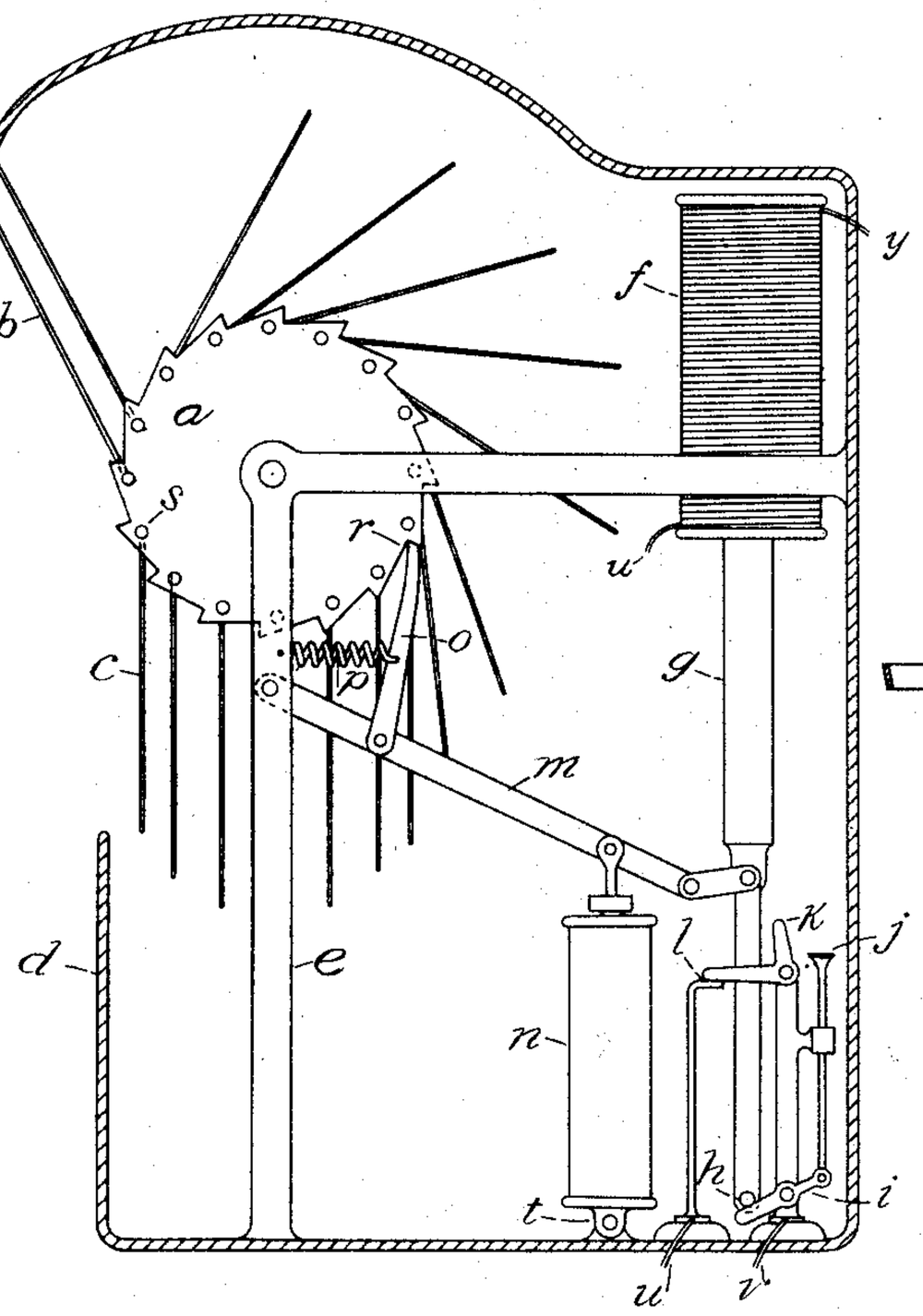

Fig. 1.

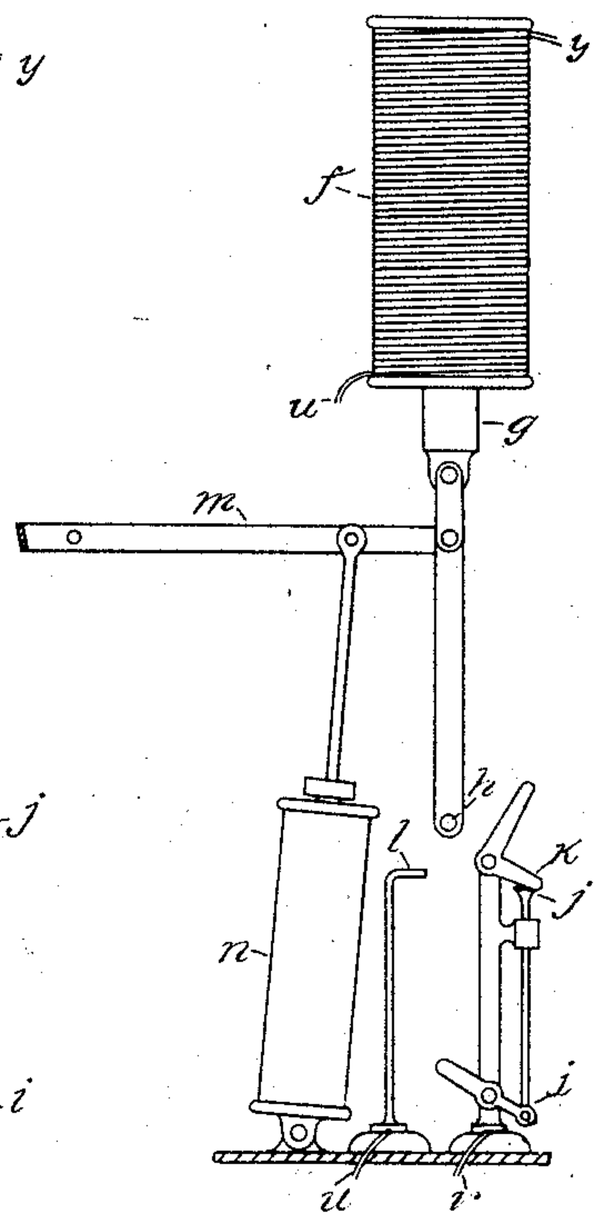

Fig. 2.

WITNESSES:
F. D. Mosk.
James McWilliams.

INVENTORS:
William E Fowler
John Owen
Simon H Metcalf
by Pierre. Barnes
their ATTORNEY

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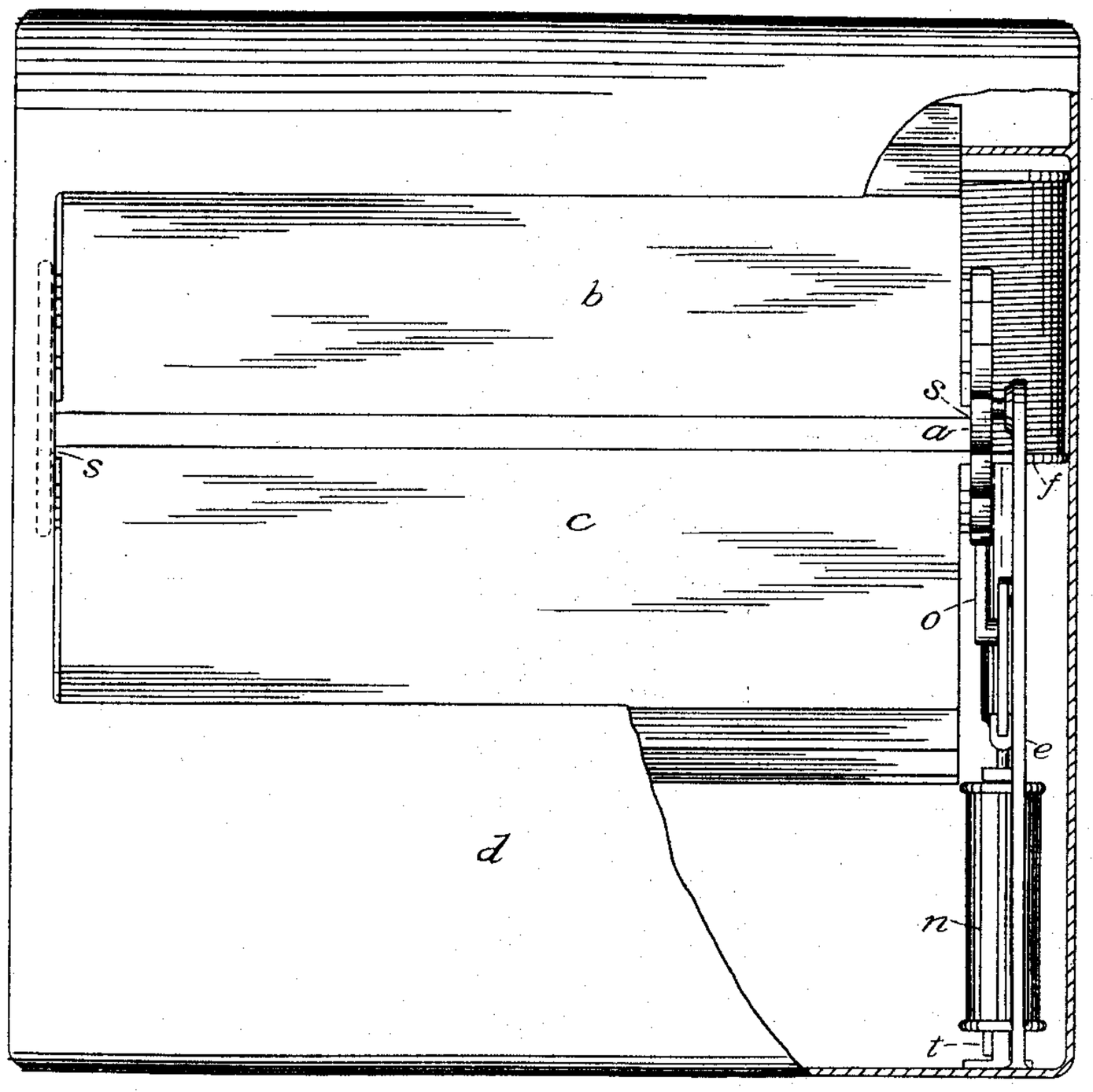

Fig. 3

WITNESSES:
F. D. Moss.
James McWilliams

INVENTORS
William E Fowler.
John Owen
Simon H. Metcalf
by Pierce Barnes
their ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM E. FOWLER, JOHN OWEN, AND SIMON H. METCALF, OF SEATTLE, WASHINGTON.

ADVERTISING DEVICE.

SPECIFICATION forming part of Letters Patent No. 669,198, dated March 5, 1901.

Application filed April 17, 1900. Serial No. 13,279. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. FOWLER, JOHN OWEN, and SIMON H. METCALF, citizens of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to mechanism for imparting an intermittent rotary motion to a reel carrying on peripheral rods a number of advertising or display cards which by the said movement are successively exhibited behind or within a sight-aperture provided in the containing-case; and its objects are to furnish a simple and reliable mechanism operated by electrical force automatically controlled by suitable switches, to which ends it consists in the features more particularly hereinafter described and claimed. Mechanism by which we attain these ends and embodying our invention is illustrated in the drawings accompanying and forming part of this specification, in which—

Figure 1 is a vertical side view of the advertising device, the case being in section; Fig. 2, a like view of the operating mechanism with moving parts in a changed position, and Fig. 3 a vertical front view with part of the case broken away.

Referring by letter, *d* is the containing-case, having a sight-aperture in its front.

a is a reel rotatable upon spindle mounted in suitable bearings and having peripheral rods *s* between ends of reel to form pivots, on which are hinged the display-cards *b c*. The reel *a* has imparted to it the necessary intermittent motion for the purpose of retaining the cards as they are displayed an appreciable time by means of pawl *o*, adapted to mesh with ratchet-teeth *r*, which are so formed as to be engaged for rotating the reel in but one direction. The pawl is given a reciprocating vertical motion by the movement of swing-arm *m*, pivotally secured at one end to support *e*, while the other end is connected to core *g*, which core is drawn by magnetic force into solenoid *f*, when circuit is complete for the electric current to pass through the said coil. When the core has been raised to near the end of its stroke, a projecting pin *h* at its lower extremity kicks up the switch *k*, when, the solenoid losing its magnetism, the core descends under the action of gravity until the said pin *h* strikes the end of trigger *i*, which raises the insulated rod *j* to throw the switch *k* into contact with pole *l* to put the line into circuit and cause the core to be again drawn upwardly by the magnetic force in the solenoid, thus completing a cycle of operation. To prevent the said moving parts—*i. e.*, the core *g* and attached swing-arm *m*—moving by jerks or too rapidly when acted upon by either the forces of magnetism or gravity, we provide an air-cylinder *n*, oscillating, preferably, on trunnion *t*. Within the said air-cylinder is an ordinary piston, (not shown in drawings,) having perforations, preferably, therein to allow the passage of air therethrough from the chambers above and beneath said piston, thus forming a retarding or cushion device to control speed of changes.

p is a spring to keep pawl *o* to its work.

u u and *v y* are ends of wire, the latter, *v y*, being connected to the source of electric power on opposite sides thereof, while the wires *u u* may be connected together through any suitable circuit connections.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

In an advertising device, the combination with the reel *a*, carrying display-cards, of a solenoid *f*, core *g*, having projecting pin *h* on extension thereof, trigger *i*, insulated rod *j*, switch *k*, and air-cushion chamber *n*, substantially as and for the purpose set forth.

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

WILLIAM E. FOWLER.
JOHN OWEN.
SIMON H. METCALF.

Witnesses:
PIERRE BARNES,
F. D. MOSS.