(No Model.) 2 Sheets—Sheet 1.

J. STONITSCH & W. F. SWEET.

DEVICE FOR DISPLAYING ADVERTISING CARDS.

No. 356,805. Patented Feb. 1, 1887.

Fig. 1.

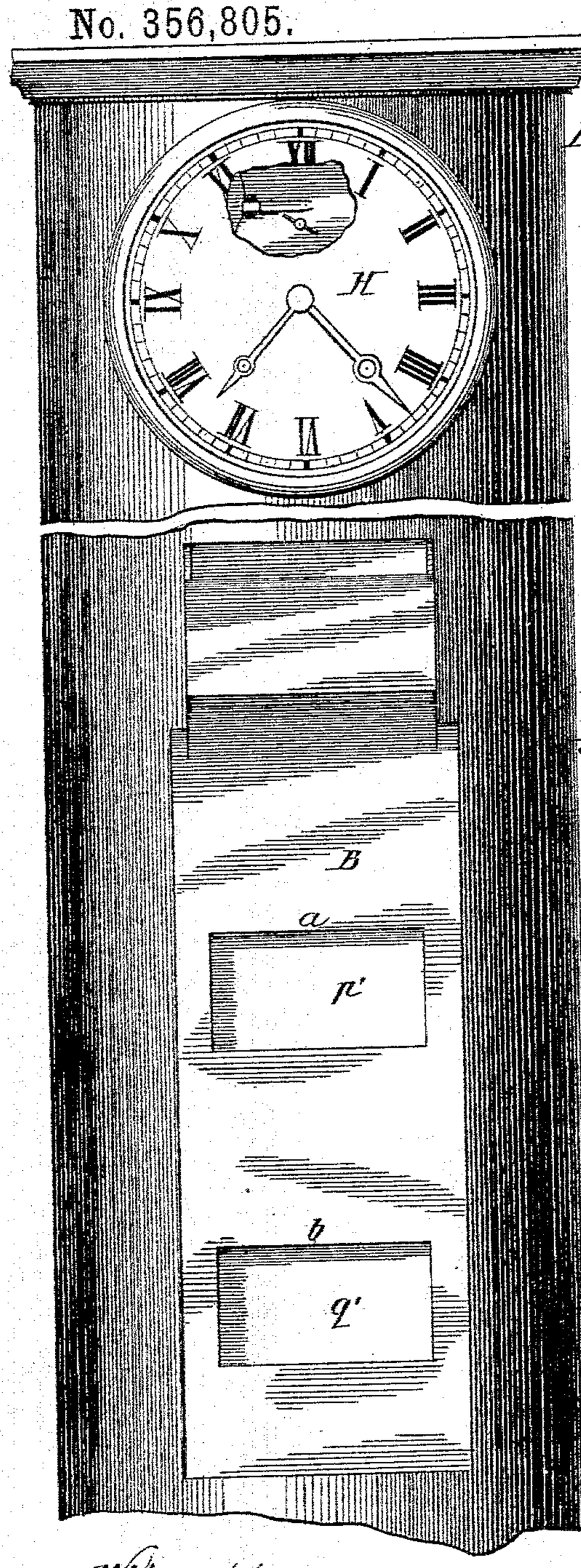
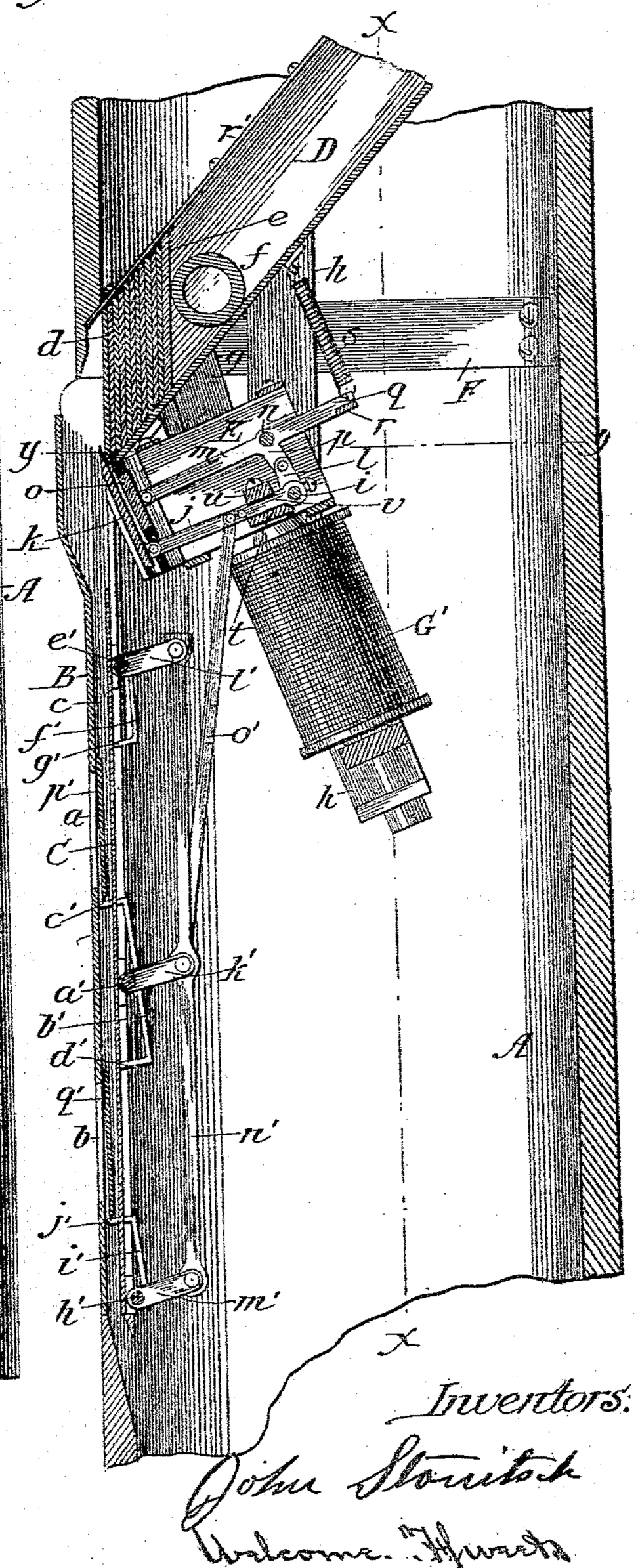


Fig. 2.



Witnesses:
Chas. A. Wait
Frank L. Blanchard.

Inventors:
John Stonitsch
Wm. F. Sweet
by Church & Church
Attorneys.

(No Model.) 2 Sheets—Sheet 2.

J. STONITSCH & W. F. SWEET.

DEVICE FOR DISPLAYING ADVERTISING CARDS.

No. 356,805. Patented Feb. 1, 1887.

Fig. 3.

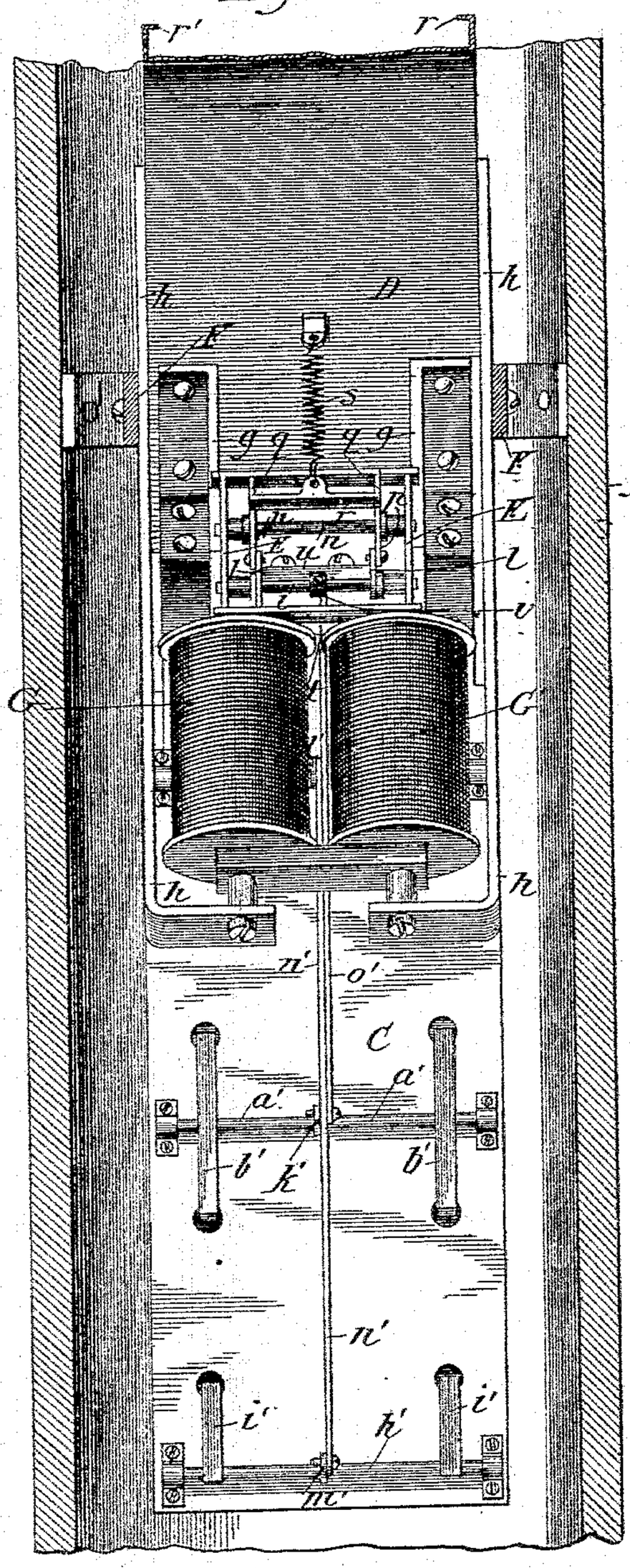
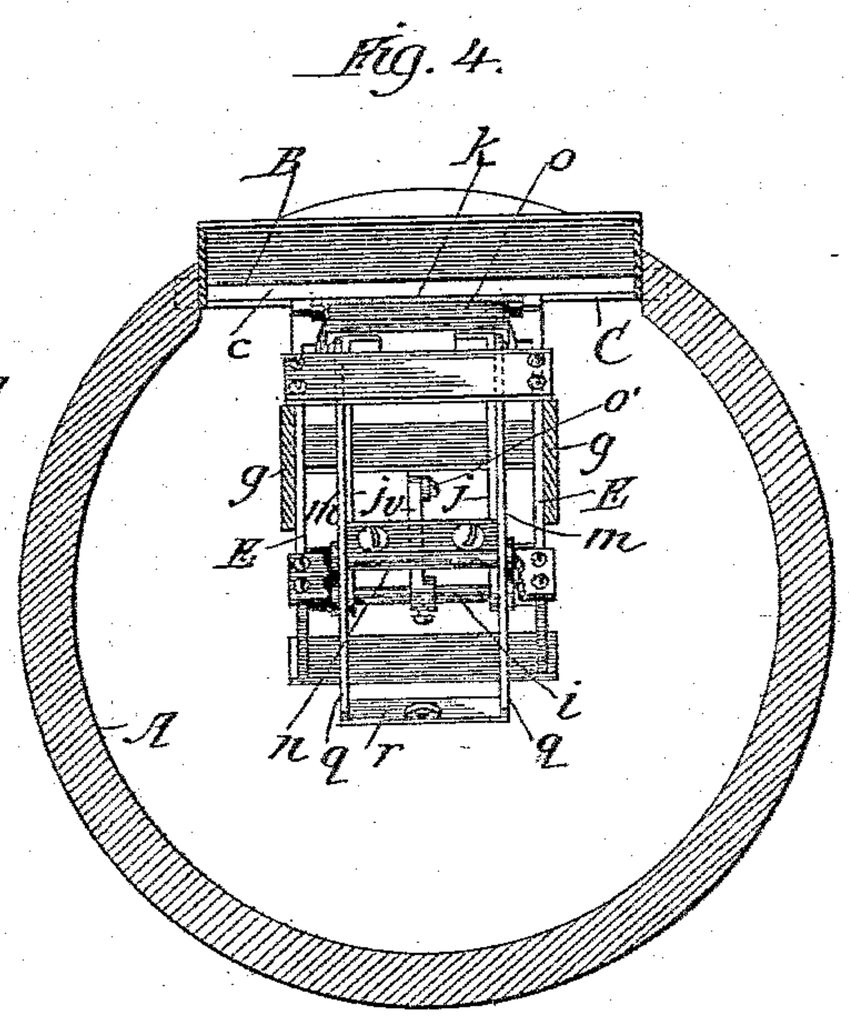


Fig. 4.



Witnesses:

C. A. Wright

Frank S. Blanchard

Inventors:

John Stonitsch

Welcome F. Sweet

UNITED STATES PATENT OFFICE.

JOHN STONITSCH AND WELCOME F. SWEET, OF CHICAGO, ILLINOIS, ASSIGNORS TO THE ELECTRO MECHANICAL MANUFACTURING COMPANY, OF SAME PLACE.

DEVICE FOR DISPLAYING ADVERTISING-CARDS.

SPECIFICATION forming part of Letters Patent No. 356,805, dated February 1, 1887.

Application filed June 22, 1886. Serial No. 205,930. (No model.)

To all whom it may concern:

Be it known that we, JOHN STONITSCH and WELCOME F. SWEET, residing at Chicago, in the county of Cook and State of Illinois, and citizens of the United States, have invented a new and useful Improvement in Devices for Displaying Advertising-Cards, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a vertical section taken near the center. Fig. 3 is a section at line *x* of Fig. 2. Fig. 4 is a section at line *y* of Fig. 2, the magnets not being shown and the position of the parts being somewhat changed, the front of the machine in this figure being toward the top of the sheet.

The object of our invention is to provide devices, automatically operated, by the use of which a series of advertising-cards can be conveniently displayed one after the other, each for a limited time. This object we attain by the mechanism illustrated in the drawings, in which—

A represents a hollow pillar, within which the principal parts of our devices are located. A portion of the front of this pillar is cut away for the purpose of providing a suitable place to locate a passage for the cards and some of the operating devices.

B represents a face-plate, having in it two openings, *a b*, a trifle smaller than the cards which are to be displayed.

C is another plate a little back of B, and supported at a little distance therefrom. Between B and C is a passage, *c*, for the cards.

D is a trough, of any suitable length, adapted to receive and hold a number of cards, *d*, upon the faces of which any suitable desired matter may be printed or otherwise displayed. This trough, as shown, stands at an angle of about forty-five degrees, and is secured in place in any suitable manner. As shown, it is open at the top, but each edge is provided with a flange for the purpose of holding the cards. The size of this trough depends upon the cards to be used in it.

e is a loose plate or block behind the cards.

f is a cylindrical piece of metal, which serves as a weight to force the cards forward by pressing against the plate or block *e*.

E is a metal frame, in which some of the operating parts are supported. This frame may be secured to the inside of the pillar by brackets F, and may be supported from the trough by bars *g*.

G G′ are two strong magnets supported by bars *h*, the upper ends of which are secured to the trough.

i is a shaft supported in bearings in the frame D.

j are two arms rigidly connected at their rear ends to the shaft *i*. These arms are pivotally connected at their forward ends to a vertically-sliding knife, *k*. From the rear end of each of these arms *j* a short arm, *l*, extends upward.

m are two other arms upon a shaft, *n*, which is supported in bearings in the frame D. The forward ends of these arms *m* are pivotally connected with a second vertically-moving knife, *o*. From each of these arms *m* a short arm, *p*, extends downward and is pivoted to one of the arms *l*.

q are rearward extensions from the arm *m*, the ends of which extensions are connected by a cross-piece, *r*.

s is a spring, the lower end of which is connected with the cross-piece *r*, and the upper end is connected to the under side of the trough.

t is an armature secured in place by means of screws which pass through the bar *u*, which rests upon the arms *j*.

v is an arm secured at its rear end to the shaft *i* at or near its center.

a′ is a small shaft pivoted in bearings on the back side of the plate C. Near each end of this shaft and secured thereto is an arm, *b′*. Each end of this arm is bent over at about right angles, and the bent-over portions *c′ d′* are arranged to pass through suitable holes in the plate C and come in contact with the plate B.

E′ is another shaft pivoted in bearings on the back side of the plate C, to which and near each end is attached an arm, *f′*, extending downward, the lower ends of which, *g′*, are bent at about right angles with the main portions, and arranged to pass through suitable openings in C.

h′ is another shaft pivoted in bearings upon

the back side of C. Secured to this shaft and near each end are arms i', projecting upward, the upper ends, j', of which are bent over and pass through holes in C.

k' is an arm secured to the shaft a'.

l' is an arm secured to the shaft e'.

m' is an arm secured to the shaft h'.

n' is a bar pivoted to each of the arms k' l' m'.

o' is a connecting rod or bar, pivoted at its upper end to the forward end of the arm v and at its lower end to the bar n' and arm k'.

The knives k o move up and down in grooves in blocks secured to the frame E. The cards d are provided with beveled edges.

p' is a card resting on the two arms or rests c', and in front of the opening a in B.

q' is another card in front of the opening b.

H represents a clock-movement, which is provided with a circuit-breaker in the usual manner. A battery (which is not shown) is to be used for operating the devices, which battery is to be connected with the circuit-breaker and the magnets by wires in the usual manner.

The arms j and m, when in their normal position, as shown in Fig. 2, are not exactly parallel with each other, and the arms l p do not stand in exactly the same line.

The circuit-breaker may be operated at such intervals as may be desired.

The operation is as follows: Suppose the parts to be in the position represented in Fig. 2; then when the magnets are vitalized through the closing of the circuit in the usual manner the armature t will be drawn to the magnets, and the armature being connected with the arms j they will be drawn down, carrying with them the knife k, which will release the forward card in the trough, and at the same instant the knife o will be raised, and will come in front of the lower edge of the next card in the trough, the knife being raised by the action of the arms l p and arm m. At the same time, by the descent of the arm j, the connecting-arm o' will be forced downward, and, through the arms k' l' m' and the connecting-bar n', the three shafts a' e' h' will be rotated a little, throwing the arms g' and d' forward, and at the same time throwing c' and j' backward. The forward card in the trough when released will fall and rest upon the arms g', which will then be thrown forward. At the same time the card p' will be released by the withdrawal of the arms c, and will drop down and rest upon the two arms d', which will then be thrown forward. At the same time the card q' will be released by the withdrawal of j', and will fall into the bottom of the column. Then, the circuit being opened, the action of the spring s will restore the parts to the position shown in Fig. 2. Another card in the trough will then come forward into position, as shown in Fig. 2, the card which fell and rested for the time being on the arms g', being released, will fall to and rest upon the arms c', and the card which was resting upon the arms d' will fall and rest upon the arms j'. The parts will remain in this position, the cards in front of the openings a b being exposed to view until by the action of the circuit-breaker the circuit is closed and the magnets again vitalized. This operation will be repeated as often as the circuit is closed.

It is evident that the parts might be readily operated by a suitable mechanical device operating at intervals upon the cross-bar r or some other part for a moment and then releasing the same, thereby producing the same effect that is produced by the action of the magnets by drawing the armature to them; but we regard the magnets, armature, battery, and circuit-breaker as the most feasible means for operating the devices.

We have only shown a few cards in the trough; but in use a large number will be placed therein.

The bottom of the column may be provided with an opening, through which access can be had to the interior for the purpose of removing the cards which drop therein, which cards can be returned to the trough and used over and over again.

We have shown two openings in the plate B for the display of the cards. A single opening may be used, if desired.

We have called the parts k o "knives." These parts have no cutting action, but are used only for the purpose of separating and holding the lower edges of the cards, and they may be called "separating blades or slides."

The arms j and l together form a lever, and the arms m p together form another lever.

It is not necessary to locate our devices in a pillar.

When the parts are in the position shown in Fig. 2, the cards cannot escape from the trough, the front card being then held at the bottom by the blade k and at the top by the flanges r' upon the upper edges of the trough. When the knife k descends, the lower edge of the front card will be released, and it will fall by gravity into the passage c.

What we claim as new, and desire to secure by Letters Patent, is—

1. In combination with a card-receptacle, D, two blades, k o, levers j l and m p, pivoted in a frame and to each other, and suitable operating mechanism, whereby the blades can be moved simultaneously in opposite directions, substantially as and for the purposes specified.

2. In combination with a card-receptacle, D, two blades, k o, adapted to be raised and lowered alternately, the levers j m, carrying said blades and pivotally connected by the levers p l, the magnets G G', and the armature t, secured to the levers j, and a spring, s, for returning the parts to their normal position, substantially as shown and described.

3. In combination with a card-receptacle, D, two blades, k o, levers j l and m p, a passage, c, for cards, the front of such passage being provided with one or more display-openings, shaft a', carrying arms b', shaft e', carrying arms f', arms k' l', connected together at

their outer ends by a rod or bar, n', and a connecting-bar, o', connecting the bar n' with the operating mechanism, all constructed substantially as shown and operated by any suitable mechanism, substantially as and for the purposes specified.

4. In combination with a card-receptacle, D, two blades, k o, arranged to be moved simultaneously in opposite directions, the levers j m, carrying said blades and pivotally connected by the levers p l, a passage, c, for the cards, the shaft a', carrying the arms b', the shaft e', carrying arms f', the shaft h', carrying arms i, and the arms k' l' m', connecting said shafts to the rod n', said rod n' being connected to the operating mechanism by means of a connecting-rod, o', substantially as described.

5. The combination of a card-receptacle, D, two blades arranged to be moved simultaneously in opposite directions, and a series of cards having one or more beveled edges to permit the edge of one of the blades to pass between two adjoining cards, substantially as and for the purposes specified.

JOHN STONITSCH.
WELCOME F. SWEET.

Witnesses:
E. A. WEST,
HARRY T. JONES.