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PATENTED NOV. 28, 1905.

H. W. EWING.

DEVICE FOR DISPLAYING ADVERTISING MATTER.

APPLICATION FILED JAN. 13, 1903. RENEWED MAR. 24, 1905.

2 SHEETS—SHEET 1.

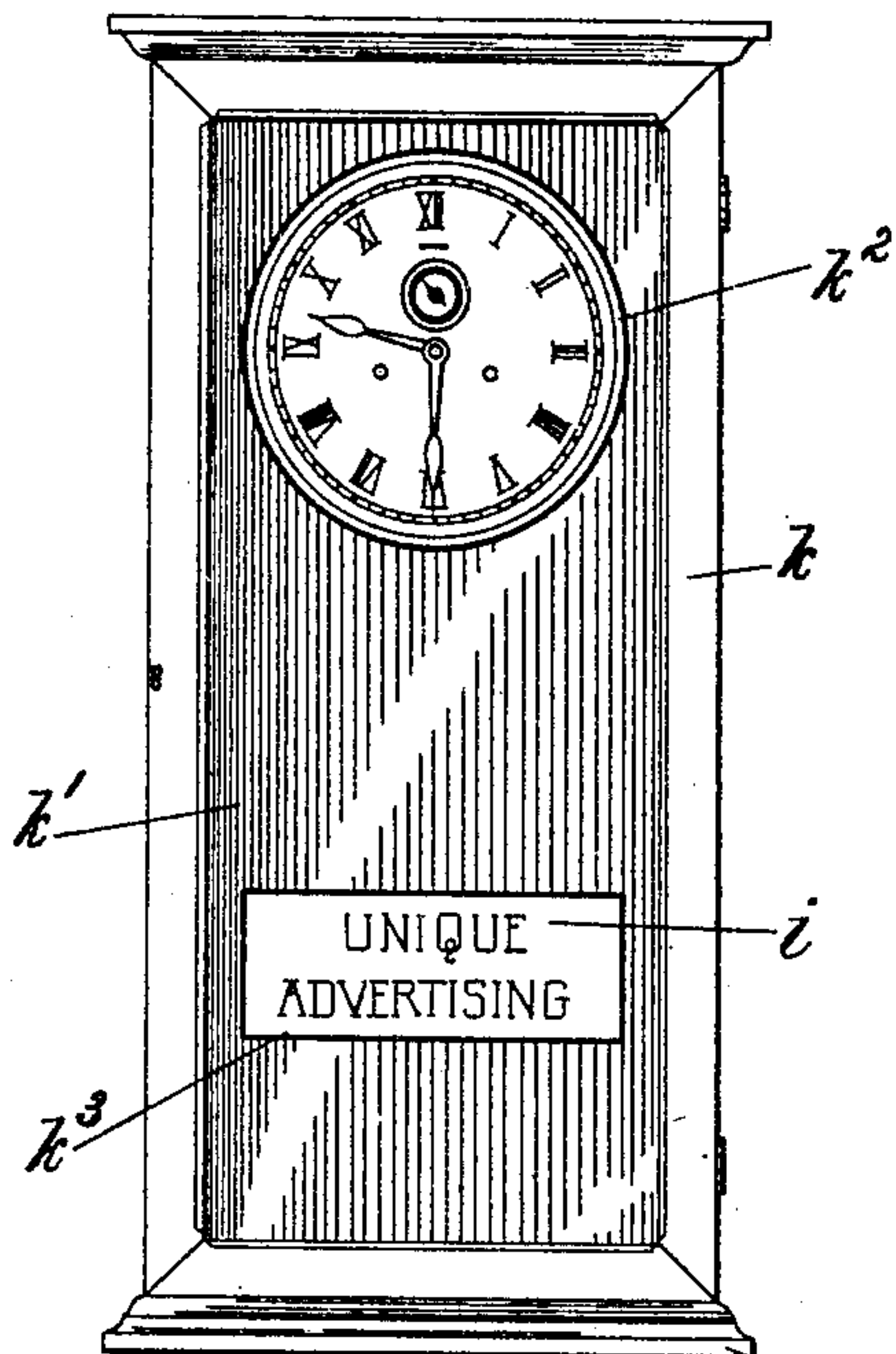


Fig. 1

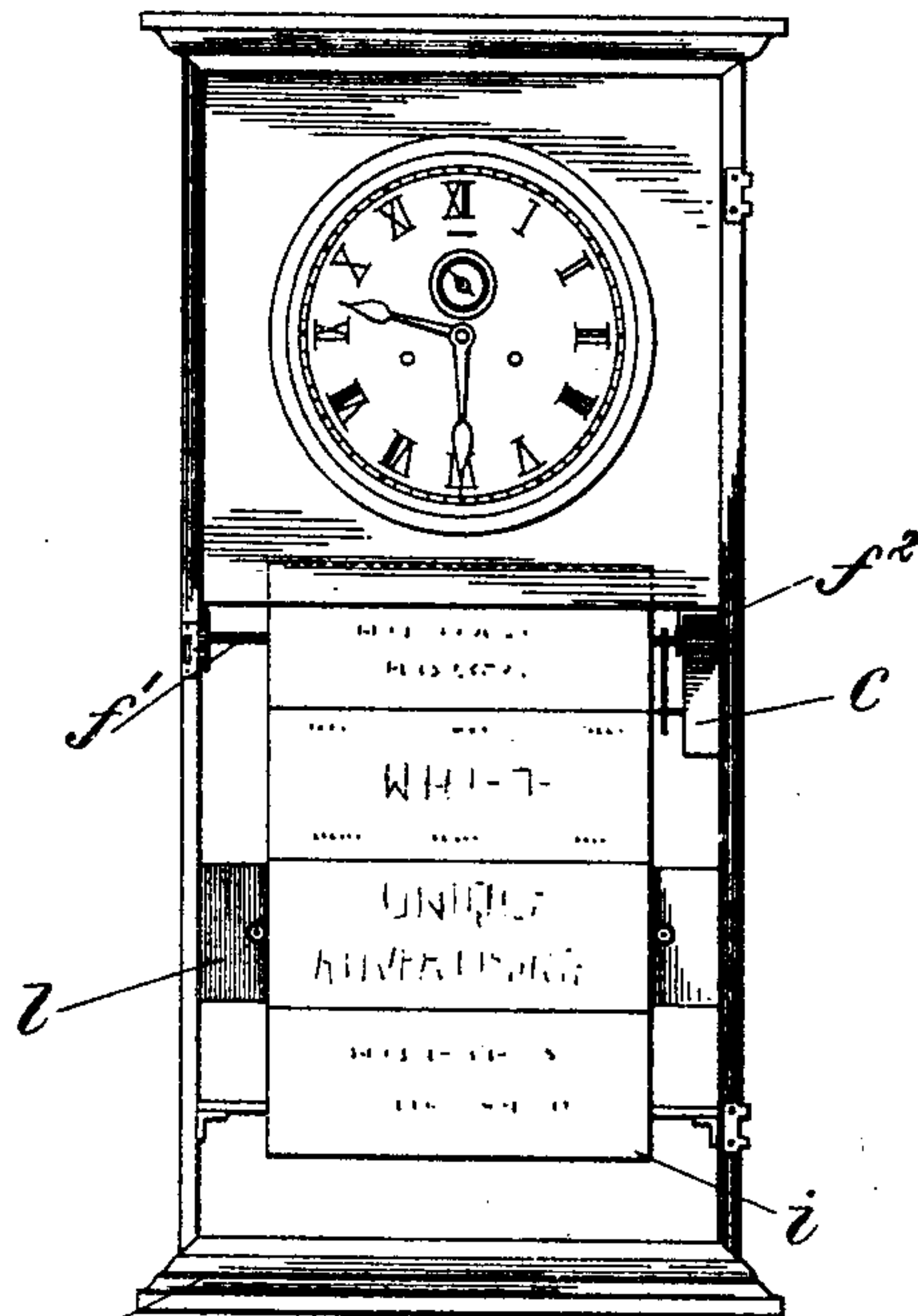


Fig. 2

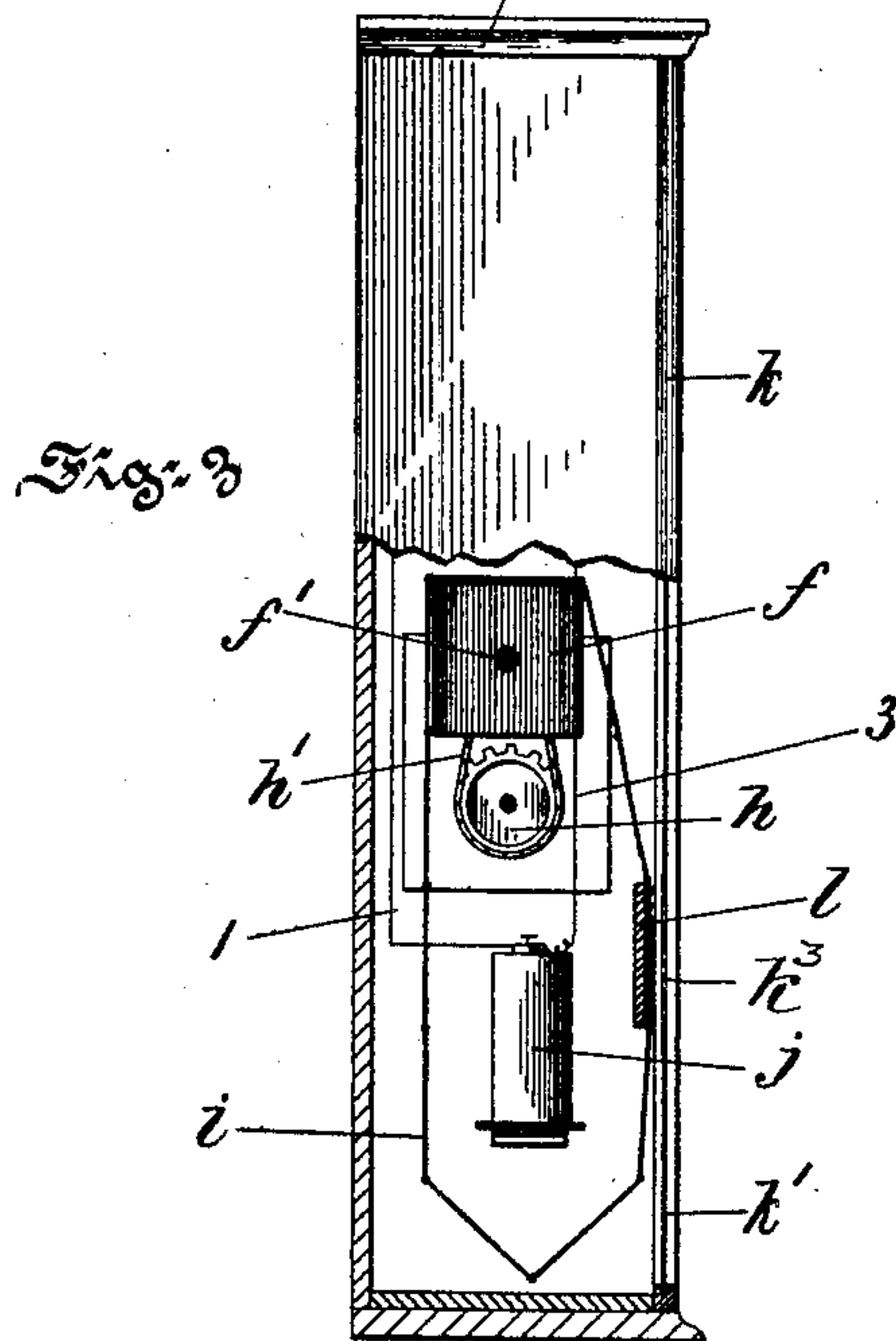


Fig. 3

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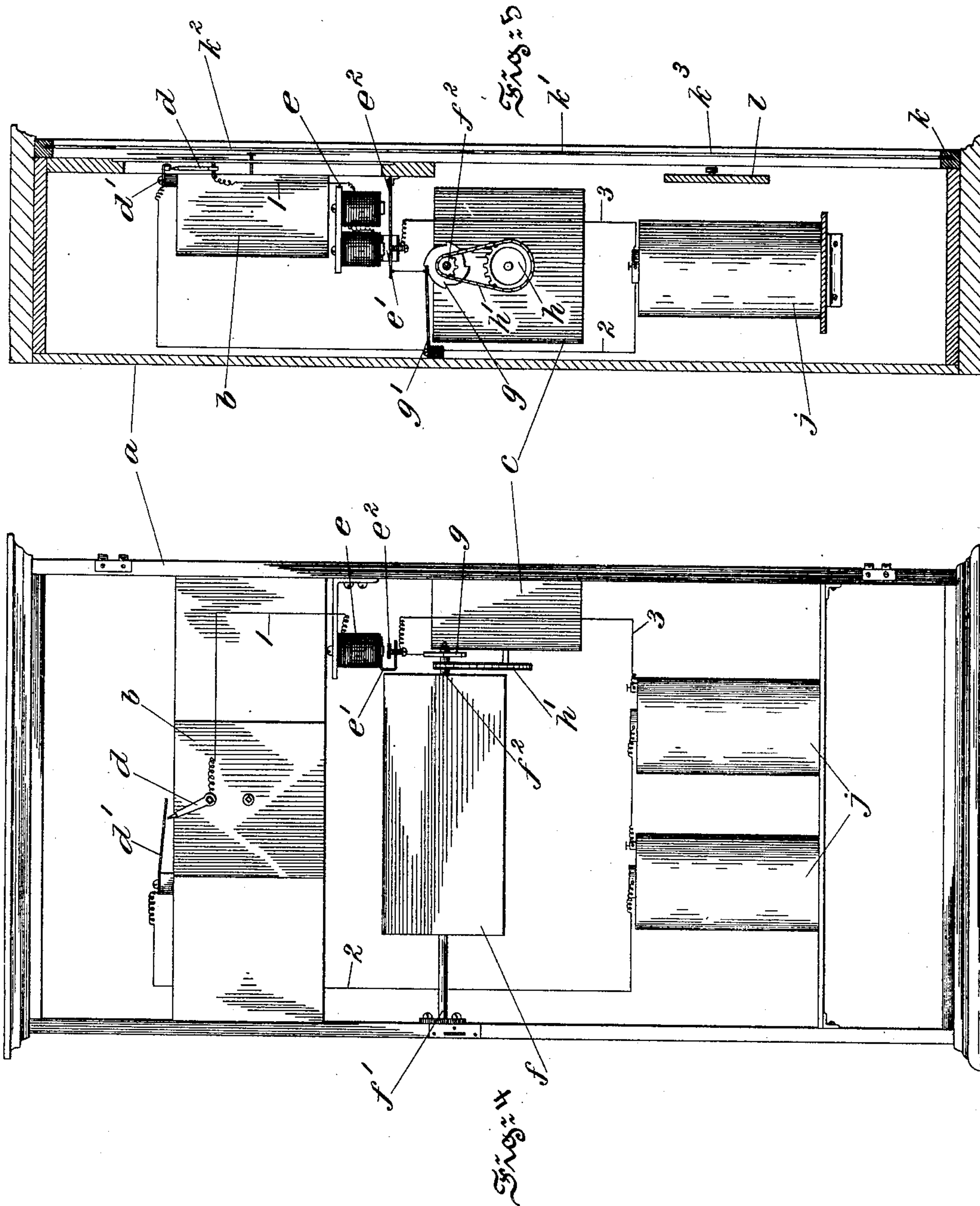
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2 SHEETS—SHEET 2.



WITNESSES:

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DEVICE FOR DISPLAYING ADVERTISING MATTER.

No. 805,786.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed January 13, 1903. Renewed March 24, 1905. Serial No. 251,738.

To all whom it may concern:

Be it known that I, HENRY W. EWING, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Device for Displaying Advertising Matter, of which the following is a specification.

The field of advertising has grown to such an extent and has become clouded with such a numerous array of advertising matter that the ordinary and long-used ideas of that art no longer attract the attention of the general public, who are always keen and on the alert for unique methods of display.

One of the objects of the present invention is to provide a device calculated to attract the attention of the class of people above referred to and to present to the vision at brief intervals automatically certain advertising matter.

Another object of the present invention is to provide reliable and comparatively inexpensive mechanism for attaining this end at predetermined intervals.

A further object of the present invention is the adaptation of this mechanism to existing types of clocks without material alteration of the same.

Other objects of the present invention will appear from the following description.

The invention consists of the improvements hereinafter described and claimed.

The nature, characteristic features, and scope of the invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a front elevational view of the device embodying the invention. Fig. 2 is a similar view with the door removed. Fig. 3 is a side elevational view, partly in section. Fig. 4 is a front elevational view drawn to an enlarged scale with the door removed and illustrating certain detail construction, and Fig. 5 is a sectional view of the same looking toward the right-hand side of Fig. 4.

Referring to the drawings, *a* is the casing of one of the well-known types of eight-day clocks and is provided with a hinged door. The working parts of the clock comprise the

dial, together with its hour, minute, and second hands and their complemental works, which are of the lever-movement type and are located in the structure *b*. A similar movement is located in the structure *c*. These movements are well known in the art, and hence have not been illustrated, and reference will not be made to them further than to point out their relation to the mechanism hereinafter to be described. Attached to and insulated from the seconds-hand of the clock-movement in the upper portion of the casing *a* is a circuit-closer *d*, which is provided with a platinum point, the same being adapted to come in contact with the contact member *d'*.

e represents electromagnets supported from a suitable bracket which is attached to the side walls of the casing. Depending from one of these electromagnets is a spring-support *e'*, adapted to receive a set-screw. Located beneath these electromagnets *e* and adapted to be attracted by the same is a lever-arm *e''*, which is adjustable by means of the aforesaid set-screw.

f is a rectangular member or carrier provided with trunnions *f'* *f''*, their respective ends being journaled in the side wall of the casing and in the structure *c*, respectively.

Upon the trunnion *f''* and beneath the electromagnets there is located an escapement-wheel *g*, which, as shown, is provided with notches corresponding to the number of the faces of the carrier *f*. The escapement-wheel is normally held in place by means of a pawl *g'*, which may be connected with the arm *e''* by means of a cord, the purpose being that when the magnets attract the lever-arm *e''* the same will raise the pawl and free the escapement-wheel, and thus release the movements in the structure *c*, which in turn acts as a motor to set in motion the carrier *f*. Also located upon the trunnion *f''* is a sprocket-wheel, whose function will be hereinafter described. Extending from and connected with the motor is a shaft carrying a sprocket-wheel *h*. Connecting this sprocket-wheel with the sprocket-wheel on the trunnion *f''* is a sprocket-chain *h'*, adapted to impart a rotatable movement to the carrier *f*. This carrier is arranged to display a series of individual

cards *i*, which may be hinged together by means of canvas strips or by any other suitable means. These cards form, as it were, an endless chain, which may be readily removed from and, if necessary, a new set applied to the carrier. Located upon a shelf in the lower portion of the casing are dry batteries of any of the well-known types and which are designated *j*. By reference to Fig. 3 it will be observed that these batteries are so located that the series of cards rotate around them without interference therefrom. With regard to Fig. 1 the hinged door of the casing consists of a framework *k*, fitted with a glass front *k'*. This glass, as shown, comprises an opaque portion with translucent spaces *k²* and *k³*, adapted for the observance of the time of day and the reading of the advertising matter displayed by the series of cards *i*. In order that the individual cards may come into close proximity with the space *k³*, a support *l* is extended across the front of the casing, and the cards descend between the support and the glass front of the door. The support is provided with rollers to facilitate the movement of the cards.

The circuit of the above-described device may be traced as follows: from one of the electromagnets by way of lead 1 to the circuit-closer *d*, and through the contact-piece *d'* by way of lead 2 to and through the dry batteries *j* by way of lead 3 to the spring-support *e'*, and to the electromagnets.

The operation of the device may be described as follows: At predetermined intervals, or, in other words, once in every sixty seconds, the platinum point of the circuit-closer *d* comes in contact with the contact-piece *d'*, and thereby closes the circuit, as above traced. The closing of this circuit energizes the electromagnets *e*, which in turn attracts the lever-arm *e²*, thus raising the pawl and releasing the escapement-wheel *g*. The motor in the structure *c* is thereupon permitted to operate, thereby causing the sprocket-wheels and their complementary sprocket-chain to revolve the carrier *f* and cause one of the individual cards to display a suitable advertisement at the space designated *k³*, Fig. 1. At the moment the advertisement comes opposite the space *k³* the circuit is broken, the electromagnets are deenergized, and the motor is brought to rest. After remaining in this position for one minute the above-described operation again takes place and a new advertisement appears at the space upon the glass front. Obviously this method of advertising is systematic, certain, and periodical and requires no regular attention other than to wind the movements when that becomes necessary.

The above-described device may be advantageously set up in various business estab-

lishments, where both the proprietor and patrons derive knowledge of the time of day and where at intervals of a minute some one or other of the advertisers make known the nature of their business.

Having thus described the nature and objects of the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the type recited, the combination of a clock, a chain of cards, an electric circuit, a motor, connections between said motor and said chain for displaying said cards consecutively, an electromagnet included in said circuit, a circuit-closer mounted upon an insulated moving part of the clock for periodically completing and breaking the circuit through the electromagnet, and means responding to the energizing and deenergizing of the magnet for alternately releasing and stopping the motor, substantially as described.

2. In a device of the type recited, the combination of a clock, a chain of cards, an electric circuit, a motor, connections between said motor and said chain for displaying said cards consecutively, an electromagnet included in said circuit, an armature adapted to be attracted by said magnet when the latter is energized, a circuit-closer mounted upon an insulated moving part of the clock for periodically completing and breaking the circuit through the electromagnet, and a mechanical connection between the armature and the motor for alternately releasing and stopping the motor in response to the making and breaking of the circuit, substantially as described.

3. In a device of the type recited the combination of a clock, a generally polygonal carrier, a chain of cards having hinged connections, an electric circuit, a motor, connections between the motor and the carrier for displaying said cards consecutively, and electrical means controlled by a moving part of the clock for alternately releasing and stopping the motor, substantially as described.

4. In a clock-controlled advertising device, the combination of a clock, a carrier, a chain of cards, an electric circuit, mechanical means acting as a motor, connections between said means and the carrier for displaying said cards consecutively, and electrical means controlled by a moving part of the clock for alternately releasing and stopping the motor, substantially as described.

5. In a clock-controlled advertising device, the combination of a journaled carrier arranged to display an endless chain of cards, a motor to operate said carrier, an escapement on the shaft of the carrier, a dog or pawl normally engaging the same, a clock, an electric circuit, an electromagnet and its complementary armature included in said circuit and located above the escapement, a circuit-closer mounted upon an insulated moving part of

the clock for periodically completing and
breaking the circuit through the electromag-
net, and a mechanical connection between the
armature and pawl, whereby the motor is al-
ternately released and stopped in response to
5 the making and breaking of the circuit, sub-
stantially as described.

In testimony whereof I have hereunto signed
my name.

HENRY W. EWING.

In presence of—

EDITH E. YATES,
GRACE MORSE EWING.