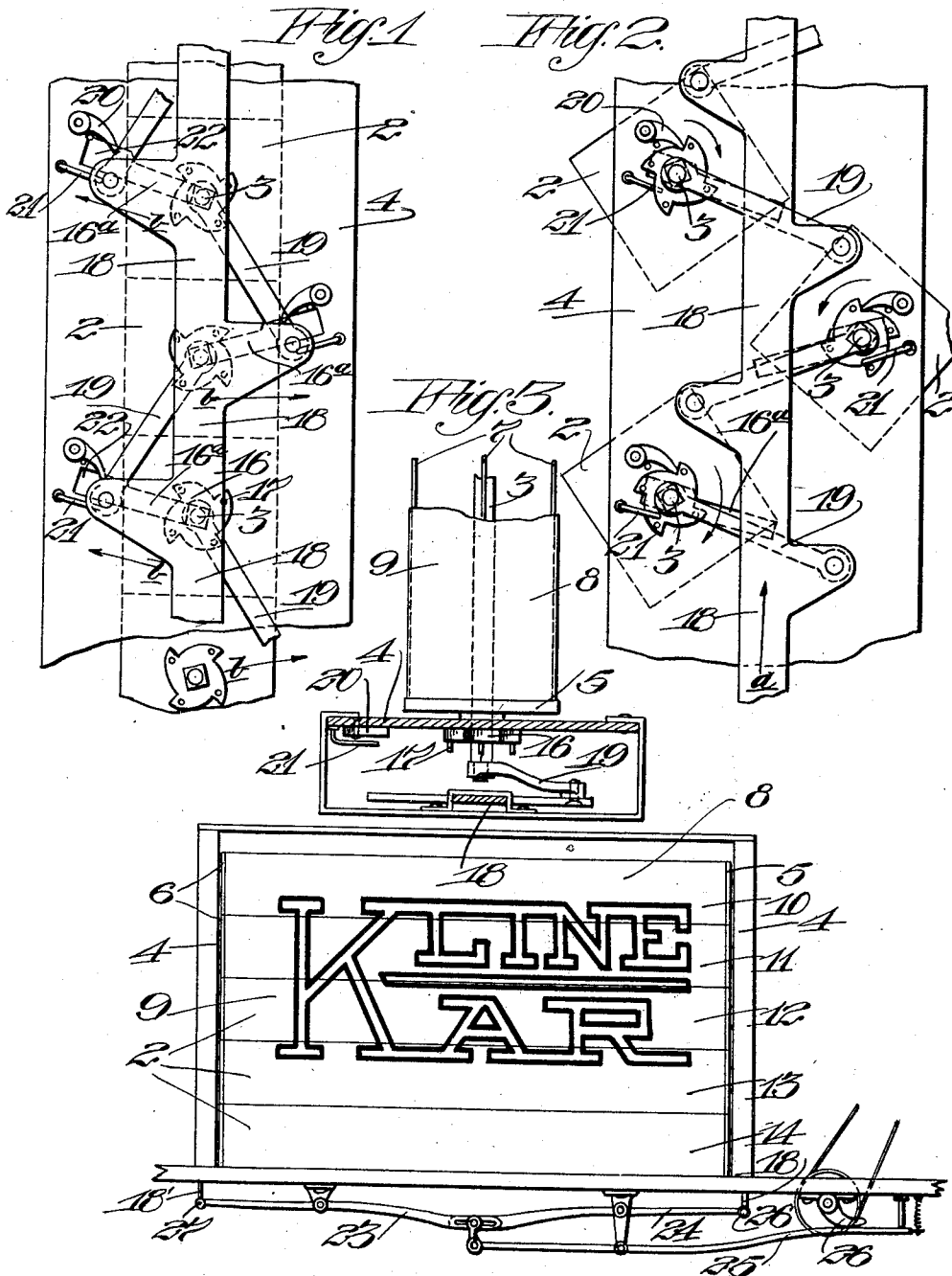


A. O. GOLDSTEIN.
ADVERTISING DEVICE.
APPLICATION FILED AUG. 5, 1912.

1,058,698.

Patented Apr. 8, 1913.



WITNESSES:

Chas. Kestner.
A. S. Bunn.

Fig. 4.

INVENTOR

Alfred O. Goldstein.

BY *J. H. Shing*

Attorney

UNITED STATES PATENT OFFICE.

ADOLPH O. GOLDSTEIN, OF SAN FRANCISCO, CALIFORNIA.

ADVERTISING DEVICE.

1,058,698.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed August 5, 1912. Serial No. 713,284.

To all whom it may concern:

Be it known that I, ADOLPH O. GOLDSTEIN, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Advertising Devices, of which the following is a specification.

This invention relates to a certain new and useful improvement in advertising signs.

The object of the invention is to construct a simple, substantial and reliable display sign, upon which a series of advertisements of divers characters may be arranged in such a manner that only one sign is displayed at one time.

Another object of the invention is to provide means for changing the signs at suitable time intervals.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is an enlarged end view of the device partly broken away. Fig. 2 is a similar view showing the display signs in the turning position. Fig. 3 is a plan view of Fig. 1, showing the display sign partly broken away. Fig. 4 is a front elevation of the display sign showing the operating mechanism.

The object of the present invention is to provide an advertising medium having a series of display surfaces adapted to be turned into position at suitable time intervals to display a sign; the displaying surfaces being so positioned with relation to each other that each turn will display a new sign.

With this object in view I have provided a series of rectangular frames 2, mounted upon shafts 3, which in turn are carried by end frames 4. The rectangular frames consist of head portions 5 and 6 secured to the shafts 3 in any suitable manner, between which heads are secured rods 7 or equivalent means for the purpose of carrying the display medium which may consist of a light fabric or sheet metal 8; it being understood that any suitable material of this nature may be employed upon which the sign or advertisement may be painted or printed. The fabric may be secured to the rods in any suitable manner not here shown.

The rectangular frames are so positioned with relation to each other that their flat surfaces will contact, as shown in Figs. 1 and 4. The exposed surface, as 9, toward the front of the supporting frame may have painted or printed upon its surface any suitable sign, as shown in Fig. 4; the different surfaces of the rectangular frames, as 10, 11, 12, 13 and 14 forming the sign surface.

When it is desired to change the sign, it is necessary to separate the rectangular frames and turn these a quarter revolution, thereby bringing a series of new surfaces toward the front or display side of the frame. This is accomplished by the following means: The rectangular frames are supported upon shafts 3, which in turn are supported in slots or guideways 16^a formed in the end frames 4. Each of the ends of the shafts 3 is provided with a ratchet 16 and pins 17.

18 and 18' indicate slide frames, so mounted with relation to the stationary frame 4 that vertical sliding movement may be transmitted to the sliding frames 18 and 18'. The frames are shown as connected with the rectangular display frames 2 through the medium of links 19 secured at one of their ends to the shafts 3 and at their other end to the slide frames 18 and 18'.

By referring to Fig. 2 it will be seen that the sliding frames 18 and 18' are lifted in the direction of arrow *a* and that motion will be transmitted from the sliding frames to the rectangular display frames through the medium of the links 19 to slide the display frames apart and turn the frames a quarter revolution. The upward movement of the frames will force the shafts in an outward direction, indicated by the arrows *b*, and the turning movement of same is produced by the ratchets 16 engaging with pawls 20 secured to the supporting frames 4; the engagement between the ratchets and pawls just being sufficient to give the display frame a quarter turn.

In order to prevent further turning movement of the display frame it is necessary to provide a positive stop. This is produced by allowing one of the pins 17 of the ratchets to engage with a stop 21. In order to further guard against differential movement between the different display frames when these are parted for the purpose of turning

same, and especially to guide the display frames into position on the return movement, I have found it advantageous to form a portion of the carrying shaft 3, which rests in the guide slots 16^a, square in cross section. The display frame having been turned a quarter revolution will rest on the flat surface of the carrying shaft and will thus be prevented from rocking or tilting when being carried back into position.

The guide slots 16^a are shown as slightly enlarged, as at 22. This is for the purpose of allowing the square portion of the shaft to turn in the slot when the display frame is turned a quarter revolution, caused by the engagement of the pawls 20 with the teeth of the ratchets 16. The return movement of the rectangular frames is accomplished by lowering the sliding frames 18 into the position shown in Fig. 1. This will cause the links 19 to draw the display frames back into the position shown in this figure.

Any suitable mechanism may be employed for the purpose of raising and lowering the slide frames 18. While I have here shown a pair of connected rocking arms 23 and 24, actuated by a rocking lever 25, which in turn is actuated by a cam 26, for the purpose of transmitting a rocking motion to the arms 23 and 24 which reciprocate the sliding frames 18 and 18', the arms 23 and 24 being connected to these at 26 and 27, it will be understood that any other suitable means which will transmit reciprocating motion to the slide frames 18 and 18' may be employed. It is possible to employ a time-actuated trip mechanism driven by any suitable power, or it is possible to use a hand or foot lever arrangement for the same purpose.

For the purpose of preventing injury to the different display surfaces of the rectangular frames when these are separated for the purpose of turning same, it is necessary to separate the display surfaces from each other to prevent any rubbing action between the different surfaces which would have a tendency to mar same. With this object in view I have shown the head portions 5 and 6 of each frame slightly larger in diameter or outside dimension than the display frame proper, so that when the frames are in position and resting one upon the other, as shown in Fig. 1, the different surfaces will not come in actual contact; the display frames being supported by the surfaces of the head portions 5 and 6.

To prevent undue friction in the mechanism, when separating the different rectangular frames for the purpose of turning same, it has proven advantageous to slightly separate each individual frame when sliding the frames apart. This is accomplished by placing the different guide slots 16^a at

varying angles; the upper guide slot 16^a being placed on a greater incline than the succeeding guide slot and each slot decreasing in angle.

It can thus be seen that when the rectangular frames are actuated by the sliding frames 18 and 18', through the medium of the links 19, and forced into the position shown in Fig. 2, each individual rectangular frame will be slightly raised above the surface of the succeeding rectangular frame; this being caused by the varying angles of the different guide slots, thus eliminating undue friction between the different surfaces.

The display device here shown is novel in construction, neat in appearance, prompt and reliable in its actions, and takes no more space than other machines heretofore constructed. The materials and finish of the several parts of the device are such as experience and judgment of the manufacturer may dictate.

I wish it understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims and that I do not wish to limit myself to the specific design and construction here shown.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. An advertising surface comprising a stationary frame, a series of rectangular frames provided with a series of display surfaces mounted in said frame, and so positioned with relation to each other that one series of display surfaces will form one continuous display surface, supporting axles for said rectangular frames, a ratchet at each end of said axles, engaging pawls carried by the stationary frame, guideways in the stationary frame in which the axles are mounted, and means for sliding the axles and frames from one end of the guideways to the other to bring the ratchets into engagement with the pawls for the purpose of turning the rectangular frames.

2. An advertising surface comprising a stationary frame, a series of rectangular frames provided with a series of display surfaces mounted in said frame, and so positioned with relation to each other that one series of display surfaces will form one continuous display surface, supporting axles for said rectangular frames, a ratchet at each end of said axles, engaging pawls carried by the stationary frame, guideways in the stationary frame in which the axles are mounted, vertically disposed slide frames carried by the stationary frame, and means connecting the slide frames with the axles of the rectangular frames for the purpose of sliding the rectangular frames and axles from one end of the guideways to the other

to bring the ratchets into engagement with the pawls for the purpose of turning the rectangular frames.

3. An advertising surface comprising a stationary frame, a series of rectangular frames provided with a series of display surfaces mounted in said frame, and so positioned with relation to each other that one series of display surfaces will form one continuous display surface, supporting axles for said rectangular frames, a ratchet at each end of said axles, engaging pawls carried by the stationary frame, angularly disposed guideways in the stationary frame in which the axles are mounted, vertically disposed slide frames carried by the stationary frame, and means connecting the slide frames with the axles of the rectangular frames for the purpose of sliding the rectangular frames and axles from one end of the guideways to the other to bring the ratchets into engagement with the pawls for the purpose of turning the rectangular frames, when the rectangular frames are separated for the purpose of changing the display surfaces.

4. An apparatus for advertising and like purposes comprising a stationary frame, a series of rectangular frames provided with a series of display surfaces mounted in said frame, and so positioned with relation to each other that one series of display surfaces will form one continuous display surface, supporting axles for said rectangular frames, a ratchet at each end of said axles, engaging pawls carried by the stationary frame, guideways in the stationary frame in which the axles are mounted said guideways being disposed at various angles with relation to a horizontal plane for the purpose of separating or lifting the rectangular frames out of contact with each other when the rectangular frames are separated to

change the display surfaces, vertically disposed, slide frames carried by the stationary frame, links connecting the slide frames with the axles of the rectangular frames for the purpose of sliding the rectangular frames from one end of the guideways to the other to bring the ratchets into engagement with the pawls for the purpose of turning the rectangular frames, and means for reciprocating the slide frames at timed intervals.

5. An apparatus for advertising and like purposes comprising a stationary frame, a series of rectangular frames provided with a series of display surfaces mounted in said frame, and so positioned with relation to each other that one series of display surfaces will form one continuous display surface, supporting axles for said rectangular frames, a ratchet at each end of said axles, engaging pawls carried by the stationary frame, angularly disposed guideways in the stationary frame in which the axles are mounted, vertically disposed, slide frames carried by the stationary frame, links connecting the slide frames with the axles of the rectangular frames for the purpose of sliding the rectangular frames from one end of the guideways to the other to bring the ratchets into engagement with the pawls for the purpose of turning the rectangular frames, a pair of pivoted levers connected at their outer ends to the slide frames, and a connection with the inner ends of said levers for the purpose of rocking the levers at timed intervals.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ADOLPH O. GOLDSTEIN.

Witnesses:

WALTER REIMERS,
GENEVIEVE S. DONELIN.