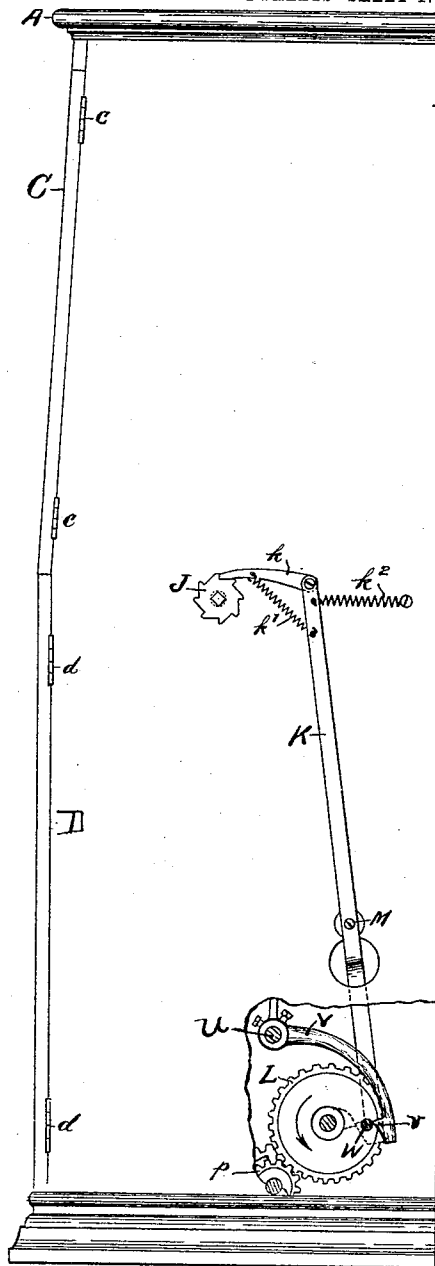
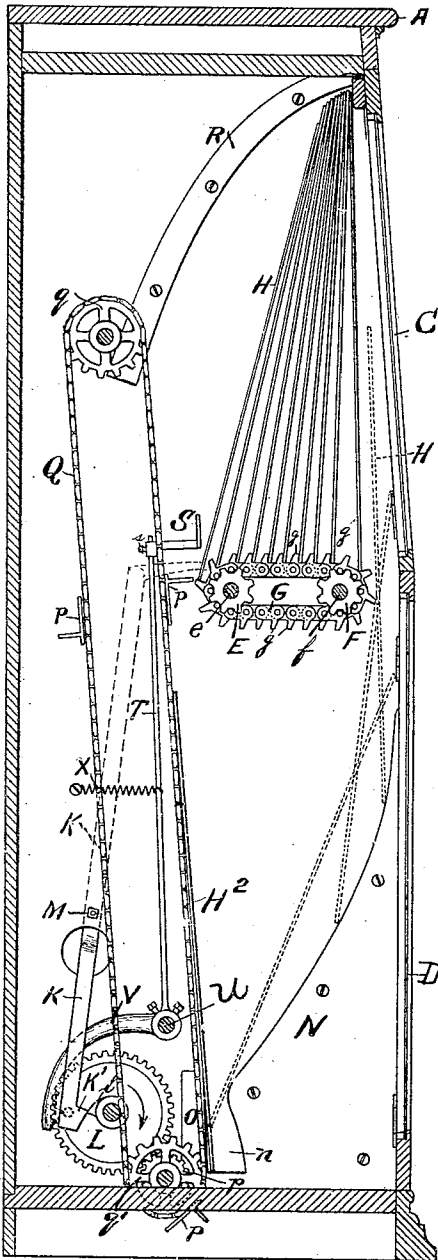


941,012.

Patented Nov. 23, 1909.

2 SHEETS—SHEET 1.



Witnesses Fig. 1.

Fig. 2. Inventor

Charles H. Collins
Lattie Purser

Charles H. Collins
 by
Frederick W. Cameron, Atty

C. H. COLLINS.
ADVERTISING DEVICE.
APPLICATION FILED NOV. 25, 1907.

941,012.

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2 SHEETS—SHEET 2.

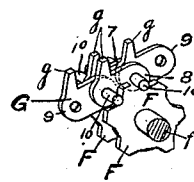
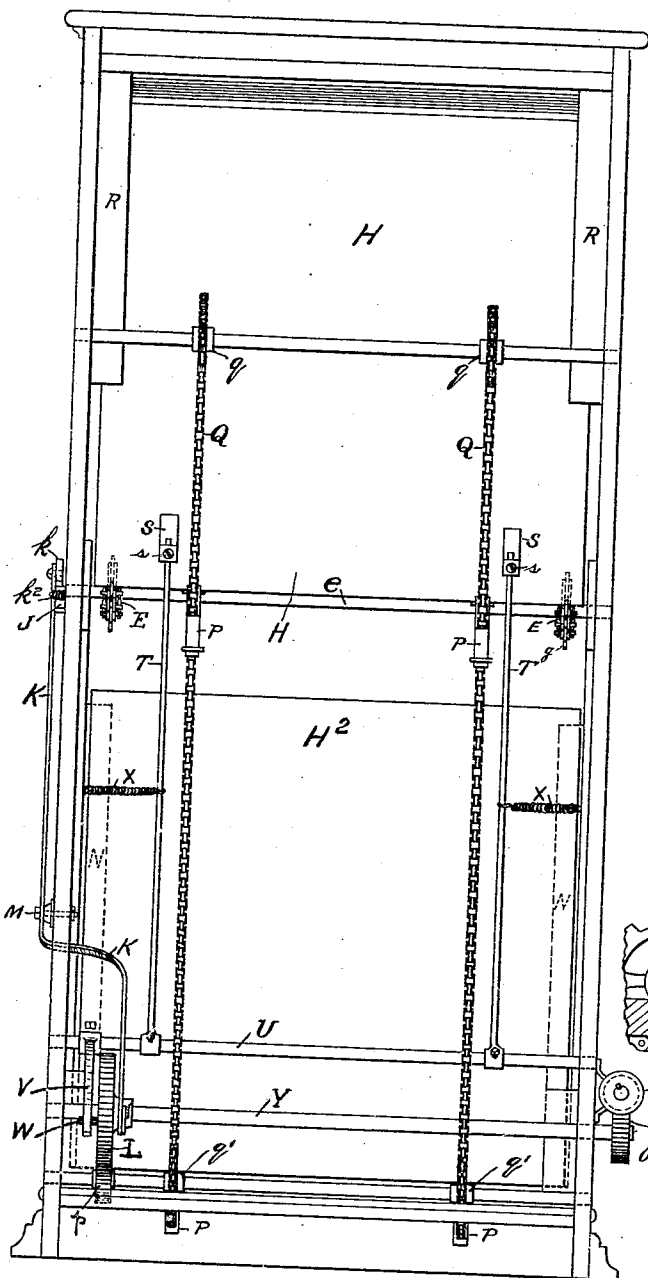


Fig. 4.

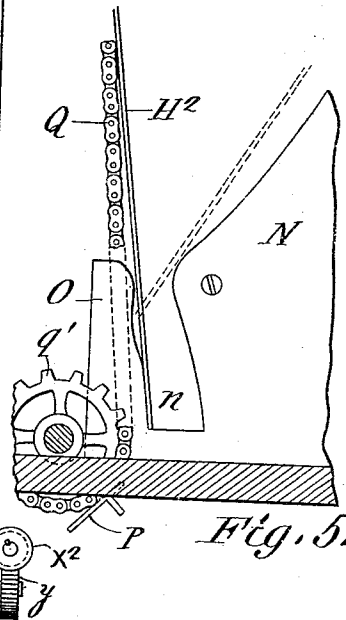


Fig. 5.

Witnesses Fig. 3.

Edley B. Ward
Lottie Prior

Inventor
Charles H. Collins

by
Frederick W. Cameron, Atty

UNITED STATES PATENT OFFICE.

CHARLES H. COLLINS, OF ALBANY, NEW YORK.

ADVERTISING DEVICE.

941,012.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed November 25, 1907. Serial No. 403,651.

To all whom it may concern:

Be it known that I, CHARLES H. COLLINS, a citizen of the United States, residing at the city of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

My invention relates to advertising devices, and the object of my invention is to provide an automatic mechanism for the display alternately of a series of cards containing advertising matter. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which:

Figure 1 is a vertical section. Fig. 2 is a side elevation with parts broken away. Fig. 3 is a rear elevation after the removal of the back piece of the cabinet. Fig. 4 is a detail perspective view showing the sprocket chain, and its support. Fig. 5 is a vertical section, partly in elevation showing the opposite side of guide, N, and post, O, from that shown in Fig. 1.

Similar characters refer to similar parts throughout the several views.

I provide a suitable cabinet, A, which is preferably arranged with its upper front either open or with glass, through which may be seen a card or plate containing the notice, or advertising matter, to be displayed. I preferably use a swinging sash, C, containing a glass in it, hinged at, c, to the cabinet, as shown in Fig. 2. The lower portion of the front of the cabinet is preferably provided with a door, D, either with glass therein, through which may be seen the card when it is being lifted, or the glass may be omitted, as desired. The door D is hinged at, d, to the side of the cabinet, or in any suitable manner. About midway between the top and bottom, within and near each side, of the cabinet I mount a series of sprocket wheels, E and F, which lies in the same horizontal plane, the sprocket wheels, E, being mounted on the shaft, e, the sprocket wheels, F, on the stud, f. The sprocket chain being carried by the sprocket wheels E and F.

The sprocket chain, G, is preferably constructed and mounted as shown in detail in Fig. 4, in which is shown two sprocket wheels, F, F, on the stud, f. Between the two is placed the chain, G, which is made up of alternate double and single links secured by a pin passing through the links

near their ends and engaging with the sprocket wheels, F, F. The double links, 7 and 8, alternating with the single link 9. The pin, 10, passing through each of the three links and the projection, g, upon them being arranged so that the projection on link 9 is separated from and situated on a medial line between the projections, g, g, on links 7 and 8. Between the two projections on the links 7 and 8 and the single projection on the link, 9, a card, H, will rest, except that when the card is first brought in contact with the sprocket chain, as shown in Fig. 1, it will be first placed on one of the projections, and then, as the card is advanced, rest between the projection, until immediately before leaving the sprocket chain it will again rest upon one of these projections.

For the purpose of moving the sprocket chain I place on the end of the shaft, e, carrying the sprocket wheels, E, a ratchet, J, adapted to be moved by the dog, k, which is pivoted to the lever, K, and which lever is preferably bent and passed through the side of the cabinet as shown in Fig. 3, and then again bent to engage the cam, l, on the hub of the wheel, L. The lever, K, ratchet, J, and dog, k, are more conveniently located, easier to get at when placed as I preferably do on the outside of the cabinet. The lever, K, has at its end, which is in contact with the cam, l, a wedge shaped projection, K', the lower inclined surface of which is engaged by the cam, l, during the revolution of the wheel, L, and when the abrupt projection on the cam, l, reaches the point of the wedge shaped projection, K', on the lever, K, the spring, k', will draw the dog, k, from contact with one of the projections on the ratchet, J, and the spring, k', will cause the dog to engage the next projection on said ratchet. The lever, K, is fulcrumed by means of a bolt, M, passing through the side of the cabinet, as shown in Fig. 3, or in any suitable manner. As thus arranged the action of the lever will be to force the sprocket wheels one space at frequent intervals, depending upon the revolution of the wheel, L, and the construction of the cam, l, thereon.

I place the cards, H, H, in position resting between the projections, g, on the sprocket chain, G, as shown in Fig. 1. The card at the front of the cabinet, immediately in the rear of the glass in the door, C, rests

upon one of the projections, *g*, on the sprocket chain, almost, if not quite, in a vertical position, as shown in Fig. 1. When the sprocket wheels are moved forward, by means of the dog, as aforesaid, the next projection, *g*, on the sprocket chain will hit the card and push it free of the sprocket chain, and it will fall in the space between the sprocket chain and the front of, the cabinet.

For the purpose of conducting the card into the proper position to be replaced on the sprocket chain, *G*, I place curved plates or guides, *N*, which act as guides for the dropping card, and against the inclined or concave surface of which the lower edge of the card engages in its fall, as illustrated by dotted lines in Fig. 1, the card being guided so that its lower edge will fall into the opening, *n*, at the bottom of the guides, *N*, between the said guides, *N*, and the post, *O*. And the card falls over against the chains, *Q*, the contour of the guides, *N*, and the location of the opening, *n*, being such as to cause the falling card shown in dotted lines at the lower part of the cabinet to fall and assume the position shown by the full lines, *H*², therein. The drawing exaggerates, somewhat, the curve of the guides, *N*, for the purpose of illustrating the invention more distinctly. The card will then occupy the position shown in full lines in Fig. 1 at *H*². In this position it will stand, until two of the carriers, *P*, *P*, attached to the sprocket chain *Q*, engage the lower edge of the card and lift it substantially vertically until the upper edge of the card engages the guides, *R*, *R*, which are placed at the upper portion of the cabinet, and cause the card to follow the curved lower surface of the guides toward the front of the cabinet. When the carriers, *P*, lifting the card reach the position where the lower edge of the card is on the same line or thereabout with the projections, *g*, on the sprocket chain, *G*, they will be pushed off of the carriers on to the projections on the sprocket chain. This operation is performed by the arms, *S*, adjustably mounted on the rods, *T*, preferably by means of slotted head screws, *s*, or in any suitable manner. The rods, *T*, are adjustably secured to the shaft, *U*, which extends across the cabinet. To the shaft, *U*, I secure, by means of a set screw, or otherwise, as desired the curved lever, *V*, see Fig. 2, which is provided near its end on the concave side with a hook or wedge shaped projection, *v*. Against the inclined side of the wedge shaped projection, *v*, a pin, *W*, on the wheel, *L*, engages during the revolution of the wheel and pushes the lever, *V*, outward, which will rotate the shaft, *U*, to which the lever is secured, and cause the rods, *T*, to move toward the front of the machine, and therefore the arms, *S*, will en-

gage the card, *H*, and push it forward off the carrier on to the projections, *g*, on the sprocket chains. After the pin, *W*, has passed the wedge shaped portion projecting from the lever, *V*, the lever will move back under the influence of the springs, *X*, which have one end secured to the rods, *T*, and the other to the cabinet.

The sprocket chains, *K*, to which the carriers, *P*, *P*, are attached pass over the sprocket wheel, *g*, at the upper portion of the cabinet, and the sprocket wheel, *g'*, at the lower portion thereof. The sprocket wheel, *g'*, has on its hub or attached thereto a pinion, *p*, with which the teeth on the wheel, *L*, engage. The wheel, *L*, is secured to a shaft, *Y*, which is mounted in suitable bearings in the cabinet, and preferably carries at one end a gear, *z*, with which the worm, *X*², engages, said worm being set in motion by suitable means, not shown.

I do not limit myself to the construction of the sprocket chain, *G*, nor to the sprocket chain, *Q*, since an endless belt may be substituted for the sprocket chain *Q*, and for the sprocket chain, *G*, one made up of different form and character from that shown may be employed without departing from the spirit of my invention, as defined in the appended claims.

What I claim as my invention and desire to secure by Letters Patent is:

1. In an advertising display apparatus; a cabinet; a series of cards to be displayed; a means for raising said cards one by one; an endless traveling chain upon which the lower edges of each card in said series rest after they have been so raised, the upper edges of said cards being free and unattached; a means for pushing the first card of said series from said endless chain after it has been displayed and allowing it to fall; a means for guiding said card so that in its fall it shall assume substantially an upright position; a means for engaging the lower edge of said card when it has fallen and assumed an upright position for the purpose of raising it to the level of the upper side of said endless chain.

2. In an advertising display apparatus; a cabinet; a series of display cards; endless carrier chains upon which said cards are placed, whereby one by one said cards are brought to the front of the cabinet and permitted to fall; said cards being entirely free and disconnected; a means for guiding the fallen card from said endless chains into position to be raised; lifting mechanism consisting of traveling chains for raising said cards; projections on said lifting mechanism for engaging the lower edge of said fallen card; a means for causing said card to be moved from said lifting mechanism to said traveling chains.

3. In an advertisement display apparatus; 130

a cabinet; a series of cards; endless chains; a series of projections thereon; said cards resting upon said chains and separated from each other by said projections; a shaft; 5 sprocket wheels thereon engaging said endless chains; studs; sprocket wheels supported by said studs engaging said chains; a ratchet on the end of said shaft; a dog engaging said ratchet; a lever to which said 10 dog is pivoted; a wedge shaped projection on said lever; a wheel; a cam thereon adapted to engage said wedge shaped projection on said lever; a means for rotating said wheel, substantially as described and 15 for the purposes set forth.

4. In an advertisement display apparatus; a cabinet; a series of cards; endless chains upon which said cards rest; a means for imparting intermittent motion to said 20 chains, whereby said cards are moved toward the front of the machine and the first

card dropped out of the series by said movement; a means for raising said fallen card; an arm adapted to push said card from the raising means to the supporting chain; a 25 rod to which said arm is attached; a shaft upon which said rod is mounted; a lever secured to said shaft; a wedge shaped projection on said lever; a wheel; a means for revolving said wheel; a pin on said wheel 30 adapted to engage said wedge shaped projection during the revolution of the wheel, whereby said arm is moved against the card when raised to the position of the supporting chain, substantially as described. 35

In testimony whereof I have affixed my signature in presence of two witnesses.

CHARLES H. COLLINS.

Witnesses:

LOTTIE PRIOR,
FREDERICK W. CAMERON.