

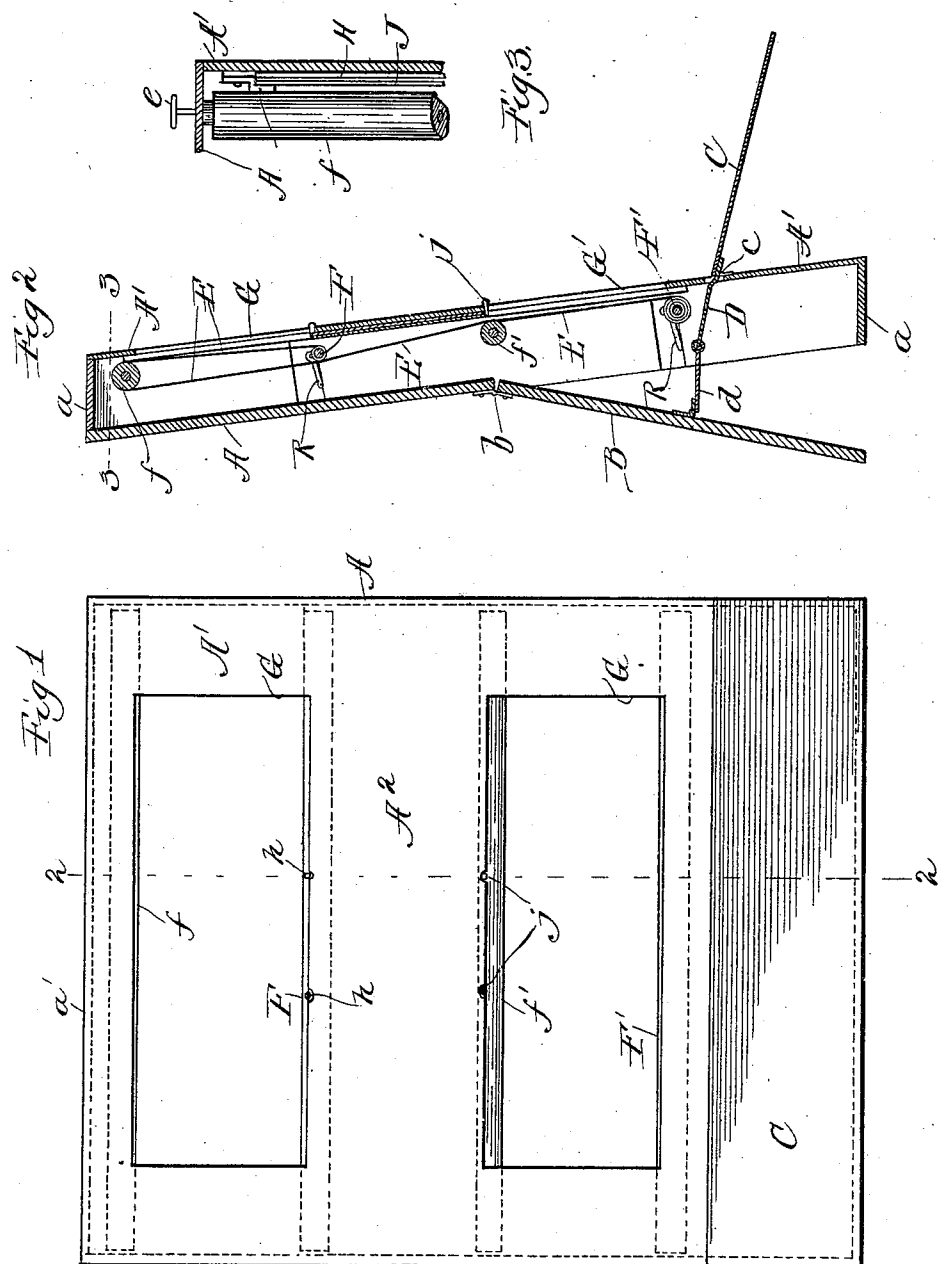
(No Model.)

3 Sheets—Sheet 1.

L. W. YAGGY.
PANORAMIC DISPLAY DEVICE.

No. 564,418.

Patented July 21, 1896.



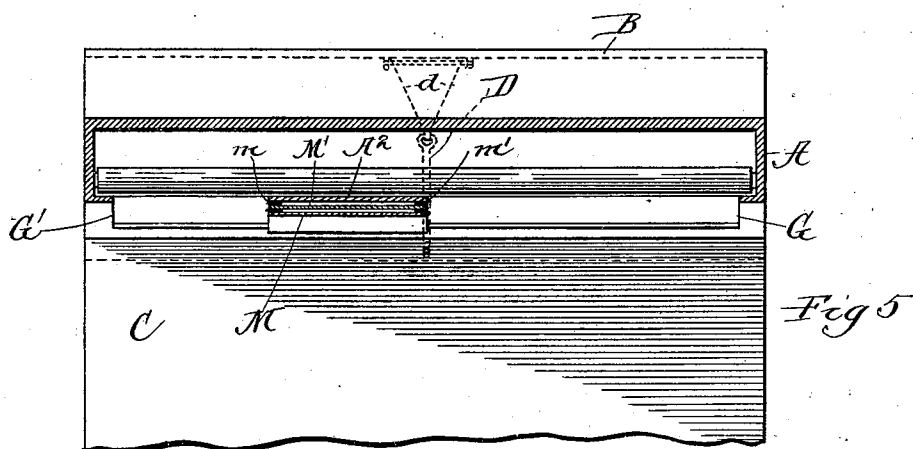
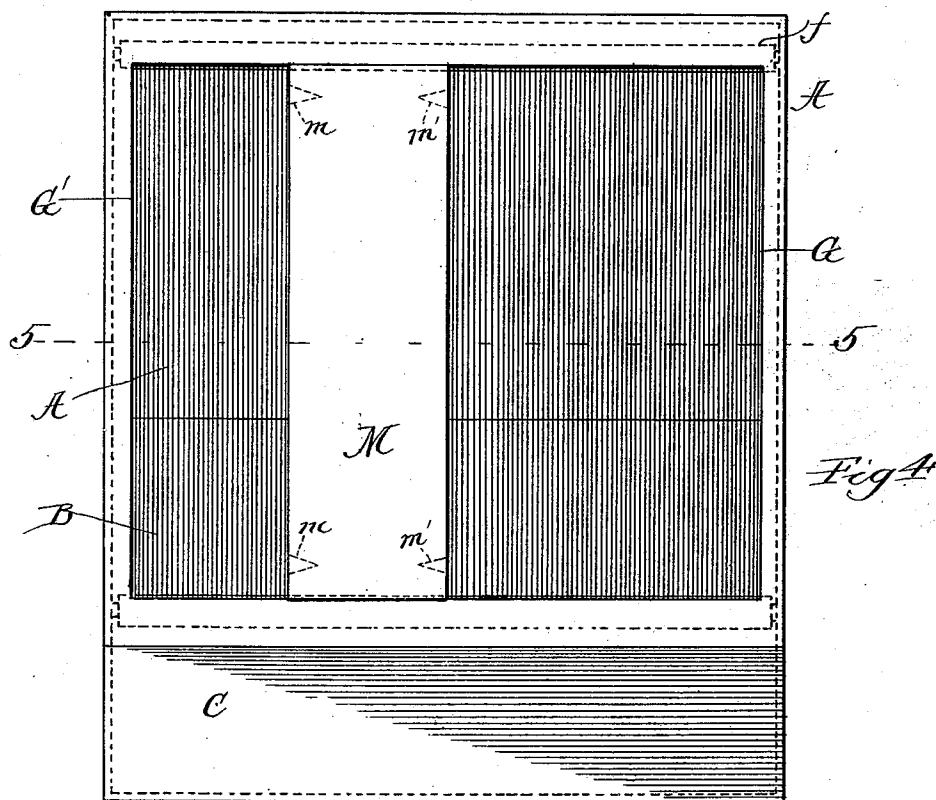
Witnesses
W. C. Corlies
C. A. Crawford

Inventor
Levi W. Yaggy
By Louis R. Fielem
Attorney

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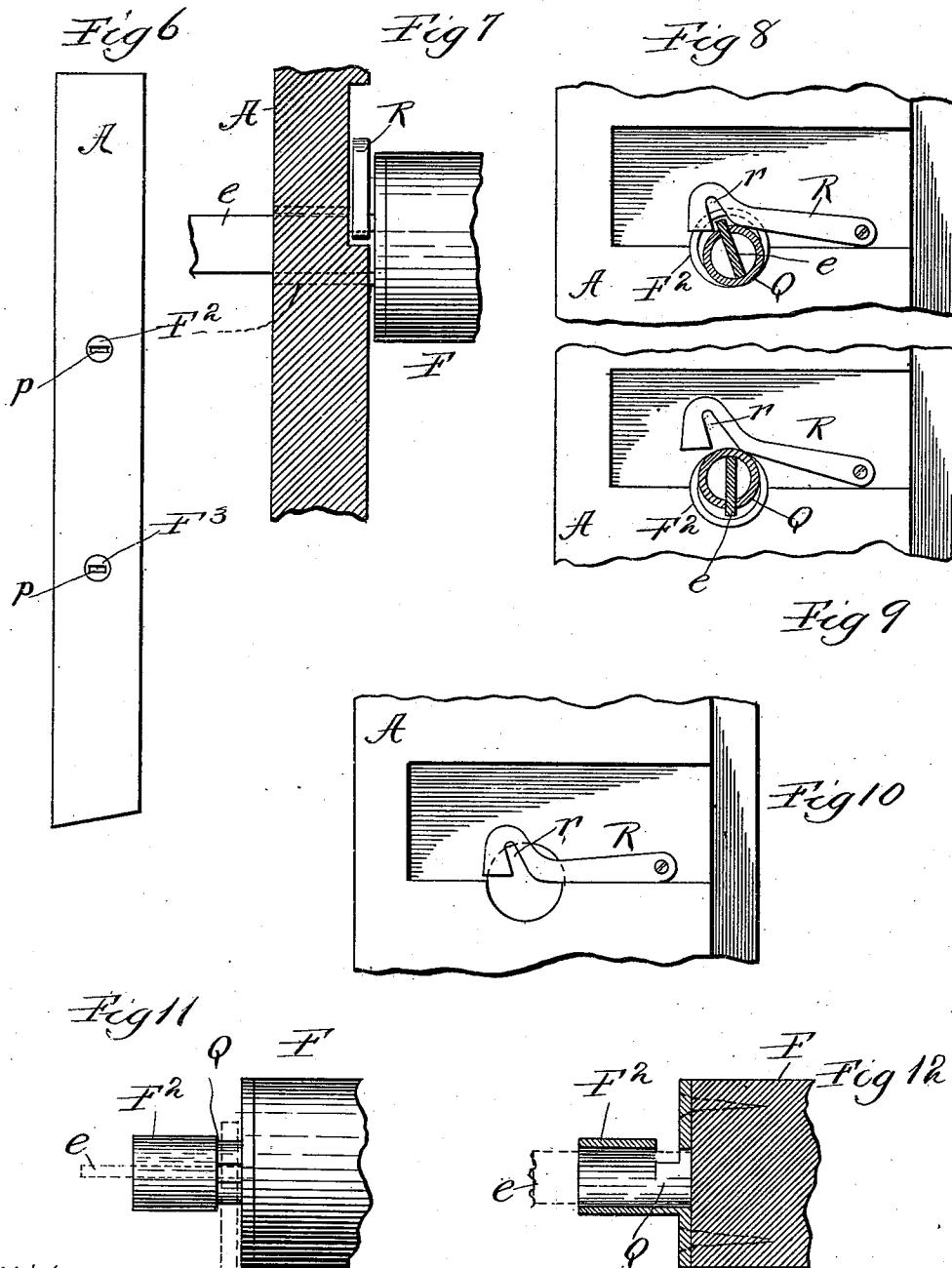
Witnesses
W. C. Corlies
C. H. Crawford

Inventor
Levi W. Yaggy
By Louis H. Gilson
attorney.

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Witnesses
W. C. Calver
C. H. Crawford

Inventor
Levi W. Yaggy
By Louis C. Wilson
Attorney.

UNITED STATES PATENT OFFICE.

LEVI W. YAGGY, OF LAKE FOREST, ILLINOIS.

PANORAMIC DISPLAY DEVICE.

SPECIFICATION forming part of Letters Patent No. 564,418, dated July 21, 1896.

Application filed November 20, 1895. Serial No. 569,507. (No model.)

To all whom it may concern:

Be it known that I, LEVI W. YAGGY, a citizen of the United States, and a resident of Lake Forest, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Panoramic Display Devices, which are fully and clearly described in the following specification, and illustrated in the accompanying drawings, forming a part of this specification.

The invention relates to that class of devices of the character named which consist of a small case within which a scroll is carried by a pair of rollers and transferred from one to the other, passing across apertures in the case at which the pictures or other matter placed upon the scroll are exhibited.

The object of the invention is to provide a portable device of this kind in which two series of pictures may be simultaneously exhibited without necessitating the use of two separate scrolls; and to this end the invention consists in so locating within a case or box a series of rollers that a screen or scroll having pictures upon both of its sides may be carried thereby and exhibit one of its faces at one aperture in the case and the other face at another aperture.

The invention consists in further minor details, the construction and arrangement of parts for the convenient supporting of the case and for covering the apertures.

In the accompanying drawings, Figure 1 is a front elevation of the device. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a detail of a portion of the device, drawn upon a larger scale. Fig. 4 is a front elevation showing a modified form of the front of the case. Fig. 5 is a plan section on the line 5 5 of Fig. 4, and Figs. 6 to 12 are details.

The case A is in the form of a thin box, made of any suitable light material, preferably of wood. It is adapted to stand upon one of its edges, and the edge *a*, forming its bottom, and the edge *a'*, forming its top, are oblique to the front and rear walls, so that when they are horizontal the case is inclined backwardly a little. The lower portion B of the back of the case is openable, being hinged to the upper portion, as indicated at *b*, so that it may be thrown back to form a leg or support to hold the case in its upright position.

A leaf C is pivotally attached at *c* to the face A' of the case near its bottom, and is of such size as to cover the entire upper portion of the face, and is adapted to be thrown downwardly so as to form a table or writing-desk. An arm D is rigidly secured to the leaf C so as to project inwardly from its hinged edge into the interior of the case A, and a rigid link *d* connects this arm with the movable portion B of the back of the case. The arm D is offset near its point of attachment to the leaf C, so that when the latter is closed against the front of the case the arm will lie along the inner surface thereof. The link connection between the arm D and the portion B of the back of the case serves to hold the latter in a closed position when the leaf is folded against the case and to open or throw back the leg B when the leaf is thrown downward.

The scroll or screen E is wound upon the rollers F F', journaled within the case, and may be transferred from one to the other of these rollers by means of a key *e*, adapted to fit within the end of either one of the rollers. The two rollers being alike in this respect, I have deemed it necessary to show in detail only one of them. The front A' of the case is provided with two apertures G G', across which the scroll E is adapted to travel. One of the rollers, as F, is located between these two apertures and the other, as F', is located at the outer side of one of them, as G'. The scroll E is carried from the roller F across the other aperture, G, and turned backwardly over an idle-roller *f* at the opposite side thereof, and thence is carried to the roller F', crossing the aperture G' and being held parallel with the front of the case by means of an idle-roller *f'* at the opposite or inner side of the aperture G'. By this arrangement the opposite sides of the scroll are shown at the two apertures, and the pictures may be arranged so that they will be exhibited in pairs or companions. The device is of course equally applicable for the exhibition of matter other than pictures, as, for instance, advertisements, though my immediate purpose is to use it for the illustration of Bible subjects.

Should it be desired to exhibit the pictures alternately, a leaf or screen may be used for covering one or both of the apertures. As shown in Fig. 1, the apertures are arranged

in vertical order and are spaced apart a distance equal to the width of each. A pair of sliding screens or curtains H J are employed for covering, respectively, the upper and lower aperture and are adapted to slide behind the strip A², forming a portion of the front A' of the case, for the purpose of uncovering the aperture. These screens or curtains are provided each with a small knob h j for their convenient manipulation.

As shown in Figs. 4 and 5, the apertures are arranged in horizontal alinement, and one of them is double the width of the other, and they are spaced apart by means of a strip equal in width to the width of the smaller aperture. A jointed leaf, whose extreme width is equal to that of the larger aperture G, is hinged to the edge of the separating-strip A² adjacent to this aperture, as indicated at m'. The joint m of this leaf divides it into two equal sections M M', so that the leaf may be folded against the strip A² and leave both of the apertures open, or it may be open so as to cover by its outer portion M the smaller aperture G'.

The size and arrangement of the apertures may be indefinitely varied, as may also the curtains or leaves for closing them, and I do not therefore desire to be limited to the exact construction shown.

The rollers F F' are exactly alike, each being provided with one gudgeon F² F³, which passes entirely through the side of the case A. These gudgeons are provided each with an aperture p, extending in from its end to receive the key e, which is flat. The inner end of each of these gudgeons is transversely slotted, so as to form a neck Q, which is eccentric as to the body portion of the gudgeon and is of such size that the keyhole p cuts through its inner face. A tumbler R is pivoted to the inner surface of the side of the case A, which may be recessed for its reception, as indicated, and rests across the neck Q of the gudgeon. This tumbler is provided with an oblique slot r, which opens to the median line of the gudgeon and has its upper side rounded at its mouth. This tumbler prevents the rotation of the roller within which the key is inserted in one direction, leaving it free to move in the other direction and also leaving it free to move in both directions when the key is not inserted, and thereby admits of the ready unrolling of the scroll by the turning of the roller carrying its opposite end, while preventing it from being carelessly turned backwardly so as to be unwound from the roller to which the key is applied. The action of this device is as follows: The key e, extending beyond the neck Q through the slot p, will pass the tumbler freely when turned in the direction of the movements of the hands of a clock, reference being now had to Figs. 8 and 9 of the drawings, raising the tumbler by its first contact and allowing it to drop as the key enters the slot r, and again raising it as it comes a second

time into engagement therewith. When the movement is in the opposite direction, the key raises the tumbler by its first contact and enters the slot r, but its second contact is against the abrupt lower face of the slot, and further movement is thereby arrested. The outer end of the key e may be of any convenient form, it being necessary only that its body portion be flattened and its width be such that it will certainly extend beyond the inner face of the neck Q.

While I have shown the tumbler R in substantially the form of a hook, this shape is not essential to the proper performance of its functions, as it is only important that a shoulder be presented to the key as the latter is turned in one of its directions of movement and that no shoulder or stop of any kind prevent the free rotation of the key in the opposite direction.

I claim as my invention—

1. The combination with a case, A, having a pair of apertures, as G and G', in one of its sides, of a scroll within the case and extending from between the apertures across one of them, as G, and being folded backwardly and returning across the other aperture, as G', and rollers, journaled within the case, for carrying the scroll.

2. The combination with the case, A, having a pair of apertures in one of its sides, of a pair of carrying-rollers journaled within the case, transverse to the alinement of the apertures and upon opposite sides of one of them, an idle-roller journaled at the outer or remote side of the other aperture, a scroll having its ends attached one to each of the carrying-rollers and being turned over the idle-roller, whereby it is spread before both of the apertures and presents an opposite face to view at each of them, substantially as described and for the purpose set forth.

3. The combination with a case having one of its sides apertured for the exhibition of panoramic views, of a leaf for covering the apertures and hinged below the same so that it may be opened downwardly, a leg hinged to the opposite side of the case so that it may be folded against the same or thrown backwardly therefrom, a rigid arm extending within the case from the leaf-and-link connection between the arm and the leg, substantially as described and for the purpose set forth.

4. The combination with a panorama-case having a pair of exhibiting-apertures in one of its sides, of a leaf hinged between the apertures transversely to their alinement and being of sufficient width to cover either of such apertures.

5. The combination with a panorama-case having a pair of exhibiting-apertures in one of its sides and differing in size, such apertures being spaced apart, of a jointed leaf hinged between the apertures transversely to their alinement, such leaf being of sufficient width to cover the wider aperture and none

of its sections being wider than the space between the apertures.

6. The combination with a panorama-case having a pair of apertures of unequal size in one of its sides and spaced apart, of a jointed leaf hinged between the apertures and contiguous to the margin of the wider aperture, the extreme width of the leaf being equal to the distance from its point of attachment to the case to the remote side of either aperture.

7. The combination with a panorama-case having a pair of exhibiting-apertures in one of its sides, of a pair of carrying-rollers journaled within the case, transverse to the alignment of the apertures and upon opposite sides of one of them, an idle-roller journaled at the outer or remote side of the other aperture, a scroll having its ends attached one to each of the carrying-rollers and being turned over the idler, whereby it is spread before both of the apertures and presents an opposite face to view at each of them, and sliding screens for covering the apertures.

8. The combination with a panorama-case having a pair of exhibiting-apertures in one of its sides, of a pair of carrying-rollers journaled within the case, transverse to the alignment of the apertures and upon opposite sides of one of them, an idle-roller journaled at the outer or remote side of the other aperture, a scroll having its ends attached one to each of the carrying-rollers and being turned over the idler, whereby it is spread before both of the apertures and presents an opposite face to view at each of them, and a screen or curtain for alternately covering the apertures.

9. The combination with a panorama-case and with an exhibiting-scroll, of rollers journaled within the case for carrying the scroll

and having a gudgeon projecting through the wall of the case and being longitudinally apertured to receive a key and transversely recessed at its inner end to expose the key, of a key adapted to the longitudinal aperture, and a tumbler resting within the transverse recess and having a shoulder lying in the path of the key when turned in one direction, substantially as described and for the purpose set forth.

10. The combination with a rotatable spindle having a reduced neck and a keyhole entering its end, and opening laterally through its neck, of a key adapted to the keyhole, and a tumbler resting upon the neck of the spindle and having a shoulder lying across the path of the key, whereby the movement of the latter is limited to one direction, substantially as described and for the purpose set forth.

11. The combination of the case A, having the apertures G, G', the carrying-rollers F, F', journaled within the case as shown, the idle-roller f, the scroll E having its ends secured respectively to the rollers F, F', and being turned over the roller f, the gudgeons F², F³, for the rollers F, F', passing through the wall of the case and each having a reduced neck and a keyhole entering its end and opening laterally through the neck, a key adapted to the keyhole, and a tumbler resting upon the neck of each gudgeon and having a shoulder lying across the path of the key, substantially as described and for the purpose set forth.

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

LEVI W. YAGGY.

Witnesses:

LOUIS K. GILLSON,
SPENCER WARD.