T. E. JOPE.

PICTURE FRAME.

APPLICATION FILED APR. 3, 1915.

1,226,077.

Patented May 15, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

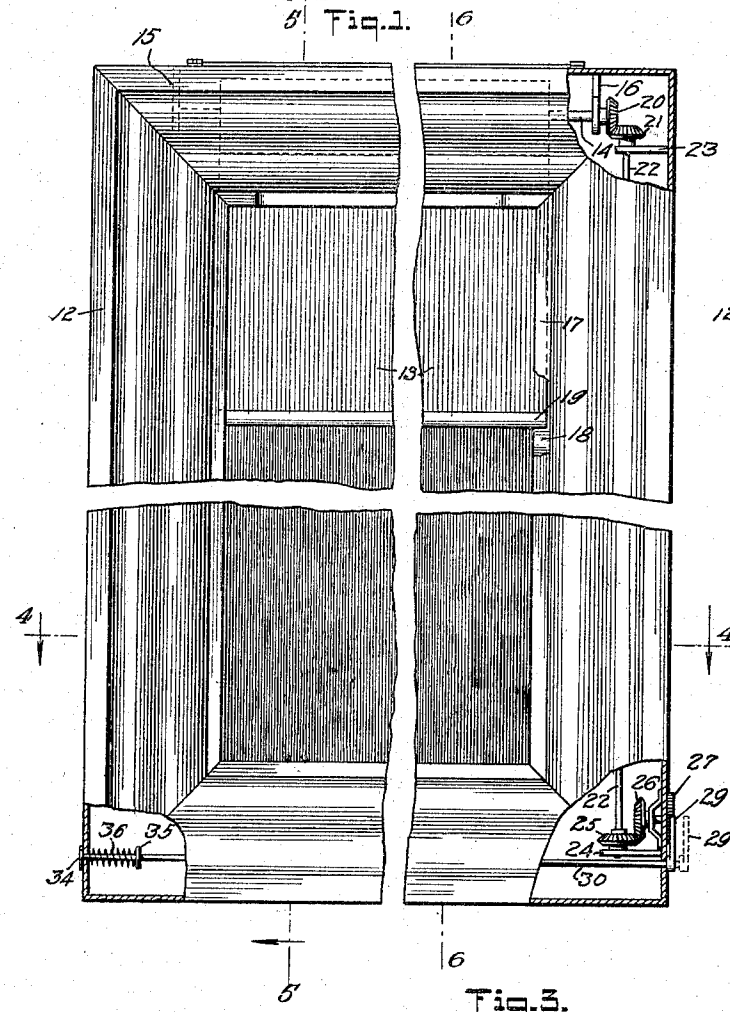


Fig. 2.

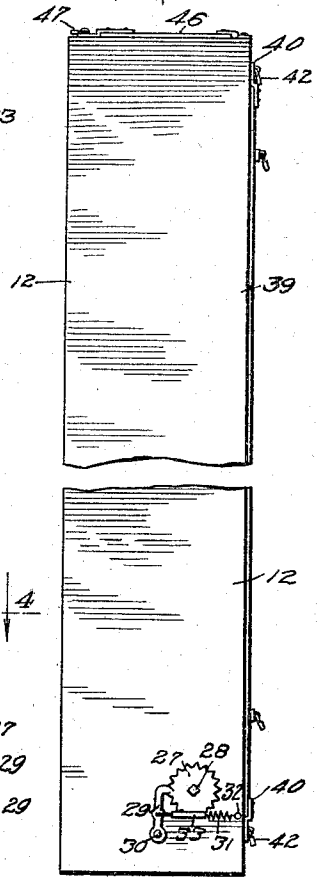
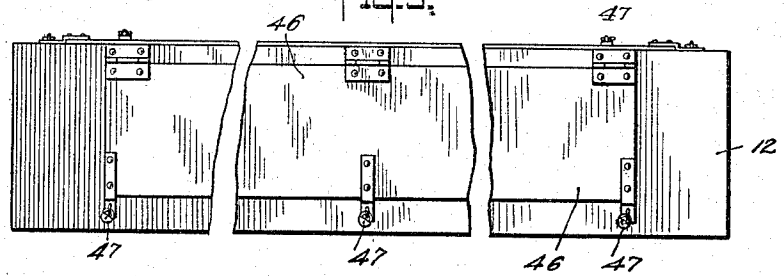


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

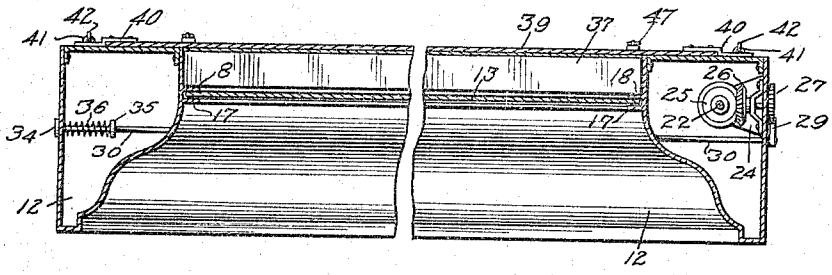


Fig. 5.

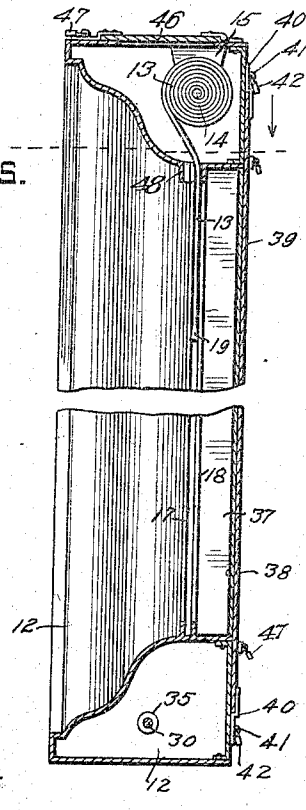
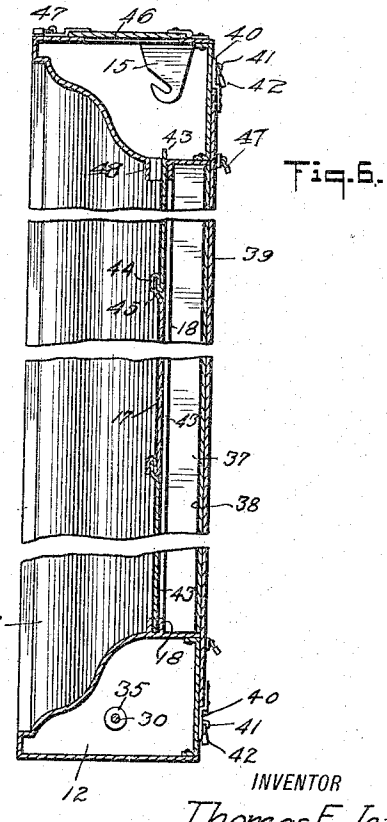


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS E. JOPE, OF NEW YORK, N. Y.

PICTURE-FRAME.

1,226,077. Specification of Letters Patent. Patented May 15, 1917.

Application filed April 3, 1915. Serial No. 18,939.

To all whom it may concern:

Be it known that I, THOMAS E. JOPE, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county of Bronx and State of New York, have invented a new and Improved Picture-Frame, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide means for preserving a picture from damage by fire or dust; to prevent the removal of a picture from its frame; to provide an indestructible frame; and to provide automatic fire-protection shutters operable by the heat of the surrounding atmosphere.

Drawings.

Figure 1 is a front view of a picture frame constructed and arranged in accordance with the present invention, the frame being shown as parted and contracted;

Fig. 2 is a side edge view of the same;

Fig. 3 is a top edge view of the same;

Fig. 4 is a horizontal section taken as on the line 4—4 in Fig. 1;

Fig. 5 is a vertical section taken as on the line 5—5 in Fig. 1;

Fig. 6 is a vertical section taken as on the line 6—6 in Fig. 1.

Description.

As seen in the drawings, the frame 12 is preferably constructed as a hollow, metal box, the parts being molded, rolled, or shaped from sheet-metal. The rails and stiles of the frame are both hollow, and the head rail particularly is formed of dimensions ample to hold a curtain 13 when rolled, as best seen in Fig. 5 of the drawings.

The curtain 13 is constructed from asbestos or other non-inflammable substance, preferably fabric sufficiently pliable to roll about a curtain pole 14. The pole 14 is suspended in bearings formed in pendent brackets 15 and 16. The curtain is guided in its rise and fall by guide rails 17 and 18, best shown in Fig. 4 of the drawings. Normally the curtain is unrolled and drawn to its lowered position by a weighted end 19 provided on said curtain. To lift the curtain 13 the pole 14 is provided at one end with a small bevel gear 20, with which a mated bevel gear 21 is meshed. The gear 21 is mounted at the upper end of a transmission shaft 22, which shaft is suspended in bearings formed in brackets 23 and 24, the former bracket being adjacent the top of the frame and the latter adjacent the bottom thereof.

To rotate the shaft 22 and gears 20 and 21 connected therewith, mated gears 25 and 26 are provided at the bottom of the rail, the latter being mounted on a short stud shaft extending through the side of the frame and having at the outer edge a star wheel 27 and a wrench end 28, as best seen in Fig. 2 of the drawings.

To rotate the shaft 22 and the pole 14 to lift the curtain 13, a suitable wrench or key is provided for engaging the wrench end 28. The rotation of the wheel 26 by means of the key referred to simultaneously rotates the gear wheels 25, 21, and 20, shaft 22 and pole 14. The retraction of the rotary members is prevented by a pawl 29, which is preferably mounted at the outside of the frame on the end of a rod 30. The rod 30 is pivotally mounted in bearings provided in the sides of the frame.

The shaft 30 and the pawl 29 connected therewith are rotated to cause the tooth of the pawl 29 to engage the teeth of the wheel 27, said pawl being to this end connected with a pull spring 31, which is anchored upon a pin 32 in the side of the frame 12. Intermediate the pawl 29 and the spring 31 is a fusible link 33. The link 33 is constructed from any suitable material and in a conventional manner, to melt or otherwise dissolve or disintegrate when the heat of the atmosphere surrounding the picture frame is abnormally high or approaching what may be termed the ignition or damage point for the picture mounted in the frame.

The rod 30 is thus prevented from rotating to release the star wheel 27 and parts connected therewith, at one side of the frame, while at the opposite side a fusible button 34 serves a like purpose. The button 34 is constructed of fusible material of conventional character, and holds the rod 30 in its normal position, as shown by full lines in Fig. 1 of the drawings.

Mounted upon the rod 30 is a washer 35, against which a spring 36 bears. When the spring 36 is unrestrained by the button 34, it operates to move the rod 30 and the pawl 29 connected therewith to the position shown by dotted lines in Fig. 1 of the drawings. In this position the pawl 29 is removed from engagement with the wheel 27, which, being released, thereafter permits the weighted end 19 of the curtain 13 to drop to its lower-

most position, covering the picture contained in the frame 12 with the body of the curtain 13. A similar effect is produced when the link 33 is destroyed. The removal of the spring 31 permits the teeth of the wheel 27 to force the pawl 29 out of engagement.

To receive the picture, a pocket 37 is formed within the frame, which pocket is normally closed by a removable back 38. Under ordinary conditions the removable back 38 is all that will be employed for retaining the picture in its position in the frame. To better secure the picture, however, against removal from the frame, a safety cover 39 is employed. Said cover is furnished with suitable hasps 40, through slots formed wherein protrude staples 41. The staples 41 protrude sufficiently to be engaged by the shackle bar of padlocks 42 or other similar and desirable devices. When the padlocks 42 are in service position, it will be seen that the removal of the picture necessitates that the same be taken from the front of the frame. It is to prevent this that there is provided a safety shutter composed of interlocking sections 43. Each section 43 has a grooved portion 44 and a lip portion 45. In service the grooved portion and lip portion above mentioned assume the relative position as shown in Fig. 6 of the drawings. Prior to placing the shutter and the sections 43 thereof in service position, the curtain 13 and its supporting pole 14 are removed. The sections 43 slide into the grooves formed by the rails 17 and 18, as shown best in Fig. 6 of the drawings.

To permit the removal and replacement of the rolled curtain 13 and of the sections 43 of the protective curtain, the frame is provided at the top edge thereof with a hinged door 46. The door 46, when in service, is secured by a lock 47. To permit the passing of the grooved portions 44 of the sections 43, an enlarged opening 48 is formed in the upper rail of the frame 12.

From the foregoing it is obvious that when the sections 43 and the safety cover 39 are in position, the removal of the picture from the frame is rendered difficult, if not practically impossible. Further, it will be observed that the picture, when thus stored, is safeguarded against accidents arising from abrasion.

Claims.

1. A picture frame comprising a plurality of hollow rails; a flexible curtain for covering the view opening of said frame; and a winding mechanism for raising said curtain from in front of said view opening, said mechanism embodying a rotary pole, a latch for preventing the unwinding of said curtain, and a flexible member for preventing the release of said latch.

2. A picture frame comprising a plurality of hollow rails; a flexible curtain for covering the view opening of said frame; and a winding mechanism for raising said curtain from in front of said view opening, said mechanism embodying a rotary pole, a latch for preventing the unwinding of said curtain, a flexible member for preventing the release of said latch, and automatic means for releasing said latch.

3. A picture frame comprising a plurality of hollow rails; a flexible curtain for covering the view opening of said frame; and a winding mechanism for raising said curtain from in front of said view opening, said mechanism embodying a rotary pole, a latch for preventing the unwinding of said curtain, a flexible member for preventing the release of said latch, and automatic means for releasing said latch, said automatic means embodying a pivot rod, a spring for shifting said rod, and a fusible detent for retaining said rod in service relation.

4. A picture frame comprising a plurality of hollow rails; a flexible curtain for covering the view opening of said frame; and a winding mechanism for raising said curtain from in front of said view opening, said mechanism embodying a rotary pole, a latch for preventing the unwinding of said curtain, a flexible member for preventing the release of said latch, and automatic means for releasing said latch, said automatic means embodying a pivot rod, a spring for shifting said rod, a fusible detent for retaining said rod in service relation, and a fusible link for retaining said latch in engagement with said pole, said link and said detent being situated at opposite sides of said frame.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS E. JOPE.

Witnesses:
E. F. MURDOCK,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."