Feb. 1, 1927. 1,615,856

E. J. VALLEN

CURTAIN SUPPORTING DEVICE

Filed April 29, 1925

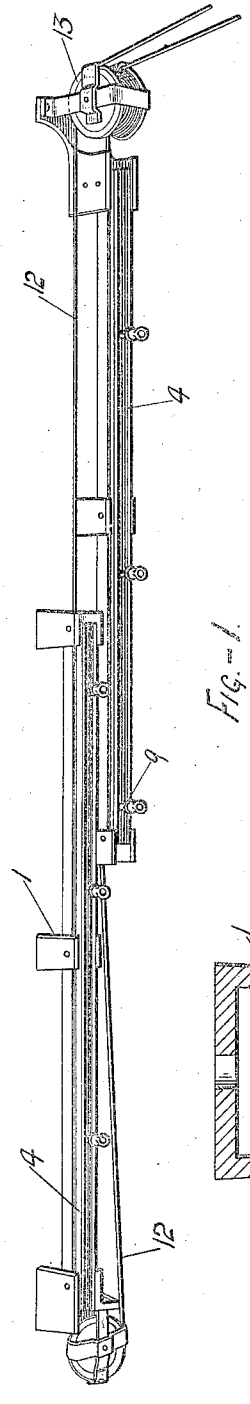


FIG.-1.

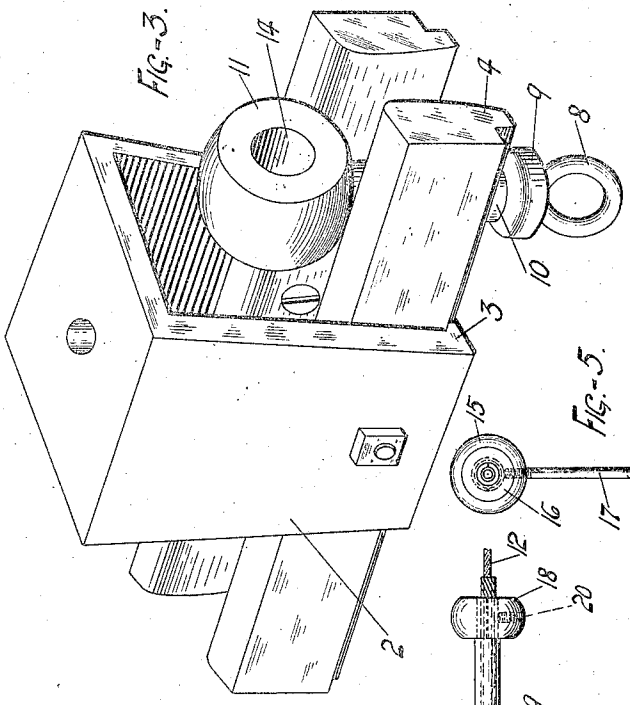


FIG.-3.

FIG.-5.

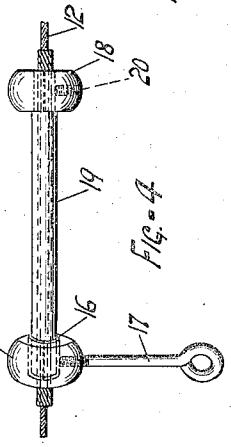


FIG.-4.

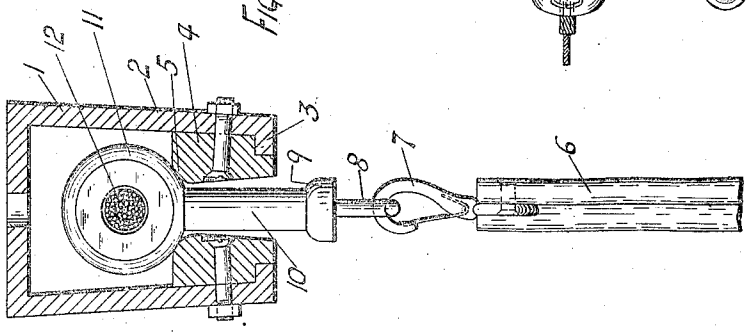


FIG.-2.

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Patented Feb. 1, 1927. 1,615,856

UNITED STATES PATENT OFFICE.

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CURTAIN-SUPPORTING DEVICE.

Application filed April 29, 1925. Serial No. 26,649.

This invention relates to a curtain supporting and operating device particularly adapted for use in theatres, auditoriums, or the like, the principal objects of the invention being to design a curtain operating mechanism which will be simple to construct, easy of operation and noiseless. Simplicity of mechanism and noiseless operation are the two main objects accomplished by my device, together with the elimination of any tendency for the curtain to stick or jam.

These and other objects are obtained by the construction herein shown and described, it being understood that the invention is not restricted to exact conformity with the details or design illustrated.

In the drawings:

Figure 1 is a perspective view of a curtain mechanism constructed in accordance with the principles of the invention;

Figure 2 is an enlarged section through the device at one of the supports or brackets;

Figure 3 is an enlarged perspective of a section of the track;

Figure 4 is a detail of the slide by which the curtain is drawn to and fro; and

Figure 5 is an end elevation of Figure 4.

The present invention relates to a horizontally moving or sliding curtain operating mechanism, showing, as a particular illustration, a curtain adapted to open from the center.

The mechanism comprises a plurality of substantially U-shaped brackets or hangers 1 which are adapted to be secured to a support across the proscenium opening. These hangers have substantially parallel arms 2 which terminate at their lower ends in inturned ledges 3. A suitable number of these brackets are arranged to support the two sides of the curtain. Bolted to the lower inside surfaces of the arms 2 and supported upon the ledge 3 are parallel rails 4, rounded on their upper inside edges 5. The rails 4 are preferably made of hard wood suitably treated so that they are self-lubricating for this purpose, being given a treatment with graphite, or similar material, so that the curtain supporting mechanism may slide easily and quietly.

The curtain is indicated by the numeral 6 and is suspended by hooks 7 from loops 8 upon a series of sliding carriers 9 which are supported upon the rails 4. The carriers 9 have elongated stems 10 which pass between the rails and are formed with enlarged substantially spherical heads 11 which rest upon the curved edges 5 of the rails 4. Due to the fact that the rail edges are curved and the supporting surfaces of the carriers 9 are curved, a minimum area of contact is found between the carriers and the rails which contributes to the ease of operation and the quietness of the device. The carriers 9 are preferably of hard wood treated with lubricant, preferably graphite, in the same manner as the rails 4, but may be of suitable metals or other materials.

The provision of the permanent, non-fluid lubricant directly upon the surfaces of the rails and sliding carriers is an important factor in obtaining quietness of operation of the curtain structure and also contributes to longer wear of the device. In prior structures, it has been necessary to oil the running parts of the curtain, which not only requires frequent attention, but also, due to oil drippings, may ruin expensive curtains. The whole structure is not enclosed, but open about the rails which contributes to the quietness of operation.

The curtain is adapted to be moved horizontally by ropes or cables 12 which pass over pulleys 13 at the ends of the device to suitable operating mechanism (not shown). The operating cables 12 pass freely through openings 14 arranged in the heads 11, it being noted that the cables are thereby located between the rails and a slight distance above them, so that the direction of pull is substantially in line with the bearing surfaces of the slides or carriers 9. The first slide on each side of the curtain is a master slide, being secured to the cable 12 so that when the cable is operated the master slides advance or withdraw, thus gathering up or distributing the curtain. The illustrated construction of the master slide comprises a block 15 similar in shape to the head of the slides 9 and provided with a split clamping sleeve 16 which is compressed against the cable by an eye bolt 17 screwed into the block and pushing the split sleeve together, the eye of the bolt being utilized for a curtain support. A second block 18 may also be used, spaced from the block 16 by a sleeve 19. This block 18 is provided with a split sleeve punched together by a set screw 20.

Changes and modifications may be re-

sorted to without material departure from the essential features of the invention as set forth in the claims hereto appended.

What is claimed is:

1. In a sliding theatre curtain mechanism, parallel rails, hangers to support said rails, and carriers slidably mounted upon the rails and adapted to support a curtain, the rails and carriers being of wood and a permanent non-liquid lubricating coating upon said carriers and rails.

2. In a sliding theatre curtain mechanism, parallel rails, hangers to support said rails, and carriers slidably mounted upon the rails and adapted to support a curtain, the rails and carriers being formed of wood having a graphite coating thereon.

3. A theatre curtain supporting and operating mechanism comprising spaced parallel rails, a plurality of open supporting hangers spaced at intervals along the rails, carriers formed with enlarged heads which slide upon the upper surfaces of the rails and shanks passing between the rails, the shanks having attaching means for the curtain at their lower ends, a cable in freely slidable engagement with the carrier heads, and a master slide at the end of the curtain secured to the cable.

4. A theatre curtain supporting mechanism comprising spaced parallel rails, a plurality of hangers spaced apart at intervals along the rails and serving to provide spaced points of support on the rails throughout their entire extent, and carriers formed with enlarged heads which slide upon the upper surfaces of the rails and shanks passing between the rails, the shanks having attaching means at their lower ends upon which the curtain is supported.

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