

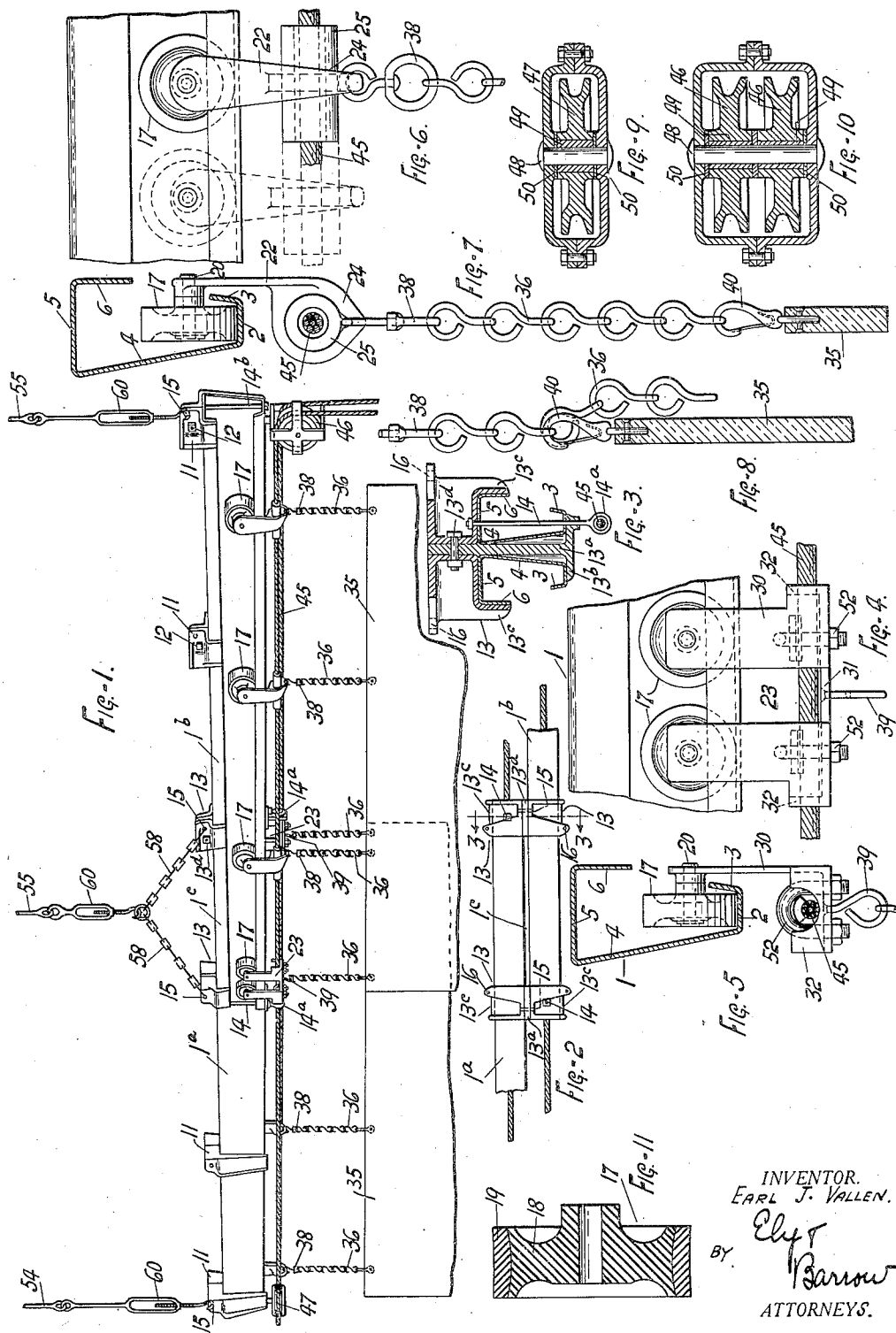
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CURTAIN TRACK

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CURTAIN TRACK

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This invention relates to curtains for use in theatres, auditoriums, etc.

The object of the invention is to improve upon the construction of theatre curtain supporting and operating mechanism. In the operation of theatre curtains it is highly important to secure noiseless operation of the supporting mechanism, as a noisy curtain will often spoil the scenic effects upon the stage. It is also important to provide a curtain supporting and operating mechanism which requires little or no attention to maintain and keep in operative condition. No oiling or greasing should be required, the presence of oil or grease upon the supporting mechanism endangering the curtain which is made of expensive fabrics.

These and other objects are accomplished by the improved design and arrangement of parts shown and described herein, it being understood that changes and modifications may be made in design and arrangement of parts without departing from the essential features of the invention as set forth in the claims.

The present application is a continuation of my prior application, Serial No. 245,160, filed January 7, 1928, illustrating the principal features shown in the said prior application and additional improvements.

Of the accompanying drawings, Figure 1 is a perspective view of a track installation embodying the invention;

Figure 2 is a part plan of the track illustrating the adjustable lap construction;

Figure 3 is a section on line 3—3 of Figure 2;

Figure 4 is a detail side elevation of a portion of the track showing the master hanger thereon;

Figure 5 is a left end elevation thereof;

Figure 6 is a detail side elevation of a portion of the track showing the construction of the remainder of the hangers;

Figure 7 is a left end elevation thereof;

Figure 8 is a view showing the manner in which the curtain may be adjusted on the hanger;

Figure 9 is a section through the single

pulley block mounted at the left end of the track as shown in Figure 1;

Figure 10 is a section through the double pulley block mounted at the other end of the track; and

Figure 11 is a detailed section of one of the supporting rollers.

Referring to the drawings, the numeral 1 designates a curtain track rail of steel or other suitable material made up in two sections 1^a and 1^b, with the central lapped connection at 1^c when it is used for mounting a double curtain as shown.

Each of the track rails is made from a single strip of metal provided with a horizontal track portion 2, an outside flange 3, a rear wall 4, an upper horizontal supporting portion 5, and a depending strengthening flange 6, leaving a gap between the flanges 3 and 6 through which the hanger is movable. In assembling the track sections 1^a and 1^b the tracks are faced in opposite directions as shown in the drawings.

The track rail is supported on two part brackets 11, 11 embracing the rail and slidable thereon to adjusted positions and arranged to be tightened thereon by bolts 12, 12. The brackets which are placed at frequent intervals, have depending portions which lie along the rear wall and the depending flange, and as the sides of the rail taper downwardly, they are supported adequately as shown in Figure 1. Three part brackets 13 are employed between the overlapped portions 1^c of the rail sections, these brackets including a central supporting and spacer member 13^a having lateral flanges 13^b to support the under surfaces of the track rails and to which is secured side bracket members 13^c—13^c embracing the upper portions of the rail sections, the parts of brackets 13 being bolted together at 13^d. Bolts 14 are extended through adjacent rail section ends and brackets 13 respectively on each of said ends additionally to secure the brackets thereto to provide stops for the master curtain hangers and also to provide eyes 14^a through which the operating cable may be extended. The construction of brackets 13 and these connections to the adjacent rail

ends permit easy adjustment of the lap by loosening of bolts 13^a and telescoping the sections to increase or decrease the lap. The end brackets 11 are provided with bolts 14^b acting as end stops.

Both brackets 11 and 13 are formed with eyes indicated at 15, 15 by which the track rail may be suspended either from stage girders or ceilings by lines as shown and also with bolt holes indicated at 16, 16 whereby the track may be anchored against the ceiling or on brackets at the rear of the proscenium arch, adjustability of brackets 11 permitting lining these up on the track with ceiling or other supports.

The curtain is movable in the horizontal track provided by the portion 2 of the track rails and is guided by the wall 4 and the flange 3, being carried by a plurality of rollers 17. In order to insure quiet travel of the rollers over the track rails they are made of a hard rubber or rubber and fiber center 18 with a soft rubber tread 19, the parts 18 and 19 being vulcanized together. As the rollers are constructed they operate noiselessly in the track way and require no lubrication. The centers of the rollers are mounted on shafts 20, from which depend the hangers which support the curtain. These hangers are of two types including a plurality of single brackets 22 which are distributed along the curtain at suitable intervals, and a master or double hanger 23 at the end of the upper corner of the curtain.

The single hangers are shown in Figures 6 and 7, being formed at the lower ends with apertured members or eyes 24 in each of which is secured a short section of rubber tubing 25 extending upon opposite sides of the hanger and forming yielding and noiseless abutments so that the hangers will not strike audibly when the curtain is withdrawn.

The master hangers 23 are constructed with double rollers from which are suspended the rigid brackets 30 connected by a horizontal platform 31 and with notched end flanges 32.

The curtain 35 is supported by link chains 36 which are attached to the single hangers by a swivel eye bolt 38 and to the master hanger by a swivel bolt 39 mounted in the platform 31 so that the free twisting of the curtain as it is moved is permitted. The upper edge of the curtain is provided with snap hooks 40 which are engageable in the links of the chain 36, this arrangement permitting the curtain to be adjusted on the chain to varying heights and thereby affording an easy method of accommodating varying depths of curtains. It will also be observed that the supporting points for the curtain are directly below the rollers so that the weight of the curtain will keep the rollers in upright position.

Each curtain is operated by a cable 45 trained over a pulley of a double pulley block 46 secured to one hanger 11 at one end of the track, and over a single pulley block 47 secured to a hanger 11 at the other end of the track, in both blocks the pulleys being mounted on journal pins 48 having suitable, noiseless, non-friction bushings 49 thereon, hard maple bushings boiled in oil to be self-lubricating being suitable for this purpose. Fiber washers 50 are provided between the pulleys or pulley and block housing.

The cable is secured to the master hangers by double clamps 52 passing through the platform 31 and lies in the notched end plates 32. As the cables are moved the master hangers are moved, so that on opening the curtain the master hanger strikes the next single hanger and so on until the curtain is completely folded, the rubber tubing preventing objectionable noise in the operation of the curtain. As each cable is supported by the eye-bolts 14 sagging of the cable at the center of the curtain opening is prevented.

The track is illustrated in Figure 1 suspended upon tie rods 54, 55 and 56, rods 54 and 56 being connected in the eyes of brackets 11 at the ends of the track and rod 55 by branch, flexible tension members 58 to the eyes in brackets 13. In each tie rod may be incorporated the adjustable connection 60 by which the height of the track may be adjusted or the track leveled.

It will appear from the foregoing description that the track is easily installed in a number of different ways and that it is capable of easy and effective operation in a noiseless manner. In installing the track the central lap of the curtain may be adjusted as desired and the track can be adjusted accurately to length, either by adjusting the lap or by adjustment of the end brackets 11 to the desired length and then cutting off the portion of the rail extending beyond an end bracket 11.

What is claimed is:

1. In a curtain track structure including master and floating hangers movable along a track and an operating cable connected to the master hanger; each floating hanger comprising a bracket having a spacer sleeve thereon through which the operating cable is extended, and means swiveled onto said bracket to suspend the curtain therefrom, said spacer sleeve being formed of rubber to provide a noiseless bumper when said floating hangers are gathered by operation of the master hanger.

2. In a curtain track structure including master and floating hangers movable along a track and an operating cable connected to the master hanger; each floating hanger including a bracket having a spacer sleeve thereon through which the operating cable is extended, said spacer sleeve being formed of rubber

to provide a noiseless bumper when said floating hangers are gathered by operation of the master hangers.

3. A curtain track structure including master and floating hangers movable over a track and an operating cable connected to the master hanger, the floating hangers comprising a bracket having a passage therethrough for the passage of an operating cable, and cushions on the hangers adapted to prevent noise when the hangers are gathered by the operation of the cable.

4. In a theatre curtain track structure, a track, a plurality of flat faced rollers movable over the track, flanges to prevent twisting of the rollers on the track, hangers supported by the rollers and having eyes for the reception of an operating cable, the cable being secured to the forward hanger, and curtain supports swivelly mounted on the hangers below the eyes, the point of support for each hanger, eye and curtain support being in a direct vertical line.

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