Oct. 13, 1936. R. L. GEIB 2,057,092

SUSPENDED PLATFORM

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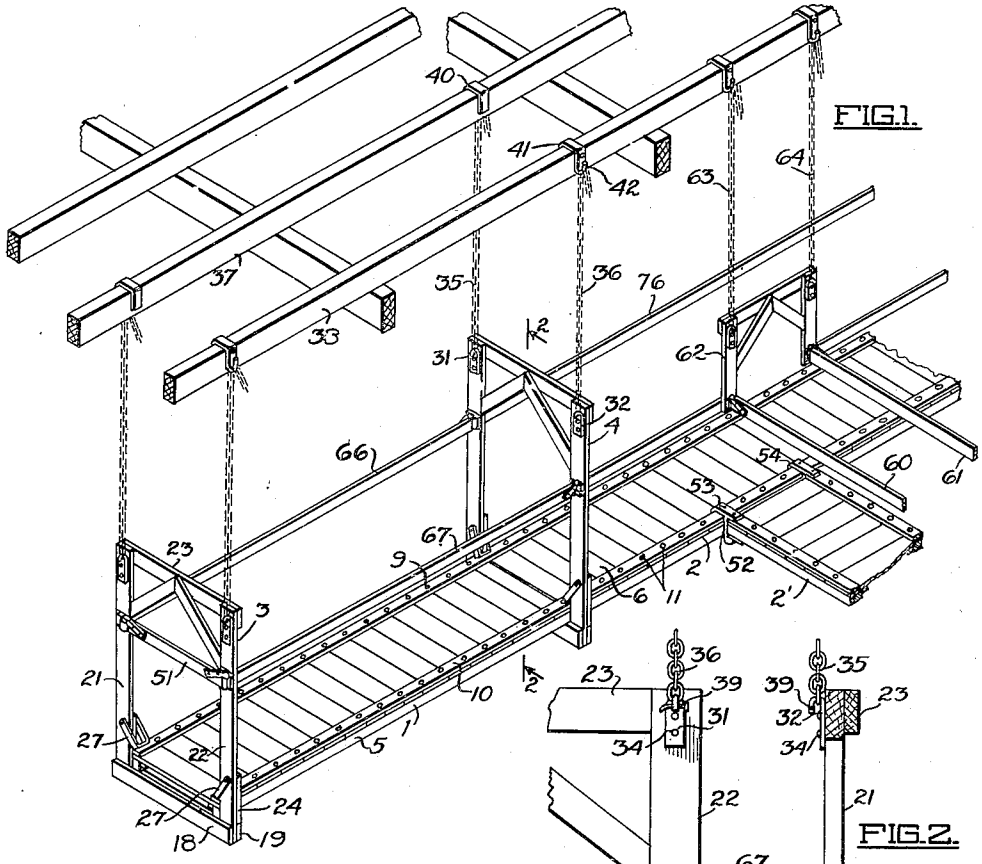


FIG. 1.

FIG. 2.

FIG. 3.

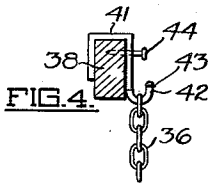


FIG. 4.

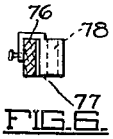


FIG. 6.

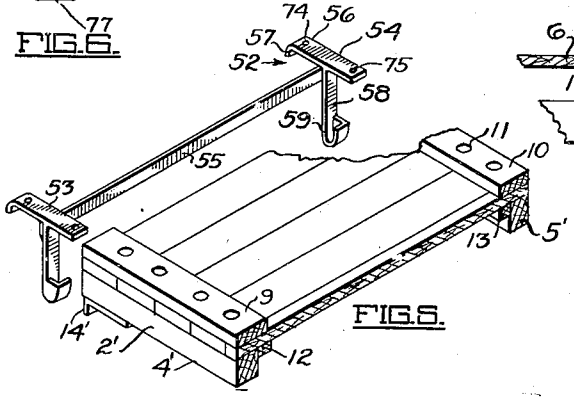
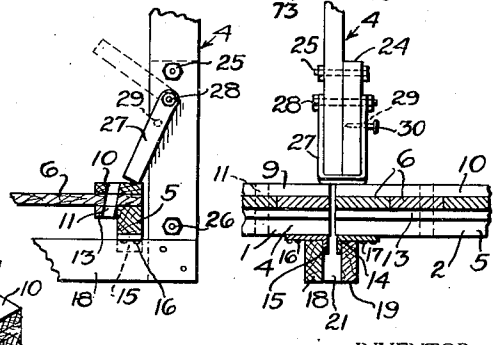


FIG. 5.



INVENTOR.

R. L. GEIB

BY W. E. Beatty

ATTORNEY.

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SUSPENDED PLATFORM

Robert Lewis Geib, Los Angeles, Calif., assignor to Warner Bros. Pictures, Inc., New York, N. Y., a corporation of Delaware

Application November 21, 1934, Serial No. 754,041

6 Claims. (Cl. 304—15)

This invention relates to suspended platforms, and particularly to a type useful in motion picture studios to support spotlights, cameras, etc., above the set being photographed.

Since the coming of talking motion pictures, it has been customary to photograph most of the scenes within large soundproof buildings, commonly termed "sound stages". The upper framework of the sound stages provides convenient means for suspending the above mentioned platforms which are known in the art as "spotlight platforms".

One object of the present invention is to quickly assemble a spotlight platform. This is accomplished by dividing the platform into a number of sections having hooked portions at their ends which are adapted to be engaged in hangers suspended from the upper part of a sound stage.

Another object of the invention is to adjustably support a spotlight platform above a set to be photographed. This is accomplished by suspending the platform by chains from the upper framework of a sound stage. The means for attaching the chains to the upper framework comprises a hook adapted to engage any desired portion of the chain.

Another object of the invention is to attach one platform section at right angles to another. This is accomplished by providing an attaching member adapted to be secured to the side of one platform section and having sockets provided thereon to receive the hooked ends of a second platform section at right angles to the first.

It is an important feature of the invention that any number of sections may be assembled together to form a continuous platform.

For further details of the invention, reference may be had to the accompanying drawing, wherein:

Fig. 1 is a perspective view of a section of a spotlight platform comprising my invention.

Fig. 2 is a sectional elevational view through one of the hangers and is taken along the line 2—2 of Fig. 1.

Fig. 3 is an elevation view of one of the hangers taken at right angles to that of Fig. 2.

Fig. 4 is a view showing the construction of the U-shaped hook for attaching the chains onto the upper framework of the sound stage.

Fig. 5 is a perspective view of an attachment whereby the platform sections may be attached at right angles to each other.

Fig. 6 is a view showing the construction of a connector for attaching one guide rail at right angles to another.

Referring now to Fig. 1, the spotlight platform comprises a number of platform sections 1 and 2 which are supported at their ends in rectangular hangers 3 and 4. As shown in Figs. 2, 3, and 5, the platforms comprise a pair of spaced longitudinally extending stringers 4 and 5 on which are secured cross planks 6. Strips 9 and 10 are provided on either side of the platform on top of the cross planks and have spaced holes 11 provided therein. The holes 11 also extend through the cross planks 6 and thence through strips 12 and 13 secured to the under side of the cross planks to provide bearings or sockets for the bases of spotlights, shields and the like. A pair of metal angle pieces as 14 and 15 are provided at each end of the platform sections 1 and 2 and are attached as by screws 16 and 17 to the ends of the stringers 4 and 5 to provide depending flanges which are adapted to be inserted between a pair of spaced cross pieces 18 and 19 forming the base of the hangers 3 and 4 and thus anchor the ends of the platforms 1 and 2 to the hangers.

The hangers 3 and 4 comprise a pair of spaced vertical members 21 and 22 which are secured at their lower ends between the cross pieces 19 and 20 and at their upper ends to a horizontal cross piece 23. A short strip of wood 24 which I may term a nailing strip is removably secured as by bolts 25 and 26 (Figs. 2 and 3) to the lower ends of the vertical members 21 and 22 and forms a base upon which additional braces and the like may be nailed. When the piece 24 becomes damaged due to continued nailing, it may be easily removed and another secured in its place without requiring the renewal of the entire hanger.

In order to prevent the platform sections 1 and 2 from becoming disengaged from the hangers 3 and 4 as would happen if they were accidentally raised, U-shaped strips of metal 27 are provided which are pivotally secured to the vertical members 21 and 22 by means of bolts 28. The lower end of the strips 27 are adapted to be wedged against the upper surface of the platform and thus hold it from disengaging. A hole 29 may be provided in each of the strips 27 to allow a nail 30 to be driven therethrough into the nailing strip 24 and thus lock the strip 27 in position. When the platform is to be disassembled, the nail 30 is withdrawn to allow the strip 27 to be raised to a position shown by the dotted lines in Fig. 3 whereby the platform sections may be readily removed.

The upper ends of the hangers 3 and 4 are provided with hooks 31 and 32 which are secured to the vertical members 21 and 22 as by nails

or screws 34 and have hooked portions adapted to engage the lower links of chains 35 and 36 which are provided to suspend the spotlight platform from beams 37 and 38 and which may comprise the upper framework of a sound stage. In order to prevent the chains from accidentally disengaging from the hooks 31, a pin or nail 39 may be passed through an aperture provided near the outer end of each of the hooks 31 and 32 and bent over to prevent withdrawal therefrom. The upper ends of the chains 35 and 36 are secured to the beams 37 and 38 by means of U-shaped members 40 and 41 which are adapted to fit over the top of the beams and have hooked portions 42 (Fig. 4) adapted to engage links of the chains 35 and 36. A nail or pin 43 may be passed through an aperture in the end of the hooked portion 42 to prevent the chain from being accidentally disengaged. The members 40 and 41 may have holes in the sides thereof through which nails 44 may be driven into the beams 37 and 38 to anchor the members 40 and 41 securely in position.

Hand rails 66 and 67 are provided between each of the hangers and have bolt members as 68 and 69 (Figs. 2 and 3) secured to their ends as by screws 46 and 47. The members 68 and 69 have downwardly projecting portions 70 and 71 at their outer ends which are adapted to be inserted within holes or sockets provided in brackets 48 and 49. The portions 70 and 71 extend below the bottom of the brackets 48 and 49 and have holes 73 therethrough to receive pins or nails to prevent the hand rails from becoming accidentally disengaged. The brackets 48 and 49 are secured to the hangers 3 and 4 by screws 50. At the end of the platform, as defined by the hanger 3, a short hand rail 51 is provided across the two vertical members 21 and 22.

When it is desired to attach one section of the platform at right angles to another, use is made of a connecting member 52 shown in Figs. 1 and 5. The member 52 comprises a pair of T-shaped pieces 53 and 54 held in spaced relation by a cross-piece 55. The horizontally extending portions 56 of the T-shaped pieces 53 and 54 have their front ends bent downwardly as at 57 so they may rest on the strips 9 and 10 of the platform sections 1 and 2 and thereby be securely anchored thereto. The downwardly projecting extensions 58 of the pieces 53 and 54 have their ends terminating in sockets 59 which are adapted to receive the downwardly extending angles or flanges 14' on a platform section 2'. Holes 74 and 75 are provided at the ends of horizontal portions 56 to allow nails to pass therethrough and be driven into the platforms 2 and 2' to prevent shifting and also to prevent the platforms from becoming accidentally disengaged.

In order to suspend the accompanying hand rails 60 and 61 above the platform section 2', a rail hanger 62 is employed which is substantially the same construction as the hangers 3 and 4 except that it is cut off below the hand rails 60 and 61 to allow spotlights or other equipment to be used at the intersection of the platform sections 2 and 2' without interference. The hanger 62 is suspended by chains 63 and 64 from the beam 38 in a manner similar to the hangers 3 and 4. If desired, the hanger 62 may be eliminated by allowing the hand rail 76 to be continuous. A pair of connecting members 77 may be slipped over the top of the hand rail 76 and have sockets 78 therein whereby the ends of the hand rails 60 and 61 may be secured thereto at right angles to the hand rail 76. Although this type of connection will require the workmen to stoop under the hand rail 76 while passing from one platform section to another, it will save time and expense in erecting the platform.

In order to adjust the height of the platforms above the set or scene being photographed, either different lengths of chains may be used or the distance between the beams 37 and 38 and the upper ends of the hangers 3 and 4 varied by engaging the hooks 42 of the U-shaped members 40 and 41 with any desired portion of the chains 35, 36, etc.

The hangers 3 and 4 are duplicates. The platforms 1, 2, 2' are duplicates, except, perhaps, for length, which may be chosen to suit requirements. These component parts and also the hangers 62 and brackets 55 may be further duplicated and arranged to provide a platform of desired length and wherein extensions at right angles are provided as desired.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent, is:

I claim:

1. Means for supporting one platform at right angles to another platform comprising a bracket, said bracket comprising a pair of parallel T shaped flanges connected by a tierod, one side of the vertical portions of said T comprising means for supporting a platform, the horizontal branches of said T which extend on the other side of the vertical portions thereof comprising means for supporting said bracket by the side of the supporting platform.

2. A hanger frame adapted to support a platform, said frame comprising uprights fastened to a top member and to two bottom members, means for securing said bottom members on opposite sides of said uprights whereby said bottom members are separated substantially by the thickness of said uprights, suspension means adjacent the top of said uprights, means on each of said uprights for removably supporting hand rails, a partial frame extending to the level of said hand rails, means for attaching the uprights of said partial frame to certain of said hand rails, and means on each of said uprights for preventing vertical movement of the adjoining ends of platform sections adapted to rest on the tops of said bottom members respectively, the top surfaces of said bottom members comprising means for supporting the ends of said platform sections, the opposed faces of said bottom members comprising means for preventing horizontal separation of said ends, respectively.

3. The combination of a plurality of hanger frames, means whereby certain of said frames are adapted to support hand rails at a certain level, means whereby said certain frames are adapted to support platform sections below said hand rails, a partial hanger frame terminating substantially at the level of said hand rails, means whereby said partial hanger frame is adapted to support hand rails at said level, and means below said partial frame for supporting the end of a platform section from the side of a frame supported platform section.

4. The combination according to claim 3 wherein said platform sections have similar depending flanges at the opposite supporting ends thereof respectively, said supporting means below said

partial frame comprising a removable bracket.

5. The combination according to claim 3 wherein similar hand rail brackets are provided on said frames and on said partial frame, each of said brackets being adapted to support a hand rail parallel to or at right angles to the plane of one of said frames.

6. A hanger frame adapted to support a platform, said frame comprising spaced uprights fastened to top and bottom members, suspension means adjacent the top of said frame, said bottom member comprising means for supporting the abutting ends of platform sections, hand rail brackets on opposite sides of each of said uprights, each of said brackets being adapted to support the end of a hand rail, a line through the two brackets on each of said uprights extending at right angles to the plane of said frame whereby side hand rails are adapted to be supported by certain of said brackets at right angles to the plane of said frame, and the brackets on the same side of said uprights are adapted to support an end hand rail across said uprights.

ROBERT LEWIS GEIB.