Feb. 19, 1924. 1,484,307

A. MAZZANOVICH

DROP CLAMP

Filed June 27, 1921

FIG. 1.

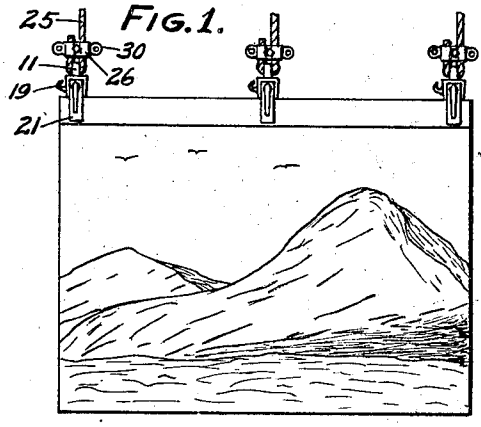


FIG. 2.

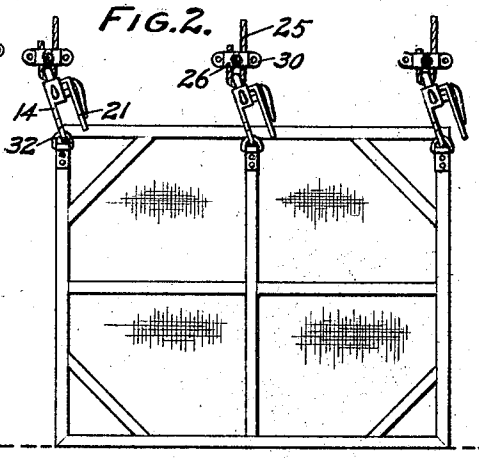


FIG. 3.

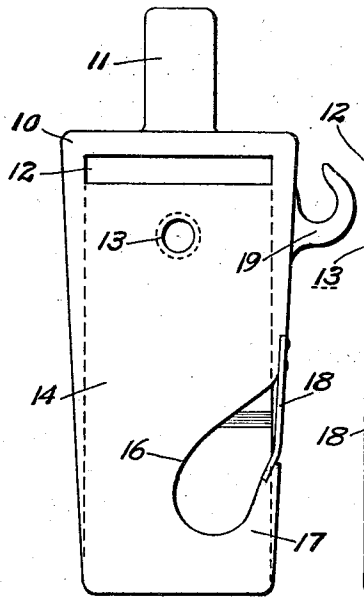


FIG. 4.

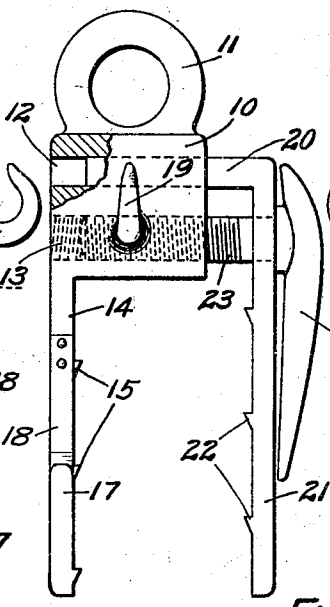


FIG. 5.

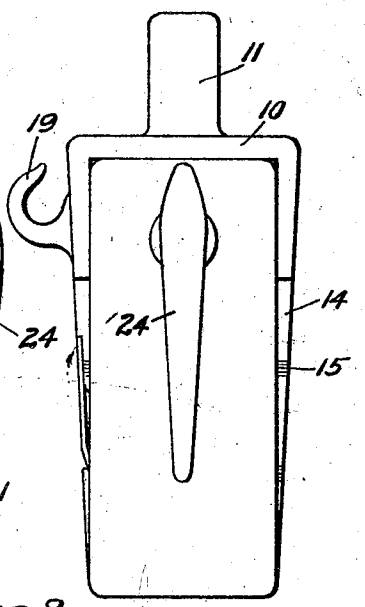


FIG. 6.

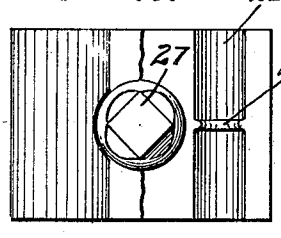


FIG. 7.

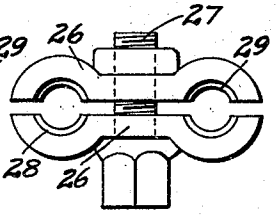
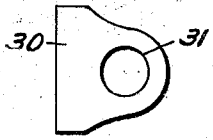


FIG. 8.



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UNITED STATES PATENT OFFICE.

ANTON MAZZANOVICH, OF LOS ANGELES, CALIFORNIA.

DROP CLAMP.

Application filed June 27, 1921. Serial No. 480,628.

To all whom it may concern:

Be it known that I, ANTON MAZZANOVICH, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Drop Clamps, of which the following is a specification.

My invention relates generally to theatrical scenery handling appliances, and more particularly to clamps for drops, flats and the like, the principal object of my invention being to provide a relatively simple device that may be advantageously employed for clamping the battons or rails at the upper ends of drops, and said device being also adapted to engage and support pieces of scenery known as flats, and which latter include relatively large frames that are covered with canvas or the like.

Further objects of my invention are to provide a combination clamp and hook that may be easily and quickly applied to or removed from pieces of theatrical scenery, to provide a device that will be effective in eliminating much of the time and labor ordinarily involved in handling theatrical scenery such as flats and drops, and, further, to provide a combined clamp and hook that will, when disengaged from a piece of scenery, serve as a weight for lowering the ropes or cables from which the pieces of scenery are suspended.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which:

Fig. 1 is an elevational view of a drop and showing a series of clamps of my improved construction arranged on the battons at the upper end of the body of the drop.

Fig. 2 is a rear elevational view of a piece of scenery known as a flat and showing the same suspended from a series of the combined clamps and hooks contemplated by my invention.

Fig. 3 is a side elevational view of the combined clamp and hook.

Fig. 4 is an edge view of the device.

Fig. 5 is an elevational view of the device and showing the head of the screw that is utilized for clamping the two parts of the device upon the battons or rails of a drop.

Fig. 6 is an elevational view partly broken away of a rope or cable clamping device that is utilized in connection with my improved clamp.

Fig. 7 is a plan view of the rope clamp.

Fig. 8 is an elevational view of a perforated plate that is gripped by the rope clamp and which is adapted to be engaged by a hook on the clamping device when a series of said devices are connected to each other.

My invention essentially consists of a plurality of clamps, each of which is composed of substantially L-shaped arms or plates adjustably associated with each other to effect the gripping of pieces of scenery, means associated with each of the clamps for connecting ropes to the latter and effecting vertical movement of the scenery, as will be understood by those skilled in the art.

Referring by numerals to the accompanying drawings, which illustrate a practical embodiment of my invention, 10 designates a block, with the top of which is formed integral an upwardly projecting ring 11, and formed through the upper portion of said block is a horizontally disposed slot 12.

Formed through the lower portion of block 10 immediately below said slot 12, is a threaded aperture 13 and, depending from one side of block 10 and arranged at right angles to the slot 12 and threaded aperture 13, is a plate 14 that is provided on its inner face with a series of transversely disposed ribs or teeth 15.

Formed in one edge of plate 14 adjacent to its lower end, is an inwardly and downwardly extending notch 16 and that portion of the plate below said notch constituting a hook 17 that is adapted to engage or receive a ring or loop.

Secured to the edge of plate 14 immediately above the notch 16, is the upper end of a flat spring 18, the same extending across the mouth of said opening and its free end bearing against the upper end of the hook 17, such construction providing a keeper for retaining the engaged ring or loop in the notch 16.

Projecting outwardly from one end of block 10 is an upwardly presented hook 19.

Arranged to slide freely through slot 12 is a horizontally disposed plate 20 and depending from the outer end thereof is a clamping plate 21 that is positioned directly opposite plate 14, and, formed on

the inner face of plate 21 is a series of horizontally disposed ribs or teeth 22.

Passing through a suitably located aperture in the upper portion of plate 21 is a threaded rod or shank 23, the main body portion of which is screw seated in the threaded aperture 13, and carried by the outer end of said shank or rod is a head or operating handle 24.

The clamp constructed as just described is suspended from the end of a rope or cable such as 25 the end portion of which passes through ring 11, and said end portion is secured to the body portion of said rope or cable immediately adjacent to said ring by a clamp that comprises a pair of plates 26 that are drawn toward each other to clamp the interposed portions of the rope or cable by a clamping screw or bolt 27; and, in order to accommodate said rope or cable, the inner faces of the end portions of said clamping plates are provided with corresponding grooves or channels 28 within which may be formed one or more transversely disposed rope gripping ribs such as 29.

When the plates 26 are drawn together to clamp the interposed portions of a rope or cable, one edge of a plate such as 30 is clamped between the edges of the plates 26 on one side and the projecting portion of said plate 30 is provided with an aperture such as 31 of such size as to receive the end of hook 17 that is formed on the lower end of plate 14.

When my improved clamp is positioned on the battons or rails at the top of a drop of the type illustrated in Fig. 1, plates 14 and 21 are spread apart a sufficient distance to accommodate the battons or rails, and when the latter have been positioned between said plates, screw rod or shaft 23 is rotated by proper manipulation of head or handle 24, thus moving the plates of the clamp toward each other so as to grip or engage the interposed battons, and by tightening the threaded rod or shaft 23 in the block 10, the ribs or teeth 15 and 22 on the inner faces of the clamping plates will embed themselves in the side faces of the battons and consequently firmly anchoring the clamp upon said battons.

With the clamps thus positioned on the battons or strips at the top of the drop, the latter can be readily raised or lowered by proper manipulation of the ropes or cables that are connected to the clamping devices by the clamping plates 26.

When the clamps are disengaged from the battons at the top of the drops, the hooks 17 on the outer pair of clamping members are engaged in the apertures 31 of the plates 30 that are carried by the central one of the rope clamps; and thus the lower ends of the three drop supporting ropes or cables are conveniently connected to each other and the combined weight of the three clamps will be sufficient to lower the ropes or cables, and consequently eliminating the necessity for the usual sand bags that are utilized for lowering the ropes or cables to the stage or platform.

Where the clamps are utilized for supporting a flat of the construction illustrated in Fig. 2, the hooks 17 on the lower ends of the plates 14 are engaged in loops or rings 32 that are suitably mounted on the rear faces of the framework of the flat.

The hook 19 on the end of block 10 is utilized for the attachment of a cyclorama arm where a number of the drops are arranged end to end in the formation of a relatively long set.

Clamps of my improved construction are effective in maintaining the battons perfectly straight and preventing the end portions thereof from being bent laterally in either direction or from sagging downward, and, further, said clamping devices are constructed so that they will accommodate battons or rails of different widths. The use of the clamps greatly facilitates the work incident to the handling of theatrical scenery, effects a material saving of time and labor in connecting and disconnecting the ropes and the battons or frames of the scenery, and said clamps perform the functions of counterbalancing weights to draw the supporting ropes or cables downwardly to the stage or platform, where they may be readily engaged and manipulated.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved clamps may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. A device of the character described comprising L shaped plates, one of which is slotted and notched to form a hook, one arm of the other plate being slidably fitted in the slot of the first plate, a screw threaded rod extending loosely through the second plate and threadedly engaging the first plate, a ring formed on the short arm of the first plate, and a spring spanning the mouth of the notch and bendable inwardly.

2. A device of the character described comprising a pair of plates adjustable one with relation to the other; with one of said plates provided with a notch to form a hook, a spring controlling the mouth of said notch, and means for suspending the plates.

3. In combination, a member including plates adjustable one with relation to the other, a hook on one of the plates and a ring on one of the plates, a rope clamp adapted to embrace the ends of a rope loop ex-

tended through said ring, and plates adapted to be gripped by said clamp and having openings therein for the reception of a hook.

4. A device of the character described comprising L-shaped plates, one of which is slotted and provided with a notch to form a hook, one arm of the other plate being slidably fitted in the slot of the first plate, a screw threaded rod extending loosely through the second plate and threadedly engaging the first plate, a spring spanning the mouth of the notch and bendable inwardly and means for suspending the plates.

5. In combination, a member including plates adjustable one with relation to the other, a hook and a ring on one of the plates, a rope clamp adapted to embrace the ends of a rope loop extended through said ring, and plates adapted to be gripped by said clamp and having openings therein for the purpose described.

6. A device of the character described comprising L-shaped plates, one of which is slotted and provided with a notch to form a hook, one arm of the other plate being slidably fitted in the slot of the first plate, a screw threaded rod extending loosely through one plate and threadedly engaging the other plate, a spring spanning the mouth of the notch, and means for suspending the plates.

In testimony whereof I have signed my name to this specification.

ANTON MAZZANOVICH.