Nov. 4, 1924. 1,514,566

J. D. O'NEILL

RAIL STAND FOR SCALE PLATFORMS

Filed Dec. 1, 1921 2 Sheets-Sheet 1

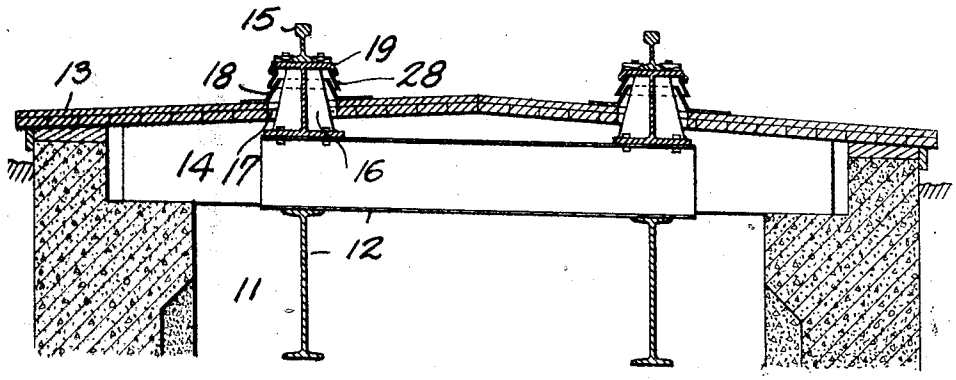


FIG. 1

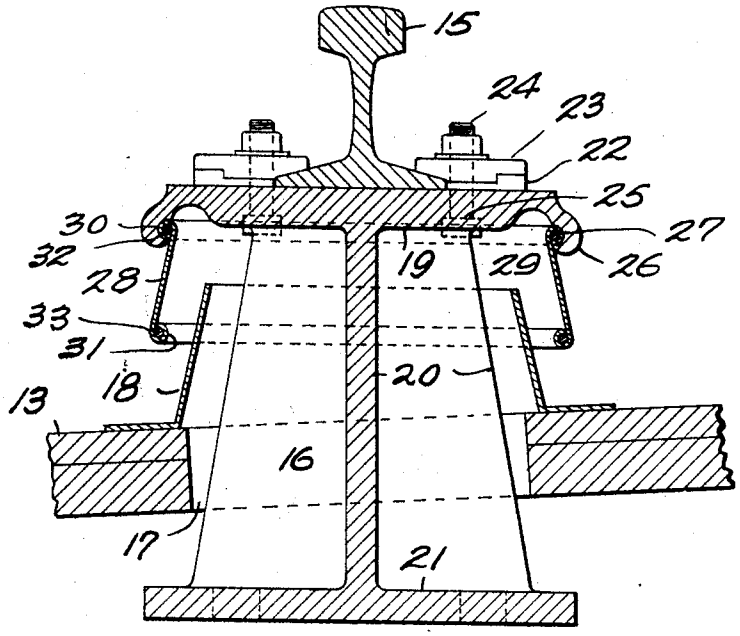


FIG. 2

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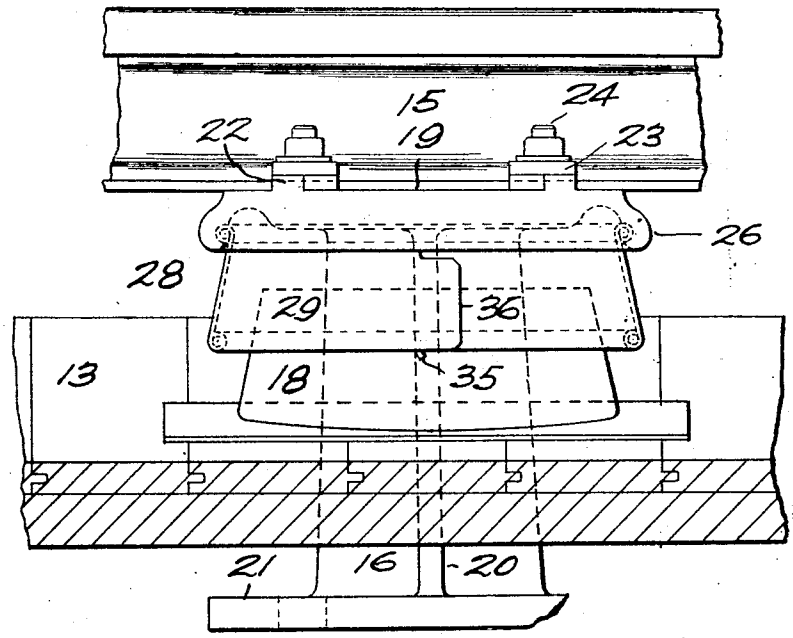


FIG. 3

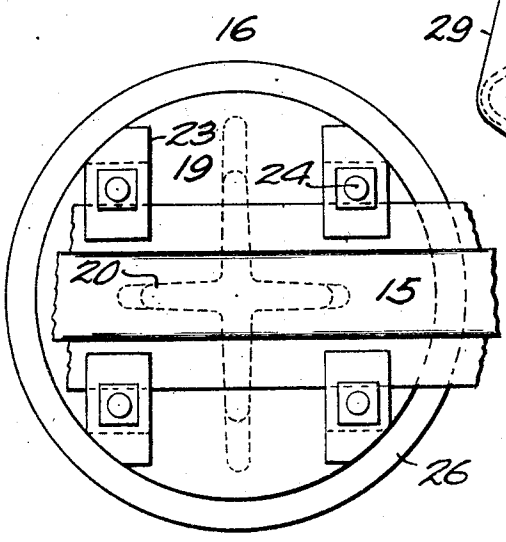


FIG. 4

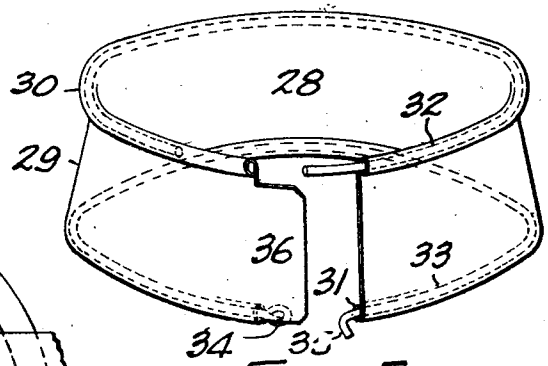


FIG. 5

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UNITED STATES PATENT OFFICE.

JAMES D. O'NEILL, OF MONTREAL, QUEBEC, CANADA.

RAIL STAND FOR SCALE PLATFORMS.

Application filed December 1, 1921. Serial No. 519,278.

To all whom it may concern:

Be it known that I, JAMES D. O'NEILL, a subject of the King of Great Britain, and resident of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Rail Stands for Scale Platforms, of which the following is a full, clear, and exact description.

This invention relates to improvements in rail stands for track scales, and one object is to provide a stand so constructed as to facilitate the erection of the deck or roof over the scale platform.

At the present time, track scales are constructed with a waterproof deck or roof over the scale platform proper, the live rails of the scale being mounted on stands which are movable vertically through the deck. In order to preserve the waterproof qualities of the deck to the maximum extent, the stands are provided with depending flanges or capes inside which upwardly extending flashings secured to the deck project. To produce the best results, the capes must hang down considerably over the flashings and, as the stands cannot be too high, difficulty is experienced in putting the flashing in place. In practice, the flashing is assembled on the stand and held in raised position, while the planking of the deck is inserted, the flashing being then lowered on to and secured to the planking. It will be readily understood that this is an awkward and time consuming proceeding. If a stand should break or a flashing require renewal, it becomes necessary to remove the deck planking in order to properly assemble the flashing and cape.

According to the present invention, the stands are constructed with readily removable capes, permitting the deck to be planked and the flashing set in place without difficulty. The cape is then applied to the stand. The invention resides essentially in providing a rail stand having a top plate of any suitable shape grooved to receive a cape which is held preferably by its own resiliency and without the use of additional fastenings.

In the drawings which illustrate one embodiment of the invention:—

Fig. 1 is a cross sectional view of the deck and platform of a track scale showing the improved stands in position thereon.

Fig. 2 is an enlarged cross sectional view of a stand showing the cape assembled thereon in its relation to the flashing.

Fig. 3 is a side elevation of a stand.

Fig. 4 is a plan view of the stand.

Fig. 5 is a perspective view of the detachable cape.

Referring more particularly to the drawings, 11 designates a scale pit in the upper part of which is mounted a platform 12. In order to keep snow and rain out of the pit and away from the mechanism of the scale, a roof or deck 13 is provided over the pit supported on framing 14 of sufficient strength to carry dead rails (not shown), so that when cars which do not require to be weighed are run over the scale they may run on the dead rails and not cause unnecessary wear to the scale. The live rails 15 are mounted on the platform by means of stands 16 which project upwardly through openings 17 in the deck. To prevent water on the deck running into the pit through the openings 17, a flashing 18 is provided around each opening.

According to the present invention, the stands each comprise a top plate 19 of any suitable form, for example, the circular form shown in Figure 4, supported on a suitably formed column 20 having a base plate 21 adapted to be secured to the scale platform. The upper surface of the plate 19 may be provided with lugs 22, between which the base of the live rail 15 is received. The rail may be held down by any suitable means, such as clips 23 secured by bolts 24, the heads of which may be received in recesses 25 on the underside of the plate to hold the bolts from turning when nuts are tightened thereon. The construction of the upper surface of the plate is more or less immaterial and may be varied as desired. The periphery of the plate is provided with a shallow depending flange 26 which may be slightly flared outward as shown. The inner surface of this flange is provided with a groove 27.

The cape of the stand, designated as a whole by the numeral 28, is preferably in the form of a strip 29 of sheet metal, the long edges of which are provided with rolled rims 30 and 31 formed on opposite sides of the strip, so that when the strip is bent to the shape of the top plate 19 one of the rims will project outwardly and the other project inwardly. The outwardly projecting rim 30 marks the top of the cape and

this rim is designed to enter easily into the groove 27 of the top plate. The rims are preferably reinforced by lengths of spring wire 32 and 33 respectively. The wire 32 in the upper rim 30 stops short of one end of the rim and the other end of the wire projects beyond the opposite end of the rim, as clearly shown in Figure 5. When the ends of the strip 29 are brought together, the projecting end of the wire at one end of the rim may be slipped into the unoccupied portion of the rim at the other end of the strip, so as to complete an endless upper rim for the cape. This projecting wire end may be freely slidable in the rim portion which it occupies, so that the circumference of the cape may be decreased by pressure and on release will expand. Both ends of the wire 33 may project beyond the ends of the lower rim 31 with a view to connecting them together. This connection may be easily accomplished by forming a loop 34 in one end of the wire and a hook 35 in the opposite end. One end of the strip 29 may be provided with a tongue 36 projecting beyond the ends of the rolled rims, so that this tongue will overlap the opposite end of the strip before the ends of the rims abut one another, and prevent further contraction of the cape. The strip 29 is preferably initially shaped, so that when it is bent to the form of the plate 19 the girth at the bottom will be greater than the girth at the top, that is to say, the cape will have an appreciable convergence toward the top. This convergence is preferably such as to bring the outer surfaces of the flange and cape into substantial parallelism.

The operation of the device is substantially as follows:—

The stands 16, being in position on the platform and the deck completely constructed and the flashing 18 in place, the cape is opened and slipped around the flashing and stand and its ends allowed to spring together. The ends of the lower binding wire 33 are now connected, the end of the upper wire 32 being first inserted in the unoccupied end of the rim. The upper end of the cape is now contracted and thrust upwardly inside the flange of the stand top plate. It will be noted that the inner surface of the flange tapers upwardly both below and above the groove 27. The lower part of this taper will serve to assist the contraction of the cape as it is thrust upwardly or, if the cape is sufficiently contracted before insertion to go clear up to the top plate, the sloping inner surface will thrust it downwardly during its expansion, so that the rim 30 will slip into the groove 27. An operator once skilled in the attachment of these capes can put one in place in a few seconds. As will be clearly seen in Figures 2 and 3, the cape hangs downwardly over the flashing. Rain falling on the top of the stand runs over the flange 26, on over the cape 27 and falls on to the flashing and thence on to the deck. The provision of the groove 27 some distance up inside the flange substantially precludes the possibility of water working into the groove, while at the same time the internal location of the lower rim 31 substantially precludes the possibility of water getting into this rim. The closure tongue 36 produces what is in effect an endless or unbroken cape and, as this tongue covers the connected ends of the lower wire 33, they will be protected from weather and also concealed from the eye of the curious. In addition, the tongue covers the fastening and guards against the same being caught by a passing object. For all practical purposes, the cape is as unbroken and rigid as if it was cast integral with the stand.

The advantages of the invention will be readily appreciated by those skilled in scale construction. A stand according to this invention may be manufactured quite as cheaply as the ordinary stands but the cost of application will be materially less. The projecting cape is obviously the part of a stand most liable to breakage and with the one-piece stands a broken cape necessitates the renewal of the whole stand, whereas according to this invention only the cape need be renewed. The ability to quickly and easily remove the cape by merely contracting and drawing down the same greatly facilitates the renewal of corroded flashings or worn out deck planking. In addition, the ability to remove the cape greatly facilitates the relaying of rails, as it enables free access to be had to the underside of the plate 19 for the insertion or removal of bolts 24. The invention is obviously not confined to a circular top plate, such as illustrated, as the removable cape is applicable equally well to any other shape of stand either in circular form or in a form corresponding to the peripheral shape of the stand top plate. While the plate 19 has been shown and described as provided with a continuous depending flange, it will be understood that this precise arrangement is, though preferable, not essential and that the detachable cape may be supported in other ways without departing from the spirit of the invention.

While the invention has been described especially in its relation to live rail stands for track scales, it will be understood that it is not thus limited but may be applied to dead rail stands and to stands for use other than on track scales. While the preferred method of connecting the cape to the stand has been illustrated and described, it will be understood that the construction of

the stand may be modified in a great variety of ways without departing from the spirit of the invention and also that the shape of the cape need not correspond with the peripheral shape of the stand.

Having thus described my invention, what I claim is:—

1. A rail stand for track scales including a top plate, a depending peripheral flange thereon internally grooved, and a detachable cape engaging the flange groove.

2. A rail stand for track scales including a top plate having an internally grooved depending flange, and a detachable cape having an externally projecting rim engageable in the flange groove.

3. A rail stand for track scales including a top plate having an internally grooved depending flange, and a detachable cape comprising a strip of metal having its ends disposed in overlapping arrangement, an externally projecting rim at one edge of said strip engageable in the flange groove, and an internally projecting rim at the opposite edge.

4. In combination with a device according to claim 3, a resilient binding wire in each of said rims.

5. In combination with a device according to claim 3, a binding wire in the upper rim having one end thereof disposed some distance from the end of the rim, leaving an unoccupied end portion of said rim and having the opposite end thereof projecting from the opposite end of the rim and insertable in the unoccupied rim portion.

6. In combination with a device according to claim 3, a binding wire in the lower rim, and means to releasably connect the ends of said wire together.

7. In combination with a device according to claim 3, binding wires in said rims, the wire in said external rim terminating at one end some distance from the end of the rim and leaving an unoccupied rim portion and projecting at its opposite end beyond the opposite end of the rim, said projecting wire portion being slidable in the unoccupied rim portion and the ends of the wire in the internal rim projecting beyond the rim ends and releasably connected together.

8. In a rail stand for track scales, a top plate having a depending internally grooved flange, and a contractable cape adapted for insertion within said flange to expand by its resiliency to engagement in the flange groove.

9. In a rail stand for track scales, a top plate, provided with a groove, and a resilient detachable cape movable by its own resiliency into supporting engagement with said groove.

10. A detachable cape for rail stands, comprising a strip of metal bent to bring its ends into overlapping relation, and rims at the long edges of said strip projecting respectively from opposite surfaces thereof.

11. A detachable cape for rail stands, comprising a strip of material bent to position its ends in overlapping relation, and rolled rims on the long edges of said strip, one of said rims projecting externally from the bent up plate and the other rim projecting internally.

12. A detachable cape for rails stands, comprising a strip of material bent to position its ends in overlapping relation, and rims at the long edges of said plate, said rims being shorter than the plate, whereby the bent up plate may be contracted and expanded without disengagement of its overlapping ends or engagement of the rim ends.

13. A detachable cape for rail stands, comprising a plate bent to position its ends in overlapping relation, a rolled rim at one edge of said plate, a binding wire in said rim, one end of said wire being positioned some distance from the end of the rim, and the other end of said wire projecting beyond the opposite end of the rim and being slidable in the first mentioned rim end.

14. A detachable cape for rail stands, comprising a plate bent to position its ends in overlapping relation, a rim at one long edge of said plate, a binding wire in said rim, and means releasably connecting the ends of said binding wire to releasably hold the plate ends in their overlapping relation.

15. A detachable cape for rail stands comprising a strip of material bent to position its ends in overlapping relation, rims at the long edges of said plate, binding wires in said rims, one of said wires projecting at both ends beyond the rim and being formed for hook and eye engagement and the other of said wires terminating at one end short of the end of the rim and projecting at its opposite end from the opposite end of the rim, said projecting end being engageable in the first mentioned rim end to hold the first mentioned wire ends against disconnection and slidable to permit contraction and expansion of the bent up plate.

16. A detachable cape for rail stands, comprising a plate bent to position its ends in overlapping relation, means to releasably connect the ends of one long edge of said plate and hold this edge of the plate at a substantially constant circumference, and slidable connection at the ends of the other long edge holding the first mentioned connection operative and permitting variation in the circumference of the bent-up plate at said second edge.

In witness whereof, I have hereunto set my hand.

JAMES D. O'NEILL.