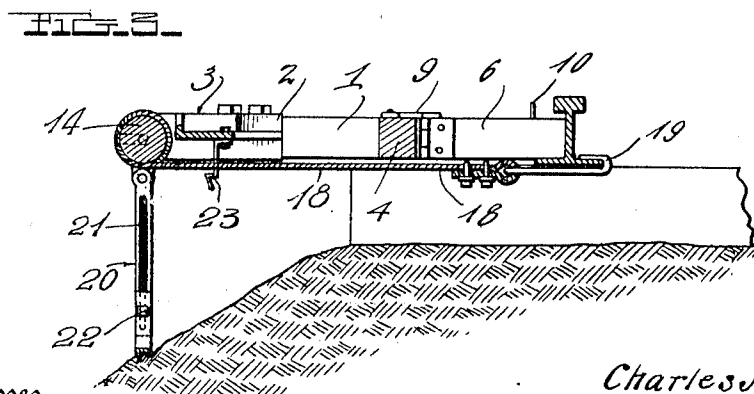
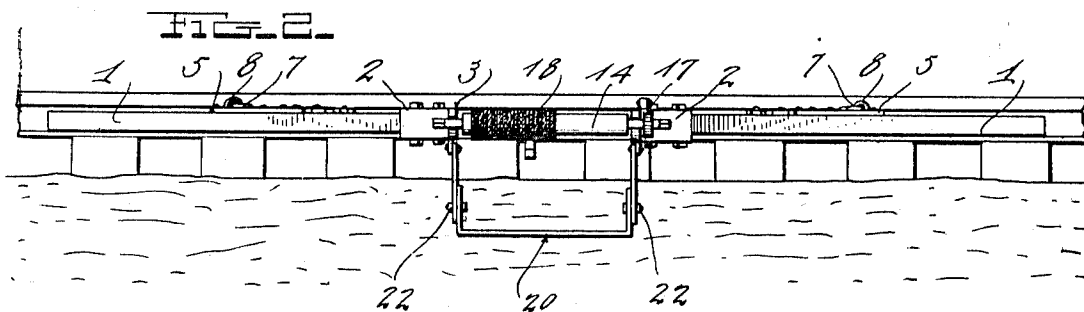
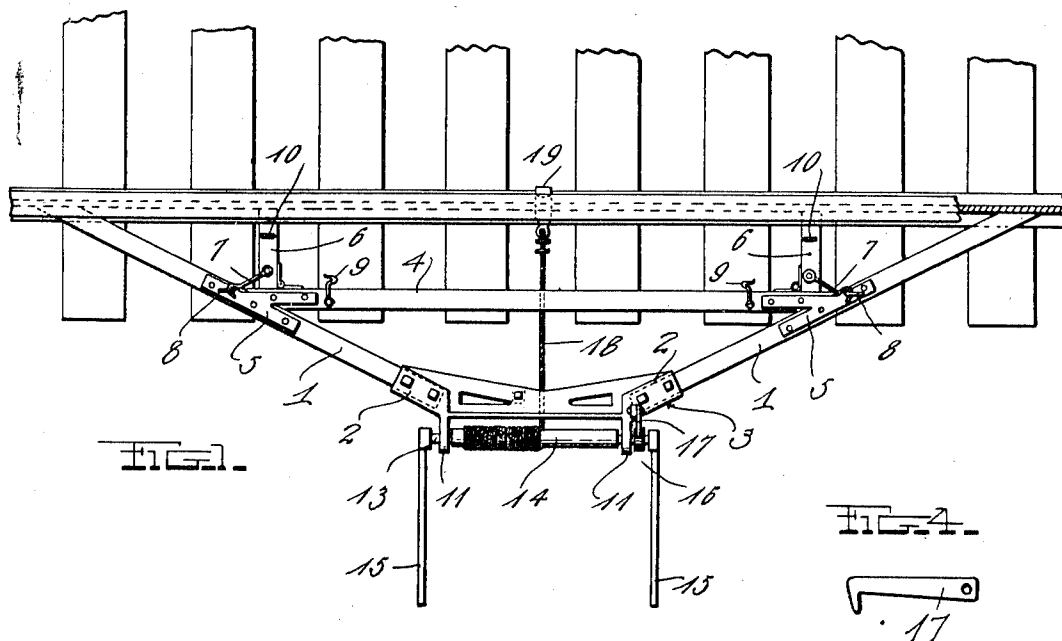


C. M. KIPP.
 TRACK LINER.
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1,061,243.

Patented May 6, 1913.



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TRACK-LINER.

1,061,243.

Specification of Letters Patent.

Patented May 6, 1913.

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To all whom it may concern:

Be it known that I, CHARLES M. KIPP, a citizen of the United States, residing at Marysville, in the county of Yuba and State of California, have invented certain new and useful Improvements in Track-Liners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in track liners.

Railroad tracks will continually get out of alinement which causes the cars to swing when passing thereover. Heretofore to straighten these tracks a force of from six to ten men have been found necessary when lining bars were used which rendered the work expensive and it is to avoid this expense that this device is designed.

One object of the invention is to provide a device of this character which may be readily applied to a railway rail without removing or disturbing the ballast and by means of which the portion of the track between the bearing portions of said device may be readily brought into line, by a comparatively small force of men.

Another object is to provide a track liner which may also be used as a rail bending and straightening device and which will be simple strong and durable in construction, efficient and reliable in operation and well adapted to the purpose for which it is designed.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of a portion of a railway track showing the application of the invention; Fig. 2 is a side view thereof with the operating levers of the device removed; Fig. 3 is a cross sectional view through the rail and the rail straightening or track alining device applied thereto and illustrating the manner in which the outer portion of the device is supported; Fig. 4 is a detail view of the pawl for locking the cable winding roller against retrograde movement.

My improved track liner comprises a pair of brace bars 1 which may be of any suitable construction but which are preferably

in the form of heavy wooden beams which are arranged obliquely to the rail and which have their outer ends secured in sockets 2 formed on a roller supporting frame 3. The brace bars 1 diverge from the frame 3 and are connected intermediate their ends by a connecting bar 4, the ends of which are preferably secured to the bars 1 by connecting plates 5 as clearly shown in Fig. 1 of the drawings.

Hinged to the inner side of the bar 4 near its ends are short rail engaging bars or blocks 6 which when swung outwardly to operative positions are disposed between and have their ends engaged with the bar 4 and with the rail as shown. The blocks 6 are held in operative position by hooks 7 which are loosely connected with the blocks and are adapted to be engaged with eyes 8 arranged on the plates 5. When not in use the bars or blocks 6 are adapted to be folded back against the bar 4 and to be held in this position by means of hooks 9 which are engaged with eyes 10 arranged on the bars as shown.

On the roller supporting frame 3 are outwardly extending bearing lugs 11 in which are revolubly mounted trunnions 13 of a cable winding roller 14. The outer ends of the trunnions 13 of the roller 14 are squared to receive operating levers 15 which are detachably engaged with the trunnions of the roller whereby the latter may be turned in the proper direction. Fixed on one of the trunnions 13 of the roller is a ratchet gear 16 with which is adapted to be engaged a suitable locking pawl 17 pivotally mounted on the frame 3 whereby the shaft 14 is locked against retrograde movement. Secured at one end to the roller 14 in any suitable manner is a rail engaging cable 18 which is preferably formed of steel and is connected at its outer end to a rail engaging hook 19.

In order to support the outer end of the device in an operative position I provide a rest 20 comprising a yoke shaped frame, the side members of which are formed in sections, one of which is pivotally secured to the lugs 11 and the other of which has formed therein a slot 21 adapted to receive a clamping bolt 22 whereby the sections of said side bars are adjustably fastened together to permit the rest to be extended or shortened to engage the ballast or ground alongside the track and to thereby support the device in a horizontal position. When not in use the rest 20 is adapted to be swung

upwardly into engagement with a spring catch 23 secured to the frame 3 the outer member having first been moved inwardly to its extreme limit after the bolts 22 have been loosened.

In the operation of the device the ends of the brace bars 1 are engaged with the side of the web of the rail which is secured to all of the ties and if desired the short brace bars 6 may also be swung outwardly and fastened in operative positions in the manner described. After the brace bars have been thus engaged with the rail the hook 19 is passed beneath the rail and engaged with the flange thereof on the opposite side of the rail from that with which the brace bars are engaged. The rest 20 is now swung down and adjusted to support the outer end of the device. After being thus arranged the levers 15 are engaged with the squared ends of the trunnions 13 and swung inwardly and downwardly thereby turning the roller 14 in the proper direction for winding the cable 18 thereon and thereby easily pulling the track between the outer or diverged ends of bars 1 into line, both rails and ties being moved thereby. By providing a pawl and ratchet connection for the roller 14 the same may be held against retrograde movement when the levers are disengaged from and again engaged with the trunnions for further turning of the roller.

By constructing and arranging my improved device as herein shown and described a maximum amount of power may be applied to the rail through the cable 18 and the brace bars applied thereto, thereby enabling a rail to be bent or straightened by the least amount of labor or to pull the track including rails and ties into line, and with the employment of a comparatively small force of operators and without disturbing the roadbed or ballast.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. In a track liner, a roller supporting frame, brace bars secured at one end to said frame and having diverging opposite ends adapted to be engaged with a rail, a connecting bar secured at its ends to said brace bars, short bracing bars hingedly attached to said connecting bar and adapted to be swung outwardly and inwardly to operative and inoperative positions, means to hold said short bars in their operative and inoperative positions, a cable winding roller revolubly mounted in said roller supporting frame, a cable adapted to be wound thereon, a rail engaging hook secured to the outer end of said cable, and roller operating levers adapted to be operatively engaged with the trunnions of the roller whereby the latter is turned in the proper direction to wind said cable.

2. In a track liner, a roller supporting frame, brace bars secured thereto and adapted to be engaged with a rail, a connecting bar secured to said brace bars, short bracing bars hingedly attached to said connecting bar and adapted to be swung outwardly and inwardly to operative and inoperative positions, means to hold said bars in their operative and inoperative positions, a cable winding roller revolubly mounted in said frame, a cable secured to and adapted to be wound on said roller, rail engaging means secured to said cable, and means to revolve said roller for winding said cable.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES M. KIPP.

Witnesses:

C. F. AARON,
H. P. HAYES.