Dec. 10, 1946. J. W. McDANIEL 2,412,463

RAIL LEVELING DEVICE

Filed Jan. 15, 1945

FIG. 2

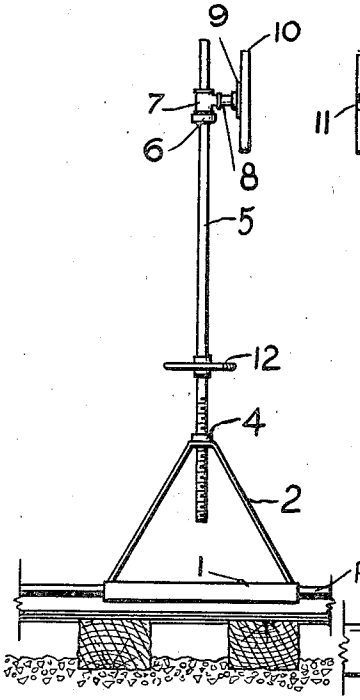
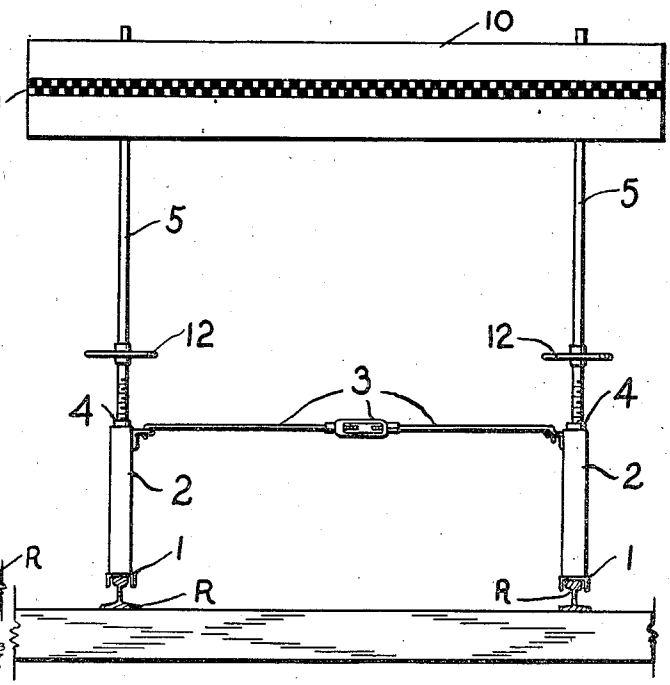


FIG. 1



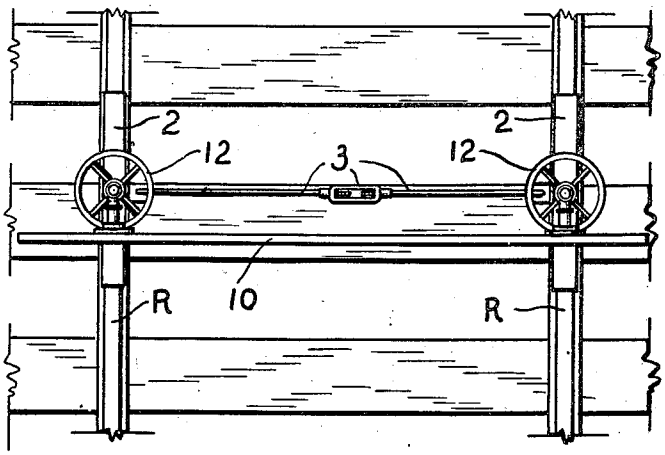


FIG. 3

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RAIL LEVELING DEVICE

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2 Claims. (Cl. 33—74)

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This invention relates to track gauges such as are used on railroad rails to indicate the relative level thereof; the major object being to provide a gauge of this general nature primarily designed to ascertain and indicate the super-elevation of railway curves and to be used as a target or sighting medium for a surveyor's level or transit.

A further object is to provide a device for the purpose which may be easily and quickly assembled or taken down, so that the structure may be conveniently carried on a hand car to and from the points of use.

In the drawing:

Fig. 1 is a front elevation of the gauge, mounted on a track.

Fig. 2 is an end elevation of the device.

Fig. 3 is a plan view of the same.

Referring to the characters of reference on the drawing, the device comprises a pair of saddles 1, adapted to straddle and ride on the opposed rails R of a railroad track.

These saddles support upstanding rigid brackets 2, connected together at the top by an adjustable rod and turn buckle unit 3, readily detachable from the brackets.

On top of the brackets, tapped heads 4 are fixed, through which upstanding standard-forming rods 5 are threaded in adjustable supported relation. A short distance below the upper end of the rods, collars 6 are adjustably mounted thereon by means of set screws so that the level of the collars may be easily altered to suit different operating conditions.

Collars 6 support sleeves 7 having a loose fit on the rods 5 above the collars, these sleeves preferably being pipe ties, having short forwardly facing nipples 8 mounted therein and projecting therefrom, parallel to each other and to the rails R. Floor flanges 9 are secured on the forward end of the nipples and on the back face of a rectangular panel 10 which thus extends crosswise of the track. On the forward face of the panel, a target 11 is painted thereon, the target being in the form of a row of checker board squares of contrasting colors such as are commonly used on the conventional surveyor's targets. Target 11, of course, extends lengthwise of the panel or in a horizontal direction and provides a convenient line of sighting for a surveyor's transit or level set up down the track wherever desired.

In operation, assuming that the right hand

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rail is to be raised three inches above the left hand rail, the target is lowered at the right this amount. This is done by means of a handwheel 12 with which each rod 5 is equipped and which enables either rod to be rotated at will through its tapped head 4 so as to advance or retract the same through the tapped supporting collar 4.

After the target is thus lowered on the right side, the adjacent rail is raised with track jacks until the target is again horizontal or level as determined by the surveyor.

Crushed rock is then tamped under the ties to hold the rail in this position and the gauge is then shifted to the next position along the track as may be required by the surveyor.

Relative tilting of the panel without binding is rendered possible by the loose fit of the supporting sleeves 7 on the rods 5.

It will be seen that the structure consists of four readily separable units; the panel, the two brackets and their standards and the connecting turn buckle unit. When these units are disconnected from each other, they may be disposed in substantially parallel and side by side relation and placed on a hand car or other vehicle for ready transportation.

I claim:

1. A track gauge comprising a pair of rail supported upstanding brackets having tapped heads at the top, rod-like standards adjustably threaded through and upstanding from the heads, collars fixed on the standards below their upper ends, sleeves mounted on the standards and seated on said collars, a target extending between and secured to said sleeves, said sleeves, loosely turnable on said standards whereby the target may tilt a predetermined amount relative to the standards without binding the sleeves against said standards.

2. A track gauge comprising a pair of rail supported upstanding brackets, standards upstanding from and supported by said brackets for vertical adjustment, a target extending between the standards in front of the same, collars on the standards and sleeves on the back of the target engaging over the top of the standards and supported by said collars, said collars being vertically adjustable on the standards whereby the level of the target relative to the upper end of the standards may be changed.

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