May 1, 1928. 1,668,512

A. W. MILLER

DEVICE FOR DRESSING LOCOMOTIVE WHEELS

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Fig. 1.

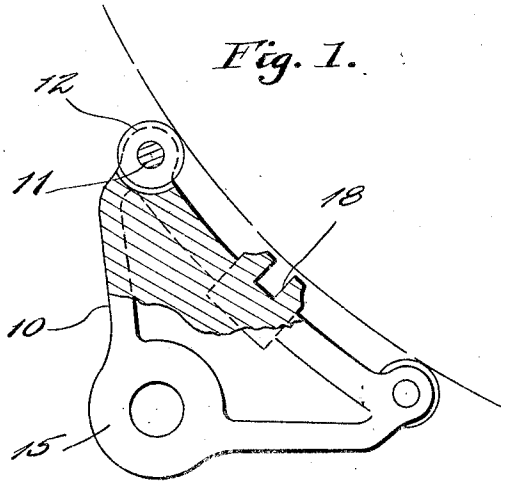


Fig. 2.

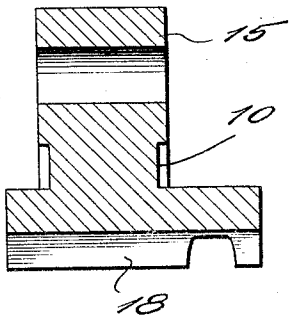


Fig. 3.

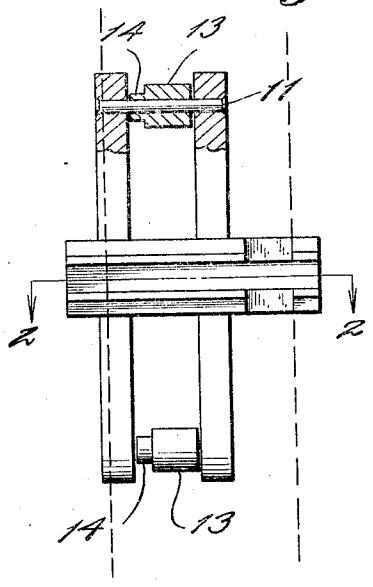


Fig. 4.

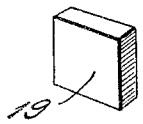


Fig. 5.

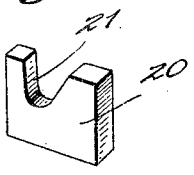


Fig. 6.

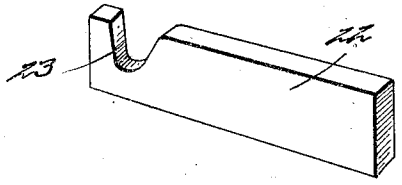
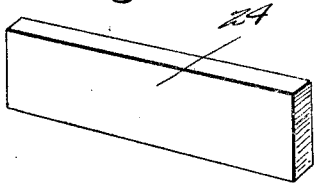


Fig. 7.



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Fig. 8.

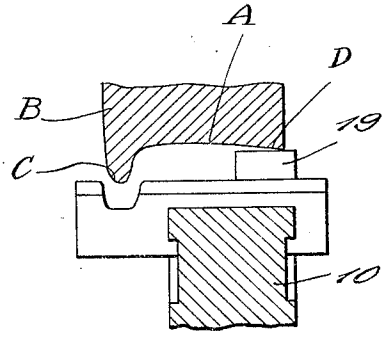


Fig. 9.

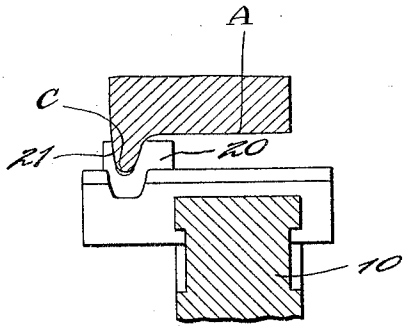


Fig. 10.

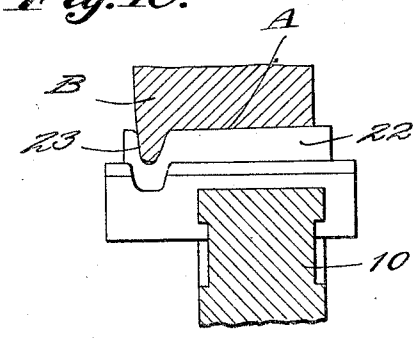


Fig. 11.

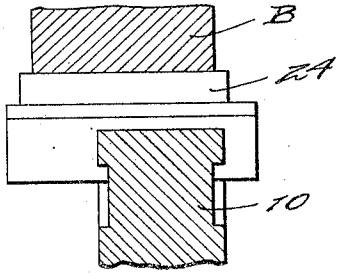
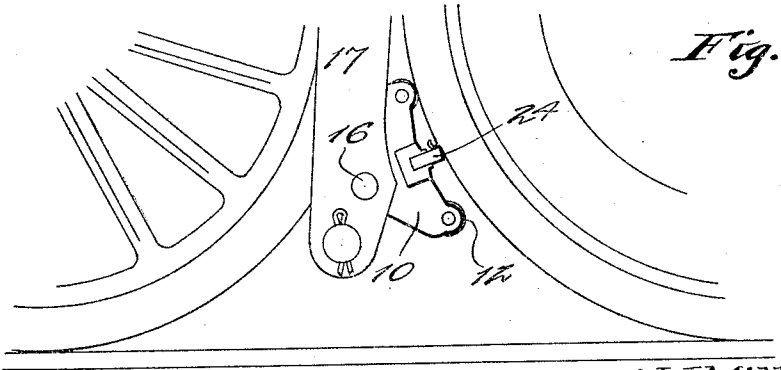


Fig. 12.



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Patented May 1, 1928. 1,668,512

UNITED STATES PATENT OFFICE.

ALBERT WALTER MILLER, OF LIMA, OHIO.

DEVICE FOR DRESSING LOCOMOTIVE WHEELS.

Application filed December 21, 1925. Serial No. 76,940.

This invention relates to devices for dressing the wheels of locomotives and has for its object the provision of a novel device adapted to be mounted upon the brake beam or brake hanger and equipped with selectively usable cutters adapted to be brought into engagement with the tread or flange of a locomotive wheel whereby to dress the same and restore the flange to normal shape and height with respect to the tread, after prolonged use, so as to comply with the regulations in this respect.

It is well known that after being in service for some time the treads and flanges of locomotive wheels become worn, the treads being grooved to a certain extent so that the flanges project beyond the periphery of the treads to a greater extent than is permissible under the law. The ordinary practice is to move the locomotive to the shop, take off the wheels, dress the wheels and return them to their proper position, an operation requiring considerable time and involving the laying up of the locomotive long before it would need to be repaired in the matter of fire-box, flues and other parts. It is with these facts in view that I have designed the present invention which has for its object the provision of the means adapted to be mounted in place on the brake beam or brake hangers and carrying cutting means adapted to be brought into engagement with the wheels for dressing them without necessitating removal.

Another object of the invention is to provide a plurality of cutters which are removably mounted in place and which are selectively usable so as to dress the tread, the flange and subsequently finish both in the proper manner.

An additional object is to provide a device of this character which will be simple and inexpensive in manufacture, easy to use, positive in action, efficient and durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction and the arrangement and combination of parts to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the device partly broken away and in section.

Figure 2 is a sectional view taken on the line 2—2 of Figure 3.

Figure 3 is a face view of the device partly broken away and in section.

Figure 4 is a detail perspective view of the cutter used for roughing the tread.

Figure 5 is a similar view of the cutter for roughing the flange.

Figure 6 is a perspective view of the finishing tool for finishing off a wheel of the flange type.

Figure 7 is a similar view of the tool used in connection with blind wheels or those unprovided with flanges.

Figure 8 is a detail sectional view illustrating the action of the tread roughing tool.

Figure 9 is a similar view showing the action of the flange roughing tool.

Figure 10 is a view similar to Figures 8 and 9 showing the holder as equipped with the tool for finishing the flange and the tread.

Figure 11 is a similar view showing the action of the tool for finishing blind wheels, and

Figure 12 is a fragmentary side elevation showing the device in applied position upon a locomotive.

Referring more particularly to the drawings, I have shown the device as comprising a body member 10 which may be conveniently constructed as a casting and which is of a size and shape corresponding at least substantially to the shape of a brake shoe of the type used on locomotive wheels. Journally mounted in the end portions of this body, as for instance upon suitable spindles 11, are rollers 12 adapted to bear upon the wheel of a locomotive when the device is in position thereon but inactive owing to the removal of the cutting tool to be described. These rollers 12 are shown as having large portions 13 and smaller portions 14 adapted to bear respectively upon the tread and

flange of the wheel. The body member 10 is formed with an eye portion 15 by means of which it is pivotally mounted, as shown at 16, upon a brake beam, brake hanger or the like, indicted at 17 in Figure 12. The details for moving the brake mechanism are not shown as they are old and well known and form no part whatsoever of the present invention. The face of the body member 10 is formed with a transversely arranged slot or groove 18 within which may be inserted the particular tool needed to be used.

In Figure 4 I have shown the tool for roughing off the tread A of the locomotive wheel B, this tool 19 consisting simply of a block-like piece of high speed steel. The shape and size of the block is such that it may be easily engaged within the groove 18 in position to engage against and cut the tread A.

In Figure 5 I have illustrated the tool used for roughing off the flange, this tool consisting of a block-like member 20 adapted to be fitted within the notch or groove 18 and formed with a notch 21 having a contour corresponding to the proper cross sectional configuration of the locomotive flange C. In Figure 6 I have disclosed a cutter 22 adapted to be fitted within the groove or slot 18 for the purpose of effecting the finishing action, this tool consisting of an elongated bar member adapted to bear against the tread of the wheel and notched as indicated at 23 for also bearing against the flange. In some instances there are blind wheels used on locomotives, by blind wheels it being meant that there are no flanges provided. In such an event use is made of the cutter 24 shown in Figure 7, this cutter being identically the same as the cutter 22 except that it is not provided with a notch for treating the flange.

Referring to Figure 12, the application of the device will be readily apparent inasmuch as the body member 10 is mounted upon the brake hanger 17 in place of the brake shoe or near the same as illustrated, in such position as to engage against the wheel. When there is no cutter provided, as shown in Figure 1, the rollers 12 will bear against the wheel. Whenever it is necessary to dress the wheel, the proper cutter is engaged within the groove or slot 18 of the body and the brake mechanism is set by the application of the desired amount of pressure thereto so that the cutting tool will be held against the wheel in position to cut the band. The first step is of course to place the cutting member 19 in position to dress off the ridge D which is formed on the tread of the wheel by prolonged use. After this ridge has been dressed off, the cutter 19 is removed and replaced by the cutter 20 shown in Figure 5 and the brake mechanism is again set so that this cutter will be brought into coacting relation with the flange C, as shown in Figure 9 for roughly dressing it off. Subsequently to this, the cutter 20 is removed and replaced by the cutter 22 which will act to dress the flange and also the tread as shown in Figure 10. In case the wheel is one of that type unprovided with a flange, the cutter 24 is used instead of the cutter 22, this action being illustrated in Figure 11. In actual practice, after the cutting tool has been placed in position and the proper pressure placed upon the brake mechanism, the locomotive may be moved along a straight track by means of another locomotive, crane or the like, the movement being naturally a slow one, so that the cutters employed will act to dress off the wheels in a very efficient manner. In actual practice, I have discovered that the set of wheels of a locomotive may be dressed in a very short time so that a saving in time and labor is effected, inasmuch as it is unnecessary to lay up the locomotive by removing the wheels. It is believed that the construction, operation and advantages will be readily apparent to one skilled in the art without further explanation.

While I have shown and described the preferred embodiment of the invention, it should be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described the invention, I claim:—

1. In a device of the character described, a body member adapted to be mounted upon the brake mechanism of a locomotive in position to be adjacent a wheel, said body member being provided with rollers normally engageable with the wheel, the body member being provided intermediate its ends with a transversely arranged groove, and a cutter removably engaged within the groove and adapted to act upon the wheel for dressing the same.

2. A device for dressing the tread and flange of a locomotive wheel while the locomotive is travelling upon a track, comprising a body member adapted to be pivotally mounted upon a brake hanger, rollers journally supported upon the ends of the body member and adapted to engage the tread of the wheel, the body member being formed centrally of its face toward the wheel with a transverse slot, and a cutting tool removably engaged within said slot and adapted to bear against the wheel.

3. A device for dressing the tread and flange of a locomotive wheel while the locomotive is travelling upon a track, comprising a body member adapted to be pivotally

mounted upon a brake hanger, rollers journally supported upon the ends of the body member and adapted to engage the tread of the wheel, the body member being formed centrally of its face toward the wheel with a transverse slot, and a cutting tool removably engaged within said slot and adapted to bear against the wheel, said cutting member being of metal and having a contour corresponding to the proper cross sectional configuration of a normal wheel.

In testimony whereof I affix my signature.

ALBERT WALTER MILLER.