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W. STYLES

ATTACHMENT FOR WHEELED ROAD GRADERS

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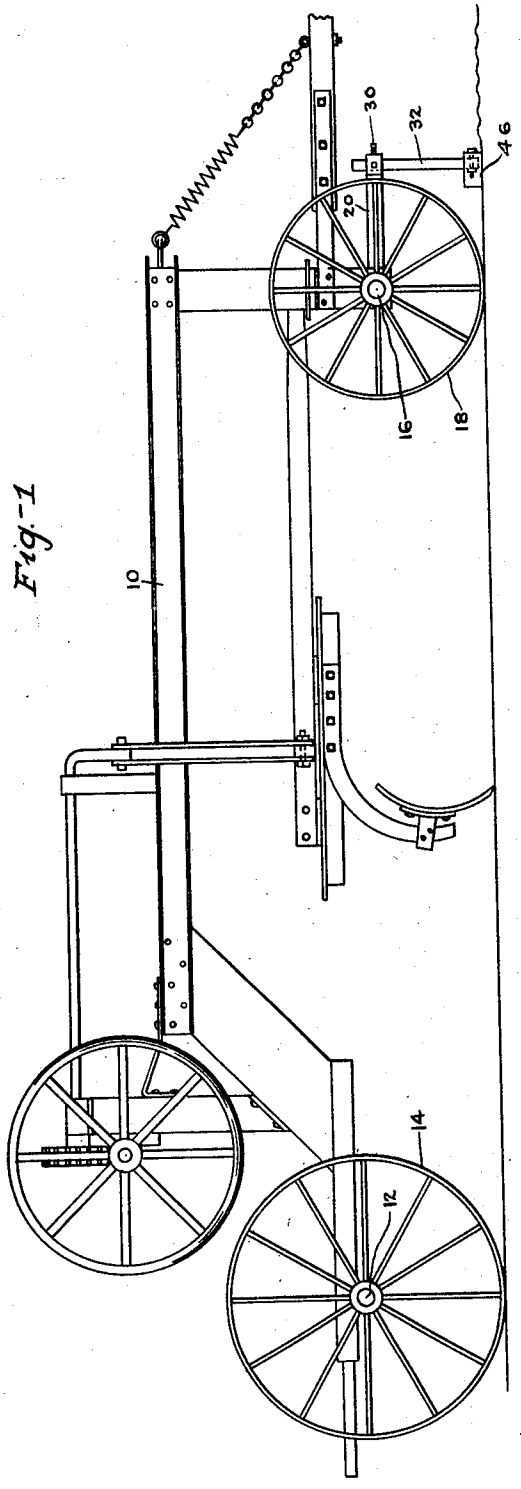


Fig. 1

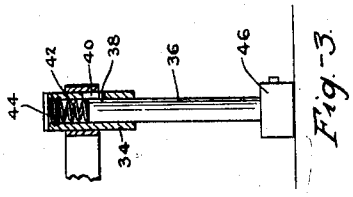


Fig. 3

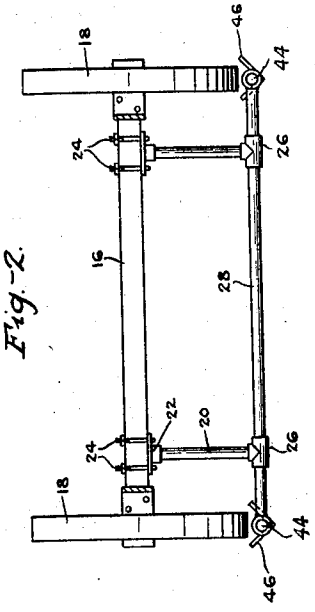


Fig. 2

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR WHEELED ROAD GRADERS.

Application filed January 11, 1927. Serial No. 160,383.

My invention relates to attachments for wheeled road graders, and an object is to improve the operation of such graders when employed for smoothing and maintaining roads. It has been by observation that when graders are employed for this purpose, the wheels of the grader especially the front wheels frequently strike humps and elevations and pebbles or other hard substances in the roadway, thereby causing the wheels and the scraper blade to be lifted from the proper level. When this occurs, the scraper blade drops some of its load of sand and gravel in the form of a small ridge across the road. The next time the grader passes over the same surface, this ridge is encountered and a portion of the load of the scraper blade is again dropped. As the grader passes back and forth during its operation, the tendency is to multiply these ridges. Traffic passing over such ridges packs them with the result that the roadway is not in first-class condition even when it has been gone over carefully with the grader. To overcome this objection, I provide shoes or small plows which travel in front of the wheels and cut or slice through the elevations and humps on the roadway and push aside the pebbles or other hard substances, the result being that a smooth track is provided for the wheels so that the scraper blade is not lifted above its proper level.

The full operation and advantages of my invention will appear in connection with the detailed description thereof, and the novel features of my inventive idea will be particularly pointed out in the claims.

In the accompanying drawings which illustrate the application of my invention,—

Fig. 1 is a side elevational view of a wheeled road grader showing my attachment applied thereto. Fig. 2 is a top plan view of my attachment. Fig. 3 is a sectional elevational view on an enlarged scale showing the manner in which my device may be resiliently arranged.

Referring to the construction shown in the drawings, the numeral 10 designates the frame of a road-grading machine which is provided with a rear axle 12 upon which rear wheels 14 are mounted and which is also provided with a front axle 16 upon which front wheels 18 are mounted. In the particular embodiment shown, my attachment includes two pipe sections or hollow rods 20 whose rear ends are secured to plates 22 which in turn are secured to the axle 16 by bolts 24. The forward ends of the pipe sections 20 carry T's 26 which support a transverse pipe section or rod 28 having vertically extending openings at the ends thereof. Vertical supports extend through these openings, being secured in the desired position by set screws 30. In the form shown in Fig. 1, the supports consist of rods or tubes 32. In the form shown in Fig. 3, the supports consist of hollow members 34 having the upper ends of rods or tubes 36 telescoping therein. A pin 38 secured to the member 36 is slidably engaged in a slot 40 in the wall of the hollow member 34. A stiff spring 42 interposed between the upper end of the member 36 and a plug 44 in the upper end of the member 34 tends to hold the member 36 downward to its full extent. Shoes or small plows 46 are secured to the lower ends of the rods 32 or in the form shown in Fig. 3 to the lower ends of the members 36. As shown in Fig. 2, these shoes are preferably V-shaped and have a width from tip to tip somewhat greater than the width of the wheels.

The operation and advantages of my invention have to a large extent already been set forth. By providing shoes or small plows which travel in front of the wheels, especially the front wheels, a smooth track is provided for the wheels to run in, thereby insuring that the scraper blade will travel at the proper level. It is not so important to provide shoes for the rear wheels since the scraper blade has already passed over the surface upon which they travel. The provision of the spring 42 allows the shoe to lift in case a large stone is encountered firmly embedded in the roadway, thus preventing breakage of parts. If at any time it is not desired to use the shoes, the set screws 30 may be loosened and the shoe-supports slid upwardly. This adjustment also permits the shoes to be lowered as they become worn so that they may be maintained at the proper level with relation to the wheels.

I claim:

1. An attachment for wheeled road graders comprising rods secured to the front axle of the grader and extending forwardly therefrom, a transverse rod secured to said forwardly extending rods, vertical rods carried by said transverse rod, and leveling

shoes secured to the lower ends of said vertical rods for traveling in front of the wheels of the grader.

2. An attachment for wheeled road graders comprising rods secured to the front axle of the grader and extending forwardly therefrom, a transverse rod secured to said forwardly extending rods, vertical telescoping rod members carried by said transverse rod, resilient means interposed between the upper and lower rod members, and leveling shoes secured to the lower ends of the lower rod members for traveling in front of the wheels of the grader.

In testimony whereof I hereunto affix my signature.

WESLEY STYLES.