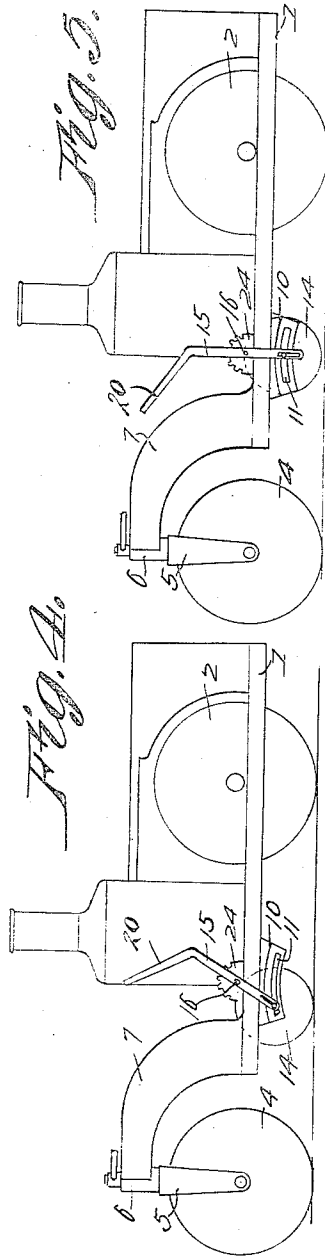
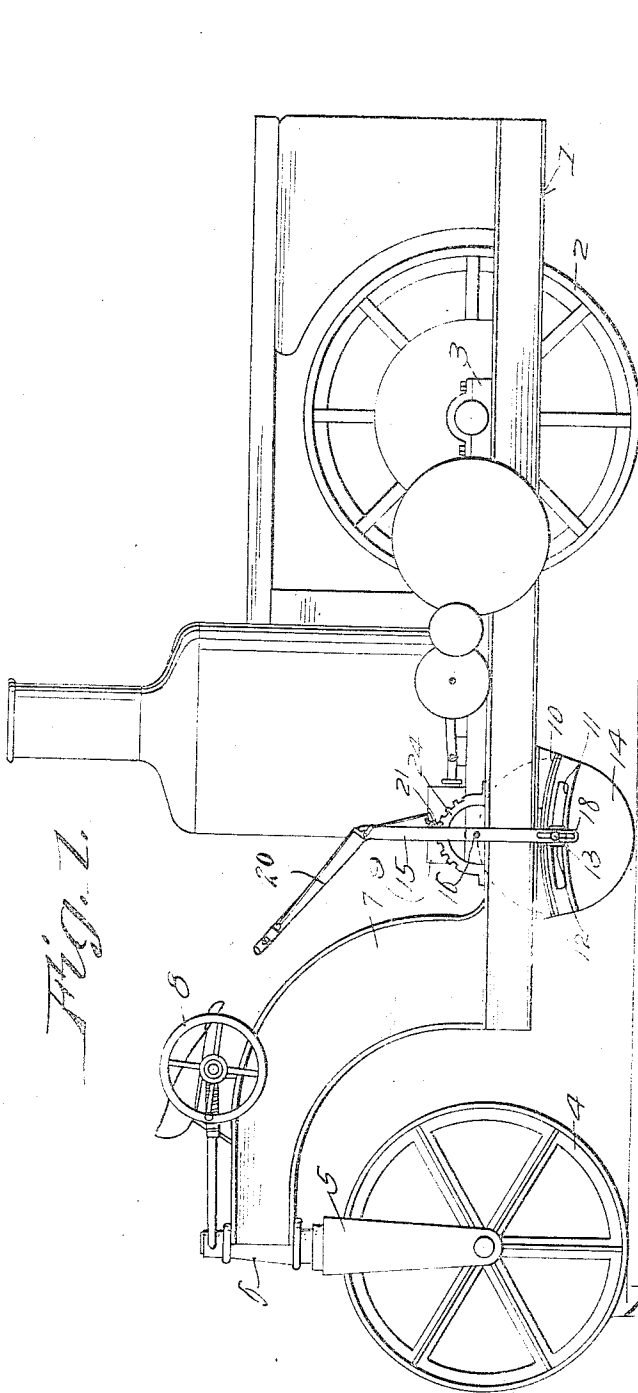


F. O. BROWN.
TANSE ROLLER ATTACHMENT.
APPL. FOR PAT. FILED MAY 9, 1917.

1,265,733.

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2 SHEETS—SHEET 1.



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UNITED STATES PATENT OFFICE.

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TANDEM-ROLLER ATTACHMENT.

1.265.733.

Specification of Letters Patent. Patented May 14, 1918.

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To all whom it may concern:

Be it known that I, FRANK O. BROWN, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain useful Improvements in Tandem-Roller Attachments, of which the following is a specification, reference being had therein to the accompanying drawing.

The present invention has reference generally to improvements in tandem rollers and more particularly relates to a roller attachment therefor.

As the primary aim and object the present invention contemplates the provision of novel means for adjustably attaching a roller to the frame of a tandem roller providing in effect a three axle road roller for preventing surface waving of roadways.

It is an additional and equally important object of the present invention to provide improved means for adjusting the attached roller in its support to vary the height of the same and to also vary the relative distance between the usual front and rear rollers of a tandem roller so as to consequently vary the amount of weight on wavy portions of a roadway, the device being adjusted so that any two of the three axle rollers may be arranged to engage the wavy portions so as to consequently vary the weight on the wavy portions of the roadway and thereby flatten them.

More particularly, the present invention embraces the provision of improved means for mounting the spindles of the attached roller in its support.

Among the other aims and objects of the present invention may be recited the provision of a device of the character mentioned with a view to compactness, and in which the number of parts are few, the construction simple, the cost of production low and the efficiency high.

Other improvements and novel details in the construction and arrangement of the various parts of the apparatus will be brought out more in detail in the description to follow, which for a clear understanding of the invention, should be considered in connection with the accompanying drawings forming a part hereof, and wherein is disclosed for the purpose of illustration a convenient and satisfactory embodiment of the invention. It is to be noted in this con-

nection that minor changes in the construction and arrangement of parts may be made without departing from the spirit of the invention or the principle of operation of the various parts.

The preferred embodiment of the present invention is clearly illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of the invention in position.

Fig. 2 is an enlarged side elevation of the attachment.

Fig. 3 is a transverse section thereof.

Fig. 4 is a diagrammatic view showing the attached roller adjusted to a position near the front roller.

Fig. 5 is a diagrammatic view showing the attached roller in a position midway its support and out of engagement with the ground.

Fig. 6 is a diagrammatic view showing the attached roller adjusted to a position near the rear roller.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now, more particularly, to the accompanying drawings there is provided a tandem roller consisting of a rectangular frame 1 the sides of which are preferably formed of I-shaped metal in cross section, the rear roller 2 being journaled in suitable brackets 3 carried by the sides of the frame 1 while a front roller 4 is journaled between the arms of a caster 5 which in turn is journaled in a vertical bearing 6 formed on the upwardly extended portion 7 of the frame. A steering wheel 8 is operably connected to the top of the caster while an engine 9 of any suitable type is mounted on the platform supported by the frame and serves as a means for propelling the tandem roller.

With a view toward providing improved means for attaching an intermediate roller to the frame between the rollers 2 and 4 the bearing plates 10 are carried by and depend from the under surface of the sides of the frame 1 opposite the engine 9 and are provided with opposed arcuate slots 11 the respective terminals of which are in approximately the same horizontal plane and beneath the plane of the highest edge of the slot. Sectional bearing boxes 12 are slidably mounted in the opposed slots and have journaled therein the spindles 13 in the in-

intermediate or center roller 14. It will be appreciated that by this arrangement the bearing boxes may be adjusted in the slots 11 to correspondingly adjust the longitudinal axis of the roller 14.

As intimated, improved means have been provided for adjusting the roller in the present instance consisting of a lever 15 pivoted by a suitable fastening device 16 on the outer face of the channel section 17 carried within one portion of the side edge which as stated is desirably I-shaped in cross section. The outer end of the lever is provided with a longitudinally extending slot 18 in which is slidably arranged a sectional spool 19 and in which in turn is journaled a projecting end of one of the spindles 13. A handle 20 is formed on the upper end of the lever 15 and is arranged within easy reach of the operator of the tandem roller to permit of the adjustment of the intermediate or center roller merely by swinging the handle.

For the purpose of maintaining the handle lever in various adjusted positions a substantially bell crank shaped pawl 21 is pivotally mounted at its point of distortion on the handle 20, the engaging end 22 being yieldingly held in engagement with any one of the teeth 23 of a segmental rack 24 on the frame 1 by means of a spring 25, the respective ends of which bear against the handle and the handle portion 26 of the pawl.

It is to be appreciated that by adjusting the handle end 20 of the lever 15 the intermediate or center roller 14 will be correspondingly adjusted and such adjustment will occur during the actuation of the main tandem roller so that the number of pounds either weight or pressure on the various wave or raised portions of a roadway will vary enabling the operator of the tandem roller to place a desired amount of pressure on these parts of the road bed so that they will be leveled. The tandem roller with the attachment is also effective in laying out new roads and placing such new roads in a level condition.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a

limited sense. It is also to be understood that the language used in the following claims is intended to cover all the generic and specific features of the invention herein described and all statements of the scope of the invention, which, as a matter of language might be said to fall therebetween.

Having thus fully described this invention, what is claimed as new and desired to be secured by Letters-Patent is:

1. An attachment for tandem rollers including bearing plates depending from the sides of the tandem roller and provided with arcuate slots, a relatively small roller journaled for sliding movement in the slots so as to be adjusted longitudinally and vertically of the tandem roller, means for adjusting the relatively small roller, and means for holding the relatively small roller in a set position.

2. An attachment for tandem rollers including bearing plates depending from the sides of the tandem roller and having opposed arcuate slots therein, bearing boxes slidable in the slots and adjustable vertically with respect to the frame and longitudinally with respect to the front and rear rollers of the tandem roller, a relatively small ground engaging roller, spindles projecting from the ends of the small roller and journaled in the boxes so as to be adjusted with the boxes, manually operable means for adjusting the relatively small roller, and means for maintaining the small roller in various positions of adjustment.

3. An attachment for tandem rollers including opposed bearing plates depending from the sides of the frame of the tandem roller and having opposed arcuate slots therein, bearing boxes slidably mounted in the slots and arranged to be adjusted vertically of the frame and longitudinally thereof, a relatively small roller, spindles projecting from the ends thereof and journaled in the boxes and adjustable with the boxes, a hand lever pivotally mounted on the frame of the tandem roller and operatively connected to the projecting end of one of the spindles whereby when swung the spindles and the boxes will be correspondingly adjusted, and coöperative means on the frame and on the hand lever for maintaining the lever and consequently the ground engaging roller in a set position.

In testimony whereof I affix my signature.
FRANK O. BROWN.