

Jan. 14, 1936.

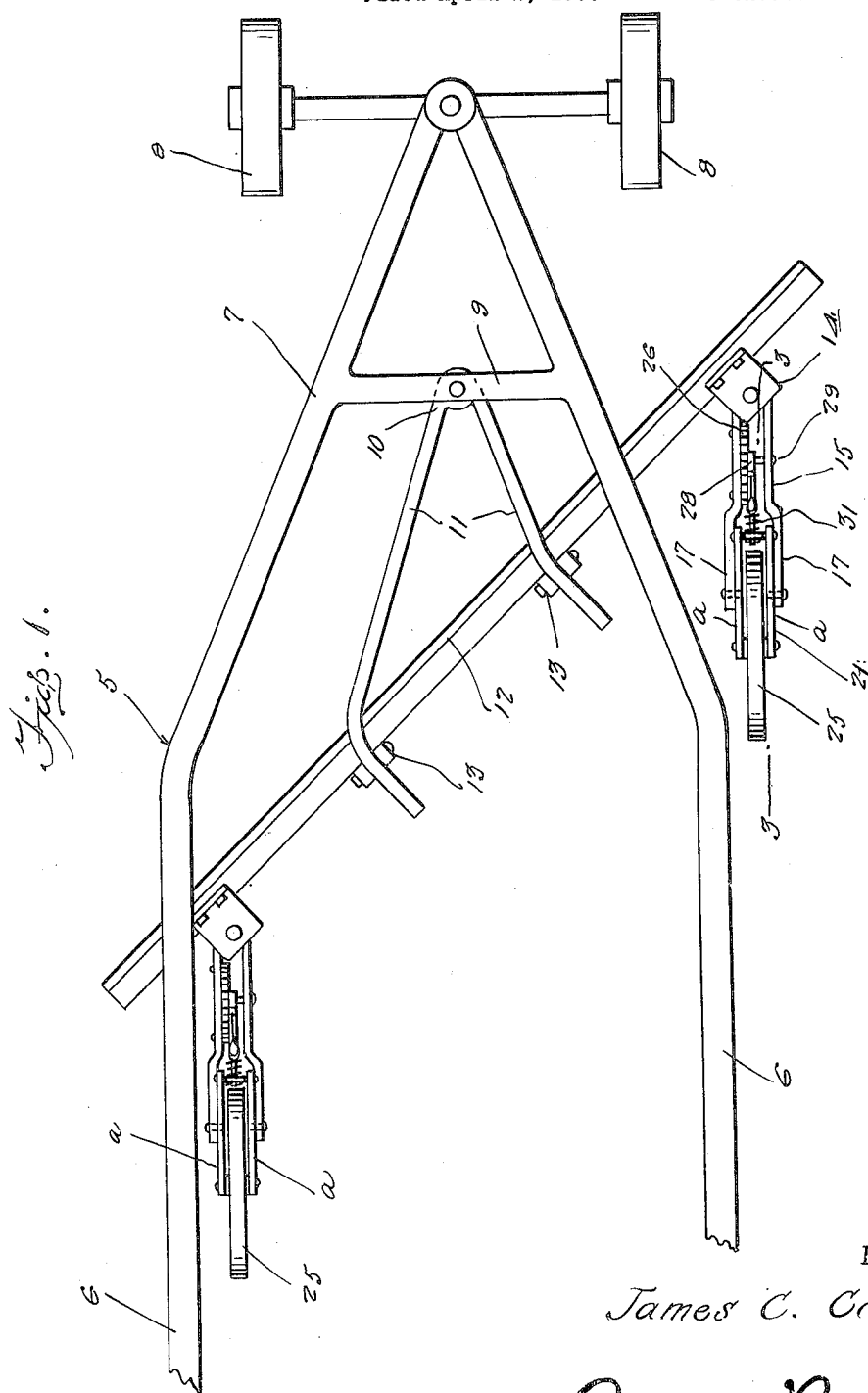
J. C. COOSE

2,027,677

ANTIVIBRATOR ATTACHMENT FOR ROAD MACHINERY

Filed April 2, 1935

3 Sheets-Sheet 1



Inventor

James C. Coose

By *Clarence A. O'Brien*
Attorney

Jan. 14, 1936.

J. C. COOSE

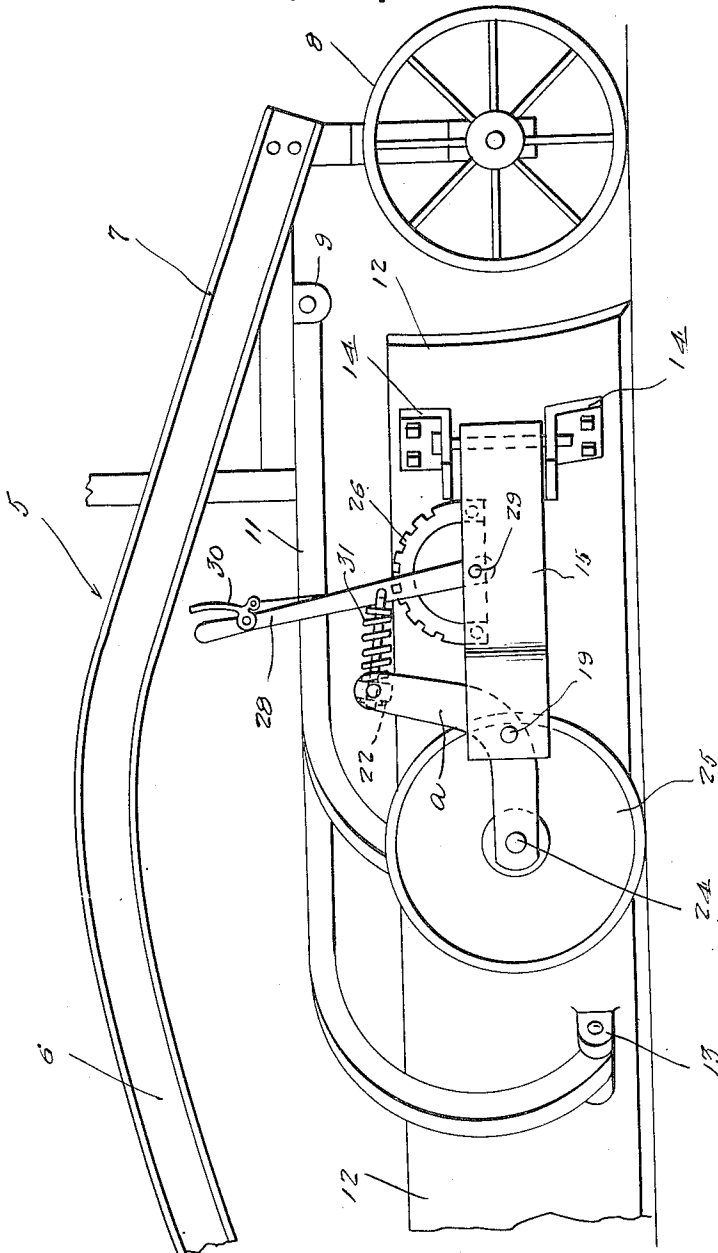
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Fig. 2.



Inventor

James C. Coose

By *Clarence A. O'Brien*
Attorney

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J. C. COOSE

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Fig. 3.

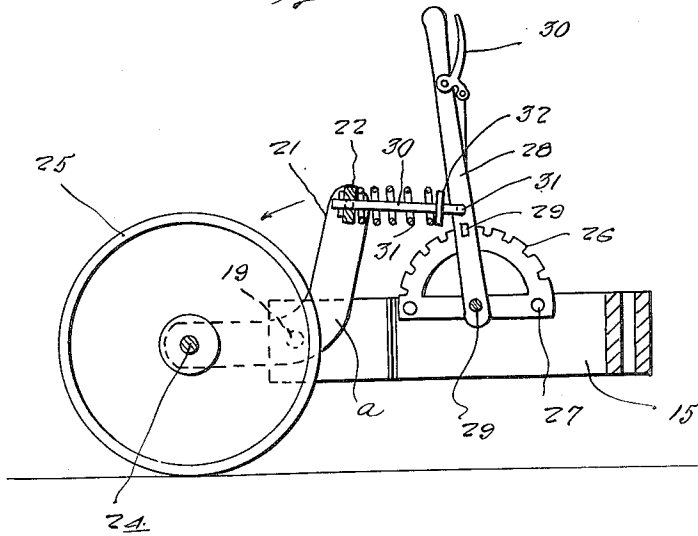


Fig. 4.

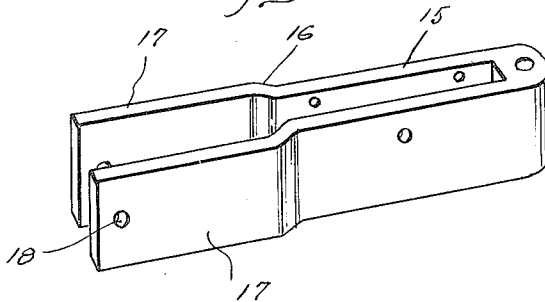


Fig. 5.

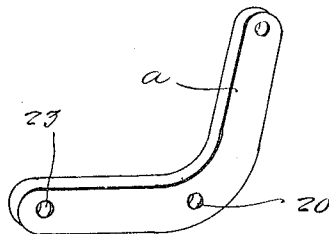
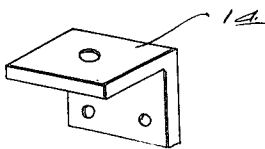


Fig. 6.



Inventor

James C. Coose

By *Clarence A. O'Brien*
Attorney

UNITED STATES PATENT OFFICE

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ANTIVIBRATOR ATTACHMENT FOR ROAD
MACHINERY

James Clifton Coose, Wilmar, Ark.

Application April 2, 1935, Serial No. 14,367

1 Claim. (Cl. 37—143)

This invention appertains to new and useful improvements in anti-vibrating means for road treating machinery such as graders.

The principal object of the present invention is to provide an anti-vibrator for machinery of the character stated which will eliminate considerable vibration, holding the various joints tight to prevent motion therein and incidentally eliminate wear.

Other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a top plan view of a road machine showing a grader board with a pair of the anti-vibrating units installed thereon.

Figure 2 is a fragmentary side elevational view of this structure shown in Figure 1.

Figure 3 is a sectional view taken substantially on line 3—3 of Figure 1.

Figure 4 is a perspective view of the frame of one of the units.

Figure 5 is a perspective view of the roller supporting bell crank.

Figure 6 is a perspective view of one of the brackets.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 generally refers to a road treating machine such as a grader which consists of the side members 6—6 of the machine frame which converge inwardly on conventional machines as at 7 and provided with the front wheels 8. This type of machine generally has a cross bar 9 to which is pivotally connected the hanger 10 which may involve a pair of diverging arms 11—11 which curve back over the grader board 12 and hingedly connected to the back side of the board as at 13.

The anti-vibrator units are connected to the back side of the board as substantially shown in Figures 1 and 2 and because each is identical in construction with the other a description of one will suffice for both.

In applying one of these units to the back side of the grader 12, a pair of angle irons 14—14 are secured to the board with the outstanding flange portions thereof in vertically spaced relation as shown in Figure 2. Numeral 15 represents a U-shaped frame, the outer portion of the leg members of which are offset as at 16 and extended as at 17, these extended portions being provided with openings 18 through which the pin 19 extends, this pin 19 extending through the opening 20 at the heel portion of the bell crank

21, which bell crank consists of a pair of L-shaped members A—A connected at their upper ends as at 22, while their lower ends are apertured as at 23 to receive the short axle 24 on which the roller 25 is mounted.

A semi-circular shaped rack 26 is secured to the U-shaped member 15 as at 27, while a hand lever 28 is rockable on the cross pin 29 which passes through the U-shaped frame 15, this hand lever 28 being provided with a detent 29 operative by the handle 30 for engagement with the rack 26. A rod 30 extends from the lever 28 and is pivotally connected thereto as at 31, this rod being slidably disposed through the connecting member 22 at the upper ends of the bell crank element A—A. A coiled compressible spring 31 is convoluted around the rod 20 and bridges one end against the collar 32 on the rod and at its opposite end against the connecting member 22 of the bell crank. Thus it can be seen that the spring 31 serves normally to tilt the bell crank in the direction of the arrow to cause the roller to tensionally engage the ground and this tension can be increased or decreased by adjusting the hand lever 28 along the rack 26. Obviously with this tensional roller or rollers on each grader board, there is less likelihood of continual rattling and vibration with consequent wear and tear on the equipment.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size, and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

In combination with the grader board of a road machine, a U-shaped member swingably mounted at its bight portion on the rear side of said grader board and extending laterally therefrom, a bell crank arm mounted within said U-shaped member adjacent the free end thereof, a roller pivotally mounted on one end of the bell crank for engagement with the ground, an upstanding lever pivotally mounted on said U-shaped member, a rack on said member cooperable with a detent on said lever for securing said lever in a predetermined position, a link connecting said lever with the free end of the bell crank arm, a collar secured to said link adjacent said lever and a coil spring encircling said link one end thereof abutting said crank arm and the other end said collar on said link.

JAMES CLIFTON COOSE.