

May 9, 1944.

A. H. BAYER

2,348,445

ROAD ROLLER

Filed Jan. 19, 1942

2 Sheets-Sheet 1

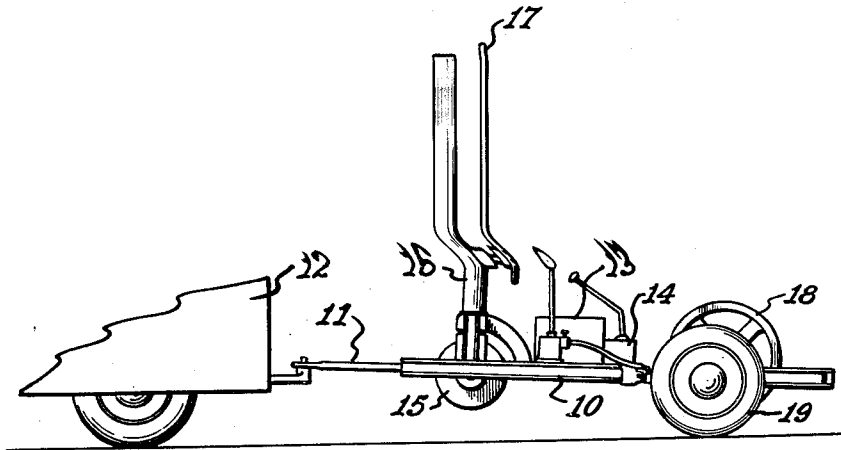


**FIG. 1.**

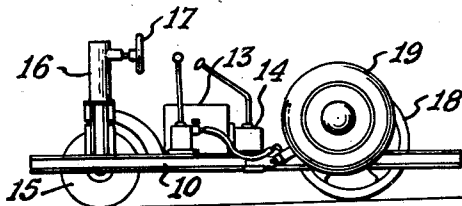


**FIG. 2.**

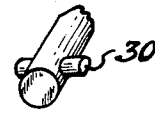


**FIG. 10.**

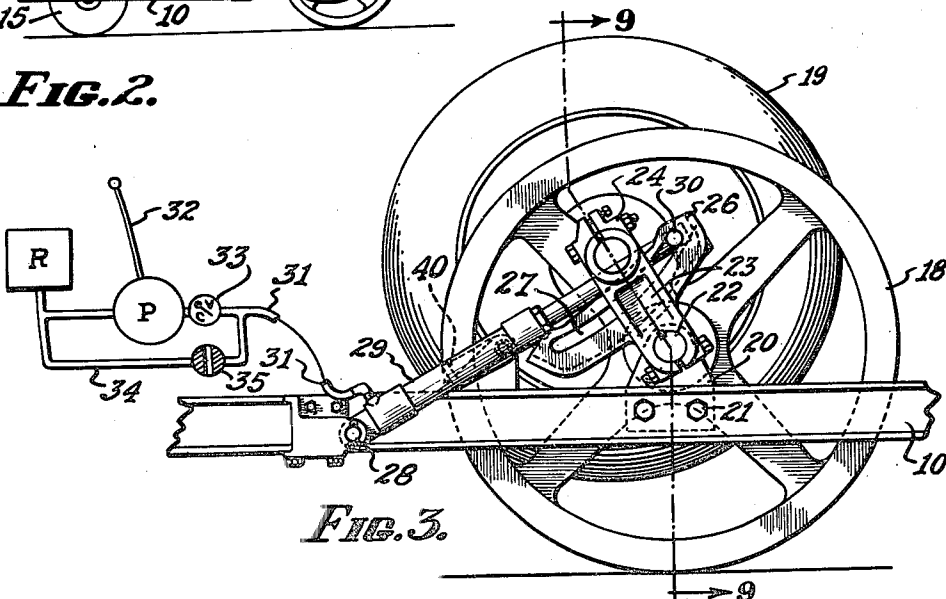


**FIG. 3.**



## UNITED STATES PATENT OFFICE

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## ROAD ROLLER

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5 Claims. (Cl. 94—50)

This invention relates to road machinery and more particularly to devices like road rollers which are very heavy and which travel very slowly in use. If such devices are to be moved over a considerable distance, they must either travel along very slowly over this distance or they must be placed upon a truck of some sort and thus be transported to the place where they are to be used. It is an object of the present invention to provide means whereby a pair of wheels may be positioned in such manner as to lift the roller off the roadway whereby the roller may be attached to some towing vehicle and transported at normal speeds over a highway to the place of use. It is an object of my invention to provide a construction whereby a pair of rubber tired wheels may be carried upon a road roller and may be moved to a position to support the roller with the roller itself raised from the roadway. It is another object of my invention to provide a device as above outlined which will be very simple in construction and in operation so as not to add excessively to the cost of the roller. While the invention is disclosed specifically in connection with a road roller, it will be clear that the invention is adaptable to all manner of devices, where a relatively heavy, slow moving or stationary object is to be transported at relatively great speeds.

These and other objects of the invention which will be described in more detail hereinafter or which will be apparent to one skilled in the art upon reading these specifications, are accomplished by that certain construction and arrangement of parts of which an exemplary embodiment will now be described.

Reference is made to the drawings forming a part hereof and in which:

Figure 1 is an elevational view of a road roller in traveling position hitched to a towing vehicle which is shown fragmentarily.

Figure 2 is an elevational view of the road roller in operating position.

Figure 3 is a detail view of the portion of the roller to which the invention is applied with the hydraulic system shown diagrammatically.

Figure 4 is a detail elevational view of the cross-lever in the position it occupies when the wheels are raised.

Figure 5 is a view of the device of Fig. 4 from the reverse side.

Figure 6 is a detail cross-sectional view on an enlarged scale taken on the line 6—6 of Fig. 5.

Figure 7 is a view similar to Fig. 3, showing the assembly in neutral position.

Figure 8 is a view similar to Fig. 3 showing the assembly with the wheels down.

Figure 9 is a partial cross-sectional view taken on the line 9—9 of Fig. 3.

Figure 10 is a detail perspective view of the end of the piston rod.

Briefly, in the practice of the invention as applied particularly to a road roller, the roller is journaled in bearings fixed to the roller frame. The running wheels are journaled in a link which is pivoted on the roller shaft. The link is provided with an integral cross element having an arcuate slot therein in which is engaged by means of a pin the piston rod of a hydraulic cylinder which is pivoted to the roller frame. In a neutral position, i. e., when the roller and wheels both rest on the ground the cross-lever assembly is so disposed that the piston assembly may be swung selectively from a position where the pin is at one end or the other of the arcuate slot. When pressure is applied to the piston, the running wheels are raised or lowered depending upon which end of the slot the piston is positioned. Referring more particularly to Figure 1, there is shown a road roller having a frame 10. Means are provided as indicated generally at 11 for hitching the roller to a towing vehicle 12. The roller is driven as by means of a gasoline engine 13 and is provided with a transmission 14. At its forward end there is a wheel element 15 and a steering column 16 and steering wheel 17 whereby the roller may be guided. The roller element is indicated at 18 and the running wheels at 19. Referring more particularly now to Figure 3, it will be observed that a bearing bracket 20 is bolted as by means of bolts 21 to the frame 10. In the bracket 20 is journaled the roller shaft 22. Keyed to the roller shaft 22 is the cross-lever indicated generally at 23 which is shown apart from the other elements in Figures 4 and 5. At its other end, the cross-lever 23 is provided with a clamp 24 in which is clamped a stub shaft 25, upon which the running wheel 19, is freely rotatable. The member 23 has integral with it and disposed substantially transversely, the element 26 which carries the arcuate slot 27. The member 26 is of substantially U-shape cross section as shown in Figure 6.

Pivoted to the frame 10 at 28 is a cylinder 29 of a hydraulic jack, the piston of which has mounted transversely of the end thereof as shown at Figure 10, a pin 30. The pin 30 rides in the arcuate slot 27 in each arm of the U-shaped member 26. Oil is supplied to the cylinder 29 through a duct 31 by means of a pump

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DETACHABLE GUN MOUNT

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2 Sheets-Sheet 1

FIG. 1.

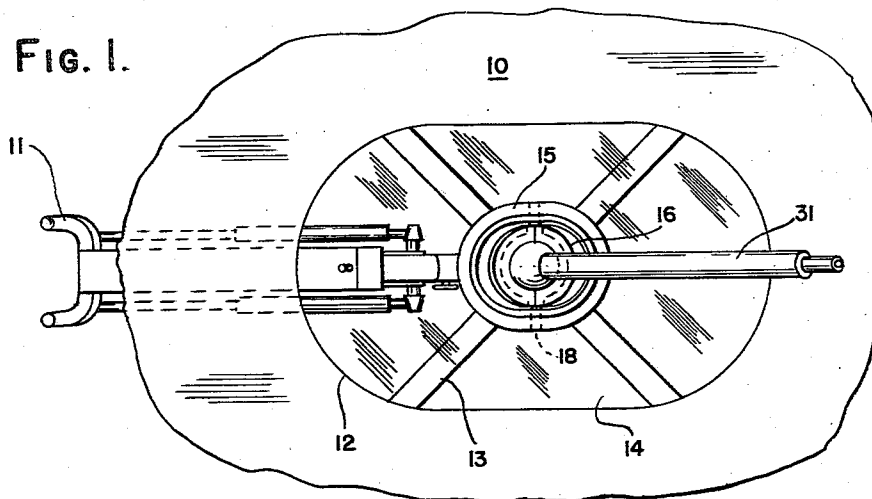


FIG. 2.

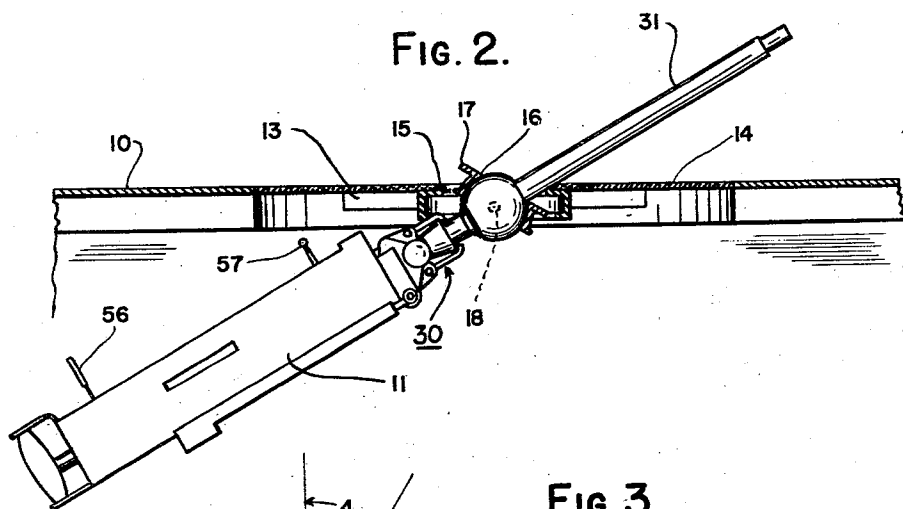
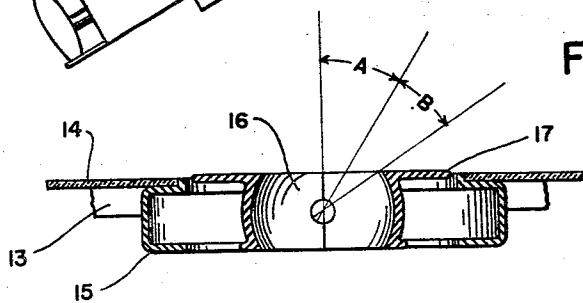


FIG. 3.



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