

F. B. PECK.
ROAD MACHINE.

APPLICATION FILED JAN. 30, 1911.

1,014,023.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.

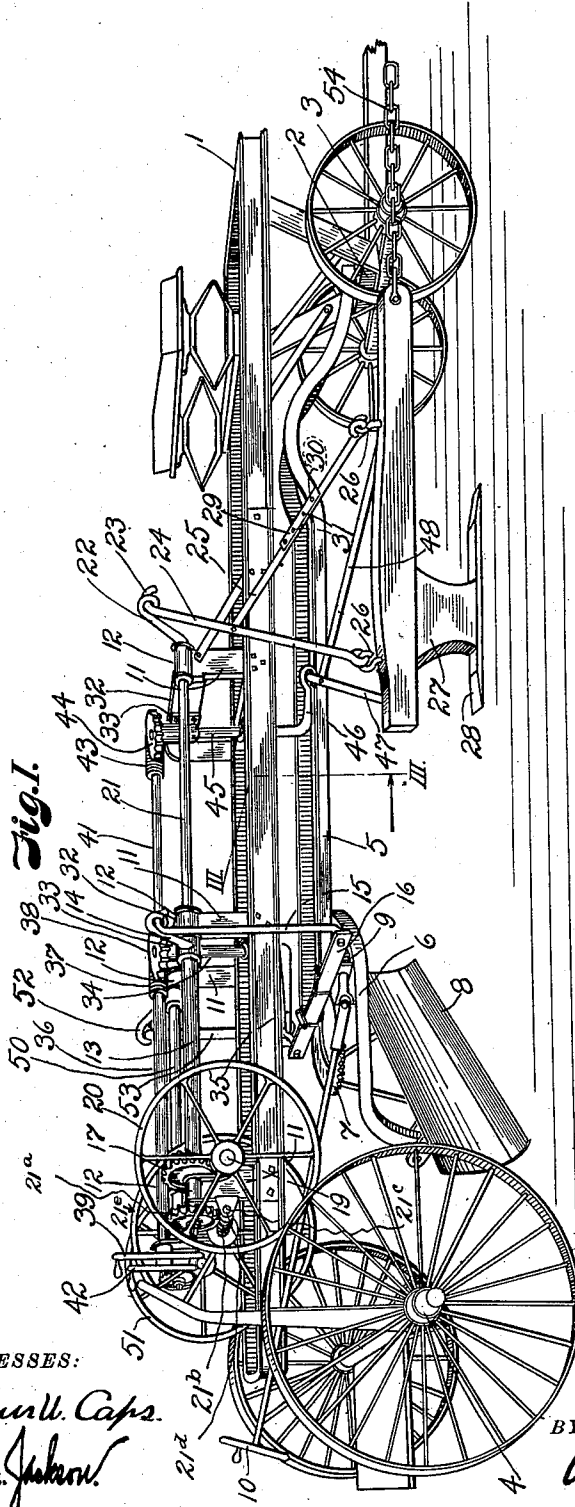


Fig. 1.

WITNESSES:

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INVENTOR.

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BY

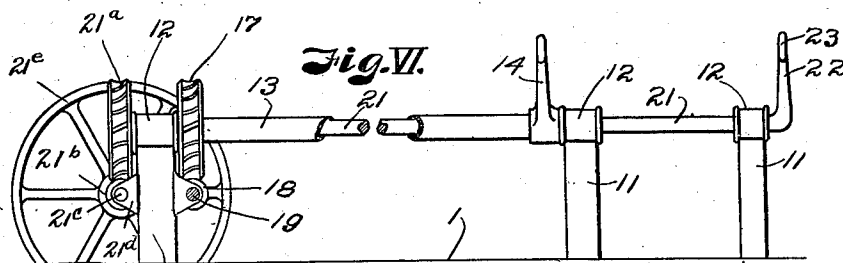
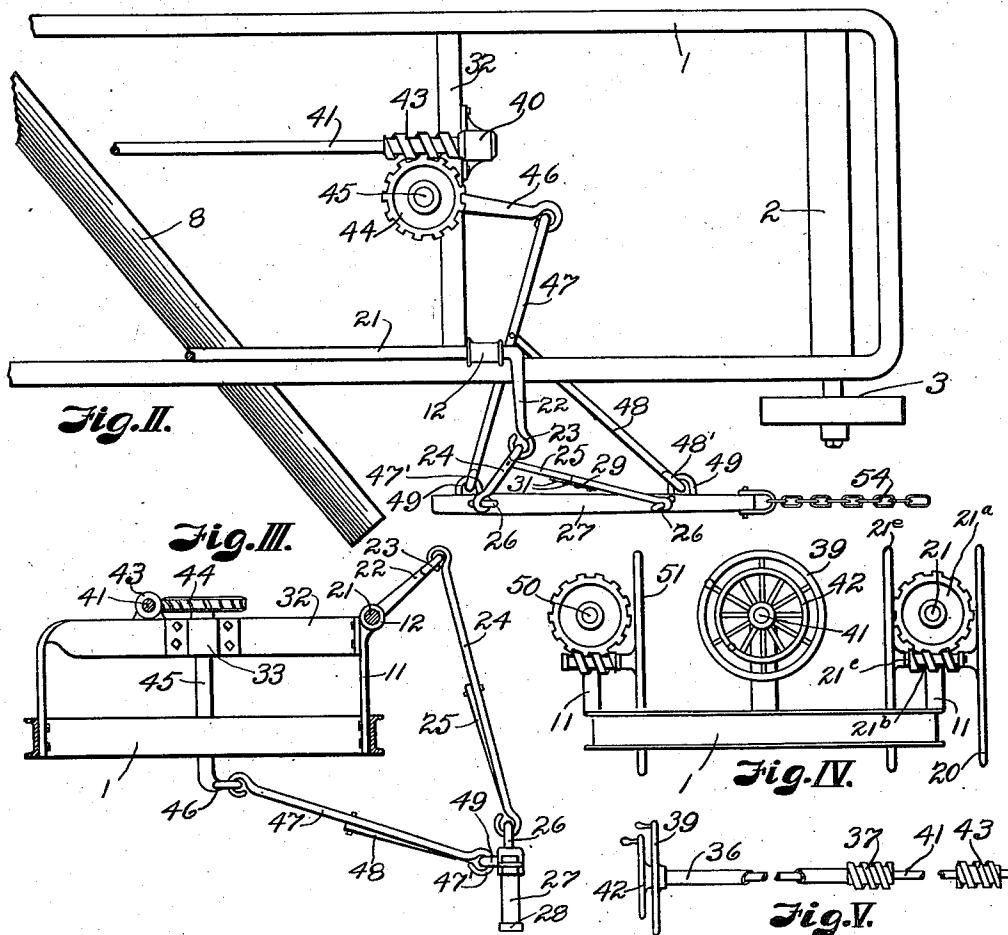
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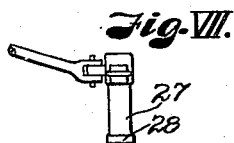
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2 SHEETS-SHEET 2.



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ROAD-MACHINE.

1,014,023.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed January 30, 1911. Serial No. 605,567.

To all whom it may concern:

Be it known that I, FRANK B. PECK, a citizen of the United States, residing at Mount Vernon, in the county of Lawrence and State of Missouri, have invented certain new and useful Improvements in Road-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to road machines and more particularly to a machine of that class comprising an underslung scraper for moving earth laterally beneath the machine frame. In the use of ordinary machines of this class the earth is first loosened by a plow which travels in advance of the machine and is an entirely separate implement.

It is the object of my present invention to provide a road machine wherein the scraper and plow are combined together with suitable means for controlling and adjusting the plow. In accomplishing this object I have provided the improved details of structure which will presently be fully described and are illustrated in the accompanying drawings, wherein,—

Figure I is a perspective view of a road machine constructed according to my invention. Fig. II is a plan view of the forward part of the machine with the plow. Fig. III is a cross section on the line III—III, Fig. I, showing a rear view of the plow and the parts connecting same with the truck. Fig. IV is a rear elevation of the truck and scraper and plow controlling mechanism. Fig. V is a detail view of the mechanism for swaying the scraper and plow. Fig. VI is a similar view of the scraper and plow elevating mechanism. Fig. VII is an end view of a modified form of attachment between the plow and controlling rod.

Referring more in detail to the parts:—1 designates a truck frame, 2 a front bolster and 3—4 the front and rear running gear of a road machine of ordinary construction.

Pivoted on the front bolster 2 and extending rearwardly beneath the central portion of the truck, is an under frame 5 which carries a scraper frame 6, the latter being provided with a horizontal gear 7 which corresponds in some respects to a fifth wheel. Suspended from the frame 6 is a scraper member 8 which is similar to like devices in general use. The frame 6 and gear 7 are adapted for actuation by a worm 9 which is operated through a hand wheel 10 at the rear of the truck, so that the scraper may be turned to a desired angle.

The parts mentioned may be of any ordinary, well known construction and for that reason have not been illustrated in detail.

On the truck 1 and preferably spaced upwardly therefrom by posts 11 are journal bearings 12, said posts being preferably arranged in pairs, there being one pair near the plow position, one pair near the scraper position, and one pair near the rear of the truck. Journaled in the central and rear bearing, at the right hand side of the truck, is a sleeve 13. Fixed on sleeve 13 is a crank member 14 having a depending link 15, the lower end of which is connected with a cross bar 16 at the rear end of the pivoted under frame 5. On the rear end of sleeve 13 is a gear 17 which meshes with a worm 18 on a transverse shaft 19 (Fig. VI), having a hand wheel 20. Journaled through the sleeve 13 and in the forward bearing 12 is a shaft 21, having a gear 21^a on its free end, which meshes with the worm 21^b on a shaft 21^c, journaled in brackets 21^d on one of the posts 11. Fixed to shaft 21^c is a hand-wheel 21^e, by which the worm may be manipulated to turn the shaft. On the forward end of shaft 21 is a laterally directed crank part 22 provided with an end ring 23. Pivotaly slung from the crank ring 23 is a hanger bar 24 and pivotally slung from near the center of the hanger bar is a forward link 25. Suspended from the lower ends from the bar 24 and link 25, preferably by ring bolts 26, is a plow 27 having a horizontal share 28.

The suspending link 25 is preferably adapted for extension by being constructed in two members, which are connected by a

plate 29 having a plurality of apertures 30 therein adapted for receiving pins 31 that project from the sides of the link members, so that the length of the link may be regulated by moving the pins from one to another of the plate apertures. The truck posts 11 are connected by cross members 32 to which are fixed the journal bearings 33. Journaled in the bearing on the central cross member is a vertical shaft 34, which is connected with the scraper hanger by a crank 35. Journaled in bearings on the central and rear cross member 32 is a sleeve 36 having a worm 37 meshing with a gear 38 on the vertical shaft 34, so that the shaft may be turned in either direction by actuation of the sleeve. At its rear end, sleeve 36 is provided with a hand wheel 39 for the usual purpose. Journaled in sleeve 36 and in a bearing 40, on the front cross member 32, is a shaft 41 having a rear hand wheel 42 and a worm 43 at its forward end which meshes with a gear 44 on a vertical shaft 45, the lower end of which has a crank portion 46. Pivottally connecting the crank portion 46 with the frame of plow 27 is a rod 47, and pivottally connecting said rod with another part of the plow frame is a link 48, the connections of the rod and link with the plow frame being preferably made through eye bolts 49 and ring members 47'-48' respectively, to obviate twisting of the parts when the machine is in use. At the side of truck 1, opposite that from which the plow is slung is a shaft 50 having a hand wheel 51 at its rear end and a crank 52 at its forward end, which latter is connected with the cross bar 16 by a link 53, so that the relative end of the scraper may be raised or lowered by manipulation of the hand wheel.

54 designates a chain whereby the plow 27 may be connected with a suitable draft device, not shown.

In using my improved machine for ordinary road work, the plow may be set to loosen the earth to a desired depth by manipulating the hand wheel 21° to lower the crank part of shaft 21, and thereby force and hold the plow share downwardly. The plow may also be set laterally by actuating the central shaft 41 through the hand wheel 42 to move the crank 46 laterally and force the plow outwardly and hold same in position by means of the rod 47 and link 48. The scraper may then be set to the desired angle so that it will follow the plow and take up and transfer the earth loosened by the plow share, the scraper being manipulated in the usual way, the only change in mechanism being that the lifting and turning cranks are operated from sleeves that surround the plow actuating shafts, except for the lifting crank on the interior side which, as there

is no plow on that side of the truck, is operated from a single shaft in the usual manner.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:—

1. In a road machine, the combination with a suitable truck and a scraper carried thereby, of a laterally adjustable plow carried in front of said scraper.

2. In a road machine, the combination with a suitable truck and a scraper carried thereby, a plow located in front of the scraper, and laterally and vertically adjustable means for supporting said plow.

3. In a road machine, the combination with a suitable truck, of a shaft journaled on said truck and provided with a cranked portion, means for actuating the shaft, a hanger bar carried by the crank, a link carried by the hanger bar, and a plow having its frame suspended from forward and back positions to said hanger bar and link respectively.

4. In a road machine, the combination with a suitable truck, of a shaft journaled on said truck and provided with a cranked portion, means for actuating the shaft, a hanger bar carried by the crank, an extensible link carried by the hanger bar, and a plow having its frame suspended from forward and back positions to said hanger bar and link respectively.

5. In a road machine, the combination with a suitable truck, of a shaft journaled on said truck and provided with a cranked portion, means for actuating the shaft, a hanger bar carried by the crank, a link carried by the hanger bar, and a plow having its frame suspended from forward and back positions to said hanger bar and link respectively, said link being formed in separate members, and each member being provided with a pin and a plate having a plurality of apertures adapted for receiving said pins.

6. In a road machine, the combination with a suitable truck, of a shaft revolubly mounted on said truck and provided with a cranked portion, a hanger bar suspended from the cranked portion and provided with a link, and a plow having ring bolts in the upper part of its frame, connecting same with the hanger bar and link, substantially as set forth.

7. In a road machine, the combination with a suitable truck, of a plow slung from said truck, a vertical shaft having a horizontal cranked part connected with said plow, and means for actuating said vertical shaft, for the purpose set forth.

8. In a road machine, the combination with a suitable truck, of a plow slung from said truck, a vertical shaft having a hori-

zontal cranked part, means connecting said cranked part with rear and forward parts of the plow frame, and means for actuating said vertical shaft.

pivotally connecting said rod with said plow, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK B. PECK.

Witnesses:

MYRTLE M. JACKSON,
ARTHUR W. CAPS.

5 9. In a road machine, the combination
with a suitable truck, of a plow slung from
said truck, a vertical shaft journaled on said
truck and provided with a horizontal
cranked part, a rod pivotally connecting
10 said cranked part with the plow, and a link

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."