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ROAD WORKING MACHINE.

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Fig. 1.

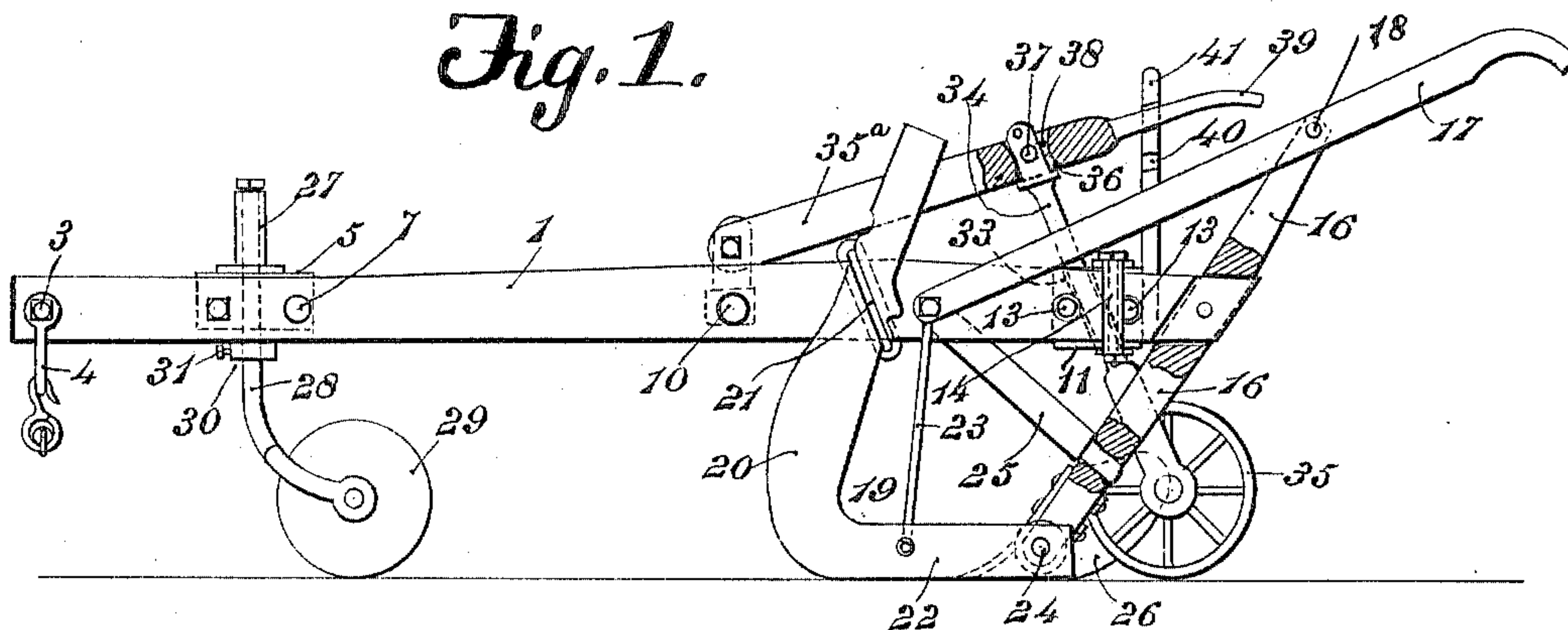
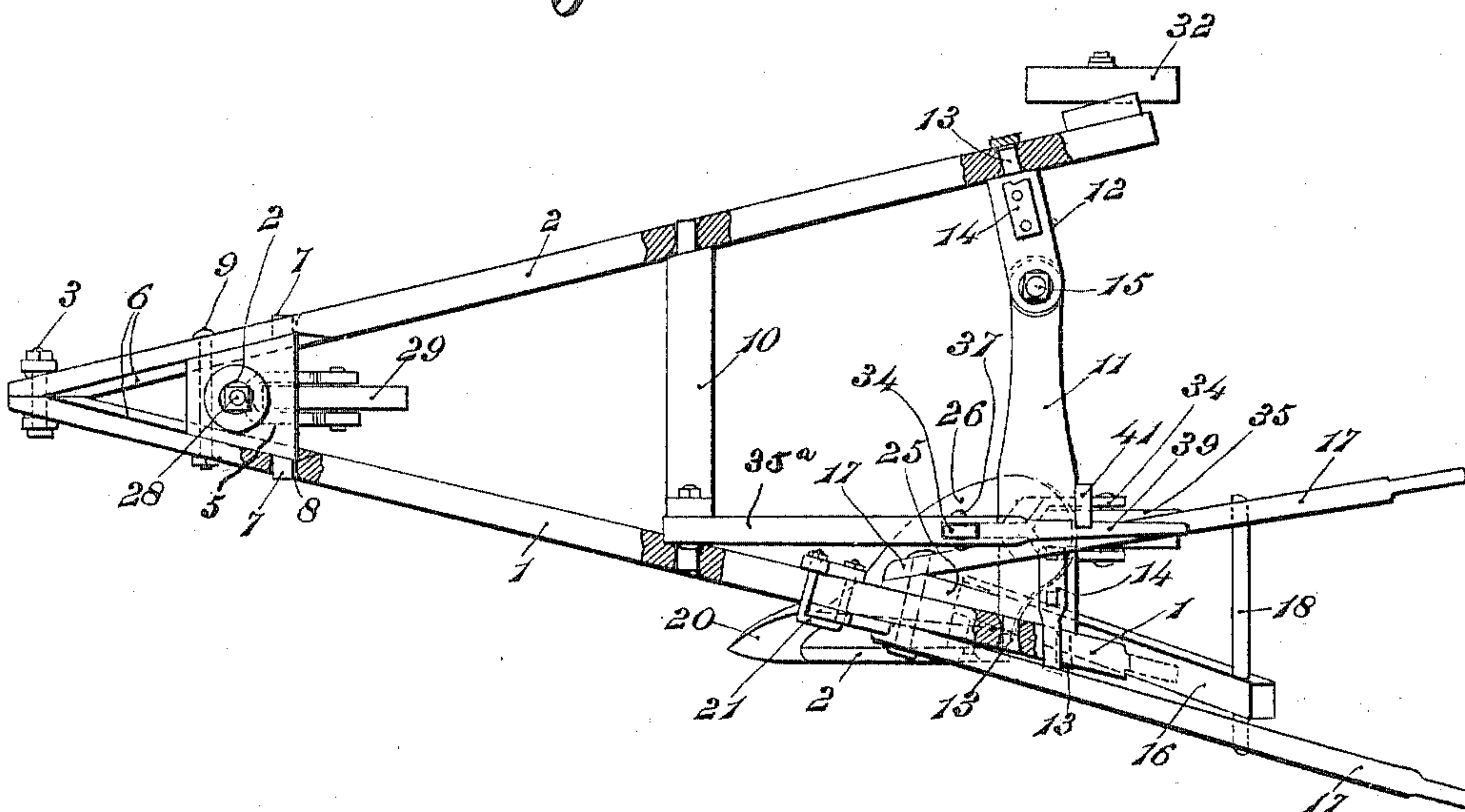


Fig. 2.



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ROAD-WORKING MACHINE.

No. 817,087.

Specification of Letters Patent.

Patented April 3, 1906.

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To all whom it may concern:

Be it known that we, WILLIAM J. McBRIDE and JOHN J. ALFORD, citizens of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Road-Working Machine, of which the following is a specification.

This invention relates to road-working machines, and it has particular reference to that class of road-working machines which are designed especially to operate upon banks at the sides of the road for the purpose of trimming such banks and moving the surplus dirt in the direction of the center of the road.

The object of the present invention is to simplify and improve the construction and operation of this class of machines; and with these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that various changes, alterations, and modifications may be made within the scope of the invention and without departing from the spirit or sacrificing the efficiency of the same.

In said drawings, Figure 1 is a side elevation of a road-working machine constructed in accordance with the principles of the invention, parts of the same being shown in section. Fig. 2 is a top plan view, partly in section, of the said machine.

Corresponding parts in both figures are indicated throughout by similar characters of reference.

In this improved machine two beams or side members are employed—viz., the main beam 1 and an auxiliary beam 2—said beams converging forwardly and abutting upon each other, the abutting portions being connected by a bolt 3, carrying a draft member, such as a clevis 4. Near the front ends of the beams there is introduced between them a spacing member consisting of a trapezoidal block 5, which normally rests upon flanges 6 upon the inner sides of the beam. The block 5 is shown as provided with trunnions 7, extending through apertures 8 in the respective

beams, with which said block is also connected by means of a transverse bolt 9. A rung 10 is introduced between the beams about midway of their lengths, and each of said beams is provided near its rear end with a laterally-extending bracket, said brackets being designated, respectively, 11 and 12. These brackets are provided at their outer ends with dowels, as 13, engaging the beams upon which they are secured by means of fastening members, such as clips 14. The inner meeting ends of the brackets 11 12 are jointed together and connected detachably, as by means of a bolt 15.

The main beam carries a standard 16, and it is provided with handles 17, connected with and spaced from said standard by means of a rung 18.

19 is a colter or cutter having an upright member 20, which is connected with the outer side of the beam by means of a clip 21. The heel 22 of the colter is connected with the beam by means of a brace 23, and it is also bolted or otherwise secured, as indicated at 24, to the outer side of the standard 16. The latter is connected with the beam by means of an inclined brace 25, and the lower end of said standard carries a scraper which is in the nature of a plow member 26, which is disposed to throw dirt in an outward direction—that is to say, in the direction of the auxiliary beam, which is distant from the bank operated upon, so that the dirt will be thrown by said scraper in the direction of the middle of the road.

The spacing-block 5 is provided with a tubular member or sleeve 27, through which extends a shank 28, carrying a caster-wheel 29, said shank being supported for rotation in the sleeve by suitable means, such as a collar 30, having a set-screw 31, whereby it may be adjusted. A supporting-wheel 32 is also suitably mounted near the rear end of the auxiliary beam 2. The bracket member 11 has a slot 33, through which extends a shank 34, carrying a wheel 35, which travels in rear of the scraper 26. A lever 35^a is pivoted upon the rung 10, and said lever has a slot 36, in which the upper end of the shank 34 is loosely secured, as by means of a pin 37, engaging a transverse slot 38. This construction will provide lost motion to enable the wheel-carrying shank to be adjusted vertically by means of the lever 35^a, the free end of which has a handle 39, adapted to engage

any one of a plurality of notches 40 in an upright 41, secured upon the rear side of the bracket member 11 for the purpose of securing the wheel-carrying shank in any position to which it may be adjusted.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. When the device is in position for operation, the colter member may be guided very close to a bank at the side of a road, thus enabling said bank to be trimmed, as will be readily understood, the surplus dirt being moved in the direction of the center of the road by the scraper 26. The disposition of the various parts is such that the colter or cutting member may be held in very close engagement with the bank without interfering with the free action of the team, while by the arrangement of the auxiliary beam and the brackets and connecting members the draft will be equalized, so that the machine may travel in a straightforward direction without hindrance. The supporting-wheel 35 may be raised or lowered, thereby depressing or elevating the colter or cutting member, as well as the scraper, and thus enabling adjustment to be made according to the condition, encountered when the machine is in operation. When the machine is to be transported from one place to another, it may be taken apart by simply detaching the bolts 3, 9, and 15, thus permitting the beams and related parts to be conveniently loaded into a wagon.

It will be particularly observed that the beam 2, which constitutes a portion of the frame of the device, is not a tool-carrying beam, but is simply a guiding or balancing member, whereby the main tool-carrying beam and its related parts are properly sustained in position for operation and which also facilitates the attachment of the draft at the desired point. By the construction and arrangement of parts herein shown and described the machine may be guided very close to a bank at the road side, so as to trim the bank and move the dirt thus loosened in the direction of the center of the road, which is thus improved for traffic. The cutting and scraping tools or members are under no

circumstances connected with or supported by the auxiliary or guiding beam 2.

Having thus described the invention, what is claimed is—

1. In a road-working machine, a main beam having a standard, a cutting member connected with said beam and standard and supported thereby in a vertical plane, and a scraper supported by the standard to move the dirt loosened by the cutter in an outward direction, in combination with an auxiliary supporting-beam connected with the main beam at its front end, spaced therefrom at its rear end, and provided with rotary supporting means.

2. In a road-working machine, a beam having a laterally-extending bracket, a wheel-carrying member extending through a slot in said bracket whereby said wheel is spaced laterally from the beam, an adjusting-lever connected with the wheel-carrying member for adjustment of the latter, a standard connected with the beam, a cutting member supported by the beam and the standard, a scraper carried by the latter, and an auxiliary beam connected with the front end of the main beam and provided at its rear end with a bracket connected with the bracket extending laterally from the main beam; and rotary supporting means for the auxiliary beam.

3. A main beam and an auxiliary beam secured together at their front ends, spacing and connecting means including a rung interposed between said beams about midway of their lengths and brackets near the rear ends of said beams, a wheel-carrying shank extending through one of said brackets, an operating-lever pivoted upon the rung and having loose connection with the wheel-carrying shank, means for securing said lever at various adjustments, and rotary supporting means connected with the auxiliary beam and with a spacing member near the front ends of the beams.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM J. McBRIDE.
JOHN J. ALFORD.

Witnesses:

W. F. WALKER,
W. A. GARCE.