July 21, 1942. M. A. TERRY 2,290,302

ROAD MARKING MACHINE

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Fig. 1.

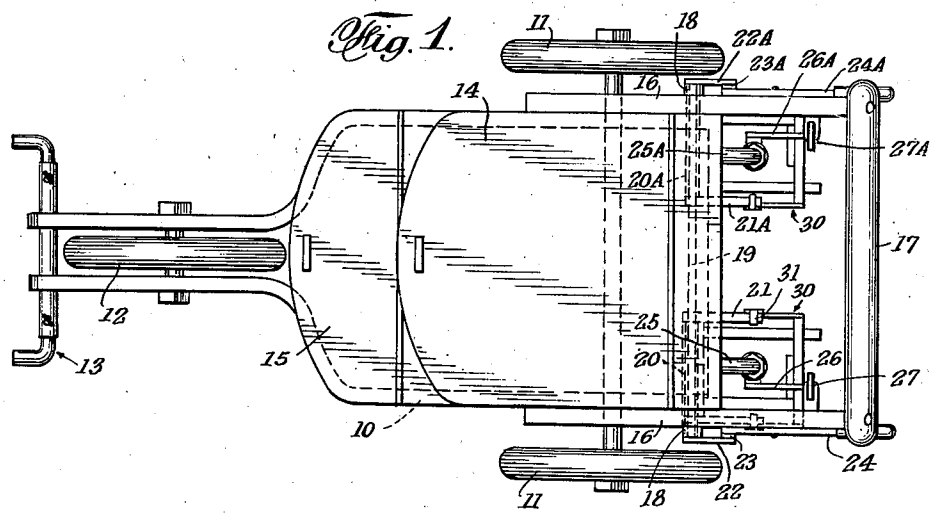

Fig. 2.

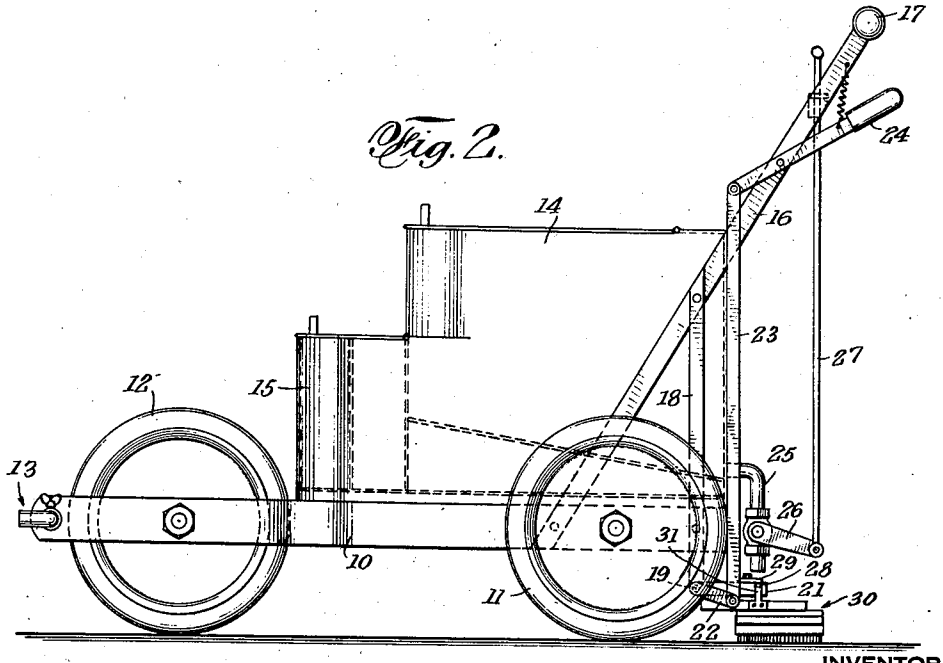

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Fig. 3.

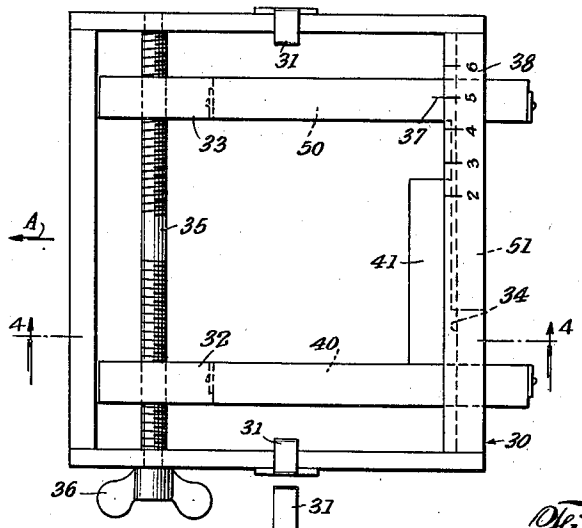


Fig. 6.

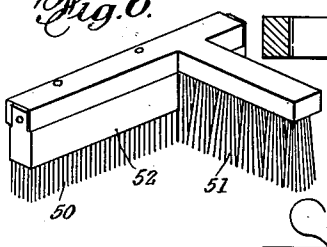


Fig. 4.

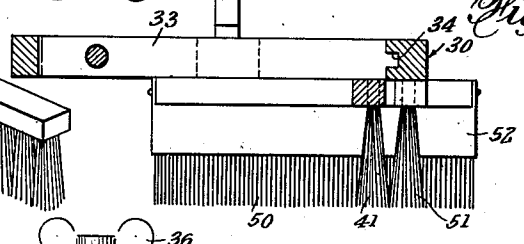


Fig. 5.

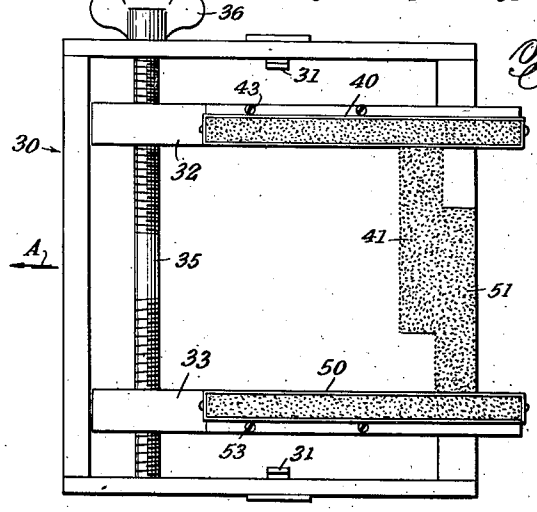
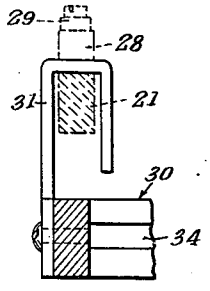


Fig. 7.



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Patented July 21, 1942

2,290,302

UNITED STATES PATENT OFFICE

2,290,302

ROAD MARKING MACHINE

Michael A. Terry, Yonkers, N. Y.

Application September 4, 1941, Serial No. 409,477

9 Claims. (Cl. 91—12)

This invention relates to improvements in road marking machines and its object is to provide for machines of this character an adjustable brush of simple and novel construction which is capable of putting marking fluid on desired surfaces in lines of different widths with clearly defined sharp edges regardless of the smoothness of the surfaces to which the fluid is applied.

My invention also relates to certain details of construction which will be described hereinafter.

I will describe in the following specification a device which is made according to and embodies my invention and will point out its novel features in the appended claims.

Referring to the drawings:

Figure 1 is a plan view, and

Fig. 2 is a side elevation of a road marking machine which is provided with my novel adjustable brush and the support therefor;

Fig. 3 is a plan view on a larger scale of the brush which is shown in the preceding figures;

Fig. 4 is a sectional elevation of the brush shown in Fig. 3, the section being taken on the line 4—4 of the latter figure;

Fig. 5 is an inverted plan view of the brush shown in Figs. 3 and 4;

Fig. 6 is a perspective view of one of the elements of the brush;

Fig. 7 is a sectional front elevation of a detail of construction showing a novel arrangement of supporting the brush on the body of the marker.

Referring to Figs. 1 and 2, 10 designates the chassis of a marker which is supported on two wheels 11, 11 near the rear sides of the apparatus and a central front wheel 12. 13 is an adjustable sight for enabling the operator to follow a guide line. 14 is a main tank for the marking fluid. When the apparatus is constructed as shown to make two parallel lines, this main tank may be divided longitudinally to form two compartments. 15 is an auxiliary tank in front of the main tank for holding liquid in which the brushes may be submerged when not in use. 16, 16 are metallic strips which run upward from the chassis 10 obliquely along the sides of the main tank 14 and above it. A transverse handle bar 17 interconnects the upper ends of the straps 16. 18, 18 are vertical metallic straps extending downwardly from the oblique straps 16, 16, to and below the chassis 10 to form a support for a transverse shaft 19.

20 is a sleeve rotatably surrounding the shaft 19. Brush supporting arms 21, 21 are affixed to this sleeve and extend rearwardly therefrom. 22 is a lever keyed to the sleeve 20 and connected by a rod 23 with an adjusting handle 24 pivoted to one of the rods 16 with its rear end situated near the handle bar 17. By means of this arrangement the brush supporting arms 21, 21, may be moved up and down by the operator.

20A is another sleeve on the shaft 19 provided with parts similar to those just described and designated by the reference numerals 21A, 22A, 23A and 24A respectively.

25, 25A are valve controlled fluid outlet pipes, controlled by levers 26, 26A and rods 27, 27A. The latter extend up to a position near the handle bar 17.

The parts thus briefly described are common to road markers and form no part of the present invention.

30 is a rigid rectangular frame from opposite sides of which hooks 31 extend upwardly (Fig. 7). These hooks fit loosely in notches 28 in the brush supporting arms 21 and are retained in these notches by pivot turn-buttons 29 or similar devices. 32 and 33 designate longitudinally disposed brush supports, transversely adjustable in the frame 30. The rear end of each of these brush supports is shaped to form a tenon which slide in a groove 34 in the frame 30 (Figs. 3 and 4). 35 is a right and left hand threaded adjusting screw rotatively mounted transversely in the frame 30. 36 designates a winged nut affixed to to the screw for turning it. The screw passes through threaded holes in the brush supports 32, 33.

The brush elements comprise longitudinal parts 40 and 50 which are preferably of equal length. Transverse parts 41 and 51 extend inwardly from the longitudinal parts near the rear ends thereof but in such relative positions that they overlap each other. 42 and 52 are reinforcements for the longitudinal portions of the brush elements and serve to keep them from spreading. These brush elements are affixed to the brush supports 32, 33 by screws 43, 53.

In operation, the brushes are lowered to the surface in the usual way, the fluid supply valve is opened and the apparatus moved in the direction of the arrows A in Figs. 3 and 5.

In operation the brushes are lowered to the surface in the usual way, the fluid supply valve is opened and the apparatus moved in the direction of the arrows A in Figs. 3 and 5. The pool of liquid formed between the brush elements will be evenly distributed upon the surface traversed by the brush elements. Because of the loose connections between the frame 30 and the brush

supporting arms **21**, the device will accommodate itself to major inequalities in the surface traversed and the brush elements themselves remain in contact with the surface as the resilience of the bristles or wires of which the brushes are made cause them to reach into minor inequalities or indentations in the surface. The longitudinal members of the brush elements cause the edges of the mark made to be sharp and clearly defined and this effect is enhanced by the reinforcements **42, 52** which keep the brushes from spreading laterally. Worn brushes may be readily replaced with new ones.

To adjust the width of the mark made the screw **35** is turned by the wingnut **36** to vary the space between the longitudinal members **40** and **50** of the brush elements. To facilitate such adjustment, an indicating mark **37** is made on one of the brush supports and a graduated scale **38** made on an adjacent part of the frame **30**.

Various structural modifications may be made within the spirit and scope of this invention and I intend no limitations other than those imposed by the appended claims.

What I claim is:

1. A road marker brush comprising a pair of brush elements having spaced parallel straight parts, and a transverse part rigidly connected with each of said spaced parts projecting inwardly therefrom.

2. A road marker brush comprising a pair of brush elements having spaced parallel straight parts, and a transverse part rigidly connected with each of said spaced parts projecting inwardly from intermediate portions thereof into overlapping relation.

3. A road marker brush comprising a pair of brush elements having spaced parallel straight parts, a rigid reenforcement arranged to retain said straight parts laterally, and a transverse part rigidly connected with each of said spaced parts projecting inwardly from intermediate portions thereof into overlapping relation.

4. An adjustable road marker brush comprising a pair of brush elements having spaced parallel straight parts, a transverse part rigidly connected with each of said spaced parts projecting inwardly from intermediate portions thereof into overlapping relation, and means for adjusting the relative transverse positions of said brush elements.

5. An adjustable road marker brush comprising a pair of brush elements having spaced parallel straight parts, a transverse part rigidly connected with each of said spaced parts projecting inwardly from intermediate portions thereof into overlapping relation, and means for simultaneously moving said brush elements toward or away from each other to vary the space between said parallel parts.

6. An adjustable road marker brush comprising a rigid frame, a pair of brush holders transversely slidable in said frame, a brush element affixed to each of said brush holders, each of said elements having a straight part affixed to one of the brush holders, a transverse part rigidly connected to said straight part projecting inwardly from intermediate portions thereof into overlapping relation with the transverse part projecting from the straight part of the other brush element, and means for adjusting the positions of the brush holders in the frame.

7. An adjustable road marker brush comprising a rigid frame, a pair of brush holders transversely slidable in said frame, a brush element affixed to each of said brush holders, each of said elements having a straight part affixed to one of the brush holders, a transverse part rigidly connected to said straight part projecting inwardly from intermediate portions thereof into overlapping relation with the transverse part projecting from the straight part of the other brush element, and a right and left hand threaded screw transversely and rotatively mounted in the frame, said screw passing through the brush holders and engaging threads therein.

8. An adjustable road marker brush comprising a rigid frame, a pair of brush holders transversely slidable in said frame, a brush element affixed to each of said brush holders, each of said elements having a straight part affixed to one of the brush holders, a rigid reenforcement arranged to retain said straight part laterally, a transverse part rigidly connected to said straight part projecting inwardly from unlike intermediate portions thereof into overlapping relation with the transverse part projecting from the straight part of the other brush element, and a right and left hand threaded screw transversely and rotatively mounted in the frame, said screw passing through the brush holders and engaging threads therein.

9. A road marker having a brush support and a brush loosely connected therewith, said brush comprising a pair of brush elements having spaced parallel straight parts, and a transverse part rigidly connected with each of said spaced parts projecting inwardly from intermediate portions thereof into overlapping relation.

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