Feb. 19, 1929. 1,702,585

W. F. BELL

ROAD MARKER

Filed Sept. 2, 1925 2 Sheets-Sheet 1

Fig. 1.

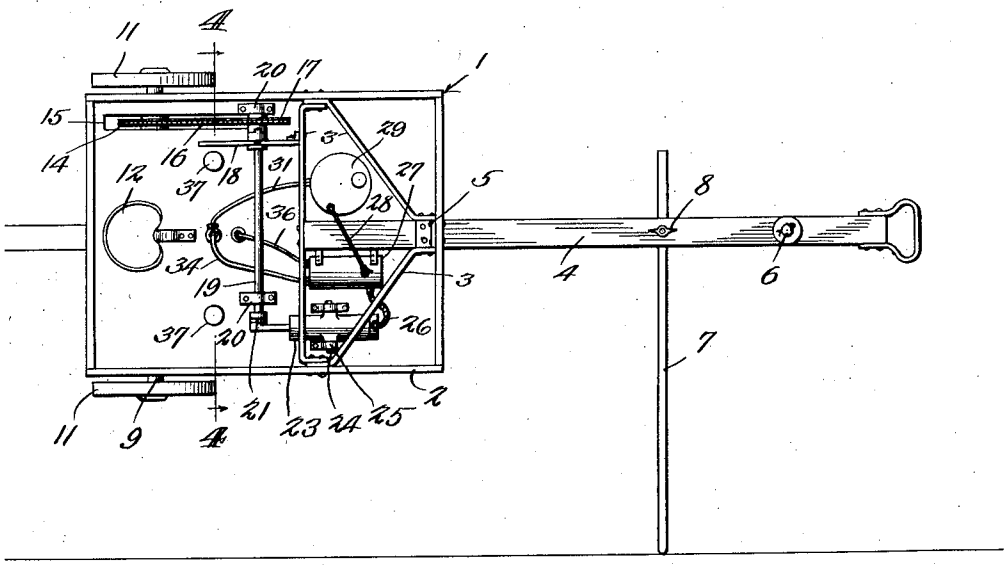
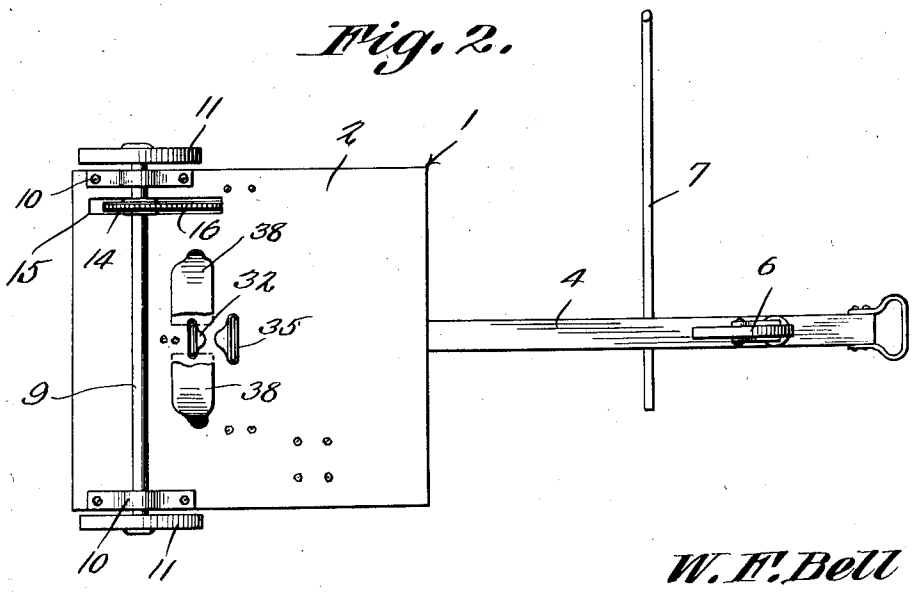


Fig. 2.



W. F. Bell

Inventor

By C. A. Snow & Co.

Attorneys.

Feb. 19, 1929. 1,702,585

W. F. BELL

ROAD MARKER

Filed Sept. 2, 1925 2 Sheets-Sheet 2

Fig. 3.

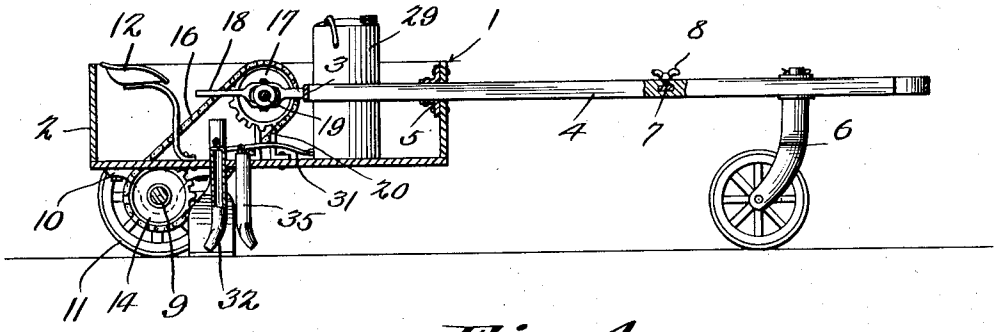
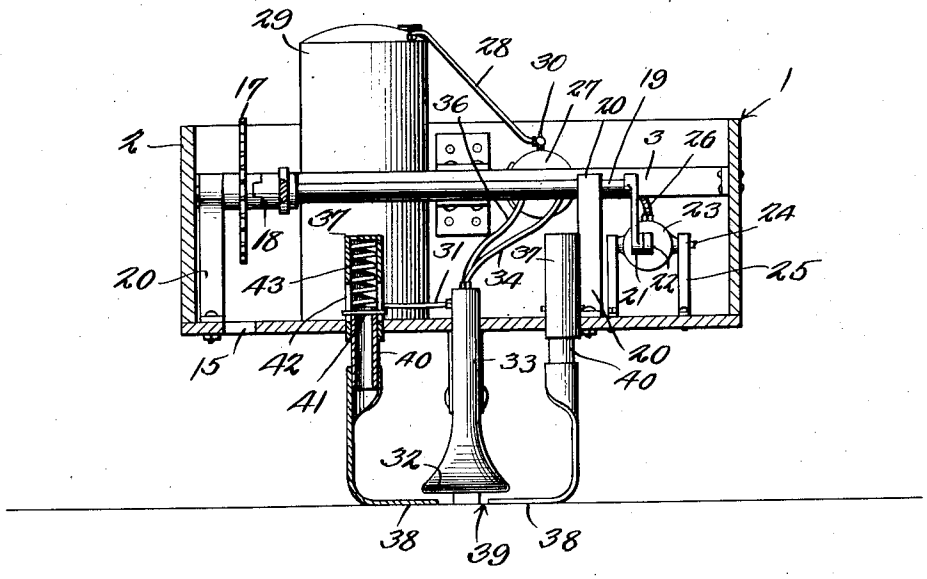


Fig. 4.



W. F. Bell

Inventor

By C. A. Snow & Co.

Attorneys.

Patented Feb. 19, 1929. 1,702,585

UNITED STATES PATENT OFFICE.

WILLIAM F. BELL, OF CANTON, NORTH CAROLINA.

ROAD MARKER.

Application filed September 2, 1925. Serial No. 54,100.

This invention aims to provide a simple means whereby lines of paint or the like, may be applied to the surface of a street, longitudinally of the street, such lines being employed, as is well known, for the governing and direction of traffic.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawings:—

Figure 1 shows in top plan, a device constructed in accordance with the invention; Figure 2 is a bottom plan; Figure 3 is a longitudinal section; Figure 4 is a cross section taken about on the line 4—4 of Figure 1.

The device includes a vehicle 1, which may be constructed as desired, the vehicle, if preferred, comprising a box-like body 2, having an internal brace 3 to which is connected a tongue 4, the tongue being secured at 5 to the forward wall of the box-like body 2, the tongue being supported on a swivelled truck 6. A gauge rod 7 is adjustable in the tongue 4, transversely of the tongue, and transversely of the draft line, the gauge rod being held in adjusted positions by a set screw 8 or the like.

An axle 9 is journaled for rotation in bearings 10 on the body 2 and is provided with ground wheels 11 whereby rotation is imparted to the axle, an operator's seat 12 being mounted in the body 2, above the axle. There is a sprocket wheel 14 on the axle 9, the sprocket wheel extending through a slot 15 in the bottom of the body 2, and cooperating with a sprocket chain 16 engaged about a sprocket wheel 17 connected by a clutch 18 with a shaft 19, the clutch 18 being mounted on the brace 3, and the shaft 19 being journaled in bearings 20 on the body 2.

The shaft 19 has a crank 21 connected to the piston rod 22 of an air pump, the cylinder 23 of the air pump having trunnions 24 mounted to rock in bearings 25 on the body 2. A flexible tube 26 extends from the cylinder 23 of the air pump to an air tank 27 mounted on the tongue 4, within the body 2. A pipe 28 connects the air tank 27 to a paint receptacle 29 mounted on the body 2, a valve 30 being interposed in the pipe 28, so that the operator can cut off the pressure of air on the paint in the paint receptacle 29, when he wishes to do so.

A pipe 31 connects the paint receptacle 29 with a discharge nozzle 32 extended downwardly through the bottom of the box-like body 2, the lower end of the discharge nozzle being flattened, as is shown in Figure 4, and being rearwardly inclined, as shown in Figure 3. The discharge nozzle 32 is braced or supported, in any desired way, as indicated at 33, upon the body 2. An air supply pipe 34 leads from the air tank 27 to the discharge nozzle 32. A vertical blast nozzle 35 is mounted in the bottom of the body 2 and is located in front of the discharge nozzle 32. The lower end of the blast nozzle 35 is forwardly inclined, as shown in Figure 3. A pipe 36 connects the air tank 27 with the blast nozzle 35.

Vertical guides 37 are mounted on the bottom of the body 2. Angular inwardly extended guards 38 are supplied and are located on opposite sides of the discharge nozzle 32, there being a space or opening 39 between the horizontal portions of the guards 38, as shown best in Figure 4. The guards 38 have stems 40 mounted for reciprocation in the guides 37. Pins 41 are mounted in the stems 40 of the guards 38 and reciprocated vertical slots 42 fashioned in the guides 37, the function of the pins and the slots being to prevent the stems 40 of the guards 38 from rotating, the horizontal portions of the guards 38, therefore, being held in the position delineated in Figure 4. Compression springs 43 are disposed within the guides 37 and press downwardly on the stems 40 of the guards 38, thereby to maintain the horizontal portions of the guards in contact with the surface of the roadway.

In practical operation, the ground wheels 11 rotate the axle 9, and, from the axle 9, rotation is imparted to the shaft 19 by way of the sprocket wheel 14, the sprocket chain 16 and the sprocket wheel 17, it being possible for the operator to manipulate the clutch 18, at will, and stop or control the rotation of the shaft 19. When the shaft 19 is rotated, the crank 21 operates the air pump 22—23, and the air pump forces air into the paint

receptacle 29, under pressure through the pipe 28. The air in the paint receptacle 29 forces the paint through the pipe 31, into the discharge nozzle 32, and the air, proceeding from the tank 27 through the pipe 34, sprays the paint out of the lower end of the nozzle 32, on the roadway, as the vehicle is drawn along. Since the horizontal portions of the guards 38 extend beneath the nozzle 32, as shown in Figure 4, the paint will be laid on the roadway in a strip of equal width, and without ragged edges. The springs 43 force the guards 38 downwardly, and maintain them in close slidable contact with the surface of the roadway. From the air tank 27, air is delivered through the pipe 36 to the blast nozzle 35. Since the blast nozzle 35 is located in front of the discharge nozzle 32, the dirt on the roadway will be blown away, before the paint is applied through the nozzle 32, and a clean surface, therefore, will be provided on the roadway, for the reception of the strip of paint. By properly adjusting the gauge rod 7 transversely of the tongue 4, the strip of paint may be laid in parallel relation to the edge of the roadway, the gauge rod 7 being adapted to cooperate with the curb or longitudinal edge of the roadway.

Although the device has been shown as mounted on a vehicle 1, which is adapted to be drawn, it will be understood that the vehicle may be propelled in any desired manner.

What is claimed is:—

1. In a machine for applying a strip of pigment to a roadway, a vehicle, a discharge nozzle mounted on the vehicle, means for supplying pigment to the nozzle, substantially horizontal guards having their inner edges spaced apart, the substantially horizontal guards being extended directly underneath the nozzle to intercept some of the pigment, positively, and to hold it off the roadway, as the pigment moves downwardly, thereby to cause the inner edges of the guards to define sharp edges in the strip of pigment that is applied to the roadway, the guards having substantially vertical parts which stop the lateral flow and splash of the pigment, and mechanism connected to the substantially vertical parts of the guards for supporting the guards for vertical sliding movement, and for holding the guards yieldably in contact with the roadway.

2. A device of the class described, constructed as set forth in claim 1, and further characterized by the fact that said mechanism embodies guides mounted on the vehicle, stems on the aforesaid substantially vertical parts of the guards and mounted to reciprocate vertically in the guides, interengaging elements on the stems and the guards cooperating to prevent the stems from rotating in the guards, and compression springs within the guards and exerting a downward pressure on the stems.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

WILLIAM F. BELL.