Nov. 7, 1961 E. M. LITTLE 3,007,645

PAINT STRIPING APPARATUS

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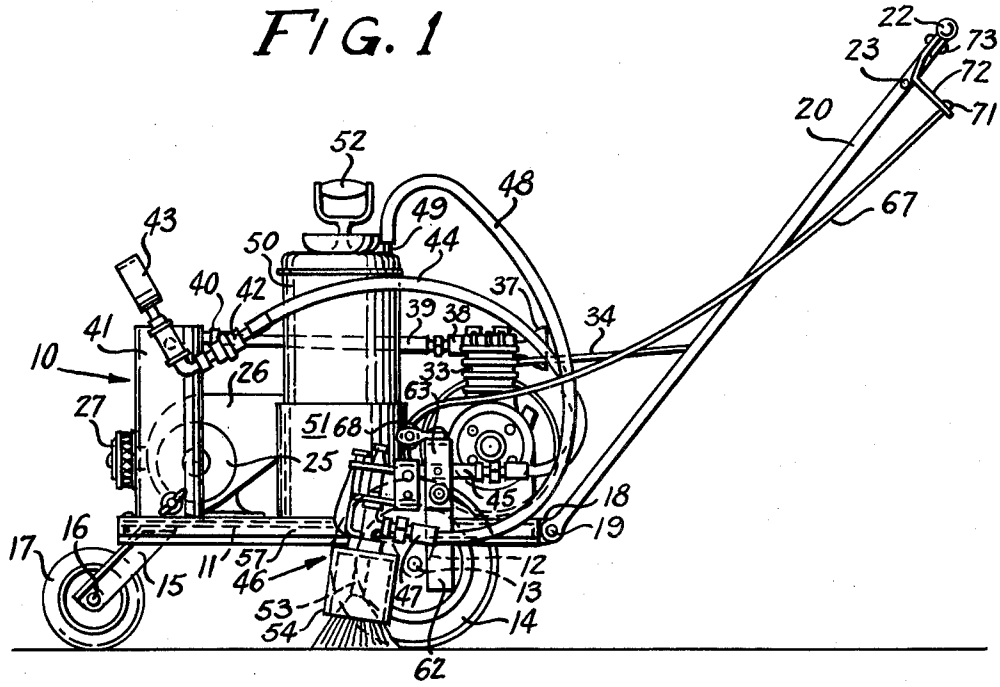
FIG. 1



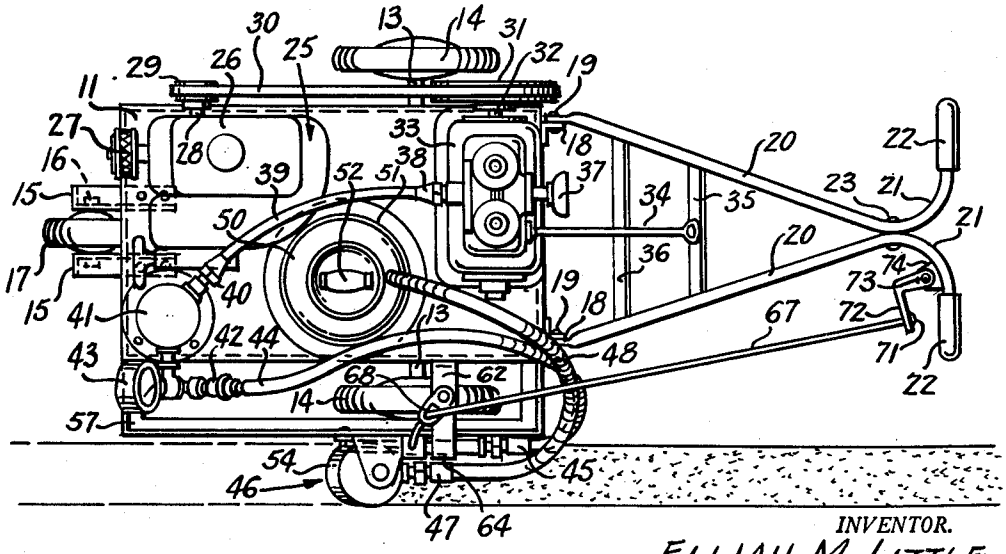


FIG. 2

INVENTOR.
ELIJAH M. LITTLE
BY
Kimmel & Crowell
ATTORNEYS

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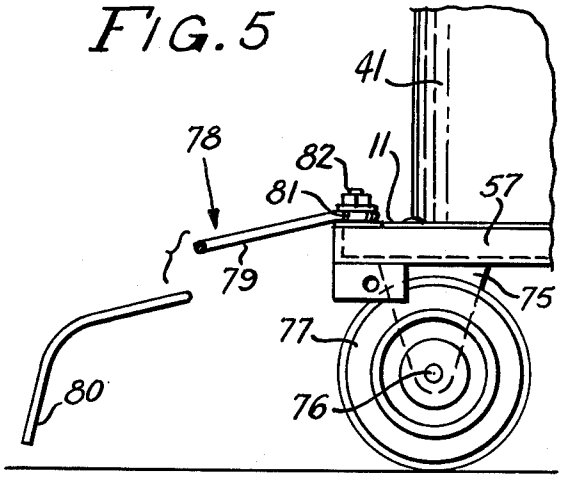
FIG. 5



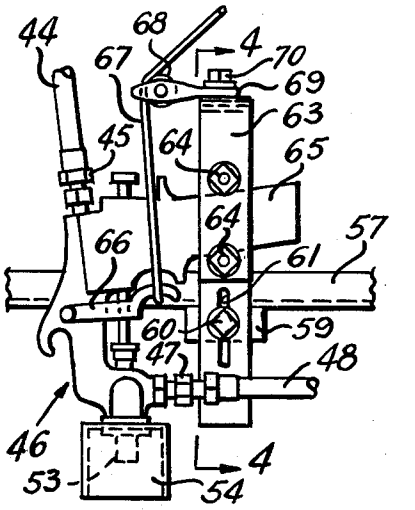


FIG. 3

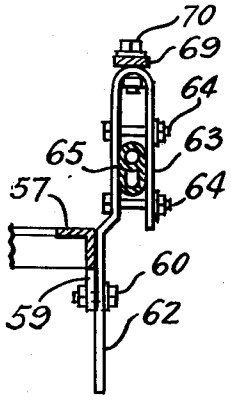
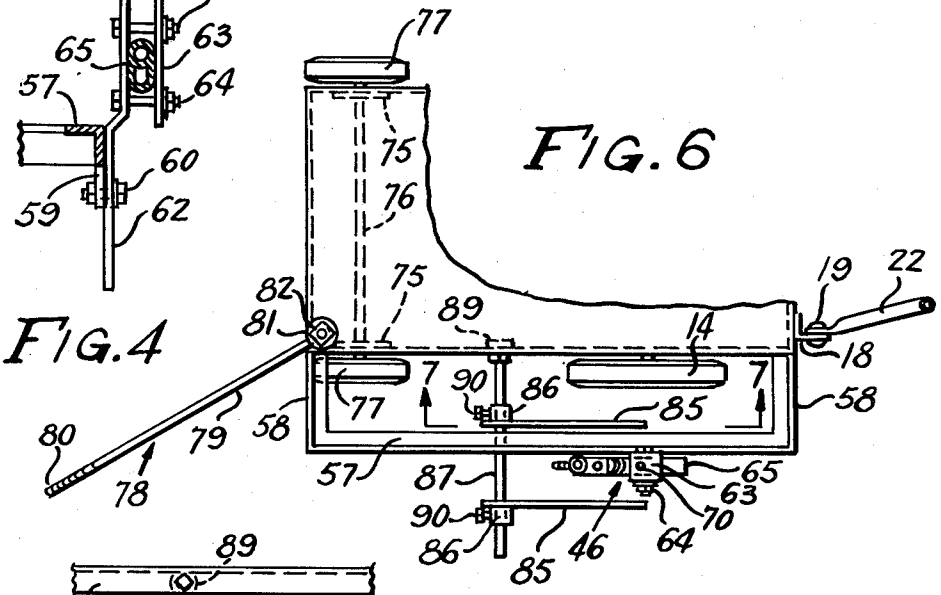


FIG. 4

FIG. 6



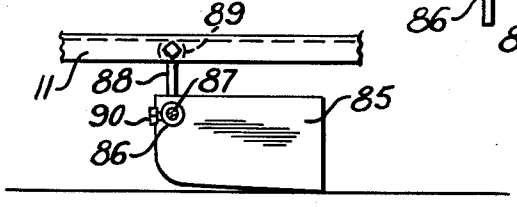


FIG. 7

INVENTOR

ELIJAH M. LITTLE

BY

Kimmel & Crowell

ATTORNEYS

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3,007,645

PAINT STRIPING APPARATUS

Elijah M. Little, 774 Grove St., Abilene, Tex.

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1 Claim. (Cl. 239—150)

This invention relates to a paint striping apparatus, and has as its primary object the provision of a paint striping device mounted on a portable wheeled frame, particularly adapted for the painting of stripes on roadways, parking lots, streets, or the like.

An additional important object of the invention is the provision of a device of this character including a spray nozzle releasably attached to the frame, which, when not in use for striping purposes, may be removed from the frame for use as a general paint spray. Still another object of the invention is the provision of such a device which may be used for any general spraying purposes, such as fruit trees, shrubbery, gardens, or the like.

An additional object of the invention is the provision of a device of this character which is substantially self-contained, and which may be moved from place to place with a minimum of effort and difficulty.

Still another object of the invention is the provision of a device of this character which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture, assemble and utilize.

Other objects will in part be obvious, and in part be pointed out as the description of the invention proceeds, and shown in the accompanying drawings wherein:

FIGURE 1 is a side elevation view of one form of striping device embodying features of the instant inventive concept, certain concealed parts thereof being indicated in dotted lines;

FIGURE 2 is a top plan view of the construction of FIGURE 1;

FIGURE 3 is an enlarged fragmentary side elevational view of a constructional detail showing the mounting of a nozzle assembly;

FIGURE 4 is a sectional view taken substantially along the line 4—4 of FIGURE 3, as viewed in the direction indicated by the arrows;

FIGURE 5 is a fragmentary side elevational view of a modified form of supporting base for the apparatus, parts thereof being broken away;

FIGURE 6 is a fragmentary plan view of the modified form of carriage or frame shown in FIGURE 5, parts thereof being broken away, and parts being omitted; and

FIGURE 7 is a sectional view taken substantially along the line 7—7 of FIGURE 6, as viewed in the direction indicated by the arrows.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Having reference now to the drawings in detail, the device of the instant invention, generally indicated at **10**, includes a generally rectangular base plate **11**, which is provided with a pair of depending lugs **12** on opposite sides thereof, which support an axle **13**, upon which are mounted oppositely disposed rubber tired wheels **14**. The forward end of plate **11** carries a pair of spaced parallel forwardly inclined angle irons **15**, which carry an axle **16** upon which is rotatably mounted a front wheel **17**, which is also rubber tired.

Secured to the end of the plate **11** opposite front wheel **17** are a pair of spaced lugs **18**, to each of which is secured, as by means of a bolt **19**, a handle member **20**. The handle members **20** converge, as best shown in FIGURE 2, and are provided at their upper extremities with arcuate outwardly extending portions **21**, terminating in transverse handle gripping members provided with hand

grips **22**. The members **20** are connected at their point of closest convergence as by means of a reinforcing bolt **23**. Obviously, the angular inclination of the handle may be varied by loosening the bolts **19** if desired, in order to accommodate the device to the relative height of various users.

Mounted on the plate **11** is a motor **25**, of any desired conventional type, although a 2½ horsepower gasoline motor has been found desirable. Motor **25** has mounted thereon the usual gas tank **26**, and is provided with the usual filtered intake **27**. A drive shaft **28** driven by motor **25**, in turn, drives a pulley **29**, from which a belt **30** extends to a second pulley **31**, carried by a shaft **32**, which is adapted to drive a conventional air compressor **33**, also mounted on base plate **11**.

A brace **34** is secured to compressor **33**, and extends to a cross member **35** which extends between handle members **20**. A second parallel reinforcing brace **36** is also provided to impart rigidity to the handle structure.

Air compressor **33** is provided with an inlet **37**, and a fitting **38** which is connected to an air hose **39**, which leads to a second fitting **40** at the top of a compressed air storage tank **41**, the latter also being mounted on base plate **11**.

Tank **41** is provided with an outlet fitting **42** which includes a pressure gauge **43**, and a compressed air hose **44** extends from fitting **42** to one inlet **45** of a spray nozzle assembly, generally indicated at **46**.

The nozzle assembly **46** includes a second fitting **47** to which is secured a paint line **48** which extends to an outlet **49** at the top of a paint reservoir **50**. The latter is adapted to be seated in a bucket or receptacle **51** which is mounted on base plate **11**, and includes the conventional agitating handle **52**.

The nozzle assembly **46** includes a conventional outlet **53** for the mixed paint and air, the outlet being surrounded by a tubular shield **54**, which extends below the mouth of the outlet, to provide directional guidance for the paint, which is of particular utility when painting a stripe, for example, on a roadway or the like.

The nozzle assembly **46** is adapted to be releasably carried by a support mounted on the side of a frame or base plate **11** exteriorly of and spaced from the adjacent one of said wheels **14**, the support comprising a generally U-shaped, horizontally disposed member **57**, the legs **58** of which are secured to the frame adjacent its ends. A depending lug **59** secured to the frame carries a bolt **60**, which engages in a vertical slot **61** in a vertical bracket member **62** which extends upwardly beyond the frame **11** and includes a downwardly reverted portion **63**. Transversely extending bolts **64** extending between the reverted portion **63** and the bracket **62** form a space within which a projecting handle portion **65** of the nozzle assembly **46** is adapted to seat for retaining the assembly in position on the side of the frame. An operating handle **66** is pivotally mounted on the nozzle assembly **46** for actuating the same, and has secured thereto one end of a cord **67**. The cord **67** extends over a pulley **68**, which is carried by an arm **69** pivotally mounted as on a bolt **70** secured to the top of bracket **62**. The other end of the cord **67** is secured, as at **71**, to one arm of an L-shaped lever **72**, the opposite end of which is pivotally secured as at **73** to a lug **74** which projects from one of the arcuate arms **21** of handle **20**, the arrangement being such that movement of the lever **72**, which may be conveniently effected by the hand grasping the adjacent handle grip **22**, moves lever **66** to actuate the paint spray.

FIGURES 5 and 6 disclose a slightly modified form of frame wherein the base plate **11** is provided with a pair of oppositely disposed depending brackets **75**, between which extends an axle **76** which carries at its ends wheels **77**, thus providing two wheel support for the front

end of the device, rather than the single wheel of the previous modification.

In this modification a guide pointer 78 is also provided, which includes a forwardly and downwardly extending elongated rod 79 having a downturned end 80 which extends to a point closely adjacent the road surface. The other end of member 79 is provided with a loop 81, which is secured to one corner of the frame, as by a bolt 82, the arrangement being such that the guide member may be adjusted laterally as desired.

In this modification the circular shield 54 may be omitted, and its place taken by a pair of spaced apart rectangular plates 85. Each plate 85 carries an apertured collar 86, which is slidably mounted on a laterally extending rod 87, which includes an upwardly extending end portion 88 which is bolted or otherwise secured as at 89 to the side of the frame 11. It will be obvious that the plates 85 may be positioned on either side of the nozzle assembly 46, as best shown in FIGURE 6, and may be moved transversely to vary the width of the strip to be painted. Set screws 90 are provided in the collars 86 for holding the plates 85 in adjusted position as desired.

From the foregoing the use and operation of the device should now be readily apparent. When it is desired to paint a stripe on a roadway or the like, the motor 25 and air compressor 33 are started by the conventional manual means, and the apparatus moved into position by means of the handles 22. The front wheels 17, or 77, are suitably aligned with any desired marker or indicator. The device is then manually propelled by means of the handles 22, and the nozzle assembly 46 is actuated by lever 72 to paint a stripe on the surface of the roadway.

When it is desired to use the spray gun for other purposes, the nozzle assembly 46 is disengaged from its supporting member 62, and may be carried in the hand and directed to any desired location.

From the foregoing it will now be seen that there is herein provided an improved apparatus which accomplishes all of the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

In a paint spraying device, in combination, a rectangular shaped supporting platform, non-swiveling wheels carrying said platform, a motor carried by said platform, a compressor on said platform, a driving connection between said motor and said compressor, a compressed air tank on said platform, a connection between said compressor and said tank, a paint receptacle on said platform, a spray nozzle, a flexible connection between said paint receptacle and said spray nozzle; a second flexible connection between said compressed air tank and said spray nozzle, a control cord for said spray nozzle, a U-shaped horizontally disposed support secured to said platform, a depending lug having an aperture formed therein secured to said U-shaped member, an inverted substantially U-shaped member having an elongated slot formed in one leg thereof, a bolt extending through said elongated slot and the aperture in said lug to vertically position said inverted U-shaped member, a guide pulley assembly horizontally positioned on the apex of said inverted U-shaped member, to receive said control cord, bolts extending transversely between and through both legs of said inverted U-shaped member adapted to maintain said spray nozzle in downwardly directed position for painting a stripe on a surface over which said striping device is moved, a handle extending from said platform for manual movement of said device, said control means being carried by said handle at a point remote from said nozzle, rods extending laterally from said platform, a pair of spaced parallel paint directing guide plates on opposite sides of said nozzle, set screw assemblies slidably mounted on said rods for adjusting said plates laterally relative to said nozzle to vary the width of the strip painted thereby, and a guide pointer pivotally mounted on said frame adjacent the forward end thereof and extending forwardly and downwardly in alignment with said spray nozzle.

References Cited in the file of this patent

UNITED STATES PATENTS

Re. 24,008	Mosher	May 24, 1955
1,999,563	Glasgow	Apr. 30, 1935
2,064,504	Thompson	Dec. 15, 1936
2,065,998	Emmons	Dec. 29, 1936
2,317,288	McCubbin	Apr. 20, 1942
2,351,719	Stahl	June 20, 1944
2,812,211	Gardner	Nov. 5, 1957