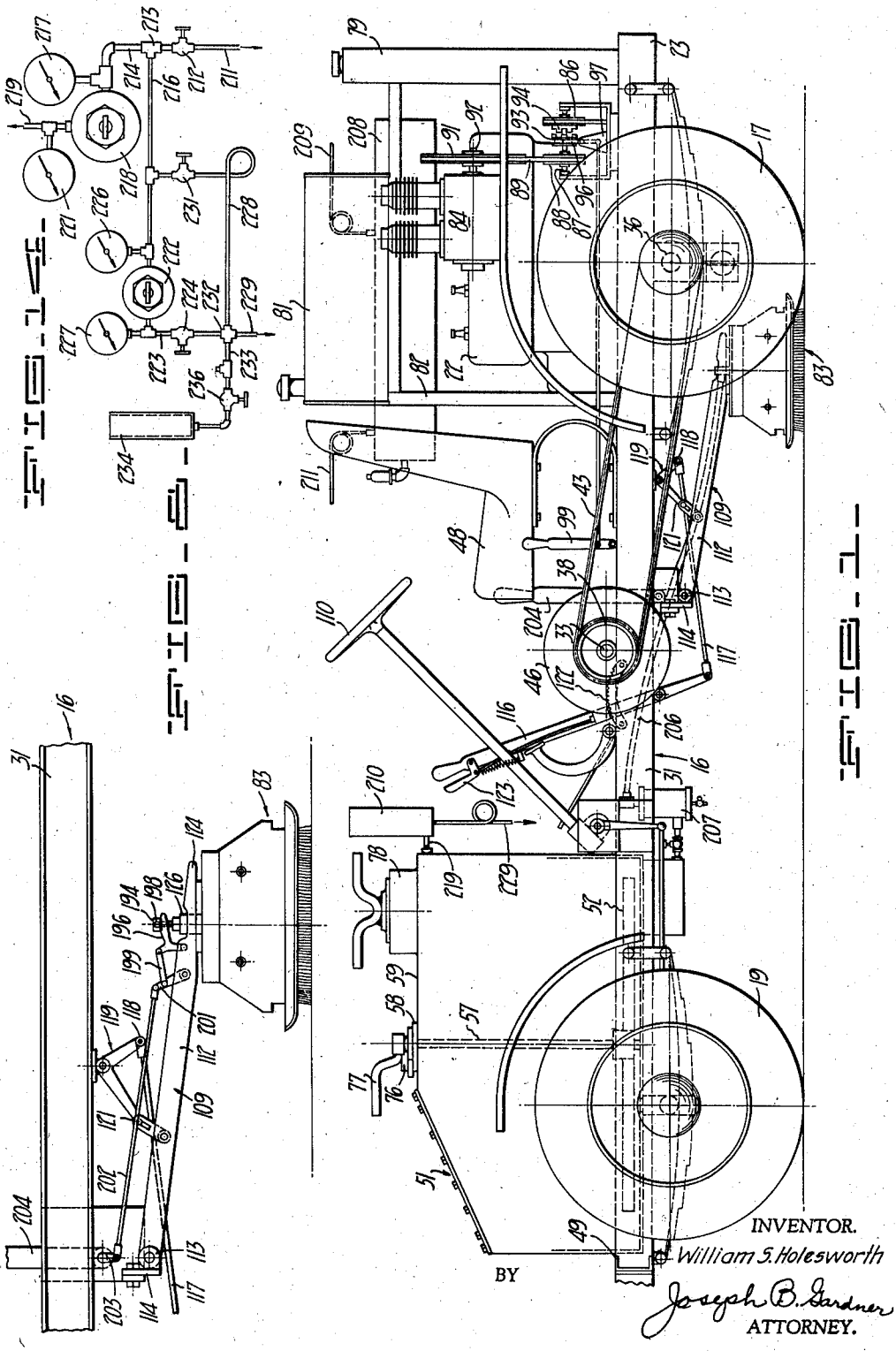
Nov. 11, 1941. W. S. HOLESWORTH 2,262,497

ROAD STRIPING MACHINE

Filed July 2, 1938 4 Sheets-Sheet 1



INVENTOR.
William S. Holesworth
BY
Joseph B. Gardner
ATTORNEY.

Nov. 11, 1941. W. S. HOLESWORTH 2,262,497

ROAD STRIPING MACHINE

Filed July 2, 1938 4 Sheets-Sheet 2

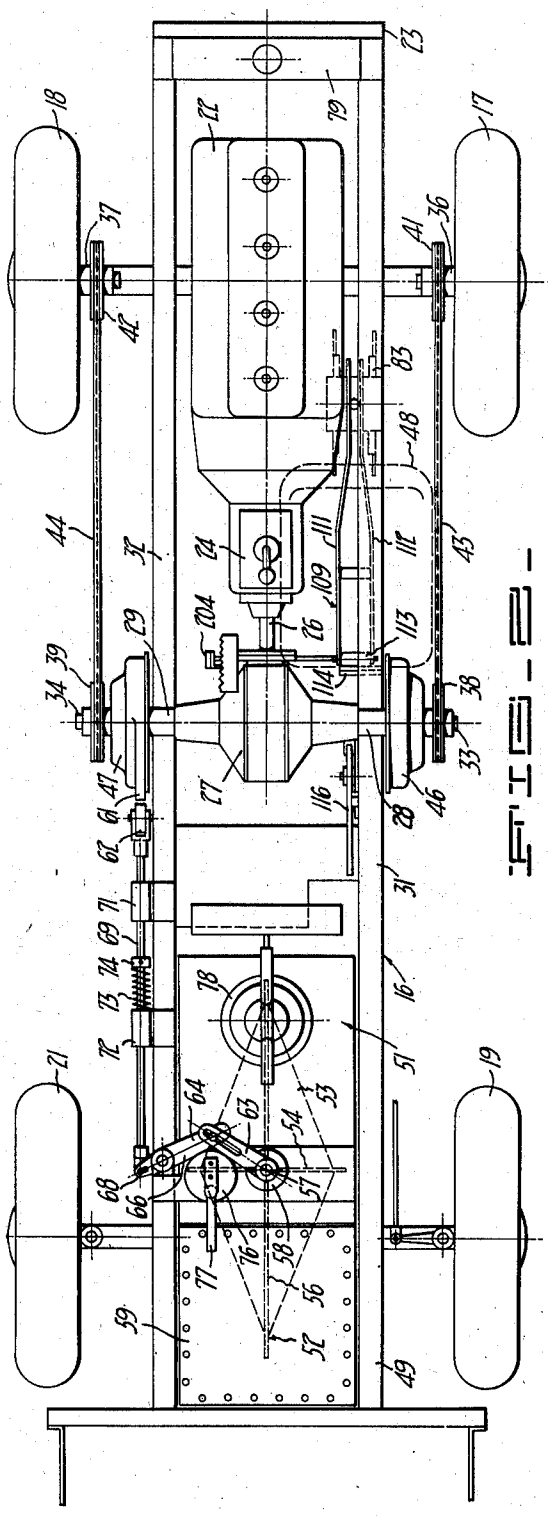


FIG. 2

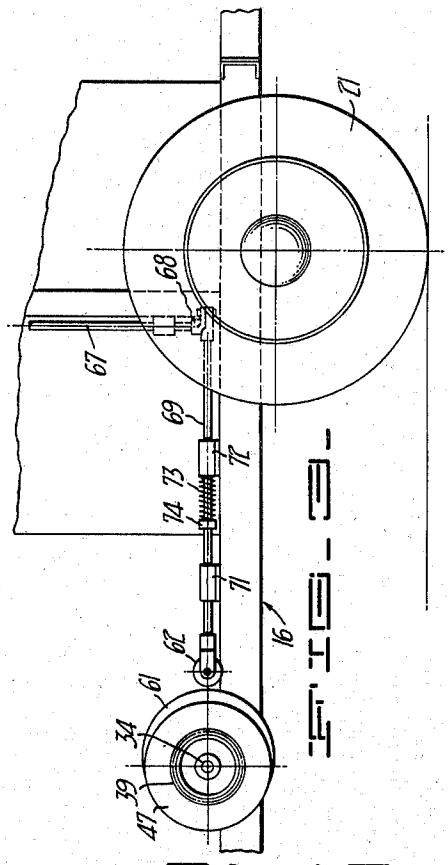


FIG. 3

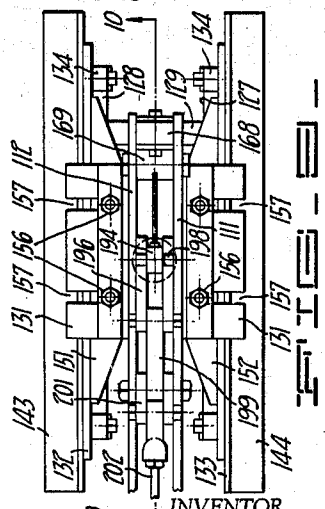


FIG. 4

INVENTOR.
William S. Holesworth

BY Joseph B. Gardner
ATTORNEY.

Nov. 11, 1941. W. S. HOLESWORTH 2,262,497

ROAD STRIPING MACHINE

Filed July 2, 1938 4 Sheets-Sheet 3

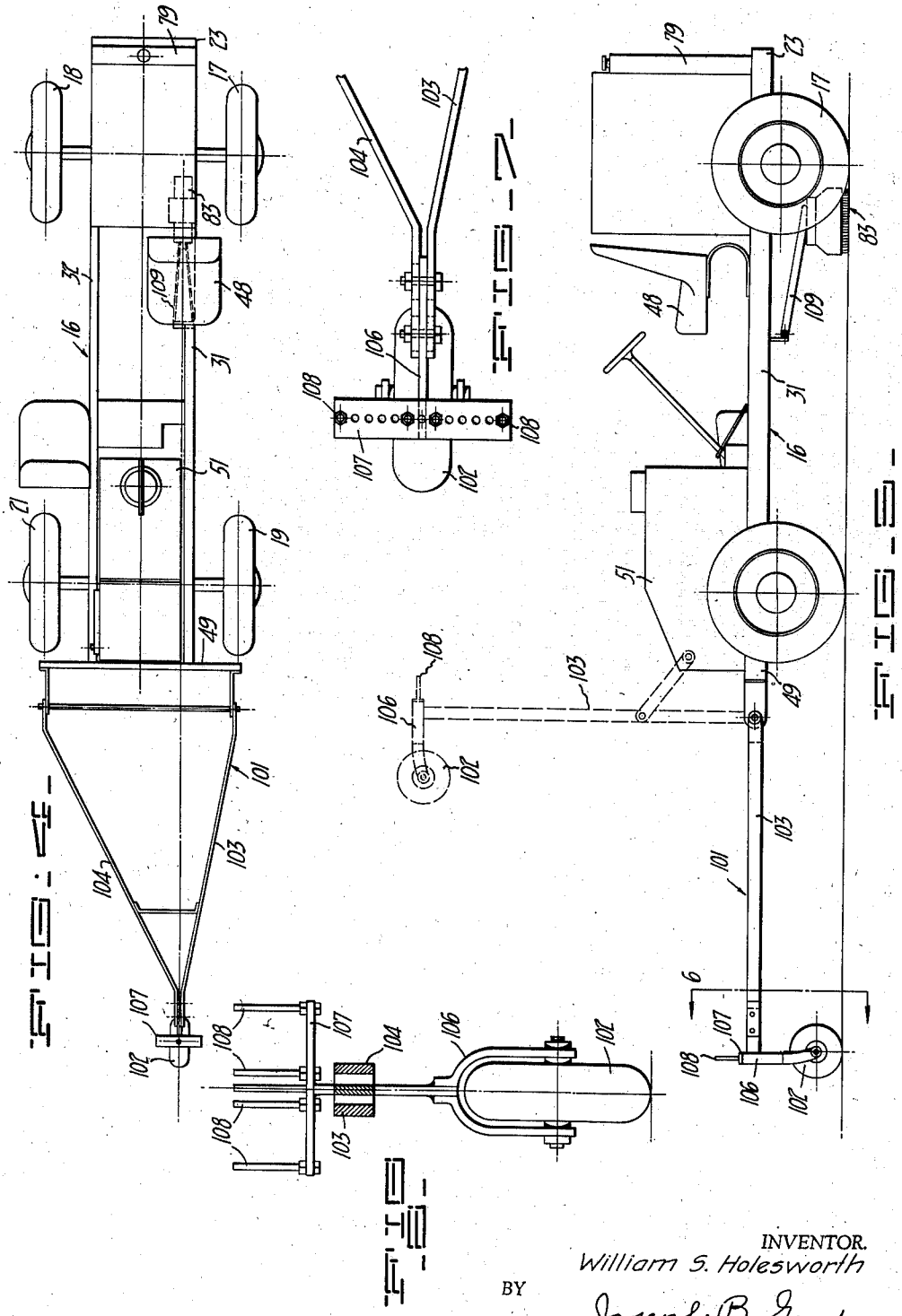


FIG. 2

FIG. 3

FIG. 4

FIG. 5

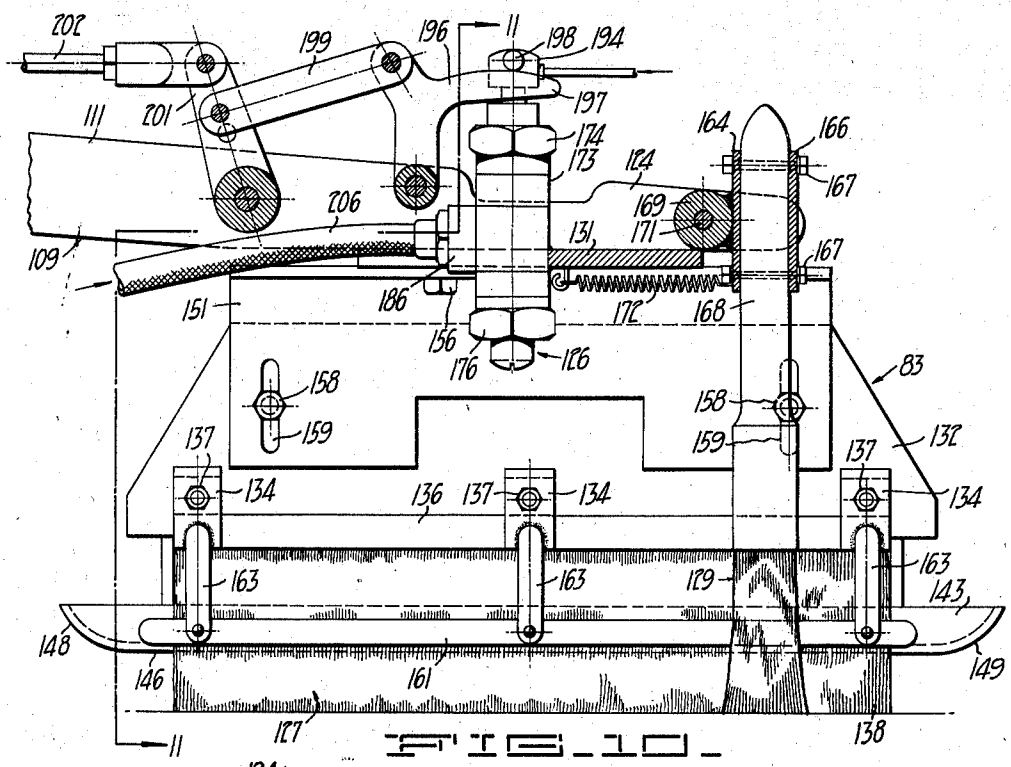
INVENTOR.
William S. Holesworth

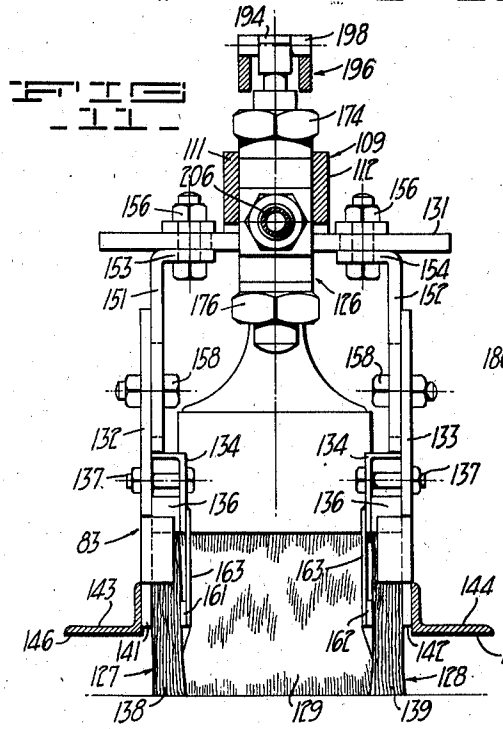
BY Joseph B. Gardner
ATTORNEY.

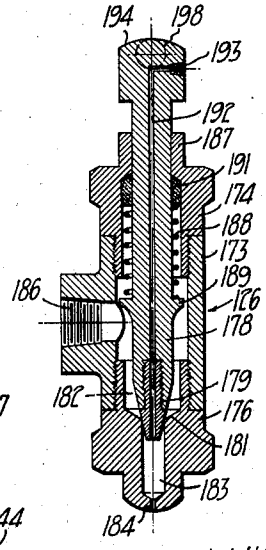
Nov. 11, 1941. W. S. HOLESWORTH 2,262,497

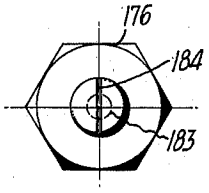
ROAD STRIPING MACHINE

Filed July 2, 1938 4 Sheets-Sheet 4









INVENTOR.
William S. Holesworth
BY
Joseph B. Gardner.
ATTORNEY.

Patented Nov. 11, 1941 2,262,497

UNITED STATES PATENT OFFICE

2,262,497

ROAD STRIPING MACHINE

William S. Holesworth, Reno, Nev.

Application July 2, 1938, Serial No. 217,197

7 Claims. (Cl. 91—12)

The invention relates to machines for applying to a highway a center line or a plurality of lines, commonly referred to as stripes, for the guiding of traffic over the highway.

An object of the present invention is to provide a machine of the character described which will have a relatively high output capacity capable of striping a substantially larger number of miles per day than machines heretofore used and which, when not in operation, will have a high cruising speed for rapidly moving the machine from place to place.

Another object of the invention is to provide a machine of the character above which will be entirely self-contained and constructed in a single unit with many attendant features of advantage in a unitary structure. Among other features of advantage of the present machine is greater safety afforded the operator of the machine. Heretofore, where a plurality of units have been used, it has been common to place an operator directly over a front pilot unit which was positioned out ahead of the propelling unit and the operator so placed was in constant danger of being struck by oncoming cars or heedless drivers cutting in ahead too quickly. In the present machine the operator is carried in a central portion of the device and is well protected against accidental collisions and the like.

A further object of the invention is to provide a machine of the character above which will be of substantially minimum width so as to enable the positioning of the machine at the center of a normal road without obstructing traffic passing on opposite sides of the machine. In this manner the hazard to the operator of the machine and also to traffic generally is minimized, and oncoming and passing cars may pass freely without crossing over the freshly painted stripe or without being forced outwardly to the shoulders or ditch of the roadway.

A further object of the invention is to provide a machine of the character described which in an emergency may be quickly maneuvered from one side of the road to the other, and in so maneuvering the machine, the operator may quickly and readily interrupt the application of striping material to the roadway and move from the stripe on the roadway without dripping of material off the portion being striped.

Still another object of the invention is to provide a machine of the character described which will enable the operator to more easily and accurately follow a line or stripe which has been marked off or surveyed and marked on the roadway.

Yet another object of the invention is to provide a machine of the character above which will provide a uniform width of stripe and will provide a stripe having clearly and sharply defined edge portions.

Another object of the invention is to provide an improved spray means capable of applying to the road substantially any striping material which can be sprayed or atomized and which is provided with a spray head or nozzle which is constructed and arranged to prevent clotting of the material in the spray head or nozzle.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawings:

Figure 1 is a side elevation of a road striping machine constructed in accordance with the present invention.

Figure 2 is a plan view of the machine illustrated in Figure 1.

Figure 3 is a fragmentary side elevation of part of the actuating means for the paint agitator used by the machine.

Figure 4 is a plan view of the machine on a smaller scale and illustrating the relative alignment of the pilot wheel and other parts of the machine.

Figure 5 is a side elevation of the machine on the same scale as illustrated in Figure 4 and illustrating the relative positions of the pilot wheel.

Figure 6 is a cross-sectional view showing the pilot wheel construction and is taken substantially on the plane of line 6—6 of Figure 5.

Figure 7 is a fragmentary plan view of the pilot wheel and supporting structure therefor.

Figure 8 is a fragmentary side elevation of the striping unit and supporting and operating structure, and is shown in a somewhat enlarged scale over that of Figure 1.

Figure 9 is a plan view of the striping unit.

Figure 10 is a longitudinal sectional view of the striping unit and is taken substantially on the plane of line 10—10 of Figure 9.

Figure 11 is a transverse sectional view of the

striping unit and is taken substantially on the plane of line 11—11 of Figure 10.

Figure 12 is a longitudinal sectional view of the spray nozzle.

Figure 13 is a bottom view of the spray nozzle.

Figure 14 is a front elevation of the assembly of gauges and control valves used to regulate the flow of striping material.

The road striping machine as depicted in the accompanying drawings consists as above indicated, of a self-contained, self-propelled vehicle which is arranged to be driven over a highway or the like for applying a line or stripe thereto. The vehicle comprises a main body frame or chassis 16 which is supported on the road by means of rear wheels 17 and 18, and steerable front wheels 19 and 21, the wheels being mounted on the frame by axle and spring assemblies as is common in automotive design. The source of driving power for the machine is derived from a motor 22 mounted on the chassis adjacent the rear end 23 thereof, and is connected forwardly to a variable speed transmission mechanism 24, which is in turn connected to a drive shaft 26 extending forwardly of the transmission mechanism, and into a differential mechanism 27. The latter is provided with transversely extending driven shafts 28 and 29 which extend across the transverse width of the machine and are supported on the parallel sides 31 and 32 of the chassis frame and are connected at their opposite ends 33 and 34 to the hub supports 36 and 37 of the rear wheels by means of sprockets 38 and 39 on the shafts, and sprockets 41 and 42 on the wheel hub supports and chains 43 and 44 connecting the sprockets 38 and 41, and 39 and 42 respectively. If desired, and as here shown, brake drums 46 and 47 may be secured to the driven shafts 28 and 29 and coacting brake shoes (not shown) carried by the chassis for applying braking force to the driven shafts 28 and 29, rather than the wheels themselves.

An operator's seat 48 is provided on the left side of the machine adjacent the transmission mechanism 24 and just forwardly of the engine, so that the operator is positioned towards the rear of the vehicle and adjacent to the rear axle. Mounted forwardly of the operator's seat and adjacent the front end 49 of the chassis frame is a container 51 for material adapted to be applied to the road in forming the stripe. The container is preferably of a relatively low elevation so as to afford clear visibility thereover for the driver in watching the road. Preferably, the container is adapted for receipt of paint or other liquid and preferably, there is provided within the container an agitator 52 for providing a constant stirring of the paint during the operation of the machine. The agitator as here shown, is in the form of a flat bottomed plate 53 having a pair of upstanding ribs 54 and 56 for stirring the paint and is supported on a vertical shaft 57 mounted through a bearing member 58 provided on the top wall 59 of the container. In accordance with the present construction, the agitator is arranged to be driven through a relatively short oscillatory movement and is driven by the engine of the vehicle by means of an eccentric 61 provided on the brake drum 47, and which is normally engaged with a follower 62 appropriately connected to the agitator. The means for connecting the follower to the agitator here includes a crank arm 63 mounted on the upper end of the shaft 57 and which is pivotally and slidably connected to one end 64 of a lever 66 fixed to a vertical shaft 67 carried at the side of the container. A crank arm 68 is connected to the lower end of the shaft and is in turn connected to a slide rod 69 reciprocally carried in a plurality of slide bearings 71 and 72 on the frame, and to the rearward end of which the follower 62 is fastened. The follower is normally held in engagement against the cam 61 by means of a helical spring 73 carried on the rod 69 and which is compressed between a stop 74 and the guide bracket 72 for the rod.

Means is provided for withdrawing the follower from the eccentric when the agitator is not to be used and such means in the present construction consists of a cam 76 rotatably carried on the top wall 59 of the container adjacent to the crank and lever 63 and 64 and is provided with a handle 77 to enable turning of the cam to an extent deflecting the lever 64 by an amount withdrawing the follower from the cam. When the cam 76 is rotated to present a less eccentric portion of its circumference to the lever 64, the latter may rotate sufficiently to return the follower into engagement with the cam 61.

The container is provided with an inlet fitting 78 for entry of paint or other material into the container.

A gasoline fuel tank 81 is mounted over the top of the engine on a supporting frame 82 for supplying fuel to the engine. Preferably, the striping material from the container 51 is applied under pressure by a material applying unit 83 and as a suitable source of pressure for this purpose, I use a compressor 84 which is mounted in the engine compartment of the vehicle and which is driven from the rear end of the engine crank shaft by means of a pulley wheel (not shown) on the crank shaft and which is connected by means of a belt to a pulley wheel 86 on an auxiliary shaft 87 and on which is mounted a second pulley wheel 88, which is connected by a belt 8 to a pulley wheel 91 on the shaft 92 of the compressor 84. Preferably, means is provided for placing the compressor into and out of operation and as here shown, such means is provided in the driving connection of the compressor and is in the present construction, embodied in the form of a sliding clutch section 93 mounted on the shaft 87 and movable into and out of engagement with a clutch section 94 on the pulley wheel 86. Means for so displacing the clutch section 93 here includes a yoke 96 which is pivoted to a bracket 97 on the frame and is reciprocated by means of a link 98 extending forwardly into the driver's compartment and there connected to an operating lever 99 which is pivoted to the frame.

Mounted at the front end 49 of the vehicle frame for positioning forwardly of the body part proper of the vehicle, is a frame 101 for a pilot wheel 102 which is arranged to be lowered onto the highway so as to follow or be guided along a line or stripe which is laid out on the highway and to assist the operator in following such line or stripe. The frame 101 consists in a pair of longitudinal members 103 and 104 which are pivoted to the forward end 49 of the frame at the opposite transverse sides of the frame and converge forwardly to a forked support 106 of the guide wheel. Mounted across the top of the latter is a bar 107 which is used to support a plurality of vertical pins 108 which are used by the operator for sighting over the top of the pilot wheel and down the road. The pivotal connection of the frame 101 to the vehicle frame

end 49 enables the raising of the frame 101 and the pilot wheel, as indicated in dotted lines in Figure 5, to a substantially vertical position when the striping operation has been terminated and the machine arranged for rapid transit over the highway.

As an important feature of the present construction, the paint or material applying means 83, the center of the steering wheel 110, and the operator's seat 48, and the pilot wheel 102 are all placed in substantially longitudinal alignment relative to the machine, which feature greatly assists the operator in maintaining the applying means 83 on a desired line on the road. This alignment has been particularly illustrated in Figures 4 and 5 wherein it will be seen that a horizontal line drawn from the pilot wheel rearwardly through the center of the applying means 83 will intersect a vertical line drawn through the center of the operator's seat. Thus the operator's line of vision where it meets the road, the horizontal line drawn from the pilot wheel to the applying unit, and the vertical line through the operator's seat form a right angle triangle. As will be noted, the applying unit is slightly rearward of the driver's seat and a line drawn upward from the applying unit to the operator's line of vision at the aforesaid vertical line would form a second triangle coplaner with the first.

As a further important feature in enabling the operator to accurately control the position of the applying means 83 on the desired line on the road, the applying means 83 is positioned substantially immediately adjacent the rear axle of the vehicle so that any turning of the vehicle will be minimized at the applying means 83. In this way, any minor variations in direction of travel are reduced to a negligible amount at the applying means 83. Preferably also, the driver's seat is positioned substantially immediately adjacent the rear axle, so that the vehicle will turn about a vertical axis substantially adjacent to the driver's seat, whereby an extremely long leverage is obtained between the driver and the forward pilot wheel and any lateral variations in the movement of the vehicle will be greatly amplified at the pilot wheel. Thus the operator may, by keeping the pilot wheel approximately directly over an old stripe on the road to be renewed or any other line laid out on the highway, very accurately and precisely maintain the position of the paint or material applying means 83 directly on such stripe or line. Thus, where a long straight stripe is to be applied to the highway, the operator need only sight over one or several of the pins 108 and down the old stripe on the highway to very accurately position the applying means 83 on the old stripe and may, due to the simplicity of effort, proceed over the highway at a relatively high speed. It is possible with the present machine to stripe well over four miles an hour and to place a more uniform stripe than has been heretofore obtained with striping machines having an output of only one to two miles per hour.

The paint or other material applying means 83 is mounted on the under side of the vehicle in engagement with the road and is preferably arranged to be lowered and raised onto and from the roadway so that the means may be retracted from the road at the end of the striping operation to permit relatively high speed movement of the vehicle. As here shown in Figures 1, 2, 9, 10 and 11, the applying unit is supported from the under side of the vehicle by means of a longitudinally extending frame 109 consisting of a pair of longitudinal members 111 and 112 which are pivoted at their forward ends 113 to a mounting bracket 114 on the frame. Means for raising and lowering the frame 109 here includes an operating lever 116 mounted in the driver's compartment and pivoted at its lower end to a link 117 which is in turn connected to one end 118 of a bell crank 119 mounted on the frame, the opposite end 121 of the bell crank being connected to the frame 109. In this manner the drawing of the lever 116 towards the operator's seat, as illustrated in Figure 1, will cause a rotation of the bell crank 119 in a clockwise direction to raise the frame 109, and conversely the movement of the lever 116 away from the driver's seat will cause a rotation of the bell crank 119 in a counter-clockwise direction and a lowering of the frame 109. Preferably, the lever is provided with a suitable pawl and ratchet 122 and operating control 123 therefor for retaining the lever in adjusted position.

The applying means is connected to the rear ends 124 of the longitudinal members 111 and 112 of the frame and here includes a spray nozzle 126, a pair of laterally spaced longitudinally extending flat brushes 127 and 128 and a rear transversely extending flat brush 129. The brushes and nozzle are secured to the frame members 111 and 112 through the medium of a plate 131 which is fastened to the under side of the frame members and to which the several supporting parts are secured. The brushes 127 and 128 are fastened to vertical side plates 132 and 133 by means of a plurality of clamps 134 which engage a top body section 136 on each of the brushes and which are fastened in place by a plurality of bolts 137, leaving the bristles 138 and 139 of the brushes extending downwardly along the sides of the plates 132 and 133 and below the bottom ends 141 and 142 of the plates, so as to engage the highway. The engagement of the plates 132 and 133 along the outer sides of the bristles 138 and 139 prevents the flaring out of these bristles and thereby assists in accurately defining the side edges of the stripe being applied. Preferably, a pair of flange pieces 143 and 144 are mounted at the bottom ends 141 and 142 of the side plates, so as to define a skid for engaging irregularities in the road. The under surfaces 146 and 147 of the flange pieces 143 and 144 are preferably hardened to increase the life of these pieces and the forward and rearward ends 148 and 149 of these flange pieces are preferably beveled upwardly to better engage rocks or other irregularities in the road surface. The side plates 132 and 133 are supported from the cross plate 131 by means of a pair of plates 151 and 152 which are secured at their upper ends 153 and 154 to the cross plate 131 and along their sides to the side plates 132 and 133. Preferably, the upper ends 153 and 154 of the plates 151 and 152 are turned inwardly and engage by a plurality of bolts 156 which are carried in elongated slots 157 (see Figure 9) in the plate 131 so as to afford lateral adjustment of the side brushes 127 and 128. Preferably, the engagement of the plates 132 and 133 with the plates 151 and 152 is effected in a manner providing a vertical adjustment of the brushes and as here shown, these plates are connected by a plurality of bolts 158 which are extended through elongated slots 159 (see Figure 10) in the plates 151 and 152, so that the plates 132 and 133 may be

individually adjusted vertically with respect to the roadway. Preferably, means is provided for supporting the inner surfaces of the bristles 138 and 139 to prevent the bristles from flaring inwardly and as here shown, such means is embodied in the form of a pair of longitudinal straps 161 and 162 which are supported against the inner surfaces of the brushes 138 and 139 by means of a plurality of spring arms 163 secured at their upper ends to the clamps 134.

The rear transverse brush 129 has the important function of closing the enclosure between the brushes and for spreading the material uniformly across the stripe. Due to the forward movement of the vehicle, there is a tendency in the case of a rough road to apply the material only to the faces of the irregularities facing the spray nozzle as the vehicle proceeds. In some instances with machines heretofore used, this effect is so pronounced as to make portions of the stripe practically invisible when viewed in one direction while being perfectly clear when viewed in an opposite direction along the roadway. In accordance with the present arrangement, however, the rear brush is arranged to carry enough material so as to completely fill the crevices in the road and to uniformly apply the material to the leading as well as the rearward faces of irregularities in the roadway.

As here shown, the rear brush 129 is secured in position by means of a pair of plates 164 and 166 which are secured as here indicated, by bolts 167 to the opposite sides of a handle portion 168 of the brush. The plate 164 is here shown formed integrally with a sleeve 169 which extends transversely between the supporting frame members 111 and 112 adjacent the rear ends 124 thereof and which is held in position by means of a transverse bolt 171. In this manner the upper end of the brush is pivotally secured to the frame and the brush is thereby permitted to swing rearwardly and outwardly from the enclosure defined by the side brushes to clear any nature obstructions struck by the rear brush. The brush is normally positioned, however, in substantially vertical position by means of a light helical spring 172 which is fastened between the plate 164 and the cross plate 131.

Various materials have been experimented with for use in the several brushes of the applying means and I have found that ordinary good quality paint brushes at present available on the market are quite satisfactory.

The design and construction of the spray nozzle 126 forms an important feature of the present invention. As here shown with special reference to Figure 12, the spray nozzle consists of a body or casing including a center body section 173 in the form of a T section which is connected at opposite ends by threaded insert sections 174 and 176. Mounted longitudinally through sections 173, 174, and 176 is a hollow needle valve 178 which is adapted to seat at its leading tapered end 179 against a valve seat 181 provided by the section 176 and is mounted within the sections for reciprocation so as to move into and out of engagement with the seat 181 to close and open a central discharge chamber 182 in the sections surrounding the valve. The section 176 is provided with a discharge passage 183 leading from the seat 181 to a relatively narrow discharge slit 184 at the distal end of the section. Paint or other material is adapted to be fed under pressure into the chamber 182 surrounding the valve by means of an inlet passage 186 provided in the section 126. The valve 178 is extended longitudinally through the section 174 and from an end 187 thereof for manual displacement of the valve. The valve is normally held in closed position by means of a spring 188 surrounding the valve and abutting a shoulder 189 thereon and confined at its opposite end against a packing washer 191 mounted in the section 174. The compressed air for spraying the paint is fed through a longitudinal passage 192 and an air inlet fitting opening 193 is provided in a head portion 194 of the outer end of the valve. The provision of the air passage longitudinally through the needle valve is most effective for keeping the discharge passage 183 and the discharge slit 184 open and clean at all times. In machines heretofore used, considerable difficulty has been encountered with the paint or other material clotting in the spray nozzle after the paint flow has been turned off for some little time. In the present case, however, it will be clear that after the valve is closed, the air will continue to blow through the nozzle to clean out all of the paint in the discharge passage. Another important feature of the valve construction is the proximity of the valve to the discharge nozzle, which affords a substantially immediate stoppage of the paint flow upon closing of the valve. Heretofore, where the paint flow valve has been positioned at a considerable distance from the spray nozzle, difficulty has been encountered with dripping of paint from the spray nozzle after the valve has been closed. Preferably the longitudinal axis of the spray nozzle is tilted slightly rearwardly to confine the spray to within the brush enclosure and prevent the spraying of material out ahead of the brushes.

Actuation of the valve is arranged to be effected by means of a lever 196 pivoted to the longitudinal frame pieces 109 and 111 and which is provided with a forked end 197 straddling the head portion 194 of the valve and engaging the under side of a transverse pin 198 extending through such head portion. In this manner fulcruming of the lever 196 in a counter-clockwise direction, as illustrated in Figure 10, will cause a lifting and opening of the valve and on return of the lever, the valve will be returned to a closed position by means of the spring 188 aforementioned. As an important feature of the present invention, the valve is so connected that the same will be automatically opened when sprayer unit is lowered onto the highway and will be automatically closed when the spray unit is raised from the highway. This automatic operation of the valve is effected by operatively connecting the lever 196 to the means for raising and lowering the spray unit. As here shown, with reference to Figures 8 and 10, the lever 196 is connected by means of a link 199 to a second lever 201 pivoted at an end to the longitudinal frame members and pivoted at an opposite end to a link 202 which extends to the lower end 203 of a lever 204 extending into the driver's compartment. When the lever 204 is adjusted to a given position, the raising and lowering of the longitudinal frame 109 will cause a fulcruming of the lever 196 so as to close and open the valve respectively. At the same time, when the spray unit is lowered onto the road the material discharge may be controlled by operating the lever 204 to regulate the rate of discharge of the paint.

The paint may be fed from the container 51 to the nozzle inlet opening 186 by means of a flexible rubber hose 206 and preferably, a trap

207 for non-liquid particles in the paint is connected between the container and the hose.

The air pressure system for controlling the operation of the spray unit consists of the compressor 84 hereinabove noted, an air tank or reservoir 208, a series of air pressure gauges and control valves as indicated in the assembly shown in Figure 14, and an appropriate set of conduits connecting the several parts. The valve and gauge assembly is also indicated diagrammatically by the rectangular outline 210 shown in Figure 1 to illustrate the general position of the assembly on the machine. The air tank 208 is connected to the compressor by means of a conduit 209 as shown in Figure 1, and compressed air is discharged from the tank by conduit 211 which extends forwardly from the tank to the gauge and valve assembly shown in Figures 1 and 14 at the front of the driver's compartment. A main control valve 212 is connected in the air line 211 ahead of a T 213, from which a branch line 214 is taken for connection to the material container and a second branch line 216 is connected for supplying air to the spray nozzle. Connected in the line 214 is an air pressure gauge 217 for indicating the air reservoir pressure and a reduction regulating valve 218 is interposed in the line to supply a reduced regulated pressure to the tank 51 through conduit 219 which connects the regulating valve to the spray tank. Preferably a gauge 221 is connected to the conduit 219 for indicating the pressure in the material container. Conduit 216 is preferably similarly connected to a regulating valve 222 for reducing and regulating the pressure supplied to the spray nozzle. As here shown, conduit 223 is connected to the regulating valve 222 and provides a discharge passage therefor and is in turn connected to a manual regulating valve 224 for opening and closing the air flow to the spray nozzle. Connected to conduits 216 and 223 at opposite sides of the regulating valve 222 are gauges 226 and 227 for indicating the air reservoir pressure and the air pressure applied to the spray nozzle. A branch conduit 228 is connected between conduit 216 ahead of the regulating valve 222 and discharge conduit 229 from the valve 224 for short-circuiting the regulating valve 222 and a manual control valve 231 is connected in this branch circuit for operation as hereinafter set forth. Conduit 229 extends from a fitting 232 connecting conduit 228 with the discharge end of valve 224 to the air inlet passage 193 of the spray nozzle. Also connected to fitting 232 is a branch line 233 to which is connected a small open top container 234 for cleaning solvent, which is preferably run through the discharge conduit 229 and the spray valve at the end of spraying operation to clean out the discharge passages. A manual control valve 236 is provided in the line 233 for controlling the solvent flow.

The operation of the control valve, as will be clear from the above, is substantially as follows: Starting with control valves 212, 231, 224 and 236 in closed position the sprayer is placed in operation by opening valve 212 and valve 224 so as to supply air under pressure to the material container and also to the spray nozzle. These valves are opened to provide an appropriate pressure, as indicated by gauges 217, 221, 226 and 227 and from time to time the regulating valves 218 and 222 may be adjusted to maintain a desired pressure in the material container and in the discharge line leading to the spray nozzle. At the end of spraying operations the applying unit is raised off the road as hereinabove explained, to close the needle valve in the spray nozzle so as to shut off the flow of spray material. Valves 212 and 224 are then closed and a suitable cleaning solvent, such as gasoline, kerosene, turpentine, petroleum solvent, etc. is poured into the container 234 and valve 236 opened so as to allow this solvent to drain into the discharge line 229. Valve 236 is then closed and valves 212 and 231 opened so as to apply a high air pressure directly to conduit 229 for blowing the solvent through this conduit and through the spray passages of the spray head.

If desired, a plurality of applying units 83 may be used on the machine to apply a plurality of lines or stripes to a roadway. A single applying means has been illustrated in the drawings due to the more popular use of this type of machine and in view of simplicity, although it will be understood that the units may be multiplied as desired.

I claim:

1. A road striping machine comprising, a vehicle having rear wheels and steerable front wheels for supporting said vehicle on a road, a pilot wheel supported forwardly of said front wheels on the road, means carried by said vehicle for applying a striping material to the road and being positioned substantially immediately adjacent and between said rear wheels, and a driver's compartment provided on said vehicle in substantial alignment with said pilot wheel and said striping means.

2. A road striping machine comprising, a vehicle adapted for movement over a road to be striped, a spray head mounted on said vehicle for movement to and from the road and adapted for connection to a source of striping material for applying the latter to the road, means for moving said spray head vertically relative to the road, and a valve for controlling the flow of said material through said head and mounted directly at and carried by said head and linkage means connected to said means for automatic opening and closing of said valve upon lowering and raising of said head respectively.

3. A road striping machine comprising, a vehicle adapted for movement over a road to be striped, a spray nozzle mounted on said vehicle for movement to and from the road and adapted for connection to a source of material to be applied to the road in making a stripe thereon, a needle valve mounted in said nozzle and movable therein to open and closed positions, and interconnecting means for lowering and raising said nozzle relative to the road and automatically opening and closing said valve in the lowered and raised positions respectively of said nozzle.

4. A road striping machine comprising, a vehicle adapted for movement over a road to be striped, a spray nozzle mounted on said vehicle for movement to and from the road and adapted for connection to a source of material to be applied to the road in making a stripe thereon, a needle valve mounted in said nozzle and movable therein to open and closed positions, said needle valve having a longitudinal air passage therethrough adapted for connection to a source of air under pressure for spraying said material from said nozzle, and interconnecting means for lowering and raising said nozzle relative to the road and automatically opening and closing said valve in the lowered and raised positions respectively of said nozzle.

5. A road striping machine comprising, a vehicle adapted to be driven over a road to be striped and having a driver's compartment, a spray head mounted on said vehicle for movement to and from the road and adapted for connection to a source of material for spraying onto the road for forming a stripe thereon, means controlled from the driver's compartment for lowering and raising said spray head relative to the road, valve means for controlling the flow of material from said head and connected to said means for automatic opening and closing of said valve in the lowered and raised positions of said head respectively, and means controlled from said driver's compartment for providing an additional control of said valve for regulating the material discharge in the lowered position of said head.

6. A road striping machine comprising, a self-propelled elongated vehicle having rear wheels mounted on a transverse axis at right angles to the longitudinal axis of the vehicle and having steerable front wheels, means carried by said vehicle for applying a striping material to the road and positioned adjacent to said transverse axis and between said rear wheels, and a driver's compartment mounted substantially directly over said means and in longitudinal alignment therewith.

7. A road striping machine comprising, a self-propelled elongated vehicle having rear wheels mounted on a transverse axis at right angles to the longitudinal axis of the vehicle and having steerable front wheels, means carried by said vehicle for applying a striping material to the road and positioned adjacent to but forwardly of said transverse axis and between said rear wheels and adjacent the left of said rear wheels, and a driver's compartment mounted substantially directly over but forwardly of said means and in longitudinal alignment therewith.

WILLIAM S. HOLESWORTH.