This invention relates in general to a curb-forming machine and, more particularly, to a type thereof which has a ground engaging track for positively propelling the machine at a variable speed, wherein re-enforcing rods or stakes can be fed through the machine into the curb being formed thereby, and wherein the material from which the curb is being formed is positively advanced from within the hopper to the curb-forming mold.

Many efforts have been made in the past to meet the long standing need for a completely satisfactory machine capable of forming curbs by an extrusion process from any of the conventional paving materials, such as asphalt and concrete. In one prior art machine, the movement of the machine is effected by the reaction of the compacting force applied by a screw to the paving material as it is moved into the curb-forming mold or die. However, in this reaction type of machine and in certain other existing machines, care has to be taken over the consistency of the concrete or asphalt is essential to the satisfactory operation of the machine. More specifically, where the paving material is somewhat moist or oily, for example, an imperfect wall may be formed by any machine having a rate of movement which depends upon the rate of discharge of the paving material. This problem is further complicated by the fact that the rather substantial temperature changes which often occur between various times within the same working day may be sufficient to alter the consistency of the paving material beyond the proper working range.

In attempting to solve this problem, the applicant has discovered that the rate of forward movement of a curb-forming machine must be capable of adjustment completely independent of the force exerted by the screw to compensate for variations in the consistency of the curb-forming material.

It has also been found that some curbs require re-enforcing rods, which extend lengthwise within the curb, or stakes driven into the surface upon which the curb is formed. Existing machines are not, insofar as I am aware, adapted to meet this need.

Accordingly, a primary object of this invention has been the provision of a curb-forming machine having a ground engaging track for positively moving said machine at a selectively variable speed along the surface upon which the curb is being formed by said machine so that the compacting of the material from which the curb is being formed can be accurately controlled by an adjustment of the speed at which the machine is moved along the ground by the track, and wherein re-enforcing rods and/or stakes can be imbedded in the curb at the time that it is being formed by said machine without any interference with the operation of said machine.

A further object of this invention has been the provision of a curb-forming machine, as aforesaid, which can be used to form curbs from paving materials having wide ranges of consistency, such as either dry or relatively oily asphalt materials or both dry and moist concrete materials, without encountering problems and which will produce a completely satisfactory curb.

A further object of this invention has been the provision of a machine, as aforesaid, having means for continuously agitating the paving materials from the time they enter the material receiving hopper on the machine until they are compacted within the curb-forming mold, and wherein the operation of said machine is sufficiently automatic that it can be readily handled by a single workman who has received a minimum of very simple instructions.

A further object of this invention has been the provision of a curb-forming machine, as aforesaid, which is substantially fool-proof in operation, which is relatively small in size, which requires little maintenance during normal, completely satisfactory operation and which is very economical to operate.

Other objects and purposes of this invention will become apparent to persons familiar with this type of equipment upon reading the following descriptive material and examining the accompanying drawings, in which:

FIGURE 1 is a side elevational view of a curb-forming machine embodying the invention.

FIGURE 2 is a side elevational view of the opposite side of said curb-forming machine.

FIGURE 3 is a sectional view substantially as taken along the line III--III in FIGURE 1.

FIGURE 4 is a sectional view taken along the line IV--IV in FIGURE 3.

FIGURE 5 is a rear-end view of said machine.

FIGURE 6 is a front-end view of said machine.

FIGURE 7 is a sectional view taken along the line VII--VII in FIGURE 4.

FIGURE 8 is a sectional view similar to FIGURE 7 and showing a modified construction.

FIGURE 9 is a sectional view taken along the line IX--IX in FIGURE 8.

For convenience in description, the terms "upper," "lower," and words of similar import will have reference to the invention and parts thereof in their normal positions of operation, as appearing in FIGURES 1 and 2. The terms "front," "rear" and words of similar import will have reference to the right and left ends, respectively, of the machine appearing in FIGURES 1 and 2. The terms "inner," "outer" and derivatives thereof will have reference to the geometric center of said machine and parts thereof.

General Description

The objects and purposes of the invention, including those set forth above, have been met by providing an elongated frame supported at its front end by a pair of steerable, ground engaging wheels. The rear-end of said frame is supported during normal operation by a carriage including a caterpillar track. An elongated curb-forming mold or die is secured to and suspended beneath one side of the frame near the rear-end thereof. A cylindrical, screw casing is supported beneath said frame forwardly of, and in line with, said mold, and a screw is rotatably disposed within said casing. A materials hopper is supported upon the frame and communicates with an opening in the top of the casing. A paddle wheel is rotatably supported within the lower end of the hopper so that it extends through the opening and into the casing for engagement and rotation by the screw as said screw is rotated.

A prime mover is mounted upon the rearward end of the frame and is connected by drive means to the screw. The prime mover is also connected to the caterpillar track through suitable speed control means. Appropriate structure is provided beneath the casing and within the mold for supporting a re-enforcing rod so that it can be imbedded in the curbing as it is formed by the mold.

Detailed Construction

The curb-forming machine (FIGURES 1 and 2), which has been selected to illustrate a preferred embodiment of the invention, includes a frame (11) supported at the front end thereof by steerable wheels (12 and 13)
(FIGURE 6) and, during the normal curb-forming operation, at the rear-end thereof a carriage 14 including the curbsetter track 15. A single wheel 17 is mounted upon the frame 11 near the carriage 14 for raising the track 15 off of the ground when the machine 10 is being positioned from one position of use to another. A curb mold 18 and a screw casing 19 are suspended from and secured to the frame 11 in longitudinal lengthwise alignment along one side of the frame. A prime mover 22 and a paving materials hopper 23 are supported upon said frame 11. The prime mover 22 is connected to the screw 20 and the track 25 on the curbsetter carriage 14 by drive means including jack shaft 24 and the speed control device 26.

The frame 11 (FIGURE 5), which is substantially rectangular in shape, has a pair of substantially parallel side elements 27 and 28 which are interconnected at their opposite, corresponding ends by the end elements 29 and 30. A plurality of intermediate crossbars 33, identified as 33a, 33b, 33c, 33d and 33e, are secured at their opposite ends to, and extend substantially perpendicularly between, the side elements 27 and 28 at various positions lengthwise thereof. The side elements, and end elements and crossbars are preferably fabricated from tubular metal, such as steel, of substantially rectangular cross section.

The front wheel 12 (FIGURE 6) is rotatably supported upon and between the downward extending legs of a yoke 36 by means of a shaft 37. The bite 38 of said yoke is rigidly secured to the lower end of a post 39 which slidesably extends upwardly through vertically aligned openings in the corner of the frame 11 at the intersection of the side element 27 and end element 29. A substantially U-shaped bracket 42 is rigidly secured to said frame 11 above the wheel 12 so that the arms of said bracket are on opposite sides of the post 39, and the web 43 of said bracket is spaced upwardly from and is substantially parallel with the frame element 29. A nut 44 is secured upon the web 45 in axial alignment with the post 39, and a screw 46 is threadedly received through the nut 44 and an opening in the adjacent portion of the web 43. The screw 46 has a ball-shaped element 47 on its lower end which is snugly and rotatably receivable into an undercut socket 48 in the upper end of the post 39. A handle 49 is secured to the upper end of the screw 46 for rotating same whereby the post 39, hence the wheel 12, can be moved upwardly and downwardly with respect to frame 11. A steering tongue 50 is rigidly secured to the yoke 36 and extends frontwardly therefrom for engaging one end of a handle.

The wheel 13 (FIGURE 6) is mounted in substantially the same manner as the wheel 12 upon the frame 11. More specifically, the wheel 13 is rotatably supported by a shaft 37a upon a yoke 36a which is secured to the lower end of a post 39a extending through vertical openings in the corner of the frame 11 at the intersection of the side element 28 and front element 30. A screw 46a is supported upon a bracket 42a and connected to the upper end of the post 39a for effecting upward and downward movement of said post, hence the wheel 13, with respect to the frame 11. A tongue 52a is secured to and extends forwardly from the yoke 36a for pivotally engaging the lower end of an elongated handle 53.

Said tongue 52a is comprised of a pair of substantially parallel and horizontal arms 54a and 55a, which are interconnected on their upper and lower ends by the crossbars 57a and 58a, respectively. The handle 53 is pivotally supported by means of the pivot pin 59a upon and between the free ends of the arms 54a and 55a. The lower end of the handle 53 extends beyond the pivot pin 59a for engagement with the crossbar 58a to limit downward movement of the handle toward the ground.

The handle 53 can also be mounted upon the tongue 52 so that its lower end engages the crossbar 58 to limit its downward movement. A tie bar 62 is pivotally secured at its opposite ends to the crossbars 57 and 57c on the tongues 52 and 52c whereby pivotal movement of one of the wheels 12 and 13 around its post 39 or 39a will effect corresponding pivotal movement of the other one of said wheels.

The curbsetter carriage 14 (FIGURE 2) is comprised of an elongated, horizontal center plate 63 pivotally supported approximately midway between its ends upon a shaft 64 which extends through the downwardly extending legs of a yoke 66. Sprockets 67 and 68 are mounted upon the opposite ends of the center plate 63 for engaging and supporting the curbsetter track 15 in a substantially conventional manner. Rollers 72 are rotatably supported upon the center plate 63 at intervals between the sprockets 67 and 68 for engaging the inner surface of the lower reach 70 of the curbsetter track 15 and holding it downwardly away from said center plate 63 and below the lower edges of said sprockets. A driven sprocket 73, which is coaxially secured to the sprocket 68, is connected by a chain 74 to a drive sprocket 76 on the shaft 64.

The bight 77 of the yoke 66 (FIGURE 6) is rigidly secured to the lower end of a post 78 which is slidable and nonrotatably supported within the vertical bore 79 (FIGURE 4), which is rigidly secured to the crossbar 33b on the frame 11. Adjustment means including a screw 82 is provided for effecting upward and downward movement of the post 78, hence the curbsetter carriage 14, with respect to the frame 11 in a manner substantially similar to that discussed above with respect to the wheel 12.

The downwardly opening, channel-shaped mold 18 (FIGURE 3) is supported upon and below the frame 11 near its rear-end by the support plate 83 so that the lower, parallel edges of the side walls 84 and 85 of said mold 18 are substantially adjacent the surface engaged by the lower reach 70 of the curbsetter track 15 and upon which a curb is to be formed. The mold 18 which is open at the front and rear-ends thereof extends lengthwise of the frame 11 adjacent the curbsetter carriage 14. The screw casing 19 (FIGURE 4) is preferably cylindrical and is suspended from the crossbars 33c and 33d of the frame 11 at a substantial distance above the surface engaged by the curbsetter track 15. The rear, open end of the casing 19 is connected to the front, open end of the mold 19 by a tubular connecting member 87 which slopes downwardly and within the vertical bore 79 of the rearward end of the connecting member 87 may be varied to correspond to the shape of the mold which is used in a particular instance.

The downwardly sloping bottom wall 88 (FIGURE 7) of the connecting member 87 has a pair of spaced hinge flaps 90 at its upper end adjacent the casing 19. Said flaps 90 are supported by a hinge rod 89 upon downwardly extending flanges 92 at the rearward end of the casing 19. The hinge rod 89 also rotatably supports a roller 93 between the flaps 90 and preferably directly below the center line of the casing 19 for reasons appearing hereinafter.

The screw 20 has a coaxial shaft which rotatably extends through the front end wall 96 on the casing 19. A bearing support 97 is secured to the cross-bar 33b and has bearings 98 mounted thereon for engaging and supporting the screw shaft 94.

The casing 19 (FIGURE 4) has through its upper side a pair of communicating with the chamber in which the screw 20 is disposed. The hopper 22 is supported upon the frame 11 directly above the casing 19 so that the lower edges of its downwardly converging walls form a throat 102 communicating with the opening 99 in the casing 19.

A paddle wheel 103 (FIGURE 4) is mounted upon a shaft 104 which extends through the throat 102 trans-
versely of the screw 29 for rotation around a substantially horizontal axis. Said shaft 104 is rotatably supported upon and between bearings 106 (FIGURE 2) and 107 (FIGURE 1) which are secured to and supported upon the portions of the frame 11 adjacent the side sheets 108 and back wall of the hopper 23. The shaft 104 extends beyond the bearing 107 where it is engaged by a ratchet or one way clutch 112, which is connected to the frame 11 to prevent counterclockwise rotation of the paddle wheel 103, as appearing in FIGURE 4.

The paddle wheel 103 has a hub 113 (FIGURE 4) and a plurality of paddles 114 radially and laterally interlocking with the blades 114. Each blade 114 has a pin 116 extending from the tip thereof upon which a roller 117 is rotatably supported. The blades 114 are of such length and the wheel 103 is so located that the rollers 117 are sequentially engaged by the flights 118 of the screw 20 for effecting rotation of the paddle wheel 103 in response to rotation of the screw 20. The peripheral spacing between the rollers 117 and the pitch of the screw 20 are matched so that the engagement between one blade and one flight is terminated just before the next blade is engaged by another flight on the screw. This positive driving of the paddle wheel by the screw prevents bridging of the paving material at the end of the hopper and insures a continuous movement of such material into the casing 19.

A guide member 121 (FIGURE 4) is secured to the bottom of the casing 19 near the front end thereof and supports a roller 122 for rotation around a substantially horizontal axis transverse of said casing 19. The lower surface of said roller 122 is on about the same level with the upper surface of the roller 93 on the hinge 89. A thin cross rod 123 is secured at its opposite end to, and extends between, the side walls of the mold 18, so that its upper surface is at about the same level as the upper surface of the roller 93.

The rollers 93 and 122 (FIGURE 4) are radially aligned for engagement with an elongated re-enforcing rod 125 which extends through an appropriate opening in the flange 92 and rests upon the cross rod 123. In this position, the re-enforcing rod is preferably horizontal and extends substantially along the central axis of the mold 18.

The prime mover 23 (FIGURES 1 and 3) may be an internal combustion engine supported upon the rear-end of the frame 11 and having an output shaft 127. The jack shaft 24 extends lengthwise of the frame 11 and is supported by bearings 128 and 129 upon the crossbars 33 and 35 (FIGURE 3) upon said frame 11. The output shaft 127 is drivingly connected to the jack shaft 24 by the sprockets 132 and 133 and the chain 134. A clutch 136 on the prime mover 22 is used to effect engagement between the output shaft 127 and the crank shaft, not shown, of said prime mover.

The jack shaft 24 (FIGURES 1 and 3) is drivingly connected to the screw shaft 94 by sprockets 137 and 138 and the chain 139. Accordingly, the screw 20 is rotated whenever the output shaft 127 is engaged by the clutch 136, and the paddle wheel 103 is rotated in response to the rotation of the screw.

A mounting plate 142 (FIGURE 2) is supported upon the side element 27 and the crossbars 33 and 35. A gear box 143, which is supported upon the mounting plate 142, has a horizontal output shaft 144 extending toward the hopper 23. A pivot arm 146 is pivotally supported near its upper end and extends downwardly from the side element 27 beneath the mounting plate 142 for pivotally supporting a substantially horizontal axis parallel with the axis of said output shaft 144.

A pair of sprockets 147 and 148 (FIGURE 3) are supported upon the output shaft 144 and upon the lower end of the pivot arm 146, respectively, so that said sprockets are radially aligned with a sprocket 153 on the shaft 64 of the caterpillar carriage 14. An endless chain 152 extends around and drivingly engages the sprockets 147, 148 and 153. An elongated spiral spring 156 is connected near one end to the lower end of the pivot arm 146, and near the other end thereof to the frame 11 near the front end thereof. Said spring 156 is under tension between the frame 11 and the pivot arm 146 so that the chain 152 is held under continuous tension when the carriage 14 is raised or lowered.

The speed control device 26 (FIGURE 3) includes the gear box 143 which has an input shaft 159 rotatable around a horizontal axis parallel with the axis of the jack shaft 24. A variable pitch pulley 164 is mounted upon a shaft 159 and coaxially connected to an adjustment screw 161 which is threadedly supported upon the upper end of a post 163, which is secured upon the mounting plate 142. By turning the screw 161 in the appropriate direction, the pitch of the pulley 165 can be varied through a wide range and can even be adjusted so that it does not drive the belt 166 at all. The variable pitch pulley 158 is connected by the belt 166 to a fixed pitch pulley 164 on the jack shaft 24. Accordingly, rotation of the jack shaft 24 operates through the belt 166, the gear box 143, and the chain 152 to operate the caterpillar track 15 and thereby move the machine 10 along its supporting surface. The speed of such movement may be varied and the machine can be actually stopped by adjusting the pitch of the driving pulley 158, as stated above.

The auxiliary wheel 17 (FIGURE 4) is rotatably supported upon the axle 169 between the downwardly extending legs of the yoke 168 (FIGURE 5) for rotation around a horizontal axis. The bight 171 of the yoke 168 is rigidly secured to the lower end of the post 172 which slidably, but nonrotatably, extends through a post guide 173. The post guide 173 is mounted upon the rearward end of a support arm 174 which is secured to the rear-end element 30 and the crossbar 33 approximately midway between the ends thereof. A bracket 176, which may be substantially identical in structure and function to the bracket 42 associated with the front wheel 13, is mounted upon the arm 174 of the post guide 173 for threadedly engaging a vertical screw 177 which is rotatably connected to the upper end of the post 172 for effecting upward and downward movement thereof with respect to the post guide 173. By manually engaging the handle 178 and thereby rotating the screw 177, the auxiliary wheel 17 can be lowered so that it raises the caterpillar track 15 away from the supporting surface and thereby supports the rear-end of the frame 11 for quick and easy movement of the machine 10 around and along said surface.

A guide rod 179 (FIGURE 6) is supported in an upper position upon the front element 29 of the frame 11 by a bracket 180. The rod 179, which is vertically adjustable, is aligned with the center line of the mold 18. Thus, the center line of the intended curb location is marked upon the ground and the operator steers the machine so that the rod 179 follows the line.

Operation

The machine 10, described above, is normally pulled by its handle 53 into the desired, operating position while it is supported primarily upon the front wheels 12 and 13 and the rear wheel 17. Thereafter, by appropriate rotation of the screw 177, the rear wheel 17 is raised so that the rear-end of the machine is supported upon the ground or other surface entirely by the caterpillar carriage 14. By appropriate rotation of the screw 82, the lower reach 70 of the caterpillar track 15 is adjusted so that the side walls 84 and 85 of the mold 18 are spaced slightly above the surface upon which they will form the curb. By appropriate rotation of the screw 24, the speed control device 26, the pulley 158 may be adjusted approximately to produce the speed of movement of the machine which will be best suited for the antici-
puted consistency of the paving materials to be used and the degree of compaction desired. The material, such as concrete or asphalt, is now placed in the hopper 23.

Where it is desired, a re-enforcing rod 125 is inserted along the rollers 93 and 122, through the flange 92 and over the cross rod 123, so that it extends through the connecting member 87 and into the mold 18.

The engine 22 is started and the clutch 136 is operated whereby the jack shaft 24 and the screw 20 are rotated, and the caterpillar track 15 is caused to move the machine 10 along the ground. The paving materials disposed within the hopper 23 are continually agitated and urged downwardly through the throat 102 by the blades 114 on the paddle wheel 103 into the casing 19 in response to said rotation of the screw 20. More specifically, one after the other of the rollers on the blades 114 are engaged by the screw 20 and moved thereby so that the paddle wheel is rotated to move the paving materials from the hopper into the casing 19 and also to oppose the arching or upward movement of the paving materials through the throat 102 under the compacting force produced by the screw 20.

By appropriate adjustment of the screw 161 on the speed control device 26, while the paddle wheel 103 and screw 20 are moving the paving materials through the casing 19 and the connecting member 87 into the mold 18, the forward movement of the machine 10 by the caterpillar track 15 can be stopped. As soon as it becomes apparent that the compacting of the paving materials within the mold 18 is adequate, the speed control device 26 can then be adjusted so that the machine is moved along the supporting surface at the desired speed, such speed being dependent largely upon the consistency of the paving material and the amount of compacting of the material which is desired or required within the mold 18 to produce a satisfactory curb. In one embodiment of the invention, the control device 26 is capable of varying the speed of the machine from zero to ten feet per minute.

The above-discussed operation of the machine 10, will cause the paving material to be extruded from the casing 19 by the screw 20 and compacted within the mold 18 to form a self-supporting curb in which the rod 125 is embedded. As the front end of one re-enforcing rod 125 disappears through the flange 92 at the leading end of the connecting member 87, another re-enforcing rod 125 is placed in position with respect to the rollers 93 and 122.

If the consistency of the paving material changes during the operational period, the speed of movement of the machine 10 may be varied by adjustment of the control device 26 so that such movement is coordinated closely with the change in the material, in order to maintain the desired characteristics in the curb.

Due to the large area of engagement between the lower reach 70 of the caterpillar track 15 and the supporting surface, high compacting forces may be applied to the paving materials where desired or needed without risking the occurrence of a skidding movement of the lower reach 70 along the ground. This condition may occur where the paving materials are stiff, as in cold weather, or are excessively dry. In present wheel supported machines, this high compacting force may move the machine too fast to produce a satisfactory curb so that such movement must be physically resisted by the machine operator. Normally, a careful balance between the compacting force and the speed of forward movement of the machine 10 will be sought in order to produce a satisfactory, fully compacted curb at the fastest possible rate of production. However, it is not the applicant's intention to use the reaction from the compacting force to effect the forward movement of the machine. Such forward movement is effected entirely by the positive drive through the caterpillar carriage 14.

Alternate Construction

Under some circumstances it may be desirable to use the curb-forming machine 10 where re-enforcing stakes 181 (FIGURES 8 and 9) have been driven into the surface 182 of the ground upon which the curb is being formed. In such case, the one-piece, bottom wall 83 (FIGURE 7) of the connecting member 87 is replaced by a split wall 183, which is comprised of two, spaced wall elements 184 and 186. The inner, opposing edges of the wall elements 184 and 186 are provided with resiliently flexible, co-planar strips 187 and 188, respectively, which extend toward each other and substantially close the space between the wall elements 184 and 186. Thus, as the machine 10 forms its curb upon the surface 182 from which the stakes 181 project, said stakes part the strips 187 and 188 as they move between the wall elements 184 and 186 into and through the mold 18. Except when said strips 187 and 188 are parted by the re-enforcing stakes 181, they will remain in position to oppose the movement of the paving material between the wall elements 184 and 186. However, the space of material between said wall elements is relatively immaterial because it is deposited upon the ground directly in line with the movement of the mold 18 as it forms a curb.

Although particular preferred embodiments of the invention have been disclosed above in detail, it will be understood that any variations or modifications of such disclosure, which come within the scope of the appended claims, are fully contemplated.

What is claimed is:

1. A curb-forming machine, comprising:
   - an elongated frame;
   - prime mover means supported upon said frame;
   - a single ground engaging track supporting one end of said frame;
   - a curb-shaping device secured to and supported from said frame near said one end thereof;
   - a substantially cylindrical casing secured to said frame in communication with said shaping device;
   - a hopper supported upon said frame and communicating with said casing;
   - a screw in said casing adjacent said hopper;
   - first drive means connected to said prime mover means for rotating said screw within said casing, whereby materials in said casing are advanced into and through said shaping device;
   - discharge means supported in said hopper for rotational movement in response to rotation of said screw for urging material from said hopper into said casing;
   - second drive means connected to said first drive means for operatively connecting said screw to said prime mover means whereby movement of said frame along said ground is positively effected, said second drive means including a speed control device for changing the speed of movement of the track without changing the rotational speed of the screw.

2. A curb-forming machine, comprising:
   - an elongated frame;
   - prime mover means supported upon said frame;
   - a ground engaging track supporting one end of said frame;
   - a curb-shaping device secured to and supported from said frame near said one end thereof;
   - a substantially cylindrical casing secured to and extending lengthwise of said frame in lengthwise alignment with said shaping device, said casing having an opening in the upper side thereof between the ends thereof;
   - a screw in said casing adjacent said opening;
   - a hopper supported upon said frame and communicating with said casing through said upward opening therein;
   - first drive means connected to said prime mover means for rotating said screw within said casing, whereby
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materials in said casing are advanced into and through said shaping device;
second drive means connecting said track to said first drive means whereby movement of said frame along said ground is positively effected, said second drive means including a speed control device for changing the speed of movement of the track without changing the rotational speed of the screw, and
discharge means in said hopper movable in response to rotation of said screw for urging material from said hopper into said casing through said upper opening therein, said discharge means including a shaft rotatably supported within said hood and near to said screw, a paddle wheel mounted upon said shaft for rotation therewith, said wheel having radially extending blades, and roller means on the peripheral ends of said blades engageable by the threads of said screw for rotating said wheel in response to rotation of said screw.

3. A curb-forming machine, comprising:
an elongated frame;
wheeled means supporting the front end of said frame;
a single caterpillar tracking supporting the rear end of said frame;
power means mounted upon said frame;
a curb-forming mold secured to said frame near said rear end thereof;
an elongated, cylindrical casing secured to, and extending lengthwise of, said frame in alignment with said mold, said casing being offset upwardly of said mold and having an opening in its upper side;
a substantially tubular connecting member extending between the adjacent ends of said mold and said casing, said connecting member having a bottom wall comprised of two, spaced plates hingedly supported at their forward ends and near said casing for movement around a substantially horizontal axis into and out of substantially coplanar positions sloping downwardly from said casing;
screw means rotatably supported within said casing and first drive means connecting said screw means to said power means for effecting said rotation;
second drive means connecting said first drive means to said caterpillar track, said second drive means including a speed control device whereby the speed of movement of said track can be varied in relatively small amounts over a wide range of speeds without varying the rotational speed of said screw means; and
a hopper supported upon said frame and communicating with the opening on the upper side of said casing.

4. The structure of claim 3 including guide means supported upon the said casing and within said connecting member above the bottom wall thereof for supporting a rod extending through said mold substantially along the central axis thereof.

5. A curb-forming machine, comprising:
an elongated frame;
ground engaging means supporting said frame for movement along the ground;
power means mounted upon said frame;
a curb-forming mold secured to said frame and spaced from the front end thereof;