J. N. HELTZEL.

CURB AND GUTTER FORM.

APPLICATION FILED JULY 20, 1911.

1,037,907. Patented Sept. 10, 1912.

Fig. 1.

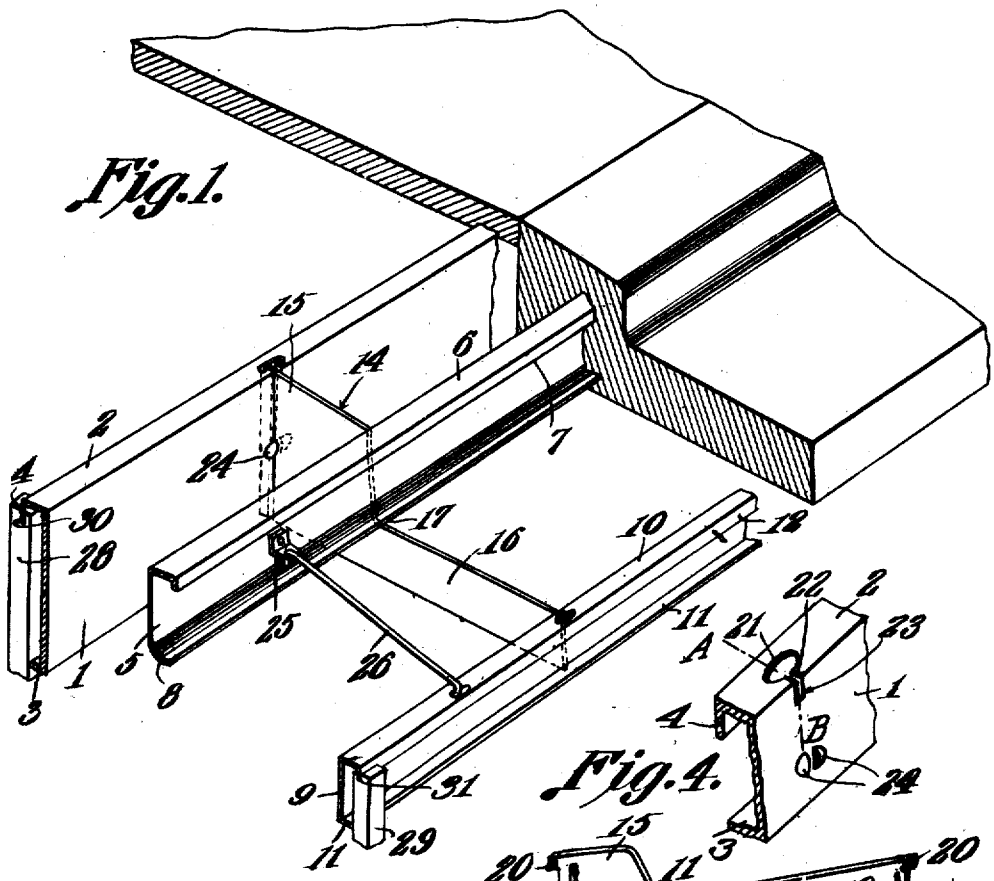


Fig. 4.

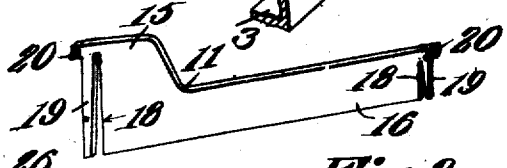


Fig. 3.

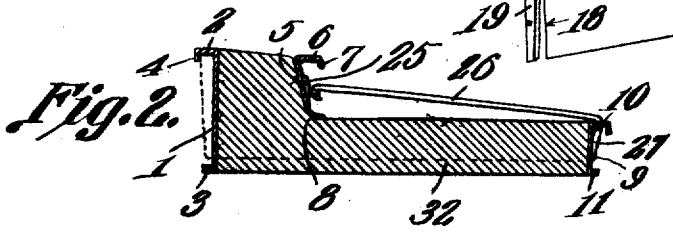
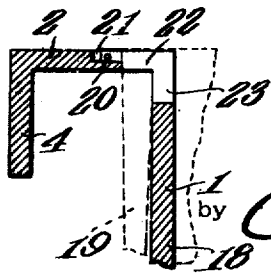


Fig. 2.

Fig. 5.



Witnesses

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CURB AND GUTTER FORM.

1,037,907. Specification of Letters Patent. Patented Sept. 10, 1912.

Application filed July 20, 1911. Serial No. 639,617.

To all whom it may concern:

Be it known that I, JOHN N. HELTZEL, a citizen of the United States, residing at Streator, in the county of Lasalle and State of Illinois, have invented a new and useful Curb and Gutter Form, of which the following is a specification.

The device forming the subject matter of this application, is a molding structure, adapted to be employed in the formation of curbs and the like.

The invention aims to provide a molding structure which may be employed without preparing and grading the sub-structure or foundation, upon which the molding structure is adapted to rest.

A further object of the invention is to provide a novel means for assembling the division plate with the front and back plates; to provide novel means for removing the division plates; and to provide novel means for assembling the intermediate plate with the front plate.

With the foregoing 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 invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings,—Figure 1 shows the invention in perspective; Fig. 2 is a transverse section of a piece of curbing, showing the mold constituting the subject matter of the present invention, in place in the curbing; Fig. 3 is a perspective of one of the division plates; Fig. 4 is a perspective showing a portion of one of the back plates, the view depicting the means whereby the division plate is assembled with the back plate; and Fig. 5 is a fragmental section on the line A—B of Fig. 4.

In carrying out the invention there is provided a back plate 1, having a rectangularly disposed upper flange 2, a parallel bottom flange 3, and a lip 4, depending from the upper flange 2, substantially parallel to the back plate proper 1. The invention further includes an intermediate plate denoted by the numeral 5, the same having an upper flange 6 outstanding therefrom, the intermediate plate being provided with a depending lip 7, ordinarily substantially parallel to the plate proper 5. The lower edge of the plate 5 is curved or otherwise shaped, as shown at 8, to fashion the desired angle in the curbing.

The front plate is denoted by the numeral 9, and is provided with an outstanding upper flange 10, with a parallel lower flange 11, and with a lip 12, depending from the flange 10. The flanges 2 and 10, are reinforced respectively, by the lips 4 and 12. The invention further includes a division plate, denoted generally by the numeral 14 in Fig. 1. The division plate 14 embraces an upright body portion 15, and an outstanding arm 16, defining in the upper edge of the division plate, an angle 17, in which the intermediate plate 5 fits, as clearly shown in Fig. 1.

In order to assemble the division plate 15, removably, with the back plate 1 and with the front plate 9, the division plate 14 is upwardly notched, in its lower edge, adjacent both ends, as shown at 18, to define depending fingers 19. Through the division plate 14, adjacent its upper corners, pins 20 are inserted, or lateral projections are formed upon the plates 14, at the places indicated by the pins 20, in any other desired manner.

The back plate 1 and the front plate 9 have openings in their upper edges, adapted to receive the fingers 19. In Fig. 4, a fragmental perspective of the back plate 1 is shown and a description of these openings will be confined to the back plate, it being understood that they apply with equal propriety to the front plate 9.

In the flange 2 of the back plate 1 there is fashioned a curvilinear recess 21. This curvilinear recess 21 extends but part way through the flange 2, as Fig. 6 will render evident. The recess 21 communicates with a narrowed slot 22, extended through the flange 2, and carried downwardly into and through the body portion of the plate 1, as shown at 23. The fingers 19 of the division plate 14 are inserted into the slots 22 in the plates 1 and 9, the fingers 19 engaging back of the plates. The pins or other projections 20 may rest in the recesses 21. The division plate 14 will thus be upheld, but in order to prevent its lower edge from swinging about, bosses 24 are stamped, or formed otherwise, the plates 1 and 9, below the portions 23 of

the slots in the plates 1 and 9. Between the bosses 24, the division plate 14 is, obviously, adapted to fit.

To the forward face of the intermediate plate 5, angle brackets 25 are secured. To these angle brackets 25, the rear ends of connecting bars 26 are pivoted, the bars having at their forward ends, depending fingers 27, adapted to register in the slots 22 of the front plate 9, and to engage with the front face of the front plate, the intermediate plate 5 being thus assembled with the front plate 9.

In practical operation, the stakes 28 and 29 are driven into the earth, to grade, and to line, the stakes 28 and 29 being notched, in their upper edges, as shown at 30, and at 31. The flange 2 of the back plate 1 rests upon the tops of the stakes 28, and the depending lip 4 registers in the notches 30, the lower flanges 3 resting against the forward faces of the stakes 28. It is to be noted that the flange 2 is considerably wider than the flange 3, and thus the stakes 28 may be driven vertically into the earth, and when the back plate 1 is assembled with the stakes 28, the back plate will stand in vertical position. Similarly, the flanges 10 of the front plates 9 rest upon the tops of the stakes 29, the depending lips 12 registering in the notches 31, and the lower flanges 11 bearing against the rear faces of the stakes 29. The flange 10 is wider than the flange 11, for the purpose hereinbefore set forth. The division plates are then mounted in place, in the plates 1 and 9, in the manner hereinbefore set forth, and cinders or the like, forming a sub-structure, are placed, together with the concrete, and tamped, the intermediate plate 5 being connected with the front plate 9 in the manner hereinbefore described. It is to be noted, referring particularly to Fig. 2, and noting the dotted line 32 which represents the lower edge of the division plate 14, that the lower edge of the division plate is spaced slightly above the lower edges of the plates 1 and 9. Thus, the concrete will be permitted to amalgamate, below the division plate 14, it, of course, being understood that the division plates are removed before the concrete has taken a final set.

It frequently happens that the stakes 28 and 29 heave in the ground, and carry with them, the back plate 1, the front plate 9, the division plate 14 and the intermediate plate 5. If the molded structure consists of a series of separated blocks, these blocks will be moved out of alinement, more or less, by the heaving of the stakes. In the present instance, the molded structure will not be thus distorted, for the reason that the concrete will coalesce below the lower edges of the division plate 14, thereby causing the molded structure to be fashioned in a continuous length, the molded structure being of sufficient weight so that it cannot be moved by a heaving of the stakes; as would take place if the molded structure consisted of a series of relatively small, individually formed, separated blocks.

It will be seen readily that the plates 1, 5 and 9 are so positioned that a straight edge may be run along their flanges, to strike off the finished material.

When it is desired to remove the division plates 14, a hook (not shown) may be inserted into the seats or openings 21, to engage with the pins 20, the lifting of the division plates 14 being thus accomplished without difficulty.

Having thus described the invention, what is claimed is:—

1. A device of the class described comprising a back plate; a front plate; a division plate terminally connected, removably, with the front plate and the back plate, the division plate consisting of an arm, and a body upstanding from the arm, adjacent the back plate; an intermediate plate resting upon the upper edge of the division plate and abutting against the body portion of the division plate; and means for removably securing the intermediate plate to the front plate.

2. A device of the class described comprising a plate having along its upper and lower edges, angularly disposed flanges, one of said flanges being provided with a depending lip; a stake having a notch in its upper edge, adapted to receive the lip, the other flange being adapted to rest against the outer face of the stake.

3. A device of the class described comprising a plate having along its upper and lower edges, angularly disposed flanges, the upper of said flanges being wider than the lower flange, and being provided with a depending lip; a stake having a notch in its upper edge, adapted to receive the lip, the lower flange being adapted to rest against the outer face of the stake; the difference in the widths of the upper and lower flanges permitting the stake to be vertically driven, and likewise permitting the plate to stand vertically, when assembled with the stake.

4. A device of the class described comprising a plate provided along its upper edge with an angularly disposed flange having a recess therein, the recess being communicating with a slot extended transversely of the flange, and through the flange, said slot being carried downwardly into the body of the plate, and extended through the plate; the division plate having a finger adapted to register in the reduced slot; there being a projection upon the division plate adapted to enter the recess; and spaced lugs upon the first named plate, between which lugs the division plate is adapted to register.

5. A device of the class described com-

prising a back plate; a front plate of less height than the back plate; a transverse division plate terminally connected, removably, with the front plate and with the back plate, the division plate consisting of a body, upstanding adjacent the back plate, and an arm projecting forwardly from the body, toward the front plate; an intermediate plate resting upon the upper edge of the division plate and abutting against the edge of the body of the division plate; a bar pivoted adjacent one end to the intermediate plate, and having at its forward end, a depending finger adapted to register in an opening in the upper edge of the front plate.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN N. HELTZEL.

Witnesses:
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O. T. LOURY.