E. B. HIATT.

MOLD FOR MAKING SEWER INLETS.

APPLICATION FILED AUG. 22, 1912.

1,090,211.

Patented Mar. 17, 1914.

Fig. 1.

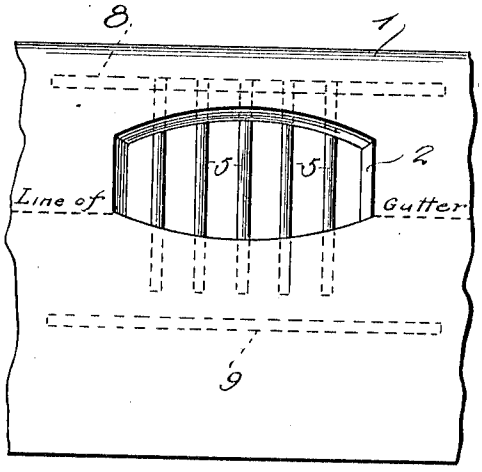


Fig. 2.

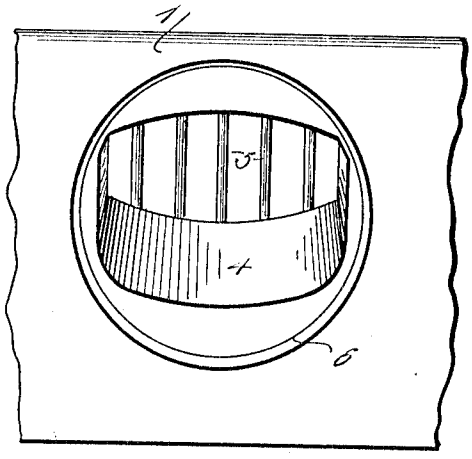


Fig. 3.

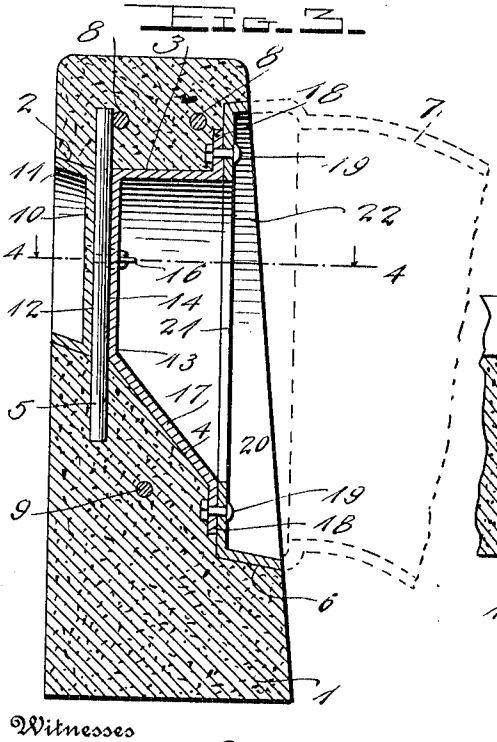
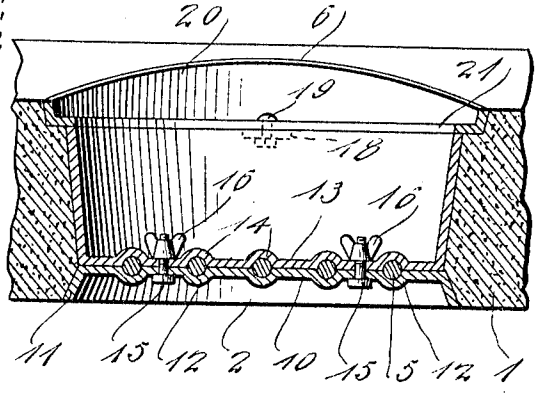


Fig. 4.



Witnesses

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MOLD FOR MAKING SEWER-INLETS.

1,090,211. Specification of Letters Patent. Patented Mar. 17, 1914.

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To all whom it may concern:

Be it known that I, ERNEST B. HIATT, a citizen of the United States, residing at Truro, in the county of Madison and State of Iowa, have invented certain new and useful Improvements in Molds for Making Sewer-Inlets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in concrete molds and more particularly those for making sewer inlets for concrete curbs.

One object of this invention is to furnish a mold of this character for sewer or other inlets which may have a grating in the form of bars having their opposite ends embedded in the material through which the inlet is formed.

With the above object in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a front or outer side view of a section of curbing, showing the inlet formed therein; Fig. 2 is a rear or inner side view of the same; Fig. 3 is an enlarged vertical cross sectional view through the curb, showing the manner in which the inlet is formed and the molds for forming the same; and Fig. 4 is a horizontal sectional view of the curb, taken on the line 4—4 of Fig. 3.

The sewer inlet may be formed at the desired position in a continuous curb, while the same is being constructed or the inlet may be formed in a short section of the curb, and said section placed in position in the main curb at the desired point. In the present instance, the inlet is shown as being formed in a continuous curb 1.

The inlet consists of an outer portion or mouth 2, the top and side walls of which incline slightly toward the center of the opening, while the lower wall inclines or slopes downwardly to a slight extent, as shown. The inner or discharge end 3 of the inlet has its side walls flared slightly and its lower wall inclined downward to a considerable angle, as shown at 4. The upper wall of the discharge end of the opening is preferably straight.

Across the inlet opening between the outer or mouth portion thereof and the discharge end are vertically-disposed grate bars 5, which are spaced at suitable distances and have their upper and lower ends embedded in the material above and below the opening, as shown. In the inner side of the curb and surrounding the inner or discharge end of the opening is a recess 6, which may be of any suitable shape to receive the upper end of a conductor 7 leading to the main sewer or place of disposal. At suitable positions in the curb above the inlet opening are embedded horizontal, longitudinally-disposed reinforcing bars 8, one of which is preferably disposed immediately in rear of and in engagement with the upper ends of the grate bars 5. In the lower portion of the curb below the inlet opening is also embedded a horizontal reinforcing bar 9. The reinforcing bars 8 and 9 serve to strengthen and protect the curb from being crushed or broken at the inlet opening therein by vehicles or other objects backing against or striking the curb.

The inlet is formed by means of a core or mold, comprising an outer member 10 in the form of a plate shaped to correspond with the shape desired for the mouth or outer end of the inlet opening, said plate having on its edges outwardly-projecting flanges 11, the top and ends of which are flared outwardly while the bottom flange is inclined upwardly to a slight extent, said flared and inclined flanges of the plate forming the flared and inclined walls of the mouth or outer end of the inlet opening as hereinbefore described. The plate 10 has formed therein a series of vertically-disposed grooves or channels 12.

The inner member of the core or mold comprises a plate 13, which corresponds in shape to the plate 10 of the outer member of the mold. In the plate 13 are formed a series of vertical grooves or channels 14, which also engage the grate bars 5 and together with the grooves 12 in the plate 10 firmly grip and hold the grate bars in position while the curb is being formed around the same. The outer and inner members of the mold are securely fastened in position by means of short bolts 15 having winged clamping nuts 16, which when screwed up on the bolts firmly clamp the members of the mold. The upper flange of the inner mold is straight from front to rear, while the side flanges flare outwardly to a slight

extent. The lower flange 17 of the inner member of the mold inclines downwardly at a suitable angle. By forming the flanges of the inner member of the mold as herein shown and described, a similar shape or form is given to the rear portion of the inlet opening of the curb. It will also be noted that the upper and lower flanges of both the inner and outer members of the mold are curved transversely to a slight extent to form a curved bottom and arched-shaped top for the inlet.

On the outer sides of the flanges of the inner member are formed apertured lugs 18, with which are engaged bolts 19 for fastening a recess forming member 20 to the rear or inner end of the mold. The member 20 comprises a ring or plate having an opening 21 corresponding in shape to the opening in the inner member of the mold and has on its outer edge a rearwardly projecting flange 22 which gradually increases in width from the top to the bottom to correspond with the inclination of the rear side of the curb, as clearly shown in Fig. 3 of the drawings. The member 20 may be of any suitable shape for forming the recess 6 in the inner side of the curb to receive the end of the conductor 7, said shape of the plate and recess formed thereby corresponding to the shape of the end of the pipe or conductor 7 to be engaged therewith. It is proposed to have several of the ring-shaped members 20 for use with each pair of the main or inlet forming members so that that ring may be selected and attached to the inner member by the bolts 19 which will give a shape to the recess at the inner end of the inlet that will correspond to the inlet end of the conductor 7—thereby leaving the operator free to shape this recess to fit the conductor employed. If the device were used for forming the openings through curbs throughout a city or town, it would of course be desirable that the inlet ends of said openings as seen in Fig. 1 should be uniform, and probably the other ends would also be uniform although out of sight, but it is quite possible that these inlets would communicate with conductors 7 of different sizes and shapes and therefore the recesses 6 would have to be molded accordingly.

By constructing the mold or core for the inlet as herein shown and described, it will be seen that the members of the mold may be readily assembled and placed in position to form the inlet and may be readily separated or disassembled after the material of which the curb is formed has set.

While the invention has been herein shown and particularly described as a sewer inlet for concrete curbs it is obvious that the same may be employed as an inlet for any purpose inn brick, stone or any other kind of walls, floors, or roofs, or in any other place where an opening is required, such for instance as a ventilating opening, or an opening through which refuse, fluids of all kinds, light, gas, grain, ore or any other material may be conducted. It will also be obvious that the grate bars may be arranged at any desired angle with their ends embedded in the edges of the opening or if desired the grate bars may be omitted.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as claimed.

Having thus described my invention, what I claim is:

In a mold for making a sewer inlet, which inlet has upright bars across it, the combination with inner and outer members each consisting of a flat plate having upright grooves adapted to register with those in the other plate to receive said bars, and marginal flanges around the plate formed to give shape to the wall of said opening, the flange of the inner member being inclined downward at the bottom away from the outer member and this flange having radial lugs at several points around its inner edge, and bolts detachably connecting said plates; of a third member comprising a ring-shaped body whose opening is of the size and shape of that of the inner member at the inner end of its flange, the body of said third member lying against said lugs and itself having a marginal flange which is narrow at the top and grows wider to its bottom, and means for connecting said body with the lugs, for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ERNEST B. HIATT.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."