April 2, 1946. J. B. FRANCIS 2,397,655

CURB OUTLET

Filed Nov. 30, 1943

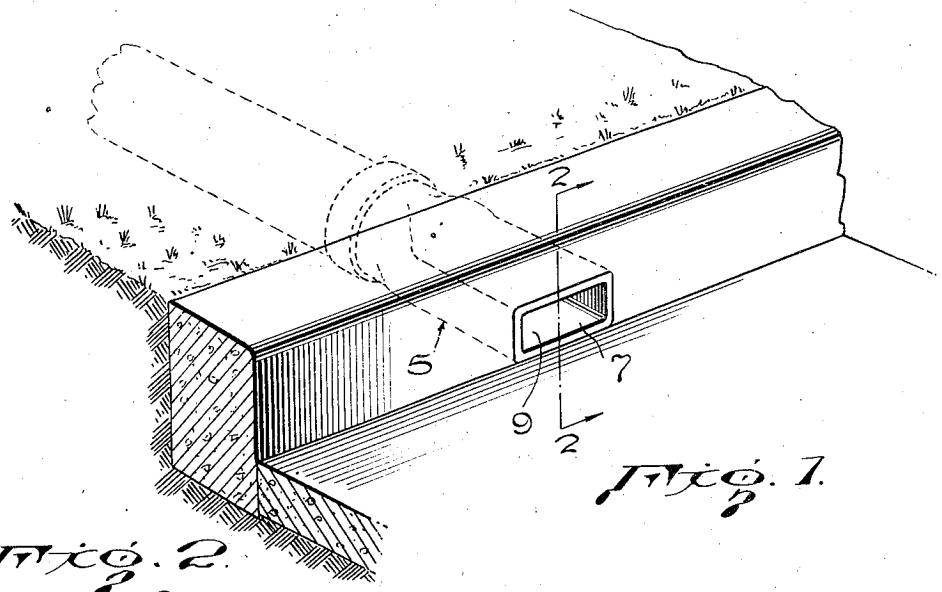
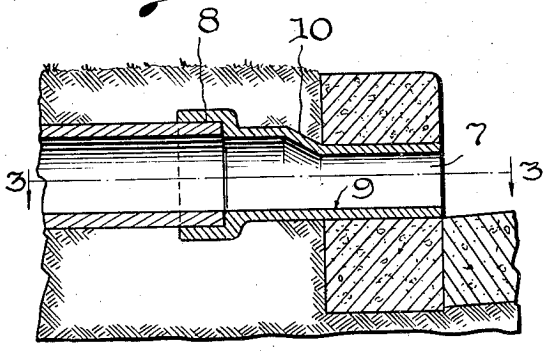


FIG. 1.

FIG. 2.



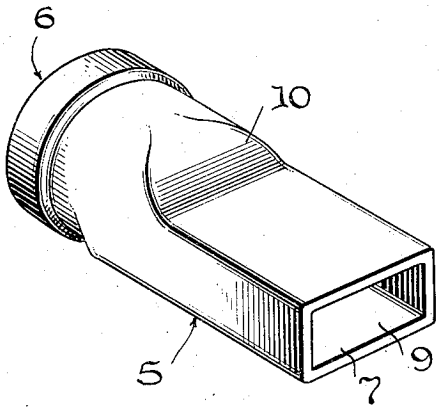


FIG. 4.

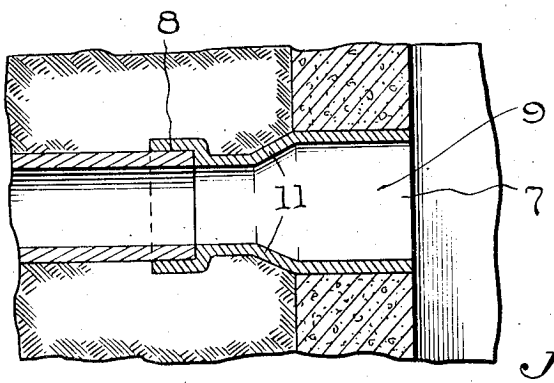


FIG. 3.

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UNITED STATES PATENT OFFICE

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CURB OUTLET

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Application November 30, 1943, Serial No. 512,369

3 Claims. (Cl. 138—25)

This invention relates to fittings for drainage, sewerage and like purposes.

The invention has for its object to provide a fitting for the outlet of water from a drain pipe to a street gutter which is so constructed that, in connection with a round pipe of standard size for drainage purposes, the height of the fitting at the point where it passes through the gutter curb is decreased and its width increased so that while maintaining an area of adequate size, no weak spot is produced in the curb structure at the point of passage of the outlet fitting and the strength and durability of the curb is not, therefore, impaired.

A further object of the invention is the provision of an improved fitting in which the bottom portion is constructed to provide an even flow line to prevent the accumulation and trapping of liquid therein.

In the accompanying drawing wherein an approved embodiment of the invention is illustrated:

Figure 1 is a perspective view of the improved curb outlet applied to use;

Figure 2 is a sectional view on the line 2—2 of Figure 1;

Figure 3 is a sectional view on the line 3—3 of Figure 2, and;

Figure 4 is a perspective view of the curb outlet removed.

Referring to the drawing in detail, the body of the fitting is designated generally at 5 and the inlet and outlet ends at 6 and 7, respectively. Clay, metal or any other suitable material may be used in making the device.

The inlet end 6 is adapted to be coupled with a pipe to empty water into the gutter at the side of a roadway and for that purpose it is flanged to form an internal socket 8 into which the pipe is inserted. The shape of the socket is circular so as to fit the cylindrical pipes ordinarily used in drainage and sewerage installations.

The outlet end of the body is rectangular in cross section and is flattened or elongated in the horizontal direction. The size of the rectangular outlet end is so proportioned that it has substantially the same area as the inlet end 6 and thus the flow capacity of the fitting is uniform from end to end. The length of the rectangular portion is sufficient to pass completely through a curb of heavy construction and clear the inside form of the mold employed in forming the curb.

The bottom wall 9 of the outlet end is so arranged as to be disposed at the same level with and to form a continuation of the bottom of a drain pipe inserted in the socket 8, as indicated in Figure 2. Thus free and uninterrupted flow of water through the fitting is assured and possibility of water being trapped is eliminated.

The inner end of the top wall of the fitting is inclined upwardly and joins the upper part of the inlet end 6 and the side walls of said rectangular portion are extended in converging relation and also join the inlet end. The inclined top part is indicated at 10 and the converging side parts at 11 and the dimensions of the opposite ends of the fitting are so selected that the internal area is substantially uniform from end to end.

With an outlet fitting constructed in accordance with the invention, the height of the discharge end is considerably less than the diameter of cylindrical pipes ordinarily used and consequently the thickness of the material of the curb at the point of passage of the fitting is not greatly reduced. As a result, a high degree of strength of the curb structure is maintained and there is less likelihood of injury or damage thereto.

What I claim is:

1. A curb outlet fitting comprising a body having inlet and outlet ends, the internal bottom portion of said body being level from the inlet end to the outlet end, the inlet end being of circular form and the outlet end being flattened and of a length sufficient to pass completely through a curb.

2. A curb outlet fitting comprising a body having inlet and outlet ends, the internal bottom portion of said body being level from the inlet end to the outlet end, the inlet end being of circular form and the outlet end being rectangular in cross section and of a length sufficient to pass completely through a curb.

3. A curb outlet fitting comprising a body having inlet and outlet ends, a socket at the inlet end, the outlet end being rectangular in cross section, the rectangular portion of the body extending throughout approximately one half of the length thereof, the internal bottom portion of said body being level from said socket to said outlet end.

JOHN B. FRANCIS.