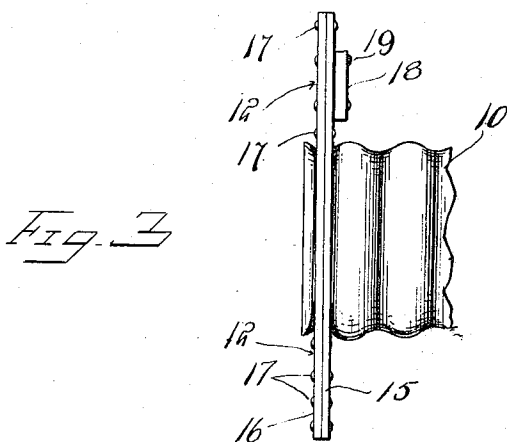
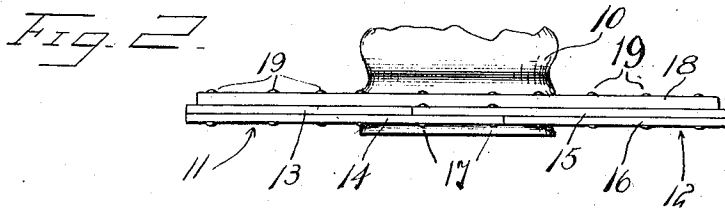
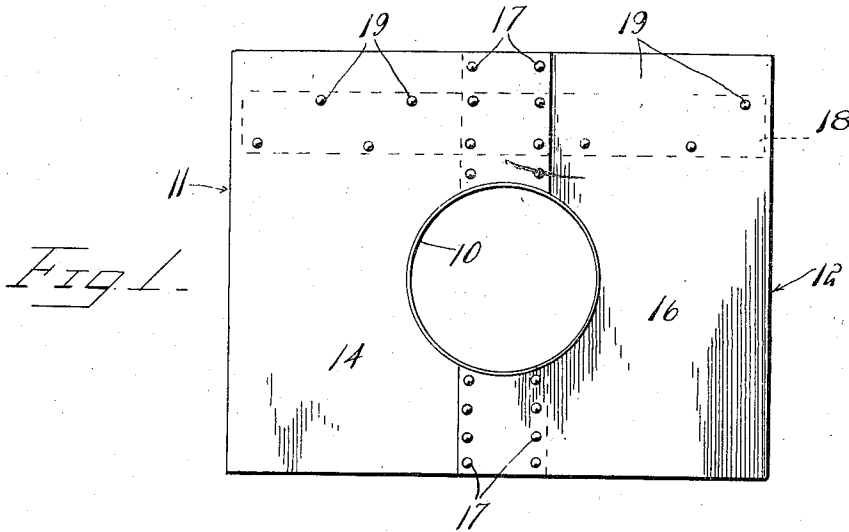


G. W. STORMS.
 CULVERT HEAD.
 APPLICATION FILED FEB. 16, 1910.

961,908.

Patented June 21, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

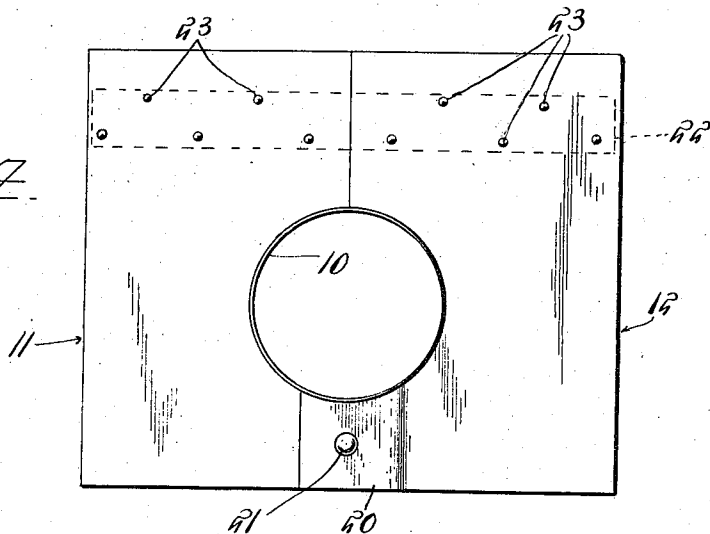


Fig. 5.

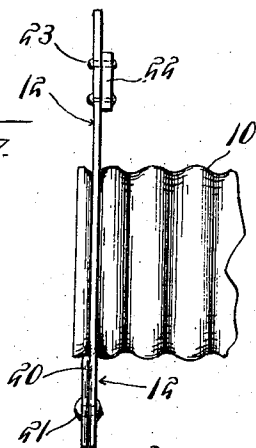


Fig. 6.

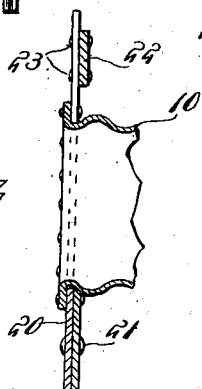
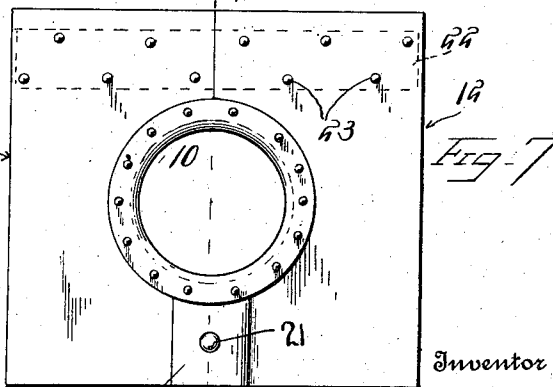
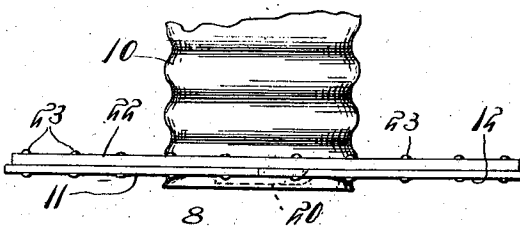


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE W. STORMS, OF LOUISVILLE, KENTUCKY.

CULVERT-HEAD.

961,908.

Specification of Letters Patent. Patented June 21, 1910.

Application filed February 16, 1910. Serial No. 544,307.

To all whom it may concern:

Be it known that I, GEORGE W. STORMS, a citizen of the United States, residing at Louisville, in the county of Jefferson, State of Kentucky, have invented certain new and useful Improvements in Culvert-Heads; and I do hereby 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 culvert heads or wings for supporting the terminals of culverts and likewise for supporting the embankments adjacent to the terminals, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device which may be readily attached to the terminals of a culvert without structural changes therein.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims; and, in the drawings illustrative of the preferred embodiment of the invention, Figure-1 is a front elevation of the improved device applied, Fig. 2 is a plan view of the same, Fig. 3 is a side elevation of the same, Fig. 4 is a front elevation of a modified form of the improved device, Fig. 5 is a side elevation of the construction shown in Fig. 4, Fig. 6 is a plan view of the construction shown in Figs. 4 and 5, Fig. 7 is a view similar to Fig. 4 illustrating a modification in the construction, Fig. 8 is a section on the line 8—8 of Fig. 7.

Much annoyance is experienced from the tendency of the earth to clog the terminals of culverts, and to hold the earth back and prevent it from thus clogging the culvert is the principal object of the present invention.

The improved device may be employed without material structural changes on culverts of any of the ordinary constructions, but is more particularly applicable to culverts constructed from sections of corrugated metal tubing, or of sections of tubing having annular corrugations from end to end, and for the purpose of illustration is shown thus applied, and in the drawings illustrative of the manner of constructing

and arranging the device a portion of a culvert of this description is represented at 10.

The improved device is formed entirely of metal with the body portion of relatively heavy plate or sheet metal and comprises two main sections represented respectively at 11—12. In Figs. 1, 2 and 3 the section 11 is formed of two plates 13—14 with the plate 14 of greater width than the plate 13, while the section 12 is formed of two plates 15—16, with the plate 15 of greater width than the plate 16. By this arrangement the plates 14—15 overlap at their inner edges and the overlapping portions are riveted or otherwise secured together as represented at 17. The contiguous portions of the plates are cut-away centrally to correspond to the curvature of the culvert 10 so that the two sections may be located with the cut away portions within one of the hollows of the corrugations, preferably the end corrugation, and then when the rivets 17 are applied the plates will be firmly coupled to the culvert and stand at right angles thereto. By arranging the plates to fit within one of the hollows of the corrugations it will be obvious that the plates are firmly coupled to the culvert and cannot be detached therefrom so long as the rivets remain intact.

To increase the strength of the improved device a brace member 18 is secured across the upper portions of the sections 11—12 and riveted or otherwise secured thereto as represented at 19. In Figs. 4, 5 and 6 a modified construction is shown wherein the sections 11—12 are each formed of a single plate of sheet metal of sufficient thickness to withstand the strains to which the improved device will be subjected and with the confronting portions of each section cut-away to fit around one-half of the culvert 10 and with the plates overlapping beneath the culvert as represented at 20 and the overlapped portions coupled by a pivot 21. Above the culvert member 10 the plates are reinforced and strengthened by a transverse brace 22 similar to the brace 18 of the construction shown in Figs. 1, 2 and 3, and riveted or otherwise secured at 23 to the section 12, as shown.

In manufacturing the improved device the brace member 18 or 22, as the case may be, is secured to one of the sections, for instance to the section 11, and then when the sections are applied to the culvert it is only necessary to rivet the remaining portion of the

brace to the section 12 to complete the coupling operation.

In applying the improved device excavations are made beneath the terminals of the culvert 10 to receive the portions of the improved device which are located beneath the culvert, so that when the device is applied to the culvert all of the portion thereof below the culvert is embedded in the ground, and supported thereby upon both sides, while the earth or other material which is located above and around the culvert bears against the rear face only of the device. Thus the upper portion of the device only requires reinforcement by the brace member 18 or 22.

Either of the constructions shown may be employed, and in some localities one of the forms will be preferable to the other, but the differences between the two forms shown do not constitute a departure from the principle of the invention, and either may be employed without sacrificing any of the advantages of the invention. The sections may be constructed of any required size and readily adaptable to culverts of varying sizes, as will be obvious.

Under some circumstances the terminal members of the culvert may be flanged and riveted to the sections 11—12, as shown in Figs. 7 and 8, but this like the other modifications would not be a departure from the principle of the invention, as the results produced are substantially the same.

What is claimed is:—

1. A culvert head comprising two sections having recesses in their contiguous edges to engage around the body of the culvert, means for connecting said sections together and a brace member disposed transversely of said sections, on one side thereof, and connected thereto at a point between one end of the said sections and one side of the said culvert engaging recesses.

2. An attachment for culverts comprising two sections each formed of two plates arranged face to face with culvert engaging recesses in their confronting edges, one plate of each section being wider than the other plate with the wider portions of the plates overlapping, and fastening means operating through the overlapping portions of the plates.

3. An attachment for culverts comprising two sections each formed of two plates arranged face to face with culvert engaging recesses in their confronting edges, one plate of each section being wider than the other plate with the wider portions of the plates overlapping, and a brace member connected across said sections at one side of the culvert receiving recesses.

In testimony whereof, I affix my signature, in presence of two witnesses.

GEORGE W. STORMS.

Witnesses:

SAMUEL S. BLITZ,
C. C. McMOHRA.

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