

G. S. P. BRANNEN.
ATTACHMENT FOR ROAD CULVERTS.
APPLICATION FILED APR. 5, 1910.

980,754.

Patented Jan. 3, 1911.

Fig. 1

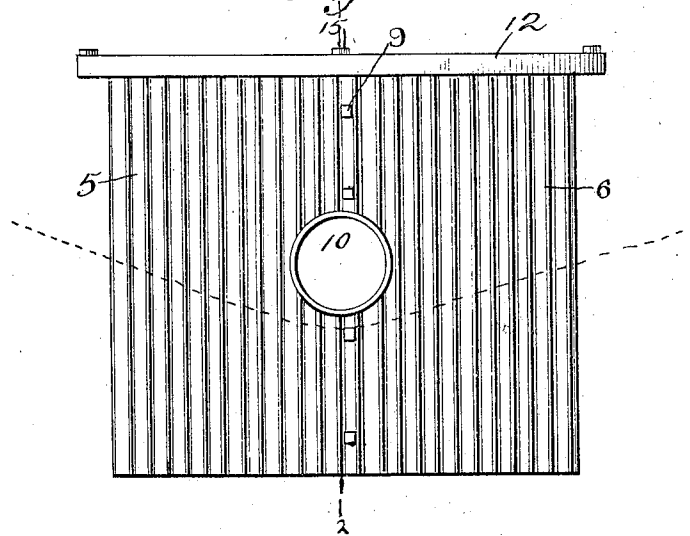


Fig. 2

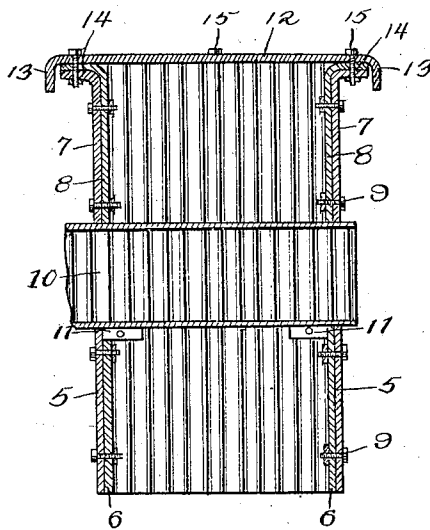
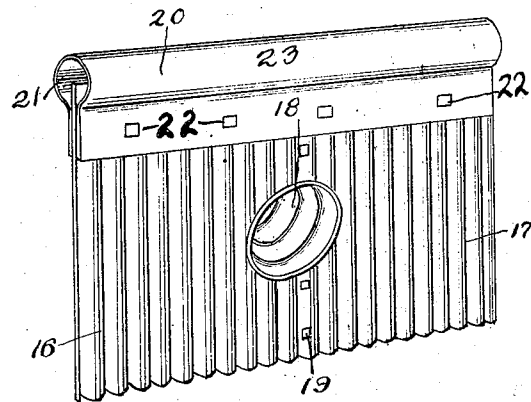


Fig. 3



Witnesses
W. S. McDowell.
John A. Dwyer

Inventor
George S. P. Brannen
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

GEORGE S. P. BRANNEN, OF DANFORTH, MAINE.

ATTACHMENT FOR ROAD-CULVERTS.

980,754.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed April 5, 1910. Serial No. 553,508.

To all whom it may concern:

Be it known that I, GEORGE S. P. BRANNEN, a citizen of the United States, residing at Danforth, in the county of Washington and State of Maine, have invented new and useful Improvements in an Attachment for Road-Culverts, of which the following is a specification.

This invention relates to improvements in attachments for road culverts and has for its object the provision of an end wall for the culvert comprising two sections of sheet metal having corrugated or plain surfaces as desired, the said sections being secured together and provided on their secured ends with alining openings which cooperate to present an opening for the reception of the culvert end.

A further object is the provision of an end wall comprising a pair of U-shaped extensions having the terminals of their opposite limbs connected, whereby an oblong space will be formed for the reception of a filling material such as sand, concrete or the like, which when positioned within the opening will cooperate with the end wall to provide a solid anchor capable of resisting any strain which would have the tendency to displace the culvert, and to further prevent the stream working its way under or around the culvert.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, forming a part of the specification;—Figure 1 is a front elevation of the device showing its application to one end of a culvert. Fig. 2 is a vertical cross sectional view taken approximately on the line 2—2 of Fig. 1. Fig. 3 is a detail perspective of a modified form of end wall.

Similar numerals of reference are employed to designate corresponding parts throughout.

As shown the device comprises two sections designated in general by the numerals 5 and 6, each being formed of single pieces of corrugated sheet metal. It must be understood however, that I am not to be limited to the specific use of corrugated sheet metal, since it will be understood from what will appear later, how the device may be equally as well constructed from sheet metal having plain surfaces. The sections 5 and 6 are each formed by bending an oblong piece of sheet metal into substantially a U-shape, the opposite limbs of which are designated by the numerals 7 and 8. It will of course be understood that the dimensions of the sheets before bending will be sufficient, after the sections have been formed into U-shapes to permit the wall to span the required distance where the culvert is located and extend upwardly to the surface of the road, or above the latter as may be desired.

The terminals of the limbs 7 and 8 overlap and are connected together by bolts or rivets 9 and are provided on their bearing surfaces with alining semi-circular recesses which cooperate to present an annular opening for the reception of the culvert 10.

The culvert 10 may be constructed of sections similar to most forms of metallic culverts and will extend through the space between the limbs of the sections; it being understood that the wall is preferably positioned after the culvert pipe 10 has been arranged in the creek or the like. The angles formed by bending the sheets into their U-shapes are braced by suitable rightangular-shaped brackets 11 arranged on the inner surfaces of the sections.

A coping is designated in general by the numeral 12 and is formed of a single piece of sheet metal oblong in contour and somewhat greater in length than the combined lengths of the sections and a trifle greater in width than the width of either section. The marginal edges of the coping are bent downwardly, as shown at 13, and are spaced from the adjacent outer surfaces of the sections. It will be seen by reference to Fig. 2 that the upper ends of the sections are flexed outwardly, as shown at 14, whereby bearing flanges are provided to engage with the lower surface of the coping. The flanges 14 are somewhat less in width than the space between the flanges 13 of the coping and the adjacent surfaces of the sections, when the coping is positioned, as shown in

Figs. 1 and 2. Extending through alining openings formed in the flange 14 and body of the coping are clamping bolts 15 which serve to secure the coping to the sections in the manner shown.

The modified form illustrated in Fig. 3 is intended to be used for small culverts, and in the present instance is shown to comprise a pair of sections 16 and 17, each formed of a single piece of sheet metal corrugated and having their inner ends overlapping and secured together by bolts or rivets 19, said inner ends being provided with alining semi-circular recesses which cooperate to present an annular opening 18 for the culvert end. The upper ends of the sections are provided with a coping preferably formed by bending an oblong piece of sheet metal at its medial portion and in the direction of its length, whereby sides 20 and 21 are provided, portions of which bear on the upper ends of the sections 16 and 17 and are secured thereto by bolts or rivets 22. The portions of the sides 20 and 21 extending upwardly and beyond the upper edges of the sections are bulged outwardly, whereby a bead 23 is provided, the said coping operating to strengthen the sections and at the same time present a neat appearance and conceal the sharpened edges of the sections.

From the foregoing, it is evident that I have provided a device which is compara-

tively simple in structure and inexpensive in manufacture, embodying few parts and these so arranged that the danger of derangement will be reduced to a minimum.

I claim:—

1. An end wall for culverts comprising a pair of U-shaped sections having the terminals of their opposite limbs connected together and provided with alining recesses which cooperate to present an opening for the reception of a culvert end, a space flanked by the inner surfaces of the said sections presenting an opening for the reception of a filling material, for the purposes described.

2. An end wall for culverts comprising a pair of U-shaped sections having the terminals of their opposite limbs connected together and provided with alining recesses which cooperate to present an opening for the reception of a culvert end, the upper end portions of said sections being provided with lateral flanges and the space between said sections presenting an opening for the reception of a filling material, and a coping arranged on the upper ends of the sections and secured to the said flanges.

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

GEORGE S. P. BRANNEN.

Witnesses:

T. C. C. LITTLEFIELD,
E. W. BUTTERFIELD.