

D. C. BOYD.
CULVERT.
APPLICATION FILED DEC. 15, 1908.

913,685.

Patented Mar. 2, 1909.

Fig. 1.

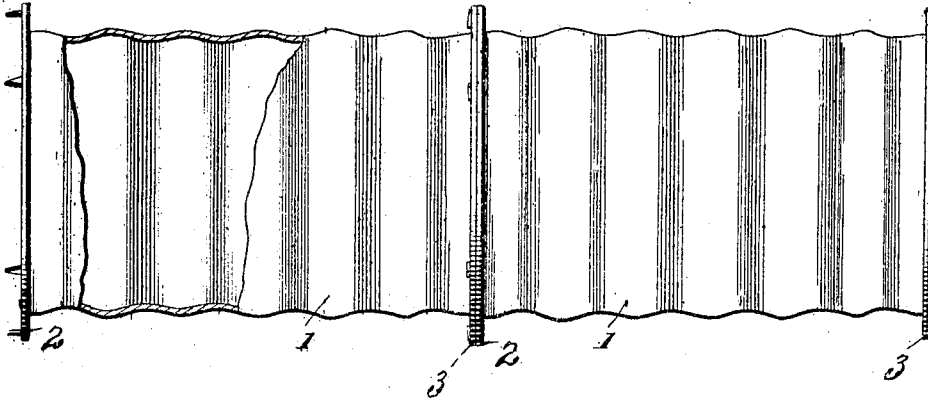


Fig. 2.

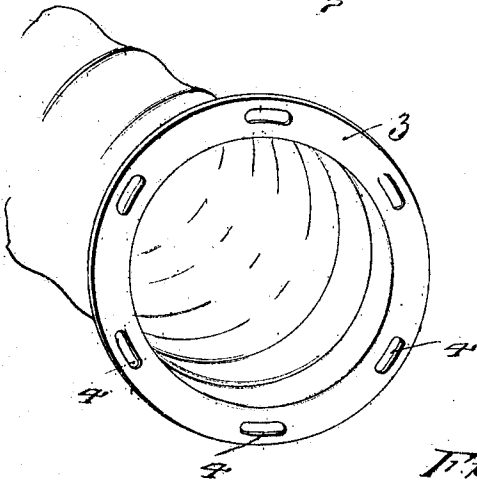


Fig. 3.

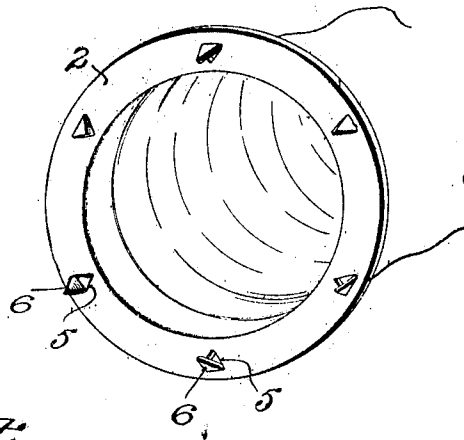
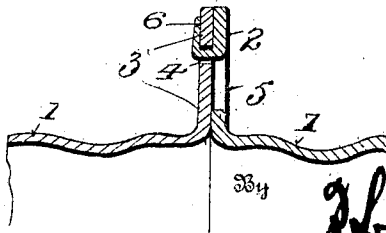


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CULVERT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DAVID C. BOYD, citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Culverts, of which the following is a specification.

This invention comprehends certain new and useful improvements in sheet metal culverts, and the invention has for its primary object a simple, durable and efficient construction of culvert section arranged to interlock in a peculiar manner with an adjoining section to form the complete culvert, the said joint being effected in an easy and inexpensive manner and requiring no extra material of any kind, and holding the sections together effectively.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a side elevation, of two connected culvert sections constructed in accordance with my invention; Fig. 2 is a perspective view of one end of a section; Fig. 3 is a similar view of the opposite end thereof; and, Fig. 4 is a transverse sectional view through the sections.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Each section of my improved culvert is formed of sheet metal and rolled into cylindrical shape, either smooth or corrugated, the edges being overlapped and riveted, or secured together in any other desired way to form the body portion 1 of the section. Flanges 2 and 3 are formed on or secured to the ends of the culvert sections, the said flanges projecting outwardly as shown, and

being integral with the body portion of the section in the present instance. The flange 50 at one end of a section is formed with a series of slots 4 and the flange at the opposite end of a section is formed with a series of slits 5, the said slits being preferably V-shape as shown, and the metal defined by said slits 55 being bent outwardly to form locking tongues as indicated at 6.

In the manufacture of these culvert sections, I propose to punch out these tongues 6 and bend them so that they will stand out at right angles to those of the flange as clearly illustrated in Fig. 4 either at the same time that the flange itself is formed, or in a subsequent operation, and in connecting together a plurality of these culvert sections to form a complete culvert, it will be understood that the tongues 6 of one section will be received in the slots 4 of the adjoining flange of an adjoining section, the two flanges abutting against each other, and the tongues being subsequently bent down or clenched so as to effectually interlock the sections together.

From the foregoing description, in connection with the accompanying drawings, it will be seen that culvert sections constructed in accordance with my invention may be easily manufactured and connected end to end to form a culvert of desired length, no extra material being necessary in the formation of the tongues 6, and it being a very easy matter to bend the tongues down into locking engagement with the flange of an adjoining section, after the tongues have been passed with an endwise movement of the section into and through the slots 4 that are designed to receive them.

It is to be understood that the pliable tongues may be of any desired construction or design and that the slots to receive said tongues may extend either radially, circumferentially, or otherwise.

Having thus described the invention, what is claimed as new is:

1. A culvert section comprising a body portion provided with end flanges, one of said flanges being formed with pliable tongues,

and the other end flange being formed with slots.

2. A culvert constructed in a plurality of sections each of which is formed with end flanges, the said flanges being held in abutting relation, one flange being formed with punched out tongues, and the adjoining flange of the adjoining section being formed

with slots accommodating said tongues in which they are engaged.

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

DAVID C. BOYD.

Witnesses:

W. J. GEER,
GARDA HOLMES.