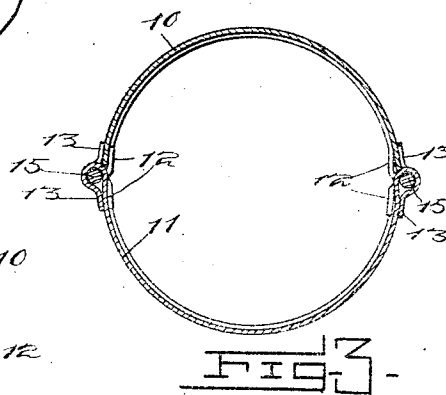
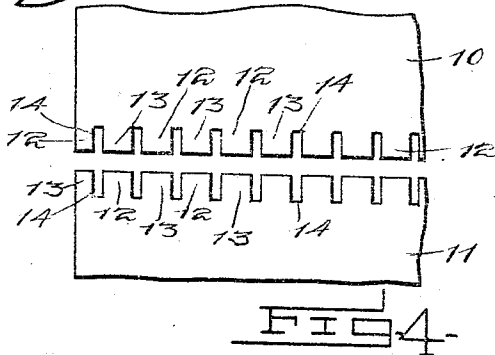
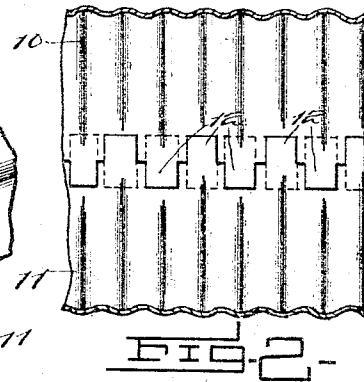
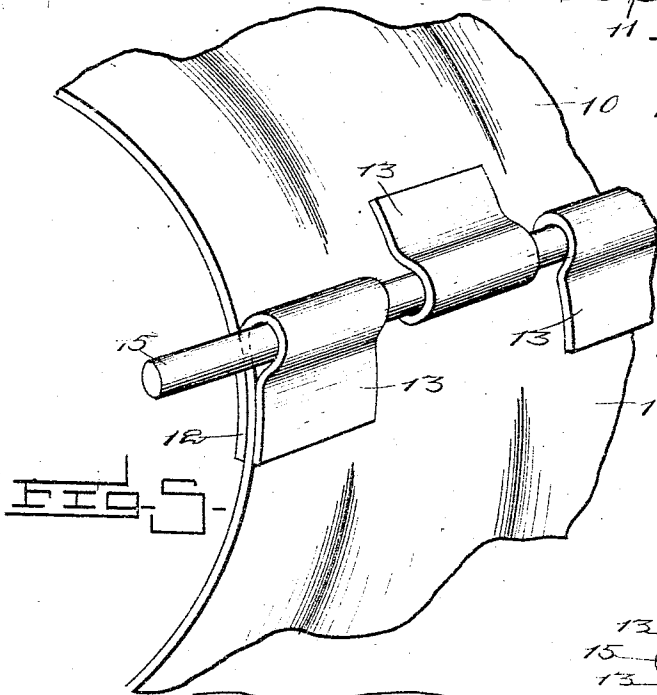
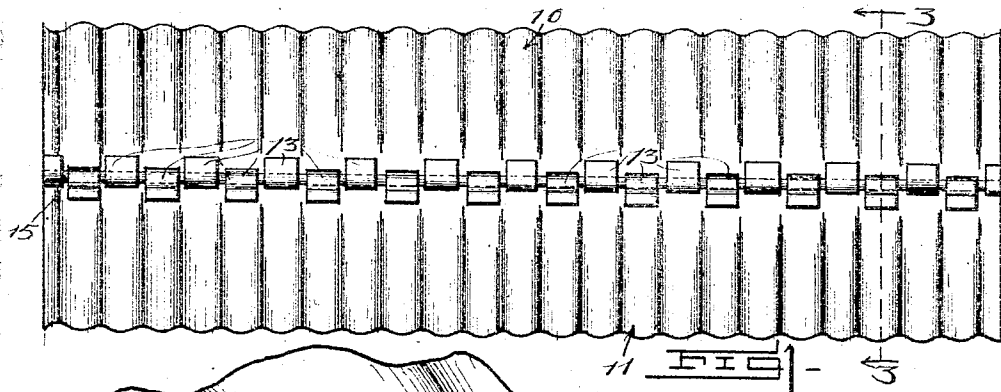


T. L. C. VAIL.
CULVERT.
APPLICATION FILED OCT. 31, 1913.

1,149,702.

Patented Aug. 10, 1915.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS LENINGTON CURTIS VAIL, OF GADSDEN, ALABAMA.

CULVERT.

1,149,702.

Specification of Letters Patent.

Patented Aug. 10, 1915.

Application filed October 31, 1913. Serial No. 798,466.

To all whom it may concern:

Be it known that I, THOMAS LENINGTON CURTIS VAIL, a citizen of the United States, residing at Gadsden, in the county of Etowah and State of Alabama, have invented certain new and useful Improvements in Culverts, of which the following is a specification.

My invention relates to improvements in culverts and has particular reference to a culvert provided with novel means for connecting the adjacent edges of the part or parts thereof.

An important object of this invention is to provide means whereby the adjacent longitudinal edges of the part or parts of the culvert may be quickly and easily assembled, and locked together in a manner whereby they are securely held against working loose or accidental separation, while the same are capable of being disconnected by the proper means without injury thereto.

A further object of the invention is to provide a connecting means of the above mentioned character, which will instead of weakening the culvert, lend to the same strength and rigidity.

A further object of my invention is to provide means of the above mentioned character, which are simple in construction, durable and inexpensive to manufacture.

Other objects and advantages of this invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a side elevation of a culvert embodying my invention, Fig. 2 is a fragmentary central longitudinal sectional view through the same, Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 1, Fig. 4 is a fragmentary side elevation of the culvert, showing the adjacent edges thereof before being assembled; and, Fig. 5 is a fragmentary enlarged perspective view of the culvert, showing the adjacent edges assembled and certain of the locking tongues bent back into locking position.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, I have shown my improved culvert as preferably formed of twin longitudinal culvert sections 10 and 11,

which are preferably transversely corrugated, as shown. Each of the twin culvert sections 10 and 11 are provided with spaced alternate holding and locking tongues 12 and 13, having openings 14 formed therebetween. As clearly shown in Fig. 4, the holding tongues 12 of the culvert section 10 are arranged in registration with the locking tongues 13 of the co-acting culvert section 11, and the locking tongue 13 of the culvert section 10 are arranged in registration with the holding tongues 12 of the culvert section 11.

When the culvert sections 10 and 11 are assembled, the holding tongues 12 of the culvert sections 10 and 11 form two sets of the same, extending in opposite directions. All of these holding tongues extend interiorly of the culvert, and engage the inner surfaces of the culvert sections 10 and 11, holding one section against inward movement with relation to each other. The locking tongues 13 of the culvert sections 10 and 11 form two sets of the same, which extend in opposite directions and are arranged exteriorly of the culvert to engage the outer surfaces of the culvert sections.

The numeral 15 designates a suitably stiff locking rod, which, before the locking tongues are bent back upon themselves, is placed in engagement with the same. The two sets of locking tongues are then bent around the locking rod 15 and back upon themselves, to extend in opposite directions, as more clearly illustrated in Fig. 5. It is thus seen that the locking tongues 13, while remaining bent back, will securely pivotally connect the culvert sections together, preventing their improper separation, while allowing them being separated when the locking tongues are straightened out. The holding tongues 12 cooperate with the locking tongues 13 to prevent perceptible lateral movement of the culvert sections 10 and 11, with relation to each other. While I have shown my culvert as formed in two twin sections, it is obvious that the joint, may be just as advantageously employed to connect the edges of a culvert formed in one section.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit

of the invention or the scope of the sub-joined claim.

Having described my invention, I claim:—

5 A culvert formed in two separable longitudinal sections, each culvert section being provided upon its two longitudinal edges with spaced holding and locking tongues of substantial length, the holding tongues of the assembled culvert sections being ar-
10 ranged inwardly of the culvert section in alternate relation and extending in opposite directions to engage with the inner surfaces thereof for stiffening the same, and longitudinal rods arranged exteriorly of and ad-
15 jacent the pairs of longitudinal edges of the

culvert sections with the locking tongues in each pair of sets bent exteriorly about each rod in opposite directions and extending therebeyond for a substantial distance in proximity to the exterior surfaces of the culvert sections whereby these bent locking
20 tongues may be readily straightened to permit of the separation of the culvert sections.

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

THOMAS LENINGTON CURTIS VAIL.

Witnesses:

W. B. FORD,

J. R. LISTER.