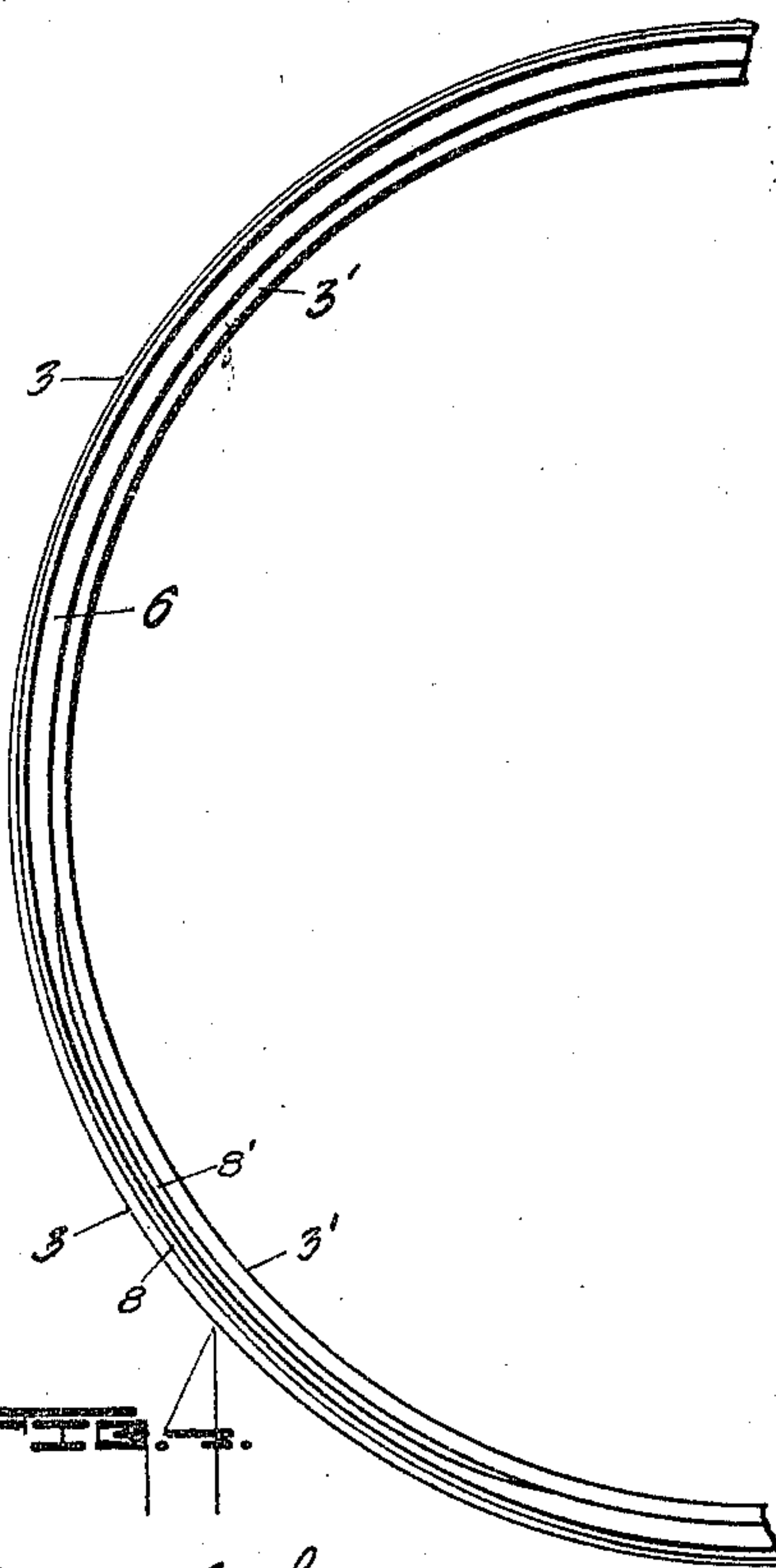
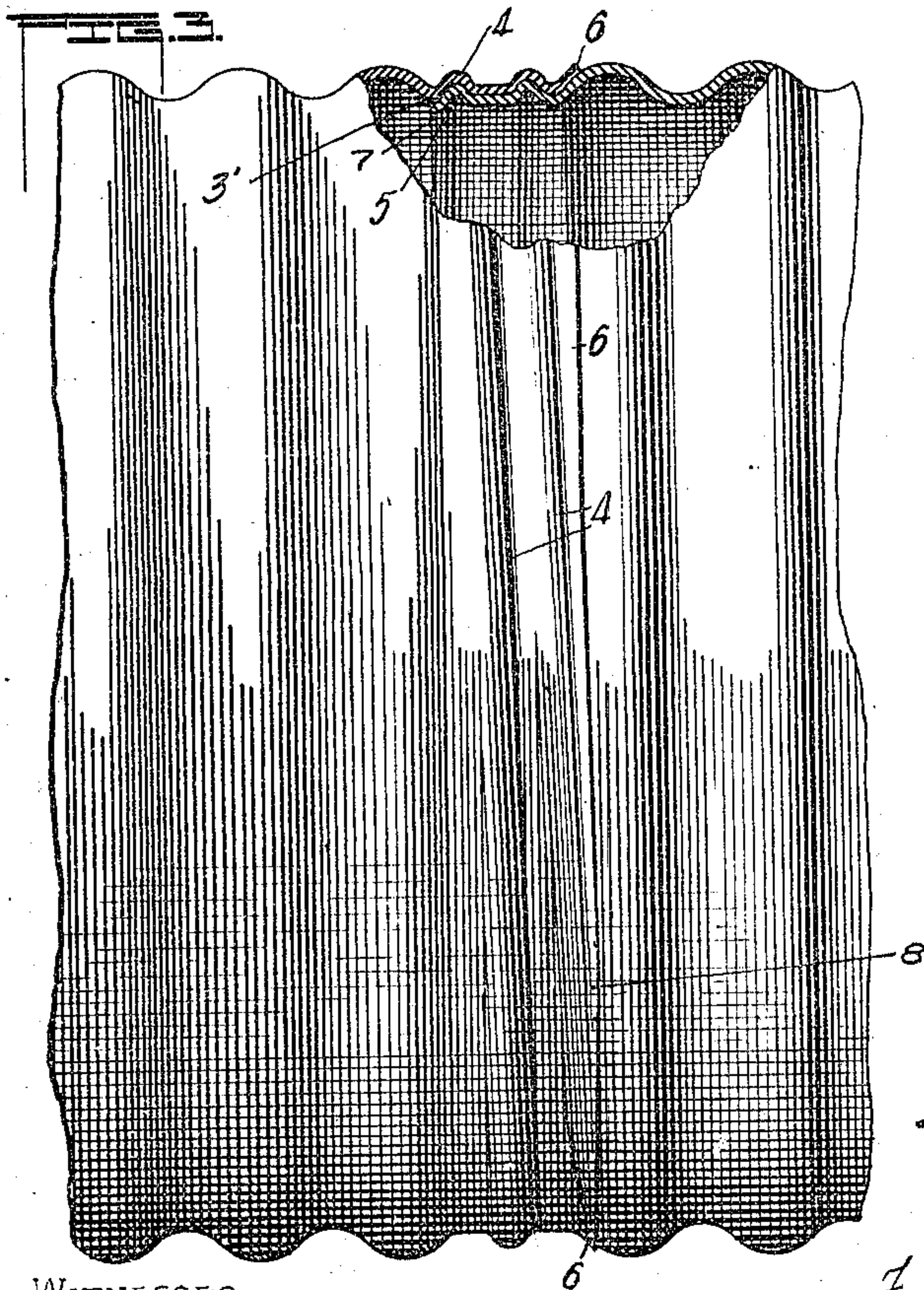
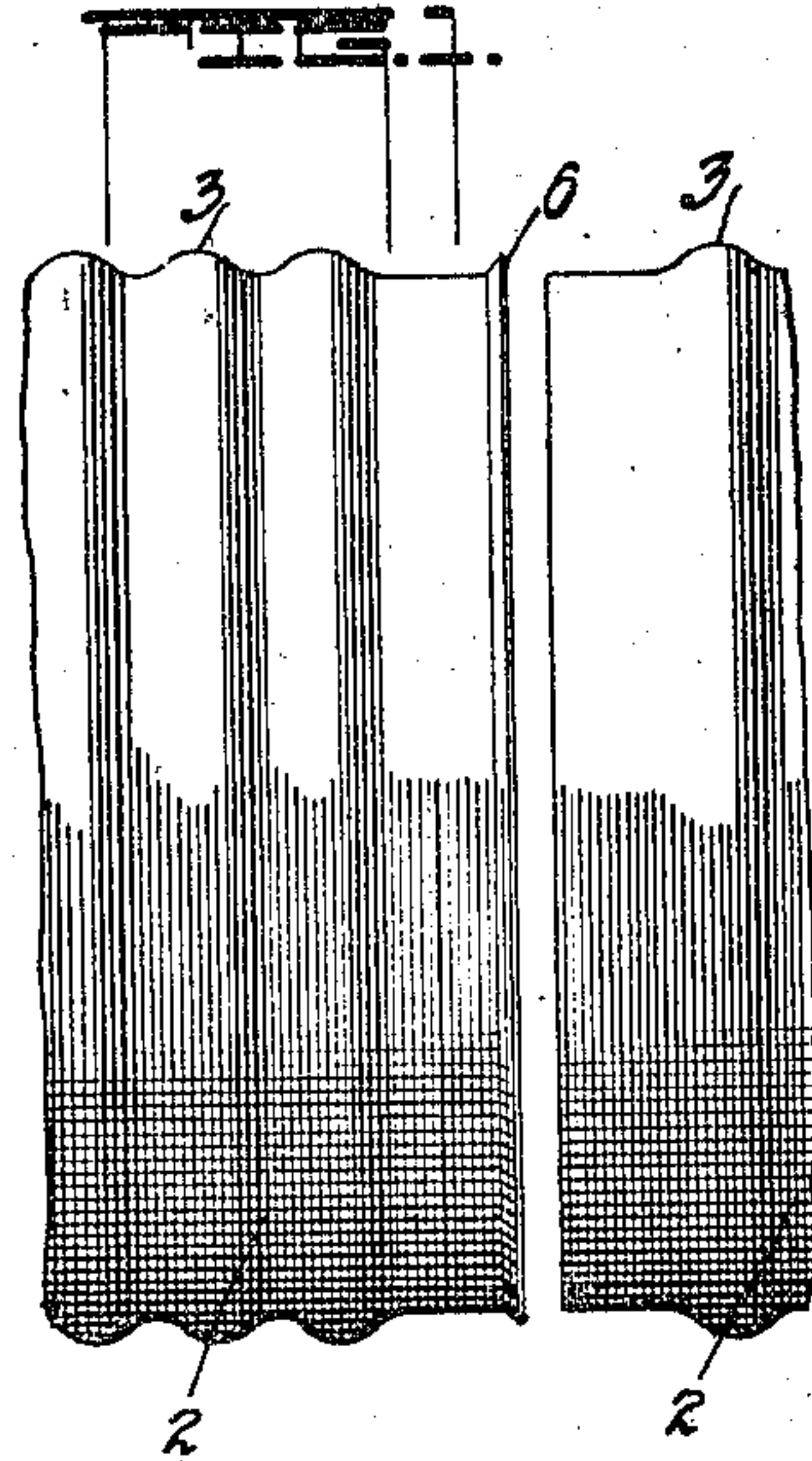
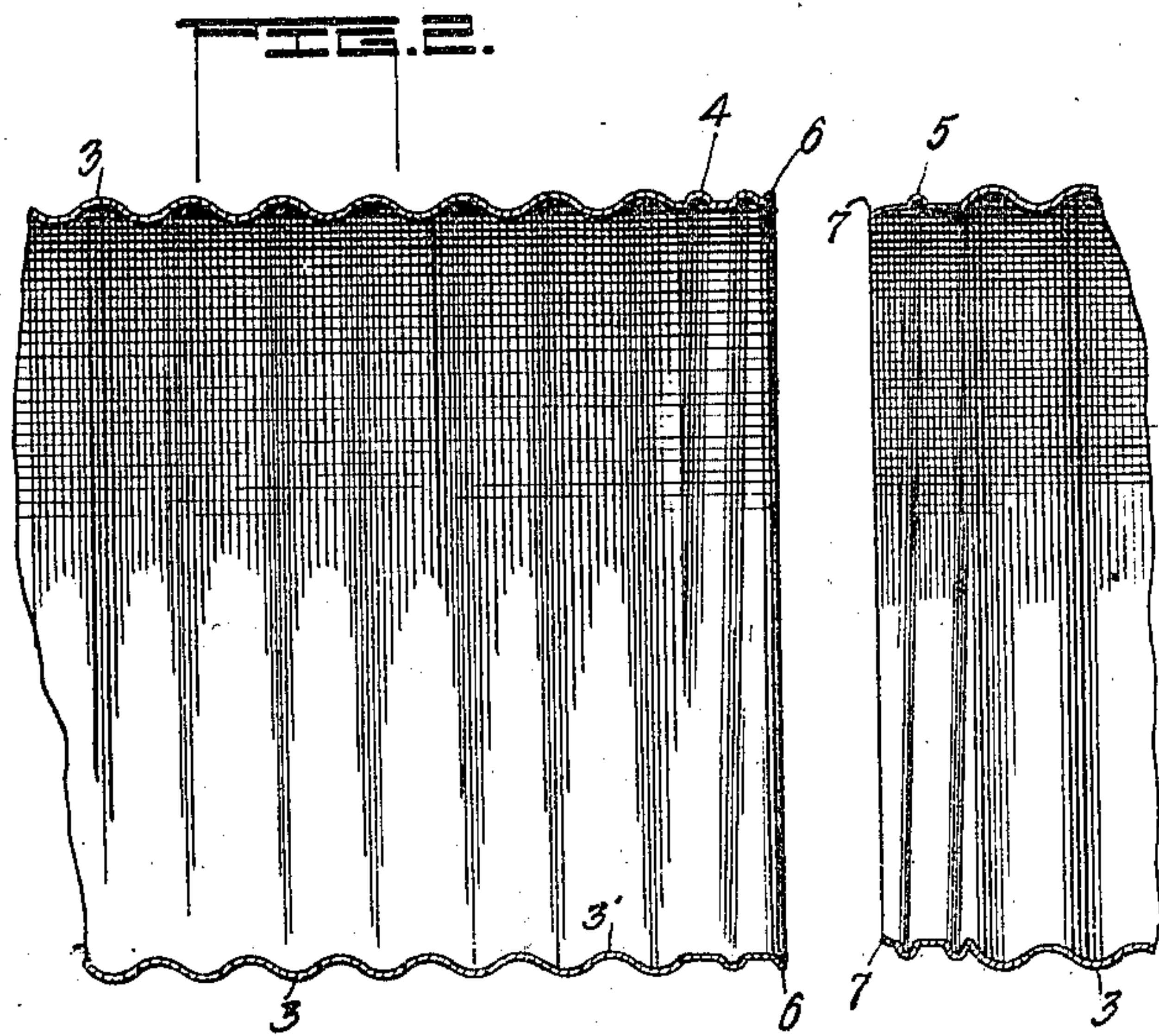


F. J. FELDT.  
 CORRUGATED CULVERT.  
 APPLICATION FILED APR. 12, 1911.

996,708.

Patented July 4, 1911.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

FERDINAND J. FELDT, OF PEORIA, ILLINOIS.

CORRUGATED CULVERT.

996,708.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed April 12, 1911. Serial No. 620,570.

To all whom it may concern:

Be it known that I, FERDINAND J. FELDT, citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Corrugated Culverts, of which the following is a specification.

My invention relates to corrugated culverts.

The object of my invention is to provide a simple and convenient means for uniting corrugated sections together to produce different lengths required in use.

My invention consists in the particular formation of threaded connections in planes relative to the principal corrugations of the sections; the forming of an outwardly turned flange upon one end of each section and an inturn at the opposite end of each section, and the bending of a portion of the out-turned flange from its normal line to assist in locking interengaged sections.

Referring to the drawings, Figure 1 is a side elevation of portions of corrugated culvert sections showing the formation of intertended meeting end portions before the joining means is formed thereon; Fig. 2 is a sectional view of portions of corrugated tubular sections adapted to be joined together; Fig. 3 is a side elevation of a portion of two corrugated sections joined together, a portion being broken away to show the interlocking joint; and Fig. 4 is an end view of a portion of a section showing a flange and the entry effect thereon occasioned in forming the thread therein.

In the drawings, 2 are corrugated sections.

3 are the ridge and 3' the trough portions of the corrugations.

4 are female threads and 5 male threads respectively at opposite ends of each section.

6 is an out-turned flange at the receiving end of the section and 7 is an inturn at the entry end thereof.

8 refers to a portion of flange 6 that is bent inwardly from the effect of entry of a roller working in conjunction with a die to form thread 4.

8' is intended to show the entry effect of the roller in forming thread 4 and is somewhat exaggerated for the purpose of illustration.

The respective ends of sections 2 are first formed, the receiving end with a flat face

portion terminating in the outwardly flared flange 6 and the entering end thereof with a plain flat end portion, both as shown in Fig. 1. The threads are then formed in each of the ends, resulting in the formation of the threads 4 and 5 as shown in Fig. 3. The effect of forming the female thread caused by the entry of the roller working in conjunction with a die is to bend a portion of the edge of flange 6 inwardly as at 8 (see Fig. 4). When the female thread is finished, the inner face of the threaded portion is in a slightly higher plane than the plane of the lower extremity of the trough corrugations 3' of the sections. The result of forming the thread in the entry end of the section is to leave the inner face of the threaded portion substantially in the same plane as the lowest point of the trough portion 3' of the main corrugations, with the terminal inwardly turned portion 7 somewhat below that plane.

When the sections are screwed together, the flange 6 will bear against the final ridge corrugation at the entry end of joined sections and the inwardly turned portion 7 of the entry end of a joined adjacent section will bear against the face of the trough portion of the final corrugation of the receiving end of an adjacent section. Any sagging effect resulting from lost motion between the threaded parts will be obviated by the bearing of flange 6 and inturned portion 7 against the main corrugated parts. When the sections are screwed together as shown in Fig. 3, the inturned portion of flange 6 will be forced outwardly and the tension of the metal against the corrugation of the adjacent section will assist in locking the sections together.

What I claim is:

1. In a culvert, a plurality of corrugated sections each provided at one end with an out-turned flange and with a female threaded portion interposed between said flange and the final corrugation of said end portion, the opposite end of each section provided with an in-turned flange and with a male thread thereon interposed between said flange and the final corrugation of said end portion.

2. In a culvert, a plurality of corrugated sections each provided at one end with an out-turned flange bent inwardly at its edge for a portion of its length and with a female threaded portion interposed between said



flange and the final corrugation of said end portion, the opposite end of each section provided with an in-turned flange and with a male thread thereon interposed between said flange and the final corrugation of said end portion.

3. In a culvert, a plurality of corrugated sections, each provided at one end with a female thread, the inner faces of the trough portions thereof lying in a plane above the inner faces of the trough portions of the corrugations of the sections and the extreme outer edge of said end portion formed into an outwardly turned flange extending entirely around said section, the opposite end of each section provided with a male thread, the inner faces of the trough portions of the threads lying substantially in the same plane as the inner faces of the trough portions of the corrugations of the sections and the extreme outer edge of said end portion formed into an inwardly turned flange extending entirely around said section, whereby a ready entrance of sections adapted to be joined may be effected and may be united by screwing one end portion into the other, and the inwardly and outwardly turned flange portions respectively will, when the sections are joined together, engage the walls of the final corrugation of the respective sections.

4. In a culvert, a plurality of corrugated

sections, each provided at one end with a female thread, the inner faces of the trough portions thereof lying in a plane above the inner faces of the trough portions of the corrugations of the sections and the extreme outer edge of said end portion formed into an outwardly turned flange extending entirely around said section, said flange bent inwardly for a portion of its length to provide an impinging surface, the opposite end of each section provided with a male thread, the inner faces of the trough portions of the threads lying in substantially the same plane as the inner faces of the trough portions of the corrugations of the sections and the extreme outer edge of said end portion formed into an inwardly turned flange extending entirely around said section, whereby a ready entrance of sections adapted to be joined may be effected and may be united by screwing one end portion into the other, and the inwardly and outwardly turned flange portions respectively will, when the sections are joined together, engage the walls of the final corrugation of the respective sections.

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

FERDINAND J. FELDT.

Witnesses:

W. V. TEFTE,

MARY E. COMEGYS.