Feb. 5, 1924. 1,482,772

H. M. TSCHIRGI

CONCRETE PIPE JOINT

Filed Feb. 24, 1923

Fig. 1.

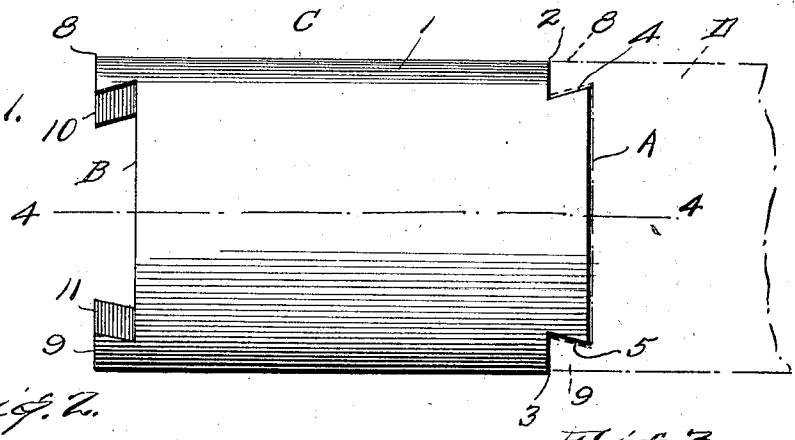


Fig. 2.

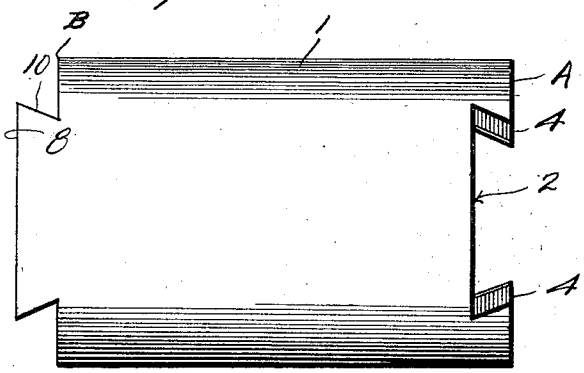


Fig. 3.

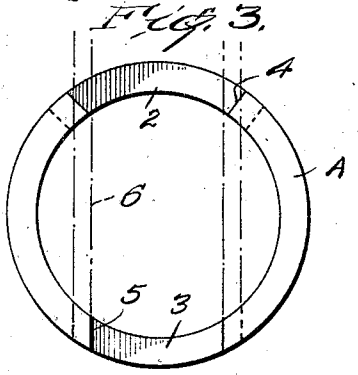


Fig. 4.

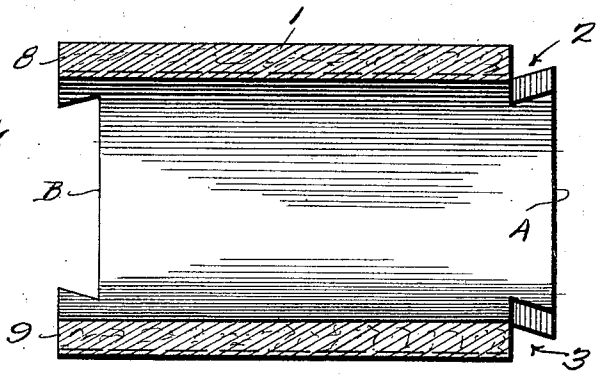
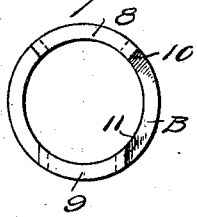


Fig. 5.



Inventor

H. M. Tschirgi

Witness

By Richard B. Owen,

Attorney

Patented Feb. 5, 1924. 1,482,772

UNITED STATES PATENT OFFICE.

HAROLD M. TSCHIRGI, OF INDEPENDENCE, IOWA.

CONCRETE-PIPE JOINT.

Application filed February 24, 1923. Serial No. 620,935.

To all whom it may concern:

Be it known that I, HAROLD M. TSCHIRGI, a citizen of the United States, residing at Independence, in the county of Buchanan and State of Iowa, have invented certain new and useful Improvements in a Concrete-Pipe Joint, of which the following is a specification.

The present invention relates to a miter joint concrete pipe and has for its principal object to provide a dove-tail connection for concrete pipes which will form a simple, efficient, and practical structure providing a positive and permanent insurance against disjointing.

With the above and numerous other objects in view as will appear as the description progresses, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing

Figure 1 is an elevation of a concrete pipe section embodying my invention,

Figure 2 is a top plan thereof,

Figure 3 is an end elevation showing the mortices,

Figure 4 is a longitudinal section taken substantially on the line 4—4 of Figure 4, and

Figure 5 is an end elevation of the section on a smaller scale showing the tenons.

Referring to the drawing in detail it will be seen that each section of the pipe consists of a cylindrical body 1 which may be of any desired length and of any desired material although it is the contemplation of the present disclosure to exemplify the device in conjunction with concrete holders although, of course, the invention may be used in numerous other ways and be constructed of various other materials. The end A is the morticed end and the end B is the tenoned end of the cylindrical body 1. The mortices in the end A are two in number and are disposed diametrically opposite each other and will be specifically indicated hereinafter as the upper mortice 2 and the lower mortice 3. Both of the mortices 2 and 3 are trapezoidal in formation. The sides 4 of the upper mortice 2 converge toward each other and toward the center of the body 1 while the sides 5 of the lower mortice 3 are parallel with each other. The dotted lines 6 indicate the relative sizes of the mortices 2 and 3, it being noted that the lower is the smaller.

The end B of the body 1 is provided with two tenons in the form of trapezoidal projections the outer sides of which are larger than the inner sides, just the reverse of the mortices 2 and 3. The position or alignment of the tenons is at right angles to that on the mortices, it being understood, of course, that these tenons are diametrically opposed to each other. The upper tenon 8 is longer than the lower tenon 9. The ends 10 of the upper tenon 8 converge toward each other and toward the center of the cylindrical body 1 while the ends of the lower tenon 9 are parallel with each other. The tenon 9 is constructed so as to fit snugly within the mortice 3 and the tenon 8 is constructed to fit snugly within the mortice 2. It is also to be noted that in assembling two sections, referring to Figure 1, one section C would be rested on the ground and the other section D would be lowered in respect thereto so that its tenon 9 would pass through the upper mortice 2 into engagement with the lower mortice 3 at which time the upper tenon 8 would engage the upper mortice 2. The upper tenon 8 would seat itself in the upper mortice 2 because of the converging ends of the tenon and the mortice.

It is thought that the construction and operation of the invention will now be readily understood without a more detailed description and it will also be seen that a positive and permanent joint of the dove-tail type is presented by the invention and will efficiently prevent any tendency of the two sections disjoining as each succeeding section tends to hold the preceding section in place. Thus section D would hold section C engaged with a third section to the left of section C and another section to the right of section D would hold section D in position as engaged with section C.

Having thus described my invention what I claim as new is:—

1. A pipe section of the class described including a body, a pair of diametrically opposed trapezoidal tenons projecting from one end, one of said tenons being smaller than the other, the other end of said body being provided with a pair of diametrically opposed mortices, aligned at right angles to the alignment of the tenons and one of the mortices being smaller than the other, the said

mortices being trapezoidal in shape, the ends of the larger tenon and mortice being provided with sides converging toward the center of the body and the smaller tenon and mortice being provided with parallel sides.

2. In a concrete pipe, a pair of adjoining sections, the adjacent end of one section provided with a pair of vertically aligned diametrically opposed tenons trapezoidal in shape, the upper tenon being larger than the lower and provided with sides converging toward the center of the section, and the other section provided with a pair of vertically aligned diametrically opposed mortices trapezoidal in shape, the upper thereof being larger than the lower and provided with converging ends, the lower tenon being small enough to pass through the upper mortice and shaped to fit snugly within the lower mortice and the upper tenon adapted to fit in the upper mortice.

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

HAROLD M. TSCHIRGI.

Witnesses:
W. G. STEVENSON,
W. E. CRANEY.