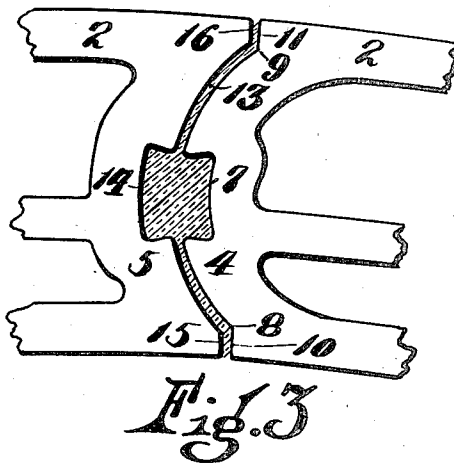
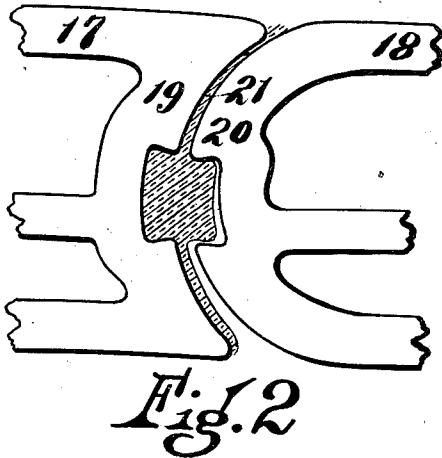
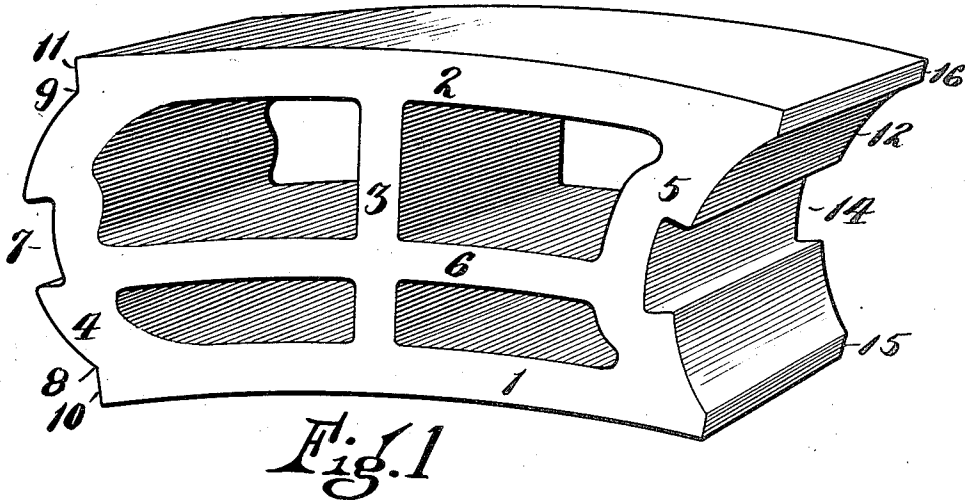


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SEWER PIPE SECTION FOR SEWER BUILDING.
APPLICATION FILED DEC. 23, 1913.

1,219,663.

Patented Mar. 20, 1917.



Witnesses:

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WILLIAM H. ROOK, JR., OF AKRON, OHIO, ASSIGNOR TO THE AMERICAN SEWER PIPE COMPANY, OF AKRON, OHIO, A CORPORATION OF NEW JERSEY.

SEWER-PIPE SECTION FOR SEWER-BUILDING.

1,219,663.

Specification of Letters Patent.

Patented Mar. 20, 1917.

Application filed December 23, 1913. Serial No. 808,342.

To all whom it may concern:

Be it known that I, WILLIAM H. ROOK, Jr., a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Sewer-Pipe Sections for Sewer-Building, of which the following is a specification.

This invention relates to improvements in segment-shaped blocks for forming tubular conduits, such, for instance, as sewers, and the primary object of the invention is to so construct the side walls of the blocks that when built up into a tubular member provision is made for a mortar-receiving space between coadjacent units and fashioned to prevent squeezing, crushing out, or displacing the bonding element employed for uniting the units together.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the matter hereinafter claimed.

In the drawings in which similar reference numerals indicate like parts in the different figures,

Figure 1, is a perspective view of a segment-shaped block embodying this invention;

Fig. 2, is an end view of a portion of two blocks without this invention illustrating the employment of the same; and,

Fig. 3, is an end view of two blocks united by a bonding element and both embodying the improvement contained in the block shown in Fig. 1.

Referring to the drawings in detail, the reference numerals 1 and 2 denote respectively the inner and outer walls of a hollow block used for constructing tubular members, and customarily formed of vitrified sewer pipe. These walls 1 and 2 are usually, although not necessarily parallel and are preferably connected intermediate their side edges by an approximately radial septum or wall 3. The walls 1 and 2 are further connected at their sides by end walls 4 and

5 between which ordinarily extends a wall 6 which may or may not be parallel with the walls 1 and 2. The side wall 4 is convex or outwardly-extending and its outer face is preferably formed in the arc of a circle and is provided approximately centrally with a transversely-extending notch or recess for a purpose to be later described. At points designated by the references 8 and 9 where approximately the inner wall 1 and outer wall 2 unite with the wall 4, are formed abrupt shoulders 10 and 11. The wall 5 is preferably provided with a concave or inwardly-extending face 12 formed preferably in the arc of a circle having a greater radius than the arc of the circle in which the face of the convex wall 4 is formed, whereby when two blocks are juxtapositioned, the difference in the radii of coadjacent and opposing walls allows a space for a bonding element designated in the drawings by the reference numeral 13. Approximately centrally of the face of the wall 12 is a transversely-extending recess or notch 14 adapted to register with a corresponding notch in the convex wall of the coadjacent section. At points approximately where the inner wall 1 and outer wall 2 unite with the face of the wall 5, and designated in the drawings by the reference numerals 15 and 16 are shoulders adapted to oppose the shoulders 10 and 11 of the convex side wall of a coadjacent section, but customarily spaced therefrom to provide a space for a bonding element.

The function and purpose of the shoulders 10 and 11, 15 and 16, is to provide abutments against which the bonding element 13 can rest or seat in laying up the sections in forming a tubular member, such for instance, as a sewer, and thereby prevent the bonding element while in its plastic condition from being forced out laterally from between two sections, which result would occur if the side walls of the sections were not provided with the shoulders or abutments, already described.

An attempt is made in Fig. 2 to illustrate the union between two segment-shaped blocks, designated by the reference numerals 17 and 18 and provided with contiguous side walls 19 and 20 in which the abutments shown and described with reference to Fig. 1, are omitted with the result that when pressure is brought to bear upon the tubular

member constructed of such units, either by the weight of the units themselves during the building up process or by weight of the earth filled in over the tubular member, the bonding element, designated in Fig. 2, by the reference numeral 21, is forced out of place and its function as a bonding element is approximately destroyed, thereby producing a weak joint between coadjacent sections and weakening the general structure. But by providing the side walls of coadjacent sections with opposing shoulders constituting abutments between which the binding element is firmly held, a firm and perfect union may be formed during the building of a tubular member.

I claim:—

A segment-shaped unit for constructing sewers and like tubular conduits, having an outer wall and an inner wall conformable to the general contour or outline of the tubular

member, said segment-shaped unit having end-walls of general convex-outline and general concave-outline, respectively, each of said end-walls having a central transverse key-forming or bonding plastic material-receiving groove, and terminating in opposed limited right-line or plane portions adjacent the inner and outer side-walls of said segment-shaped unit, said end-walls being formed along relatively extending curved lines intermediate of said transverse grooves and said right-lined or plane portions of said walls.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. ROOK, JR.

Witnesses:

A. S. McCOMBER,
E. J. OSBORNE.