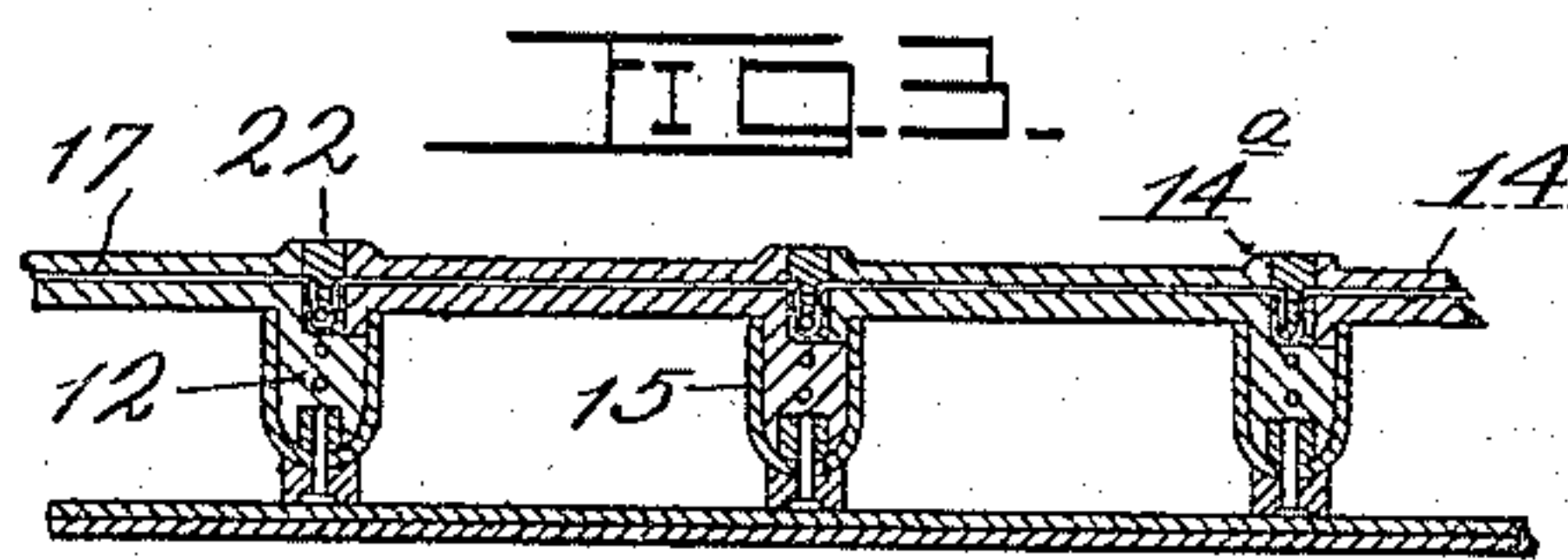
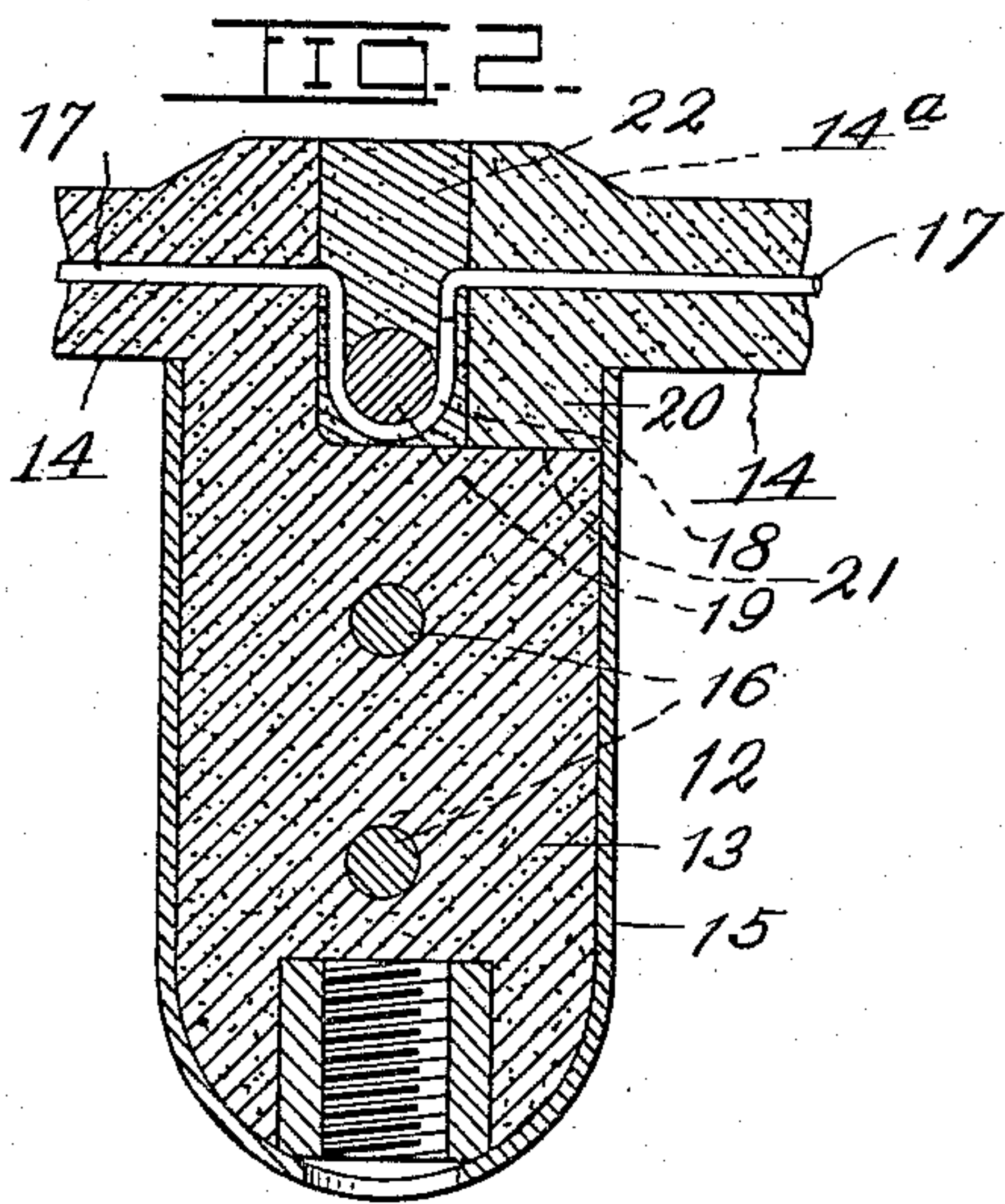
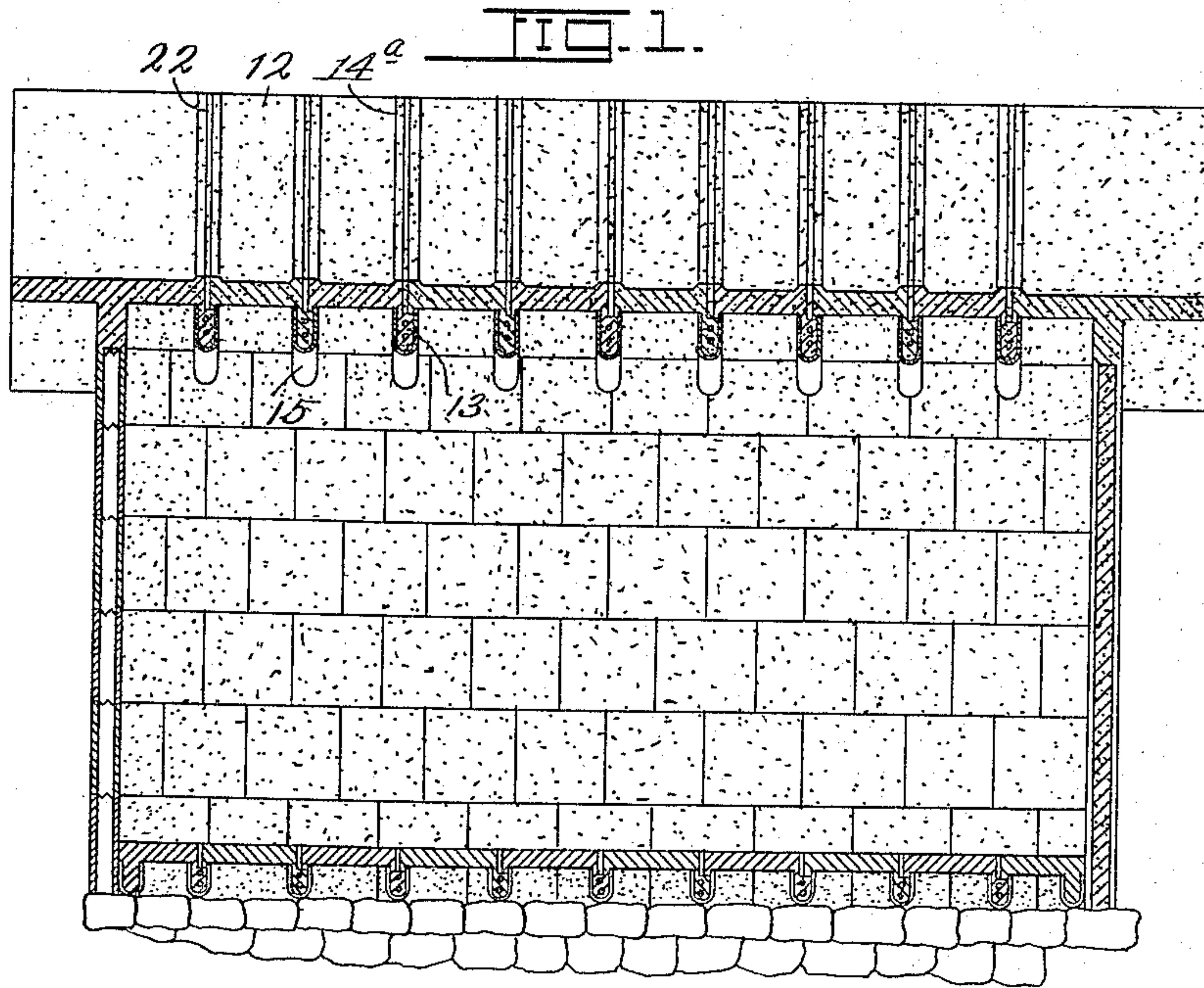


W. C. BROUGHTON.
 CONCRETE BUILDING.
 APPLICATION FILED JULY 2, 1913.

1,155,037.

Patented Sept. 28, 1915.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WALTER C. BROUGHTON, OF KANSAS CITY, MISSOURI.

CONCRETE BUILDING.

1,155,037.

Specification of Letters Patent.

Patented Sept. 28, 1915.

Application filed July 2, 1913. Serial No. 777,047.

To all whom it may concern:

Be it known that I, WALTER C. BROUGHTON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Concrete Buildings, of which the following is a specification.

My invention relates to improvements in concrete buildings and the like, and the present invention relates more particularly to a new and useful roof construction for such buildings.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which:

Figure 1 is a vertical section of a building embodying my roof construction. Fig. 2 is a broken cross section, enlarged, of my roof construction. Fig. 3 is a cross section of the roof construction with a ceiling attached.

12 designates a roof slab constituting an important feature of the invention. Said roof slab embodies a rafter member 13 and a longitudinal roof section 14, extending at right angles to said rafter member 13 and cast integral therewith.

The roof section 14 is reinforced by a plurality of tie-rods 17, extending transversely therethrough and projecting from the sides thereof, the projecting ends of said tie-rods being bent into hooks 18 to receive a bolt 19 extending longitudinally of the roof slab. Each roof section 14 is provided at one side with a depending marginal lip 20, and at its opposite side with an off-set 21. The lip 20 of one slab is designed to fit into the off-set 21 in a companion slab, as disclosed by Figs. 2 and 3. A groove is left between the lip 20 and the off-set 21 to receive the bolt 19. This groove is rendered water tight, after placing the bolt therein, by a suitable filling 22. In order to further guard against water entering the groove, the roof sections 14 are provided with marginal copings 14^a adjacent said groove to shed water therefrom.

The rafter member is reinforced by a metal case 15 and longitudinal rods 16. One edge of the case 15 extends above the bottom of the off-set 21, to engage the adjacent side of the lip 20 on a companion roof slab, and thus coacts with the tie-rods 17 and the bolt 20 in firmly uniting the roof slabs.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. In a roof construction of the character described, a plurality of slabs, each consisting of a roof section having a marginal lip at one side and an off-set at its opposite side, the lip on one slab being adapted to fit into the off-set of the adjoining slab, a rafter member integral with each roof section, and a metal case embracing each rafter member and having a margin extending above the bottom of the off-set in its respective slab to engage the lip on the companion slab, substantially as described.

2. A roof construction of the character described, consisting of a plurality of slabs each of which embraces a roof section having a marginal lip at one side and an off-set at its opposite side, the lip on one slab being adapted to fit loosely into the off-set on the adjoining slab to leave a groove, a rafter member integral with each roof section, a metal case embracing each rafter member and having a margin extending above the bottom of the off-set in its respective slab to engage the lip on the companion slab, tie-rods extending transversely through the roof sections and having their terminals bent into hooks extending into the grooves aforementioned, and bolts engaging said hooks, for the purpose described.

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

WALTER C. BROUGHTON.

Witnesses:

F. G. FISCHER,
L. J. FISCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."