

No. 815,447.

PATENTED MAR. 20, 1906.

W. H. LUCAS.  
CISTERN MOLD.  
APPLICATION FILED OCT. 30, 1905.

2 SHEETS—SHEET 1.

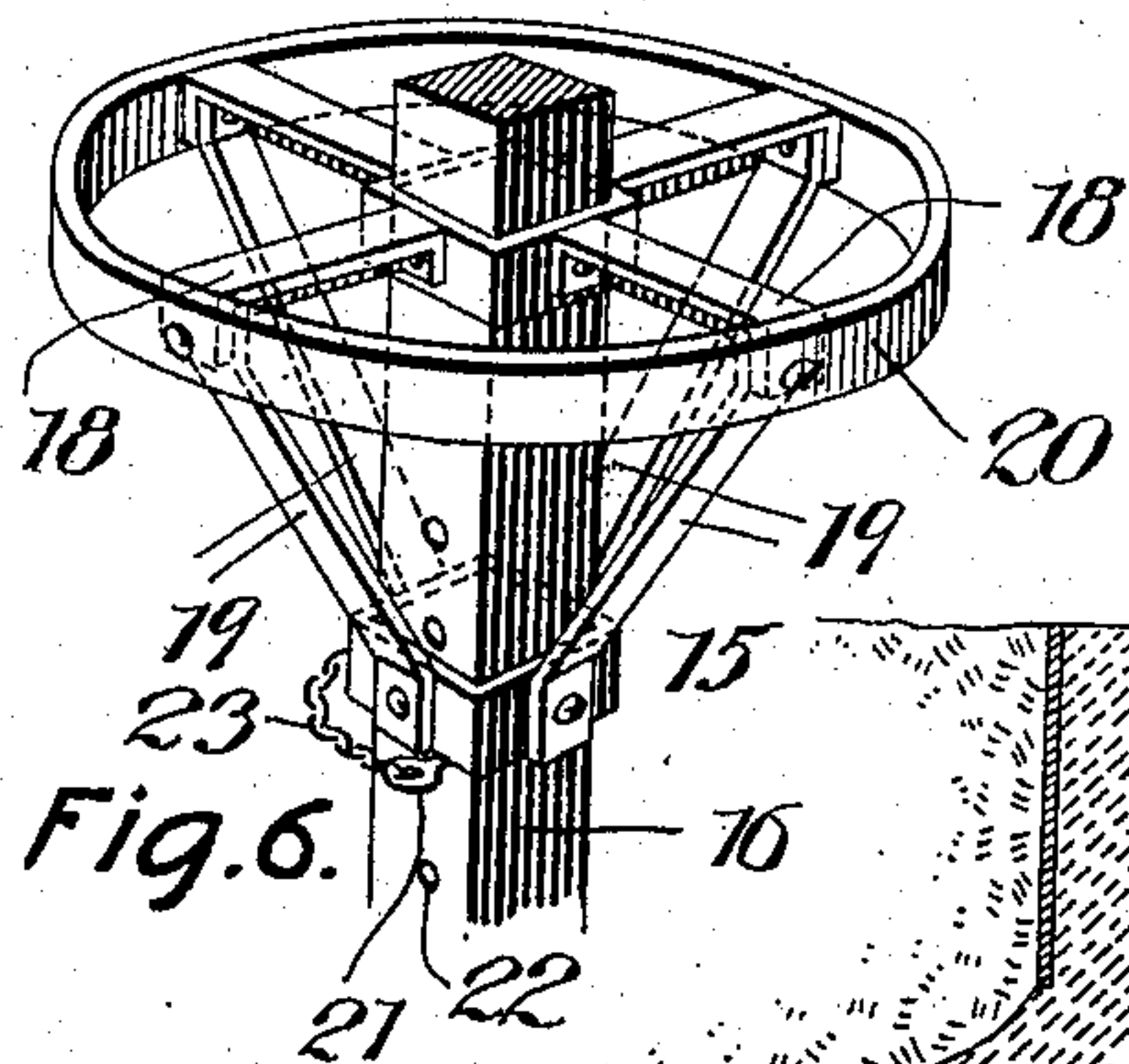


Fig. 6.

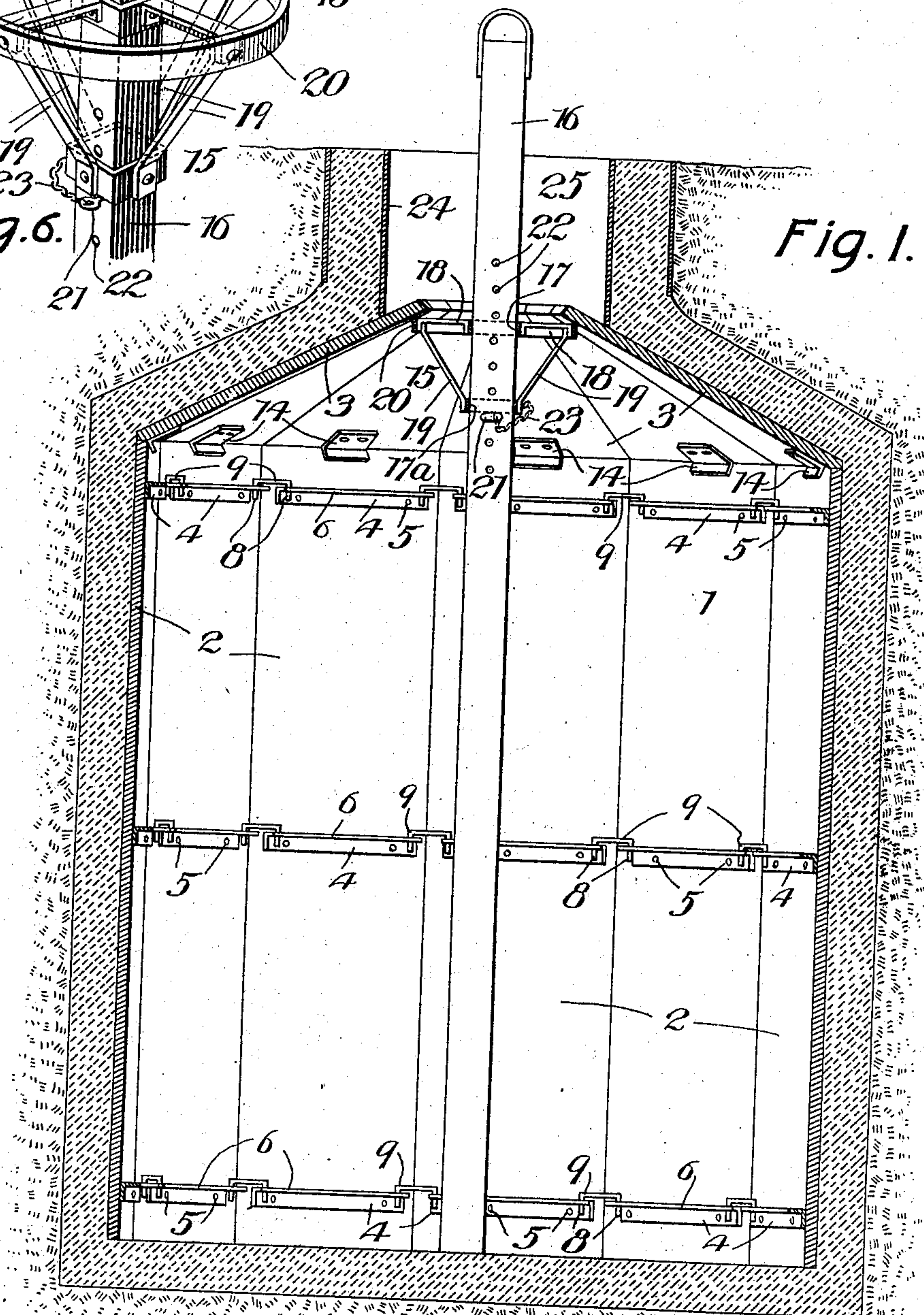


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

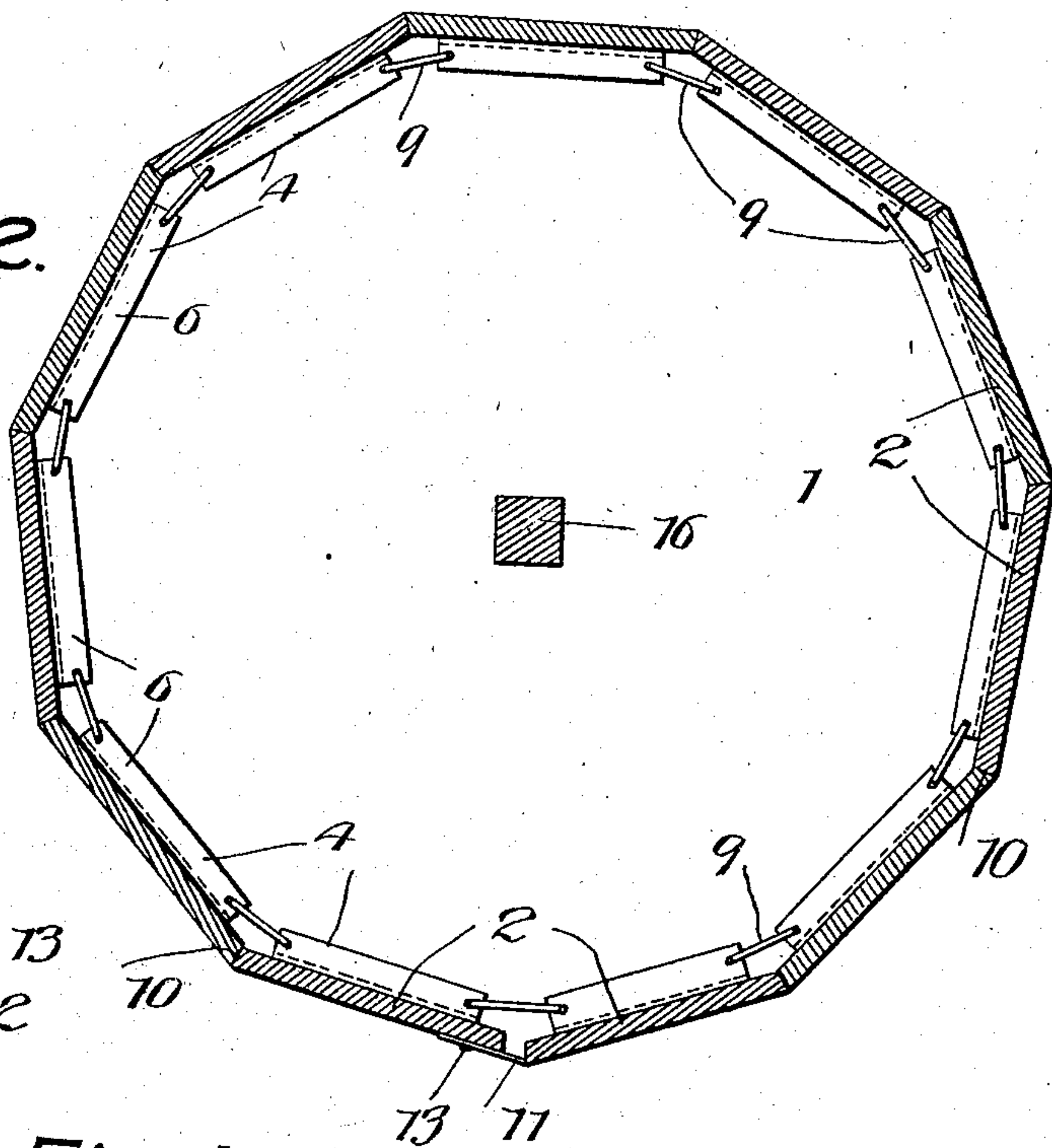


Fig. 3.

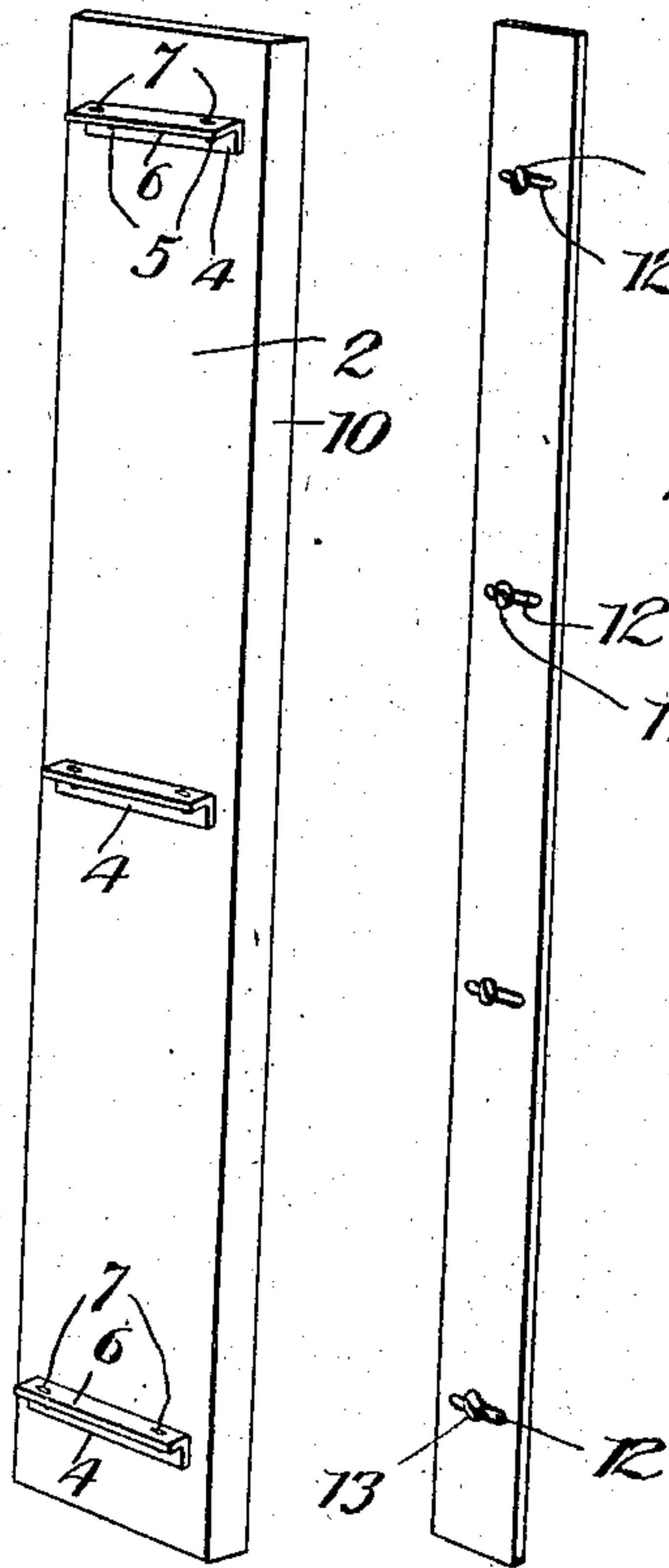


Fig. 4.

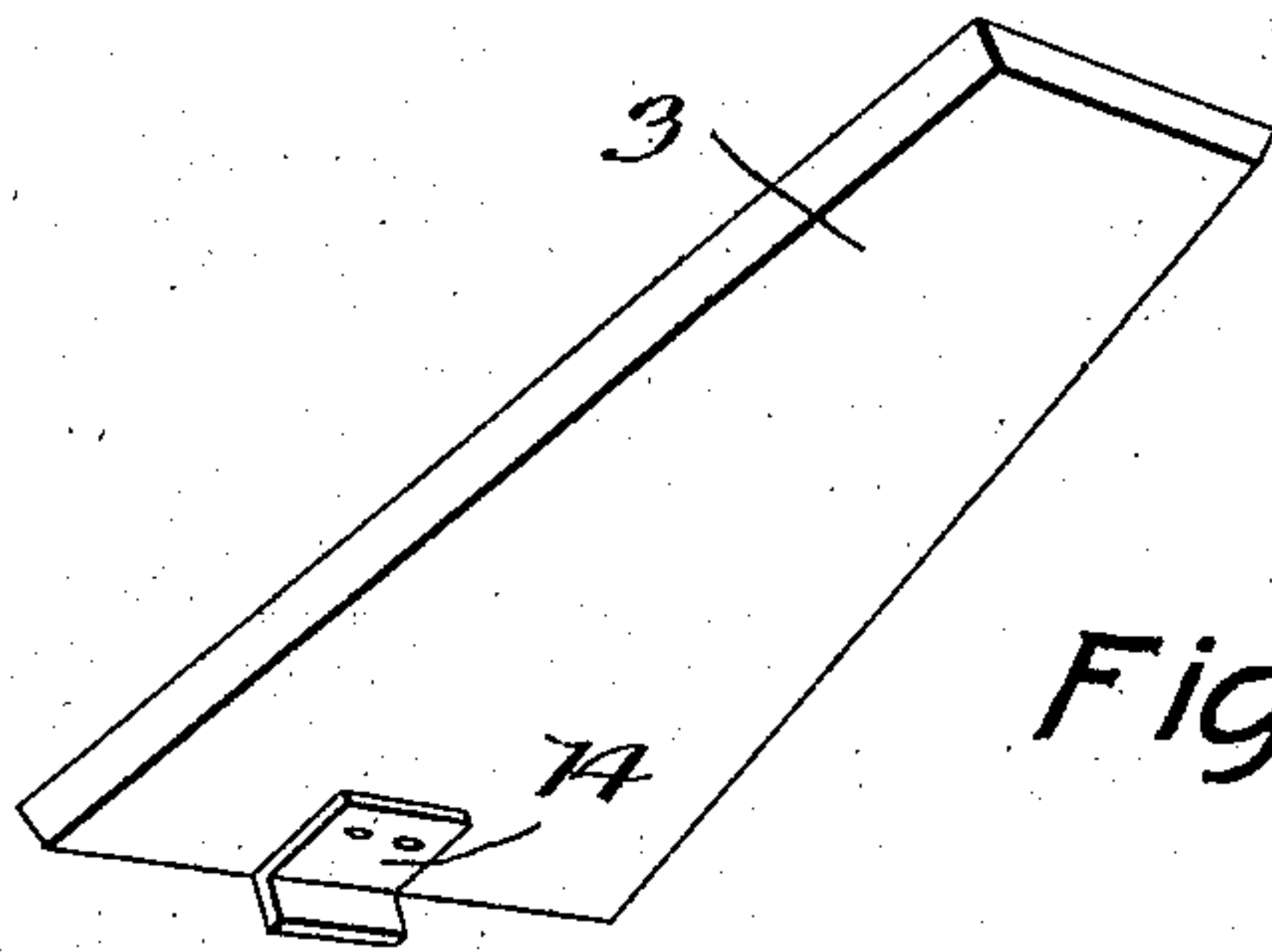


Fig. 5.

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# UNITED STATES PATENT OFFICE.

WILLIAM H. LUCAS, OF NEWARK, OHIO.

## CISTERN-MOLD.

No. 815,447.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed October 30, 1905. Serial No. 285,207.

*To all whom it may concern:*

Be it known that I, WILLIAM H. LUCAS, a citizen of the United States, residing at Newark, in the county of Licking and State of Ohio, have invented certain new and useful Improvements in Cistern-Molds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in molds for making cisterns, catch-basins, and the like from concrete or other plastic material; and it consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

The object of the invention is to provide a simple, inexpensive, rigid, and durable mold of this character which may be quickly and easily set up for use and knocked down to permit its removal from the molded structure.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view through a molded concrete cistern with my improved mold therein. Fig. 2 is a horizontal sectional view through the same, taken on the line 2 2 in Fig. 1. Fig. 3 is a perspective view of the inner face of one of the side sections of the mold. Fig. 4 is a perspective view of the outer face of the adjustable side section of the mold. Fig. 5 is a perspective view of one of the top sections of the mold, and Fig. 6 is a perspective view of the adjustable head for supporting the top sections of the mold.

Referring to the drawings by numeral, 1 denotes my improved mold, which is composed of a plurality of vertical side sections 2 and inclined top sections 3, formed, preferably, of boards of sufficient size, which may be varied according to the size and character of the cistern or other structure to be molded. Each of the vertical side sections 2 is in the form of a flat rectangular board, which has secured upon its inner face, preferably at its center and adjacent to each end, transversely-extending angle-metal cleats 4. These cleats are right-angular in cross-section and have one of their sides or flanges secured by means of screws or the like 5, so that their opposite sides or flanges 6 project inwardly at right

angles. These transverse cleats 4 in addition to strengthening the boards 2 serve as means for detachably connecting them when placed edge to edge in constructing the mold, as shown in Figs. 1 and 2. The connection between the ends of the adjacent cleats 4 is preferably effected by forming said ends with apertures or openings 7 to receive the ends or arms 8 of U-shaped clips or staples 9. These clips or staples 9 are preferably so shaped that when driven into the openings 7 they will draw the ends of the cleats, and hence the adjacent edges of two of the mold-sections 2, together.

The side edges of the mold-sections 2 may be beveled slightly, as shown at 10 in Fig. 2, to cause the said sections to fit closely together, and upon the outer face of one of the side mold-sections 2, preferably the last one that is placed in position in erecting the mold, a plate or strip of sheet-steel or other metal is secured. This plate 11 extends from end to end of said mold-section and is preferably mounted so that it may be adjusted laterally thereon to vary the width of said section by providing in it transversely-extending slots 12 to receive headed screws 13, as clearly shown in Fig. 4 of the drawings. By thus making one of the side sections of the mold adjustable in width it will be seen that the mold may be made of any desired width or diameter and all of the mold-sections will firmly engage each other, so that there will be no projecting or rough portions within the molded cistern.

The top mold-sections 3 are in the form of tapered or wedge-shaped boards, which are arranged so as to form a cone-shaped top upon the cistern. These sections 3 have their lower outer ends supported upon the upper ends or edges of the side sections 2 and are prevented from slipping off from the same by angle-metal stops 14, which are secured upon the under side of the sections 3, as clearly shown in Fig. 5 of the drawings. The converging upper and inner ends of the top sections 3 are supported upon an adjustable disk or head 15, which is slidably mounted upon a post 16, arranged centrally in the mold. This head 15 consists of upper and lower bands or sleeves 17 17<sup>a</sup>, which are slidably mounted upon the post 16 and are connected, by means of braces 18 19, to an outer ring or band 20, which is disposed in the horizontal plane of the upper sleeve 17 and is adapted to support the converging upper ends



of the mold-sections 3. The braces 18 are in the form of angle-metal arms which radiate from the centers of the four sides of the sleeve 17, the latter being square to fit the post 16, which is also square in cross-section. The braces 19 are inclined upwardly and outwardly, as shown. The head 15 is adapted to be adjustably secured at any height upon the post 16 by means of a locking-pin 21, which is passed through any one of a longitudinal series of transverse pins 22, formed in said post. The pin 21 is adapted to support the lower sleeve 17<sup>a</sup>, and to prevent it from being lost it is preferably attached to said sleeve by a chain or other loose connection 23.

The mouth or neck of the concrete cistern may be of any shape and formed in any desired manner; but I preferably provide inner and outer cylindrical collars 24 25, which are supported upon the top mold-sections 3, as shown.

The use and advantages of the mold will be readily seen. When it is desired to mold a concrete cistern or the like, a hole is dug in the earth of slightly-greater size than the cistern to be erected, and the mold is then set up in the same, as shown in Figs. 1 and 2 of the drawings. This may be quickly and easily done, owing to the manner in which the side sections are held together. After the mold has been set up the concrete is packed around the same, and as soon as it hardens the mold may be quickly and easily removed by removing the pin 21, which per-

mits the head 15 to drop down upon the post 6 and allows the top sections 3 to be taken out. After this is done the side sections may be quickly removed by removing the staples 9 to permit them to be separated.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

The herein-described mold comprising a plurality of side sections having their adjacent edges beveled and in contact, angle-metal cleats secured transversely on said sections, on the inner sides thereof, and having openings near their ends, and substantially inverted-U-shaped clips having their arms engaged with the openings in said cleats and connecting the cleats together and thereby serving to secure said side sections together, one of said side sections having an adjustable plate on its outer side, near one edge, to bear against the opposing edge of the next adjacent section and cover the space between them.

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

W. H. LUCAS.

Witnesses:

J. HOWARD JONES,  
H. H. SPARKS.