

No. 775,290.

PATENTED NOV. 15, 1904.

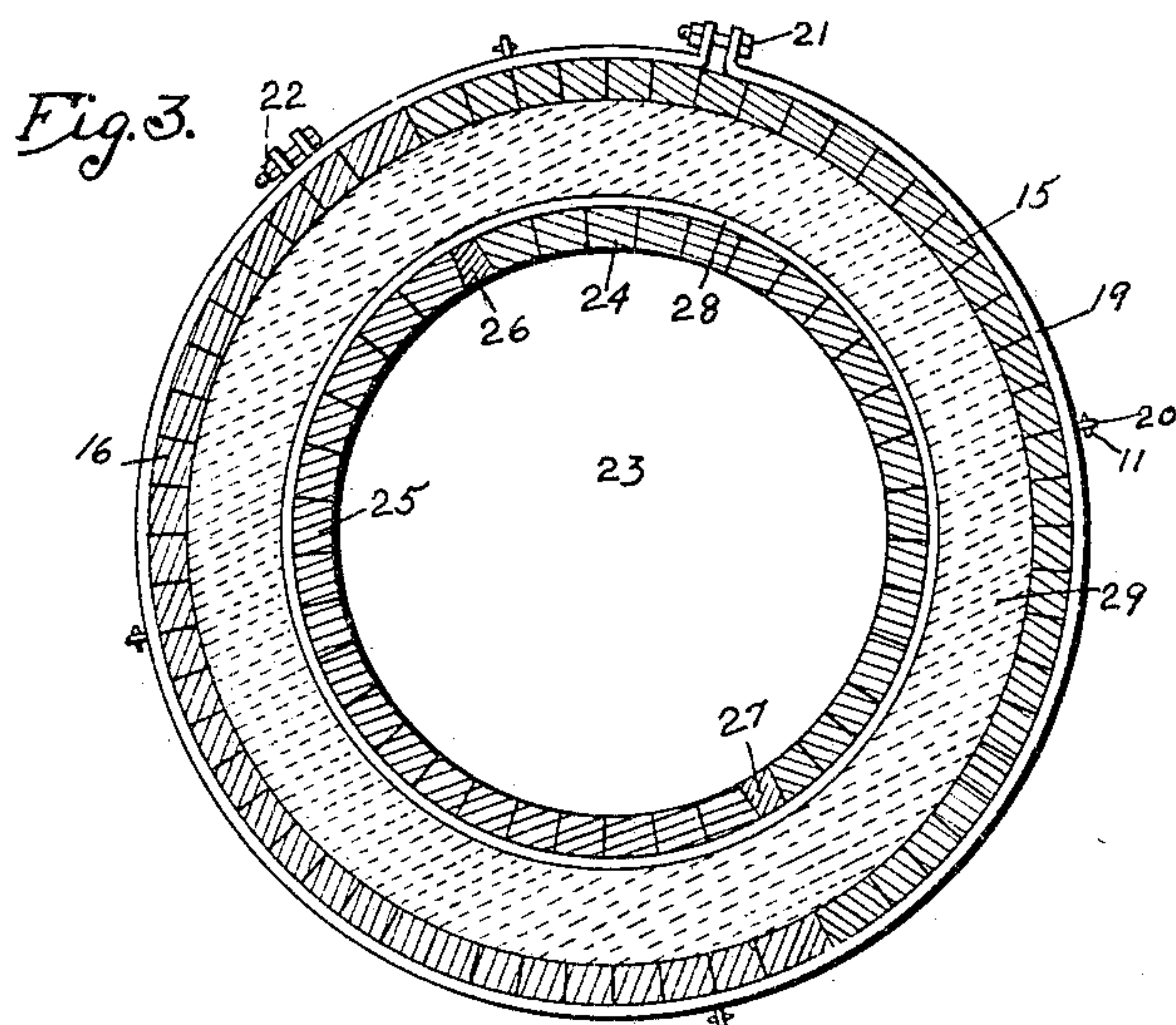
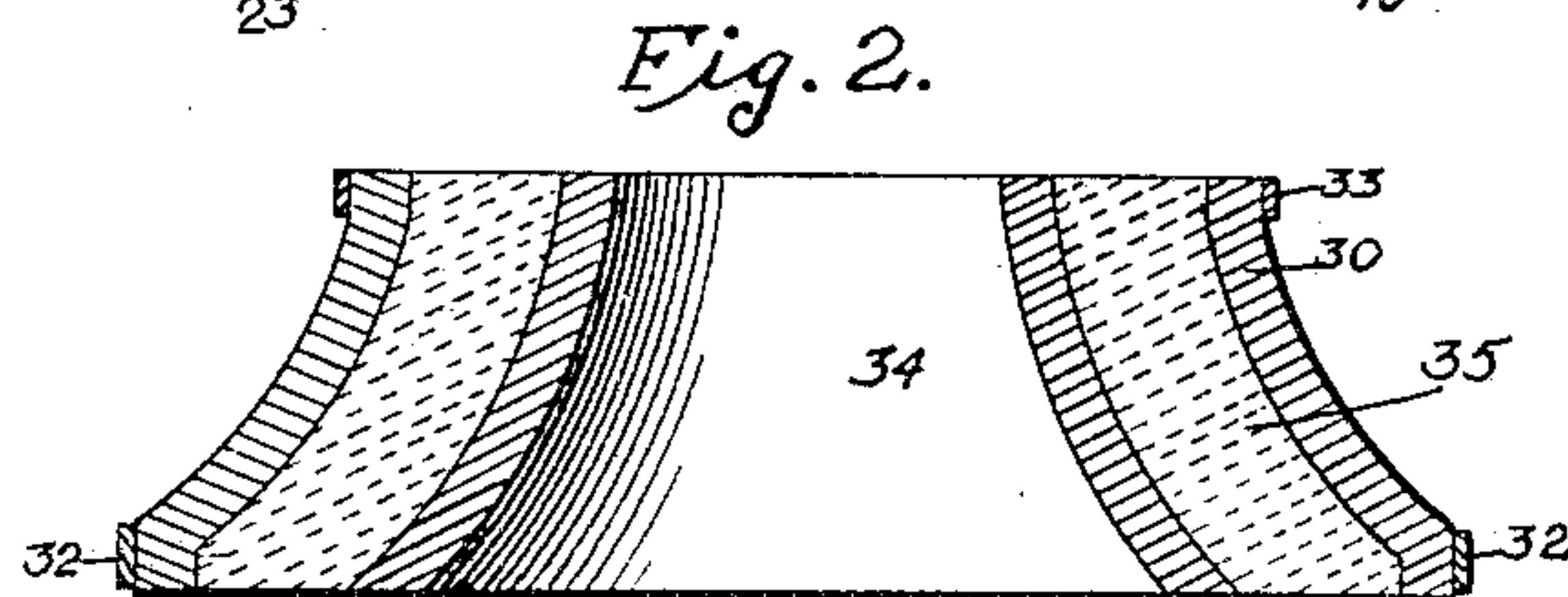
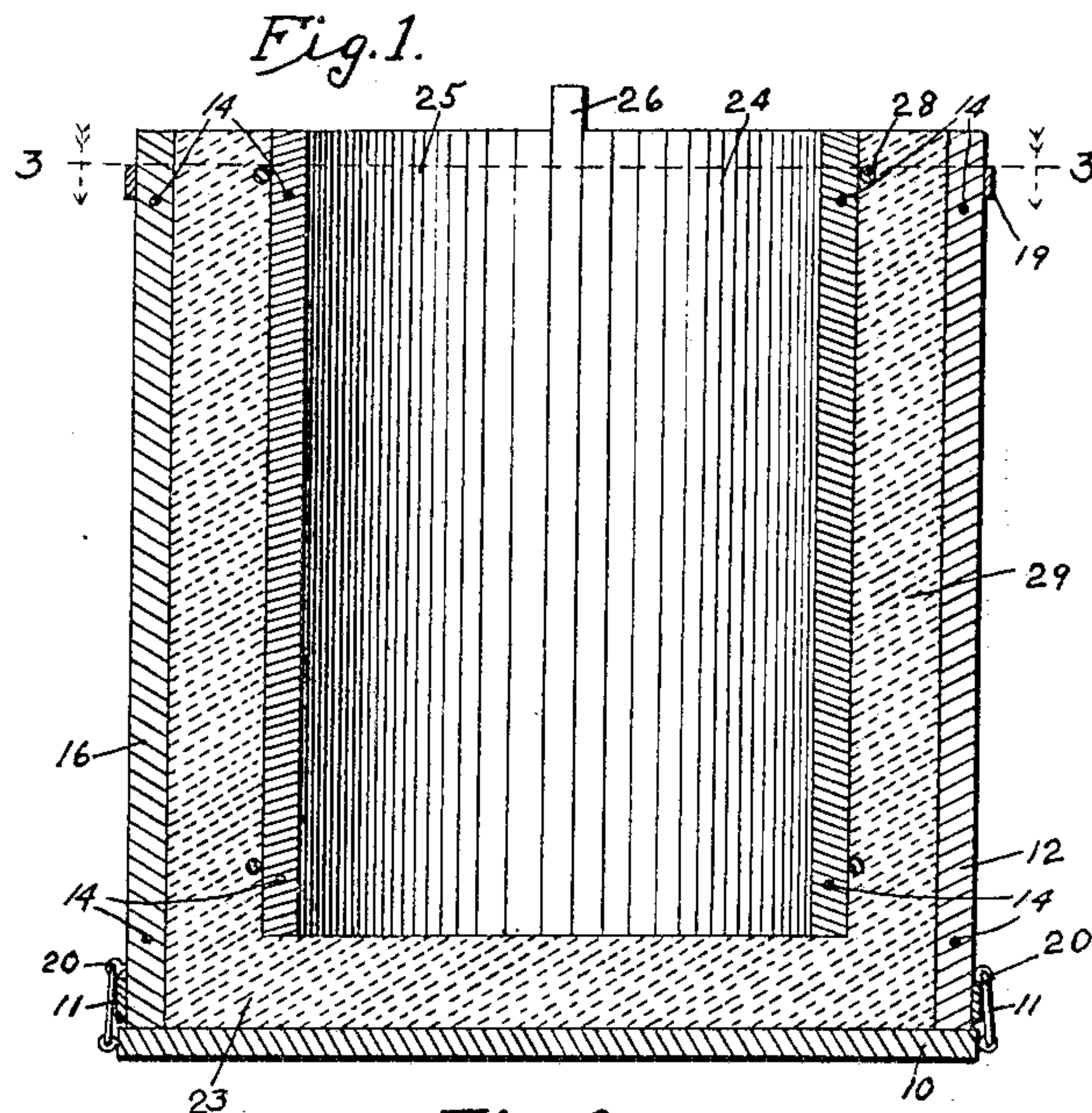
J. WEARTH.

APPARATUS FOR MAKING CONCRETE CISTERNS OR TANKS.

APPLICATION FILED FEB. 16, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses.

H. H. Keffer.

A. G. Hauger

Inventor, John Wearth

by Quig & Lane, Atty.

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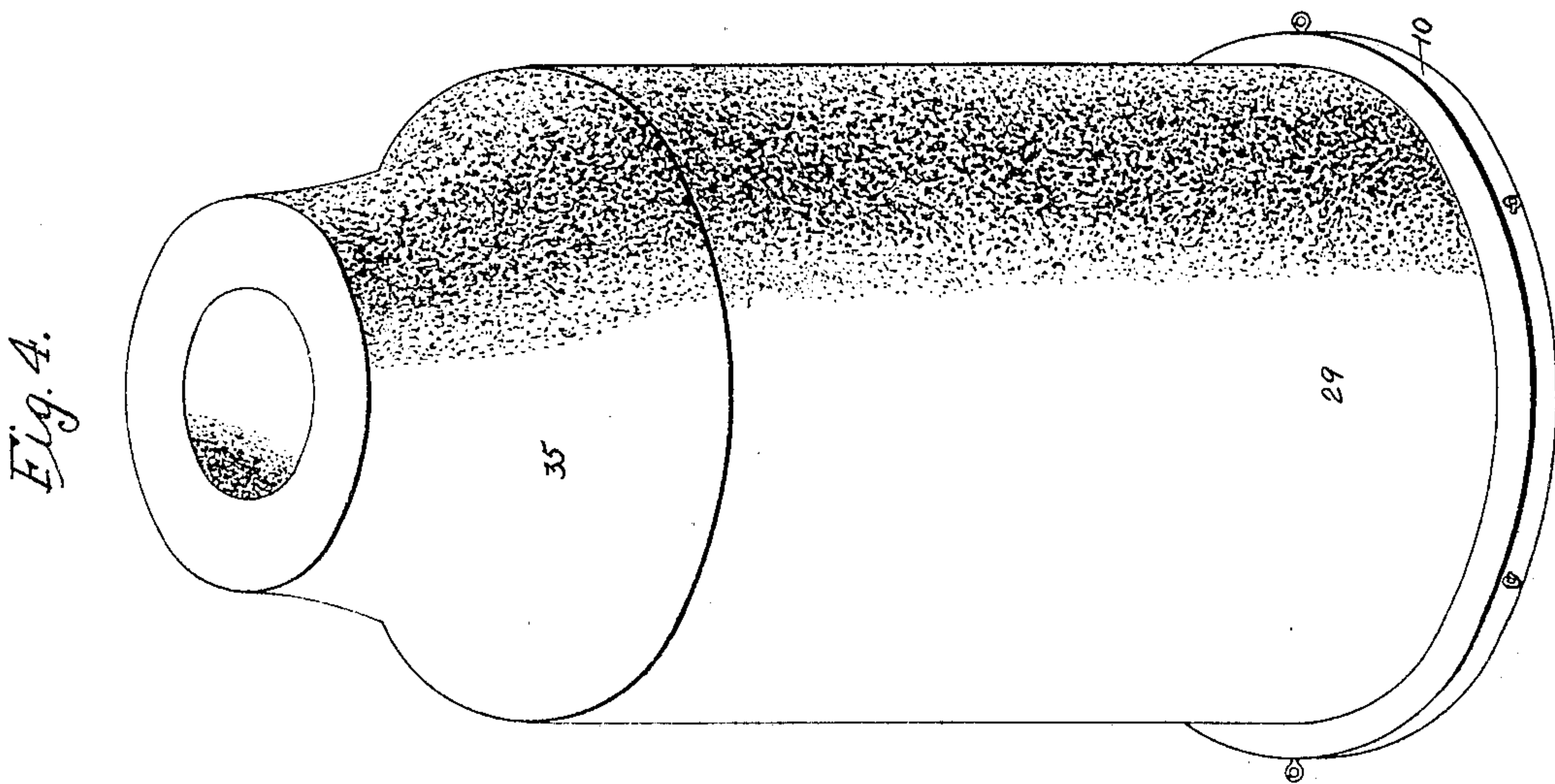
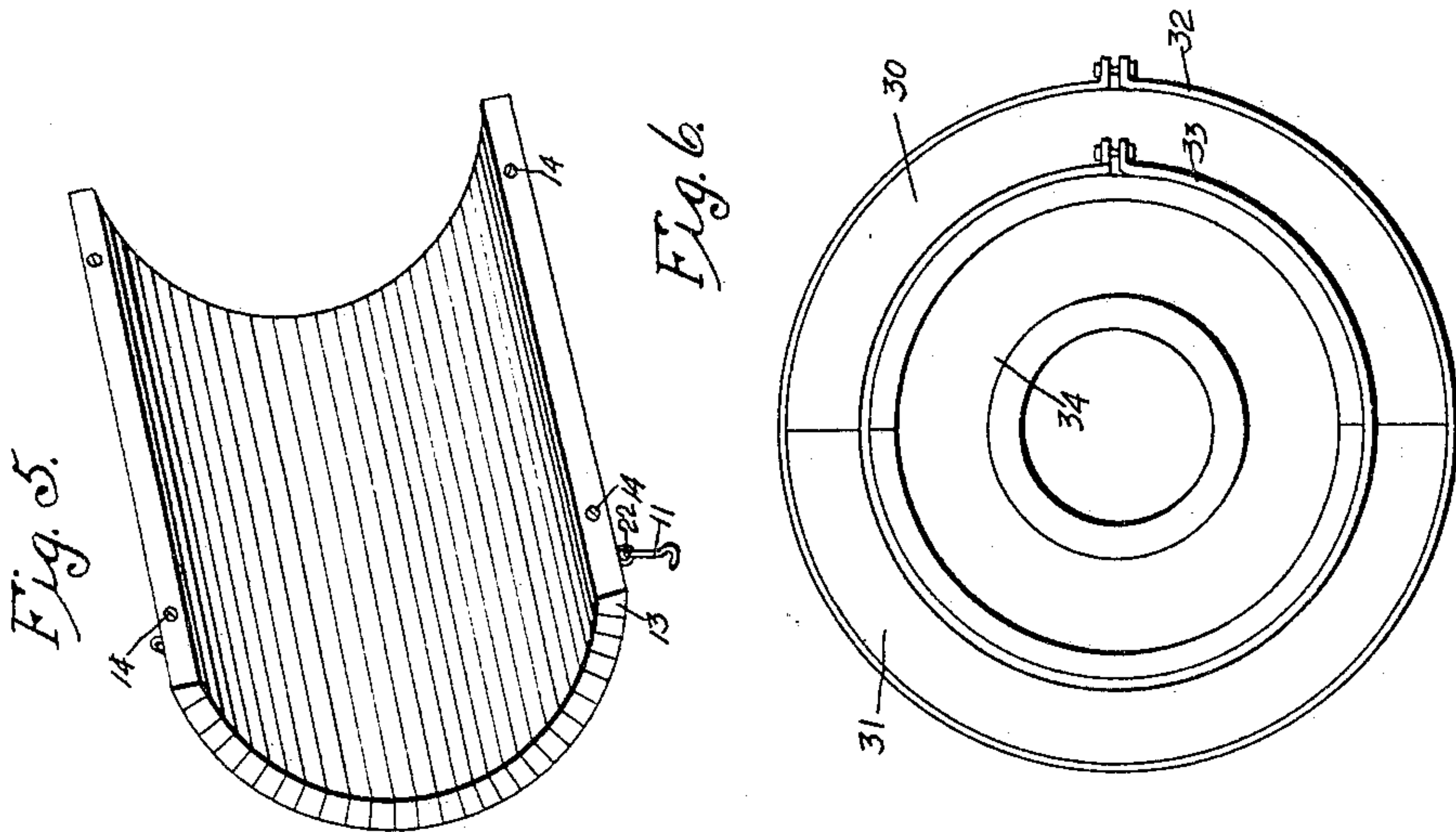
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2 SHEETS—SHEET 2.



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H. K. Keffer.
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UNITED STATES PATENT OFFICE.

JOHN WEARTH, OF AMES, IOWA.

APPARATUS FOR MAKING CONCRETE CISTERNS OR TANKS.

SPECIFICATION forming part of Letters Patent No. 775,290, dated November 15, 1904.

Application filed February 16, 1904. Serial No. 193,923. (No model.)

To all whom it may concern:

Be it known that I, JOHN WEARTH, a citizen of the United States, residing at Ames, in the county of Story and State of Iowa, have
5 invented a new and useful Apparatus for Making Concrete Cisterns or Tanks, of which the following is a specification.

The objects of my invention are to provide frameworks between which a plastic material
10 may be placed and maintained until the plastic material has become hardened sufficiently to make a solid wall sufficient for a cistern or tank, and, further, to provide a framework of this kind which can be easily removed for subsequent use after the material has become
15 hardened, the material object being to provide means of this kind for making cisterns or other tanks.

My invention consists in certain details in
20 the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying
25 drawings, in which—

Figure 1 is a vertical sectional view of the cistern as it is being formed and maintained in position between the parts of the device. Fig. 2 is a vertical sectional view of the device for shaping the upper portion of the
30 cistern. Fig. 3 is a vertical sectional view of the device cut on the line 3 3 of Fig. 1. Fig. 4 shows in perspective the complete cistern after the retaining devices have been removed. Fig. 5 is a detail view of a part of the frame-
35 work, showing the way in which the slats on each part are held together. Fig. 6 is a plan view of the frame for making the top portion of the cistern.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate the bottom portion of the outside frame, which is made of a single flat piece of board or a number of boards attached to form a circular flat surface upon which the cistern is
40 designed to rest. Detachably connected with this portion 10 by means of the hooks and eyes 11 is a framework 12, composed of a large number of slats 13, which are tapered
45 from their exterior surface to their interior

surface to form a semicircular part, of which there are two or more in number, to form the circular framework 12. Each of these slats is attached to the one next to it by means of the screws 14, so that this framework 12 is
55 rigid. The bands 19 and 20 are passed around the outside portion of the parts 15 and 16 to hold the parts of the framework in position. The ends of the band 19 are held together by means of the bolt 21, and the ends of the part
60 20 are held together by means of the bolt 22.

In constructing the cistern the bottom portion 10 is placed on the ground, and the framework 12 is attached to the bottom 10 by means of the hooks and eyes 11, and the bottom of
65 the cistern 23 is made by spreading the mortar over the bottom 12, as shown clearly in Fig. 1 of the drawings. I have provided an inner framework comprising the two semicircular portions 24 and 25 and the bands 28.
70 The inner framework is constructed in the same way as the outer framework 12, except that it is smaller in size and wedges 26 and 27 provided to be moved inwardly to remove them from between the portions 24 and 25.
75 The portions 24 and 25 are placed on top of the bottom 23 and between the parts 15 and 16. The mortar or other plastic material is then filled in between the inner framework and the outer framework to form the sides 29
80 of the cistern. The entire framework is left in this position until the sides 29 and the bottom 23 have become sufficiently hardened.

To form the cover, I have provided a funnel-shaped portion comprising the two parts
85 30 and 31, which are held in position relative to each other by means of the parts 32 and 33. A smaller substantially funnel-shaped portion 34 is provided, so that when the plastic material is placed between the part 34 and
90 the parts 30 31 it will form the top portion 35 of the cistern. This plastic material is allowed to become hardened in this framework for the cover while the body portion of the cistern is becoming hardened between the
95 framework above described. When the plastic material is sufficiently hardened, the wedges 26 and 27 are removed from between the semicircular portions 24 and 25, and this will allow the removal of these semicircular por-
100

tions from the interior of the material, and they can be used for making any cistern. The bands 19 and 20 are then removed from the outer framework. These portions are
 5 then removed, and the cistern stands in the position shown in Fig. 4 of the drawings. The bands 32 and 33 are then removed from the semicircular portions 30 and 31, and these portions are removed from the top portion 35
 10 of the cistern. The funnel-shaped portion 34 is then removed from the top portion 35. The top portion 35 is then placed upon the upper portion of the sides 29, as shown in Fig. 4, and the top portion and the sides are
 15 sealed together by mortar. The cistern is then completed. Earth is then filled around the outside of the cistern proper, and the cistern is then in readiness for use.

By this construction the cost of making the
 20 cistern is considerably reduced and an absolutely waterproof serviceable cistern is provided. By the use of this method the materials for making the cisterns can be used again in making cisterns.

25 In practical use the cistern is made in the above-described framework, and after the cistern proper has become hardened the framework is removed, and the cistern can be then placed in a hole dug for it, so that it is practical to use my cistern in very wet places and
 30 where brick cisterns could not be easily constructed. The advantage of this device is self-evident, owing to the fact that a cistern may be constructed at any place prior to the digging of the hole for the cistern, and the completed cistern can be moved to the desired location and lowered into the hole dug for this cistern.

Having thus described my invention, what
 40 I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a device of the class described, the combination of a bottom portion, a framework detachably connected with said bottom
 45 portion comprising a number of parts designed to be held in position relative to each other by means of detachable bands, a second framework comprising a number of parts held in position relative to each other by bands,
 50 wedges designed to be placed between the parts of said second framework which are capable of being moved inwardly when it is desired to take the framework down, said second framework designed to be placed on
 55 the interior of the first framework so that mortar or other substance can be placed between the outer portion of the second framework and the inner portion of the first framework for holding the mortar while it is being
 60 formed, a two-part funnel-shaped portion,

means for holding the parts of said funnel-shaped portion together, a second funnel-shaped portion designed to be placed inside of said two-part funnel-shaped portion so that mortar can be placed between said parts while
 65 it is being formed, for the purposes stated.

2. In a device of the class described, a two-part framework comprising a series of tapered slats, means for securing these slats together for forming each part of this two-part
 70 framework, a wedge designed to be mounted between the parts of said framework and a detachable band for holding said parts together in position relative to each other when the wedges are between the parts of said two-
 75 part framework.

3. In a device of the class described, a two-part framework comprising a series of tapered slats, means for securing these slats together for forming each part of this two-part frame-
 80 work, a detachable band for holding said parts together in position relative to each other when the wedges are between the parts of said two-part framework, a second two-part framework comprising a series of tapered
 85 slats connected with each other to form each section of the second framework, a wedge mounted between each section of the second framework and capable of being removed inwardly from between said parts and a band
 90 for holding the sections of the second framework in position relative to each other when the wedges are between these sections.

4. In a device of the class described, a two-part framework comprising a series of ta-
 95 pered slats, means for securing these slats together for forming each part of this two-part framework, a detachable band for holding said parts together in position relative to each other when the wedges are between the parts
 100 of said two-part framework, a second two-part framework comprising a series of tapered slats connected with each other to form each section of the second framework, a wedge mounted between each section of the
 105 second framework and capable of being removed inwardly from between said parts and a band for holding the sections of the second framework in position relative to each other
 110 when the wedges are between these sections, a two-part funnel-shaped portion, means for securing the two parts of said funnel-shaped portion together and a second funnel-shaped portion designed to be placed inside of said funnel-shaped portion when in use.

JOHN WEARTH.

Witnesses:

A. L. WHITE,
 F. R. HARRIS.