

No. 808,846.

PATENTED JAN. 2, 1906.

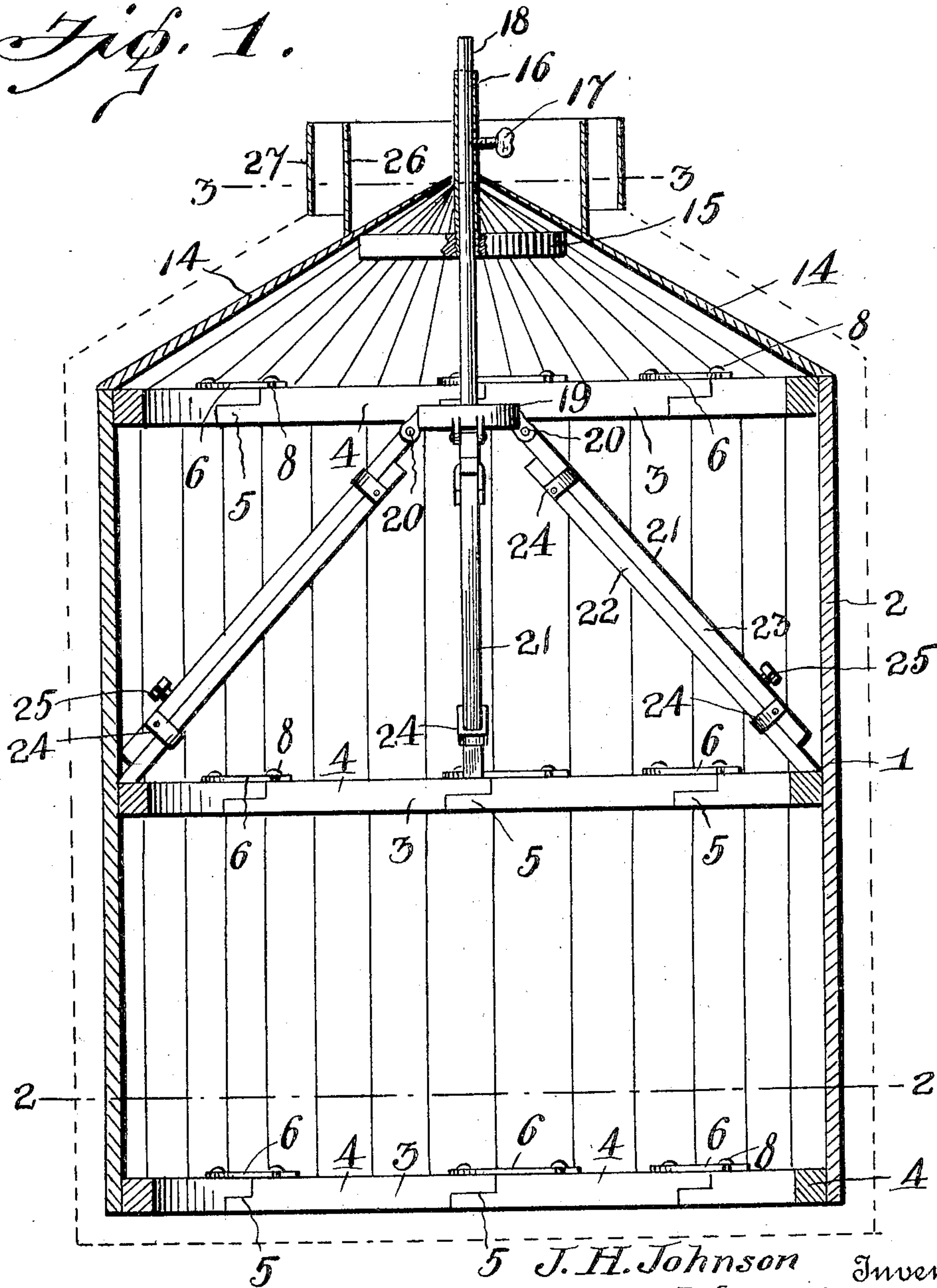
J. H. JOHNSON & H. MEYER.

MOLD.

APPLICATION FILED SEPT. 7, 1905.

2 SHEETS—SHEET 1.

Fig. 1.



J. H. Johnson Inventors
and H. Meyer,

Witnesses
Jas. A. Koell
P. H. Griesbauer.

by *A. B. Wilson*
Attorney

No. 808,846.

PATENTED JAN. 2, 1906.

J. H. JOHNSON & H. MEYER.

MOLD.

APPLICATION FILED SEPT. 7, 1905.

2 SHEETS—SHEET 2.

Fig. 2.

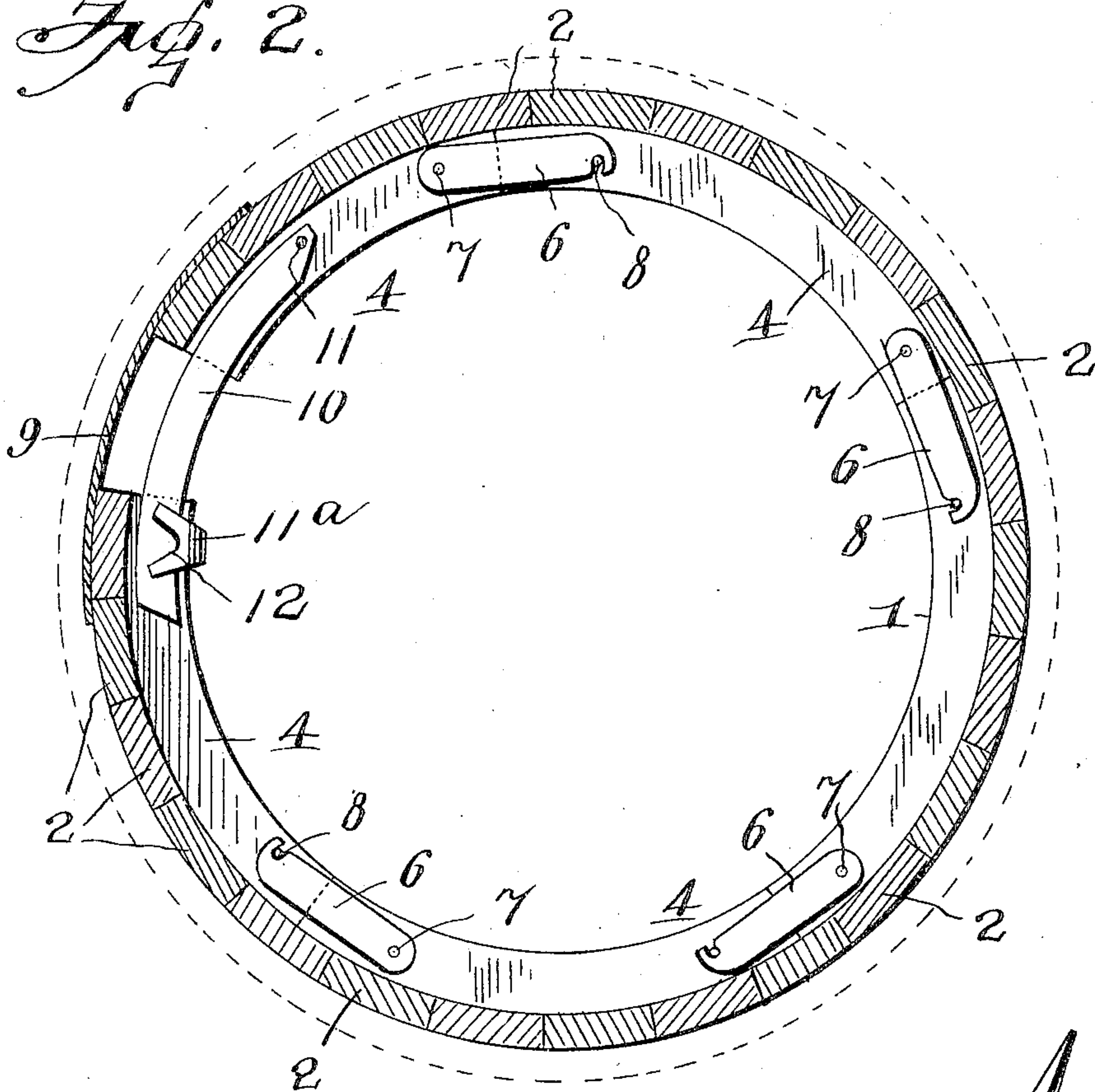


Fig. 3.

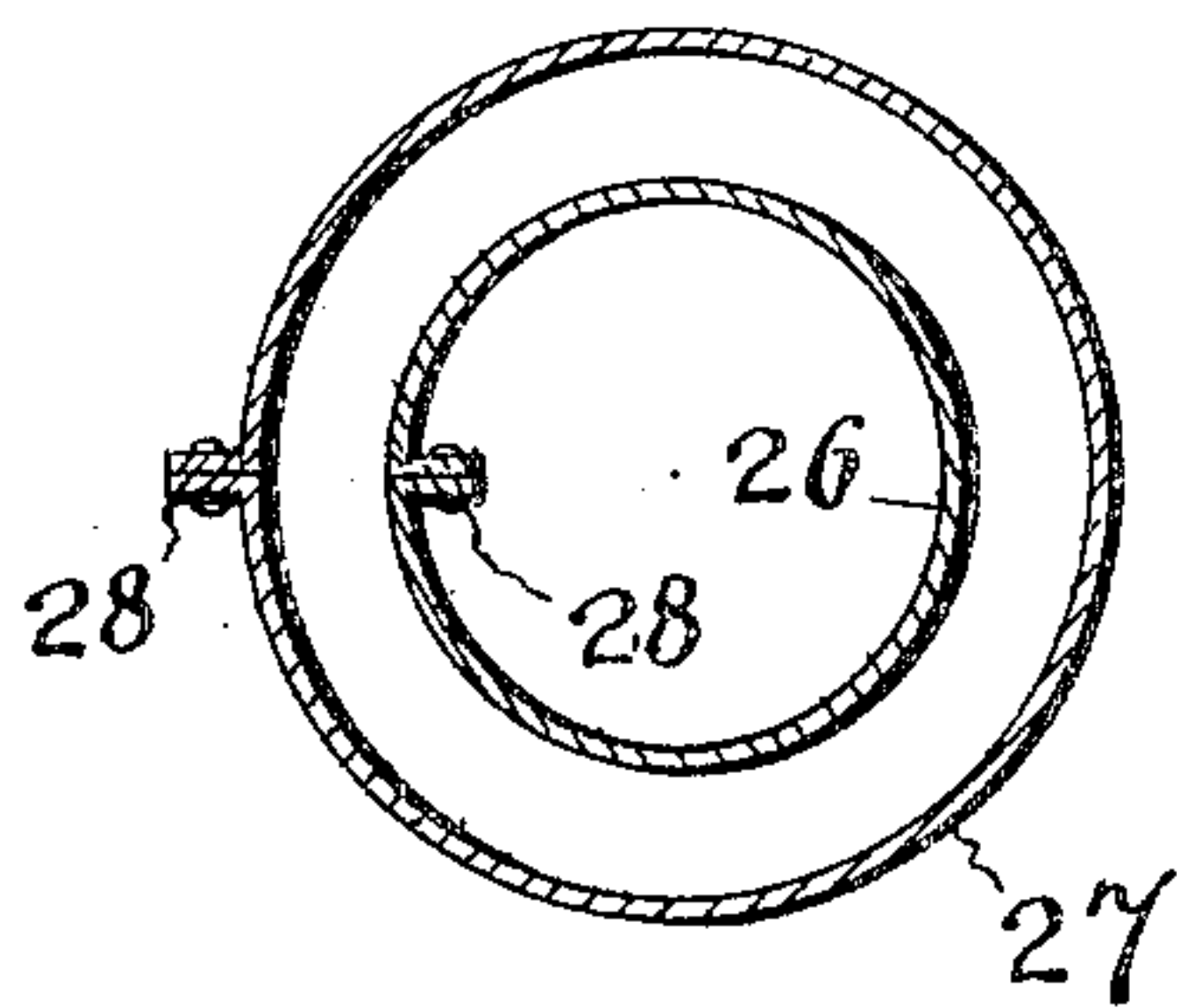


Fig. 5.

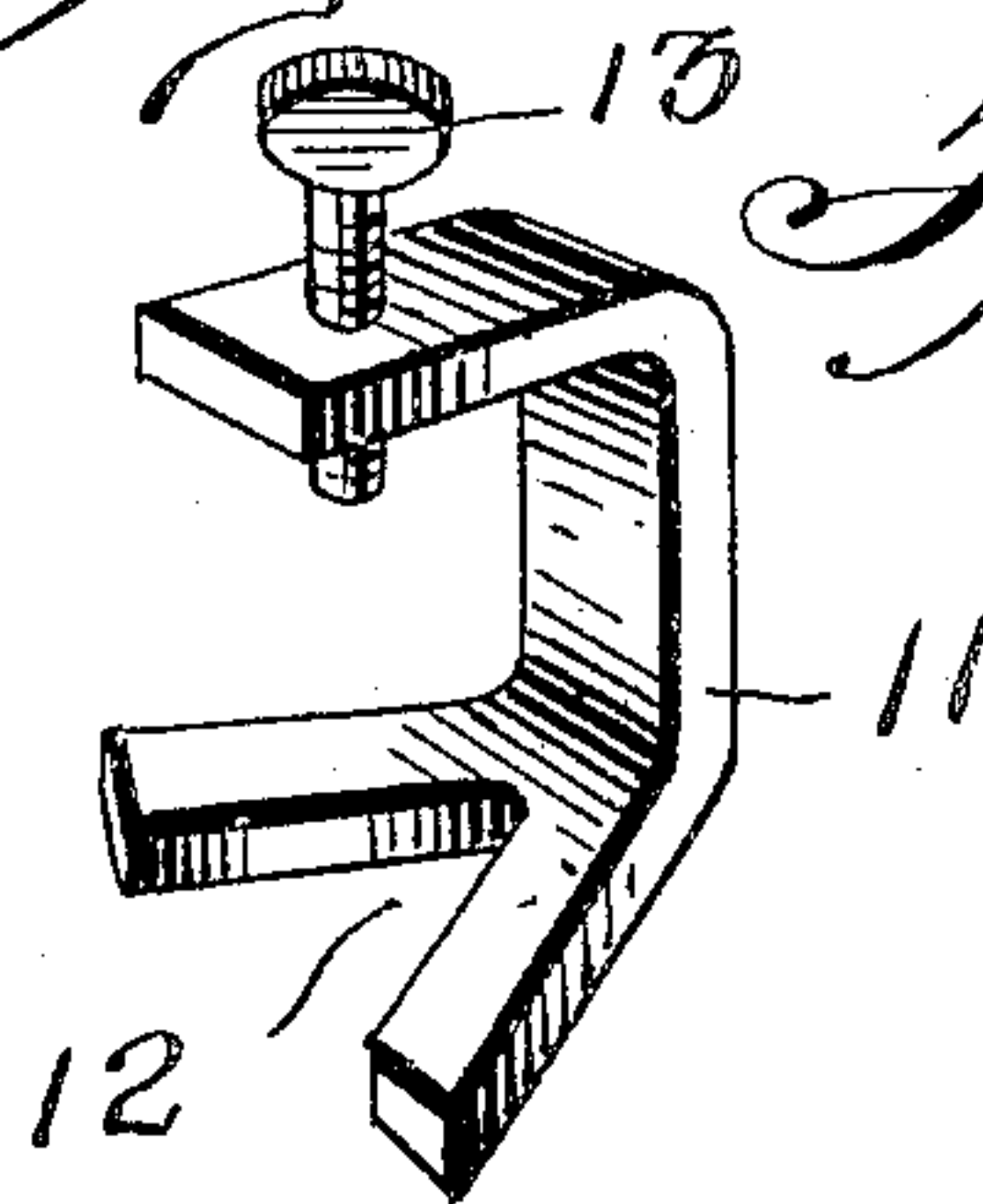
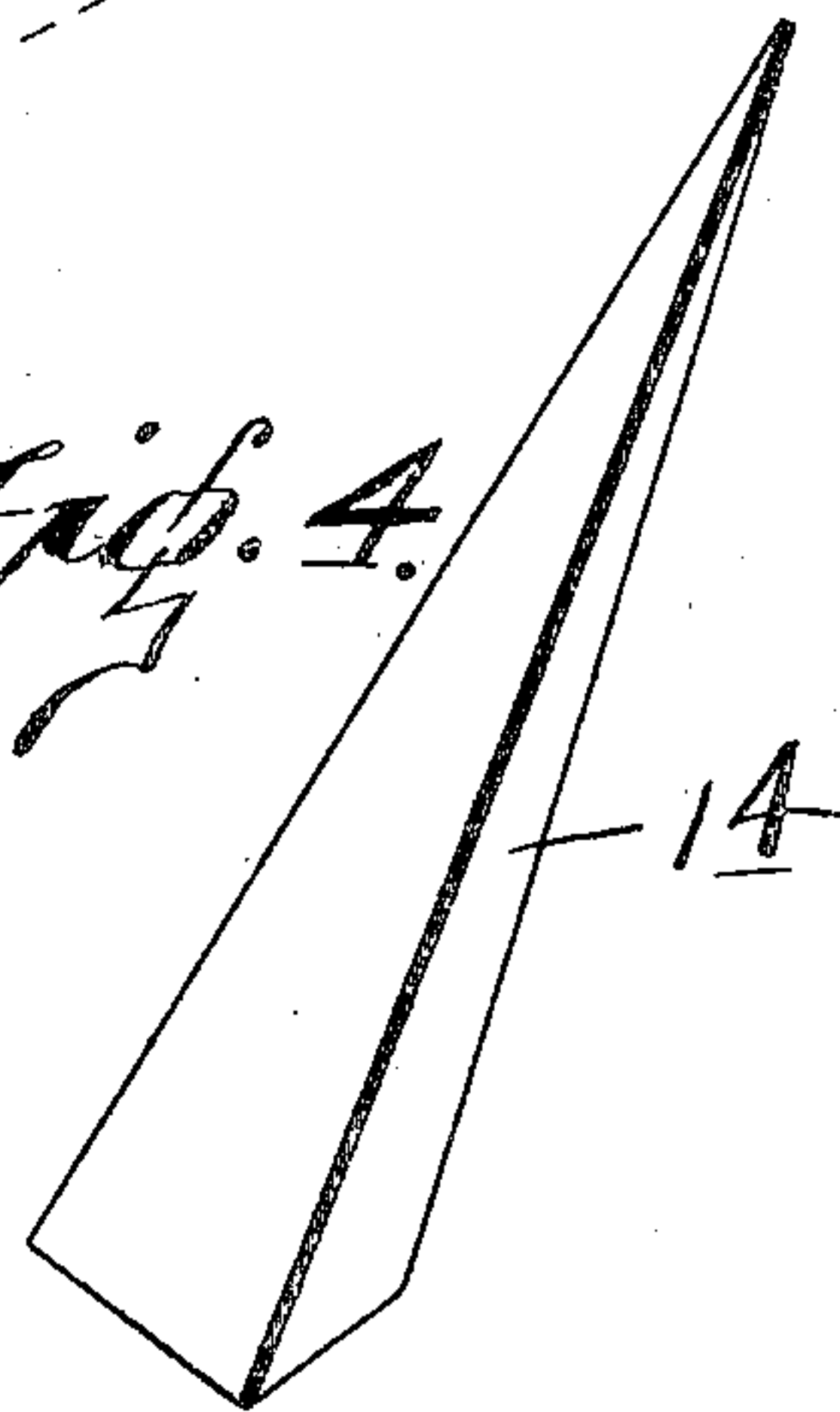


Fig. 4.



J. H. Johnson
and H. Meyer *Inventors*

by *A. B. Wilson*
Attorney

Witnesses

Jas. A. Koehl.
E. H. Griesbauer.

UNITED STATES PATENT OFFICE.

JAMES H. JOHNSON AND HENRY MEYER, OF FORT RECOVERY, OHIO.

MOLD.

No. 808,846.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed September 7, 1905. Serial No. 277,389.

To all whom it may concern:

Be it known that we, JAMES H. JOHNSON and HENRY MEYER, citizens of the United States, residing at Fort Recovery, in the county of Mercer and State of Ohio, have invented certain new and useful Improvements in Molds; and we 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, vaults, and the like.

One object of the invention is to provide a simple, inexpensive, and efficient mold of this character which may be readily set up for use and quickly and easily taken apart to permit it to be removed from the molded structure.

Another object of the invention is to provide a mold of this character which may be readily adjusted, so that cisterns or vaults of different sizes may be formed with it.

Another object of the invention is to improve and simplify the construction and operation of devices of this character, and thereby render the same more efficient and durable in use and less expensive to manufacture.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a vertical sectional view through our improved mold, showing the application of the same. Fig. 2 is a horizontal sectional view taken on the plane indicated by the line 2 2 of Fig. 1. Fig. 3 is a detail horizontal sectional view taken on the plane indicated by the line 3 3 of Fig. 1. Fig. 4 is a perspective view of one of the top mold-sections, and Fig. 5 is a perspective view of one of the clamps used on the annular braces or supports for the side mold-sections.

Referring to the drawings by numeral, 1 denotes our improved mold, which is preferably of cylindrical or polygonal form, and it comprises a plurality of vertically-disposed side mold-sections 2, each of which is in the form of a board or plank of suitable length, width, and thickness, according to the size and shape of the cistern or other structure to

be molded. In using the mold an opening is dug in the earth of greater size than the mold when set up, and the sections 2 are arranged vertically side by side around substantially annular braces or supports 3. While any number of the latter may be employed, we preferably use three and arrange them as shown, one being at the center and the other two at the upper and lower ends of the side mold - sections 2. Each of these substantially annular braces or supports 3 consists of a plurality of curved or segmentally-shaped sections 4, each of which has notched or recessed ends 5 to overlap the corresponding portions of the adjoining sections. These brace-sections 4 are detachably secured together by means of latches 6, each of which, as clearly shown in Fig. 2, has one of its ends pivoted, as at 7, upon one of the sections 4 and its other end formed with a notch to engage a pin or stud 8 upon the adjoining section 4. Each section 4 is bolted or otherwise secured to a plurality of the mold-sections 2.

In order to permit cisterns or similar structures of any size to be formed by means of the mold, a greater or less number of the side sections 2 may be employed, and when it is found in erecting the mold that the space between the last two side sections 2 which are placed in position is either too narrow or too broad for an additional mold-section 2 we employ a metallic extension section 9, which is preferably several times greater in width than the section 2, so as to overlap the adjacent mold-sections with which it is engaged, as clearly shown in Fig. 2. At the point in the annular braces or supports 3 at which the extension mold-section 9 is provided on the side mold-section 2 we also provide extension latches or plates 10, which are adapted to adjustably connect the adjoining brace-sections 4 at this point, as is also clearly shown in Fig. 2. Each of the plates 10 is pivoted, as at 11, at one of its ends and has its opposite end adjustably clamped upon the adjoining brace-section by means of a detachable clamp 11. The latter is clearly shown in Fig. 5, and consists of a substantially U-shaped body having one of its arms or ends bifurcated, as at 12, to engage the top of the plate 10 and its other arm or end provided with a set-screw 13, which is adapted to engage the adjacent brace - section 4. By means of this clamp 11 the adjoining

brace-sections 4 may be clamped at any desired distance apart. By the use of the extension mold-section 9 and the extension-plates 10 it will be seen that the width or diameter of the mold may be varied as desired.

The top of the mold is closed by a plurality of tapered or segmentally-shaped top mold-sections 14, which are arranged radially and have their large lower ends supported upon the upper ends of the side mold-sections 2. These converging top mold-sections 14, one of which is clearly shown in Fig. 4, have their upper portions supported by a circular disk or head 15, which is secured upon the lower end of a tube or sleeve 16. The latter is adjustably secured, by means of a set-screw 17, upon an upright 18, which extends through the sleeve 16 and is slidable therein. The upright 18 has secured upon its lower end a disk or block 19, to which are hinged or pivoted, as shown at 20, two or more adjustable braces or legs 21. The latter, of which three are preferably provided, have their lower ends engaged with the top of the centrally-disposed annular braces or supports 3, so as to support the upright 18 vertically and concentrically in the upper portion of the mold, as clearly shown in Fig. 1. Each of the legs or braces 21 is made adjustable longitudinally by forming it in two slidably-engaged sections 22 23. Each of the said sections 22 23 carries a strip or band 24, which surrounds the other section and permits the latter to slide therethrough, so that the length of the leg or brace may be varied as desired by sliding said sections upon each other. These sections may be secured in any adjusted position by means of screws 25, as shown.

The neck or mouth of the cistern or other structure formed by the mold is formed by inner and outer annular bands 26 27, each of which is formed at its ends with right-angulantly-bent portions 28, which may be clamped together, as clearly shown in Fig. 3, or in any other suitable manner.

The use of the mold is as follows: In constructing a cistern of the form shown in the drawings a hole of suitable size is dug in the ground and the mold set up therein, so that a space is left between the walls of the hole and the outer face of the side sections 2 of the mold. It will be understood that the arms 21 are supported by the braces 3, on which they rest and serve to support the upright 18. The sleeve is adjusted on said support to the required position to cause the head 15 to support the top mold-sections 14. After the top of the mold has been placed in position, as shown, the cement is placed in the opening in the ground around the mold. After the cement has set the screw 17 is turned to release the sleeve 16 from the upright 18, and the latter is then moved upwardly sufficiently to cause the lower ends of the braces 21 to become disengaged from the support-

ing-braces 3. The support 18 is then, together with the said braces, lowered into the mold. The head 15 and sleeve 16 are also lowered into the mold, and the top sections 14 are then removed, after which the side sections and the other devices are removed from the molded cistern through the opening at the upper end thereof, as will be understood.

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 our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A mold of the character described comprising a plurality of side mold-sections, a plurality of brace-sections engaged with said mold-sections and having their abutting recessed ends overlapping, latches connecting said abutting ends of the brace-sections, an extension-plate or brace-section pivoted to one of said brace-sections, and a clamp for securing the other end of said extension-section to the adjoining brace-section, substantially as described.

2. A mold of the character described comprising a plurality of side mold-sections, an extension side mold-section closing the space between two of the latter and overlapping the same, and a plurality of substantially annular supports or braces, each of the latter comprising a plurality of sections, latches detachably connecting the adjoining ends of said brace-sections, an extension-plate pivoted upon one of said brace-sections, and a clamp for securing the said plate to the adjoining brace-section, substantially as described.

3. A mold of the character described comprising a plurality of side mold-sections, a support arranged within said mold-sections, an upright, swinging braces upon said upright and adapted to engage said support, a plurality of top mold-sections, and means upon said upright for supporting said top mold-sections.

4. A mold of the character described comprising a plurality of side mold-sections, a support arranged within said mold-sections, an upright, swinging braces upon said upright and adapted to engage said support, a plurality of top mold-sections, and a head adjustable upon said upright for supporting said top mold-sections.

5. A mold of the character described comprising side mold-sections, a substantially annular support within said mold-sections, an upright, a plurality of longitudinally-adjustable braces carried by said upright and engaged with said support, a head slidable upon said upright, and top mold-sections having their lower ends supported by said side mold-sections and their upper portions

supported by said head, substantially as described.

6. A mold of the character described comprising side mold-sections, a substantially
5 annular support arranged within said mold-sections, an upright, a plurality of braces pivotally connected to said upright at their upper ends and having their lower ends engaged with said support, each of said braces
10 consisting of slidably - engaged sections, means for securing said brace-sections in an adjusted position, a head slidable upon said upright, a sleeve carried by said head, a stud secured in said sleeve and adapted to engage

said upright, a plurality of top mold-sections 15 having their lower ends engaged with said side mold-sections and their upper portions with said head, and an annular band upon said top mold-sections, substantially as described. 20

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JAMES H. JOHNSON.
HENRY MEYER.

Witnesses:

GEO. W. KREMING,
J. A. HUNTER.