

No. 610,221.

Patented Sept. 6, 1898.

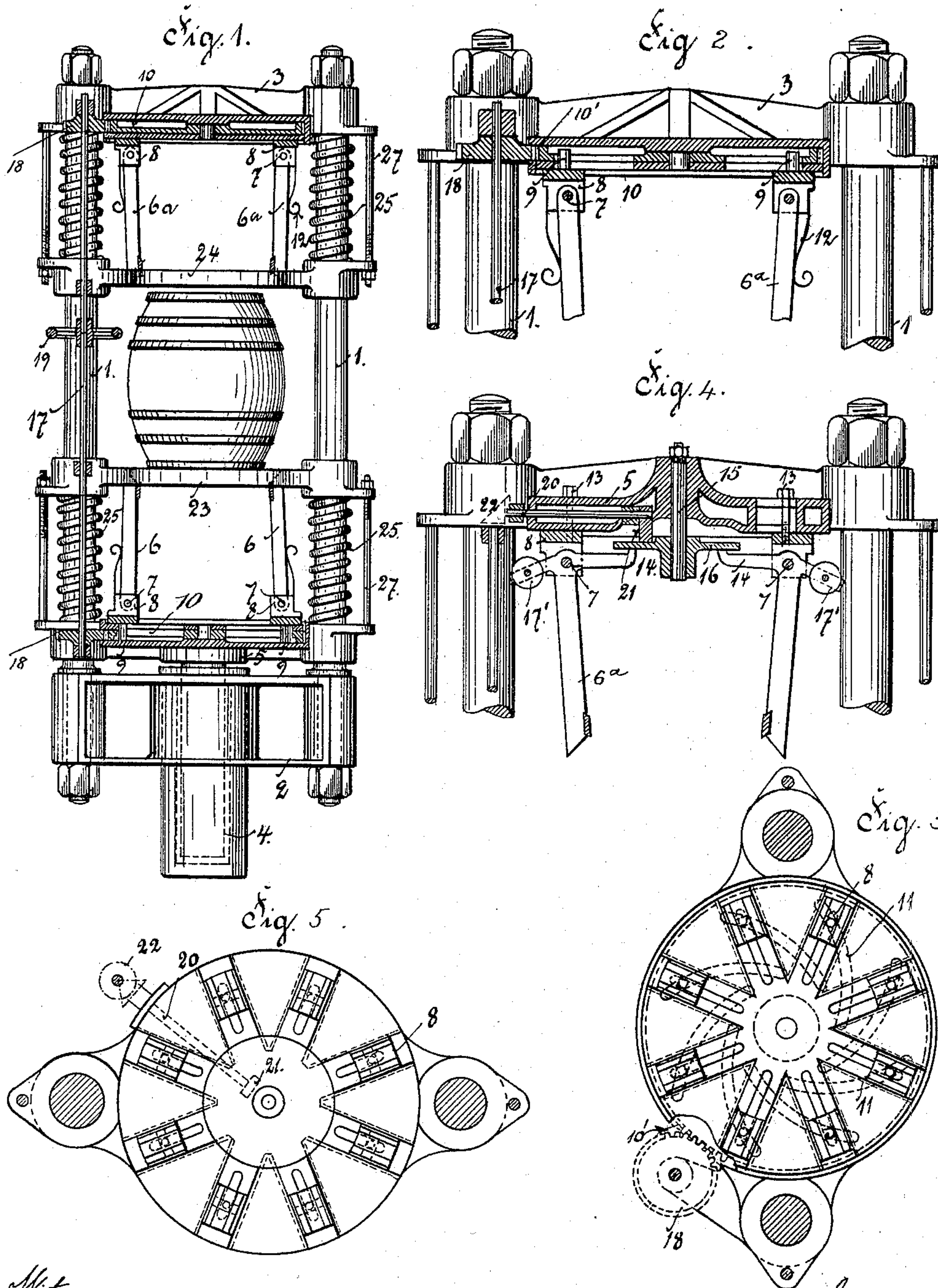
J. ANTHON.

MACHINERY FOR HOOPING CASKS, BARRELS, OR THE LIKE.

(Application filed Dec. 7, 1897.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:
Grant Burroughs.
J. Spragg Poole

Inventor.
Johann Anthon.
by Herbert W. Jenner.
Attorney.

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Fig. 6.

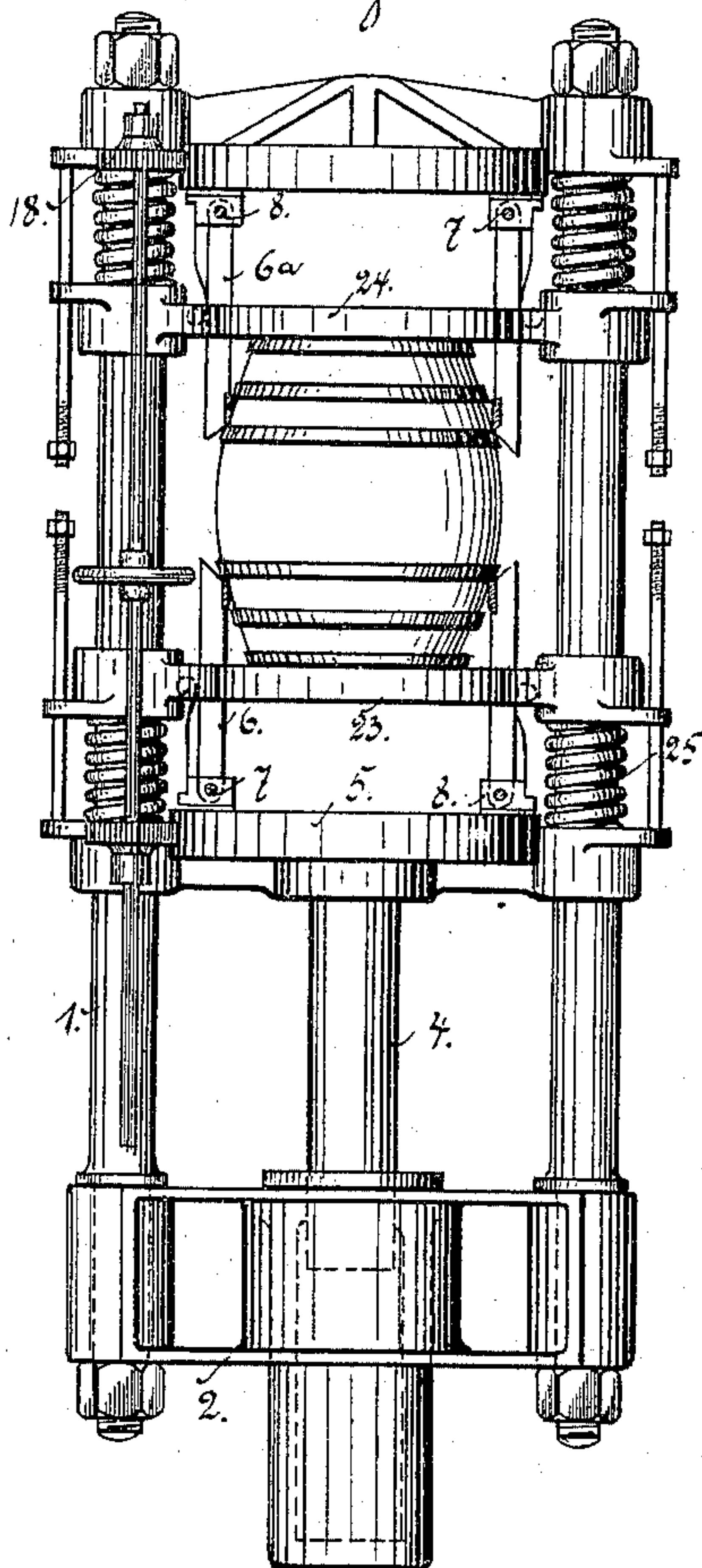


Fig. 7.

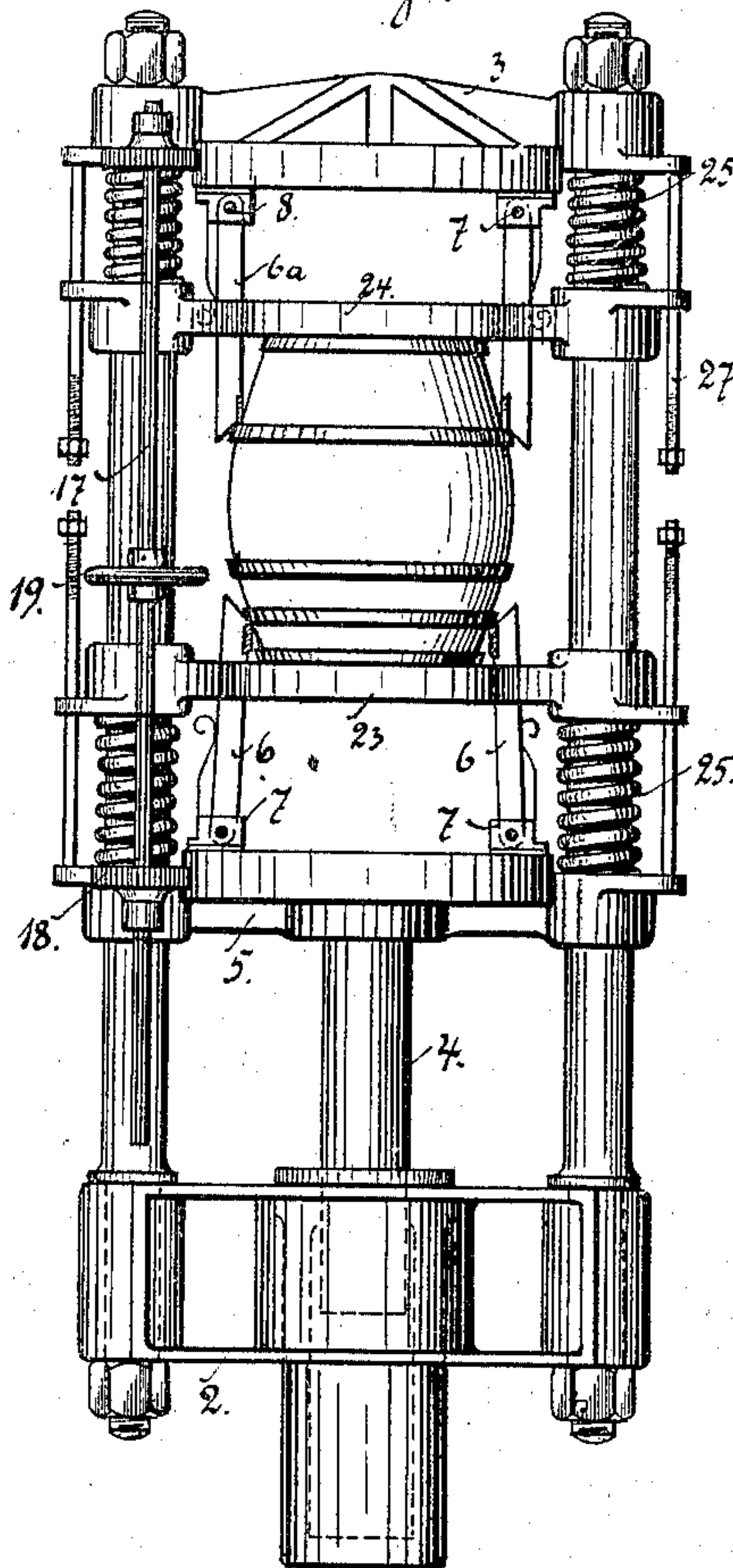


Fig. 8.

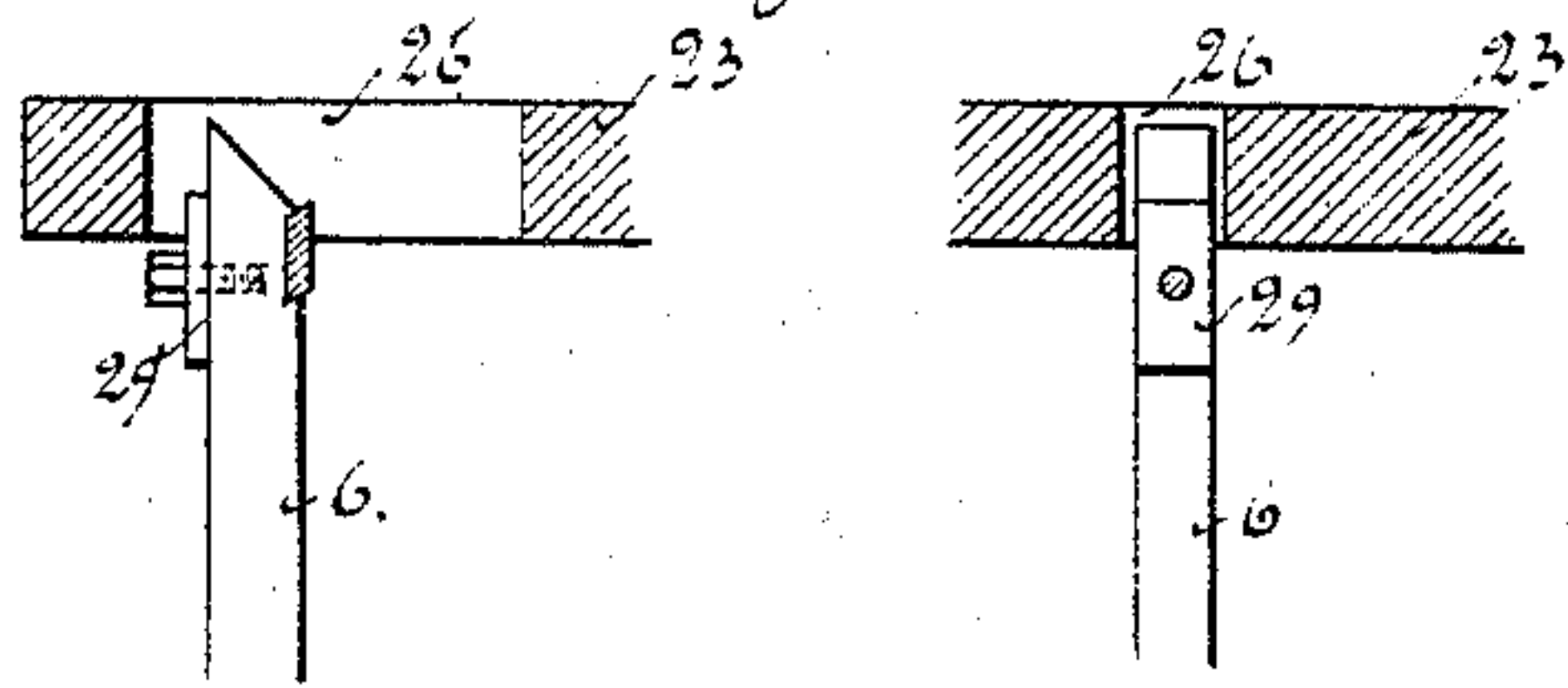
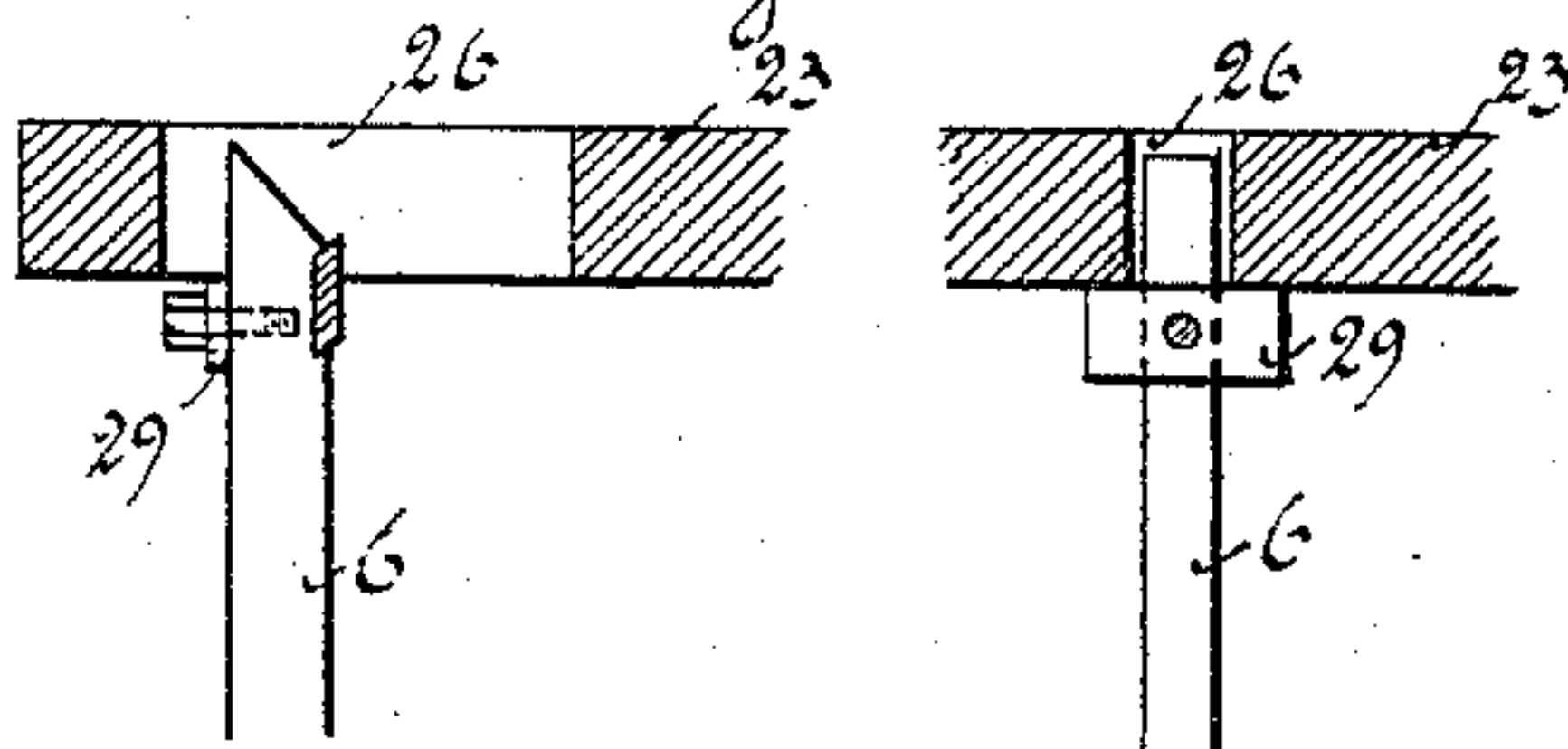


Fig. 9.



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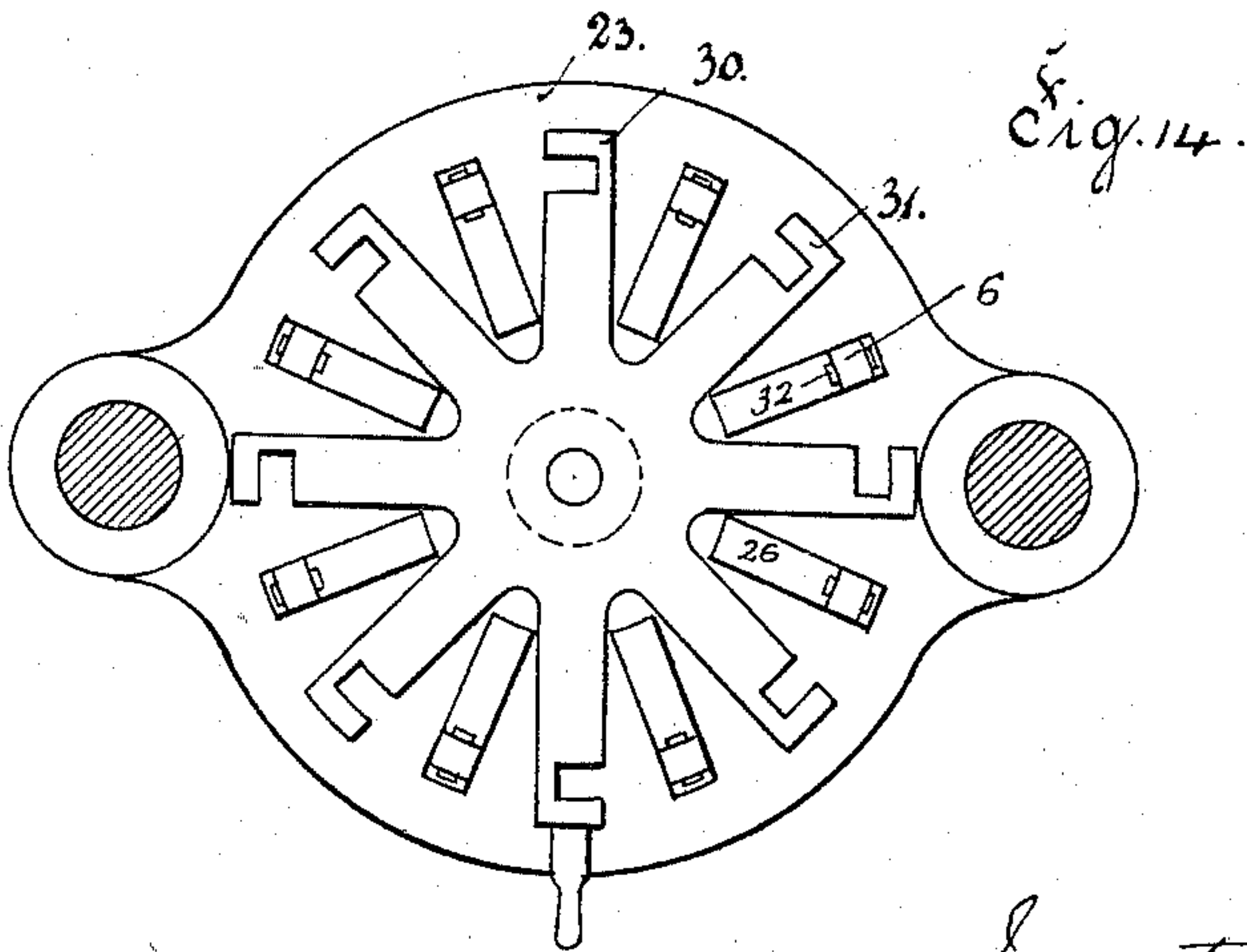
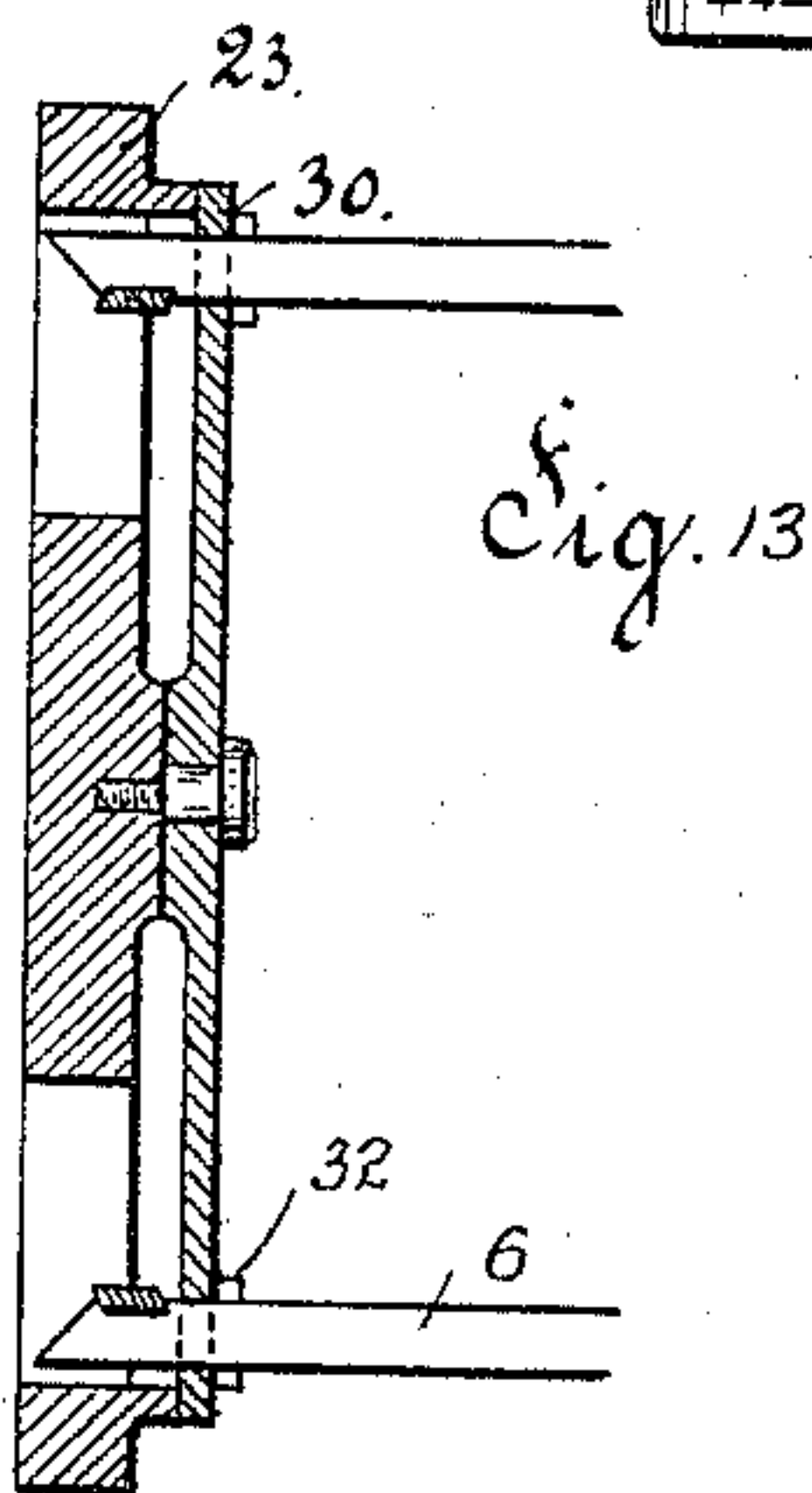
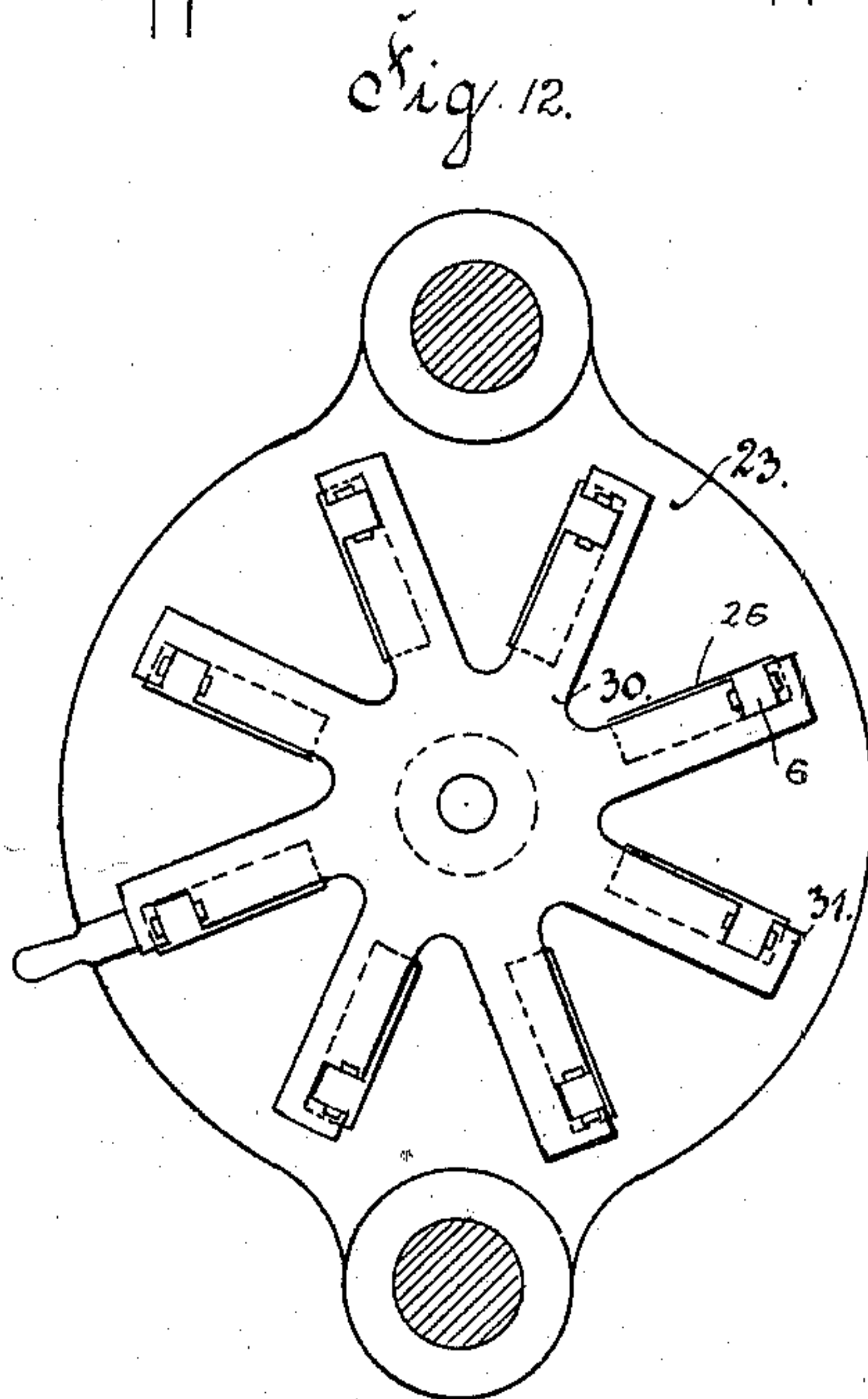
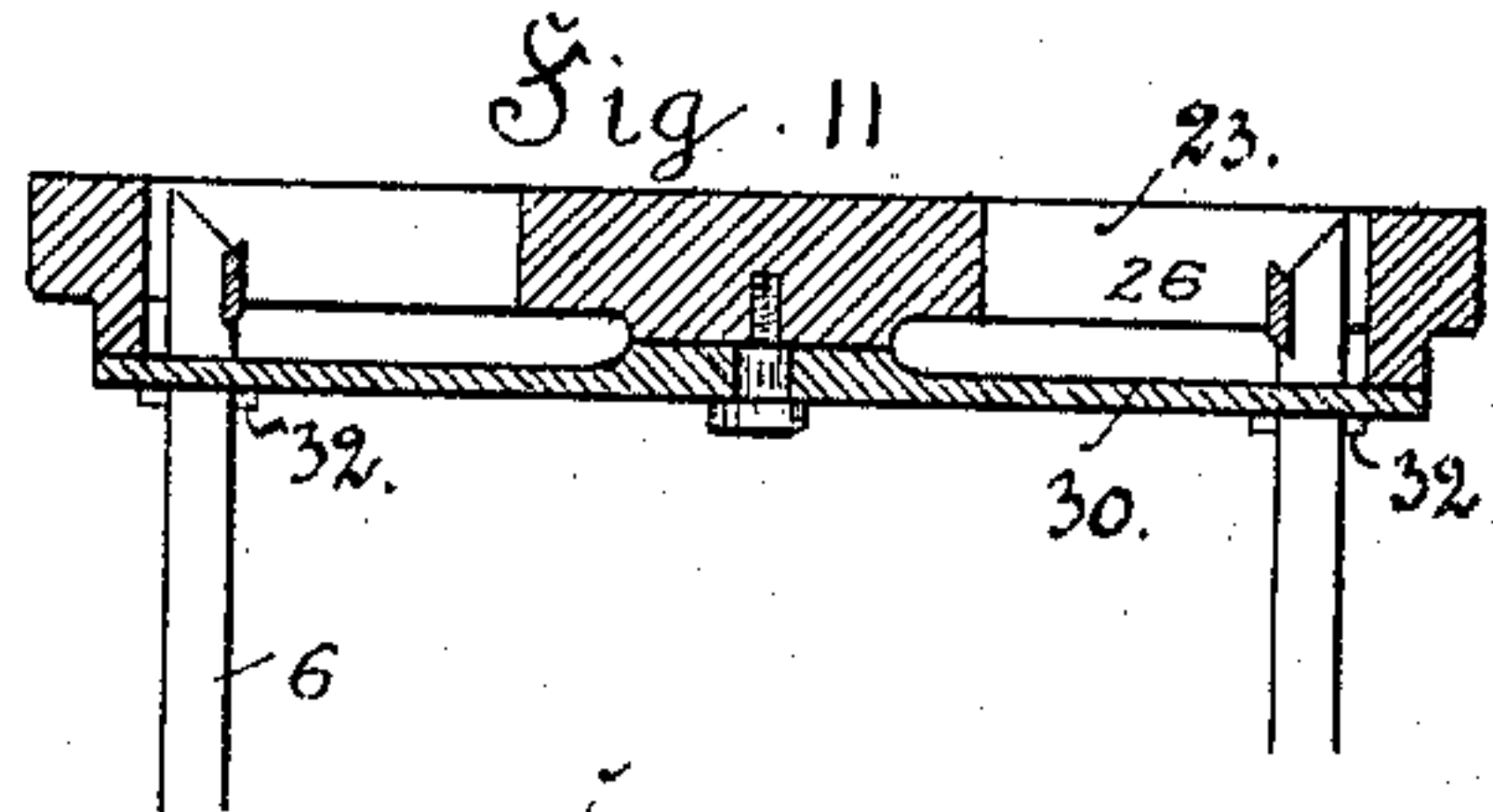
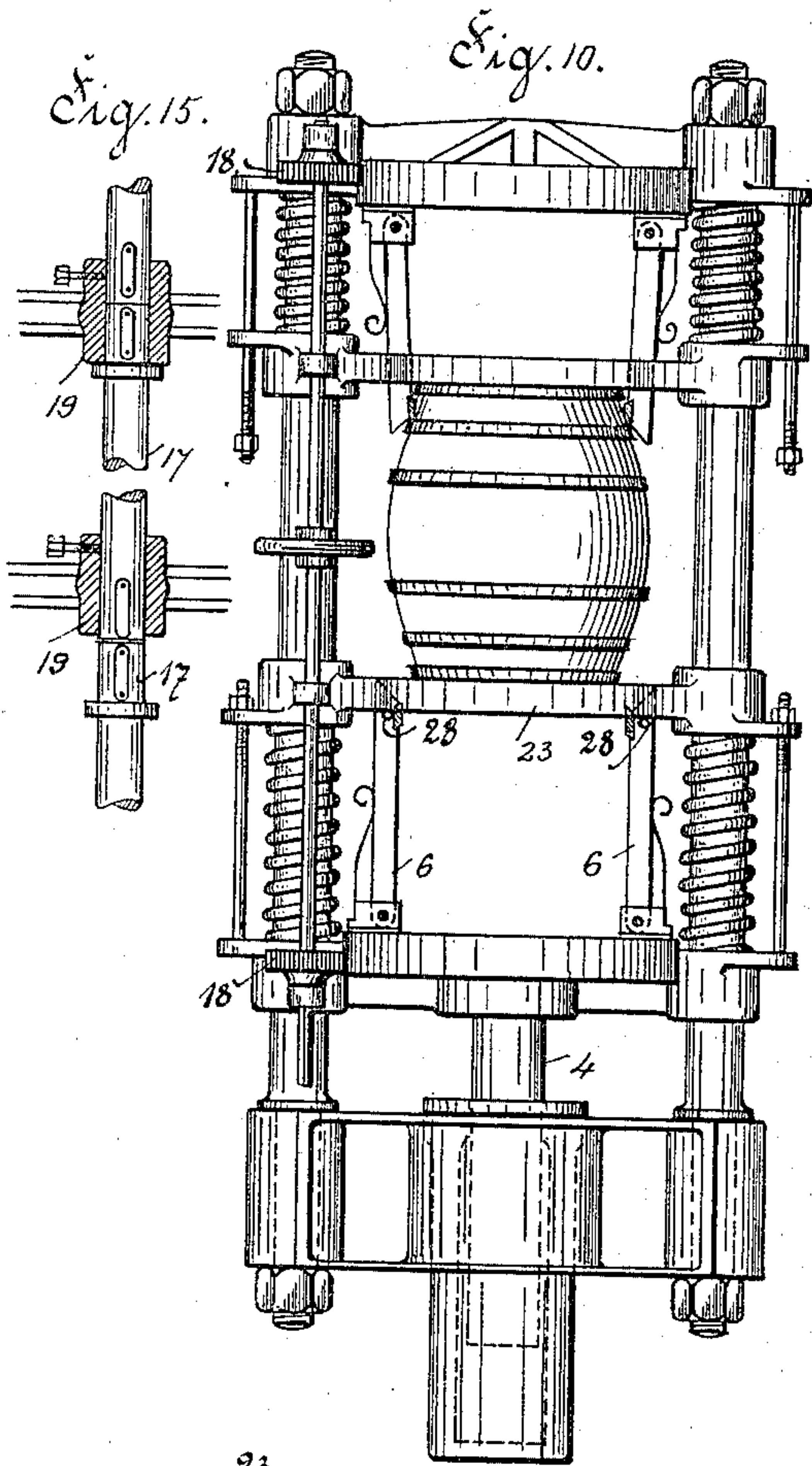
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Grant Burroughs
J. Spragg Poole

Inventor:
Johann Anthon.
by Herbert W. Jenner
Attorney.

UNITED STATES PATENT OFFICE.

JOHANN ANTHON, OF FLENSBURG, GERMANY.

MACHINERY FOR HOOPING CASKS, BARRELS, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 610,221, dated September 6, 1898.

Application filed December 7, 1897. Serial No. 661,038. (No model.)

To all whom it may concern:

Be it known that I, JOHANN ANTHON, a subject of the King of Prussia, German Emperor, residing at Flensburg, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Machinery for Hooping Casks, Barrels, or the Like; and I do hereby 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 machines for hooping casks; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the machine, partly in section. Fig. 2 is a sectional view of the top of the machine, showing one means for adjusting the driver-arms. Fig. 3 is a plan view, from below, of the adjusting mechanism shown in Fig. 2. Fig. 4 is a sectional view of the top of the machine, showing a modified means for adjusting the driver-arms. Fig. 5 is a plan view, from below, of the adjusting mechanism shown in Fig. 4. Figs. 6 and 7 are side views of the machine, showing it in the act of driving hoops at equal and unequal distances, respectively, from the ends of the cask. Figs. 8 and 9 each show a side and a front view of one means for connecting the driver-arms to the plate 23. Fig. 10 is a side view of the machine with the driving-arms connected to the plate 23 by pins 28. Figs. 11 and 12 are a cross-section and a plan view showing a modification in the means for connecting the driver-arms to the plate 23. Figs. 13 and 14 are also a cross-section and a plan view showing the same parts as shown in Figs. 11 and 12, but in another position. Fig. 15 shows two detail views of the means for connecting and disconnecting the hand-wheel 19 with the sections of the shaft 17.

The machine is provided with a frame comprising a top 3, a bottom 2, and columns 1. The bottom is provided with a hydraulic cylinder having a ram 4. A table 5 is supported by the ram 4. Driver-arms 6 are arranged in a circle and are pivotally connected with the table 5. The driver-arms are provided with claws for engaging with the hoops and are pivoted to brackets 8 by pins 7. Springs

12 are provided for pressing the arms toward the barrel. Similar driver-arms 6^a are pivotally supported by the top 3 in a similar manner. The two sets of driver-arms are adjusted to suit casks of different diameters.

According to the arrangement shown in Figs. 2 and 3, the brackets 8 have pins 9, which are slidable in radial grooves in the table 5 and in the top 3, and these pins are moved in the radial grooves by means of disks 10, provided with eccentric curved grooves 11, which engage with the pins 9. These disks are journaled on central pivot-pins and have teeth 10' on their peripheries. Toothed pinions 18 engage with the teeth 10' and are secured on a shaft 17, journaled in suitable bearings. The shaft 17 may be made in two sections, and Fig. 15 shows how the hand-wheel may be connected to one or both sections, so as to revolve the top pinion only or both pinions, as desired.

In the modification shown in Figs. 4 and 5 the brackets 8 are separately movable and are secured by bolts 13 after having been adjusted. The brackets 8 can be arranged in a circle or any other figure to suit an irregular cask. The driver-arms are here pressed toward the cask by weights 17', instead of springs, and they have projecting members 14, which bear against the under side of a disk 16. The disk 16 is slidable on a central pin 15, and the arms are adjusted simultaneously by moving the disk 16 up or down. A shaft 20 is journaled in the top 3 in a horizontal position and has an eccentric or cam 21 secured on one end of it for operating the disk 16. The other end of the shaft is provided with means for turning it, such as beveled toothed wheels 22.

The cask is placed between two plates 23 and 24, which are slidable on the columns 1. Springs 25 are interposed between the plate 23 and the table 5 and between the plate 24 and the top 3. The table and top each have bolts 27 secured to them and passing through holes in the plates 23 and 24. The bolts 27 have nuts which limit the motion of the plates away from the said table and top. Each plate is provided with slots 26 for the driver-arms to slide in, as shown in Fig. 8.

The cask is placed on the plate 23, as shown in Fig. 1, and the table is raised, thereby

clamping the cask between the plates 23 and 24 and then driving on the hoops, as shown in Figs. 6 and 7. In this manner the hoops at the upper and lower parts of the cask are
5 driven simultaneously.

When the hoops are not parallel on the opposite end portions of the cask, and therefore cannot be driven simultaneously, the driver-arms 6 are coupled to the plate 23, so that the
10 plate 23 is held at a fixed distance from the table 5. This may be accomplished in several ways.

In Fig. 10 pins 28 are shown, which are passed through holes in the driver-arms below the plate 23, so that the driver-arms raise
15 the plate when pushed upward and do not slide in the slots 26.

In Figs. 8 and 9 cross-pieces 29 are journaled on pins projecting from the driver-arms 6. When the cross-pieces are in line
20 with the driver-arms, as shown in Fig. 8, the driver-arms can slide in the slots 26; but when the cross-pieces are turned crosswise, as shown in Fig. 9, the plate 23 is coupled to the
25 driver-arms.

According to the modification shown in Figs. 11 to 14, the pins 32, which engage with the driver-arms 6, are not removable from them and are arranged so as to pass through
30 the slots 26. A spider 30 is pivoted to the plate 23 and is provided with notches through which the driver-arms can pass, but which will not admit the pins 32. Fig. 12 shows the driver-arms connected to the plate 23, and
35 Fig. 14 shows them disconnected and free to slide.

What I claim is—

1. In a barrel-hooping machine, the combination, with the stationary end plates 2 and
40 3, and the guide-bars 1 connecting them; of a table 5 slidable on the said bars, plates 23 and 24 slidable on the said bars and operating to clamp the barrel, springs interposed between the said plates and the table and end
45 plate 3 respectively, and driver-arms carried

by the said table and end plate 3 and projecting through openings in the said plates 23 and 24, substantially as set forth.

2. In a barrel-hooping machine, the combination, with the stationary end plate 3, and
50 the vertical guide-bars 1 secured to it; of a plate 24 slidable on the said guide-bars, means for limiting the downward travel of the said plate, springs interposed between the said plates, and driver-arms carried by the plate 3
55 and projecting through openings in the plate 24, substantially as set forth.

3. In a barrel-hooping machine, the combination, with stationary guide-bars, of a table
60 slidable on the said bars, a plate 23 also slidable on the said bars, springs interposed between the said table and plate, driving-arms carried by the said table and projecting through openings in the said plate, and means
65 for connecting the free end portions of the said arms with the said plate so that the said table and plate can be constrained to move simultaneously when desired, substantially
as set forth.

4. In a barrel-hooping machine, the combination, with stationary guide-bars, of a table
70 slidable on the said bars, a plate 23 also slidable on the said bars, springs interposed between the said table and plate, driving-arms carried by the said table and projecting
75 through openings in the said plate, and stop-pieces 29 pivoted to the free end portions of the said arms, said stop-pieces being slidable in the openings of the plate when arranged longitudinally of the said arms and constrain-
80 ing the said plate to slide with the table when turned crosswise of the said arms, substantially as set forth.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JOHANN ANTHON.

Witnesses:

TENS HANSEN,
HOLGER MATTSIESEN.