

J. W. McFALL & L. C. GRIESS.
 PERMUTATION HASP LOCK.
 APPLICATION FILED JUNE 17, 1908.

919,624.

Patented Apr. 27, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

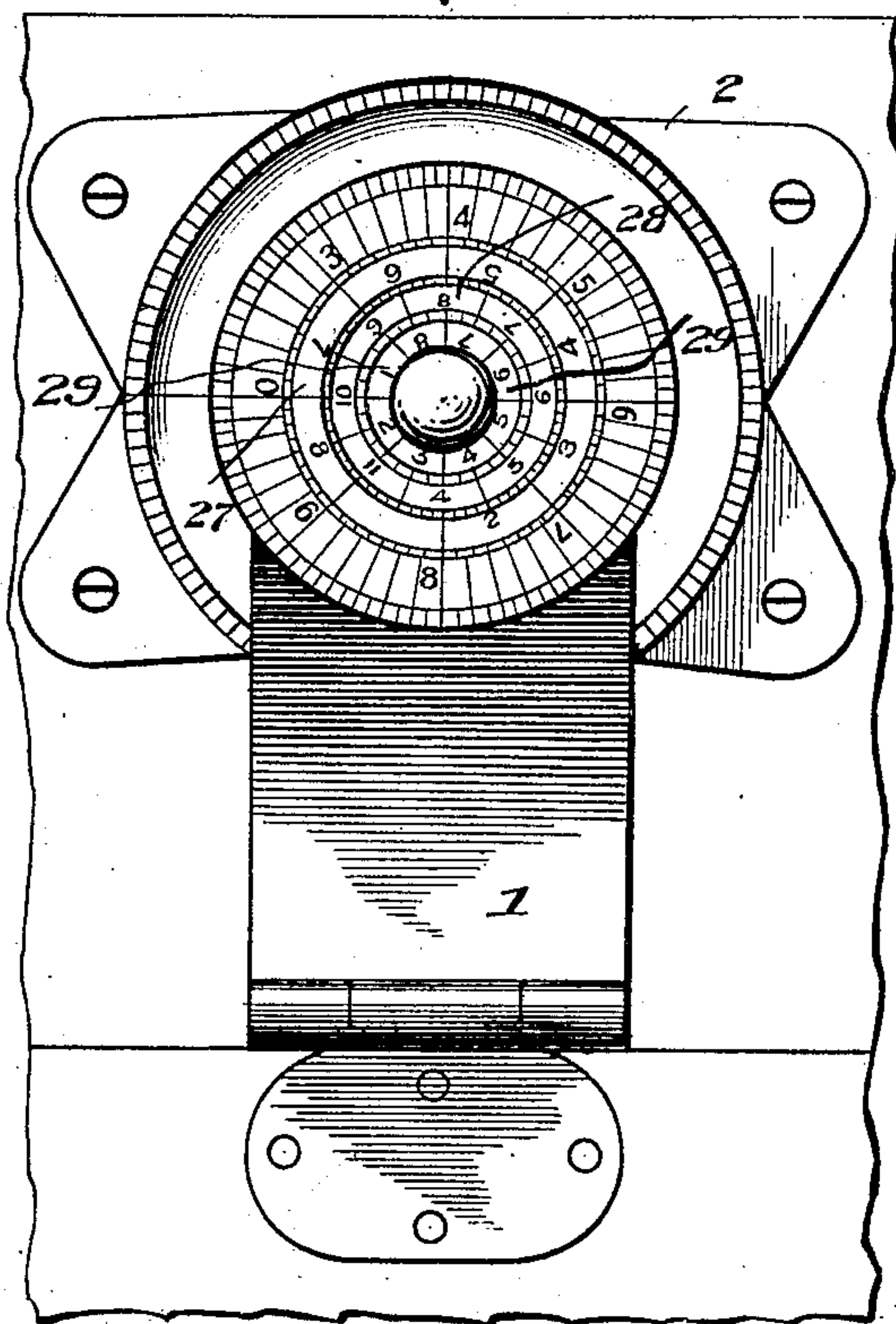


Fig. 2.

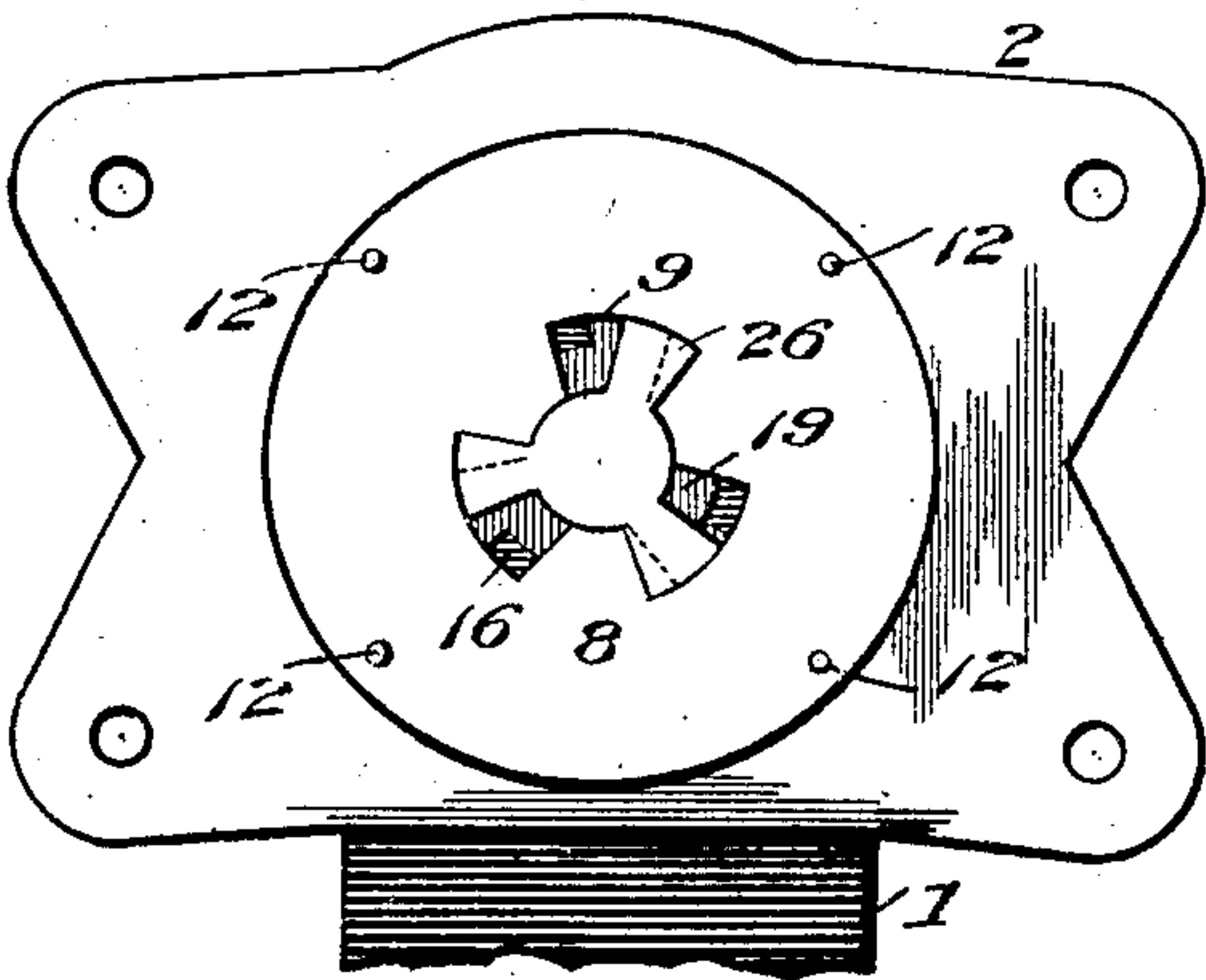


Fig. 3.

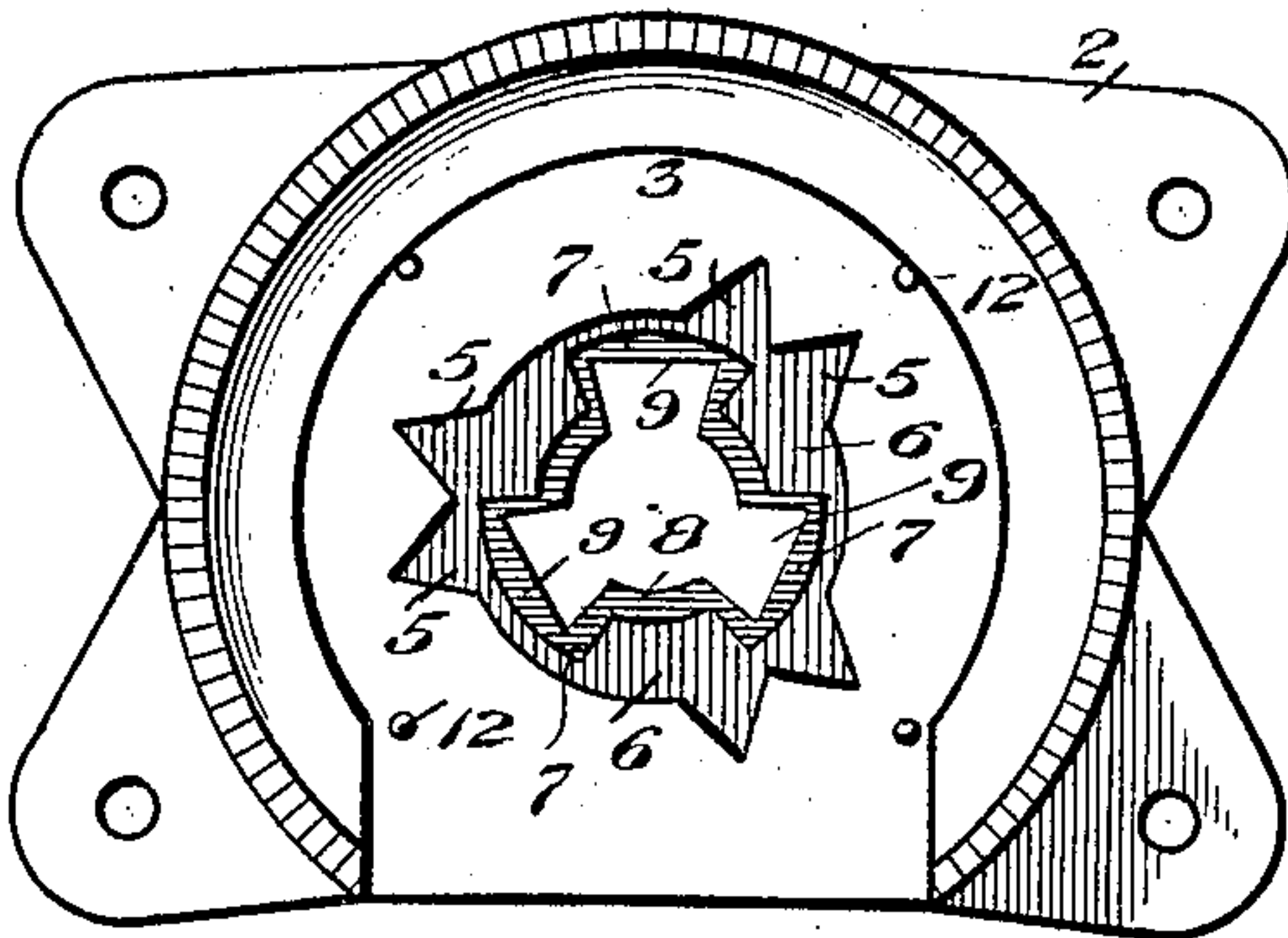
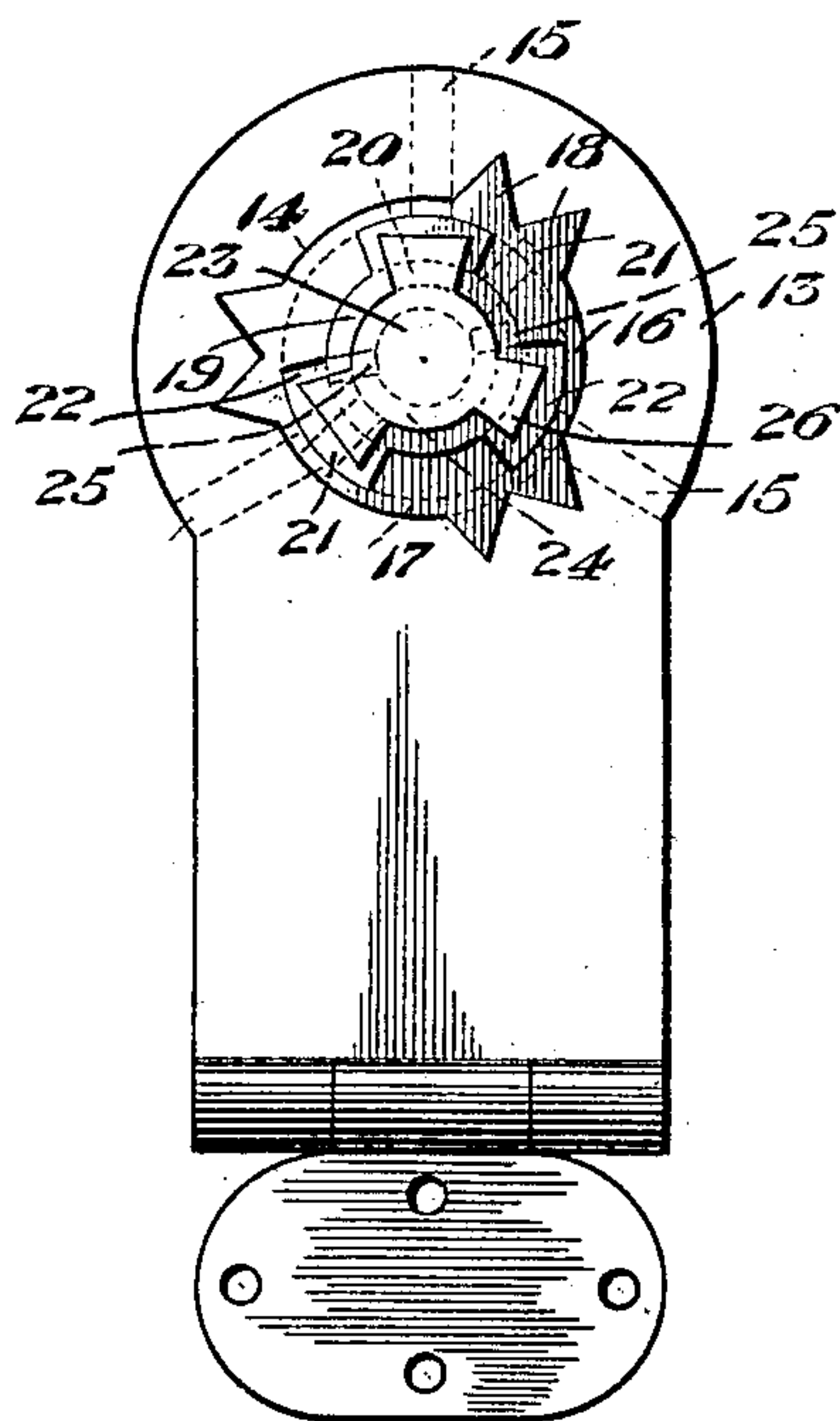


Fig. 4.



Witnesses

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2 SHEETS—SHEET 2.

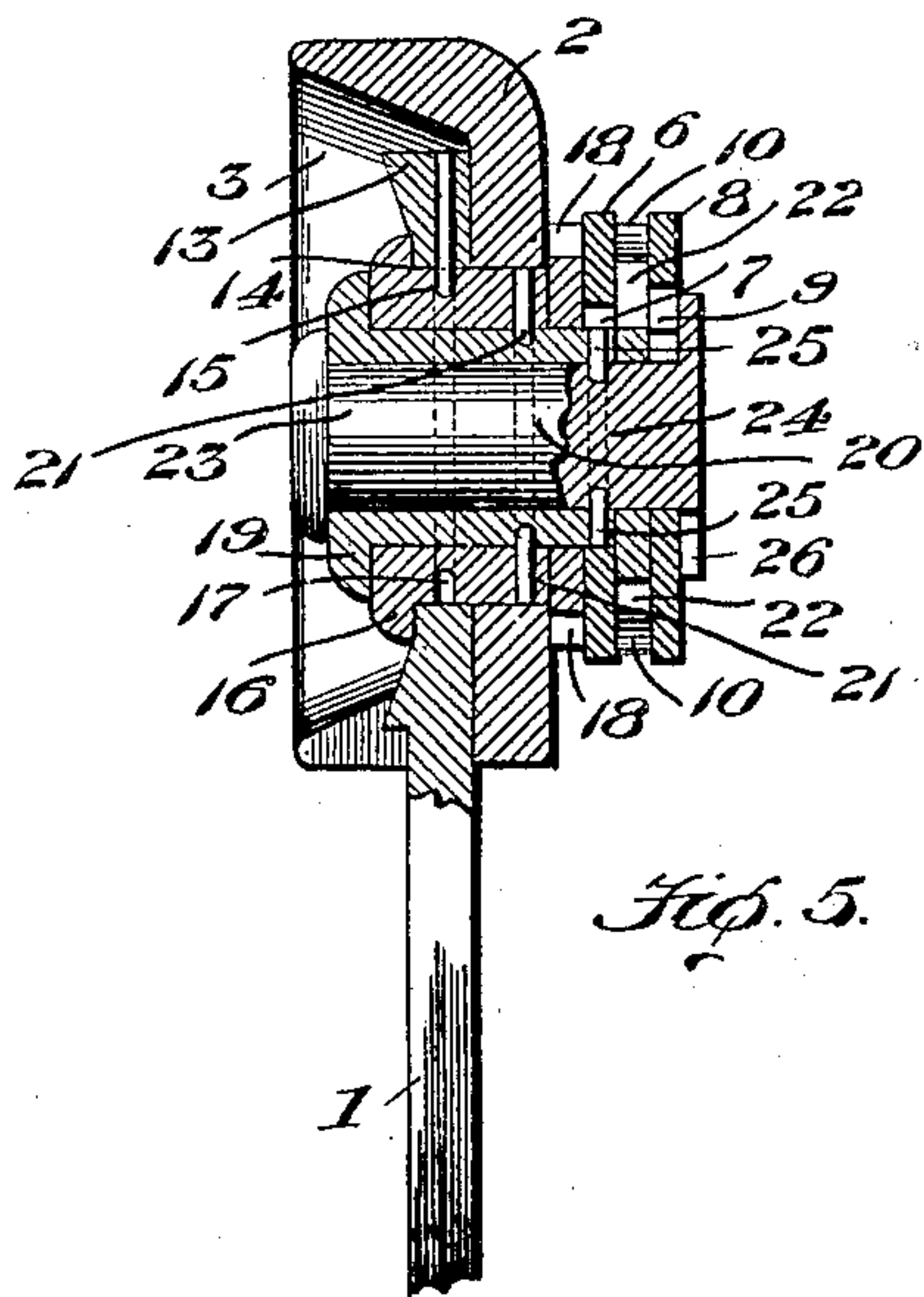


Fig. 5.

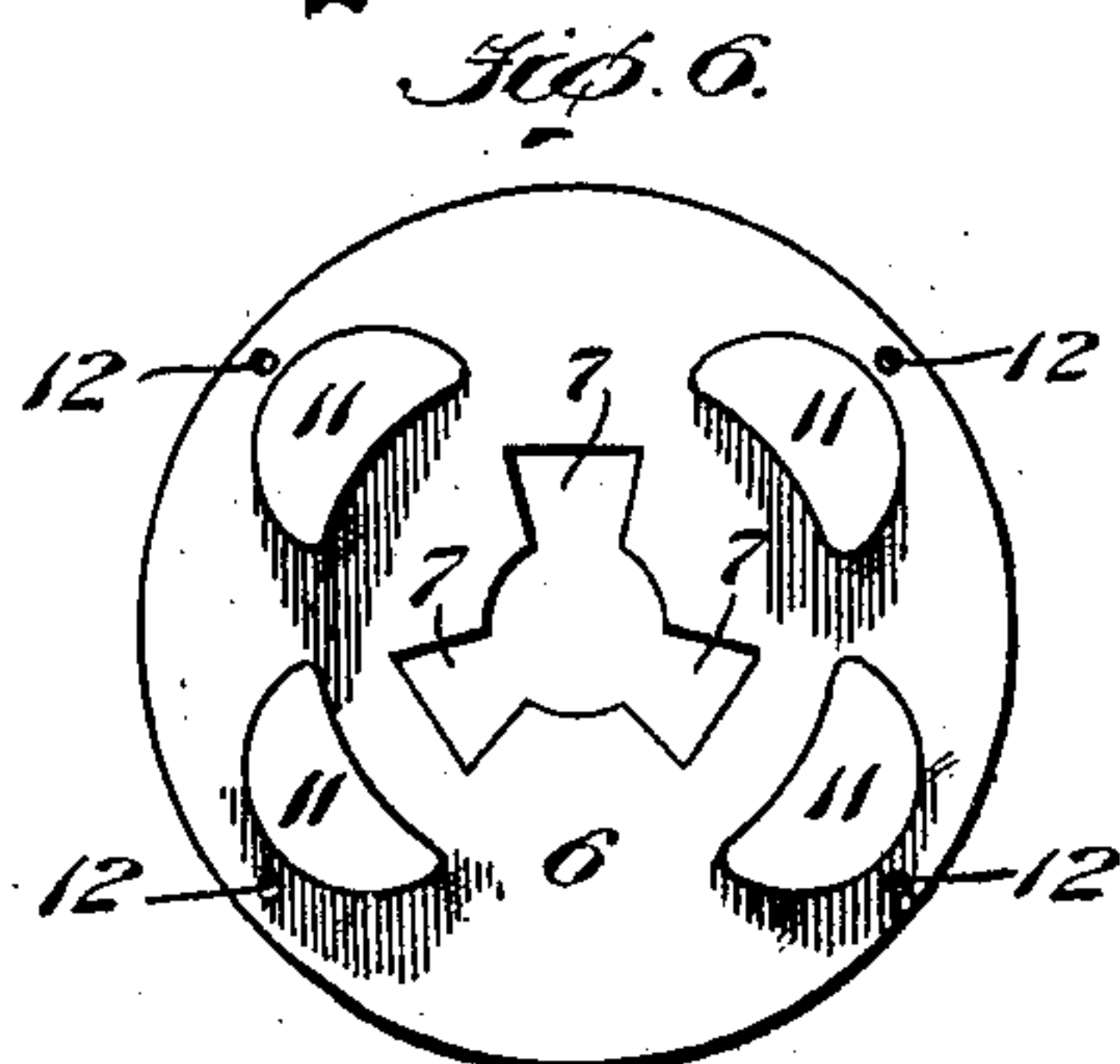


Fig. 6.

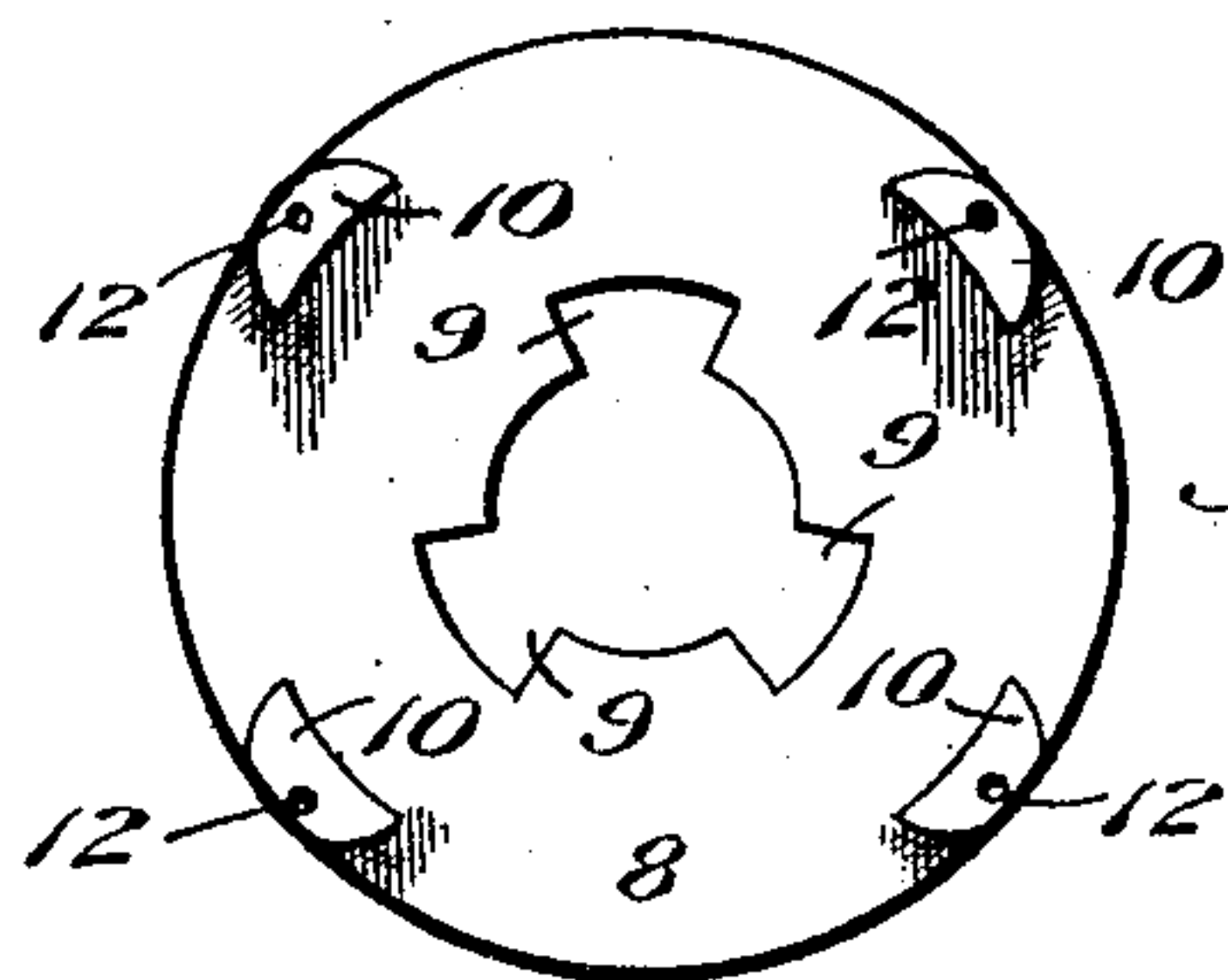


Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

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PERMUTATION HASP-LOCK.

No. 919,624.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed June 17, 1908. Serial No. 439,015.

To all whom it may concern:

Be it known that we, JOHN W. McFALL and LOUIS C. GRIESS, citizens of the United States, residing at Evansville, county of Vanderburg, and State of Indiana, have invented certain new and useful Improvements in Permutation Hasp-Locks, of which the following is a specification.

Our invention relates to permutation hasp locks.

The object of the present invention is the provision of a simple, inexpensive, durable, and secure permutation hasp lock which will be particularly designed for use on trunks, boxes, or other similar receptacles although susceptible of use in other connections whereby the necessity for using a key will be done away with and the lock may be secured or opened with rapidity and ease by one knowing the combination but will be difficult to open by unauthorized persons and which will be of such improved construction that the dials will be housed so that they will not be damaged by being struck by another trunk or other object.

The invention is set forth fully hereinafter and the novel features are recited in the appended claims.

In the accompanying drawings:—Figure 1 is a front view of the lock as used on a trunk or box; Fig. 2, a rear elevation of the keeper and a portion of the hasp; Fig. 3, a front view of the keeper and parts carried thereby; Fig. 4, a rear view of the hasp and parts carried thereby; Fig. 5, a vertical section through the keeper, the hasp, and the lock; and Figs. 6 and 7, inside face views of the plates carried by the keeper.

The hasp is shown at 1 and the keeper at 2. When the lock is used on a trunk the hasp will be hinged to the trunk and the keeper 2 fixed to the lid thereof and secured thereto by rivets or other fastenings in any well known manner. The keeper has a concavity 3 whose wall is relatively high for a purpose set forth hereinafter. The keeper has a circular aperture and sets of indentations or notches 5. Disposed back of the keeper is a plate 6 having an aperture provided with notches 7 extending outwardly from its margin. Back of the plate 6 is another plate 8 having an aperture provided with notches 9 extending outwardly from its margin. The plates 6 and 8 are separated or spaced from each other by the spacing washers 10 and the plate 6 is spaced from the keeper by

the washers 11. Suitable fastenings 12 secure the washers and the plates 6 and 8 to the keeper. The hasp has a part 13 adapted to fit in the concavity 3 and is provided with an aperture 14 from the margin of which lugs 15 project inwardly.

The numeral 16 designates a tumbler adapted to turn in the opening 14 and provided with a groove 17 which receives the lugs 15 whereby said tumbler is prevented from coming out of place. The tumbler 16 is provided with projections 18 positioned and shaped like the notches 5. Rotatable within the tumbler 16 is another tumbler 19 which has a groove 20 in which lugs 21 on the tumbler 16 project. Tumbler 19 has projections 22 shaped and positioned to fit in notches 7. Turning within the tumbler 19 is a tumbler 23 having a groove 24 which receives lugs 25 projecting from tumbler 19 and provided with projections 26 shaped and positioned to fit the notches 9. The respective tumblers are so arranged that the projections thereon are suitably spaced to leave sufficient clearance for the reception of the plates 6 and 8 and the keeper 2 and the respective tumblers are provided with suitably graduated dials 27, 28, and 29.

The wall or margin of the concavity or recess 3 is sufficiently high to house the part 13 of the hasp and the dials so that there are no projecting parts to be damaged by being struck by any object.

When the wards or projections on the various tumblers are in the proper relation to each other and to the notches 5, 7 and 9, the hasp can be closed or opened and if closed on turning the dials the hasp will be securely locked.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. In a permutation hasp lock, the combination with a keeper having an aperture provided with notches at its margin, of plates attached to and spaced from the keeper which have apertures provided with notches in their margins, a hasp, concentrically arranged independently rotatable tumblers carried by the hasp, each of the inner tumblers having a groove and the outer tumblers having lugs received in said grooves, the outer tumbler being provided with a groove, and lugs on the hasp entering said groove, said tumblers being each shaped to conform to one of the apertures and its notches afore-

said and spaced from each other to permit their locking with the respective plates and keeper.

2. In a permutation hasp lock, the combination with a keeper provided with plates and having openings in itself and said plates which successively decrease in size inwardly, each of which has notches in its margin, of a hasp, independently rotatable tumblers carried by the hasp which are concentrically arranged and each shaped to conform to one of the apertures and its notches aforesaid and

spaced from each other to permit their locking with the respective plates and keeper, and means to prevent relative displacement 15 of said tumblers.

In testimony whereof, we hereunto affix our signatures in presence of two witnesses.

JOHN W. McFALL.
LOUIS C. GRIESS.

Witnesses:

F. C. GORE,
R. J. McGREW.