

No. 838,833.

PATENTED DEC. 18, 1906.

V. L. ALLEBACH.
GLAND NUT LOCK.

APPLICATION FILED JULY 30, 1906:

Ex. 1.

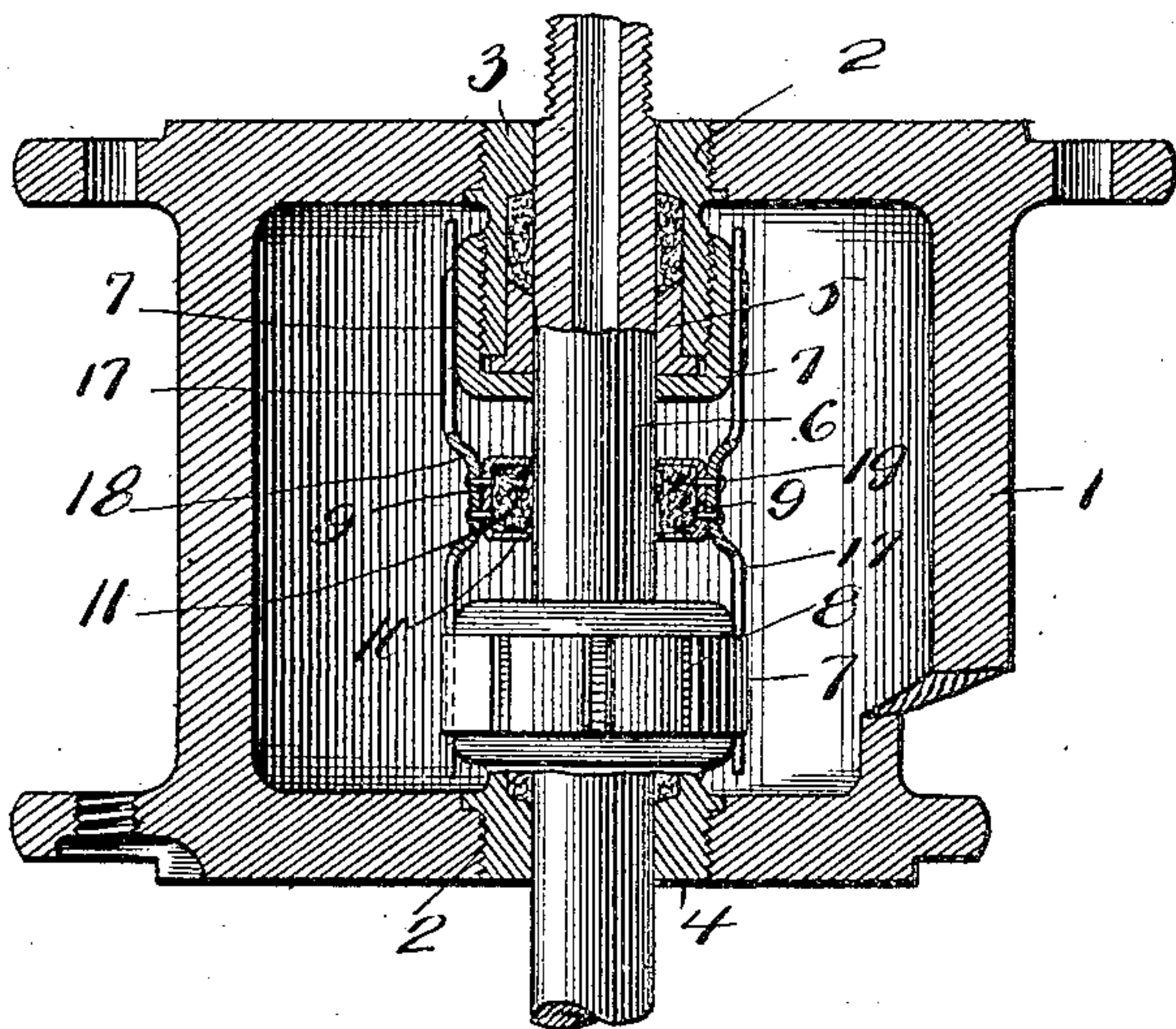


Fig. 2.

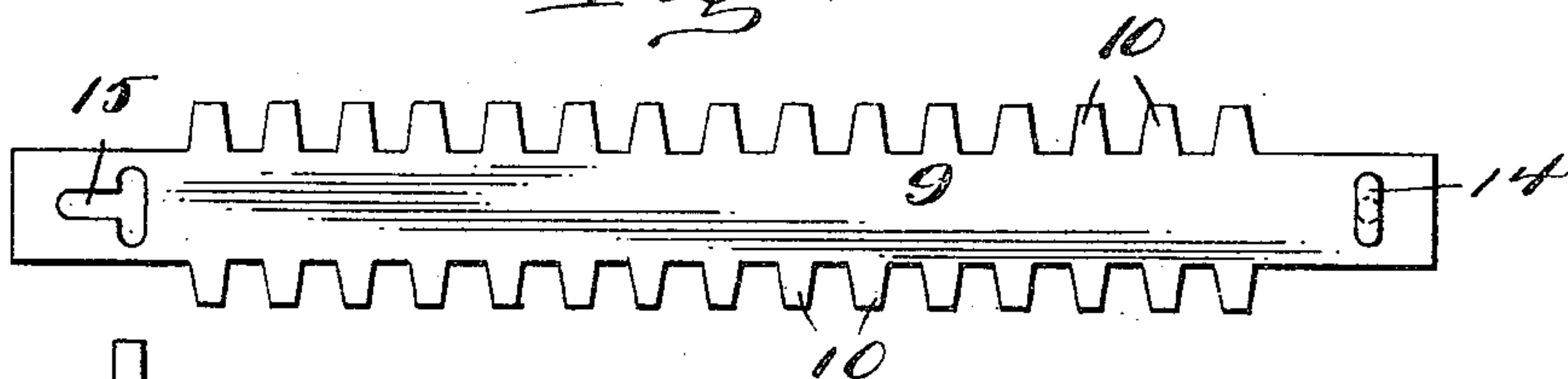


Fig. 3.

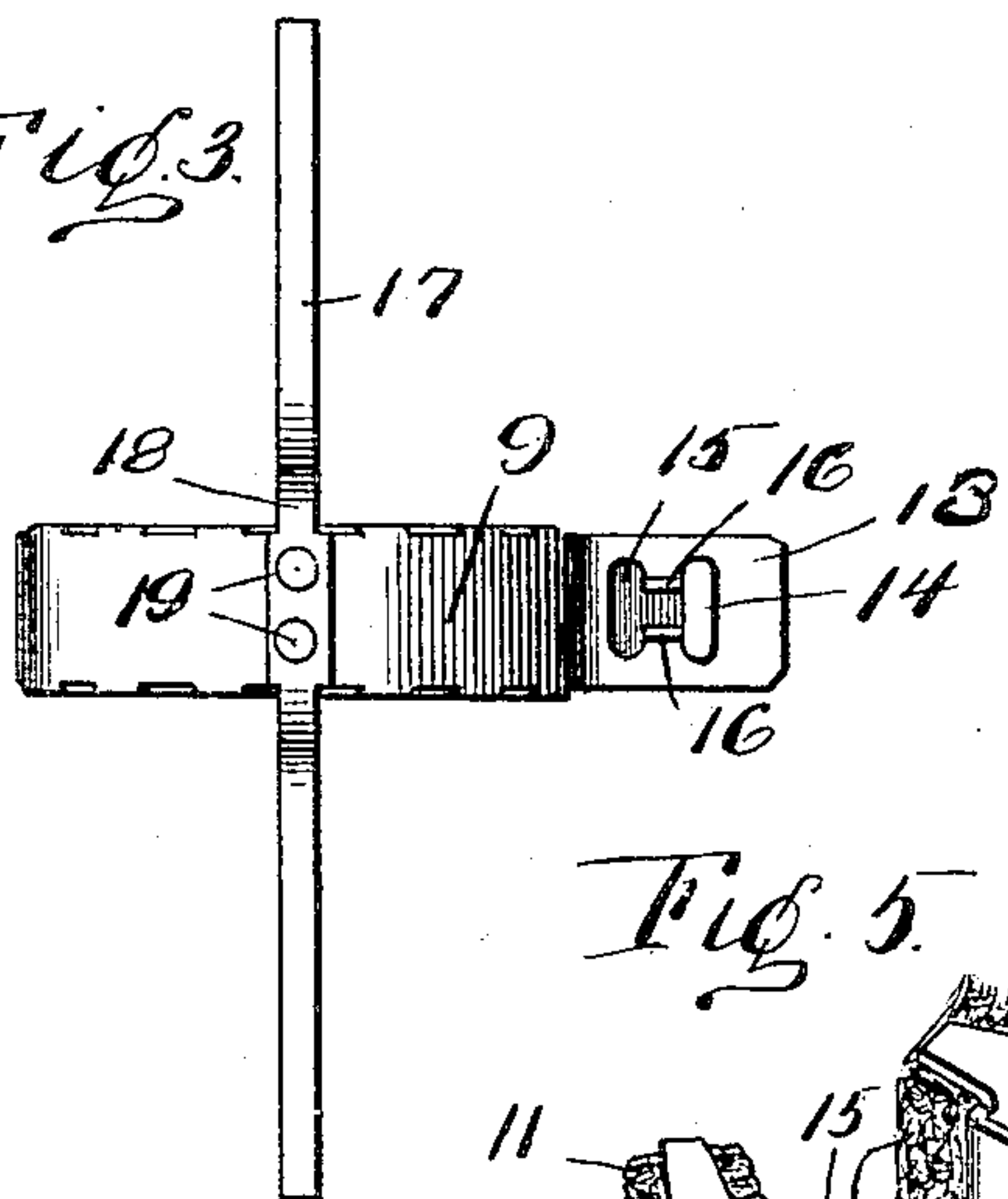


Fig. 4.

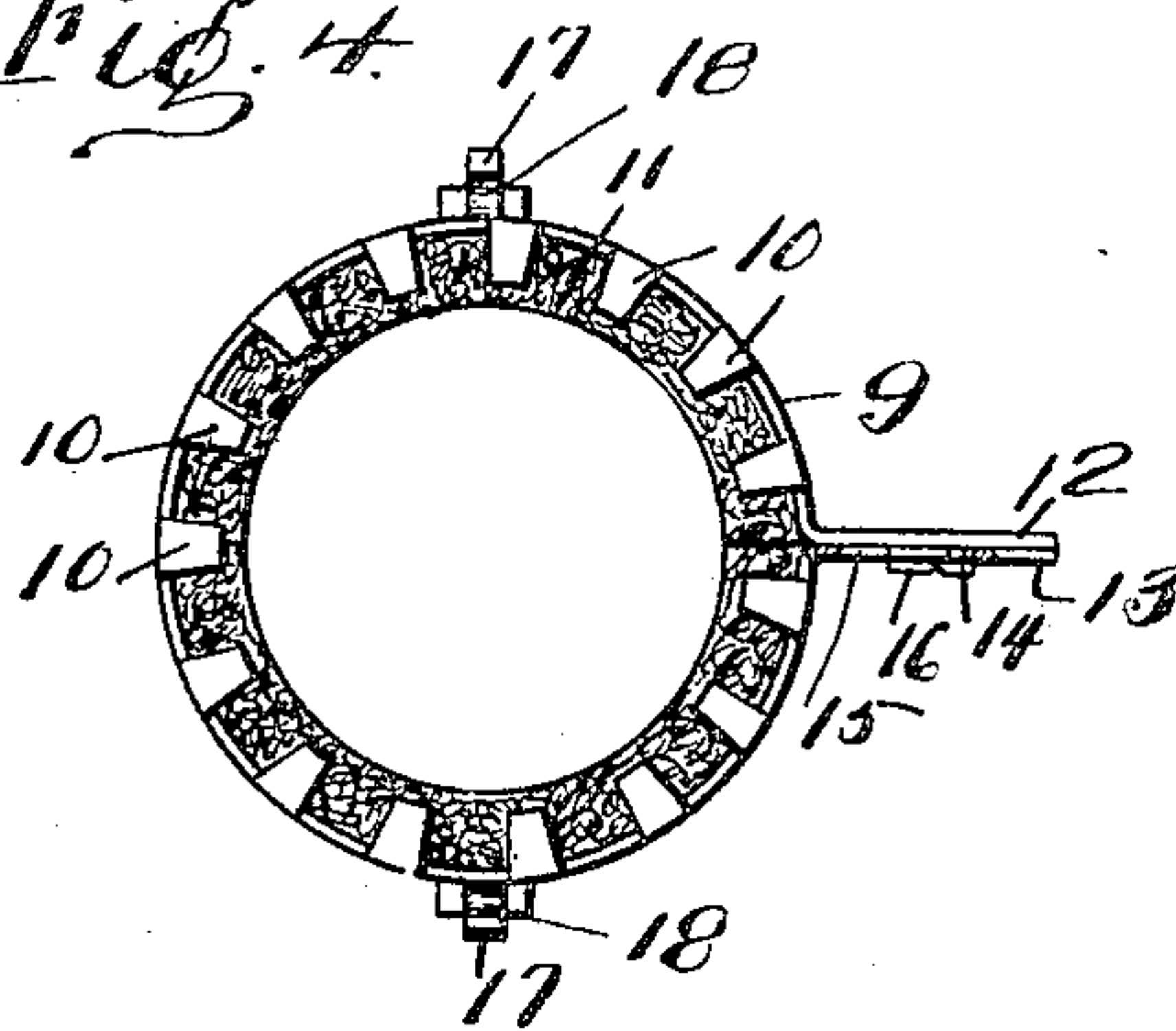
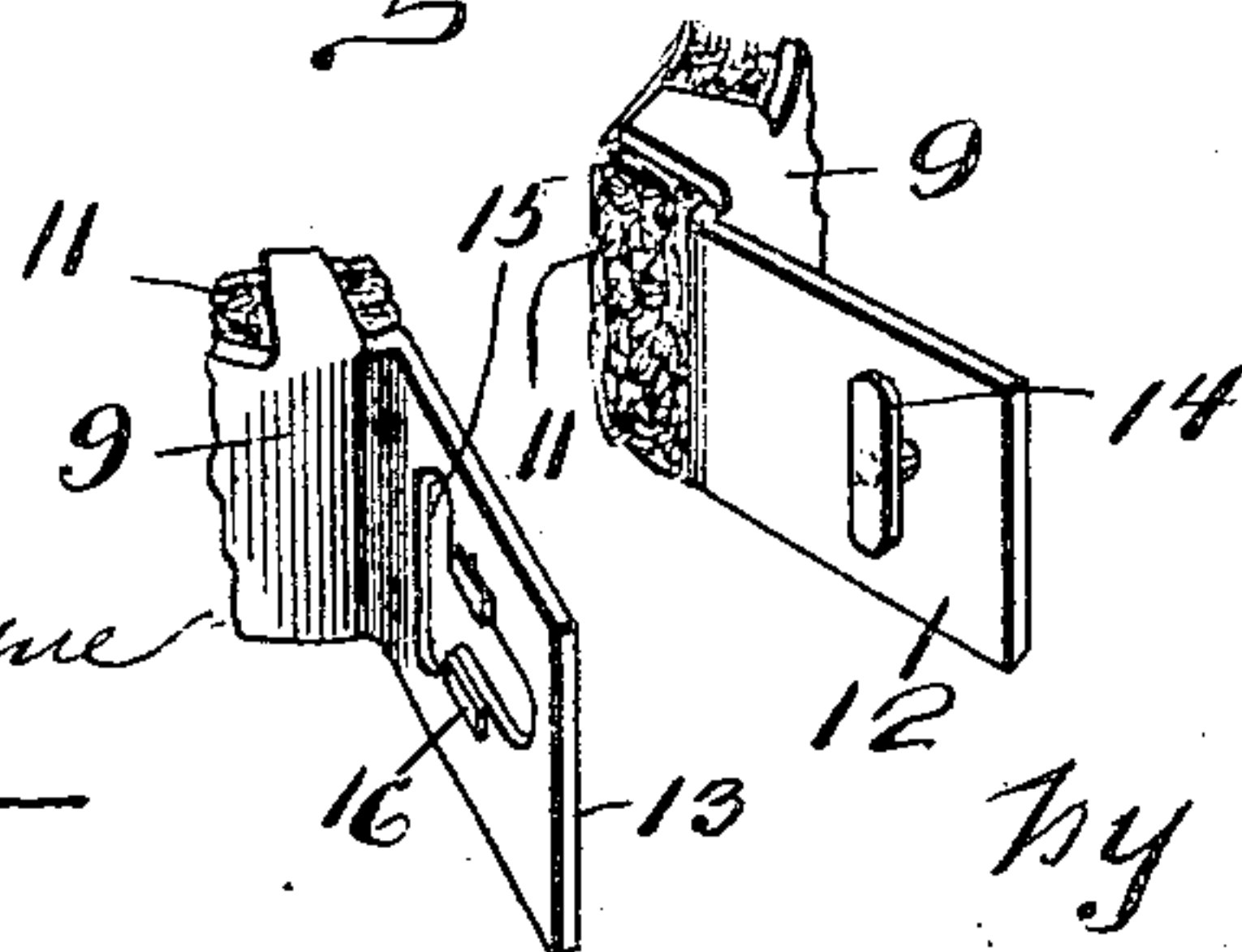


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

VICTOR L. ALLEBACH, OF EAST BRADY, PENNSYLVANIA.

GLAND-NUT LOCK.

No. 838,833.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed July 30, 1906. Serial No. 328,416.

To all whom it may concern:

Be it known that I, VICTOR L. ALLEBACH, a citizen of the United States of America, residing at East Brady, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Gland-Nut Locks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a combined gland-nut lock and piston-swab for air-pumps especially designed for use with railway air-brake systems.

15 The primary object of the invention is to provide effective means for preventing the turning of the gland-nuts of an air-pump.

20 A further object of the invention is to also provide a piston-swab adapted to encircle the piston of an air-pump within the center piece between the steam and air cylinders of the pump and to support said swab by the locking devices of the gland-nuts.

25 The construction of the improvement will be fully described hereinafter, in combination with the accompanying drawings, which form a part of this specification, and its features of novelty will be defined in the appended claims.

30 In the drawings, Figure 1 is a longitudinal sectional view of the center piece of an air-pump with one of the gland-nuts shown in elevation and with my improvement applied thereto. Fig. 2 is a plan view of a blank from which the piston-swab is formed. Fig. 35 3 is a side elevation of the combined gland-nut lock and piston-swab. Fig. 4 is a top plan view of the same; and Fig. 5 is a detail perspective, on an enlarged scale and broken away, showing the connecting means for the 40 ends of the swab.

45 The reference-numeral 1 designates the center piece of an air-pump, which is interposed between the steam-cylinder and the air-cylinder of the pump and formed with threaded openings 2 for the reception of the oppositely-disposed bushings 3 and 4, containing the packing-glands 5, through which the piston 6 extends.

50 The numeral 7 designates the usual gland-nuts formed with vertically-disposed grooves 8. Surrounding the piston 6 centrally between the nuts 7 is a piston-swab comprising a metallic band 9, bent to form a ring, from the edges of which project fingers 10, bent in- 55 ward at right angles to the body of the band

to support a packing 11. The ends 12 and 13 of the band are bent outward to overlap each other, and one of said ends 12 is provided with a catch-button 14, adapted to engage within a T-shaped slot 15, formed in the 60 end 13 and having lugs 16 on opposite sides of its contracted portion to secure the button 14 detachably.

65 Secured to diametrically opposite points on said band 9 are two spring-arms 17, the central portion 18 of each of which is bent inward for attachment to the outer side of the band 9 by rivets 19. This brings the ends of each arm in vertical alinement and in position to be sprung into the vertically- 70 alining grooves 8 in the nuts 7, thus securely locking said nuts against loosening or turning.

75 It will be noted that the piston-swab comprising the split metallic ring and its packing serves as a support for the spring locking-arms in addition to its function as a swab for the piston 6.

80 The improvement provides a very simple but effective means for locking the gland-nuts and is capable of being readily applied to or removed from the pump-piston.

85 Other means than that shown may be provided for detachably connecting the projecting ends of the band 9, and I would therefore have it understood that the invention in- 90 cludes all such variations and changes in the details of construction as may be resorted to without departing from the terms and scope of the following claims.

95 What I claim, and desire to secure by Letters Patent, is—

1. The combination with the piston-rod and gland-nuts of an air-pump, of a band surrounding said piston-rod and spring-arms 95 secured at diametrically opposite points to said band and engaging grooves in the edges of said nuts.

2. The combination with the piston-rod and gland-nuts of an air-pump, of a band 100 surrounding said piston-rod and having its ends detachably secured together, and spring-arms centrally secured to said band at diametrically opposite points, and having their ends fitting peripheral grooves in said nuts. 105

3. The combination with the piston-rod, and gland-nuts of an air-pump, of a piston-swab surrounding said piston-rod and comprising a split metallic ring, and a packing 110 secured within the ring, and diametrically

opposite spring-arms centrally secured to opposite sides of said ring and having their ends engaging grooves in said nuts.

4. The combination with the piston-rod
5 and gland-nuts of an air-pump, of a piston-
swab surrounding said piston-rod and comprising a metallic band bent to form a ring and having inwardly-projecting fingers along its upper and lower edges and outwardly-
10 turned detachably-connected ends, and a packing secured by said fingers, and vertically-disposed spring-arms secured centrally to said ring at diametrically opposite points, the free ends of said arms engaging in grooves
15 in said nuts.

5. The combination with the piston-rod and gland-nuts of an air-pump, of a piston-swab surrounding said piston-rod and comprising a metallic band formed with edge projections, and a packing secured on the
20 inner side thereof, and spring-arms bent inward at their central portions and secured to said band, so that their free ends will engage in grooves on the peripheries of said nuts.

In testimony whereof I affix my signature 25
in the presence of two witnesses.

VICTOR L. ALLEBACH.

Witnesses

G. W. BEST,
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