

No. 867,222.

PATENTED SEPT. 24, 1907.

F. W. GOEDEKE.
ROTARY CUTTER HEAD.
APPLICATION FILED MAR. 11, 1907.

Fig. 1.

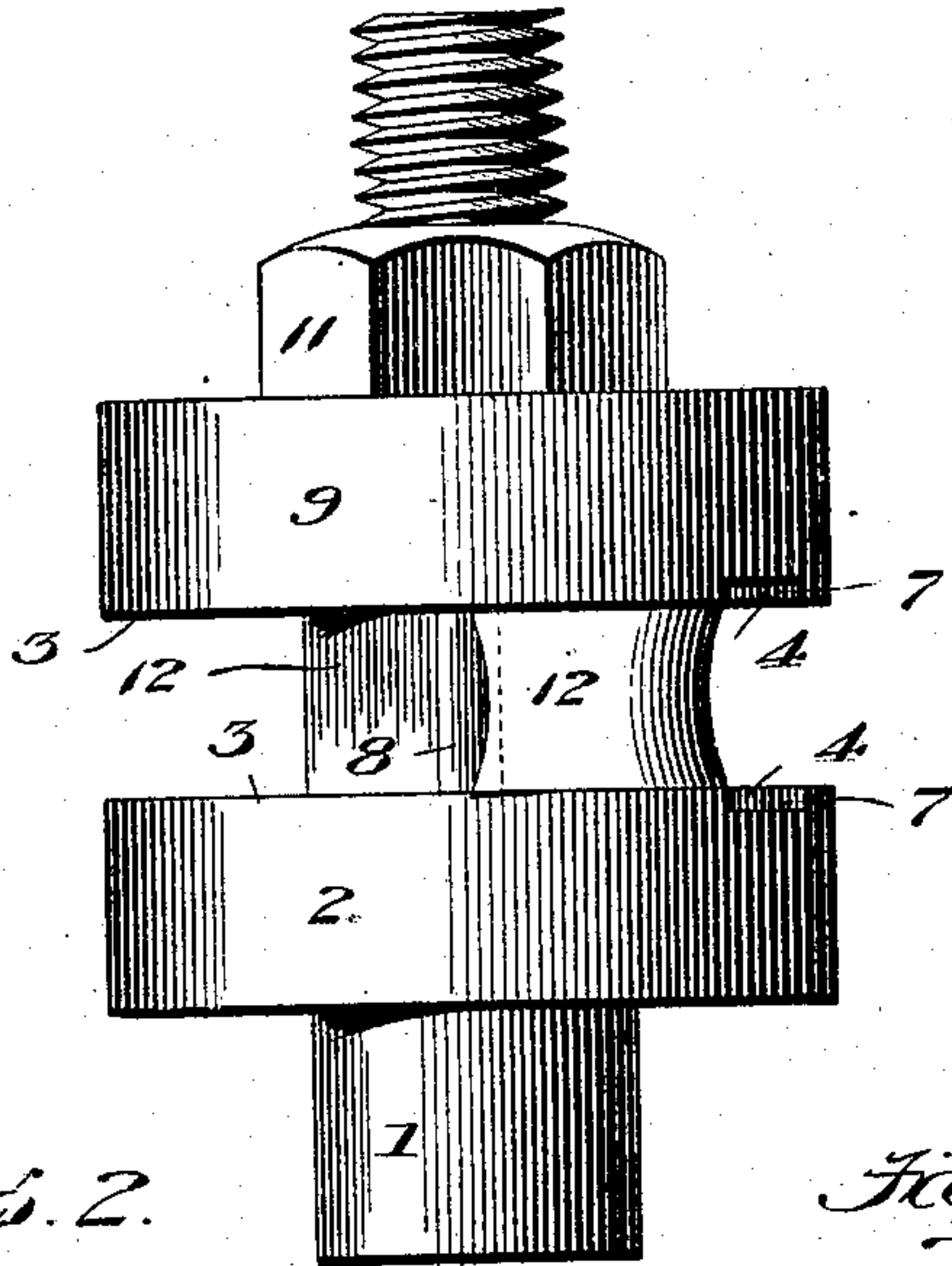


Fig. 2.

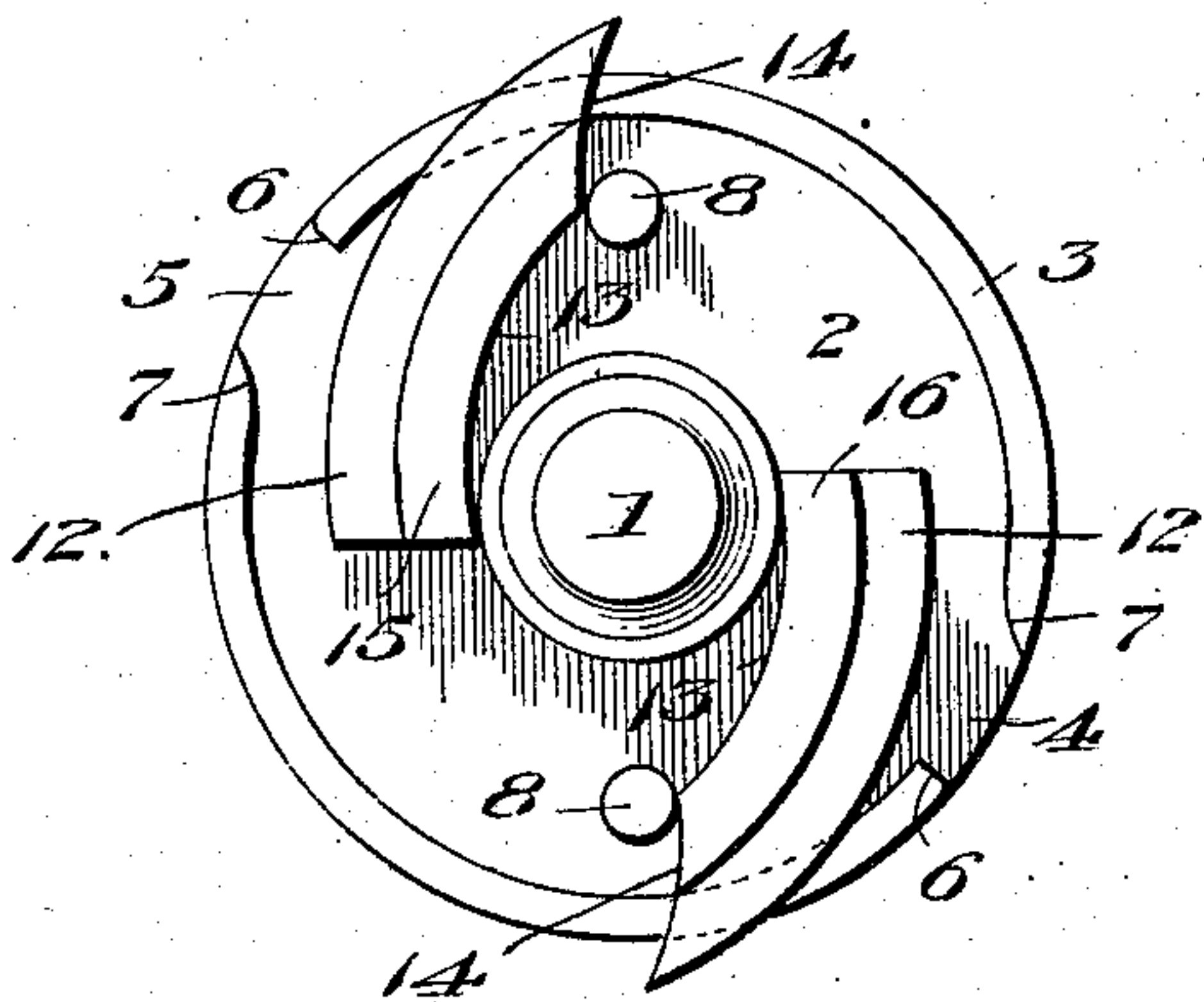


Fig. 2^a.

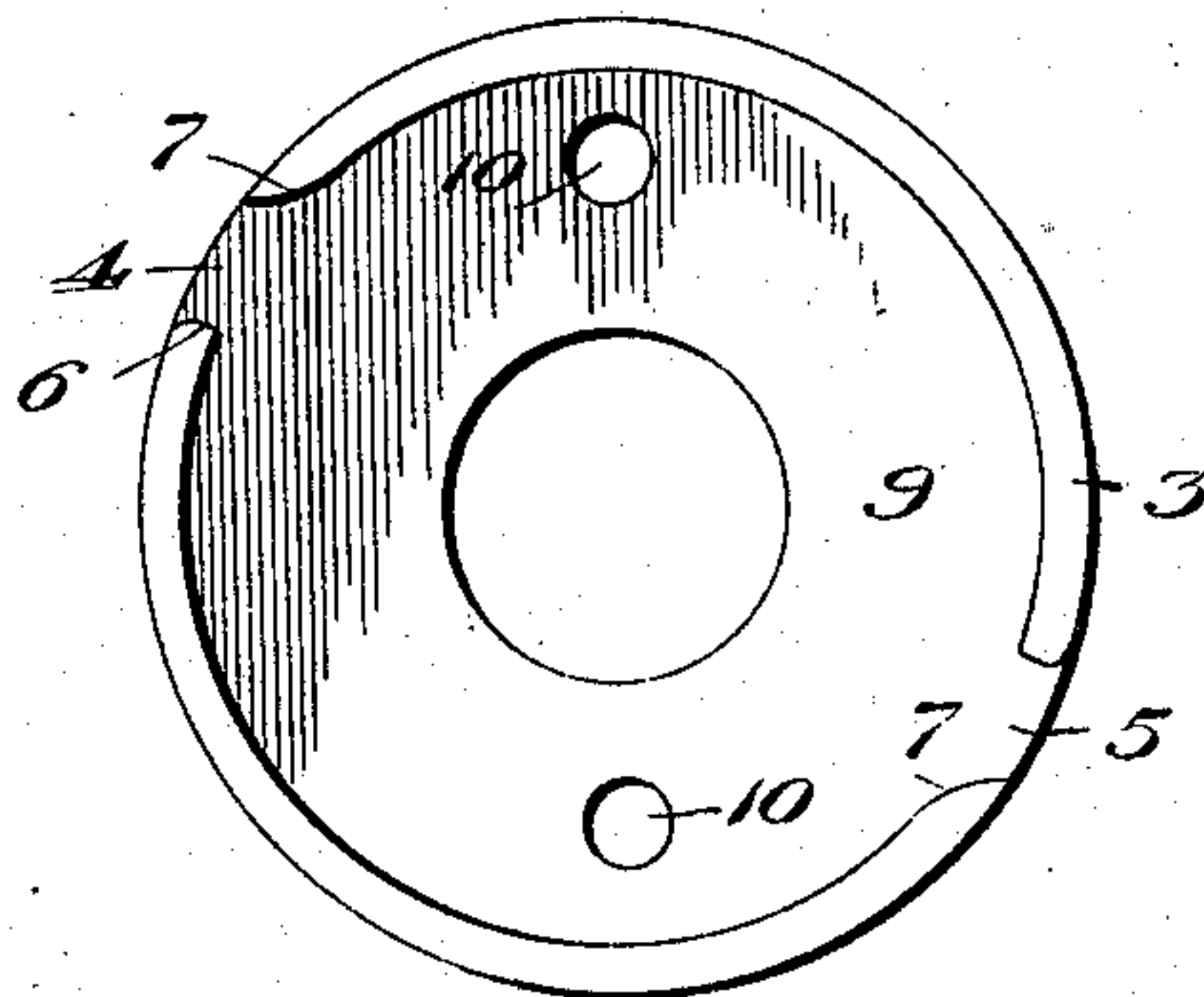


Fig. 3.

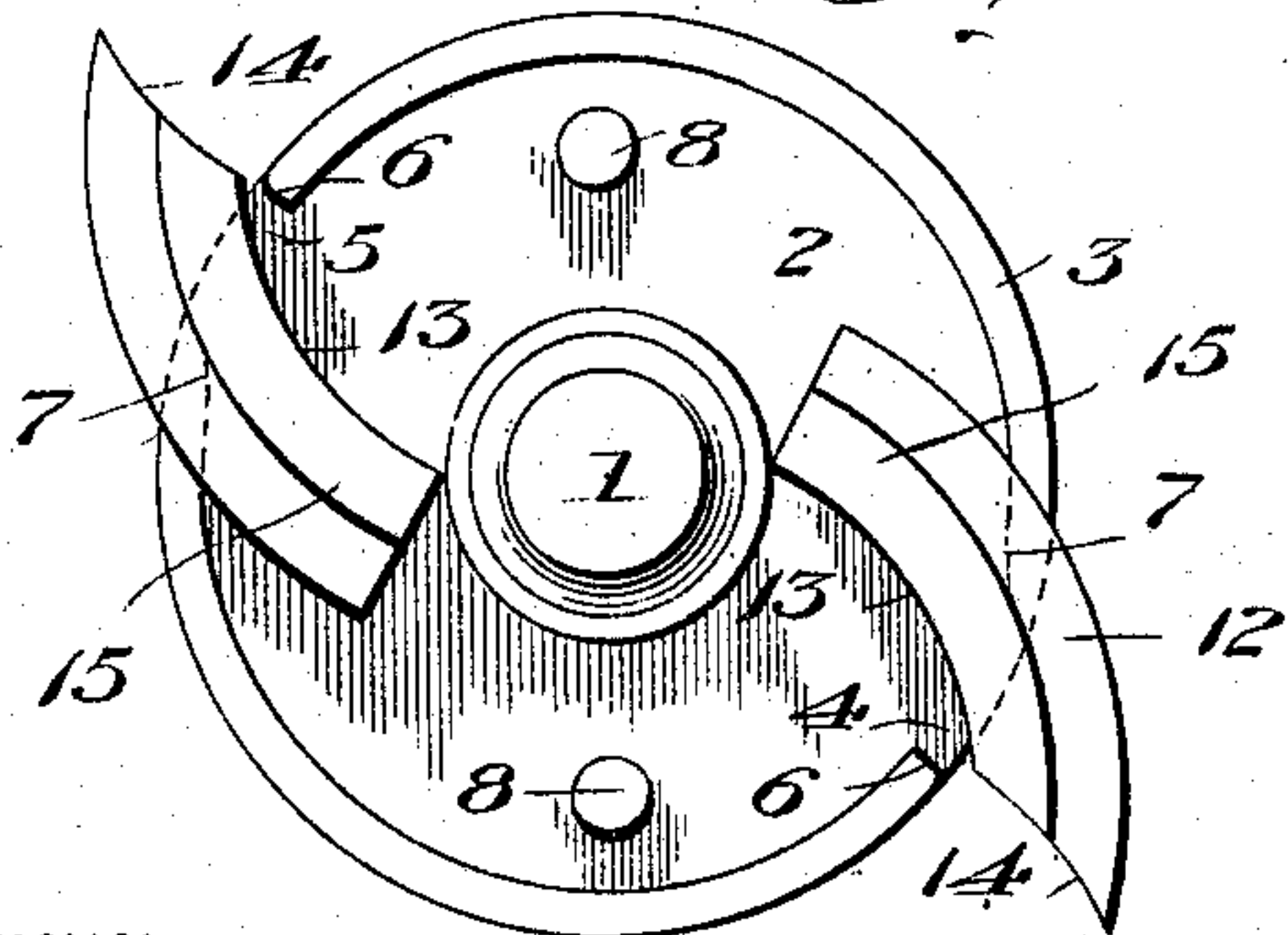
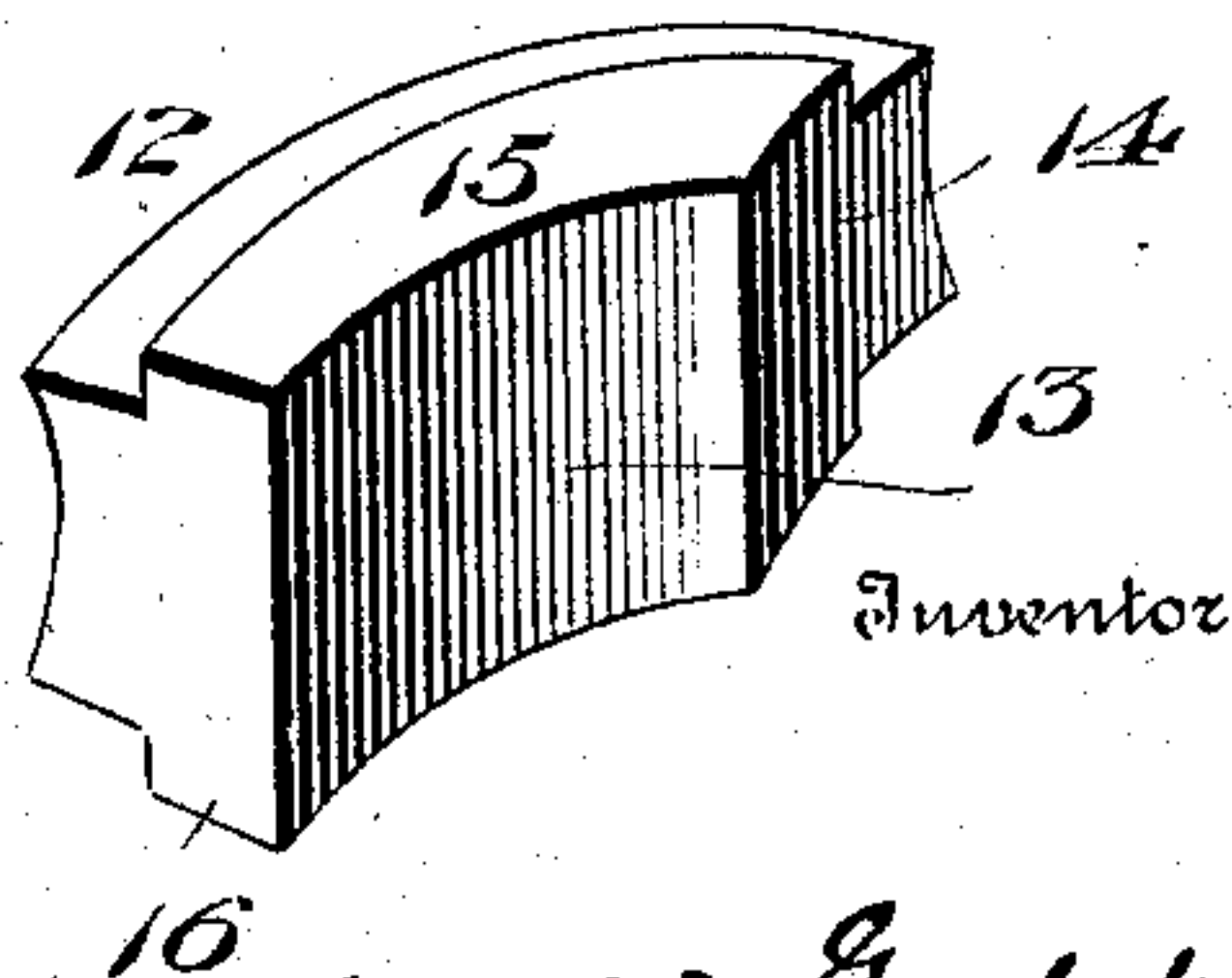


Fig. 4.



Witnesses

[Signature]
[Signature]

By

Frederick W. Goedeke
Frank C. Goe
his Attorney

UNITED STATES PATENT OFFICE.

FREDERICK W. GOEDEKE, OF EVANSVILLE, INDIANA.

ROTARY CUTTER-HEAD.

No. 867,222.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed March 11, 1907. Serial No. 361,877.

To all whom it may concern:

Be it known that I, FREDERICK W. GOEDEKE, a citizen of the United States, residing at Evansville, county of Vanderburg, and State of Indiana, have invented certain new and useful Improvements in Rotary Cutter-Heads for Molding-Machines, of which the following is a specification.

My invention relates to rotary cutter heads for molding machines.

In rotary cutter heads it is very desirable to provide means for rigidly holding the adjustable bits so that they cannot fly out or become loosened or detached, as well as to provide means whereby they may be readily adjusted to project more or less, as desired, and be accurately positioned; and it is also desirable to provide means whereby the bits may be changed and larger or smaller ones, or ones of different conformation, substituted.

My present invention is designed to meet the requirements of a successful rotary cutter head by the provision of novel means for holding and clamping the bits, and the employment of gage-pins associated with the clamping members and with the bits in a novel fashion, as will more fully appear hereinafter.

The novel features of the invention are recited in the appended claims.

In the accompanying drawings: Figure 1 is a side elevation; Fig. 2, a plan view with the upper clamping disk removed; Fig. 2^a, a bottom plan view of the upper clamping disk; Fig. 3, a view similar to Fig. 2, but showing the bits projected through the notches; and Fig. 4, a perspective of one of the bits.

The spindle 1 of the molding machine has loosely resting on a shoulder thereof, the lower clamping disk 2, which is provided with a circular flange 3 having notches or outlets 4 and 5 at diametrically opposite points, one margin of each notch being almost square, as at 6, and the other margin being slanted or inclined, as at 7. Secured to and rising from the disk 2 are gage-pins 8.

The numeral 9 designates an upper clamping disk which is of the same construction as the lower clamping disk, except that it is adapted to fit over the spindle and has openings 10 for the reception of the gage-pins 8. A nut 11 is used for clamping the disk against the bits 12.

The bits 12 are similar in construction, being of arc-shape with arc-shaped inner faces 13, the arc being of a circle of considerably greater diameter than that of the spindle. The cutter end of the bit is provided with a face 14 which is disposed in a general angular direction to the length of the bit, and when the bits are in position, this face bears against one of the gage-pins 8, while the arc-shaped face 13 is adapted to bear against the spindle of the machine. This relationship or association of the parts enables the bit to be shifted laterally

to project more or less, while it is gaged by the gage-pins, the surfaces 13 and 14 sliding against the spindle 1 and gage-pin 8, and herein I have a radically different construction from anything heretofore known to the art. At the same time, the gage-pin constitutes an abutment for the bit and assists in maintaining it in position.

The bits are provided with upper and lower flanges 15 and 16, which are adapted to engage the flanges 3 on the clamping disk, which construction prevents the bits from accidentally flying out from between the clamping disks.

The outlets or notches 4 and 5 are for the reception of the flanged parts of the bits, as shown in Fig. 3, when it is desired to project the bits to their limits, in which case the margins 6 and 7 engage the flanges of the bits.

The gage-pins lock the clamping disks against relative rotation and prevent any disarrangement of the adjustment of the bits and also insure against any accidental detachment of said bits when setting.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a cutter head, the combination with a pair of clamping disks having outer flanges and relatively broad open spaces between said flanges and the central parts of said disks, of bits freely disposed between the clamping disks for bodily shifting and having flanges to engage the flanges aforesaid, and means for clamping the disks on the bits.

2. In a cutter head, the combination with a pair of clamping disks having outer flanges and relatively broad open spaces between said flanges and the central parts of said disks and also provided with bit-receiving outlets or notches through said flanges, of bits freely disposed between the clamping disks and having flanges to engage the flanges aforesaid, said bits being also adapted for projection through the notches or outlets, and means for clamping the disks on the bits.

3. In a cutter head, the combination with clamping disks, of independent gage-pins engaging said disks, bits located freely between the disks for bodily shifting and abutting but not attached to the gage-pins, and means for clamping the disks on the bits.

4. In a cutter-head, the combination with a pair of clamping disks having outer flanges and relatively broad open spaces between said flanges and the central parts of said disks, of gage-pins engaged with the disks, bits freely disposed between the clamping disks and having flanges adapted to engage the flanges on the disks, and also abutting the gage-pins, and means for clamping the disks on the bits.

5. In a cutter head, the combination with clamping disks and a spindle, of gage-pins engaged with the disks, bits having arc-shaped inner faces bearing against the spindle and provided at their outer cutting ends with inclined faces bearing against the gage-pins, and means for clamping the disks on the bits.

In testimony whereof, I hereunto affix my signature in presence of two witnesses.

FREDERICK W. GOEDEKE.

Witnesses:

H. W. BEAUCHAMP,
F. C. GORE.