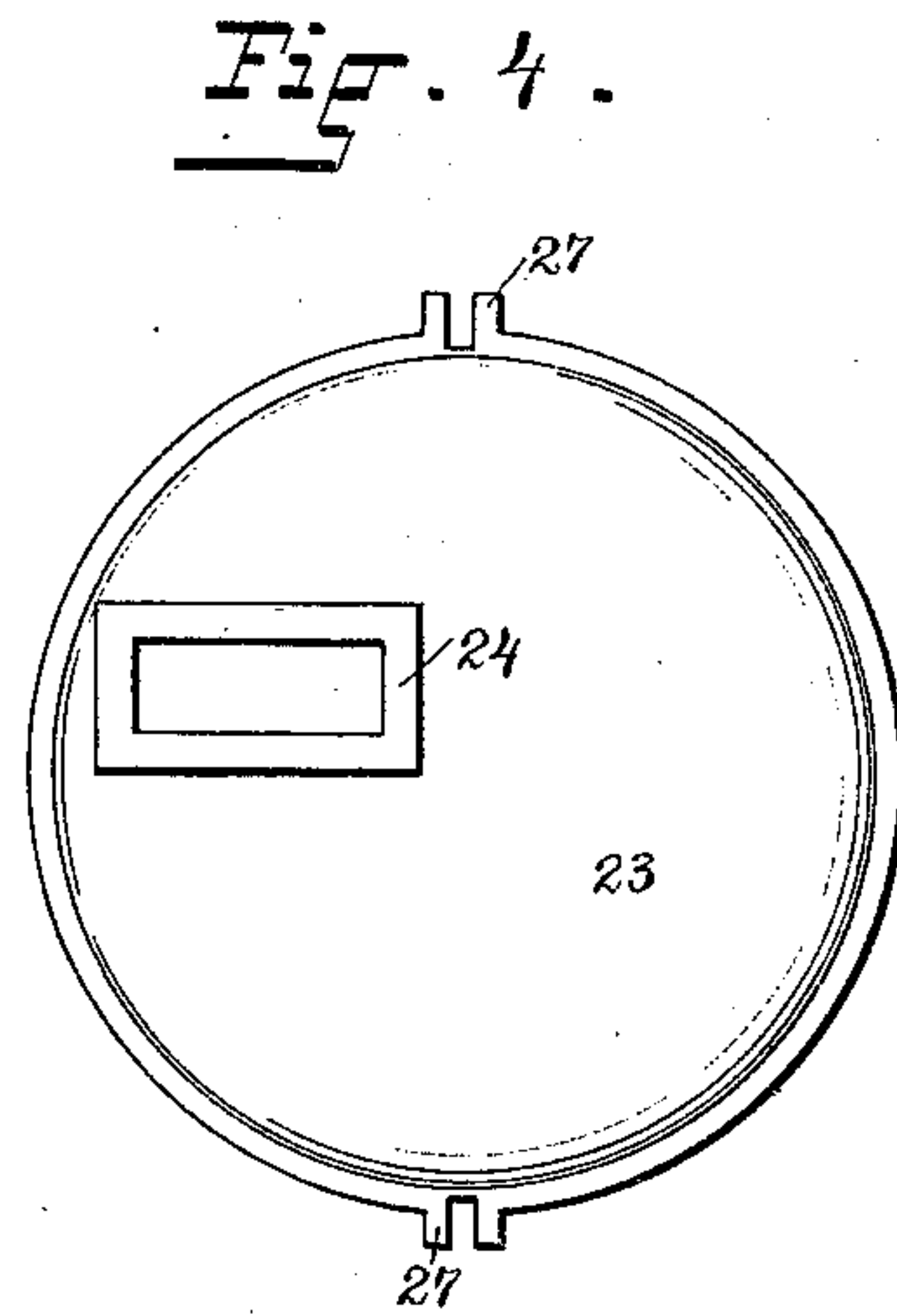
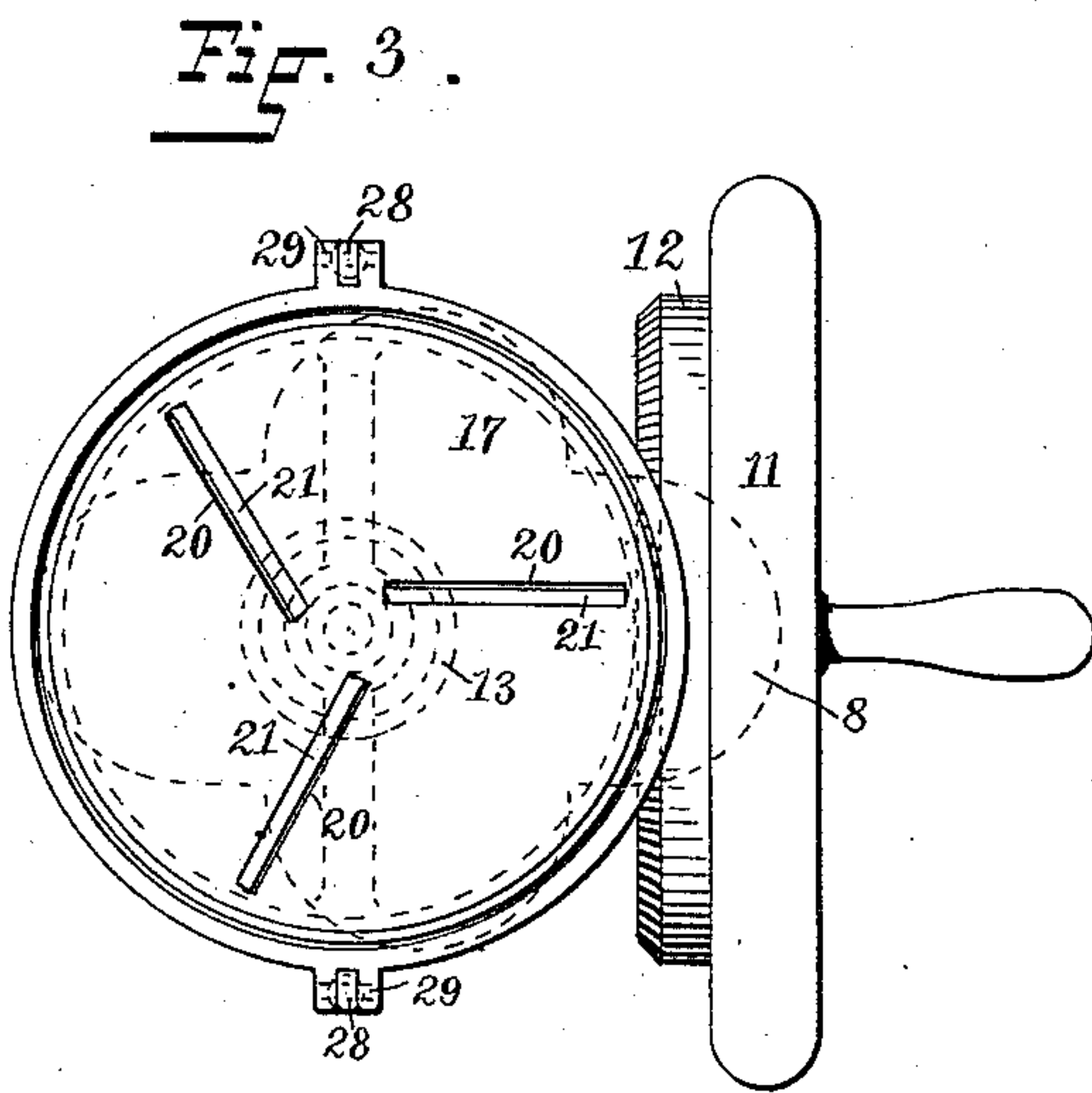
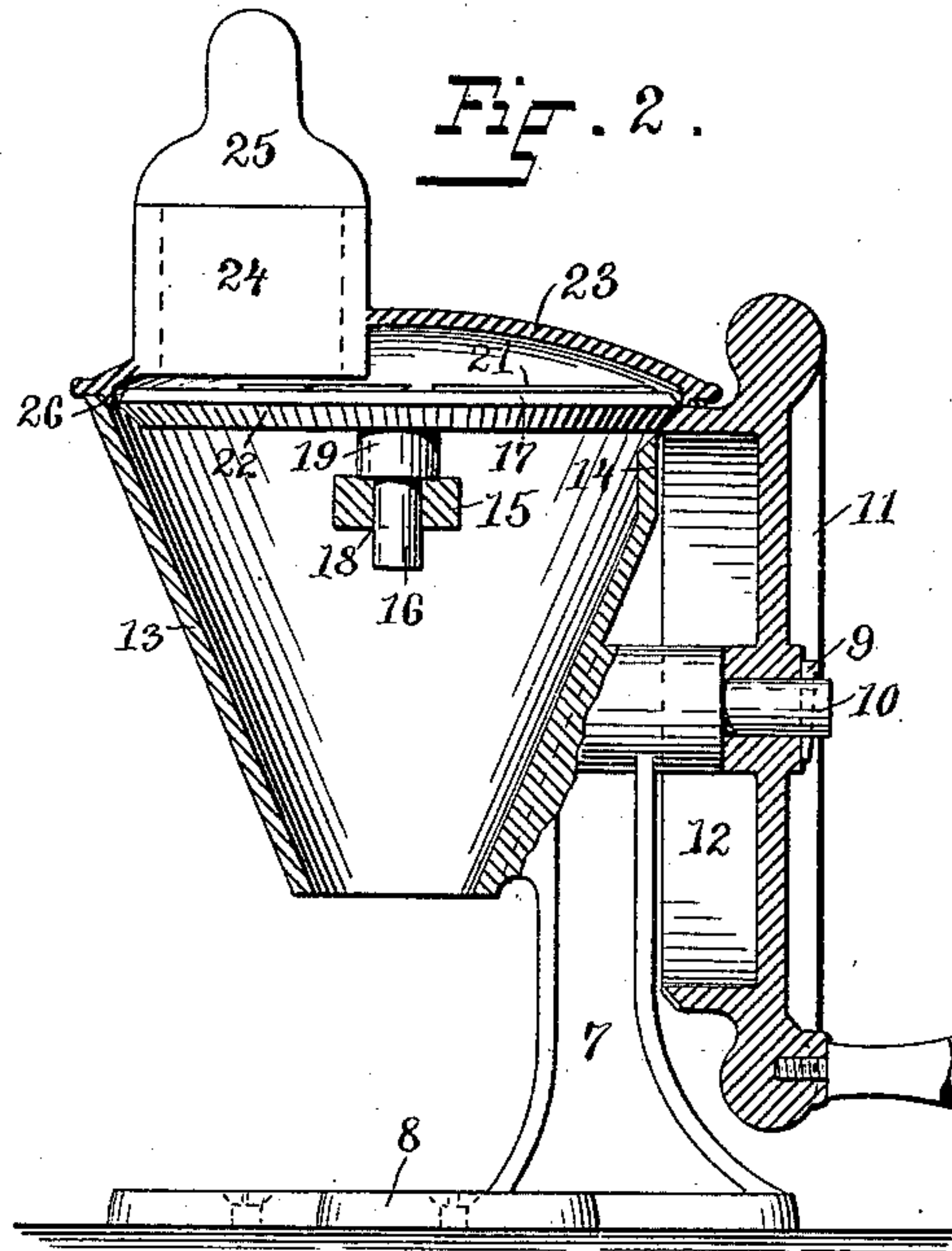
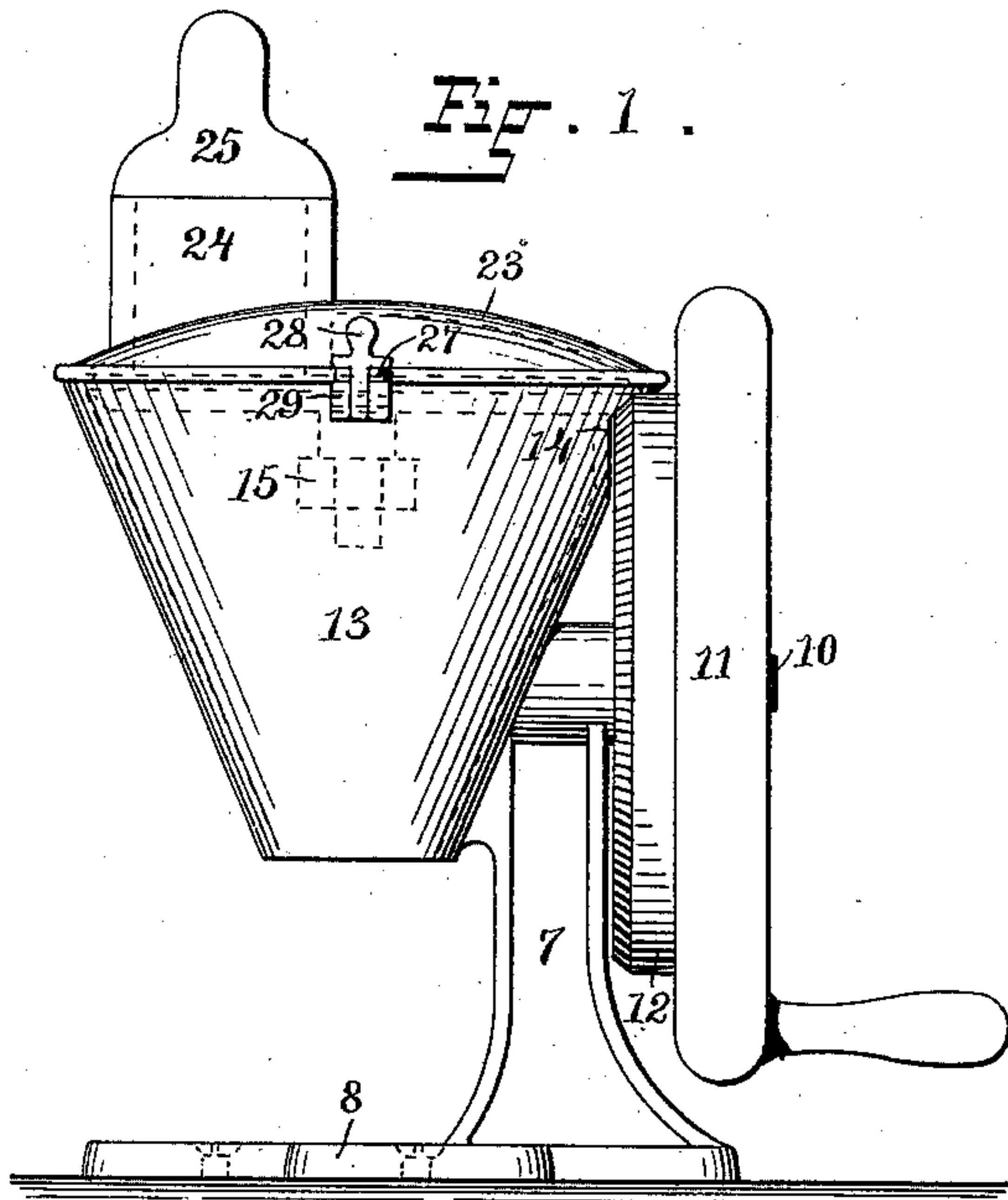


(No Model.)

A. M. WHITNEY.
ROTARY TOBACCO CUTTER.

No. 362,345.

Patented May 3, 1887.



WITNESSES:

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UNITED STATES PATENT OFFICE.

AUBREY M. WHITNEY, OF PROVIDENCE, RHODE ISLAND.

ROTARY TOBACCO-CUTTER.

SPECIFICATION forming part of Letters Patent No. 362,345, dated May 3, 1887.

Application filed August 17, 1886. Serial No. 211,117. (No model.)

To all whom it may concern:

Be it known that I, AUBREY M. WHITNEY, of the city and county of Providence, and State of Rhode Island, have invented certain new and useful Improvements in Rotary Tobacco-Cutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to machines for cutting plug-tobacco or the like, and in which the tobacco is fed or pressed onto the cutting-face of a rotary cutter-disk armed with a set of cutting-blades.

15 The objects of my invention are to provide a portable machine of a simple and compact form, and, further, to provide a very efficient and durable machine capable of working rapidly.

20 To the above purposes my invention consists in the peculiar and novel arrangements and constructions of the several parts of the device, all as hereinafter fully described and claimed.

25 In the accompanying drawings, Figure 1 represents a side elevation of my machine complete. Fig. 2 represents a view of Fig. 1, partly in a vertical section, partly in full and broken away. Fig. 3 represents a top plan view of Fig. 1, with the cover removed. Fig. 30 4 represents a top plan view of the cover.

In the said drawings like numbers of reference designate corresponding parts throughout.

35 Referring to the drawings, the standard or support 7 is provided with a broad flat base, 8, having perforations therein and adapted to be screwed upon a suitable object to secure stability when operating the machine.

40 Upon the head of the standard 7 is set a transverse extension having the attenuated cylindrical portion or shaft 10, upon which is journaled the operating hand-wheel 11, which is confined thereon by a linchpin, 9. The 45 main part of the hand-wheel is of an ordinary structure, and is provided with a suitable handle. Upon one face of the hand-wheel is constructed an upright annular rim or flange, the edge of which is formed with beveled cogs and 50 composes the bevel-gear 12. Instead of this construction of the gear 12, an ordinary cogged

wheel may be made fast to the hand-wheel. However, I prefer the construction shown, because of the compactness and facility of casting the two parts in one piece.

55 Upon the head of the standard 7, on the opposite side from the hand-wheel, is set the discharge-chute 13, formed of a frusto-conical shape, hollow and inverted. The chute 13 is arranged vertically, and is constructed 60 with an indentation, 14, in the side near the top, in order to permit the gear 12 to mesh with the gear formed on the cutter-disk, hereinafter described.

The cross-bar 15 is fixed across the interior 65 of the discharge-chute 13, near the top, and is provided with a bearing or hole, 18, in which is journaled the shaft 16, fixed upon the lower face of the cutter-disk 17, which is also provided with the hub or boss 19. The cutter-disk 17 is disk-shaped, and is constructed with 70 three slots or openings, 20, arranged at equidistant points and between the center and circumference of the disk, as clearly shown in the drawings. In the slots 20 are set the blades 75 21, having the cutting-edges arranged upon the upper or cutting face of the disk 17. The edge or rim of the cutter-disk is formed with the integral bevel-gear 22, which is continually in mesh with the gear 12, whereby the 80 revolution of the hand-wheel 11 will readily rotate the cutter-disk 17. The cover 23 is circular and is shaped concavo-convex. At a point in the cover between the center and circumference thereof is constructed the box-like 85 hopper 24, open at both ends and provided with a removable presser, 25, which, as shown, fits snugly into the hopper and is formed with a handle at the upper end. The cover 23 is provided with a downwardly-projecting annu- 90 lar flange, 26, adapted to fit closely within the upper end of the discharge-chute 13. At two opposite points on the circumference of the cover 23 is arranged a forked projection, 27, in the fork of which the latches 28 are adapted 95 to be inserted and locked. The latches 28 are hinged to lugs 29 upon the outside of the chute 13, near the top edge, at two points corresponding to the points of the forks 27, so that when they are locked in said forks, as shown in Fig. 100 1, the cover 23 is securely set in position. The latches swing in their bearings, and when

unlocked they are dropped down in the reverse position from that shown in Fig. 1, and as shown in dotted lines in Fig. 3.

The lower opening of the hopper 24 is arranged quite near the upper or cutting face of the cutter-disk 17, and is passed over by the blades 21 when said disk is revolved. By virtue of the relative arrangement of the hopper and the disposition of the blades the latter will make a shearing-cut upon any material fed down through the hopper when the disk is rotated.

From the above description the following-described operation of the machine will be readily understood. The plug-tobacco or material to be cut is set down in the hopper 24, so that it will rest upon the upper or cutting face of the cutter-disk 17. In this position the worked material may be allowed to rest by its own weight, or a pressure may be applied to the same by placing the presser in the position shown in Figs. 1 and 2 and using hand-pressure thereupon. The hand-wheel 11 is then turned, and the cutter-disk is accordingly revolved. The surface of the disk between the blades slides over the worked material, and the blades strike the material and chip or slice it in thin layers, which fall down through the slots in the disk into the discharge-chute 13, the shape of which gathers the cut material into the smaller area at the lower end or opening of the chute, from where it may be received in suitable bags or boxes ready for trade use.

The blades 21 may be made adjustable and removable, so that they can be set to cut different depths, and can be removed for repairs or replacement.

By virtue of the construction of my device the entire machine may be made from a few castings. Besides the hand-wheel and its gear being of a single casting, the discharge-chute, the cross-bar, the standard and base, and the bearing for the hand-wheel are together formed of one casting. The cutter-disk and its gear are constructed together, and again the cover and the hopper are also formed integral.

There may be various modifications made in the several parts of my device without making a substantial departure from the spirit of the invention, as herein fully described and claimed.

I am aware of the heretofore construction of rotary cutters having the cutter-disk provided with an integral gear and journaled in a cross-piece fixed within the discharge-chute and provided with a detachable cover having

a hopper formed therein and a presser working in the hopper, and I therefore disclaim, broadly, such a construction; but,

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

1. The combination of the frusto-conical-shaped discharge-chute, the standard supporting said chute vertically, a cross-bar fixed across the interior of said chute, near the upper end, a rotary cutter-disk provided with a set of blades, said disk provided with an integral beveled gear upon the rim, a shaft upon the lower face of said disk journaled in said cross-bar, a hand-wheel provided with an integral bevel-gear near its circumference, said wheel journaled on said standard and said gears in mesh, a cover provided with a flange and adapted to fit upon the upper end of said chute, and means for locking the cover in position thereon, and a box-like hopper formed in said cover to one side of the center thereof and having the lower opening thereof over the cutting-face of said disk, said opening passed over by said blades, substantially as described.

2. The combination of the rotary cutter-disk 17, provided with a set of blades and having the bevel-gear 22 and the shaft 16, the discharge-chute 13, provided with the cross-bar 15, the standard 7, provided with the base 8, the cover 23, provided with the flange 26, the hopper 24, having the presser 25 working therein, the latches 28, hinged upon the lugs on the chute 13 and the co-operating forks 27, the shaft 10, and the hand-wheel 11, having the bevel-gear 12, all substantially as described.

3. The combination of the standard 7, having the shaft 10 and provided with a base, 8, the funnel-shaped discharge-chute 13, cast thereupon and provided with the internal cross-piece, 15, having a bearing-socket therein, the cutter-disk 17, provided with blades and the shaft 16 and having the bevel-gear 22, the cover 23, surmounting said chute and provided with the hopper 24 and the means, substantially as described, for locking said cover in position, and the hand-wheel 11, provided with the bevel-gear 12, in mesh with gear 22, said wheel journaled on shaft 10, all substantially as described.

In witness whereof I have hereunto set my hand.

AUBREY M. WHITNEY.

Witnesses:

CHAS. E. BALLOU,
A. J. POTHIER.