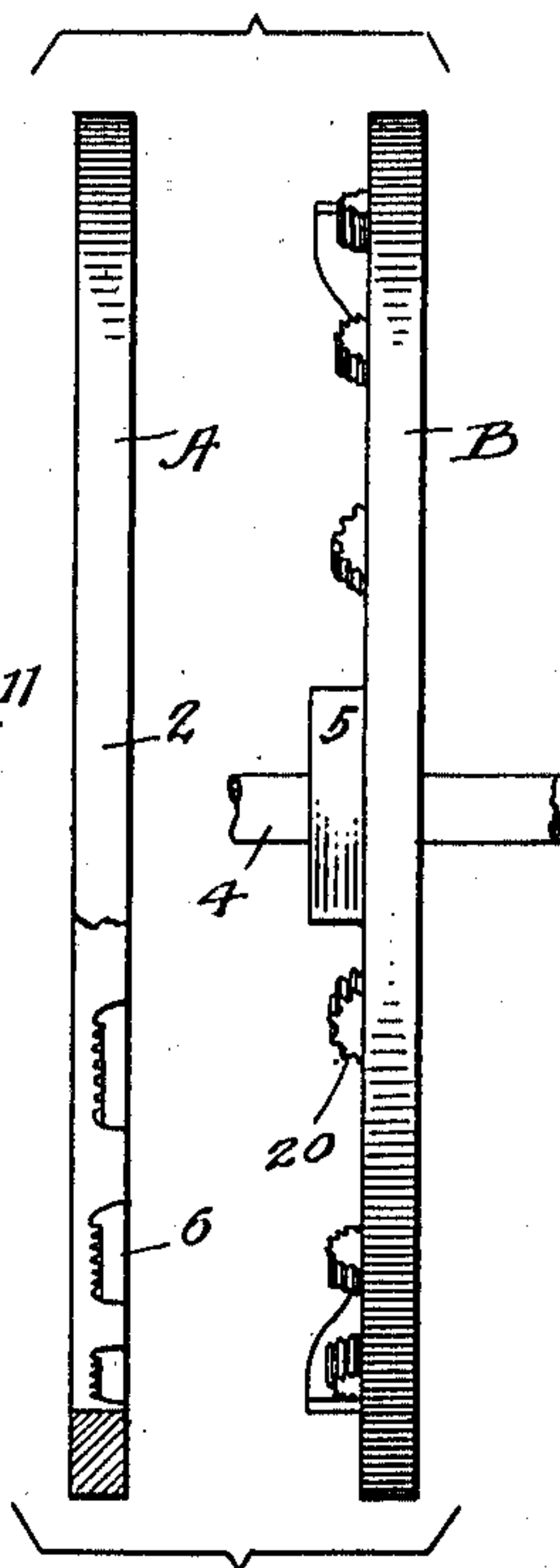
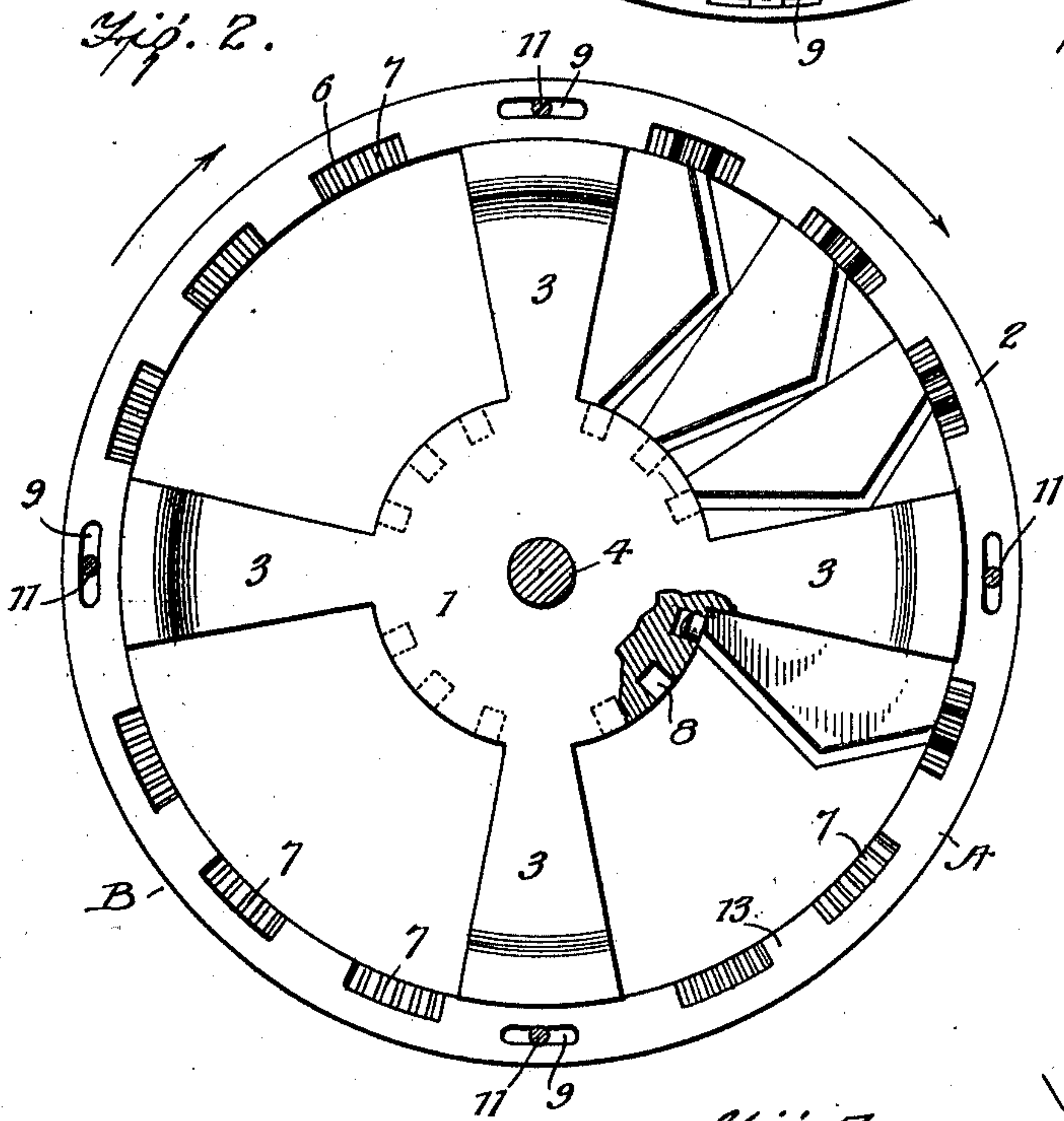
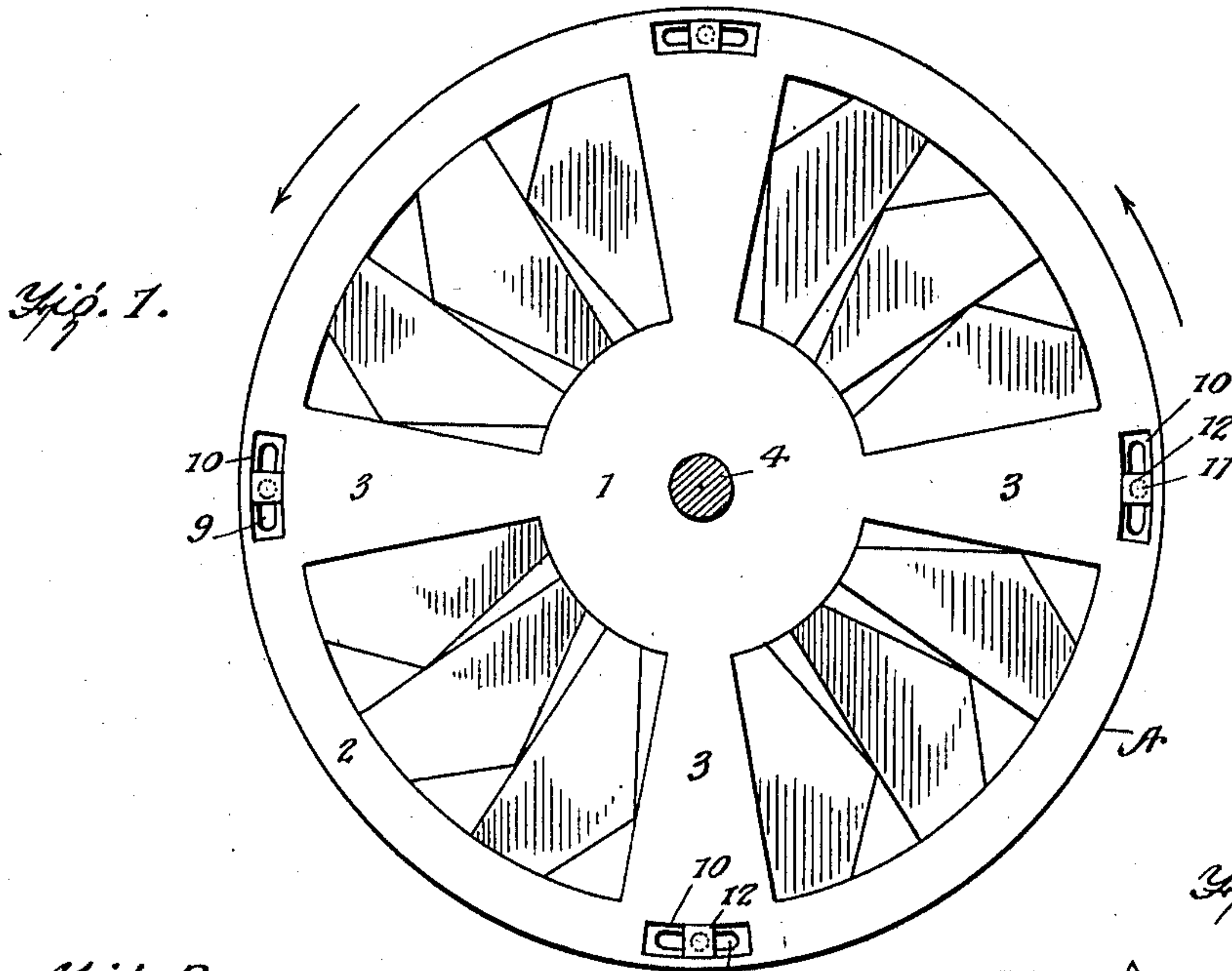


H. E. RAMSEYER.  
VEGETABLE CUTTER.  
APPLICATION FILED AUG. 17, 1910.

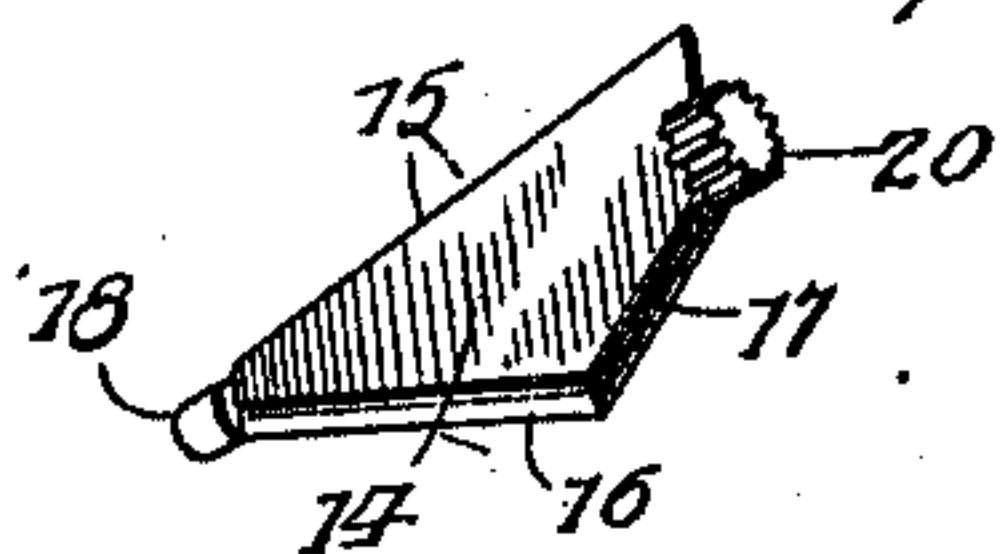
990,063.

Patented Apr. 18, 1911.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY E. RAMSEYER, OF DULUTH, MINNESOTA.

VEGETABLE-CUTTER.

990,063.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed August 17, 1910. Serial No. 577,585.

*To all whom it may concern:*

Be it known that I, HENRY E. RAMSEYER, a citizen of the United States, and a resident of Duluth, county of St. Louis, and State of Minnesota, have invented certain new and useful Improvements in Vegetable-Cutters, of which the following is a specification.

My invention is an improvement in vegetable cutters, and consists in certain novel constructions, and combinations of parts, hereinafter described and claimed.

The object of the invention is to provide a simple device of the character specified, wherein a plurality of cutting blades may be adjusted simultaneously to cause the said blades to cut at any desired depth, and wherein the blades when adjusted, may be firmly held in position.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the cutter. Fig. 2 is a similar view from the opposite side. Fig. 3 is an edge view with the parts separated, and partly broken away, and, Fig. 4 is a perspective view of a blade or knife.

The embodiment of the invention shown in the drawings, comprises a wheel composed of two rings A and B, each consisting of a hub 1, a rim 2, and spokes 3 connecting the hub and rim. One of the rings is secured to a shaft 4, and one of the rings, B in the present instance, is provided with a spacing washer or disk 5 on its inner face.

The inner face of the rim 2 of both of the rings A and B is provided at spaced intervals with arc shaped recesses 6, the recesses extending from the inner face of the rim to a depth approximately half the width of the rim, and each recess is provided on its bottom wall with a series 7 of gear teeth.

The hub 1 of the ring B is provided at spaced intervals with radial openings 8, each of which is circular in cross section, and forms a bearing for a purpose to be described. Each opening or bearing 8 is in radial alinement with a recess 6. The openings 8 are spaced at equal distances from each other, and the arrangement of recesses on one ring is the same as the arrangement on the other, so that when the rings are arranged coaxially, the recesses 6 of one ring register with the similar recesses of the other.

The rim 2 of each of the rings is provided with a series of spaced arc-shaped slots 9,

and the face of the rim of the ring A is countersunk at 10 around each of the slots. The slots of one ring register with the slots of the other, and a bolt 11 is passed through each pair of registering slots. Each bolt is engaged by a nut 12, and the nut rests in the countersunk portion, as shown in Fig. 1. It will be evident that when the nuts 12 are loosened, the rings may be moved angularly with respect to each other, and may be held in adjusted position by tightening the said nuts.

A plurality of blades or knives 14 are arranged between the rims and the hubs of the rings, each knife being substantially triangular in form, as shown in Fig. 4. The base 15 of the triangle is the back of the blade, and the other two sides 16 and 17 of the triangle form the cutting edge, the said edge consisting of two portions arranged at an angle with respect to each other. The ends of the blade are parallel, and one end is provided with an integral lug 18, circular in cross section. The opposite end is provided with a pinion 20 rigid with the blade, and the cutting edge 16-17 is beveled or sharpened. Each blade is arranged radially of the wheel, formed by the rings, the lug 18 fitting a bearing 8, and the pinion 20 engaging a pair of registering recesses 6, and meshing with the gear teeth 7 of the said recesses.

It will be evident that when the rings are moved angularly with respect to each other, the blades 14, will be rotated on their long axis, the said axis being radial to the wheel, to incline the cutting edge 16-17 more or less with respect to the plane of the wheel, whereby to cause the said blades to cut a thicker or thinner slice, as may be desired. When the rings are moved with respect to each other in one direction, the angle of the plane of the blades with respect to the plane of the wheel is increased, and when the rings are moved in the opposite direction, the angle of the plane of the blades with respect to the plane of the wheel is decreased. All of the blades move in unison, so that the adjustment is simultaneous, and all are held in adjusted position when the nuts 12 are tightened to clamp the rings together. The improved cutting wheel or cutter may be used in various ways and for various purposes. Any desired or usual means may be used for feeding the material to be cut, and for receiving the cut material. The im-



provement is applicable to any form of cutting machine.

I claim:

1. A device of the character specified, comprising a wheel composed of similar rings arranged coaxially and alongside each other, each of the rings consisting of a hub, a rim, and spokes connecting the hub and rim, the rim of each wheel being provided in its inner face with a plurality of spaced arc-shaped recesses, the recesses of one ring registering with the recesses of the other ring, each recess having a series of gear teeth on its bottom, the hub of one of the rings having spaced radial openings forming bearings, each bearing being in radial alinement with a recess, a plurality of flat blades or knives, each having a straight back and a cutting edge consisting of two portions arranged at an angle with respect to each other, each blade having a lug at one end fitting a bearing, and a pinion at the other engaging a pair of registering recesses and meshing with the gear teeth, said rings having registering arc-shaped slots in their rims, bolts passing through the slots, and nuts engaging the bolts to hold the rings together.

2. A device of the character specified, comprising a wheel composed of similar rings arranged coaxially and alongside each other, each of the rings consisting of a hub, a rim and spokes connecting the hub and rim, the rim of each wheel being provided in its inner face with a plurality of spaced arc-shaped recesses, the recesses of one ring registering with the recesses of the other ring, each recess having a series of gear teeth on its bottom, the hub of one of the rings having spaced radial openings forming bearings, each bearing being in radial alinement with a recess, a plurality of flat blades or knives, each having a straight back, and a cutting edge consisting of two portions arranged at an angle with respect to each other, each blade having a lug at one end fitting a bearing, and a pinion at the other engaging a pair of registering recesses and meshing with the gear teeth, and means for detachably connecting the rings.

3. A device of the character specified, comprising a wheel composed of similar rings arranged coaxially and alongside each other, each of the rings consisting of a hub, a rim, and spokes connecting the hub and rim, the rim of each wheel being provided in its inner face with a plurality of spaced arc-shaped recesses, the recesses of one ring registering with the recesses of the other ring, each recess having a series of gear teeth on its bottom, the hub of one of the rings having spaced radial openings forming bearings, each bearing being in radial alinement with a recess, a plurality of flat blades each having a cutting edge, a lug at one end of

the blade for engaging a bearing, a pinion at the other for engaging a pair of registering slots, and means for connecting the rings and permitting them to move angularly with respect to each other.

4. A cutting device comprising a wheel composed of similar rings arranged coaxially and in abutting relation, each ring consisting of a hub and rim connecting to the hub, a plurality of blades journaled radially of the rings, each blade having a cutting edge radial to the wheel, means for connecting the rings while permitting them to move angularly with respect to each other, a pinion on each blade, and a series of gear teeth for each pinion on the rings for engagement by the pinion, whereby to rotate said blade when the rings are moved angularly with respect to each other.

5. A cutting device comprising a wheel composed of similar rings arranged coaxially and in abutting relation, each ring consisting of a hub and rim connected to the hub, a plurality of blades journaled radially of the rings, each blade having a cutting edge radial to the wheel, means for connecting the rings while permitting them to move angularly with respect to each other, means for causing said blades to simultaneously rotate on an axis radial to the wheel when the rings are moved angularly with respect to each other, and means for locking the rings in adjusted position.

6. A cutting device comprising a wheel composed of similar rings arranged coaxially and in abutting relation, each ring consisting of a hub and rim connected to the hub, a plurality of blades journaled radially of the rings, each blade having a cutting edge radial to the wheel, means for connecting the rings while permitting them to move angularly with respect to each other, and means for causing said blades to simultaneously rotate on an axis radial to the wheel when the rings are moved angularly with respect to each other.

7. A device of the character specified, comprising a wheel composed of rings arranged coaxially and alongside each other and movable angularly with respect to each other, a plurality of blades arranged radially of the wheel and means for simultaneously rotating said blades on an axis radial to the wheel when the rings are moved with respect to each other, and means for locking the rings in adjusted position.

8. A device of the character specified, comprising a wheel composed of rings arranged coaxially and alongside each other and movable angularly with respect to each other, a plurality of blades arranged radially of the wheel, and means for simultaneously rotating said blades on an axis radial to the wheel when the said rings are moved with respect to each other.



9. A device of the character specified, comprising a wheel composed of superposed rings, a blade journaled for rotation on an axis radial to the wheel, said rings being mounted for movement angularly with respect to each other, means whereby the movement of the said rings will rotate the blades, and means for locking the rings in adjusted position.
10. A device of the character specified, comprising a wheel composed of superposed rings, a blade journaled for rotation on an axis radial to the wheel, said rings being mounted for movement angularly with respect to each other, and means whereby the movement of the said rings will rotate the blades.

HENRY E. RAMSEYER.

Witnesses:

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BENJAMIN G. RILLING.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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