No. 702,852. Patented June 17, 1902.

C. R. ZORSCH.

SLICING MACHINE.

(Application filed Nov. 27, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

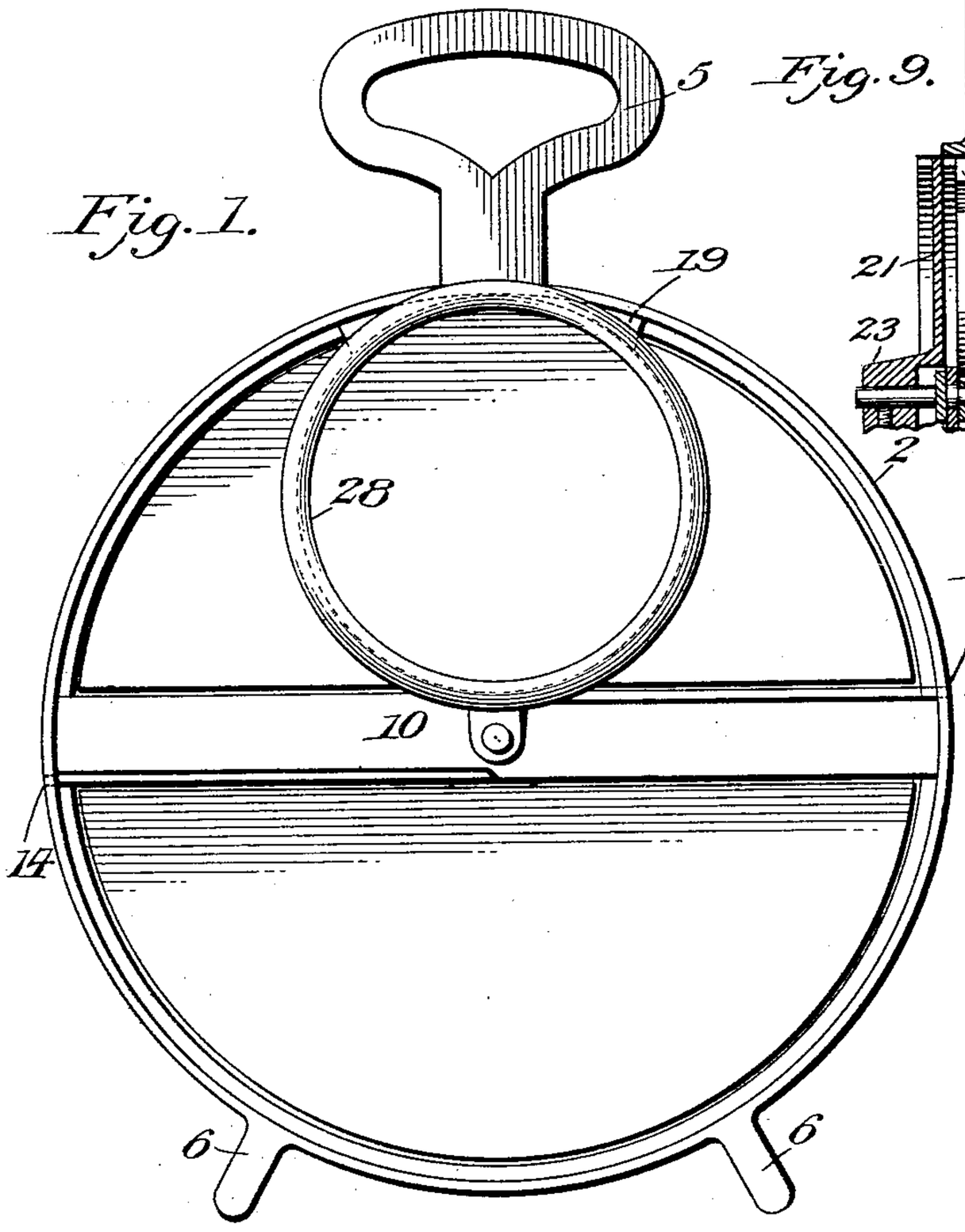

Fig. 9.

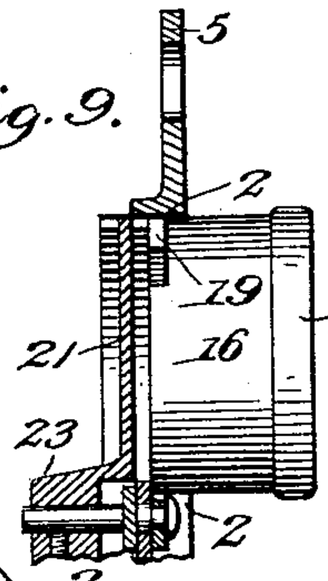

Fig. 2.

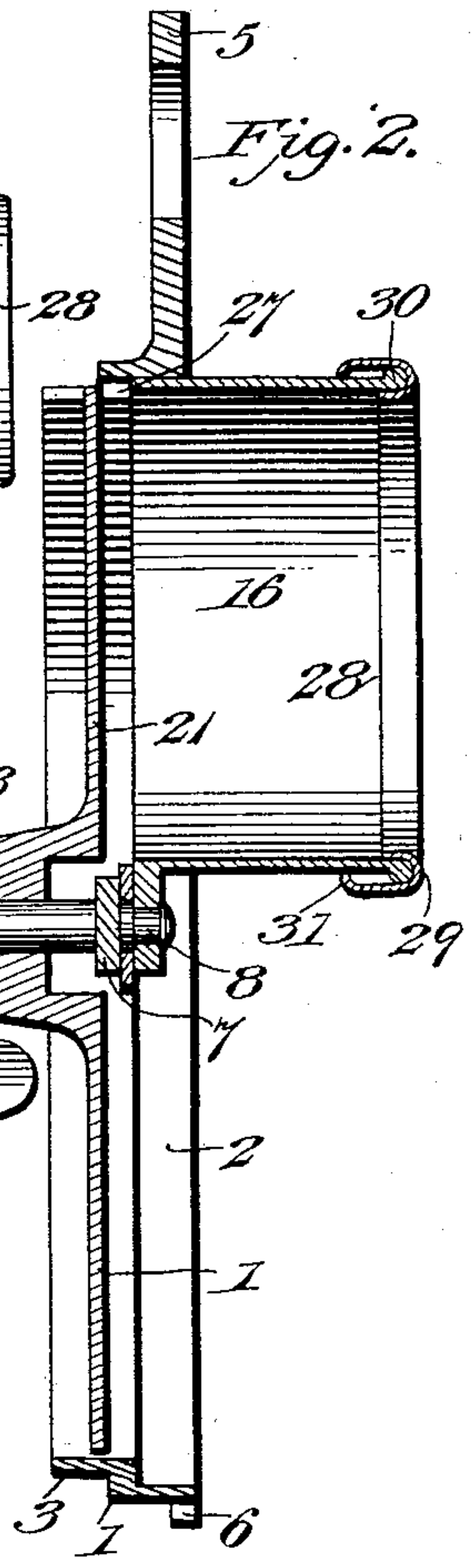

Fig. 3.

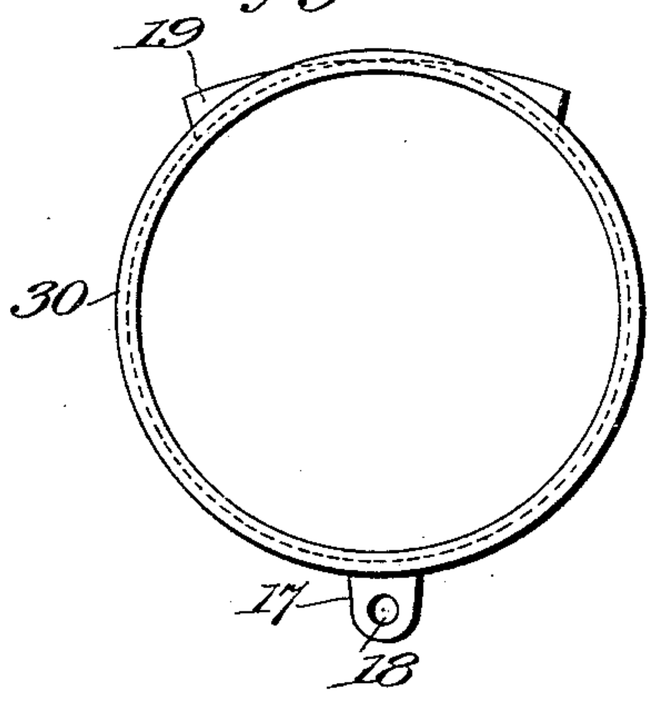

Fig. 4.

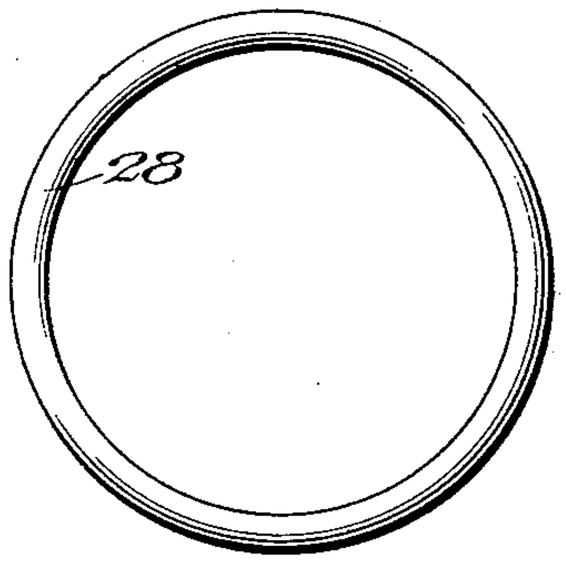

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Fig. 6.

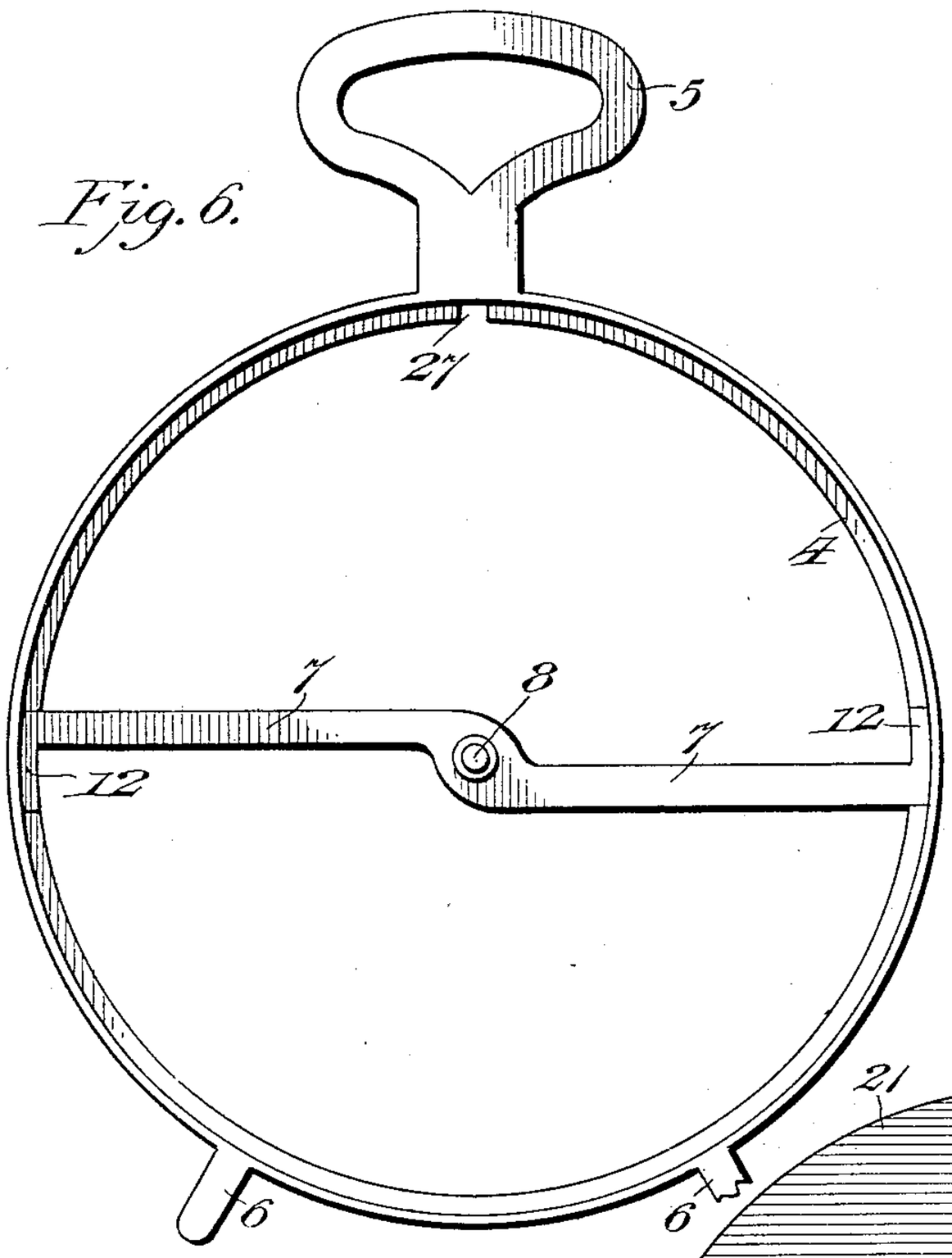


Fig. 5.

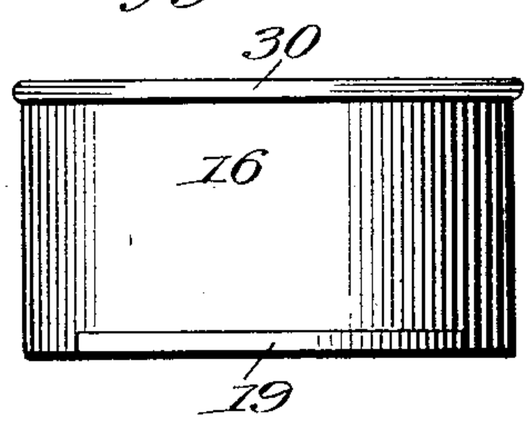


Fig. 8.

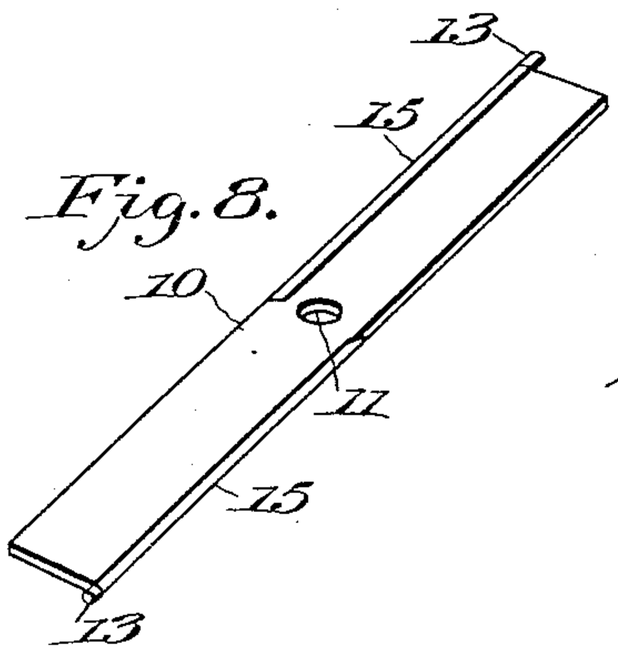
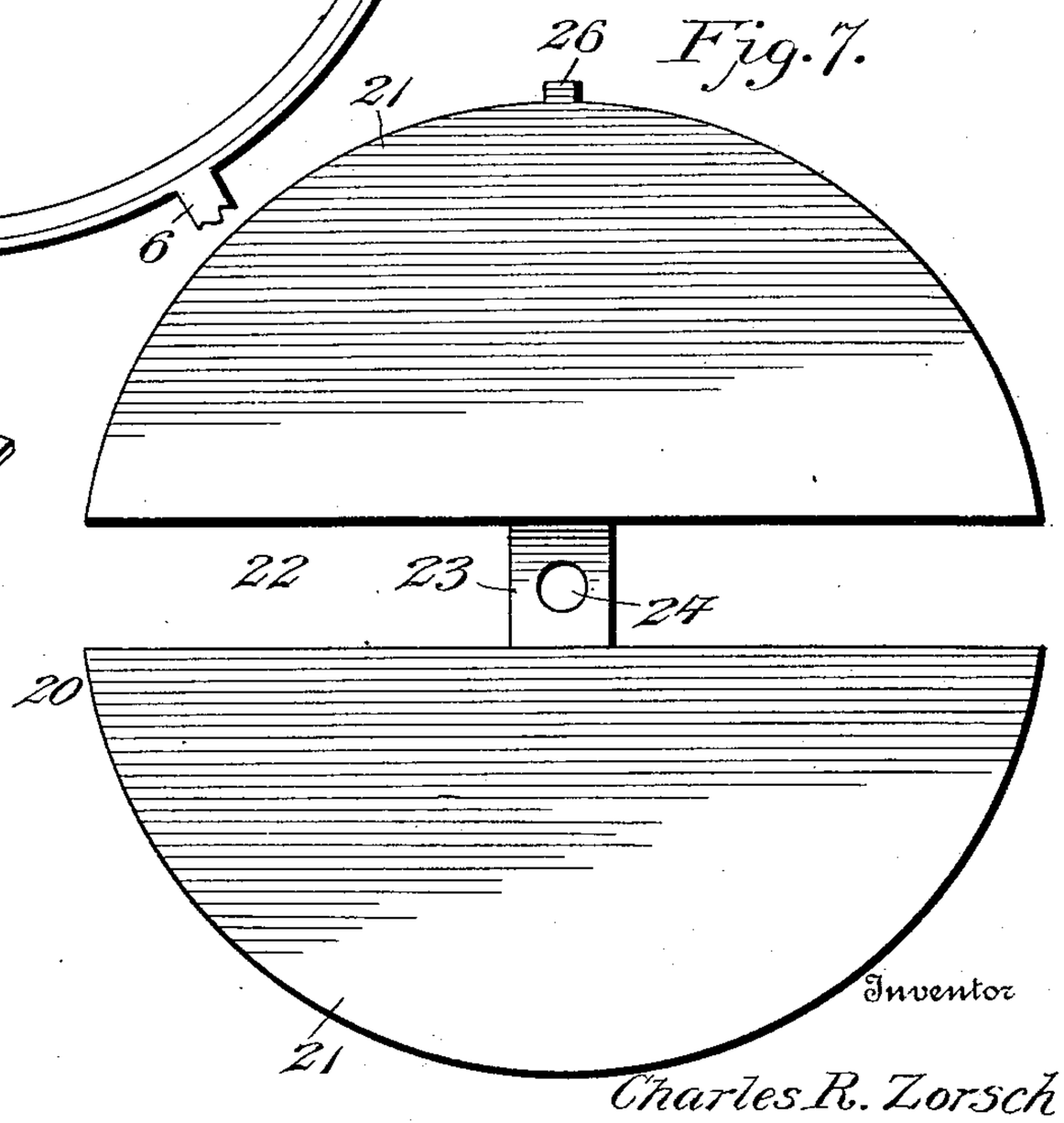


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHARLES R. ZORSCH, OF BRIGHTON, NEW YORK.

SLICING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 702,852, dated June 17, 1902.

Application filed November 27, 1901. Serial No. 83,940. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. ZORSCH, a citizen of the United States, residing at Brighton, in the county of Monroe and State of New York, have invented new and useful Improvements in Slicing-Machines, of which the following is a specification.

This invention relates to slicing-machines, and particularly to that class known as "vegetable" cutters or slicers, the object in view being to provide a simple, compact, and durable hand-operated machine for slicing potatoes, cucumbers, lemons, apples, &c. The construction of the machine is such that practically no time is lost, as in the case of a reciprocatory cutter or slicer, the machine hereinafter described being in the nature of a rotary slicer or cutter with the knives arranged in such manner as to produce two slices in each complete revolution thereof. Provision is also made for regulating the thickness of the slices, which may be made quite thin or of any desired thickness. The machine is also adapted to be used by supporting the same upon a table or dish and may also be used by placing the same in the can or crock into which the sliced material is discharged automatically.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a plan view of a slicing-machine constructed in accordance with the present invention. Fig. 2 is a diametrical section through the same. Fig. 3 is a plan view of the orbitally-movable cup or holder. Fig. 4 is a similar view of the revoluble hand-grip. Fig. 5 is a side elevation of the cup or holder. Fig. 6 is a plan view similar to Fig. 1, showing merely the frame of the slicer, the operative parts being removed. Fig. 7 is a plan view of the adjustable bottom or gage-plate. Fig. 8 is a detail perspective view of the ledger-blade or slicing-knife. Fig. 9 is a detail perspective view of a segmental runner forming part of the invention.

Similar numerals of reference designate corresponding parts in all the figures.

The slicer contemplated in this invention is adapted to be operated by laying the same substantially flat on a table or other horizontal support or to be stood upright or inclined at an angle while manipulating the same. While Fig. 1 has been described as a plan view of the slicer, said figure might also properly be described as an elevation of the slicer, depending, of course, upon whether or not the machine is used in a horizontal or vertical or inclined position.

In carrying out the present invention I employ an annular frame or body 1, which may be of any desired diameter, said body comprising an upstanding guide-rim 2 and a depending guard-rim 3, the rims 2 and 3 being offset one from the other or, in other words, of different diameters and joined together by means of a horizontal annular ledge 4, which serves as a track upon which the orbitally-movable cup, hereinafter described, rests and travels. The annular frame 1 is provided at one side with a suitable handle 5, and about opposite said handle are arranged supporting feet or legs 6, which are brought into use when the machine is operated in a vertical or inclined position. Extending about centrally and diametrically across the frame is a cross-bar 7, which is provided at the exact center of the frame with an upstanding stud or pivot 8 and also with a depending post 9. Resting upon the cross-bar 7 is a slicing-knife or ledger-blade 10, which is shown in detail in Fig. 8, where it is seen to comprise a central opening 11, which fits over the stud 8. The opposite extremities of the ledger-blade are received in mortises or depressions 12, formed at diametrically opposite points in the annular ledge or track 4, so as to bring the upper surface of the blade flush with the upper surface of the ledge 4. At its opposite ends the blade 10 is further provided with small studs 13, which are received in openings 14, formed in the rim 2 of the frame. The blade is attached to the frame by bowing the same centrally until the studs 13 enter the holes 14. The blade is then released, causing the stud 8 to pass through the opening 11, after which said stud is headed or riveted, thus permanently securing the stud to the blade. The blade is further brought to a knife-edge 15 for half the length of each side edge thereof, as shown in Figs. 1 and 8, for acting upon the vegetables as they are swept across such stationary blade by the movable cup or holder.

The cup or holder 16 is of a diameter approximately equal to or slightly less than half

the internal diameter of the frame or body 1 and is provided with a radially-extending lug 17, provided with an opening 18 to receive the stud 8 after the blade 10 has been placed upon said stud. The stud is headed or mashed, so as to prevent the cup or holder 16 from becoming detached. The cup at its outer edge rests on the ledge or track 4, and in order to prevent said cup from tilting and striking against the cutting edge of the blade 10 said cup is provided at its outer swinging portion with a segmental runner 19, described on or about the same arc of a circle as the inner surface of the guide-rim 2. The potato or other article to be sliced is placed in the cup or holder 16, which is open at both top and bottom, the potato or like article resting upon an adjustable bottom or gage-plate 20. The adjustable bottom or gage-plate 20 is composed of twin segments 21, substantially semicircular in form, but preferably slightly less than a semicircle, so as to leave an intervening slot 22, through which the sliced portions of the vegetables are discharged. The segments 21 are joined by means of a central yoke 23, having formed therein an opening 24 to receive the pendent post 9, said yoke, together with the segments 21, being adjustable up and down on the post by means of a thumb-screw 25. (Clearly shown in Fig. 2.) One of the segments 21 is provided on its peripheral edge with a tenon or projection 26, which is received and adapted to work up and down in a groove 27 in the annular frame or body, thus preventing rotation of the gage-plate or adjustable bottom as it is being adjusted up and down.

Extending around the upper edge of the orbitally-movable cup or holder 16 is a rotatable annular hand-grip 28, preferably formed of a piece of thin sheet metal having its upper edge rolled, as at 29, to extend over a bead 30, formed integrally with the upper edge of the cup, while the lower edge of the hand-grip is bent inward, as at 31, to extend beneath the bead 30 and prevent the hand-grip from becoming accidentally attached, while permitting the free rotative movement of said hand-grip.

In operation the gage-plate or adjustable bottom 20 is adjusted up or down on the post 9, according to the thickness it is desired to impart to the slices, the thickness of the slices being equal to the distance between the upper surface of the gage-plate and the lower surface of the ledger-blade. The article to be sliced is then placed in the cup or holder 16, and the annular hand-grip 28 is then grasped and manipulated so as to cause said cup or holder to describe an orbital or circular movement. At the same time sufficient pressure is brought to bear upon the article within the cup to force the same against the gage-plate. Twice in each revolution of the holder the potato is brought against and operated upon by the ledger-blade, quickly severing the slices therefrom and discharging the same through the slotted portion of the gage-plate, the slices falling into a suitable receptacle placed beneath the machine.

I do not desire to be limited to the details of construction and arrangement hereinabove set forth and accordingly reserve the right to change, modify, or vary the construction within the scope of the appended claims.

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

1. In a slicing-machine, a frame comprising an annular ledge, an adjustable gage-plate, an orbitally-movable cup or holder pivotally mounted centrally within the frame and provided with a segmental runner which travels on the annular ledge, and a stationary ledger-blade connected with the frame and interposed between the gage-plate and cup or holder.

2. In a slicing-machine, the combination with a frame having an annular ledge, and a stationary ledger-blade extending across the frame, of an adjustable gage-plate arranged at one side of the ledger-blade, an orbitally-movable cup or holder at the opposite side of the ledger-blade, and a rotatable annular hand-grip mounted on said cup or holder.

3. In a slicing-machine, the combination with an annular frame provided with a groove extending transversely of the rim thereof, of an adjustable gage-plate fitted within the annular frame and provided with a tenon or projection movable in said groove, means for adjusting and holding the gage-plate, an orbitally-movable cup or holder, and a ledger-blade connected with the frame and interposed between the gage-plate and said cup or holder.

4. In a slicing-machine, the combination with an annular frame having a rim provided with openings, and an annular ledge connected with the rim and having diametrically opposite depressions, of a ledger-blade having its ends fitted flush within said depressions and provided with studs fitting the openings in the rim, an adjustable gage-plate located at one side of the ledger-blade, and an orbitally-movable cup or holder at the opposite side of the ledger-blade, substantially as described.

5. In a slicing-machine, an annular frame, a cross-bar extending diametrically thereof and provided with an upstanding stud and a depending post, in combination with an orbitally-movable cup or holder journaled on said stud, a movable gage-plate adjustable on said post, and a stationary ledger-blade interposed between the gage-plate and cup or holder and connected with the frame, substantially as described.

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

CHARLES R. ZORSCH.

Witnesses:

WILLIAM ZORSCH,

Mrs. W. ZORSCH.