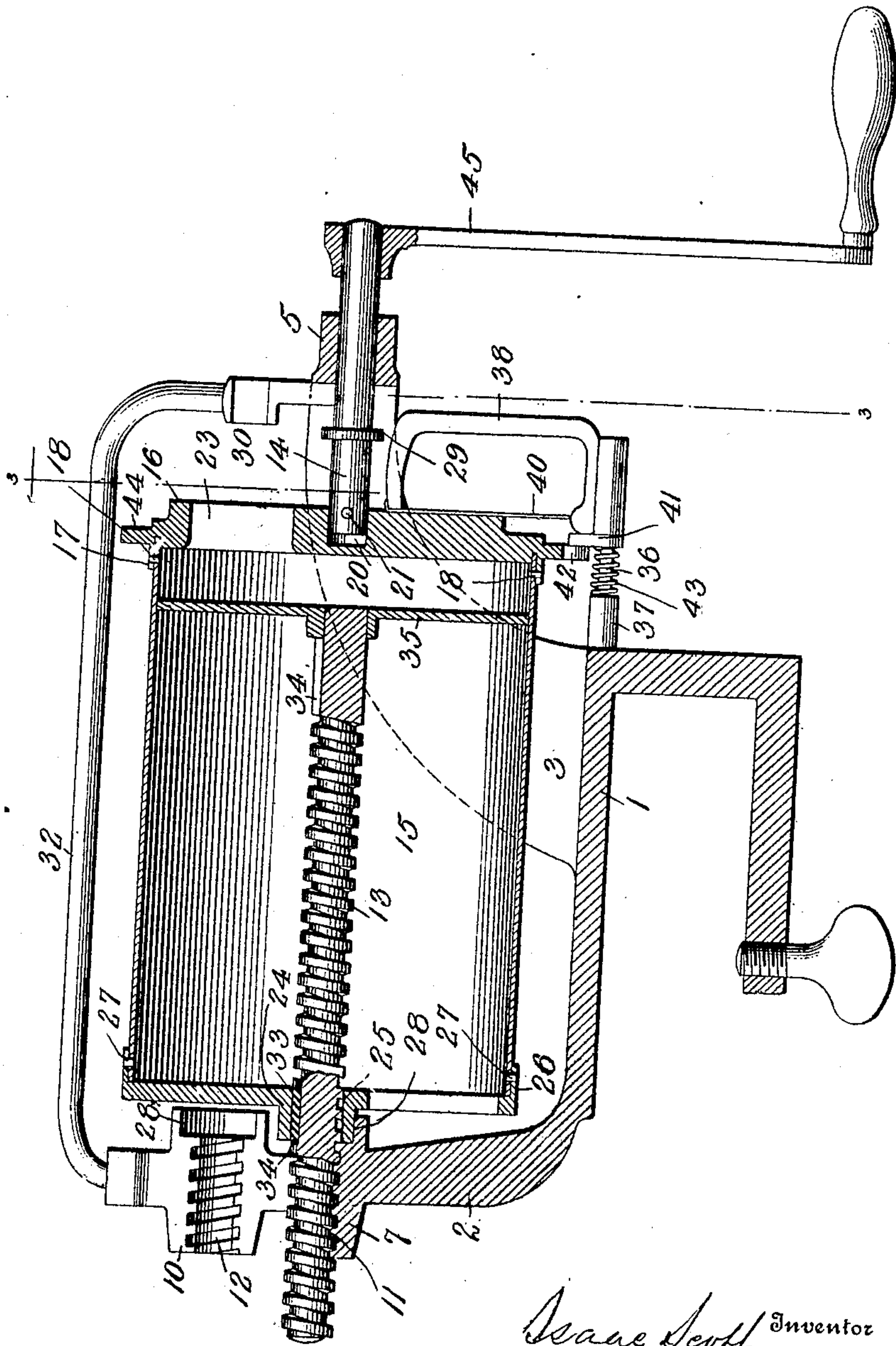


916,612.

I. SCOTT.
MACHINE FOR FORMING BUTTER PATS.
APPLICATION FILED MAY 26, 1908.

Patented Mar. 30, 1909.
3 SHEETS—SHEET 1.

Fig. 1.



I. Scott, Inventor

Witnesses

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James H. H. H.

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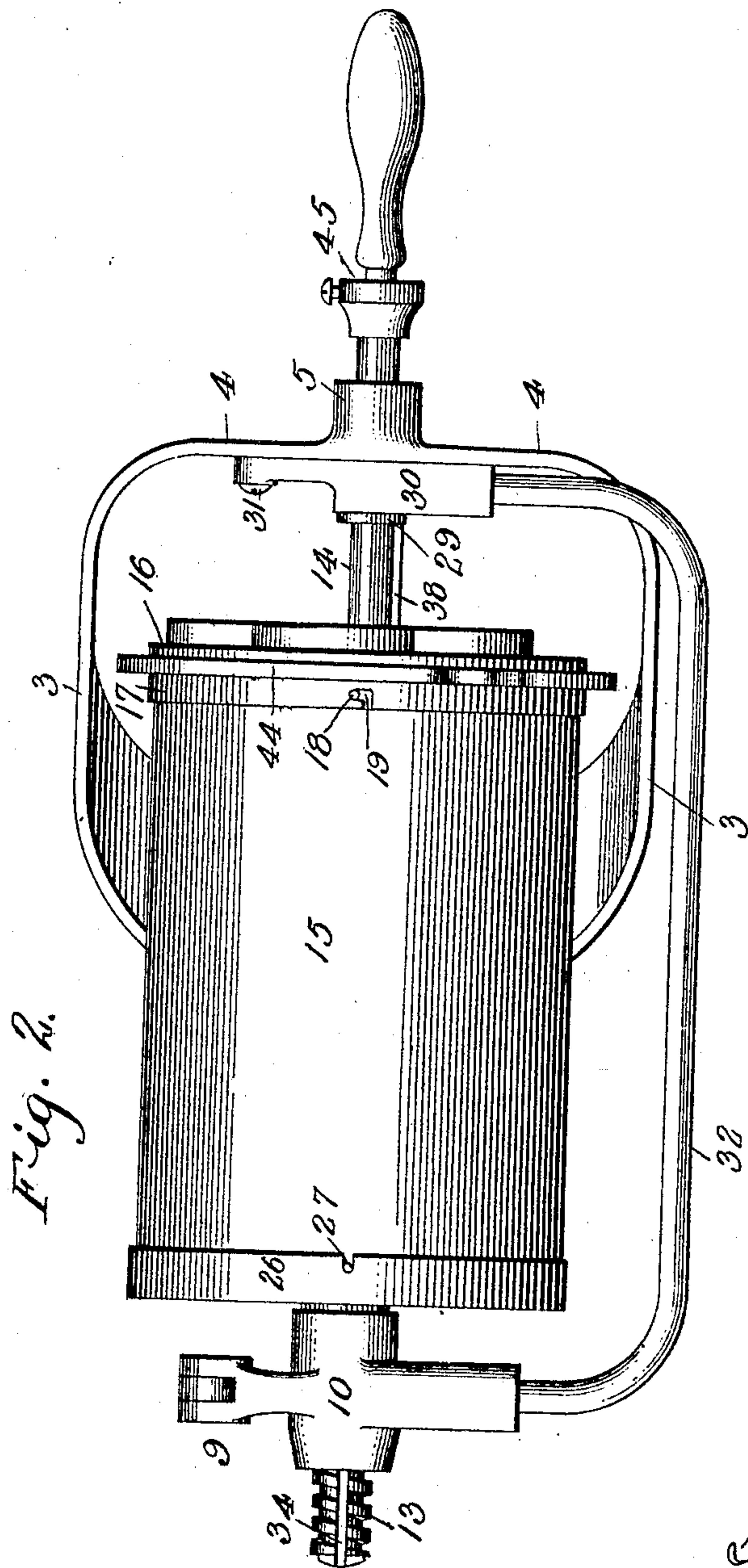


Fig. 2.

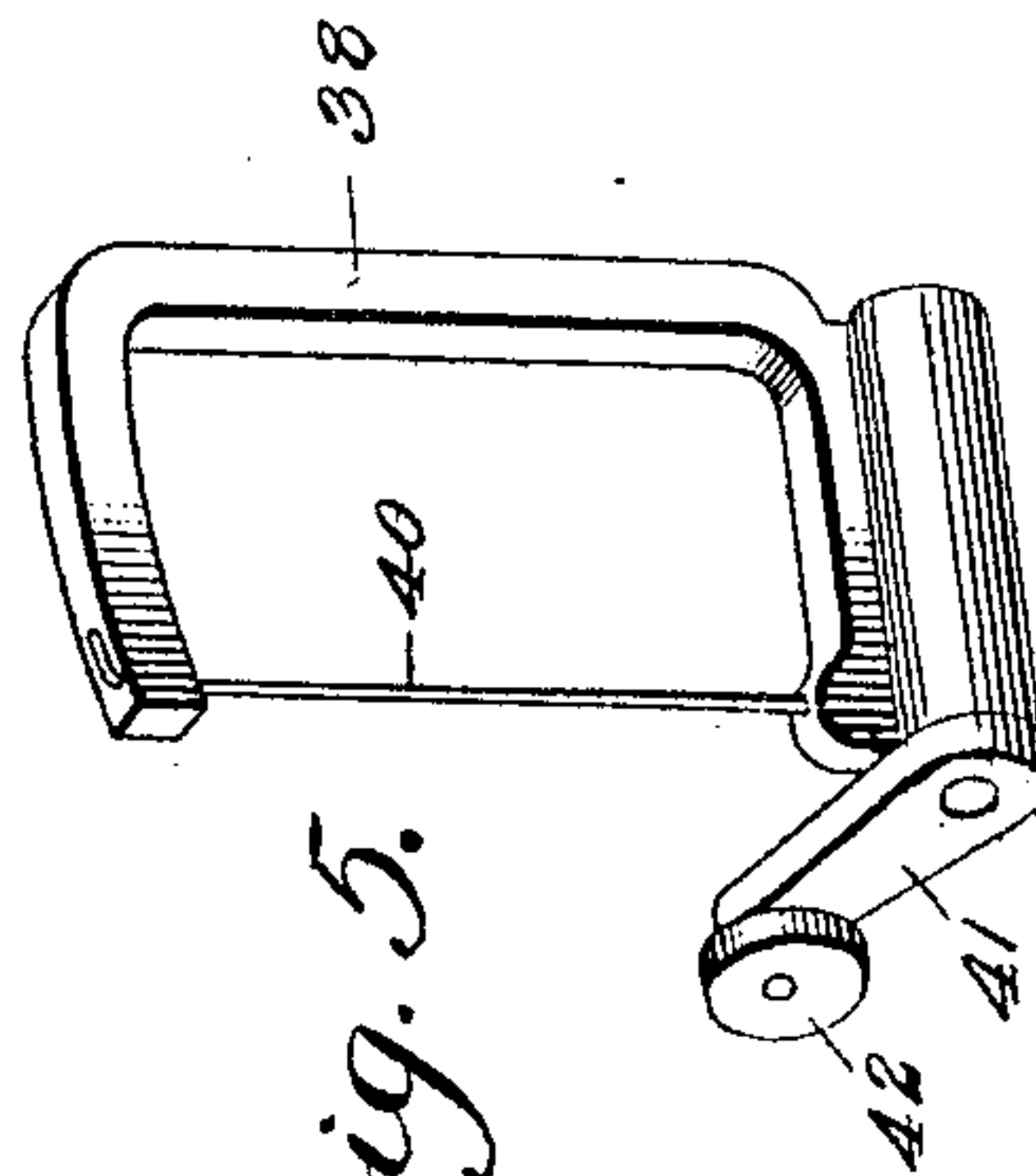


Fig. 5.

Isaac Scott, Inventor

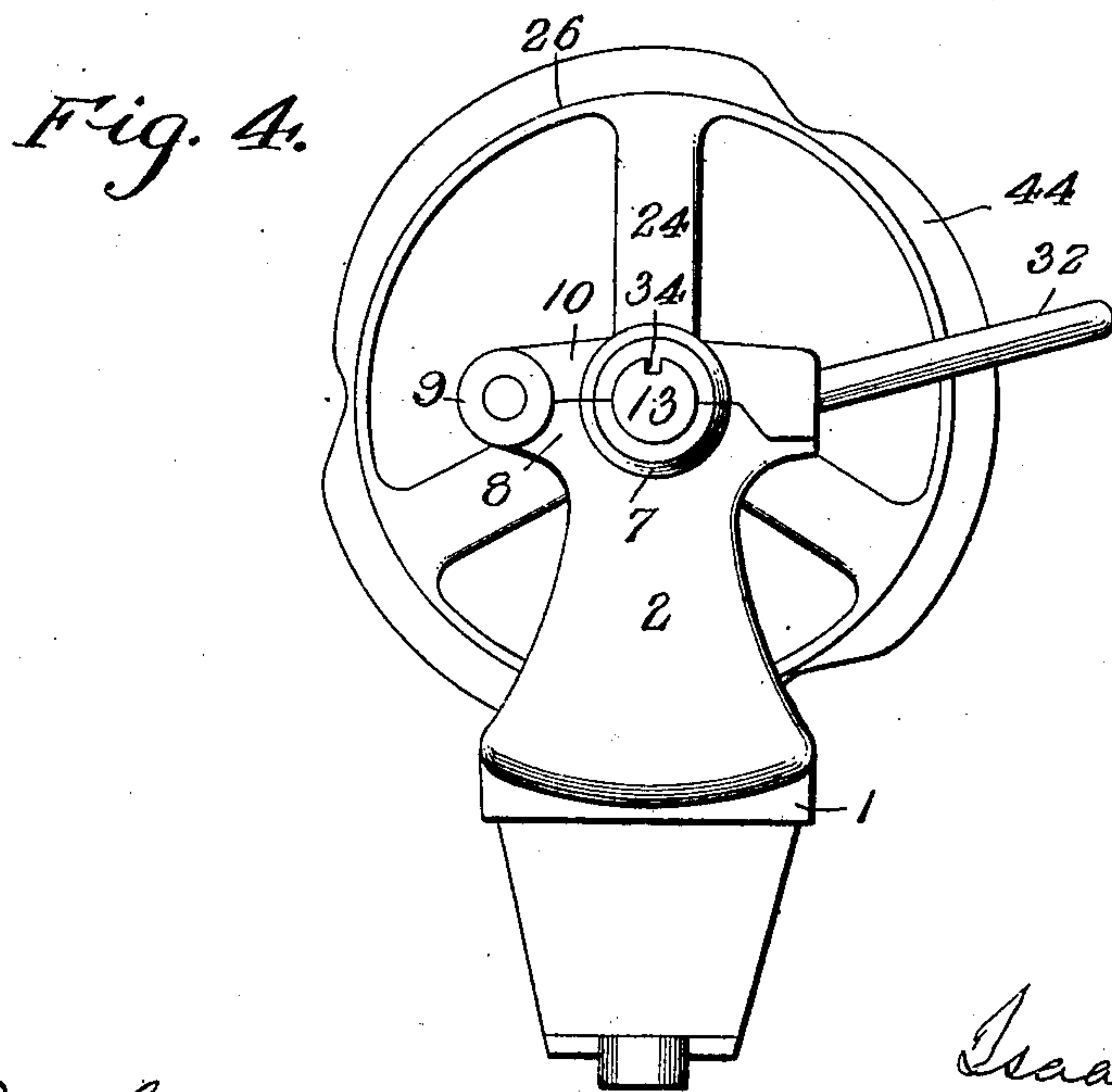
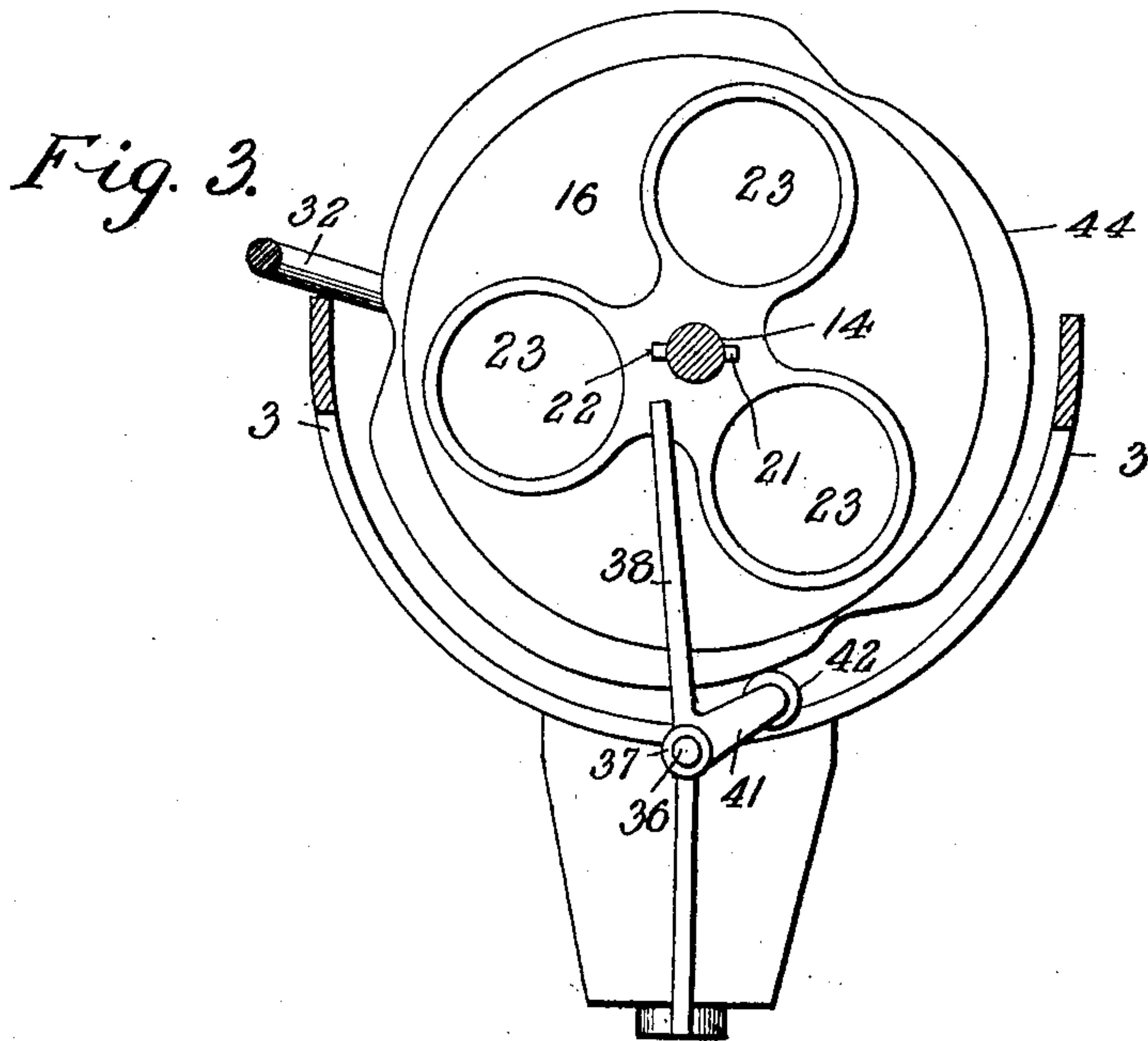
Witnesses

Jos. F. Collins
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3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ISAAC SCOTT, OF WASHINGTON, DISTRICT OF COLUMBIA.

MACHINE FOR FORMING BUTTER-PATS.

No. 916,612.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed May 26, 1908. Serial No. 435,116.

To all whom it may concern:

Be it known that I, ISAAC SCOTT, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Machine for Forming Butter-Pats, of which the following is a specification.

My invention relates to machines for forming butter pats, and has for its object to provide a machine of this kind which will be continuous in operation; which is conveniently operated and easily cleaned; which will be efficient in action and which will not get out of order.

For these and still other objects, which will hereinafter appear, my invention consists of certain novel features, arrangements and combinations of parts, of which the herein described machine is one of many possible embodiments.

While herein I have described minute details of my invention, I do not limit myself to these as the details of construction and combination may be greatly varied without departing from the spirit and scope of the invention.

In the annexed drawings forming a part of this specification, which are for illustrative purposes only, and therefore not drawn to any particular scale and in which like reference characters refer to like parts throughout the several views, Figure 1 is a longitudinal vertical sectional view of my machine as it is assembled when it is in operation; Fig. 2 is a top plan view of the same; Fig. 3 is a transverse vertical sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a rear end view, and Fig. 5 is a perspective view of a detail.

The machine is provided with a base or support 1 having a rear standard 2 and a pair of upwardly and forwardly projecting arms 3, the upper ends of said arms being turned inwardly to meet and form a supporting bar 4 carrying a bearing box or bore 5. The end of the device carrying said box or bore 5 will be hereinafter considered the forward or outer end of the machine.

The rear standard 2 is provided at its upper end with a semicylindrical head 7 having a laterally projecting arm or lug 8 to which is hingedly connected as at 9 a similar arm or lug carrying a movable head 10 adapted to be closed upon the head 7. The heads 7 and 10 are each provided with semicylindrical threaded grooves 11 and 12 cooperating,

when said heads are closed upon each other, to form a threaded bore for the reception of the threaded rod 13.

The rod 13 and the slipshaft 14 indirectly support the cylindrical vessel 15 as will be presently explained. Said vessel is provided at the forward end with a removable cap or bottom 16 having a rearwardly projecting annular flange 17 adapted to embrace the forward end of the vessel. Small pins 18 rigidly secured in the forward edge of the vessel 15 engage shouldered notches 19 in the flange 17 to removably hold said cap upon the vessel. The cap 16 is provided with a central outwardly opening bore adapted to snugly receive the inner end of the slipshaft 14. A projecting crosspin 21 engaging corresponding radially projecting slots 22 communicating with the bore 20 constrains the cap 16 to rotate with the slipshaft 14. Conveniently placed between center and circumference of the cap 16 is a convenient number of holes or openings 23 preferably arranged in an annular series concentric with the cap 16. I have illustrated three of these holes or openings 23 as being the most convenient number, but I do not limit myself to any particular number or size or shape for these openings. The rear end of the vessel 15 is fitted with a removable spider having a central hub 24 having therein a smooth bore 25 adapted to receive the screw rod 13. The arms of the spider support a flanged rim 26 adapted to embrace the rear of the vessel 15. Means as, for instance, the pin and notch at 27 constrain said vessel and said spider to rotate together.

The heads 7 and 10 are provided at their inner ends with countersunk recesses 28 together forming a bearing seat for the reception of the hub 24 when said heads are closed against each other.

The slipshaft 14 has rigidly secured thereto a stop collar 29 which may be contacted by a block 30 pivoted by means of a rivet 31 to the bar 4. The free end of the block 30 and the free end of the head 10 are connected by a bail handle 32 by means of which said head 10 and said block may be simultaneously moved to open position, or be caused to engage said rod 13 and said collar 29 respectively.

The bore 25 is provided with a longitudinally disposed lug 33 adapted to slidably engage a groove or seat 34 extending substan-

tially the length of the rod 13. It will be seen that said last named lug and groove cause said rod to rotate with said spider. The inner end of the rod 13 has rigidly secured thereto the disk like follower or plunger 35.

The forward end of the base 1 is provided with a forwardly projecting pin 36 having a rear enlargement 37. Said pin has pivotally mounted thereon a cutting attachment comprising a cutting frame 38 carrying a cutting wire 40 adapted to be moved across the opening 23, and a cam lever 41 carrying a roller 42. A spring 43 coiled around the pin 36 and having one end secured to the enlarged portion 37 and the other bent under the lever 41, serves to press the roller 42 upwardly against the laterally projecting cam flange 44 of the cap 16.

A crank 45 or other means of rotation is provided for the slipshaft 14.

The operation of the machine is as follows: The cap 16 is placed on the vessel 15 and the butter to be formed into pats is placed in said vessel. The rod 13 is slipped to bring the disk 35 near the hub 24 of the spider. The spider is then placed upon the vessel 15 and the hub 24 placed in the countersunk recess 28 of the head 7. The slipshaft is then rotated until the pin 21 registers with the slots 22 and the slipshaft then moves into the recess 20, the pin 21 engaging the slots 22. The bail handle 32 is then moved down causing the block 30 to engage the collar 29, thus holding the slipshaft and the pin 21 in engagement with the bore 20 and the slots 22 of the cap 16, and causing the threads of the heads 7 and 10 to engage the threads of the rod 13. With the parts in place as thus described, it is only necessary to rotate the crank forwardly, and the action of the screw rod 13 as said rod rotates will cause the follower 35 to force the butter out through the holes 23. As the butter is being thus forced out the wire 40 remains, for a part of the time, between the holes 23, as shown in Fig. 3. As one of the holes 23 advances toward the wire 40 the roller 42 passes into the depression in the cam flange 44. This causes the wire 40 to recede before said hole 23 until the roller rides out of said depression and causes the wire to move quickly across the hole thus cutting off a pat or tablet of butter. The pats thus formed may be allowed to drop into a suitable receptacle. Continued rotation of the crank handle repeats this operation until the desired number of pats is formed or until the butter in the vessel is exhausted.

It will be readily seen that the various parts of the machine may be easily separated for cleaning.

Any suitable metal or material may be used in the construction of this machine.

It is thought that the operation and advantages of this machine will be understood without further explanation.

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

1. In a device of the class described, a support, a vessel and a cutting device separately mounted on said support, and means to force out a substance which may be contained in said vessel, said vessel being rotatably mounted.

2. In a device of the class described, a support, a rotatable vessel and a cutting device separately mounted on said support, and a forcing means in said vessel.

3. In a device of the class described, a support, a vessel provided with an opening and rotatably mounted on said support, a forcing means in said vessel, a cutter adapted to pass over said opening, said cutter and said vessel being separately mounted on said support.

4. In a device of the class described, a support, a vessel having a closed end having an opening therein, said vessel being rotatably mounted on said support, a plunger in said vessel, a movable cutter adapted to pass over said opening, and means actuated by the movement of said vessel adapted to move said cutter.

5. In combination, a base, a standard thereon, a bearing box supported on said base, a vessel rotatively mounted between said standard and said bearing box, a plunger in said vessel, threaded means connecting said plunger and said standard whereby said plunger is caused to move, and a cutter separately carried by said base.

6. In combination, a base, a standard supported thereon, the upper part of said standard being provided with a threaded groove, a pivoted head pivoted to said standard and provided with a threaded groove adapted to cooperate with said first named groove to form a threaded bore, a bearing box supported on said base, a slipshaft mounted for rotative and limited sliding movement in said bearing box, a collar on said slipshaft, means to rotate said slipshaft, a cylindrical vessel having a closed end, said closed end having a central bore adapted to receive said slipshaft, a spider secured to the other end of said vessel, said spider having a hub, said hub being rotatively mounted on said standard and provided with a smooth bore, a threaded rod passing through smooth bore and said threaded bore, a plunger mounted on said rod, a block pivoted to said bearing box and adapted to engage said collar, a bail handle connecting said block with said pivoted head, a cam flange laterally projecting from said closed end, said closed end being provided also with a series of openings, a cutting device pivoted to said base, said cutting

device comprising a cutting frame, a cutting wire carried by said frame and adapted to pass over said openings, a lever, a roller carried by said lever and pressing against said cam flange, and a spring adapted to press under said lever.

7. In combination with the cooperating parts of a machine for forming butter pats, a base, a standard at one end and a bearing box at the other end of said base, a slipshaft rotatively and slidably mounted in said bearing box; a vessel having a central bore at one end adapted to engage said slipshaft said vessel being provided with openings near said central bore, said vessel being also provided with a hub at the end thereof of the said central bore, said hub being supported by said standard, means to releasably hold said hub on said standard, means to hold said slipshaft in said bore, cutting means carried by said base, adjacent said openings, and a plunger in said vessel.

8. In combination, a support, a bearing thereon, a slipshaft in said bearing, a vessel having a bore in one end adapted to receive said slipshaft, means to hold said slipshaft in said bore, means to support the other end of said vessel, said vessel being provided with openings, a cutting device adjacent said openings, a plunger in said vessel, and means to rotate said slipshaft.

9. In combination, a support, a bearing thereon, a slipshaft in said bearing, a collar and a cross pin on said slipshaft, a vessel provided with a closed end having an opening and a central bore, said central bore having communicating grooves, said bore and said grooves being adapted to receive said slipshaft and said cross pin respectively, a block pivoted to said bearing adapted to engage said collar, a cutter adjacent said opening, and a plunger in said vessel.

10. In combination with the cooperating parts of the machine for forming butter pats, a rotatable vessel, a removable cap having openings therein at one end, a removable spider at the other end, supports for said cap and said spider, a removable plunger in said vessel, and a cutter adjacent said openings, and separate supporting bearings for said cap and said spider.

11. In a device of the class described, a

vessel having a central bore at one end and an opening and having a hub at the other end, a slipshaft in said bore a bearing for said slipshaft, a plunger in said vessel, a cutting device adjacent said opening, and a slit bearing for said hub.

12. In combination, a rotatable vessel having an opening, a support for said vessel, a movable cutting device adjacent said opening, and means connecting said vessel and said cutting device, to move said cutting device relative to said vessel.

13. In combination, a rotatable vessel, having an opening, a support for said vessel, a movable cutting device adjacent said opening, and means connecting said vessel and said cutting device to move said cutting device, said means comprising a cam on said vessel and a roller on said cutting device.

14. In combination, a rotatable vessel, a support therefor, a screw rod extending into said vessel, a plunger on said rod, means carried by said vessel adapted to rotate said rod, as said vessel is rotated, a stationary head provided with a threaded bore adapted to receive said rod, said vessel being provided with an opening, and a cutting device adjacent said opening and separately mounted on said support.

15. In combination, a support, a vessel removably rotatably supported thereon, means to releasably hold said vessel in place, a plunger in said vessel, and a cutting attachment on said support said means comprising split bearings having each a movable section, said sections being substantially rigidly connected.

16. In a device of the class described, a support, a vessel rotatably mounted on said support and having an opening therein, a cutter adapted to pass across said opening, operating means connecting said cutter and said vessel whereby said cutter is operated as said vessel is rotated, and a forcing means in said vessel.

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

ISAAC SCOTT.

Witnesses:

MATTHEW TRIMBLE,
JOHN W. KLINE.