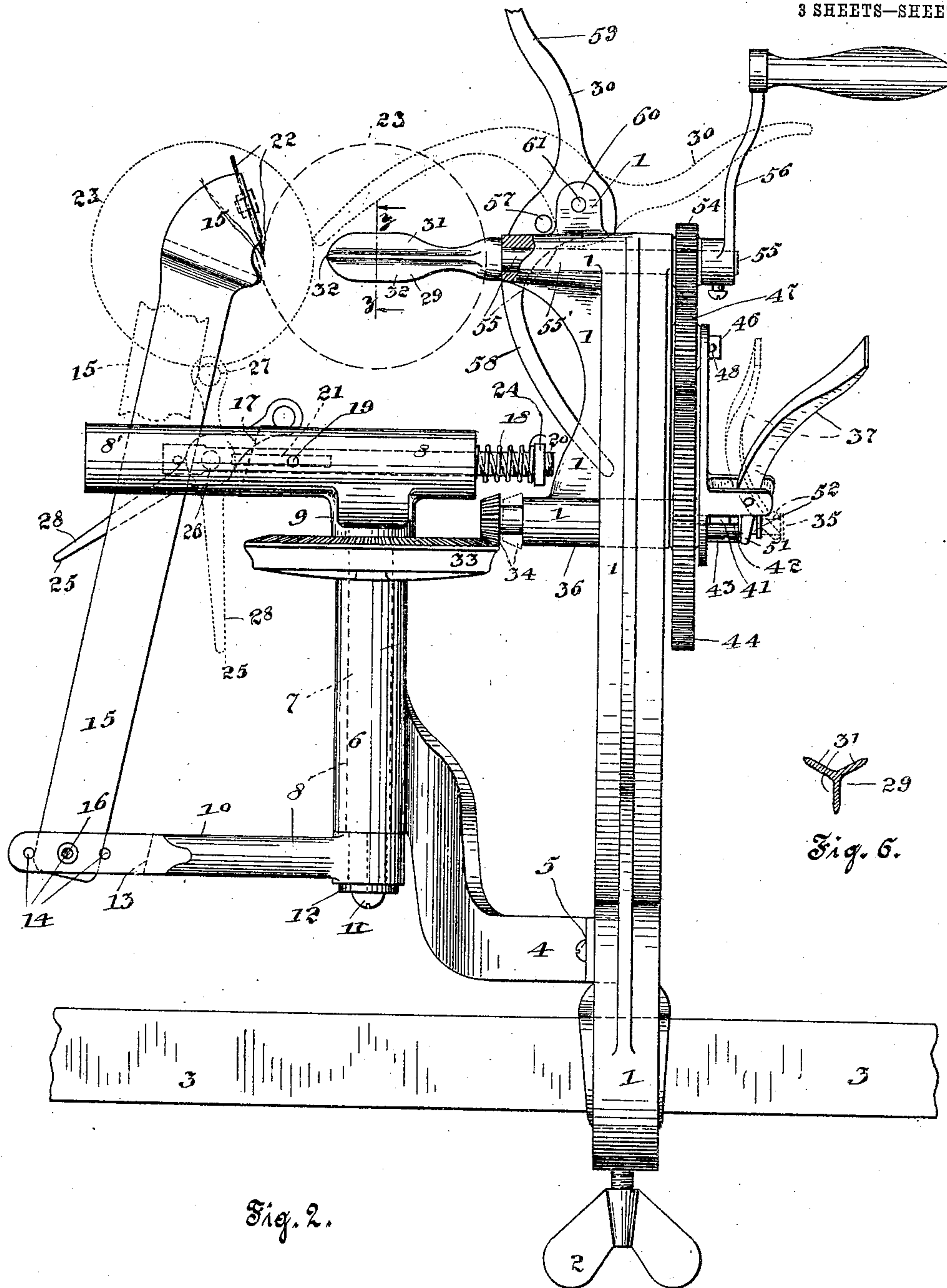


R. BUCHI.
APPLE PEELING MACHINE.
APPLICATION FILED MAR. 27, 1909.

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Patented Nov. 2, 1909.
3 SHEETS—SHEET 2.



Witnesses:
A. St. Griffin
W. C. Smith

Inventor:
Robert Buchi
by Joshua R. Potts
his Attorney

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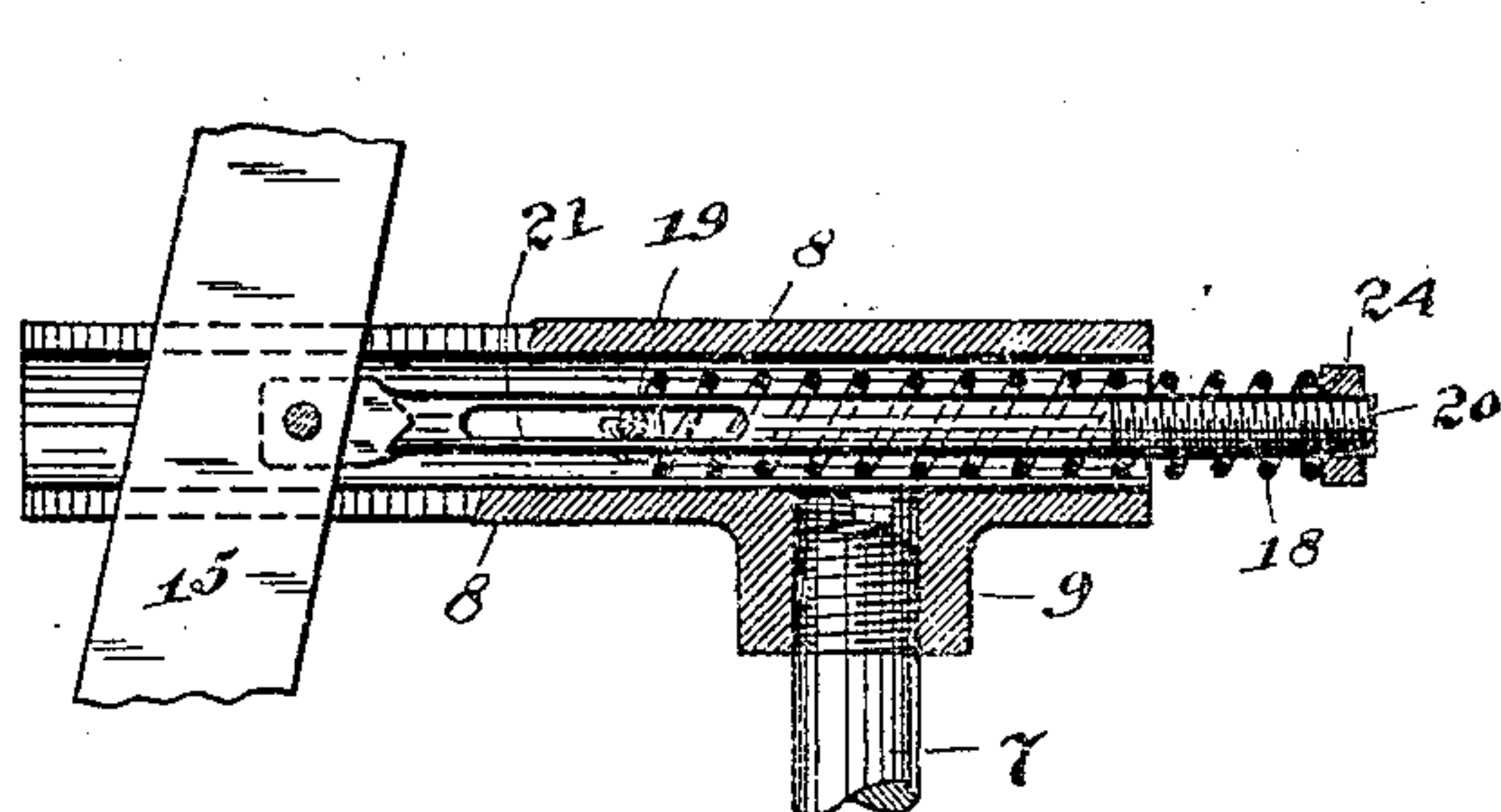
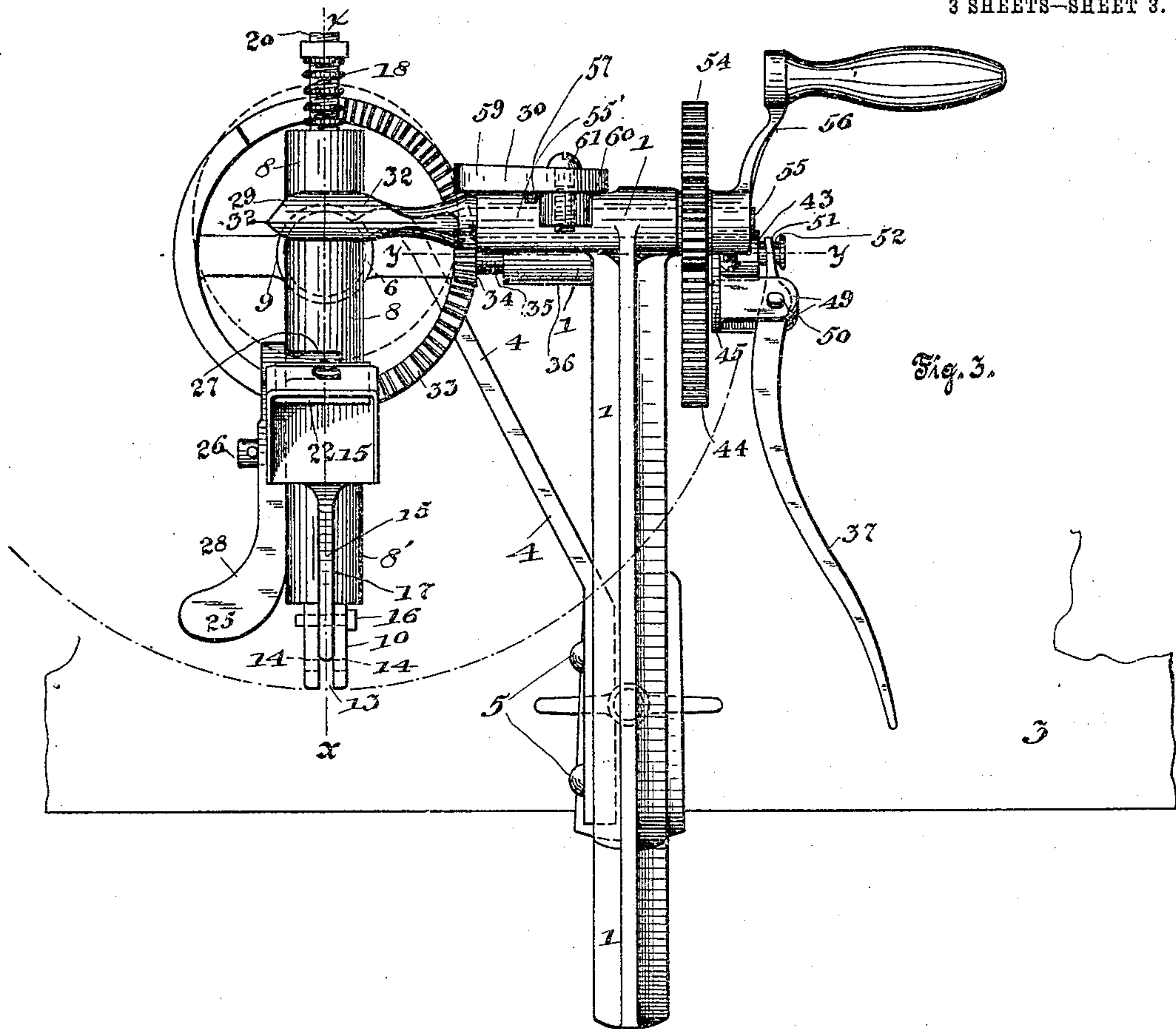


Fig. 4.

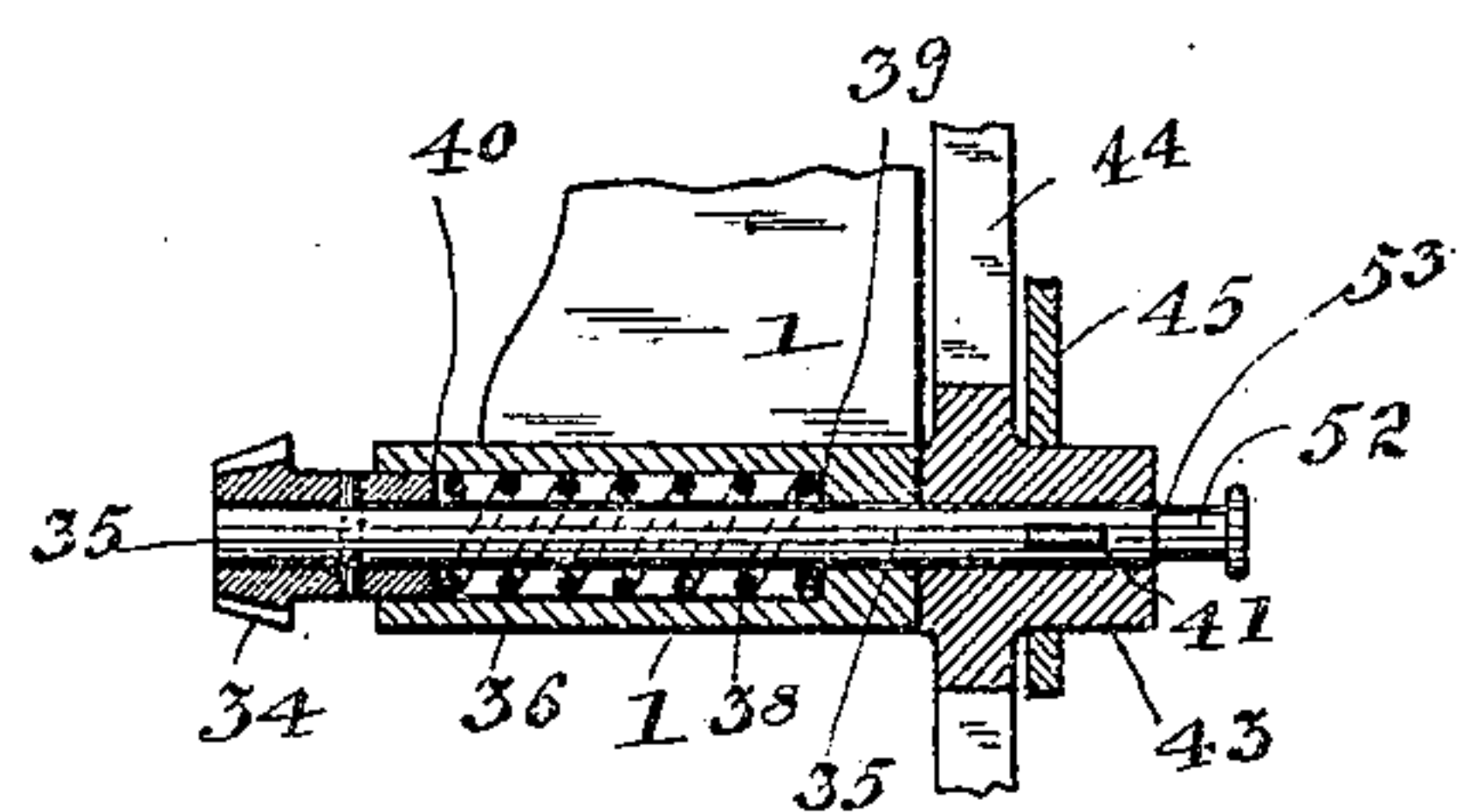


Fig. 5.

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UNITED STATES PATENT OFFICE.

ROBERT BUCHI, OF CHICAGO, ILLINOIS.

APPLE-PEELING MACHINE.

938,822.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed March 27, 1909. Serial No. 486,240.

To all whom it may concern:

Be it known that I, ROBERT BUCHI, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Apple-Peeling Machines, of which the following is a specification.

My invention relates to improvements in apple peeling machines, the object of the invention being to provide a simple and inexpensive device of this character that shall be thoroughly efficient and reliable in use.

A further object is to provide simple means for gaging the thickness of the apple peelings which means may be easily adjusted.

A further object is to provide an apple holder composed of blades instead of prongs as in ordinary construction.

A further object is to provide simple means for ejecting the apple after the same has been peeled.

Other objects will appear hereinafter.

With these objects in view my invention consists in the novel construction and arrangement of parts as will be hereinafter fully set forth and more particularly pointed out in the appended claims.

My invention will be readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a side elevation of my improved apple peeling machine in its preferred form, Fig. 2 is a front elevation thereof, Fig. 3 is a top elevation, Fig. 4 is a detail vertical section taken on line $x x$ of Fig. 3, Fig. 5 is a detail vertical section taken on line $y y$ of Fig. 3, and Fig. 6 is a detail vertical section taken on line $z z$ of Fig. 2.

Referring now to the drawings 1 designates the main frame and 2 a thumb screw for attaching the same to the table 3. The frame 4 attached to the main frame 1 by means of the screws 5 is provided with a vertically disposed bearing 6 in which the knife carrying frame shaft 7 is journaled.

The knife carrying frame 8 comprises the horizontally disposed sleeve 8' having a vertically disposed lug 9 integral therewith in which the vertically disposed shaft 7 is rigidly screwed. The lower end of the shaft 7 is shouldered as shown by dotted lines in Figs. 1 and 2 and the arm 10 is rigidly secured to said shaft by means of the screw 11 and the washer 12. The arm 10 is parallel with the sleeve 8' and is provided at its

outer extremity with a slot 13 and a series of perforations 14. The knife arm 15 is pivoted in the slot 13 by means of a pin 16 which is adapted to pass through the lower extremity of said arm and any pair of opposite perforations 14 for varying the angle of said arm. The arm 15 passes through and is slidably mounted in the vertically disposed slot 17 provided in the outer extremity of the sleeve 8', the helical spring 18 maintaining a pull on said arm toward the axis of the shaft 7. A transversely and horizontally disposed pin 19 is secured in the sleeve 8' adjacent the center thereof, and a threaded rod 20 pivoted to the arm 15 is provided with a longitudinal slot 21 surrounding said pin for limiting the reciprocatory movement of said rod, said pin serving also as a stop for the helical spring 18. To adjust the tension of the spring 18 which causes the knife 22 secured on the knife arm 15 to press against the periphery of the apple 23, an adjusting nut 24 is provided on the threaded portion of said rod. And to press the knife arm 15 outwardly from the axis of the shaft 7 against the tension of the spring 18 after the apple 23 has been peeled, a lever 25 is pivoted on the laterally extending pin 26 integral with the sleeve 8', said lever having a pin 27 secured therein for engaging the knife arm 15. When the handle portion 28 of the lever 25 is pressed inwardly, the pin 27 evidently presses the knife arm 15 outwardly causing the knife arm 15 to leave the apple 23, which operation is of course performed after the apple has been peeled to provide clearance for ejecting the same from the apple holder 28, which is accomplished by means of the ejector cam lever 30.

The apple holder 29 is designed not only to hold the apple securely by means of the radially disposed blades 31 but to center the apple automatically by means of its pointed end 32 which obviously is adapted to enter the stem recess or center of the apple.

The driven bevel gear 33 is rigidly secured to the shaft 7 above the bearing 6, and the pinion 34 adapted to mesh with and drive said gear is pinned to the horizontally disposed shaft 35, the latter being journaled in the horizontally disposed bearing 36 provided in the frame 1. The shaft 35 is also adapted to slide longitudinally in the bearing 36 in order that the pinion 34 may engage and disengage the gear 33, the

gear shift lever 37 being provided to move said shaft in one direction and the helical spring 38 to move the same in the other. Since it is only necessary to move the knife 22 through a semi-circle, one-half of the gear 33 is provided with teeth, and when the pinion 34 has traveled over said teeth the knife stops revolving, the peeling process having been completed.

10 The mounting of the pinion shaft 35 in the bearing 36 is clearly shown in Fig. 5, the helical spring 38 surrounding said shaft seating on the shoulder 39 formed in said bearing and pressing against the hub 40 of the pinion 34. The pinion shaft 35 is provided with a key 41 projecting therefrom adapted to slide in the slot 42 provided in the hub 43 of the driven spur gear 44. Thus the shaft 35 is adapted to reciprocate in but 20 is prevented from rotating in the hub 43.

The plate 45 is perforated to receive the hub 43 and the stationary shaft 46 on which the intermediate spur gear 47 is rotatably mounted. The gear 47 is first placed on the shaft 46, then the plate 45 which is held in position by means of the cotter pin 48. In the fork 49 which is integral with the plate 45 the gear shift lever 37 is pivoted by means of the pin 50, the connection of said lever with the shaft 35 consisting of a forked end 51 in the lever embracing a reduced portion 52 in said shaft the shoulder 53 at one end of said reduced portion engaging said fork. The driving gear 54 is adapted 35 to rotate in the same direction as the gear 44 and is secured to the driving shaft 55 journaled in the bearing 55', the operating crank 56 being secured to said shaft and the apple holder 29 being integral therewith.

40 The ejector cam lever 30 is provided with a stop pin 57 adapted to contact with the top of the bearing 55', the cam portion 58 of the lever being adapted to slide on and press the apple off from the holder 29 when the handle portion 59 is moved by hand, a lug 60 over the bearing 55' being provided to which said lever is pivoted by means of the screw 61.

50 In the operation of the machine, after the apple has been peeled, the gear shift lever is pressed into the dotted line position, and simultaneously therewith the lever 25 is depressed, when the knife 22 may be revolved by hand into the initial position, which position is not shown in the drawing but is when said knife is adjacent the ejector lever 30. The apple may now be ejected by means of the ejector lever 30 as indicated in Fig. 2.

60 The thickness of the apple peelings may obviously be gaged as desired by adjusting the lower end of the arm 15 in the slot 13 by means of the pin 16.

65 While I have shown what I deem to be the preferable form of my improved apple

peeling machine, I do not wish to be limited thereto as there might be slight modifications thereof which would be comprehended within the scope of my invention.

Having described my invention what I 70 claim as new and desire to secure by Letters Patent is:

1. In an apple peeling machine, a main frame and a frame attached thereto, a knife carrying frame pivoted to said last named 75 frame and means for rotating the same, a crank shaft journaled in a bearing integral with said main frame, a spur gear secured to said crank shaft, a horizontally disposed bevel gear provided in said knife carrying 80 frame, a bevel pinion normally in mesh with said bevel gear secured to a slidably mounted shaft journaled in said main frame, a spur gear fixed against rotation on said last named shaft, an intermediate gear rotatably 85 mounted on a shaft secured in said main frame, a plate having perforations to engage said last named shaft and the hub of said last named spur gear, a fork integral with said plate, and a shift lever pivoted in said 90 fork adapted to engage the bevel pinion shaft and to throw the pinion thereon out of engagement with said horizontally disposed bevel gear.

2. In an apple peeling machine, a main 95 frame having means therein for clamping the same to a table, a second frame attached to said first named frame having an integral vertically disposed bearing, a knife carrying frame comprising a shaft journaled in said 100 bearing, said shaft being screwed onto a lug integral with a horizontally disposed sleeve arranged above said bearing and rigidly connected to an arm parallel with said sleeve arranged below said bearing, said sleeve and 105 said arm being provided with vertically disposed slots at the outer extremities thereof, a knife arm pivoted in said arm by means of a pin adapted to pass through a perforation provided in the lower extremity 110 of said knife arm and through any pair of a series of oppositely disposed perforations provided in said first named arm, said knife arm being adapted to slide in the slot in said sleeve, a threaded rod pivoted to said 115 knife arm and adapted to reciprocate in said sleeve, a helical spring surrounding said rod for drawing said knife arm inwardly, a transversely disposed pin secured in said sleeve passing through a slot provided in said 120 rod, said pin serving as a stop for said spring, a nut screwed to said rod for varying the tension on said spring, means for rotating said shaft, and means for rotating an apple holder integral with a shaft 125 mounted in a bearing provided in said main frame.

3. In an apple peeling machine, in combination with a main frame and a second frame secured thereto, a knife arm carrying 130

frame pivoted in said second frame, a lever
pivoted to said knife arm carrying frame
adapted to press the knife arm outwardly,
a driven bevel gear provided in said knife
5 arm carrying frame having teeth on one-
half of the periphery thereof, a pinion
adapted to mesh with and drive said gear
secured to a horizontally disposed shaft re-
ciprocally and rotatably mounted in a bear-
10 ing integral with said frame, a helical spring
surrounding said last named shaft and
adapted to maintain said pinion in normal
engagement with said gear, means for shift-

ing said pinion out of engagement with said
gear, means for rotating said pinion, and 15
means for rotating an apple holder integral
with a shaft mounted in a horizontally dis-
posed bearing integral with said main frame.

In testimony whereof I have signed my
name to this specification in the presence of 20
two subscribing witnesses.

ROBERT BUCHI.

Witnesses:

JOSHUA R. H. POTTS,
HELEN F. LILLIS.