No. 608,016. Patented July 26, 1898.

J. ANDERSON.

BUTTER CUTTING AND FEEDING MACHINE.

(Application filed Nov. 17, 1897.)

(No Model.) 2 Sheets—Sheet 1.

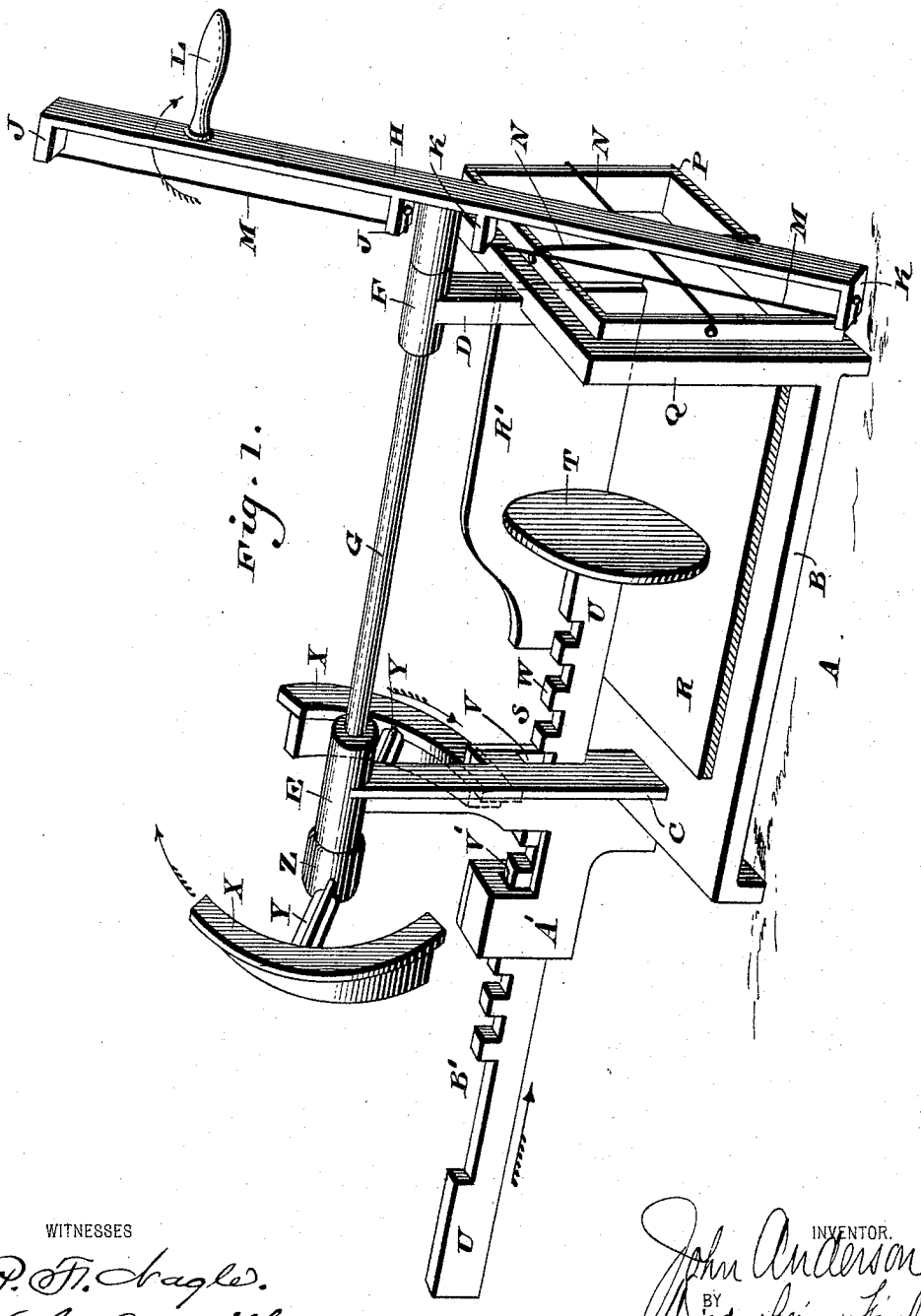


Fig. 1.

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Fig. 2.

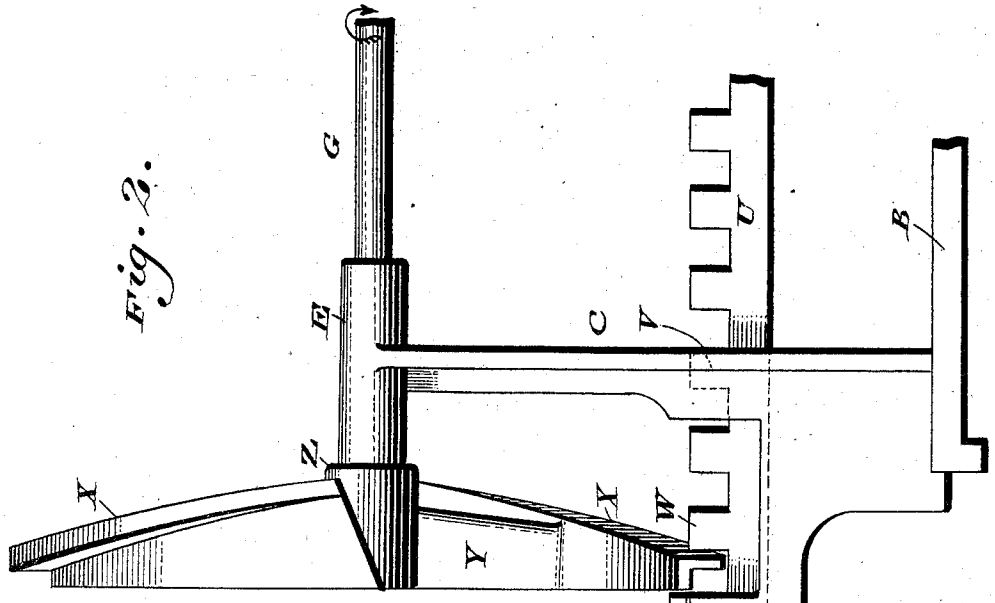
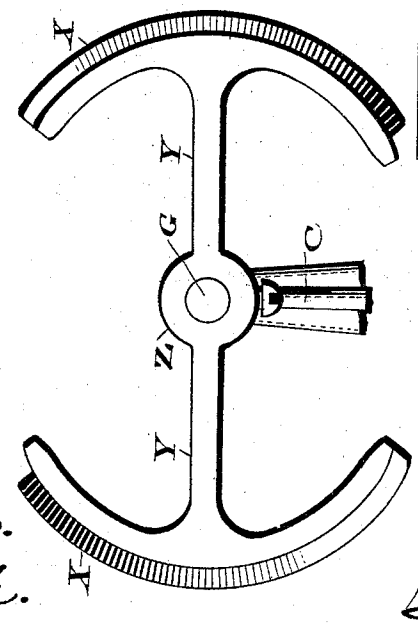


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO FRANK HARDART, OF SAME PLACE.

BUTTER CUTTING AND FEEDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 608,016, dated July 26, 1898.

Application filed November 17, 1897. Serial No. 658,820. (No model.)

To all whom it may concern:

Be it known that I, JOHN ANDERSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Butter Cutting and Feeding Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved butter cutting and feeding machine in which the number of parts is reduced to a minimum and the expense of production greatly decreased.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a perspective view of a butter cutting and feeding machine embodying my invention. Fig. 2 represents, on an enlarged scale, a side elevation of a portion of the feeding mechanism employed. Fig. 3 represents an end elevation of a portion of the feeding device.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the machine, which consists of a suitable base or bed B, which supports the standards or uprights C and D, the latter having bearings E and F, respectively, therein, in which rotates the shaft G, which has attached to the forward extremity thereof the crank-arm H, which is provided on each side of its center with the lugs or projections J and K, respectively, which are arranged in pairs, said arm being also provided with a handle L.

M designates the cutting devices employed, the same being in the present instance wires or other suitable material, which are secured to the pairs of lugs J and K, respectively, so as to rotate in substantial contact with the wires N, which are in the present instance arranged at a right angle and secured to the portion P of the frame Q, which latter is located at the forward portion of the machine and in the present instance attached to the bed B.

R designates a plate having sides R′ and supported upon the bed B, upon which the butter or similar material is placed, the latter being fed by means of the feeding device S, which consists of a plate T, mounted upon the rack U, which is fed through the guides or slots V and V′, said rack having the teeth W therein, which are engaged by the wings or segments X, which are offset or arranged in the form of a broken helix and mounted on arms Y, which are attached to the hub Z, secured to the shaft G.

A′ designates an ear or boss suitably supported on the side of the upright C and having in it the opening V′ for the passage of the rack U, the latter having an untoothed portion forming the recess or space B′ in its outer extremity, so that when said rack is at the end of its throw or fed to its extreme right-hand position the segments or wings X will rotate in said recess B′ without causing any forward movement of said rack, the segments rotating across the rack between the upright or standard C and said boss, the latter also serving to guide and sustain the rack where it is subjected to strain outside of the standard C.

The construction of the wings or segments X and their relative position to each other will be clearly understood from Figs. 2 and 3, Fig. 2 showing said wings to be in different planes and one of said wings in the act of engaging a tooth of the rack U, so as to propel the same toward the cutting device, while the upper wing or segment, when it has revolved to its lower position, engages the next tooth, as will be evident, the relative positions of the offsets of the wings or segments being understood from the shading of Fig. 3, as is evident.

The operation is as follows: The butter or other material to be cut out is placed on the plate R, (or otherwise supported,) the rack U having been moved to its extreme left-hand position. The arm H is rotated, thus causing the helical or offset wings or segments X to engage the teeth of the rack, and the latter will be fed intermittently to the right, and simultaneously after each progression of the rack the wings or cutting devices M will sever the butter, the latter being forced through the wires N at each intermittent progression of the rack U to the desired extent, as will be evident. After the butter has been cut the shaft is rotated into the position seen in Fig. 1, so that the segments X are out of engage-

ment with the rack, whereupon the latter can be readily moved by hand to its extreme left-hand position and is ready for operation again.

I desire to call especial attention to the simplicity of my invention and the cheapness with which the same can be produced, the number of parts being reduced to a minimum, and consequently all liability of derangement or displacement being avoided.

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

1. In butter cutting and feeding machines, a shaft rotatably mounted, an arm carried by said shaft, having the pairs of lugs J and K supported thereupon, wires extending between each pair of lugs, a frame suitably supported and having wires arranged at an angle to each other and mounted on said frame, curved wings X supported upon said shaft, said wings, being separated and offset or helically arranged, a rack movable in suitable guides formed by an upright and an adjacent boss, said rack being adapted to be actuated by said wings, the latter engaging said rack in the space between said boss and upright, a plate mounted on the forward extremity of said rack, and a recess or untoothed portion in the rear extremity thereof.

2. In a butter cutting and feeding machine, a shaft rotatably mounted and carrying arms on which are mounted disconnected, separated offset or helical wings or segments X, the latter being in different planes from each other, a rack adapted to be engaged and propelled by said segments, said rack having an untoothed portion near its outer extremity, an arm mounted on said shaft at the opposite extremity to said wings and at substantially a right angle thereto, pairs of lugs attached to said arm on either side of said shaft, and wires common to each pair of lugs.

3. In a butter cutting and feeding machine, a suitable base, a frame supported upon the front thereof, an upright at the rear portion thereof, said frame having an opening therethrough for the passage of the butter, said opening being bridged by wires located transversely to each other, a front upright mounted upon said frame, a shaft rotatably mounted in said uprights, an ear or boss attached to the rear upright, ways formed in the latter and in said boss in which a feed-rack is supported and guided, said rack having an untoothed portion at its rear end and carrying a plate adapted to contact with the butter or other material to be fed, arms mounted on the rear extremity of said shaft and carrying wings or segments, the latter being separated and offset or helically arranged and adapted to actuate said rack, said wings engaging said rack within the space between said rear upright and the boss attached thereto, a crank-arm attached to the front end of said shaft and extending at a right angle to the arms carried on the rear of said shaft, to which said wings are attached, a pair of lugs located on the inner portion of said crank-arm on either side of its attachment to said shaft and wires bridging said lugs, said crank-arm having a handle attached thereto.

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Witnesses:
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