To all whom it may concern:

Be it known that I, MARTIN GLASSER, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Fruit or Vegetable Parers, of which the following is a specification.

My invention relates to an improvement in devices for paring fruits and vegetables.

One of the principal objects of my invention is to produce a device of this character which shall be rapid in its action, thus insuring productive capacity, simple, thus insuring cheapness of construction, together with freedom from repairs and derangement, and one which shall at the same time be certain and reliable in its action.

Another object of my invention is to provide a locking mechanism which shall stop the operating parts in a certain definite position at the end of each cycle of operations and shall hold the same against movement in either direction until a fresh apple or other fruit has been placed in position for paring.

Other objects of my invention will be seen by referring to the claims terminating this application.

The drawings accompanying herewith represent an embodiment of my invention which is now preferred by me.

In the drawings, Figure 1 is a front elevation of my device, the parts being in the position in which they are locked after paring an apple. Fig. 2 is an elevation from the handle side of the machine, the same being at right angles to Fig. 1. Fig. 3 is a front elevation of the working parts of my device, showing the parts in somewhat different position from that shown in Fig. 1. Fig. 4 is a detail plan view of the revolving head, the end of the supporting-arm being broken away. Fig. 5 is a side elevation of the pusher-rod and its attached parts.

Corresponding parts in all the figures are denoted by the same reference characters.

The mechanism of my device may be mounted permanently upon any desired form of support or may be mounted upon a frame designed for attachment to a table or other support by means of a clamp. The latter is the form of construction herein shown.

The frame 1 is provided with a foot 11, adapted to rest upon the top of the table or other support, and with an arm 12, adapted to project beneath the table, said arm having a clamping-screw 10, adapted to engage the under side of the table. The frame is provided, at a suitable distance above the table surface with a laterally-projecting arm 21, within which and the main part of the frame is journaled a fork-shaft 2, carrying upon one end a fork 22 and upon its other end a pinion 20. In the frame 1 and in a lug depending from an arm 13 is a shaft 41, having upon one end a pinion 42 and upon its other end the main driving-gear 4, which latter gear meshes with the pinion 20 upon the fork-shaft. Secured to the main driving-gear is a crank 43, by which the same is turned. Instead of a crank any suitable power connections may be made with this wheel for the purpose of driving the same. In such an event an arm corresponding with a portion of the crank-arm would be used for a purpose which will hereinafter appear.

Upon the outer end of the arm 13 is supported a revolving head which consists of a bevel-gear 7, which has its teeth downward and meshes with the pinion 42, by which it is driven. Pivot-d upon the under side of this gear are two knife-arms 8, which are connected at a point beneath the revolving head and at such an elevation as to clear the apple being pared by a spring 81, which tends to draw the arms together and to hold the operating-knife 83 against the apple. These knife-arms are secured to rock shafts or pins 84, which have short arms or extensions 80 projecting upwardly through slots in the head, said upper end 80 being adapted to engage a double cam or wedge 82, which is pivoted at 83 to the lower side of the arm 13 immediately over the gear. This cam is designed to assist and accelerate in the lifting of the knife-arms in their passage over the fork-shaft. One edge or cam surface of the cam 82 projects beyond the periphery of the bevel-gear slightly, so as to be engaged by the pins or projections 73, carried
by the gear and projecting upwardly from the same just outside its periphery. The other cam-surface is adapted to engage the upper end 80 of the knife-arms, so that when engaged by one of the pins 73 the knife-arm will be quickly thrown upward and so held for a short distance until it has passed the fork-shaft and frame. It will be noticed that two of these pins 73 are provided and located diametrically opposite upon the gear. The gear is designed to have a half-revolution only during one cycle of operation—that is, during the paring of one apple. To insure this action, I have provided a stop mechanism which is combined with a push-off member in such a way that the operating parts are locked against turning in either direction until the push-off member has been returned by the placing upon the fork of another apple in position for paring. This mechanism comprises a shaft 3, mounted in bearings upon the frame and approximately, but preferably not exactly, parallel with the axis of the fork-shaft. The inclination of this shaft is shown in Fig. 5 and is approximately the same both to the horizontal and vertical planes. Upon its rear end or the end farthest removed from the fork is mounted a head 30, which constitutes a detent. This head or an arm projecting therefrom when in the position which it would occupy after pushing off an apple projects into the path of a stop 40, carried by the gear 4, so that the gear may not be turned in one direction. In this position the end of the shaft at the fork is projected to such a position that a plate 32, carried thereby, is near the outer end of the fork. This plate projects toward and preferably slightly embraces the fork, so as to engage the back side of the apple to push it off. This pusher-head may also carry a small knife 38, adapted to remove the skin from the cavity at the stem or blossom, as the case may be. When a fresh apple is placed upon the fork, the pusher will be pushed backward, and consequently will free the stop 40 of the main gear. When the gear is given one complete rotation, a cam 44, carried by the crank 43, engages the head 30 upon this end of the pusher-rod and forces it outward to push the apple off the fork. A spring 51 engages this pusher-rod or its head to slightly return it after it has been pushed outward by the cam. As a result of this it is projected behind the cam in such a way that the wheel cannot be turned backward. The head therefore lies between the cam 44 and the stop 40, thus locking the parts against movement in either direction. The operation of my device is as follows: Commencing with the parts as shown in Fig. 1 an apple or other article to be pared is forced upon the fork, and in doing so it engages the plate carried by this end of the pusher-rod and releases the mechanism, so that it may be turned. The crank and gear attached thereto are then given one complete turn. This causes the fork to return and the head carrying the knife-arms to also revolve, the latter, however, making but half a turn. As the crank completes its revolution the cam 44, carried thereby, engages the head upon the backward end of the pusher-rod, forcing it outward and pushing the apple off the fork. At the same time it engages the stop upon the main wheel to prevent its forward movement and drops behind the cam 44, so as to prevent rearward movement.

I do not desire to be understood as limiting myself to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope of my invention and improvements. Therefore reserve the right to all such variation and modification as properly fall within the scope of my invention and the terms of the following claims.

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

1. In a fruit and vegetable parer, the combination with a rotative main driving member, of a crank for operating said driving member, a detent, means whereby the placing of the fruit in position will move said detent into operative position, and means on said crank for bringing said detent into engagement with the rotative member at one point in the latter's movement whereby to lock the latter and prevent it from turning.

2. In a fruit and vegetable parer, the combination with a rotative main driving member, of a crank for operating said driving member, a detent, means whereby the placing of the fruit in position will move the detent into operative position, and a cam carried by the crank and designed to engage the detent and move it into engagement with the rotative member.

3. In a fruit and vegetable parer, the combination with a rotative main driving member provided with a stop and a cam in advance of the stop, of a detent, means for pressing the detent into the way of said cam and stop, and a pusher connected to said detent, a fork, and means whereby the placing of fruit on the fork will free the detent from said stop.

4. In a fruit and vegetable parer, the combination with a rotative main driving member provided with a stop and a cam in advance of the stop, of a reciprocal pusher-shaft, a detent on one end thereof, a rotatable fork, and means for pressing the detent into the way of said cam and stop, whereby the detent will pass the cam and lie between the same and the stop to prevent the rotative member from turning in either direction.

5. In a fruit and vegetable parer, the com...
bination with a rotative main driving member having a stop, of a crank for operating said driving member, a fork, a pusher-rod designed to push the fruit off of the fork, a detent carried by the pusher-rod, and a cam carried by said crank and arranged to move said detent into engagement with said stop.

6. In a fruit and vegetable parer, the combination with a rotative driving member, a fork for the reception of the fruit, means for turning said fork from the driving member, and a knife adapted to be held against the fruit, of a reciprocating pusher-rod adapted to engage and remove the fruit from the fork and also to act as a detent or stop for said driving member, a cam carried by the driving member and engaging said stop to throw it into operative position and a spring adapted to throw said stop back sufficiently to engage the rear end of the cam to prevent backward movement of the driving member.

7. In a fruit or vegetable parer, the combination with a rotative main driving member provided with a stop, of a crank for operating said driving member, a detent, and a cam carried by the crank and arranged to move the detent into engagement with the stop.

8. In a fruit and vegetable parer, the combination with a fork, a main driving member and connections therefrom to the fork, a crank for operating said driving member, of a pusher mounted to reciprocate alongside of the fork, means on said crank for automatically reciprocating the pusher to free the apple and also to engage the main driving member to stop it.

9. In a fruit or vegetable parer, the combination with a rotative main driving member provided with a stop, of a fork, a reciprocating pusher-rod arranged to push the fruit off of the fork with one end and provided at its other end with a detent, and a cam carried by said rotative member and arranged for engagement with said detent to move it into engagement with said stop and also actuate the pusher-rod.

10. In a fruit and vegetable parer, the combination with a frame, of a rotative head mounted thereon and provided with a projection, a pivoted knife-arm carried by said head, a cam carried by the frame and lying between the paths of the projection and knife-arm and arranged to be engaged by said projection to swing the knife-arm, as and for the purpose set forth.

11. In a fruit and vegetable parer, a frame, a rotative head mounted thereon and provided with two diametrically opposite projections, two pivoted knife-arms carried by said head and provided with extensions, and a cam carried by the frame and provided with two cam-surfaces, one of which is arranged for engagement by the projections and the other of which is designed to act on the arm extensions to swing the said arms, as set forth.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

MARTIN GLASSER.

Witnesses:
J. C. PYBAS,
L. E. DUANE.