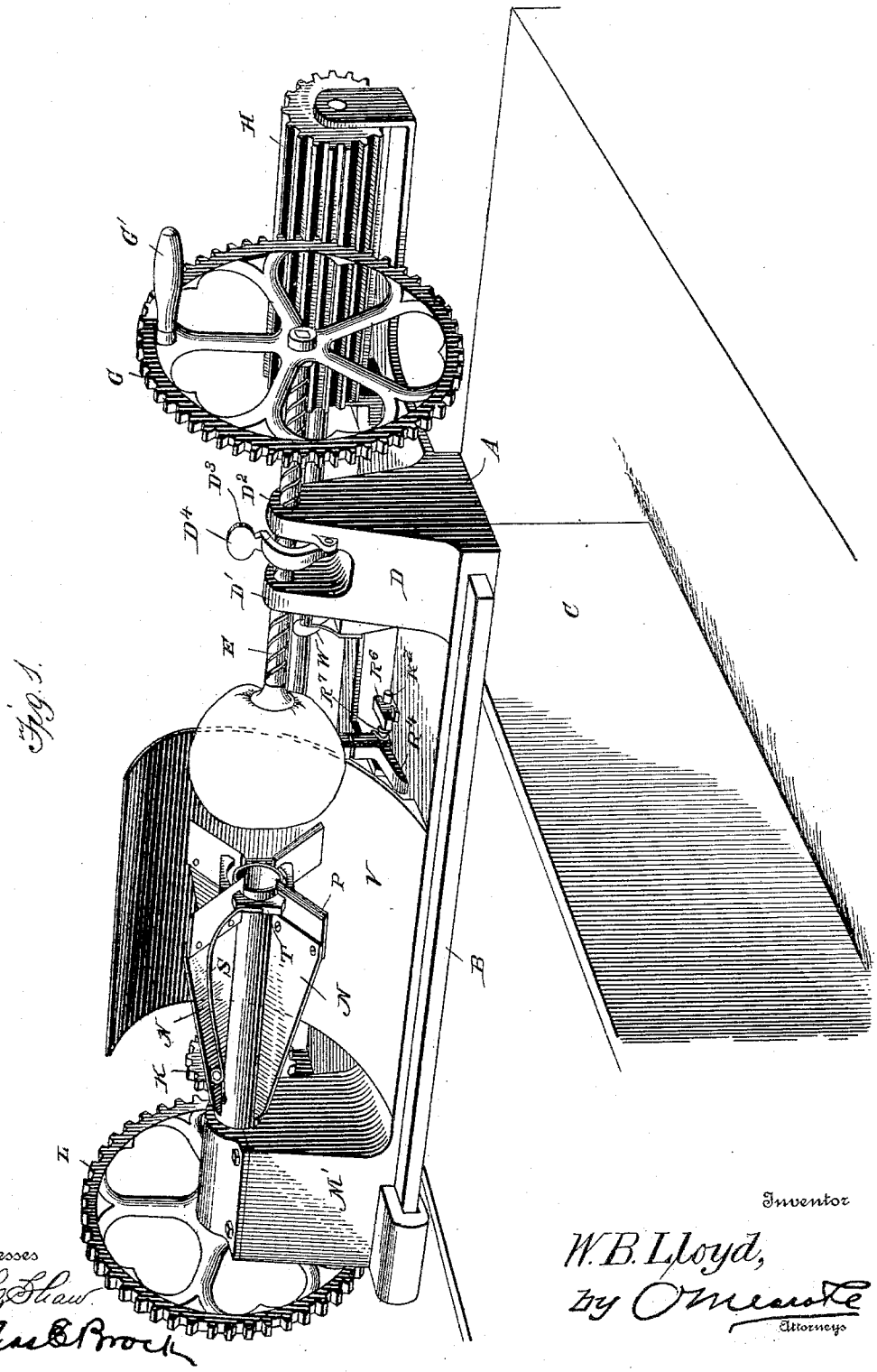
(No Model.) 2 Sheets—Sheet 1.

W. B. LLOYD.

APPLE PARER, CORER, AND DIVIDER.

No. 597,487. Patented Jan. 18, 1898.



Witnesses
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

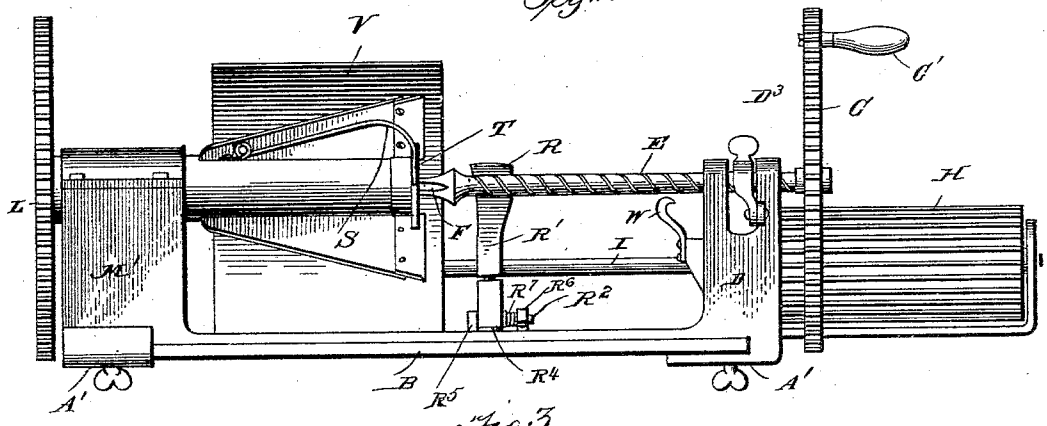


Fig. 3.

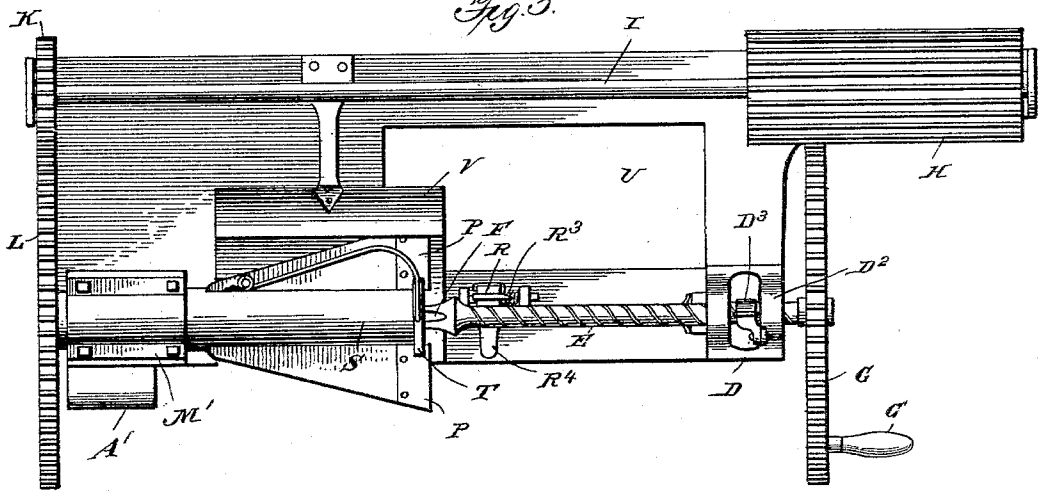


Fig. 4.

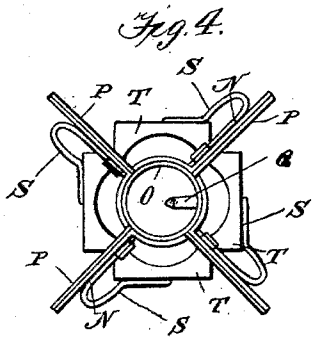


Fig. 5.

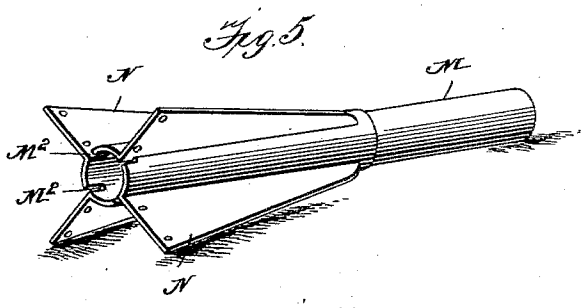


Fig. 6.

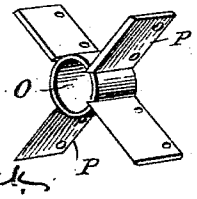
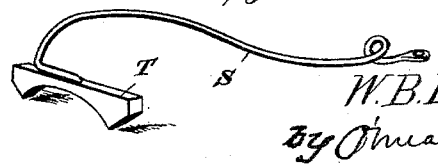


Fig. 7.



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UNITED STATES PATENT OFFICE.

WILLIAM B. LLOYD, OF SCHOOL HOUSE, WEST VIRGINIA.

APPLE PARER, CORER, AND DIVIDER.

SPECIFICATION forming part of Letters Patent No. 597,487, dated January 18, 1898.

Application filed March 13, 1897. Serial No. 627,335. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. LLOYD, residing at School House, in the county of Jackson and State of West Virginia, have invented a new and useful Apple Parer, Corer, and Divider, of which the following is a specification.

This invention relates generally to an apple parer, corer, and divider, and more especially to one which performs all of the operations simultaneously.

The invention consists also in providing a machine which is exceedingly cheap and simple and one in which the continued operation of the same causes the divided portions of the apple to be fed from the machine and also the cores thereof.

The invention consists also in providing suitable means for removing the tail of the apple.

With these various objects in view my invention consists, essentially, of a revolving shaft adapted to be fed in a forward direction and carrying a fork at the forward end adapted to receive the apple, a tube carrying dividing wings and knives for dividing the apple, said tube being intended to receive the core of the apple, and provided with suitable means for removing the core from the fork, said tube being also provided with spring devices for holding the quarters of the apple until the next quarters of the next apple force them out of position; and the invention consists also in providing suitable means whereby all of the operations are accomplished simultaneously.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view showing the practical application of my invention. Fig. 2 is a side elevation. Fig. 3 is a top plan view. Fig. 4 is an end view of the dividing mechanism with the spring holding devices in place. Fig. 5 is a detail perspective view of the tube provided with the dividing-wings. Fig. 6 is a detail perspective view of the dividing-knives and coring-tube adapted to be attached to the forward end of the dividing-wings and tube. Fig. 7 is a detail perspective view of one of the spring holding devices.

In the practical embodiment of my invention I employ a base A, which has clamps A′ at each end, by means of which it is clamped to a suitable board B, arranged upon the top of the suitable box or receptacle C, said box or receptacle being intended to receive the pared and quartered portions of the fruit.

At one end of the base A is arranged a bearing D, provided with the solid jaw portions D′ D^2, each formed with an opening through which the shaft passes and in which it has a bearing.

D^3 represents a hinged cap-piece pivoted to the portion D^2 and provided with a feather or spiral thread which fits in the groove of the shaft for feeding it forward.

The shaft E has a fork F at its forward end and a drive-gear G at its rear end provided with a suitable handle G′. This gear G meshes with an elongated pinion H, fixed on a shaft I, journaled in brackets carried upon the extended portion of the base. The shaft I extends the whole length of the base and carries a pinion K upon its opposite end which meshes with a gear L of the same diameter as the gear G.

The gear L is mounted upon the end of the tube M, journaled in the bearing M′, arranged at the opposite end of the base, and said tube is provided with four tapering wings N. Detachably secured to the inner end of said tube is the coring-tube O, provided with the dividing-blades P, which enter slots M^2, formed in the ends of the tube M, and they are fastened to the inner ends of the blades or wings M by means of suitable rivets.

The ends of the blades P are of course made sharp, and also the inner end of the coring-tube O, and arranged within said coring-tube is a prong Q, which is adapted to engage the core which is forced into the said tube and hold the same while the fork is being withdrawn from the core.

The paring-blade R is carried by an arm R′, which is so mounted in the foot-piece R^4 that it can be turned in any direction, so as to better pare the fruit. The foot-piece is fixed upon the shaft R^2, which has a bearing in the blocks R^5 R^6, formed integral with the base.

R^7 represents a spring having one end bent around the foot-piece and its other end coiled about the shaft R^2 and fitting in a notch

formed in the front of block R^6. This spring is adapted to hold the knife against the fruit.

Spring-wires S are attached to each of the blades or wings M, near their outer ends, and to the holding-blocks T, at their inner ends, in the manner shown, and these blocks rest between the blades or wings, as most clearly shown in Fig. 4, for the purpose of holding the sections of the apple or other fruit in contact with the tube while the paring and quartering operations are being completed.

The base has an opening U formed therein, through which the peelings may drop upon the outside of the box, and to one side of the paring and quartering mechanism is arranged a curved shield V, the purpose of which is to direct the pared sections into the box or other receptacle.

Now in operation the fork F is forced into the tail end of the apple or other fruit to be pared and cored. The cap-piece D^3 is then thrown back on its pivot and the shaft E drawn rearwardly in order to bring the tail end of the apple into contact with a curved blade or knife W, which removes the tail portion or eye of the apple. The cap-piece D^3 is then brought back into position and held there by the thumb pressing on the piece D^4, thus throwing the feather or thread into engagement with the spiral groove on the shaft E, and by turning the handle G' the shaft is fed forwardly, bringing the apple into contact with the paring-blade R. This blade is turned upon its pivot so as to peel the face of the apple, and as the apple is fed past it turns on its pivot, so that all parts of the apple are pared. The skin of the apple is then pared or peeled in spiral form as the apple or fruit is fed forwardly while being revolved, and as the gear G meshes with the pinion H the tube, with the coring and dividing mechanism, will of course be revolved, so that when the apple reaches the dividing-blades and coring-tube it will be fed evenly along and pass under the spring-holding blocks T. As the shaft E continues in its forward movement the apple or other fruit will be completely quartered and the core thereof will be completely removed and held within the tube, while the quarters will pass along the outside between the dividing-blades. After the apple or other fruit has been completely pared, divided, and cored the fork is withdrawn from the core and the prong Q, engaging said core, holds the same within the tube while the fork is removed. Another apple is then placed upon the fork and the operation repeated, and as the sections of the next apple pass under the spring holding-blocks and along between the dividing blades or wings the sections previously divided will be forced from between the blades or wings and drop upon the shield V, which immediately conducts them to the box or other receptacle. As each core is forced into the tube those in advance are forced along and eventually fed out through the end of the tube. The peelings or parings drop through the opening U upon the outside of the box, so that the pared and divided sections are entirely separate from the cores and peelings.

It will thus be seen that I provide an exceedingly cheap, simple, and efficient device for paring, quartering, and coring apples and other fruit, and one which will keep separate the cores, parings, and pared sections.

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

1. In a device of the kind described, the combination with the grooved shaft provided with a fork, of the paring-blade, the coring-tube provided with the dividing blades or wings, and the spring holding devices arranged between the blades or wings, substantially as shown and described.

2. In a device of the kind described, the combination with the shaft carrying the fork, of the paring-blades arranged as described, the coring-tube provided with the dividing blades or wings, the spring holding devices arranged between said blades or wings, the prong arranged within the coring-tube, and means for revolving the shaft and coring-tube in unison, substantially as shown and described.

3. In a device of the kind described, the combination with the shaft provided with a fork, of the paring-blade arranged as described, the coring-tube provided with the dividing-blades and extracting-prong, spring holding devices, the shield arranged at one side of the coring-tube and dividing-blades, and means for revolving the said tube and shaft in unison, substantially as shown and described.

4. In a device of the kind described, the combination with the base having an opening therein, of the shaft having a fork at one end, the blade or knife W for removing the tail or eye of the apple, the coring-tube having the dividing blades or wings and provided with the detachable tube and cutting-blades, said detachable tube having an extracting-prong arranged therein, spring holding devices, the shield and the coring devices for moving the coring-tube and shaft in unison, substantially as shown and described.

WILLIAM B. LLOYD.

Witnesses:
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P. R. SHIELDS.