N. Thomas,

Apple Cutter.

No. 18,476. Patented Oct. 20, 1857.

Fig 1.

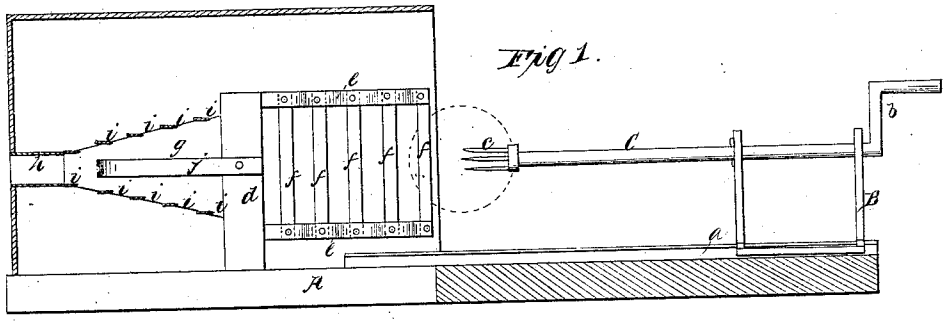
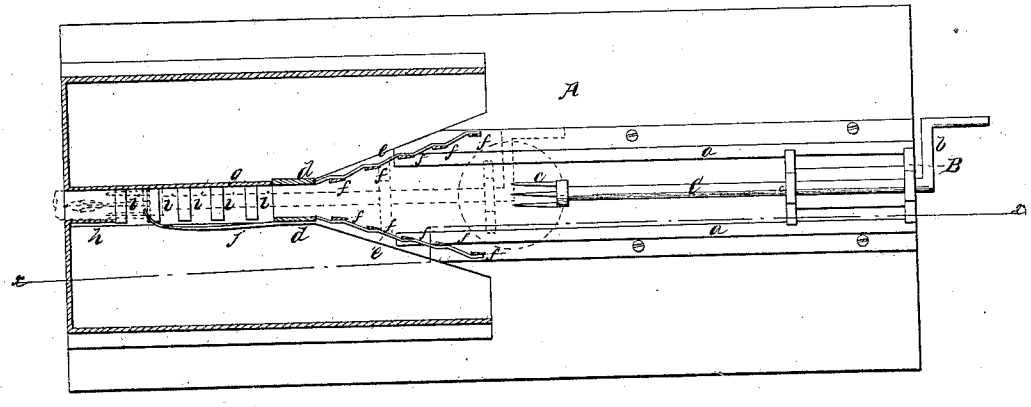


Fig 2.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

NATHANIEL THOMAS, OF EAST DIXFIELD, MAINE.

APPLE-SLICER.

Specification of Letters Patent No. 18,476, dated October 20, 1857.

To all whom it may concern:

Be it known that I, NATHANIEL THOMAS, of East Dixfield, in the county of Oxford and State of Maine, have invented a new and Improved Device for Slicing Apples; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of my improvement, (*x*) (*x*), Fig. 2, indicating the plane of section. Fig. 2, is a plan or top view of ditto.

Similar letters of reference indicate corresponding parts in the two figures.

This invention has for its object the slicing of apples by a simple means that may be readily applied to many of the apple parers in use; the invention forming an inexpensive attachment to a parer, and requiring but a single longitudinal movement of the arbor on which the apple is placed and pared, in order that the work may be performed.

My invention consists in the construction of apple-slicers in the manner herein described and represented.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a base or platform, on which two parallel ways (*a*), (*a*), are secured. On these ways a sliding frame B, is fitted and allowed to slide freely back and forth thereon. In the frame B, a horizontal arbor or shaft C, is fitted or placed, and allowed to turn freely thereon. On one end of the shaft a crank (*b*), is placed, and a fork (*c*), is placed on the opposite end.

On the base A, two uprights (*d*), (*d*), are secured. These uprights are placed quite near each other, the space between them being equal in width to the thickness of the core. To the upper and lower part of each upright (*d*), a bar (*e*), is attached. These bars are placed angularly with the uprights, and gradually diverge from their points of contact with the uprights to their opposite ends. The bars (*e*), are not perfectly straight, but are bent in zigzag form; and vertical knives (*f*), are attached to the bars (*e*), said knives being all in planes which are parallel with the uprights (*d*), so that a "set" or "rake" will be given each knife. This position of the knives is obtained in consequence of bending the bars (*e*), in zigzag form, as previously referred to.

To one of the uprights (*d*), a plate (*g*), is attached, said plate projecting from the side of the upright opposite to that where its bars (*e*), are secured. The plate (*g*), is in the same plane as the upright, as shown clearly in Fig. 2, and its upper and lower edges are inclined so that the plate is of taper form, the upper and lower edges gradually approaching each other from their inner to their outer ends. At the outer end of the plate (*g*), a square or rectangular tube (*h*), is formed said tube being in line with the space between the uprights (*d*), (*d*).

To the upper and lower edges of the plate (*g*), horizontal knives (*i*), are attached. These knives are placed in parallel planes, as will be seen by referring to Fig. 1, for the same reason as that previously assigned for so placing the knives (*f*), viz: to give them a set or rake.

To the upright (*d*)—the one opposite to that which has the plate (*g*), attached, a spring plate (*j*), is attached. The outer end of this plate is curved inward and projects between the upper and lower sets of knives (*i*), as shown clearly in Fig. 2.

The operation is as follows: The apple on the fork (*c*), shown by dotted circle, being pared, the frame B, is shoved on the ways (*a*), (*a*), and the arbor C, is moved longitudinally, the apple being forced between the two sets of knives (*f*), and having its opposite sides completely sliced, each knife (*f*), cutting a slice, the thickness of the slices being equal to the spaces between the knives. The upper and lower parts of the apple are sliced in a similar manner by the knives (*i*), as the apple is shoved between them, and a square core is left on the fork, which core enters the tube (*h*), and the curved end of the spring plate (*j*), passes behind the core, and as the arbor is drawn back retains the core or prevents it from following the fork. When the second or succeeding apple is sliced, its core forces its predecessor out of the tube (*h*).

It will be understood that the arbor or shaft C, may belong to or form a portion of an apple parer, the apple being forced on the fork (*c*), by any of the known means employed for the purpose. This in fact is the design of the invention, and it will add greatly to its importance.

There are many apple parers to which this invention may be applied without any difficulty whatever, and without interfering with the paring operation.

I am aware that apple-slicers and corers have been made which consisted of a tube having straight knives placed radially within. An example is seen in R. Mitchell's patent, April 18th, 1838; and I therefore disclaim them. In devices of this character, the fruit is cut into pieces that are of unequal thickness at different parts. Thus the inner part of such pieces will be quite thin, while the outer portion is very thick; and the larger the size of the fruit, the greater will be the difference in the thickness of the pieces. But by having the knives arranged as in my improvement, the fruit is readily cut up into thin slices that are all of an equal thickness, no matter whether the fruit is large or small. The drying of the fruit is thus materially facilitated and improved. When the slices are all of an equal thickness, the same degree of heat and same length of exposure to the drying atmosphere will "cure" all the pieces of a given quantity of fruit in the same length of time. But when the pieces are of unequal thickness, the drying will be imperfect, because portions of the pieces will be dried more than others; and the exposure which is necessary to the curing of one portion of the pieces is not long enough to dry the remaining portions, and vice versa. Thus the quality of the fruit when dried is more or less impaired. When the slicing knives are arranged radially, as before described, they all cut at the same time, which causes the apple, especially if it is small and soft, to be jammed or pressed. The juice is thus made to escape, which injures the quality and lessens the quantity of the fruit. In my device, the knives are arranged one before the other, so that they cannot all cut at the same time, and the apple passed between them with ease without jamming the fruit.

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

The construction of apple-slicers in the manner herein described and represented.

NATHANIEL THOMAS.

Witnesses:

GEORGE S. HOLMAN,

JOHN L. HOLMAN.