(No Model.) 2 Sheets—Sheet 1.

G. W. DUCHEMIN.

GAGE KNIFE.

No. 425,065. Patented Apr. 8, 1890.

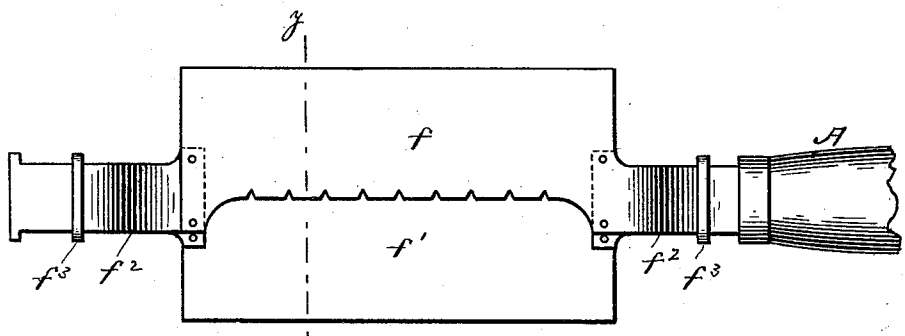


Fig. 1.

Fig. 2.

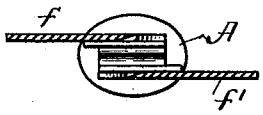


Fig. 3.

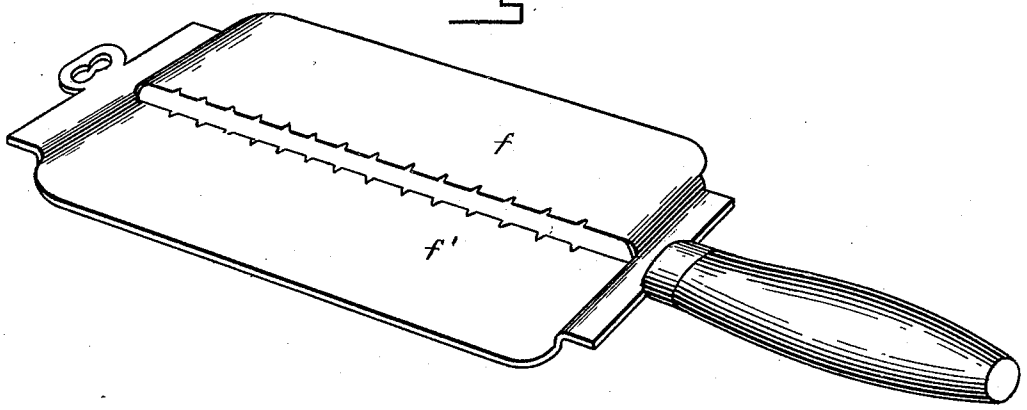


Fig. 4.

WITNESSES

Wm. Duchemin

Frank O. Frost

INVENTOR.

George W. Duchemin

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

G. W. DUCHEMIN.

GAGE KNIFE.

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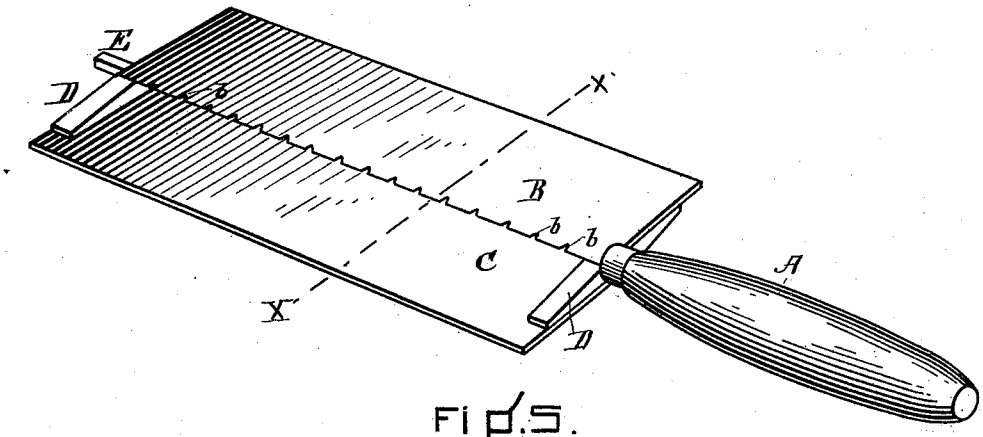


Fig. 5.

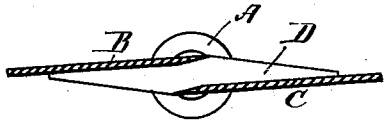


Fig. 6.

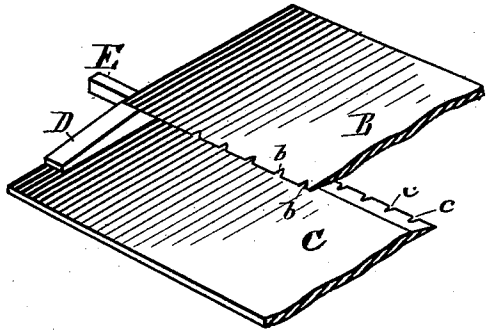


Fig. 7.

WITNESSES.

Wm. Duchemin

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UNITED STATES PATENT OFFICE.

GEORGE W. DUCHEMIN, OF NEWARK, NEW JERSEY.

GAGE-KNIFE.

SPECIFICATION forming part of Letters Patent No. 425,065, dated April 8, 1890.

Application filed June 1, 1889. Serial No. 312,881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DUCHEMIN, a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fruit-Knives, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to knives of that class used for cutting or slicing fruit; and the objects of my improvements are to provide a knife having two combined blades so constructed that they can be adjusted to cut into thick or thin slices, as the needs of the moment may require, juicy fruit which have hard or tough skins, and so arranged that the back surface of each blade will serve as a guide for the edge of the other in gaging the different thicknesses of the slices to be cut. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a surface plan of the device, showing its construction; Fig. 2, a longitudinal transverse view in section of same, showing the mode of graduating the blades; Fig. 3, a transverse sectional view on line *y y*, Fig. 1; Fig. 4, a view in perspective showing a different mode of construction; Fig. 5, a view in perspective showing the device with immovable blades; Fig. 6, a transverse sectional view on line *x x*, Fig. 5; and Fig. 7, a transverse sectional view showing the proportionate overreach of the cutting-edges of the knives and their peculiar construction.

Similar letters refer to similar parts throughout the different views.

Fig. 1 represents the knife having the graduating attachment. Its construction is as follows: The blades *f f'* are made of thin metal (of a quality that will not be affected by the juice of the fruit) in any desired form, and are secured together in such relation that their cutting-edges will be in line by flat semi-elliptic springs f^2, (shown in Fig. 2,) over each of which is fitted a flat rectangular ring f^3, which, when sent in toward the blades *f f'*, bring their surfaces together. In practice if thin slices are required the rings f^3 are sent in toward the blades *f f'*, which action brings the back surfaces of said blades close together. If thick slices are desired, the rings f^3 are sent outward from the blades *f f'*, which by the action of the springs f^2 are separated. If uneven or wedge-shaped slices are required, one ring must be sent toward and the other from said blades until the desired results are attained. It will be understood that I do not bind myself to the exact construction of the graduating attachment, as the same results may be attained by using thumb-screws in place of the rings f^3, or by having the springs f^2 made in such a manner that by their action the blades *f f'* would be brought together and separated by a thumb-screw or sliding wedge, or may be so constructed that the blades may be separated or closed in equal proportion by the action of reversed inclined planes secured on the ends of the blades and provided with a suitable set-screw or stop to retain them in the desired position; but I prefer the rings as simplest and best, because they are more durable, less liable to get out of repair, and more easily operated. The springs f^2, also, may be made to diverge from each other in a straight or curved line, as the fancy of the maker may suggest. The jags *b b* may be made in the form shown in Fig. 7 or of a reversed **W**, or short parallel slots at right angles with the cutting-edge of the blade, the gist of this invention being the adjustment of the blades in such a manner that each will serve as a guide to the other during the process of cutting, the graduation of said blades, when so required, and the serrated cutting-edges thereof. It will be noted that the cutting-edges of the blades shown in Fig. 4 differ in position from those shown in Figs. 1 and 5, which are adapted for cutting or slicing soft cake and such like material, inasmuch as that they lie in a longitudinal plane perpendicular with the blades. This is done that the slices of soft fruit—such as lemons and oranges—will not be under pressure during their exit from the knife, thus preventing extra loss of juice or crushing of the fruit.

In the device shown in Fig. 5 the blades B C are secured permanently in position by means of two short rhomboidal strips D D, Fig. 6, to which they are secured by rivets or any other suitable means in such relation that

their cutting-edges overreach each other, as shown at B C, and said cutting-edges are made in the form shown at *b c*, Fig. 7. The handle A is secured to the center of the strips D, and in the same position at the opposite end is secured the square bar E.

The device shown in Fig. 4 is made from one piece of metal, being cut and formed by suitable dies.

The cutting-edges of the blades of each device are jagged in the same manner as shown at *b b c c*, Fig. 7.

In practice the device is held in position by placing its outer end against any body that will keep it steady, and the fruit, pressed lightly against the back surface of the negative blade, is drawn across the cutting-edge of the positive, which, in the capacity of a knife and saw combined, cuts it in such a keenly delicate manner that the most juicy fruit can be cut in thin slices without losing any of the juice or soiling the hands during the operation.

I am aware that gaged fruit and vegetable knives were made prior to my invention. Therefore I do not claim such a combination, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a knife for slicing fruit, the graduating-springs f^2, provided with the adjusting-rings f^3 and secured to the ends of the parallel blades $f f'$, in combination with the handle A, substantially as set forth.

2. In a knife for slicing fruit, the parallel blades having serrated cutting-edges, each of which overlaps the other in equal proportion, secured to and in combination with the block D and handle A, substantially as set forth.

3. In a knife for slicing fruit, the parallel blades $f f'$, composed of a single sheet of metal and having their cutting-edges adjacent to each other, said sheet of metal lying in different parallel planes on each side of the blades, in combination with the handle A, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 29th day of May, A. D. 1889.

GEORGE W. DUCHEMIN.

Witnesses:

WILLM. DUCHEMIN,

FRANK O. FROST.