

F. B. PEASE.
PARING MACHINE.
APPLICATION FILED AUG. 25, 1909.

984,843.

Patented Feb. 21, 1911.

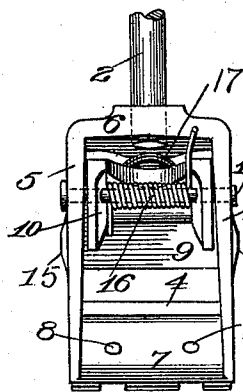
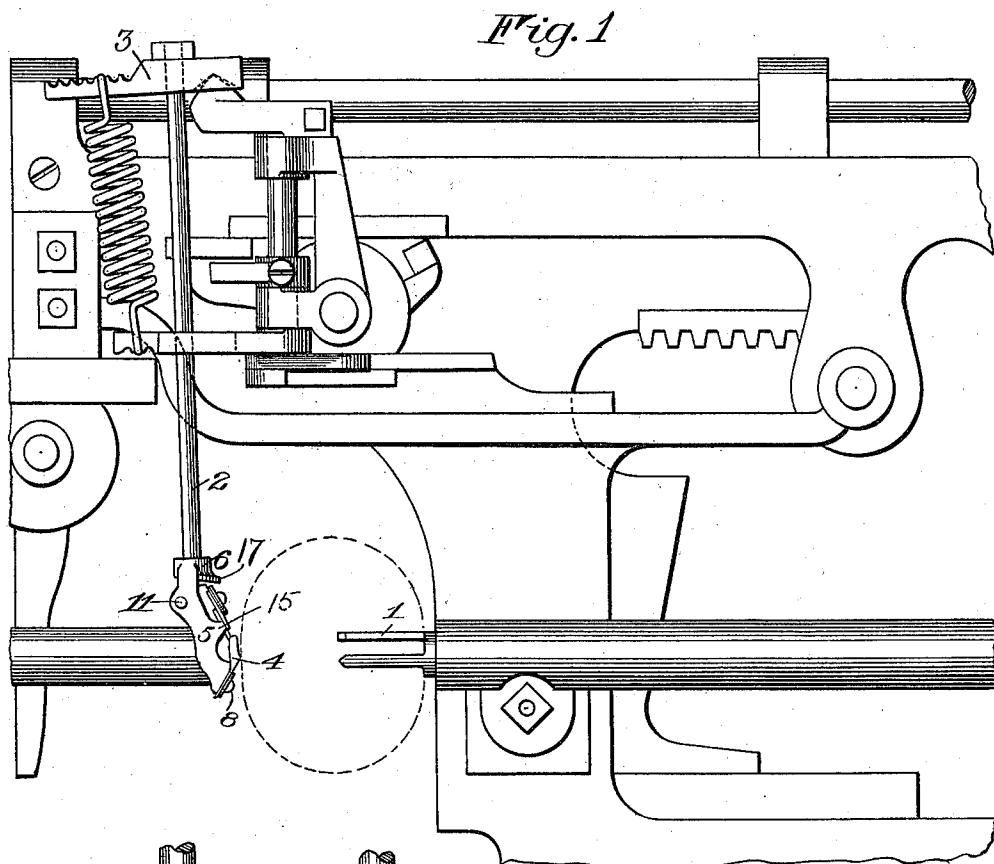


Fig. 2.

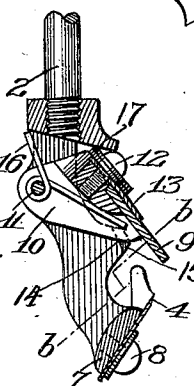


Fig. 4.

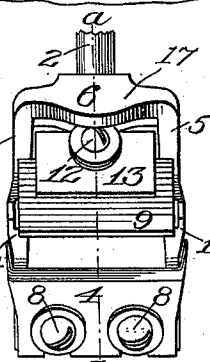


Fig. 3.

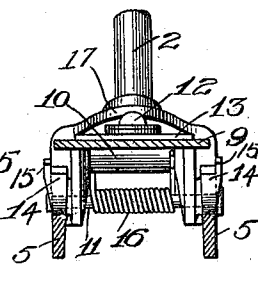


Fig. 5.

Inventor

Witnesses

Walter B. Payne
H. V. Simms

Franklin B. Pease

By

Church & Co.

his Attorneys

UNITED STATES PATENT OFFICE.

FRANKLIN B. PEASE, OF ROCHESTER, NEW YORK, ASSIGNOR TO BOUTELL MANUFACTURING COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

PARING-MACHINE.

984,843.

Specification of Letters Patent.

Patented Feb. 21, 1911.

Application filed August 25, 1909. Serial No. 514,627.

To all whom it may concern:

Be it known that I, FRANKLIN B. PEASE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Paring-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to paring machines and more particularly to the knives thereof, and it has for an object to provide a construction which will render the machine more efficient by eliminating all clogging of the knife.

To this and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings, Figure 1 is a view of the knife attached to a paring machine of the type shown in the patent to William H. Boutell, No. 693,778, dated February 18, 1902; Figs. 2 and 3 are respectively front and rear views of the knife head or support; and Figs. 4 and 5 are respectively sections on line *a-a* of Fig. 3 and line *b-b* of Fig. 4.

The knives of paring machines as at present constructed are defective because the parings become wedged between the knife blade and the guard causing the fruit or article next operated upon by the knife to be pared but partially. In this invention this objection is overcome by clearing the knife by means of a relative movement between the guard and the knife after each paring operation.

In the embodiment of the invention shown in the drawings 1 indicates a supporting device or fork which is rotated by any suitable means to rotate the fruit while the latter is operated upon by the knife which, in this instance, is suspended by a stem 2 yieldingly supported on a swinging arm 3 that is operated in the manner set forth in the before mentioned patent to carry the knife 4 in an arc of a circle and in engagement with the fruit in a manner well known.

Preferably the knife is fixed or rigid with the support or head which comprises in this

instance a pair of arms 5 connected at one of their ends by a bar 6 having screw threaded engagement with the stem 2, and at the other of their ends by a cross piece 7 having openings with screw threaded walls engaged by clamping screws 8 to detachably secure the knife to the knife support.

In this instance the guard 9 which limits the thickness of the paring is moved out of coöperative relation with the knife after each paring operation. Preferably the guard 9 is carried by a pivoted guard support 10 operating between the arms 5 on a pivot pin 11 connecting said arms, the guard being detachably connected to its support as by a screw 12 and plate 13 in order that it may be replaced by a new one when it has worn out. This is very desirable when the parer is used on apples as the acid in the latter makes necessary the frequent renewal of the guard and also the knife blade.

The guard lies transverse to the plane of the blade and is movable substantially in planes parallel with the blade plane so that when the knife is moved toward the fruit the guard will first be engaged and carried into coöperative relation with the knife, its inward movement being limited by abutments 14 formed on the arms 5, said arms also being provided with devices in the form of projections 15 to prevent the shifting of the guard on its holder during the paring operation.

The automatic shifting of the guard away from the knife blade may be accomplished in any suitable manner but preferably a spring 16 is employed in the form of a helix surrounding the pin 11 and having one end engaging the knife support and the other end engaging the guard support, the outward movement of the guard being limited by a stop 17 projecting from the front face of the knife support.

A knife constructed in accordance with this invention insures the clearing of the knife after each paring operation as the guard and the knife are separated to provide plenty of clearance through which the parings may drop. The illustrated construction for accomplishing the above objects is simple in operation and its parts are so constructed that they will not get out of order and are inexpensive to manufacture.

I claim as my invention:

1. The combination with a knife for a

paring machine and a gaging guard therefor to determine the thickness of the paring, one of said parts normally lying out of gaging relation with the other, and means yieldingly holding the guard for movement.

2. The combination with a knife for a paring machine and a gaging guard therefor to determine the thickness of the paring, of means acting on one of said parts to move it out of gaging relation with the other after the paring in order to enlarge the throat between them.

3. The combination with a knife for paring machines and a gaging guard therefor to determine the thickness of the paring, of a spring acting on one of said parts to move it out of gaging relation with the other to enlarge the throat between them.

4. The combination with a knife for a paring machine, of a gaging guard therefor to determine the thickness of the paring, normally lying out of gaging relation with the knife and means yieldingly holding the guard for movement.

5. The combination with a knife for paring machines, of a gaging guard therefor to determine the thickness of the paring, and means for automatically moving the latter out of gaging relation with the knife after the paring.

6. The combination with a knife for a paring machine and a gaging guard therefor to determine the thickness of the paring, of a spring acting on the guard to move the latter out of gaging relation with the knife after the paring.

7. The combination with a support and a knife carried thereby, of a gaging guard for the knife pivotally mounted on the support, and means for moving the guard out of gaging relation with said knife after the paring.

8. The combination with a support embodying a cross piece, and a pair of supporting arms connected by the cross piece, of a knife carried by the cross piece, a gaging guard movable relatively to the knife on the support, and means for moving the guard out of gaging relation with the knife after paring an article.

9. The combination with a support embodying a cross piece and a pair of supporting arms connected by the cross piece, of a knife secured to the cross piece, a gaging guard for the knife pivotally mounted between the arms, and means for moving said

guard out of gaging relation with said knife after the paring.

10. The combination with a knife support, and a knife carried thereby, of a gaging guard, a guard support movable on the knife support, means for automatically moving the guard support after each paring operation to carry the guard out of gaging relation with the knife, and devices for detachably securing the guard to the guard support.

11. The combination with a knife support embodying a cross piece and a pair of arms connected by the cross piece, of a knife detachably secured to the cross piece, a gaging guard for the knife, a guard support pivotally connected to the arms of the knife support to permit the guard to be moved out of gaging relation with the knife, and a device for detachably securing the guard to the guard support.

12. The combination with a knife support embodying a cross piece and a pair of arms connected by the cross piece, of a knife detachably secured to the cross piece, a gaging guard for the knife, a guard support pivotally connected to the arms of the knife support to permit the guard to be moved out of gaging relation with the knife, a device for detachably securing the guard to the guard support, and devices on the arms for preventing the lateral movement of the guard on its support during paring.

13. The combination with a knife support embodying a cross piece and a pair of arms connected by the cross piece, of a knife detachably secured to the cross piece, a gaging guard for the knife, a guard support, devices detachably securing the guard to its support, a pivot pin connecting the arms of the knife support and having the guard support turning thereon, and a helical spring surrounding the pivot pin and cooperating with the knife support and with the guard support to move the latter out of gaging relation with the knife.

14. In a paring machine, the combination with a paring knife having a throat through which the paring passes, of means for automatically enlarging the throat at the completion of the paring operation to clear it of obstructions.

FRANKLIN B. PEASE.

Witnesses:

HAROLD H. SIMMS,
NELSON COPP.