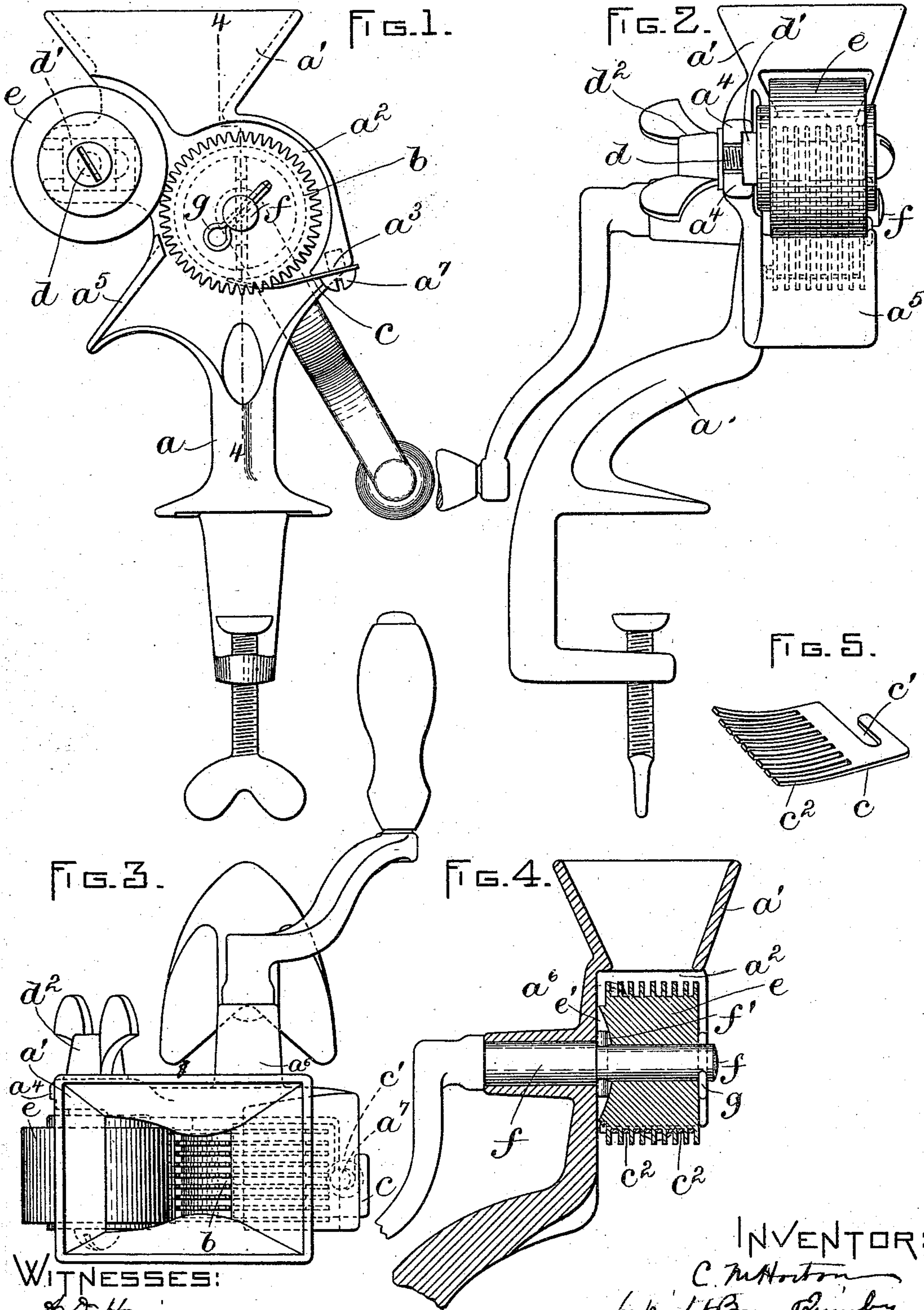


(No Model.)

C. M. HORTON.  
RAISIN SEEDER.

No. 551,967.

Patented Dec. 24, 1895.



WITNESSES:  
H. D. Harrison  
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# UNITED STATES PATENT OFFICE.

CHARLES M. HORTON, OF READING, MASSACHUSETTS.

## RAISIN-SEEDER.

SPECIFICATION forming part of Letters Patent No. 551,967, dated December 24, 1895.

Application filed April 30, 1895. Serial No. 547,615. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. HORTON, of Reading, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Raisin-Seeder, of which the following is a specification.

This invention relates to that class of raisin-seeders employing a supporting-frame having a hopper, a serrated metal roll supported by the frame below the hopper, an elastic pressure-roll located at one side of the serrated roll, said rolls being arranged to receive between them raisins which fall from the hopper, and a comb-plate affixed to the frame below the serrated roll and having teeth which engage the serrations of said roll and eject therefrom the raisin-pulp which is forced into the spaces between the teeth of the roll by the pressure of the elastic roll, the seeds of the raisins being pressed into the elastic roll by the serrated roll and carried downwardly and outwardly by the elastic roll until they drop upon a deflecting plate on the frame of the machine.

The invention has for its object to provide certain improvements in a raisin-seeder of this class looking to the convenient and ready separation of the serrated roll, comb-plate, and elastic roll from the frame of the machine, to the end that they may be conveniently cleaned; and to this end the invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of a raisin-seeder embodying my improvements. Fig. 2 represents a front elevation of the same. Fig. 3 represents a top view. Fig. 4 represents a section on line 4 4 of Fig. 1. Fig. 5 represents a perspective view of the comb-plate.

The same letters of reference indicate the same parts in all the figures.

The supporting frame of the machine comprises the arm or bracket  $a$  provided with suitable clamping means whereby it may be engaged with a table or other support, the hopper  $a'$  formed on the upper portion of said arm, the chamber  $a^2$  below said hopper for the reception of the serrated roll  $b$ , said chamber being open at one end and at its bottom,

and a seat  $a^3$  formed on the lower edge of the side wall of said chamber to support the comb-plate  $c$ . The frame also includes the guides  $a^4$   $a^4$  which project from one side of the hopper and are formed to support the block  $d'$ , which supports the stud  $d$  upon which the elastic pressure-roll  $e$  is mounted to rotate loosely. The frame is also provided below the elastic roll with an inclined deflecting-plate  $a^5$  on which the raisin-stones which are carried away from the serrated roll  $b$  by the elastic roll drop, and by which said stones are deflected outwardly from the point where the raisin-pulp falls when dislodged from the serrated roll by the teeth of the comb-plate  $c$ .

The relative arrangement of the serrated and elastic rolls, the hopper, and the comb-plate, form no part of my present invention, said arrangement being old.

$f$  represents a crank-shaft, which is journaled in a bearing  $a^6$  formed on the supporting-frame at one end of the chamber  $a^2$ . Said shaft projects into the chamber  $a^2$  and is provided therein with a coupling member  $f'$ , here shown as a pin driven transversely through the shaft and projecting outside the periphery thereon within the chamber  $a^2$ . It will be observed that this pin by coming against the bearing  $a^6$  constitutes means for confining the shaft, and hence performs a double function.

The serrated roll  $e$  is provided with a longitudinal bore formed to receive the shaft  $f$  and to move freely onto and off from the same, said roll being provided with a coupling member  $e'$  formed to engage the coupling member  $f'$  of the shaft, said member  $e'$  as here shown being a groove or cavity formed in one end of the roll  $e$  to engage the coupling member  $f'$ , said members being formed so that the operation of placing the roll upon the shaft engages the two coupling members which rotatively connect the roll and shaft. The provision of the coupling members enables the roll to be secured in place upon the shaft by a simple device, such as a cotter-pin  $g$  engaged with the outer portion of the shaft and bearing on the outer end of the roll, said pin being readily removable so that the roll can be quickly removed from and applied to the machine.

The comb-seat  $a^3$  is parallel with the shaft



5  $b$  and is provided with a clamping-screw  $a^7$   
 adapted to secure the comb-plate to said seat,  
 said plate having an open-ended slot  $c'$  ex-  
 tending lengthwise and formed so that when  
 10 the screw  $a^7$  is loosened the comb-plate can  
 be removed from the machine with the roll  $b$   
 without disengaging the teeth  $c^2$  of the comb-  
 plate from the teeth of the roll  $b$ . It will be  
 seen, therefore, that in order to prepare the  
 15 serrated roll and the comb-plate for removal  
 it is only necessary to remove the cotter-pin  $g$   
 and loosen, without removing, the clamping-  
 screw  $a^7$ , said roll and plate being then freely  
 removable. After they are removed they can  
 20 be conveniently separated and cleaned, and  
 then re-engaged before they are re-applied to  
 the machine, so that they can be applied simul-  
 taneously and secured by applying the cotter-  
 pin and tightening the clamping-screw  $a^7$ .  
 25 The elastic pressure-roll  $e$ , which is made  
 of rubber or a compound thereof, is mounted  
 to rotate loosely upon the stud  $d$ , which is  
 screw-threaded and engaged with the block  
 $d'$ , the latter being fitted to slide into and out  
 30 of the seats formed upon the guides  $a^4$   $a^4$ .  
 The stud  $d$  is provided at one end with a  
 clamping-nut  $d^2$ , which bears against the outer  
 sides of the guides  $a^4$  and co-operates with  
 the block  $d'$  in holding the stud in place on  
 said guides when the device is in operation.  
 By loosening the clamping-nut, the stud  $d$ ,  
 block  $d'$ , and roll  $e$  may be readily removed  
 from the machine.

It will be seen that the described improve-

35 ments make the separation of the parts for  
 cleaning purposes very convenient, and their  
 assemblage equally convenient, this being an  
 important advantage when it is considered  
 40 that the machine requires to be cleaned after  
 every operation.

I claim—

In a raisin seeder, the combination of a sup-  
 porting frame having a hopper and a journal-  
 bearing below the same; a crank-shaft ex-  
 tending through and beyond said bearing and  
 45 having a radial abutment or abutments ex-  
 tending over the end of the bearing and con-  
 fining the shaft therein; a grooved and ser-  
 rated wheel adapted to be slid onto said shaft  
 and having a radial recess or recesses in one  
 50 side receiving the abutment or abutments on  
 the shaft whereby positive rotary connection  
 is established between the shaft and wheel  
 while their disconnection by longitudinal  
 movement is permitted; means for confining  
 55 the wheel on the shaft; and an elastic roll ar-  
 ranged in juxtaposition to the serrated wheel  
 and adjustable toward and from the same,  
 substantially as described.

In testimony whereof I have signed my  
 60 name to this specification, in the presence of  
 two subscribing witnesses, this 27th day of  
 April, A. D. 1895.

CHARLES M. HORTON.

Witnesses:

C. F. BROWN,

A. D. HARRISON.