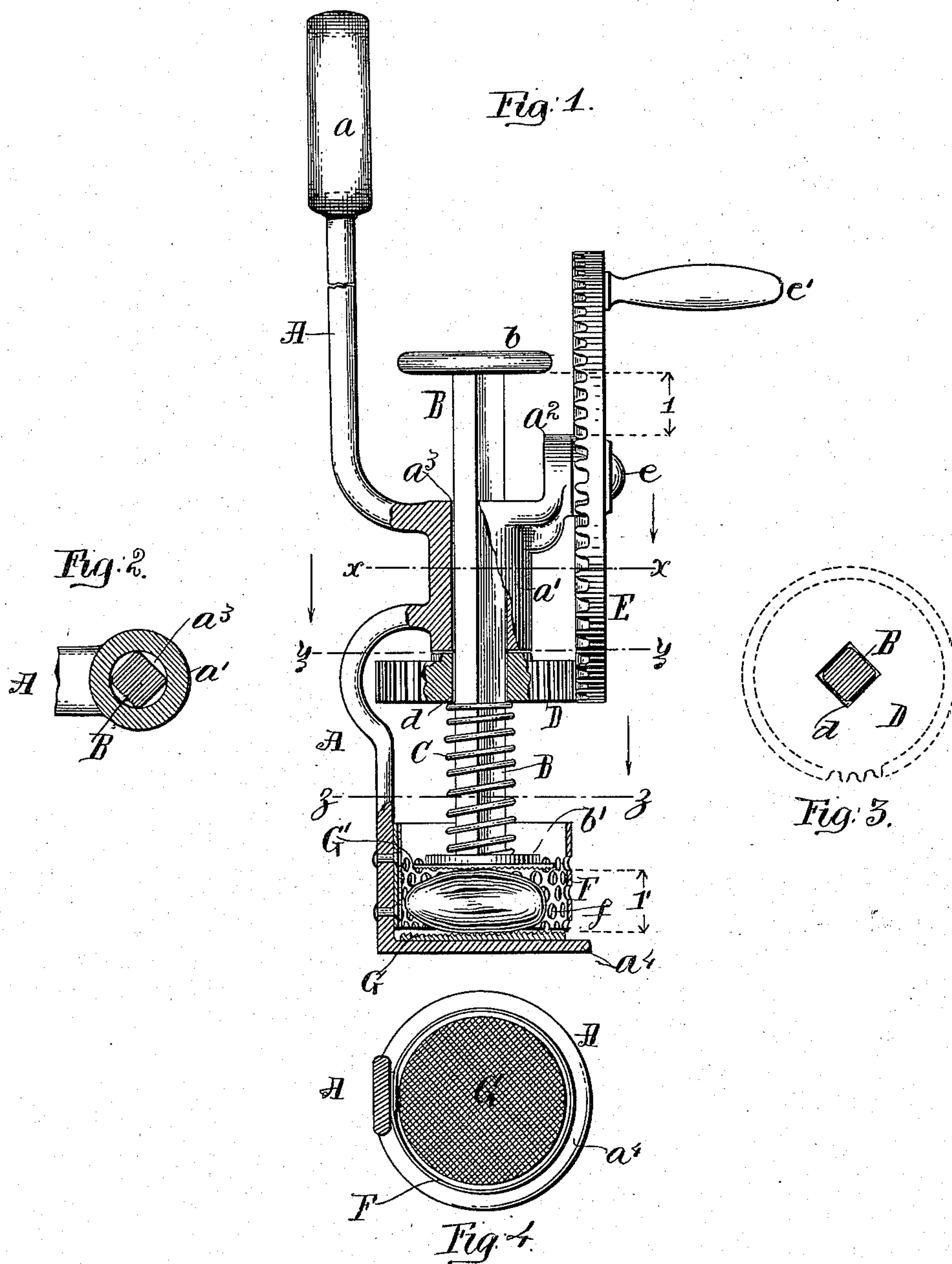


(No Model.)

C. A. PREST.
NUTMEG GRATER.

No. 533,141.

Patented Jan. 29, 1895.



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NUTMEG-GRATER.

SPECIFICATION forming part of Letters Patent No. 533,141, dated January 29, 1895.

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To all whom it may concern:

Be it known that I, CHARLES A. PREST, of Northborough, in the county of Worcester, State of Massachusetts, have invented a new and useful Nutmeg-Grater, of which the following is a specification.

This invention consists of a shaft having a suitable nutmeg grating or powdering surface adapted to vertically move, and to rotate, and to be spring pressed in a certain vertical direction, of a suitable framework having a suitable manipulating handle and a bearing for the vertical shaft to move in as just described, and being provided with or retaining a perforated nutmeg receptacle and a surface adapted as with above mentioned surface to powder the nutmeg by arranging such surfaces so as to be each side of the nutmeg, and of suitable wheels being retained by the framework and on the vertical shaft adapted to rotate the vertical shaft, of which the object is to produce a new article of manufacture capable of dispensing with having to retain a nutmeg by the hand and to rub same over the surface of an ordinary nutmeg grater to powder the nutmeg, and to obviate the waste of the remaining portion of the nutmeg that cannot be conveniently retained by the hand to rub over the surface of the ordinary nutmeg grater, which I attain in the manner as illustrated by the accompanying drawings and as described in this descriptive matter.

In the drawings, Figure 1, is a view illustrating the nature of my invention, and Fig. 2, is a sectional view of Fig. 1, in detail taken as represented by the line x, x , illustrating in plan view the vertical grating shaft and its bearing on the framework. Fig. 3, is a sectional view of Fig. 1, also Fig. 4, respectively taken on the lines y, y , and z, z , and respectively illustrating the engagement of the vertical grating shaft driving gear, with the vertical shaft, and the nutmeg powdering surface and the receptacle retained by the framework.

The vertical grating shaft (B,) in design, is a square shaft, of which the reason is to dispense with having to create a keyway in the shaft which would be necessary, if it were round, as will be presently seen. This shaft is provided with a manipulating knob as represented by (b) at its upper end, and at its lower end it has the flange portion (b').

Either of these portions or both can be secured on the shaft in order to permit the placing on the shaft the gear wheel (D), and the spring (C).

To the under face of the flange portion (b') I secure the nutmeg powdering disk or surface (G') which is designed, that is, its powdering surface, as illustrated by the view Fig. 4, which illustrates the surface of the lower stationary powdering plate (G) retained by the framework portion (a'). These roughened surfaces can be designed in various ways to attain the same end which is to powder the nutmeg, and thus the surfaces illustrated in the drawings are one of many capable to powder the nutmeg. (A) represents the framework which is designed so as to be conveniently held by the hand by having the handle (a), and which is provided with the vertical grating shaft bearing (a') that has the round core (a³) in diameter sufficient to permit the rotary moving grating shaft to efficiently rotate as clearly illustrated by the view, Fig. 2, and this framework is provided with the trunnion or the hand driving wheel bearing (a²) and with the portion (a⁴) in a perpendicular relation with the vertical grinding shaft. This portion (a⁴) of the framework is designed to efficiently retain the bottom powdering plate (G) but which is not necessary as the receptacle (F) can be designed to efficiently retain or have the bottom powdering surface or plate and thus dispense with this portion (a⁴) of framework. By having this aforesaid portion (a⁴) retain the bottom powdering plate, the powdering plate can be a member capable of being detachably retained so as to permit substitution of the bottom plate in case it becomes worn, by a new and efficient powdering plate.

By making the upper powdering plate (G') a member to be secured to the under face of the flange portion of the grinding shaft as previously explained the same can be secured to said flange in a detachable manner so as to permit of its removal to apply a new plate for the same reasons as made mention to the bottom plate.

The receptacle (F) is perforated, which the letter (f) represents one of the holes, to effect

a free discharge of the powdered nutmeg, and, this receptacle is retained or secured on the lower end of the framework by being riveted to the same as shown. In the drawings, Fig. 1, this receptacle is shown to be secured to the framework so as to produce a slight space between the bottom of the receptacle and the upper face of the grinding plate, for which the reason is to effect a freer exit for the nutmeg ground or powdered. The portion (a^4) will permit the manipulator to knock this end of the machine against a body to make a discharge of any remaining powder within the receptacle, without requiring the receptacle to be knocked to do the same and thus prevent the receptacle being injured.

The gear wheel (E) is axially retained on the framework by the stud or pin (e) passing through its center in a loose manner and having its end fixedly engaged with the trunnion (a^2) of the framework. This wheel is the driving wheel and can be in diameter sufficient to impart an efficient grinding rotary movement to the gear wheel (D) which is the driven wheel, and this driving gear is provided with the manipulating handle (e') to permit the manipulator to conveniently operate my nutmeg grinder or grater.

The gear wheel (D) is designed to engage the grinding shaft so as to drive the shaft and is in mesh with the driving wheel (E). The grinding shaft being square, the central opening in the driven gear is made square, sufficient to efficiently engage the said shaft as clearly illustrated by the view Fig. 3, so as to drive the grinding shaft while at the same time permit the shaft to have a vertical movement. These gear wheels can be both designed in diameter to produce the requisite rotary movement to the grinding shaft to effect a practicable grinding or powdering of the nutmeg which is illustrated to be between the upper and lower surfaces of the powdering plates by the view Fig. 1.

In order to attain an efficient grinding or powdering of the nutmeg I place on the grinding shaft, the spring (C), so as to contact the bottom surface of the shaft driving wheel, and the upper surface of the shaft's flange portion (b'), with such force as to keep the shaft's driving gear in mesh with its driving gear (E), and cause the powdering plate of the grinding shaft to contact the nutmeg, and the nutmeg the bottom powdering plate so as to efficiently powder the nutmeg.

My nutmeg grater is designed so as to prevent the two opposite grinding plates to contact each other, so that the plates will not thus

injure each other, which I attain in the following cheap manner:—The length of the grinding shaft, that is, between the under face of the knob (b) and the powdering face of the plate (G'), is in length a minimum less than the length of the space between the upper face of the trunnion (a^2) and the powdering face of the plate (G) of the framework, which is represented by the spaces marked (1) and (1'). The upper space (1) denotes that the under face of the knob (b) is in distance before it contacts the trunnion (a^2) a little less than the space represented by (1') between the respective faces of the powdering or grinding plates, created by the insertion with the receptacle of the nutmeg illustrated by Fig. 1. Thus it will be seen that when there is no nutmeg in the receptacle, these plates will not contact each other. This before mentioned grinding shaft manipulating knob, is so provided on the shaft to permit the manipulator to conveniently vertically draw or move the shaft out of the receptacle, sufficient, to permit a nutmeg being entered into the receptacle between the grinding plates; and the space between the under face of the shaft driving wheel and the upper edge of the receptacle is designed in width or length so as to permit an insertion within the receptacle of a nutmeg.

Having described my invention, I claim—

As a new article of manufacture a hand manipulating nutmeg grating machine consisting of the frame (A) provided with a handle portion, and a vertical shaft bearing, and bottom grinding plate portion, and a perforated receptacle secured thereto, a vertical shaft loosely fitted in said frame bearing, designed to engage the wheel (D) so as to be driven by said wheel and receive a vertical movement through said wheel, and provided with the upper grinding portion, and the handle portion (b), the spring (C) contacting said wheel (D) and the upper grinding portion of the vertical shaft, the wheel (D) engaging said vertical shaft so as to drive said shaft and permit it to be vertically moved, the wheel (E) engaging the wheel (D) and loosely retained on the frame and provided with the manipulating handle (e') substantially as described.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

CHARLES A. PREST.

Witnesses:

USEBIUS A. KELLOGG,
THOMAS W. HOBETAY.