A. BEYER.

POTATO PEELING MACHINE.

APPLICATION FILED OCT. 1, 1910.

998,950.

Patented July 25, 1911.

2 SHEETS—SHEET 1.

FIG. 1.

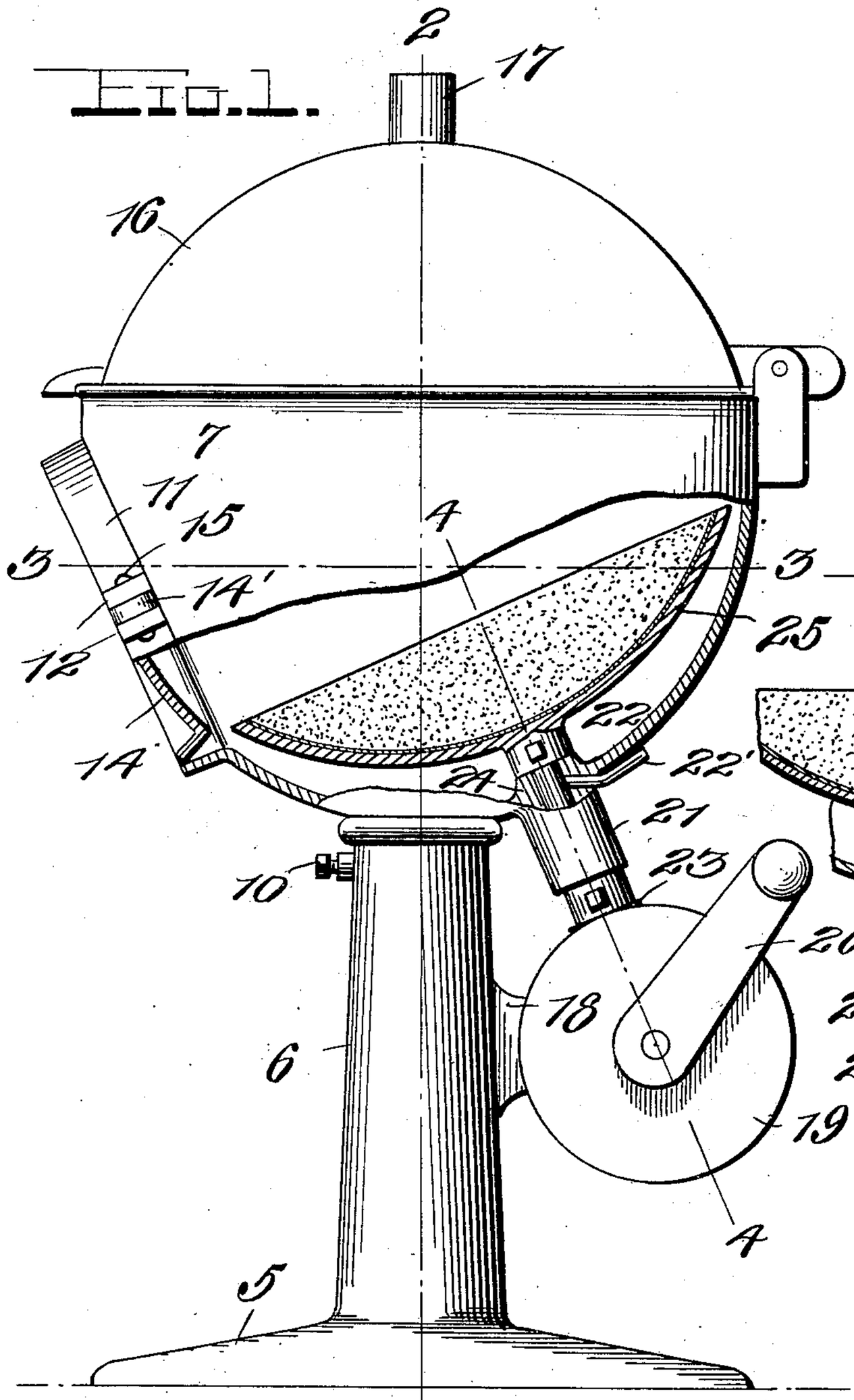
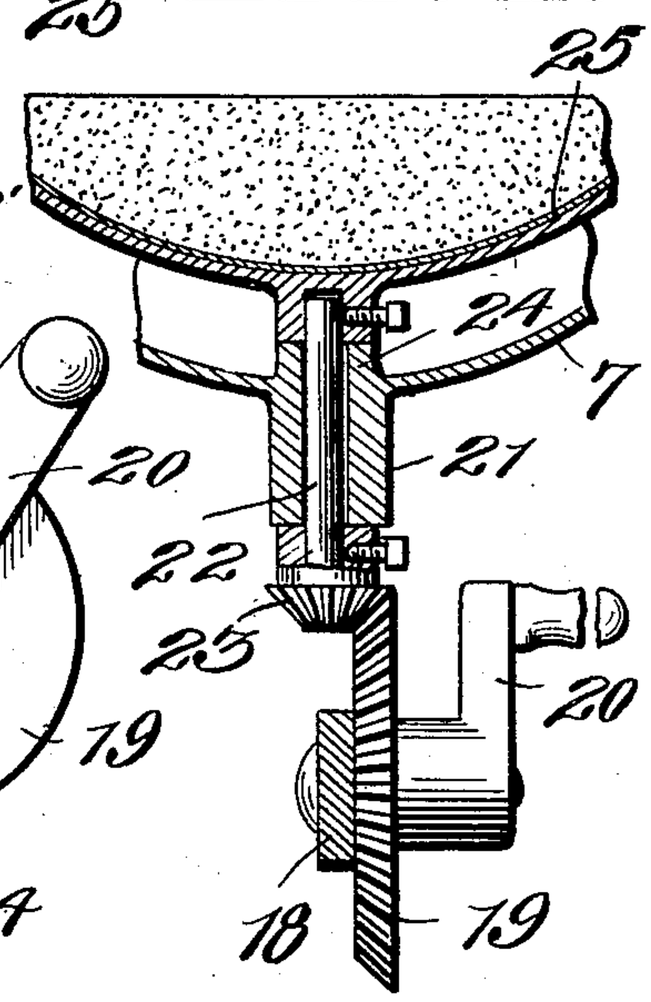


FIG. 4.



Witnesses

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2 SHEETS—SHEET 2.

FIG. 2.

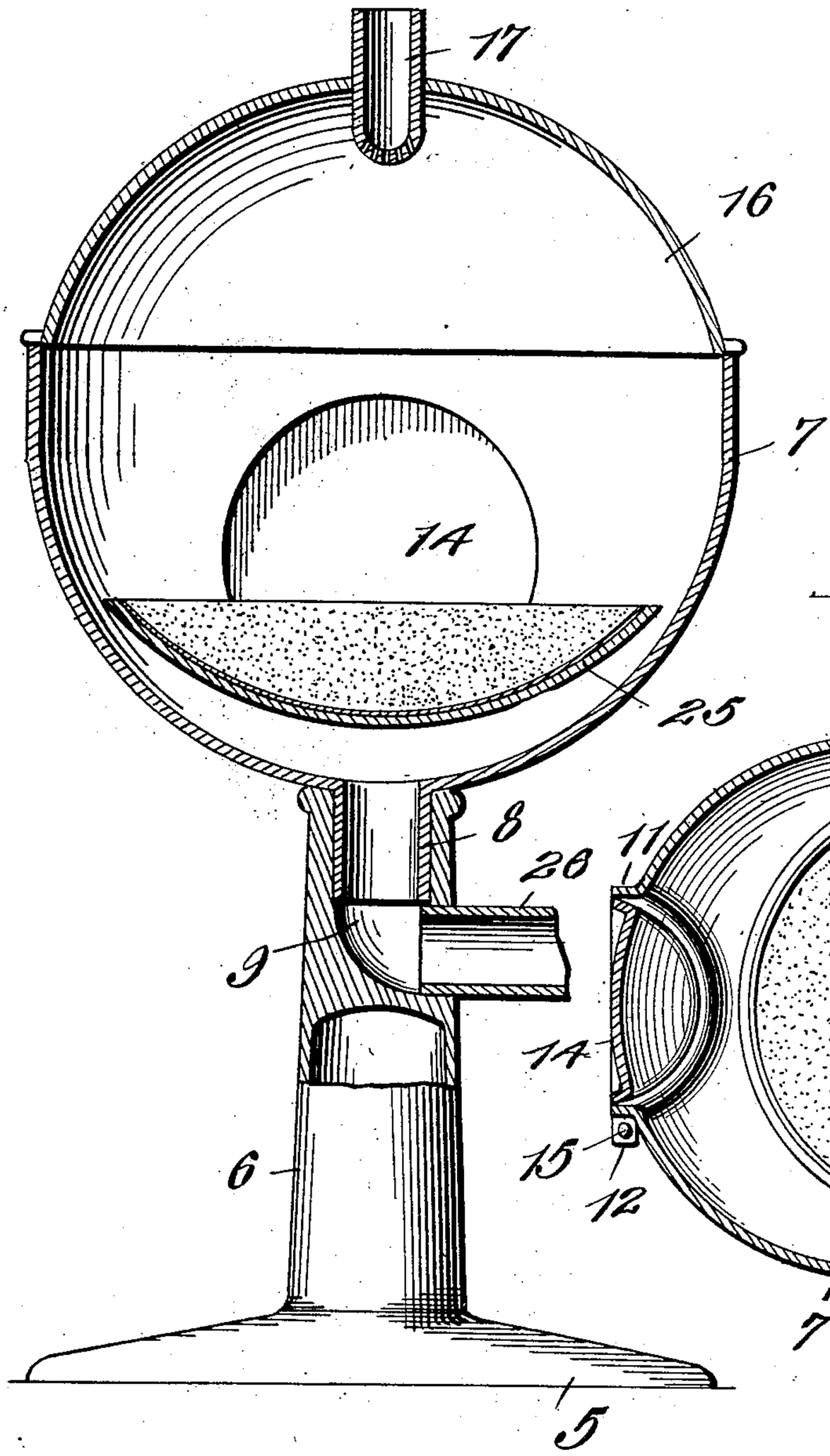
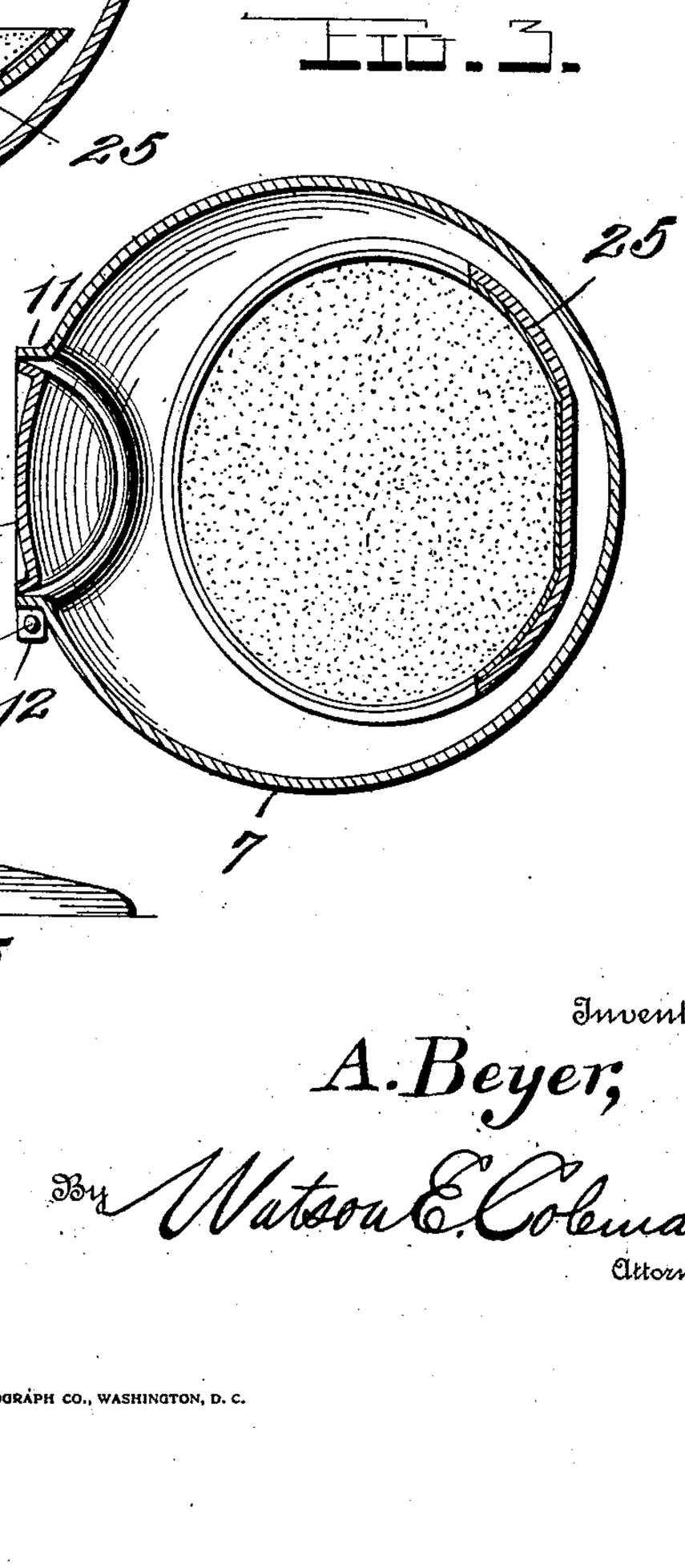


FIG. 3.



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UNITED STATES PATENT OFFICE.

ALBERT BEYER, OF NEWARK, NEW JERSEY.

POTATO-PEELING MACHINE.

998,950. Specification of Letters Patent. Patented July 25, 1911.

Application filed October 1, 1910. Serial No. 584,890.

To all whom it may concern:

Be it known that I, ALBERT BEYER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Potato-Peeling Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to potato peeling machines and has for its object to provide a machine for this purpose of extreme simplicity and one which is highly efficient in practical use.

Another object of the invention resides in the provision of a stationary receptacle and a rotatable element angularly disposed within said receptacle and having an abrasive surface whereby the potatoes are thoroughly agitated and the skins removed without undue waste of the potato.

A further object of the invention is to provide a receptacle of spherical form and a concavo-convex rotary agitating and paring element arranged therein and means for carrying off the waste material.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved potato paring machine, the hopper or receptacle being shown partly in section; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; Fig. 3 is a section taken on the line 3—3 of Fig. 1; and Fig. 4 is a section taken on the line 4—4 of Fig. 1.

Referring more particularly to the drawing 5 designates a base which in the present instance is of circular form and has integrally formed therewith and rising from its center a standard 6. The lower portion of the standard 6 is tubular in form for the sake of lightness and to reduce the expense in construction. Upon the upper end of the standard 6 the hopper or receptacle 7 is arranged. This receptacle is semispherical in form and is provided with a tubular extension 8 which is adapted to be received in a socket 9 provided in the upper solid end portion of the standard 6. A set screw 10 is threaded through the standard and has binding engagement with the extension 8 whereby the hopper or receptacle is rigidly secured in the standard and rotative movement thereof effectually prevented. The receptacle 7 has formed on its periphery an annular angularly disposed flange 11. This flange is formed with spaced ears 12 to receive an ear 14′ formed on a concavo-convex door plate 14. This plate when the door is closed lies in the same plane as the wall of the receptacle 7. A suitable pivot 15 extends through the ears 12 and 14′, said door being provided at its opposite side with a suitable catch whereby it may be held in its closed position. The vessel 7 is further provided with a cover 16 which is also semispherical in form and is hingedly mounted upon the upper edge of said receptacle. A spray pipe 17 extends through the top of the cover 16 and is adapted to be connected to a suitable source of water supply.

Upon the standard 6 a laterally extending arm 18 is formed and a beveled gear 19 is rotatably mounted on the outer end of said arm, said gear being rotated by means of a suitable crank 20, though it will be understood that the device may also be operated by an electric motor or other means as will be obvious from an inspection of the drawing. The receptacle 7 is formed with a second radially extending sleeve 21 and through this sleeve a shaft 22 extends. A short pipe 22′ extends through the wall of the receptacle adjacent to said shaft and through this pipe lubricating oil is adapted to be fed to the shaft. A beveled pinion 23 is fixed upon the lower end of this shaft and meshes with the gear 19. The inner wall of the vessel or receptacle 7 is formed with a boss 24 through which the shaft 22 extends and upon the upper end of this shaft the concavo-convex agitating and paring element 25 is secured. The element 25 and the gear 23 may be secured to the shaft by means of suitable set screws so that they may be readily removed when it is desired to dismantle the machine. From reference to Fig. 1 it will be seen that the concavo-convex element is angularly disposed with relation to the horizontal axis of the receptacle. The inner or concave surface of the plate 25 is covered with carborundum or

other suitable abrasive material whereby sufficient friction is provided to remove the skin from the potatoes as they contact therewith in the rotary movement of said plate. Owing to the angular disposition of the paring element 25 the potatoes will also be thoroughly agitated in the operation of the machine so that they will not remain for any length of time stationary upon the rotating plate, thus obviating the liability of wasting the potato.

A waste pipe 26 is fitted into the upper end of the standard 6 and extends laterally therefrom beneath the sleeve or extension 8 and as the potatoes are pared, the water which is being constantly sprayed into the machine and upon the potatoes through the pipe 17, will wash the skins and other refuse material out of the concavo-convex plate 25 and into said waste pipe. It will be observed that there is sufficient space between the circumscribing edge of the member 25 and the inner wall of the vessel or receptacle 7 for the skins to pass between the same. Thus the potatoes being pared are at all times kept free of parings.

From the foregoing it is believed that the construction and operation of my improved potato paring machine will be readily understood. It is extremely simple in construction and owing to the few elements employed it is obvious that it may be manufactured at a very low cost. The parts may also be quickly put together or disassembled for cleaning or repairing purposes.

While I have stated that carborundum is the preferable abrasive material employed in the operation of the machine, it will be understood that sand paper or any other desired means may be employed in order to effect the desired result. It will further be understood that while I have specifically shown and described the preferred construction and arrangement of the various elements the machine may be modified in many particulars without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. In a machine of the character described, the combination with a receptacle, of a rotary abrading element having a concave abrading surface, the rotative axis of said element being disposed through the wall of said receptacle and at an angle with relation to the vertical and horizontal axes of said receptacle.

2. In a machine of the character described, the combination with a spherical receptacle, of a rotary concavo-convex plate having an abrasive surface arranged within said receptacle, the axis of rotation of said plate being disposed at an angle to the horizontal axis of the receptacle.

3. In a machine of the character described, the combination with a support and a spherical receptacle rigidly fixed thereon, of a rotary concavo-convex plate having its concave surface covered with abrasive material, said plate being mounted within the receptacle and having its rotative axis disposed at an angle with relation to the horizontal axis of the receptacle, the convex wall of the plate being spaced from the wall of the receptacle, and means for withdrawing the waste material from said receptacle.

4. In a machine of the character described, the combination with a support, a spherical receptacle having a tubular extension, said support being provided with a socket in its upper end to receive the extension, means for rigidly securing the receptacle on the support, a rotary plate mounted within the receptacle and having its rotative axis disposed at an angle to the horizontal axis of the receptacle, said plate having an abrasive surface and being spaced from the wall of the receptacle, a water spray pipe adapted to supply water to the receptacle and direct the refuse material between said plate and the receptacle wall, and a waste pipe extending into the standard beneath the tubular extension of the receptacle to carry off the material.

5. The combination of a standard, a spherical receptacle having a hinged cover, said receptacle being provided with a tubular extension, the upper end of the standard having a socket therein to receive said extension, a set screw to engage said extension and rigidly secure the receptacle on the standard, an annular flange formed on one side of the receptacle, a concavo-convex door plate hinged upon said flange, said door plate lying in the same plane as the wall of the receptacle when the door is closed, a rotary plate mounted in a bearing on the receptacle at one side of the standard, said plate being provided with an abrasive surface and disposed within the receptacle, the rotative axis of said plate being disposed at an angle to the horizontal axis of said receptacle, a water spray pipe extending through the cover of the receptacle, and a waste pipe arranged in the standard below said tubular extension to carry off the waste material.

6. In a machine of the character described, the combination of a standard, a spherical receptacle removably fixed in the upper end of the standard, a door arranged on one side of the receptacle, a bearing sleeve extending radially from the receptacle at one side of the standard, a rotatable shaft mounted in the bearing and having its rotative axis disposed at an angle to the horizontal axis of said receptacle, a concavo-convex plate fixed on the upper end of said shaft, the convex surface of the plate

being opposed to the wall of the receptacle and spaced therefrom, the concave surface of said plate having abrasive material thereon, means for directing the waste material between said plate and the wall of the receptacle, and a waste pipe for carrying off said material.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ALBERT BEYER.

Witnesses:
JOSEPH F. VOGEL,
JOSEPH RIFFEL.