

No. 889,666.

PATENTED JUNE 2, 1908.

W. H. DAVIDSON.
NUTMEG GRATER.
APPLICATION FILED AUG. 23, 1907.

Fig. 1.

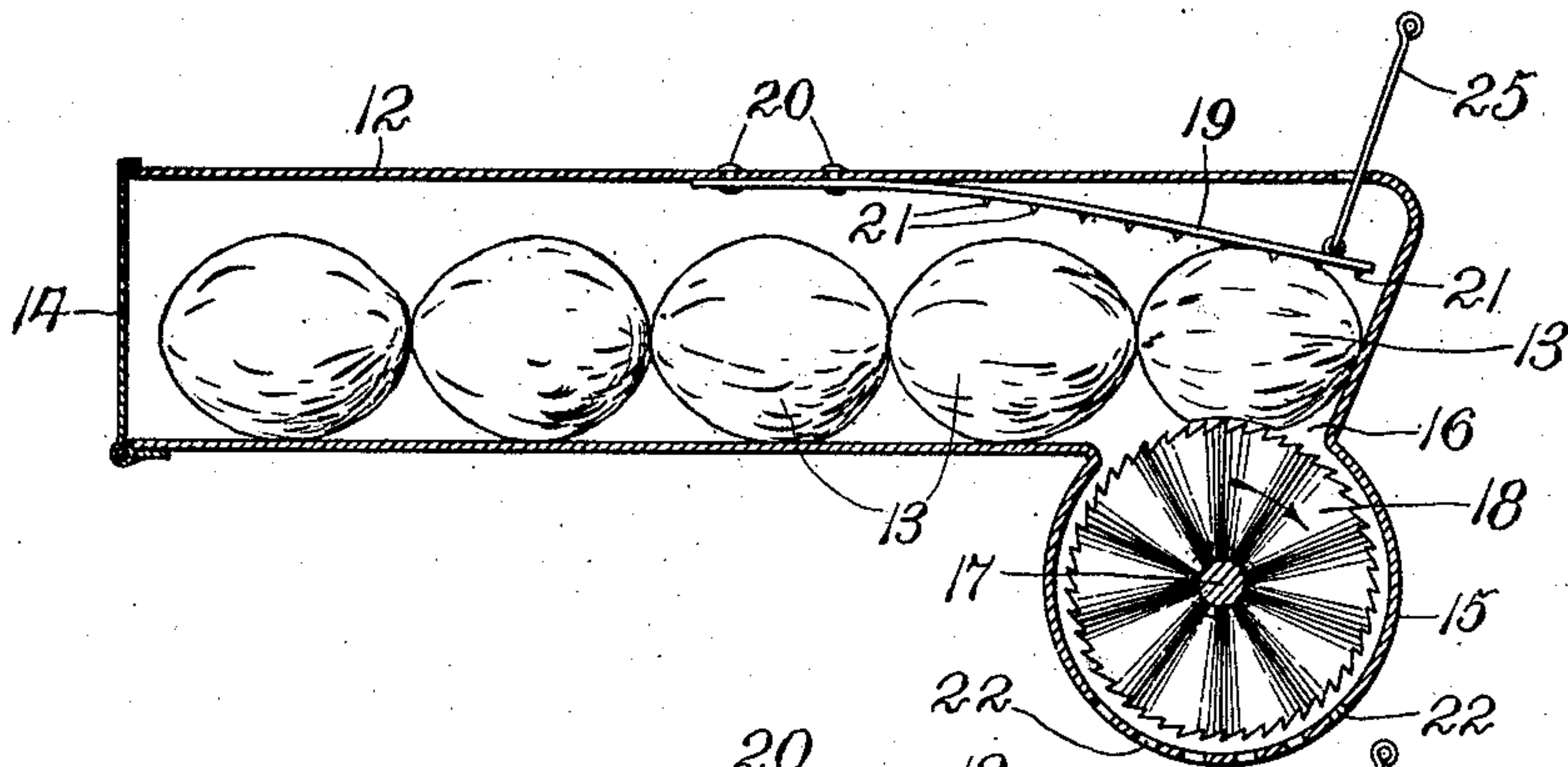


Fig. 2.

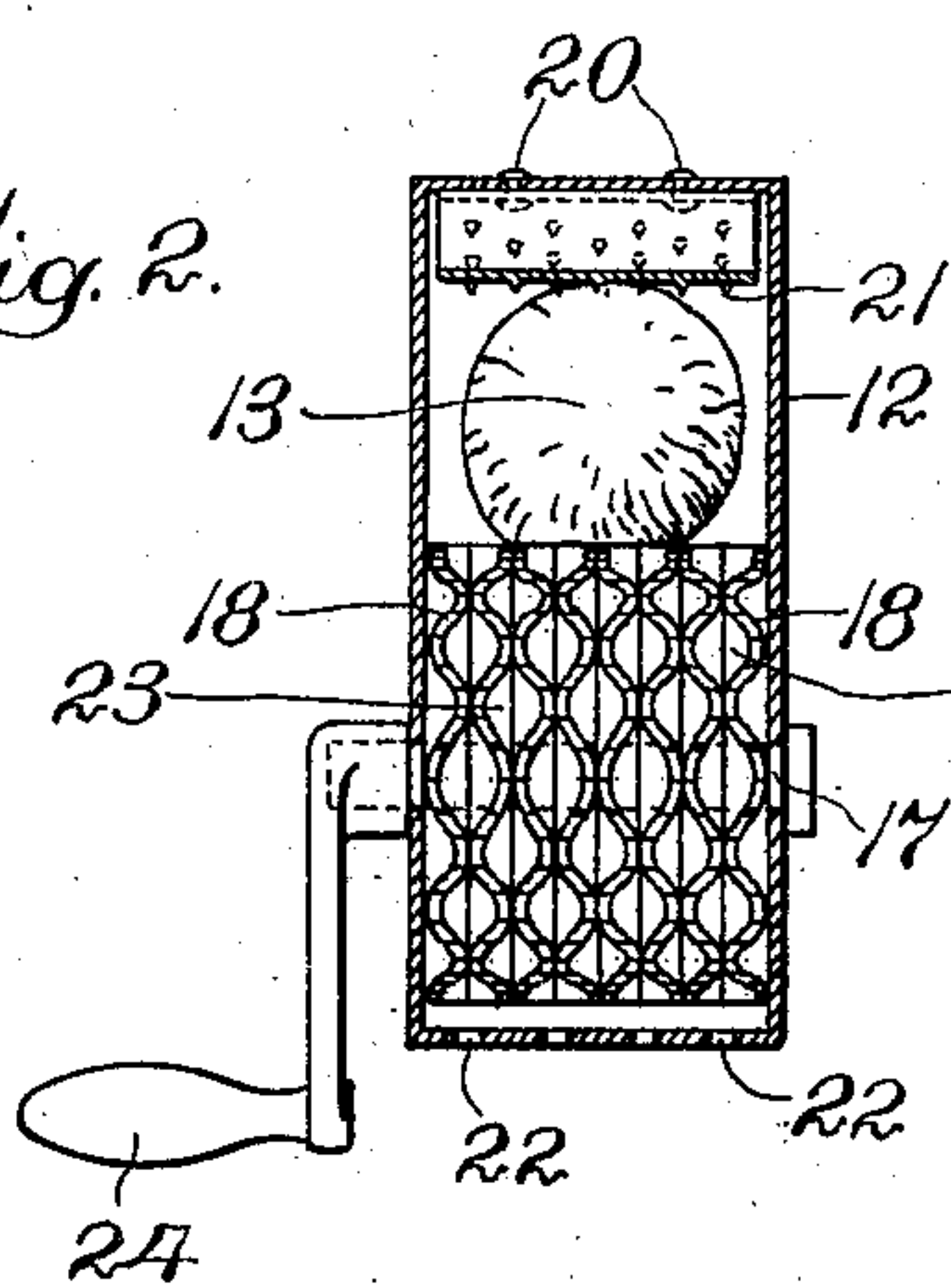
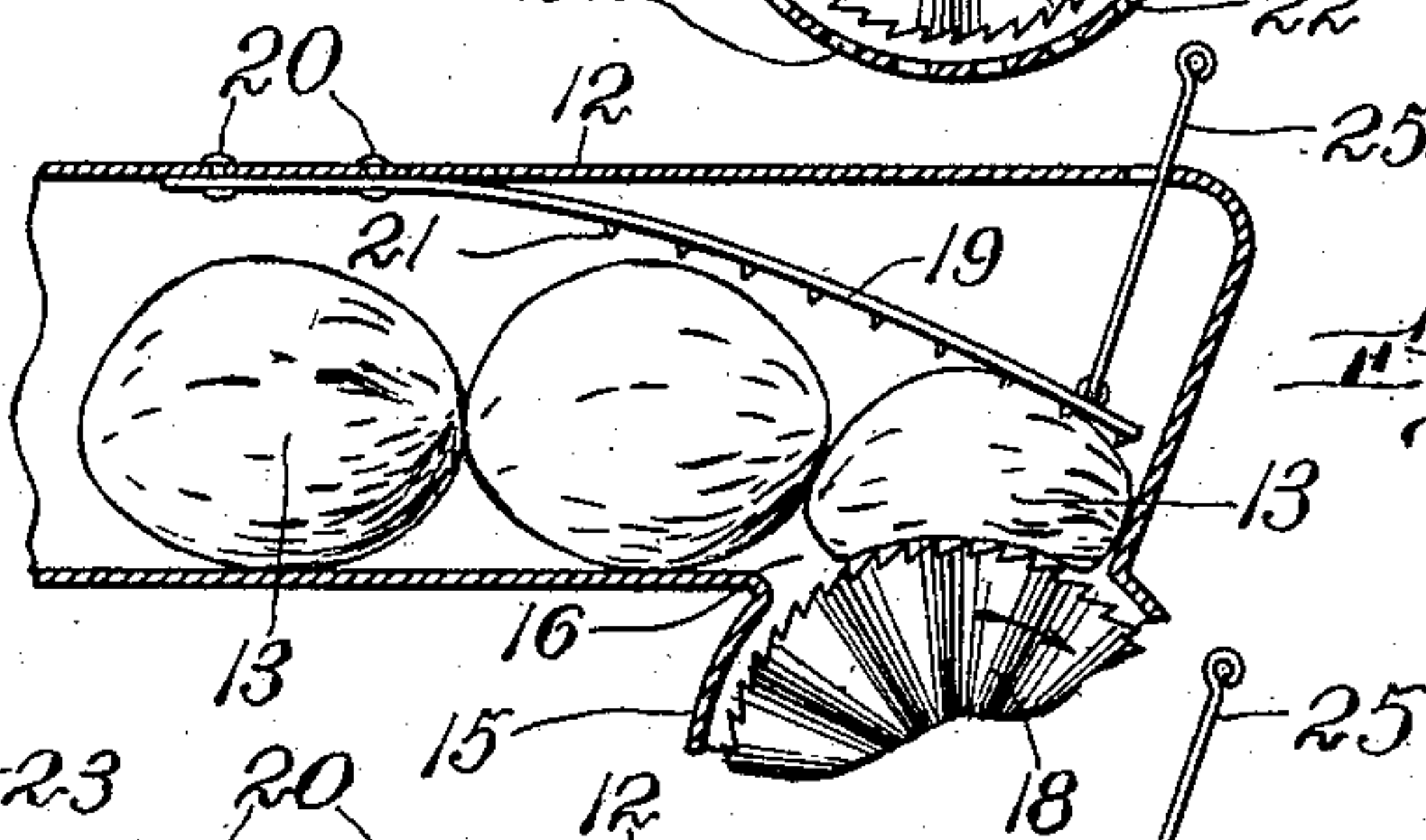


Fig. 3.



UNITED STATES PATENT OFFICE.

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NUTMEG-GRATER.

No. 889,666.

Specification of Letters Patent.

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Application filed August 23, 1907. Serial No. 389,808.

To all whom it may concern:

Be it known that I, WILLIAM H. DAVIDSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Nutmeg-Graters, of which the following is a specification.

This invention has for its object to provide a simple, inexpensive and effective nutmeg grater, and it consists in the several improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a longitudinal section of a nutmeg grater embodying my invention. Fig. 2 represents a transverse section through one end of the grater casing, the grating wheel being shown in side elevation. Figs. 3 and 4 represent views similar to a portion of Fig. 1, showing different stages of the operation.

In the drawings, 12 represents an elongated sheet metal reservoir adapted to contain a series of nutmegs 13, the reservoir having at one end a hinged cover 14 adapted to confine the nutmegs.

15 represents a grating wheel casing offset from one side of the reservoir 12, and connected with the latter by a throat 16. Within the casing 15 is a rotary grating wheel, which, as here shown, is composed of a shaft 17 journaled in the ends of the casing, and a series of disks 18 mounted side by side on the shaft, the disks having serrated peripheries adapted to detach fragments from a nutmeg pressed against the periphery of the grating wheel. A portion of the periphery of the grating wheel projects through the throat 16 into the interior of the reservoir, the projection of the periphery of the wheel into the reservoir being such that said periphery is adapted to engage not only the end nutmeg of the series, directly over the wheel, but also a portion of an adjacent nutmeg, as shown in Fig. 4, when the end nutmeg has been nearly consumed or grated.

19 represents a resilient presser plate, one end of which is attached by rivets 20 or otherwise to the wall of the reservoir opposite that containing the throat 16, the opposite end portion of the plate 19 being free, and the resilience of the plate being such that it normally tends to approach the throat 16 and the grating wheel, and press the end nutmeg in the reservoir against the grating wheel, the pressure continuing

until the nutmeg has been entirely grated. The plate 19 is preferably provided with inwardly-projecting spurs 21, adapted to engage a nutmeg interposed between the plate and the grating wheel. The outer portion of the casing 15 is provided with orifices 22 for the escape of the grated fragments or particles.

The described parts are so proportioned and relatively arranged that when the end nutmeg has been nearly consumed, the succeeding nutmeg comes in contact with the periphery of the grating wheel and with the presser plate 19, so that the ensuing rotation of the grating wheel causes the latter to draw the nutmeg into the space between the grating wheel and presser plate, the latter being pressed outwardly by the approaching nutmeg so that provision is made for continuously maintaining nutmegs in position to be grated so long as the rotation of the grater is continued. The remaining fragment of the end nutmeg is pressed toward the grating wheel by the succeeding nutmeg when the latter is engaged and drawn forward between the grating wheel and the presser plate, so that no ungrated fragments remain in the reservoir.

The disks 18 of the grating wheel are preferably provided with radial waves or corrugations, which give each disk a sinuous periphery, as shown in Fig. 2, the curves of the disks being abutted together in such manner as to form spaces or pockets 23 between adjacent disks, and give a diagonal arrangement to portions of the serrated peripheries of the disks. This formation and arrangement of the disks enables a relatively small number of disks to form a grating wheel of sufficient length to extend across an ordinary nutmeg, the spaces 23 of the wheel receiving the grated material at the upper portion of the wheel, and discharging it at the lower portion. The pockets at the upper side of the wheel receive the grated material removed from the nutmeg, and as they pass down to the lower side of the wheel, discharge the grated material. The wheel is provided with a crank 24, by which it may be rotated.

If desired, the outer end portion of the presser plate may be provided with a handle 25 extending through the upper wall of the reservoir, and jointed at its inner end to the plate, said handle enabling the plate to be drawn outwardly for the purpose of admitting a nutmeg between the plate and the

grating wheel without waiting for the described action of the grating wheel in drawing forward a fresh nutmeg.

It will be seen that the reservoir 12 is
5 elongated, and adapted to hold a row of nutmegs, and that the spring presser plate bears on the inner nutmeg of the row, and exerts pressure on said nutmeg in a direction transverse to the row of nutmegs, so that the
10 movements of the spring are limited to practically the diameter of one nutmeg, the range of movement of the spring being therefore limited to the minimum. A practically uniform pressure is therefore maintained on the
15 nutmeg in contact with the grating wheel, and a spring of minimum force is enabled to impart the desired pressure. The reservoir therefore may be of any desired length, and it may be adapted to hold any desired number of nutmegs, the nutmegs being sub-
20 jected one at a time to the action of the spring.

I claim:

1. A nutmeg grater comprising an elongated nutmeg reservoir adapted to hold a
25 row of nutmegs, and having a grater casing offset from one side of the body of the reservoir, and communicating therewith, a rotary grating wheel journaled in said casing, and
30 having a portion of its periphery projecting into the reservoir, a resilient presser plate within the reservoir, and attached at one end

to one of the walls thereof, the free end of the plate being normally pressed toward the grating wheel, and adapted to yieldingly
35 hold the inner nutmeg of the row against the periphery of the wheel, the projection of the wheel into the reservoir being such that the wheel is adapted to engage a succeeding nutmeg, and draw the same into the space be-
40 tween the presser plate and the grating wheel, the spring being arranged to exert pressure in a direction transverse to the row of nutmegs, whereby its range of movement is reduced to the minimum. 45

2. A grater comprising a casing, a rotary grating wheel composed of a shaft journaled in the ends of the casing, and serrated disks mounted side by side on the shaft, and having radial corrugations forming sinuous pe-
50 ripheries, the corrugations of contiguous disks being abutted together, whereby radial pockets are formed between said disks, which pockets alternately receive and discharge the grated material, and means for pressing a
55 material to be grated against the periphery of the grating wheel.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM H. DAVIDSON.

Witnesses:

GEORGE F. GILBERT,
MARTIN GILBERT.