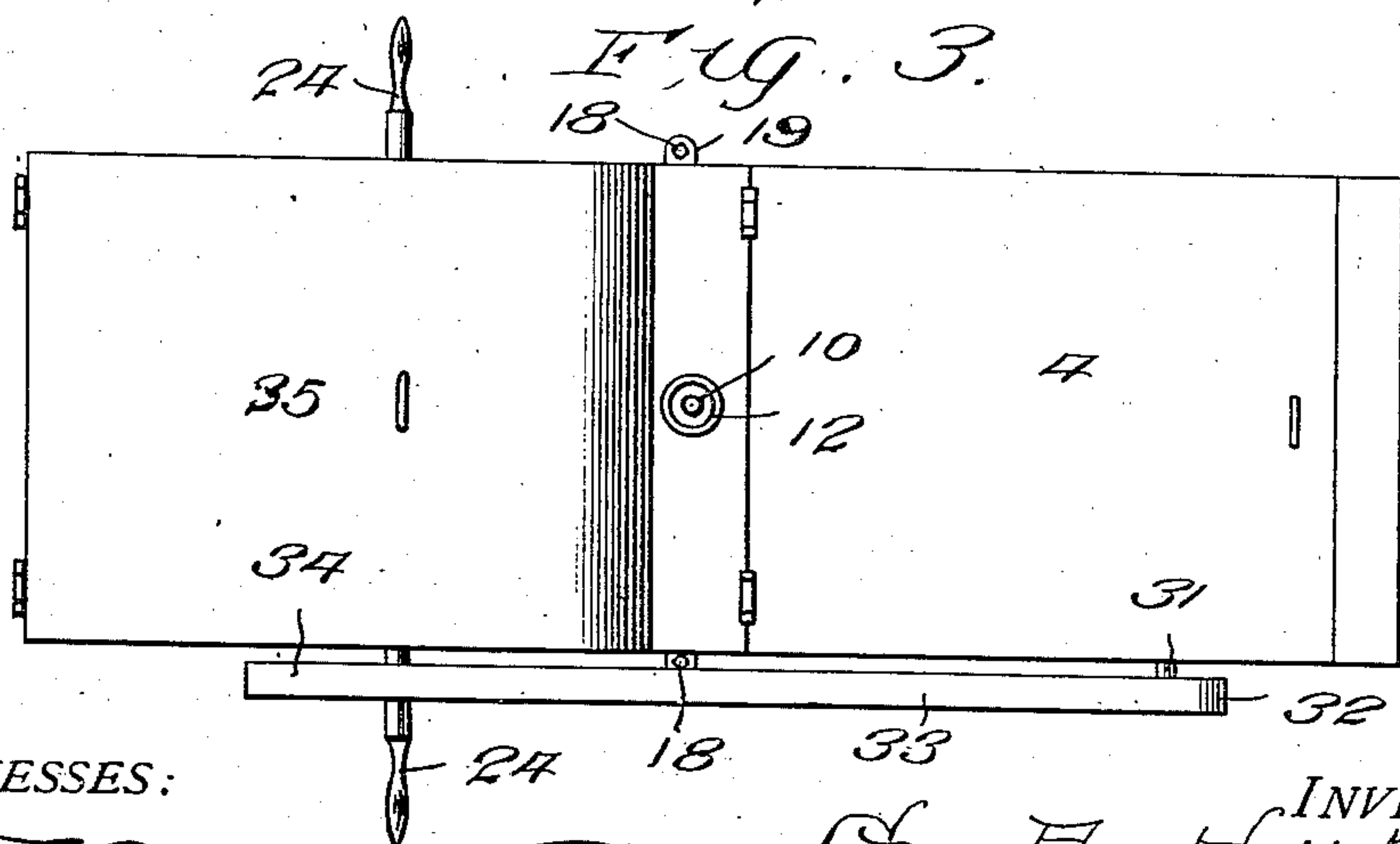
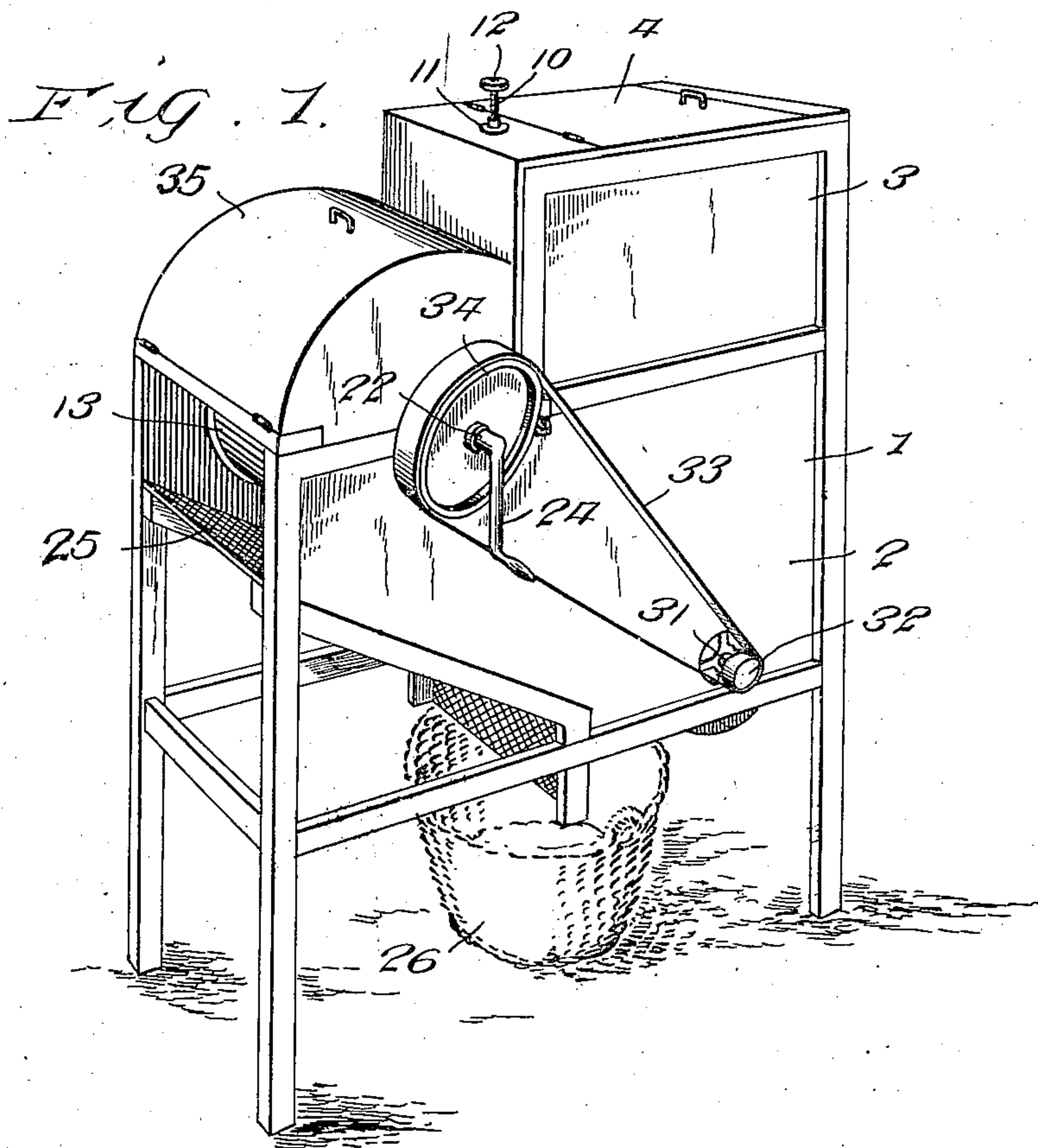


G. A. HUBER.
COMBINED HULLING AND CLEANING DEVICE.
APPLICATION FILED FEB. 7, 1908.

899,301.

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.



WITNESSES:

Thomas Riley
W. J. Fitzgerald

INVENTOR
G. A. Huber

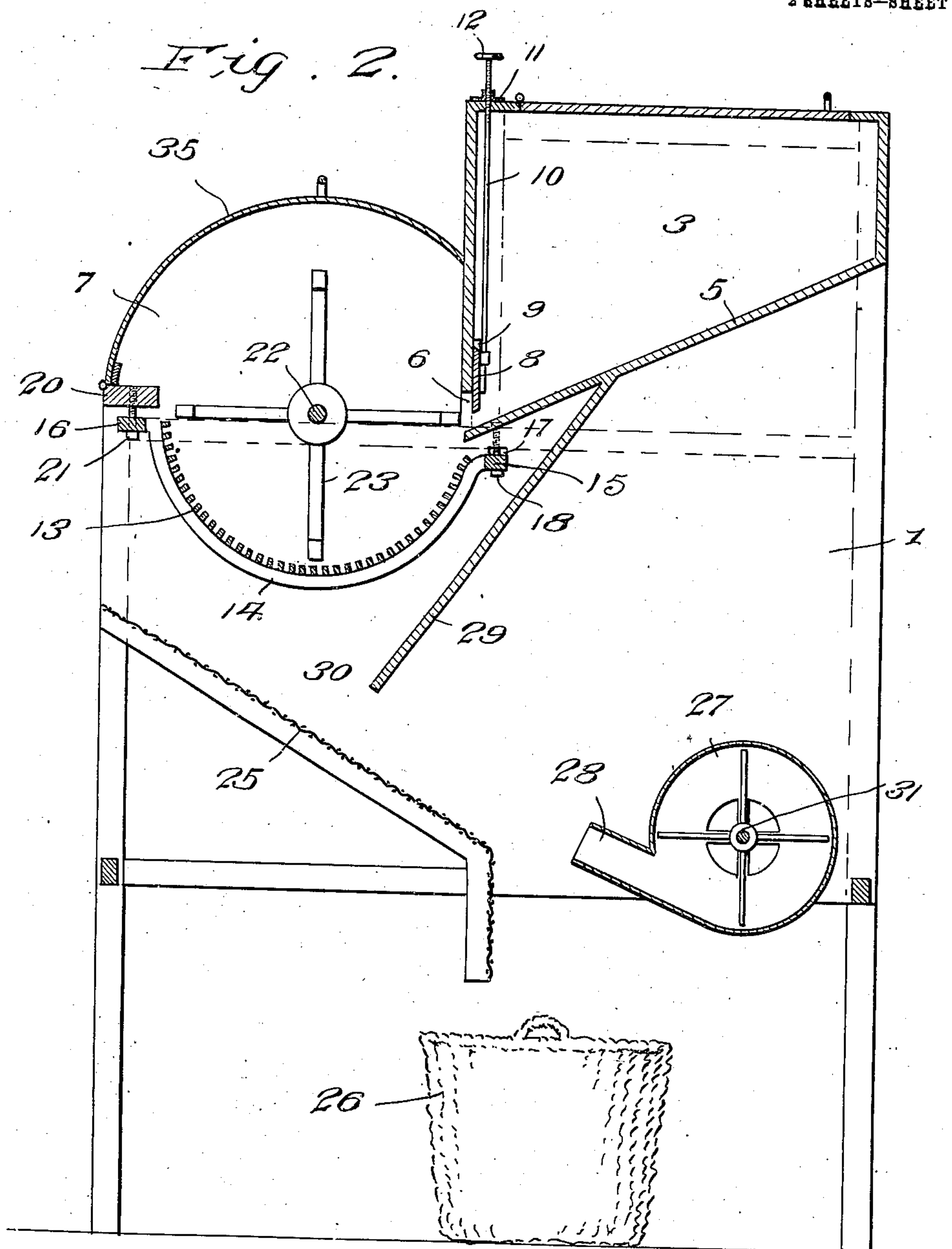
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WITNESSES:

Thomas W. Riley
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UNITED STATES PATENT OFFICE.

GEORGE ADAM HUBER, OF WAVERLY, VIRGINIA.

COMBINED HULLING AND CLEANING DEVICE.

No. 899,301.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed February 7, 1908. Serial No. 414,830.

To all whom it may concern:

Be it known that I, GEORGE ADAM HUBER, a citizen of the United States, residing at Waverly, in the county of Sussex and State of Virginia, have invented certain new and useful Improvements in a Combined Hulling and Cleaning Device; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in combined hulling and cleaning devices and more particularly to that class adapted to be employed for hulling and cleaning peanuts and my object is to provide means for crushing and removing the hulls from the kernel.

A further object is to provide means for regulating the flow of the nuts into the hulling compartment.

A still further object is to provide means for adjusting the parts of the huller.

A still further object is to provide means for grading the hulled nuts as they descend from the huller to a receptacle and a still further object is to provide means for directing a blast of air through the descending nuts, whereby the hulls and foreign particles will be blown clear of the hulled nuts.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view of my improved huller complete. Fig. 2 is a vertical, longitudinal, sectional view thereof, and, Fig. 3 is a top plan view thereof.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a frame, which may be constructed in the usual or any preferred manner, and 2 indicates side walls therefor, said side walls and frame terminating at their upper edge and at one side of the center of the frame in a hopper 3, said hopper having a swinging closure 4 and an inclined bottom 5.

An opening 6 is formed between the lower end of the inclined bottom 5 and the cooperating end wall of the hopper 3, through which the nuts are adapted to pass on entering the hulling chamber 7, the flow of the nuts through said opening being controlled by

means of a slide 8, the ends of which are entered in grooves 9 in the side walls of the hopper, said slide being vertically adjusted by means of a rod 10, the lower end of which is pivotally secured to the slide, while the upper end thereof is threaded and introduced through a threaded socket 11 on the upper face of the hopper 3, the extreme upper end of said rod being provided with a hand-wheel 12, whereby said rod may be readily rotated.

Located between the side walls 2 and forming the lower wall of the hulling chamber 7, are a plurality of laterally extending bars 13, which bars are secured at each end to curved brackets 14, the ends of said brackets being in turn carried by plates 15 and 16 at opposite ends of said brackets, the plate 15 extending through slots 17 in the walls 2 and are adjustably supported by introducing threaded bolts 18 through the extended ends of the plate and through threaded seats in ears 19 on the frame 1, while the plate 16 is adjustably secured to a cross bar 20 of the frame 1 by introducing bolts 21 through the plate 16 and into threaded openings in the cross bar 20, and by so mounting the bars 13, that the same may be raised or lowered, as desired.

Extending laterally through the frame 1 is a shaft 22, on which is mounted a beater or hulling frame 23, said beater being adapted to rotate with the shaft and crush the hulls of the nuts as they are moved over the bars 13 by said beater, the ends of said shafts extending beyond the frame and having cranks 24 secured to the extended ends, whereby said beater may be readily rotated.

As the crushed shells and kernels descend between the bars 13, they are received on an inclined screen 25, the higher end of said screen being adjacent one end of the frame, thereby directing the kernels of the nuts towards the center of the frame, where they are deposited in any suitable form of receptacle 26, the inner end of the screen 25 being disposed in a vertical plane, whereby the kernels will readily descend into the receptacle and it will be readily seen that as the kernels pass over the screen, the smaller kernels and foreign particles will descend through the screen and not enter the receptacle, in which event the prime kernels only will be entered in the receptacle, while the inferior kernels are deposited on the floor or are collected in any preferred manner.

As the kernels and hulls are commingled as they descend upon the screen 25, I have provided means for separating the hulls from the kernels, which consists of a blast fan 27, which is located between the side walls 2 and adjacent the lower end of the inclined screen 25, said fan having a discharging chute 28, which is inclined coincidently to the incline of the screen, thereby directing the blast of air along the surface of the screen and towards the end of the frame, the blast of air being sufficient to separate the hulls from the kernels as they descend upon the screen.

The blast of air is maintained adjacent the surface of the screen 25 by extending a blast board 29 downwardly from the bottom 5 of the hopper 3 between the blast fan and the bars 13, the lower end of the blast board terminating a distance above the screen 25, whereby a passage 30 is provided for the air from the blast fan, said blast board preventing the air from the fan from blowing directly onto the bars 13, thus giving the descending kernels and hulls a chance to scatter or separate before encountering the blast of air, in which event the hulls will be more readily separated from the kernels.

The blast fan 27 is mounted upon a shaft 31, one end of which is extended through one of the side walls 2 and has thereon a pulley 32, around which extends a driving belt 33, the opposed end of said belt being disposed around a driving pulley 34, on the shaft 22, and by this construction it will be readily seen that when the beater 23 is rotated, the fan 27 will be likewise simultaneously rotated and a blast of air directed along the face of the screen 25.

In adjustably mounting the bars 13 below the beater 23, it will be readily seen that nuts of various sizes may be readily crushed, as when smaller nuts are fed into the hulling chamber, the bars 13 are to be adjusted upwardly and in closer proximity to the path of the beater and likewise placed at a greater distance from the beater when larger nuts are being hulled.

In operation, the hopper 3 is filled with the nuts and the slide 8 elevated to the proper height, the nuts passing through the opening 6 into the hulling chamber 7 and by rotating the beater 23, the nuts will be moved over the bars 13 and the hulls of the nuts crushed, the beater forcing the crushed hulls and the nuts between the bars and to prevent the nuts from being thrown out of the hulling chamber by striking the beater 23, I provide a hood 35, which is hingedly secured at one

edge of the cross bar 20 and adapted to extend over the beater.

As the hulls and kernels descend from the hulling chamber, they pass through the blast of air from the fan 27, and as the kernels are heavier than the hulls, said hulls will be blown over the outer end of the screen, while the kernels will descend on the screen and enter the receptacle 26, thereby thoroughly cleaning the kernels from the hulls and foreign particles and it will be readily understood that the screen 25 is interchangeable, whereby the kernels may be more closely graded before being deposited in the receptacle.

It will thus be seen that I have provided a very cheap and efficient form of hulling device and one wherein nuts of various sizes may be operated upon and it will further be seen that the kernels will be thoroughly separated from the hulls of the nuts and the kernels graded before being deposited in a receptacle and it will likewise be seen that the flow of the nuts from the hopper into the hulling chamber may be readily increased or decreased as desired.

What I claim is:

In a huller of the class described, the combination with a hopper adapted to contain nuts, an inclined bottom for said hopper, said hopper having an opening at the lower end of said bottom, a slide adapted to control the flow of nuts through said opening, a rod secured to said slide and means at the upper end of said rod to adjust said slide vertically; of a hulling chamber, a shaft extending through said chamber, a beater mounted on said shaft, a plurality of separate bars arranged concentrically around the path of said beater, means to adjust said bars vertically with relation to the beater, said adjustment permitting one end of the bars to be moved independently of the other, a blast board in the rear of said bars, a screen below said bars and spaced from the end of the blast board to form a passage, said screen being arranged on a downward incline and terminating in a vertical portion and means to direct a blast of air through said passage longitudinally of said screen.

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

GEORGE ADAM HUBER.

Witnesses:

ALBERT ROEDER,
ANTON HUBER.