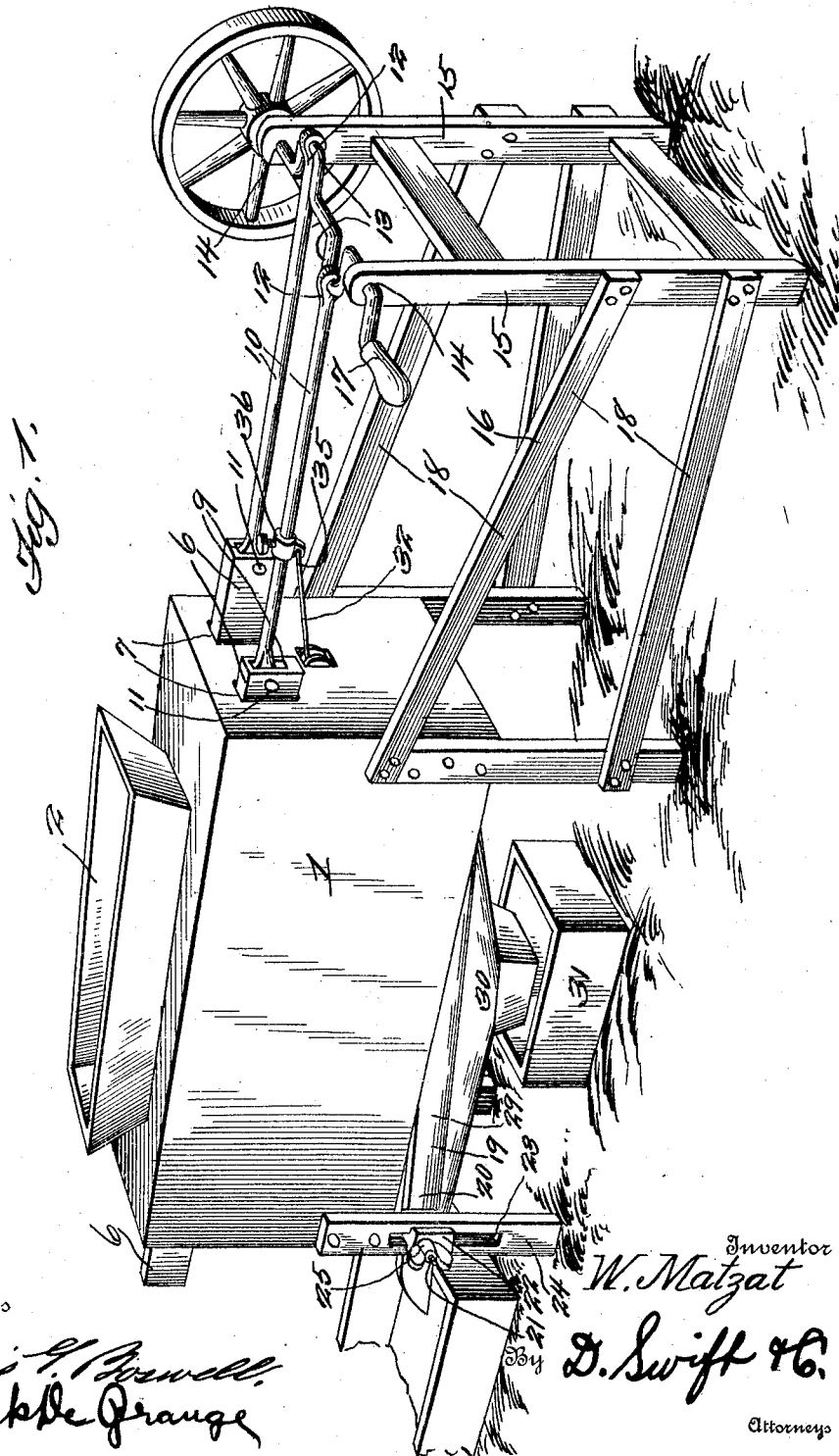


W. MATZAT.
PEANUT SHELLING OR HULLING MACHINE.
APPLICATION FILED AUG. 20, 1910.

983,384.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.

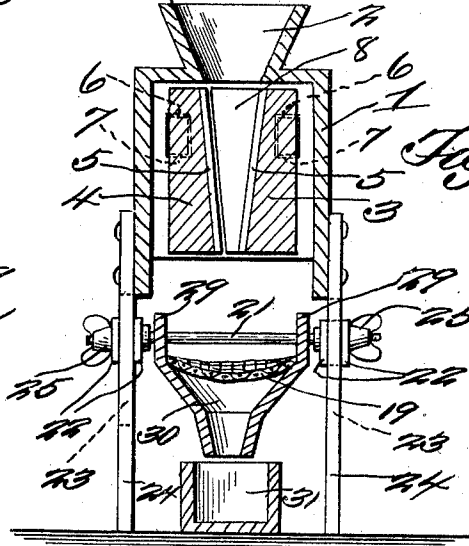
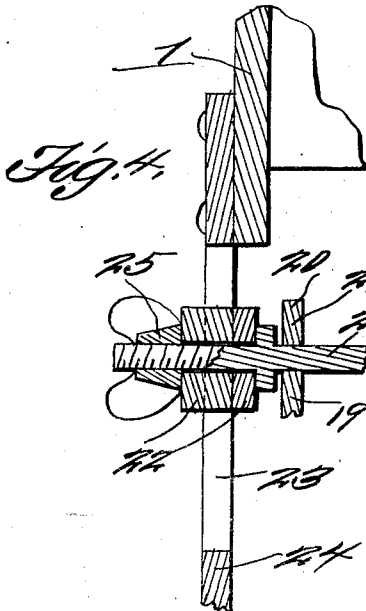
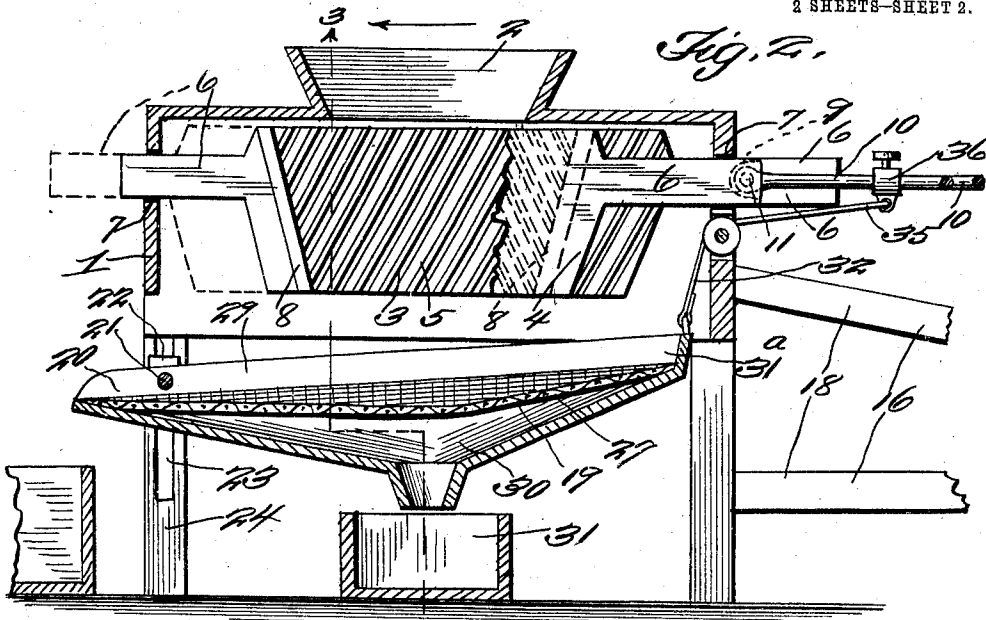


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2 SHEETS-SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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PEANUT SHELLING OR HULLING MACHINE.

983,384.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed August 20, 1910. Serial No. 578,139.

To all whom it may concern:

Be it known that I, WALTER MATZAT, a citizen of the United States, residing at Elmore, in the county of Faribault and State of Minnesota, have invented a new and useful Peanut Shelling or Hulling Machine; 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.

This invention pertains to a new and useful peanut hulling or shelling machine and it aims, generally, to produce an exceedingly simple, inexpensive and efficient apparatus of this design, which includes a pair of oppositely arranged serrated inclined reciprocating plates, between which the peanuts are deposited, whereby the hulls may be crushed or broken from around the nuts.

The primary object of the invention is to provide novel means for imparting a vertical oscillatory movement to a shaking screen or member.

A further object of the invention resides in the coöperation between this novel means, and the mechanism for imparting the reciprocating motion to the said oppositely arranged crushing plates, so that the plates and the screen or member will operate in unison.

A further feature of the invention is the production of means for adjusting the fulcrumed end of the screen or member, in order to vary the inclination of the screen or member. By this screen or member the shells or hulls are separated from the nuts, and when the screen or member is adjusted in order to dispose it at but a slight inclination, the hulls or shells are more perfectly separated from the nuts, than if the inclination of the screen or member was more or less increased.

The drawings only disclose one particular form of apparatus; however, in practical fields, this form may need changes and alterations, and provided that such changes and alterations are comprised in the claims hereto appended, the applicant makes claim to them.

With these and other features in view, the invention consists in the novel construction and combination of parts, hereinafter

set forth, shown in the drawings, and pointed out in the appended claims.

In the drawings:—Figure 1 is a perspective view of a peanut shelling or hulling machine embodying the various features of the invention. Fig. 2 is a longitudinal sectional view through the machine, clearly disclosing the various details of the construction. Fig. 3 is a transverse sectional view, upon line 3—3 of Fig. 2, clearly illustrating the inclination of the oppositely arranged reciprocating crushing plates. Fig. 4 is a detail sectional view, showing the parts 21, 22, 23, 24 and 25.

As to the annexed drawings, 1 denotes a rectangular elongated inclosure or casing, which is provided with the usual form of hopper 2, through which the peanuts are passed.

3 and 4 represent a pair of opposing elongated reciprocating crushing plates, which are provided with adjacent inclined faces, as will be clearly seen in Fig. 3. These plates are provided with serrations 5, which extend transversely thereof. The serrations of each plate are arranged at an incline, opposite the incline of the serrations of the opposing plate. Plates are provided at their ends with reduced or restricted portions 6, which are arranged in inclined openings or apertures of the inclosure or casing. These openings or apertures 7 are formed in each end face of the inclosure. Each plate at one end thereof is provided with a flange 8, shaped to correspond with the shape or contour of the space between the plates, in order to close the ends of this space, thus preventing the peanuts from escaping from between the plates at their ends. One reduced or restricted portion of each plate is provided with a recess 9, in which a pitman rod 10 is pivoted, by means of the transversely pin 11. The ends 12 of these pitman rods are connected to the cranks 13 of the crank shaft, which is journaled in suitable bearings 14 of the uprights 15 of the supplemental frame 16 of the apparatus. This crank shaft is provided with a suitable handle 17, whereby a rotary motion may be imparted thereto by means of the hands of the operator. The uprights 15 are based with regard to the inclosure or casing by means of the beams 18, clearly shown in Fig. 1.

19 represents a separating screen or member the end 20 of which is fulcrumed upon a transversely arranged rod 21. This rod 21 penetrates adjustable blocks or bearing members 22, which when adjusted, are guided in slots 23 of the forward legs 24 of the apparatus. This rod is provided with thumb nuts 25, the purpose of which being to frictionally clamp the blocks in the slots, to hold the blocks or bearing members and the transversely arranged rod in their adjusted positions. The member 19 is provided with a suitable mesh work or screen 27, which is slightly bulged or arched downwardly, in order to hold the nuts and the crushed shells somewhat centered therein, as the member is oscillated vertically. The member 19 is provided with side flanges 29, to hold the nuts and their shells therein. The inclination of the screen member is such, when the same is oscillated upwardly, as to cause the nuts to escape from the shells or hulls, and exit from the ends 20 of the screen member, into a suitable receptacle. The hulls or shells pass through the screen into a chute 30 (which is connected to the screen member 19) from which they pass into a suitable receptacle 31. The end 31^a of the screen member 19 has connected to it a cable 32, the end 35 of which is connected to an adjustable member 36, of one of the pitman rods. It will be clearly observed, however, that as the plates are reciprocated, through the cranking motion and the pitman rods, the screen member 19 will be vertically oscillated, in order to bounce or toss the crushed shells or hulls of the peanuts and the nuts, in order to separate them. As the pitman rods (to which the cable is connected) reciprocate, a pulling action is imparted upon the cable, thereby raising or lowering or oscillating the screen member 19. The narrowest portion of the space between the crushing plates is such as will allow the plates to crush or break the shell from around the nuts without injuring them, when they are passing through the space between the plates.

In the operation of the apparatus, the peanuts are deposited through the hopper into the space, between the crushing plates, and when the shells or hulls are broken from about the nuts, the nuts combine with the shells or hulls, pass through the space between the plates, and on to the member 19, where the hulls or shells are separated from the nut, the nuts passing into one receptacle, while the shells or hulls enter another. The

narrowest portion of the space between the plates is not sufficient to allow an entire peanut to pass through it whole.

From the foregoing, the operation will be clearly understood and it will be noted, that a very efficient, simple and inexpensive peanut hulling or shelling machine is provided.

The invention having been set forth, what is claimed as new and useful is:—

1. In a peanut shelling machine, an elongated inclosure including a hopper upon its upper surface, a pair of elongated crushing members spaced apart in parallel relation and having their adjacent faces serrated and arranged at inclinations relatively to one another, thus forming a V-shaped space immediately below the hopper and in continual registration therewith, each crushing member at one end thereof being provided with a laterally extending portion extending toward the opposite crushing member to close the ends of the space between the members, thus constituting means to prevent the nuts and hulls from escaping past the ends of the crushing members, and means for reciprocating the crushing members.

2. In a peanut shelling machine, an elongated inclosure including a hopper upon its upper surface, a pair of elongated crushing members spaced apart in parallel relation and having their adjacent faces serrated and arranged at inclinations relatively to one another, thus forming a V-shaped space immediately below the hopper and in continual registration therewith, each crushing member at one end thereof being provided with a laterally extending portion extending toward the opposite crushing member to close the ends of the space between the member, thus constituting means to prevent the nuts and hulls from escaping past the ends of the crushing members, the inclosure having openings at each end, said crushing members being provided with restricted extensions passing through the openings, the openings in coöperation with the extensions thus constitutes guiding means for the crushing members, and means for reciprocating the crushing members.

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

WALTER MATZAT.

Witnesses:

H. J. FRUNDT,
GEO. MATZAT.