J. W. CLUTTER.

CLOVER HULLER.

APPLICATION FILED AUG. 10, 1909.

956,886. Patented May 3, 1910.

Fig 1

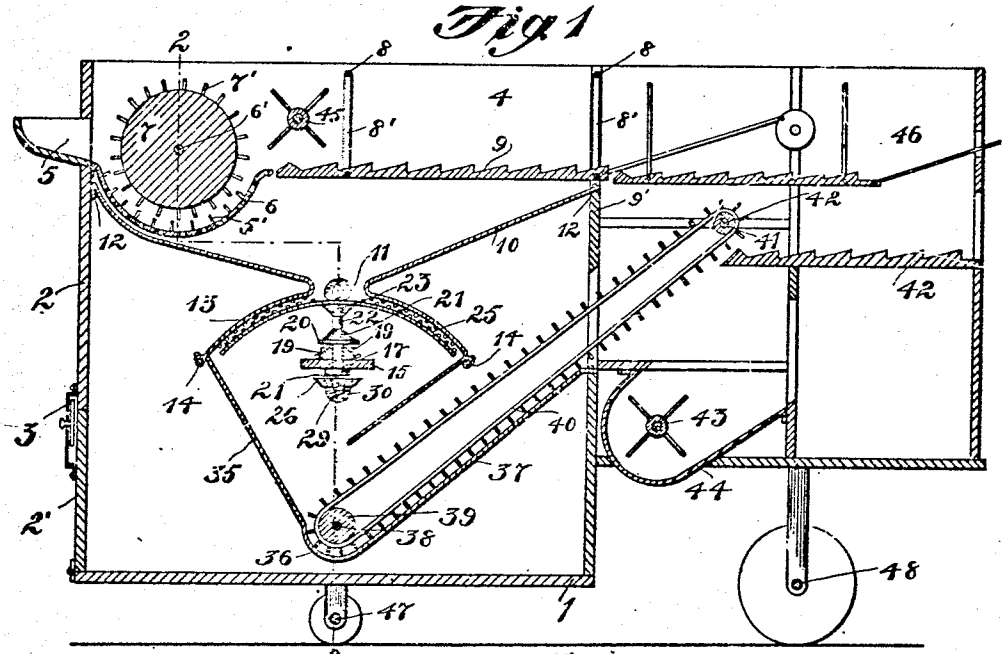
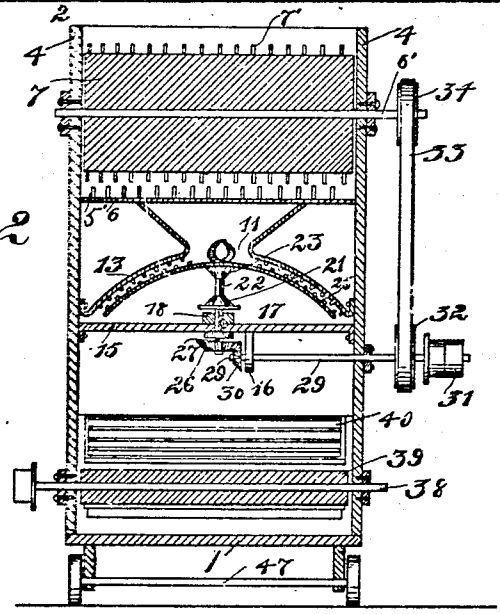


Fig 2



WITNESSES

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CLOVER-HULLER.

956,886. Specification of Letters Patent. Patented May 3, 1910.

Application filed August 10, 1909. Serial No. 512,138.

To all whom it may concern:

Be it known that I, JOHN W. CLUTTER, a citizen of the United States, residing at Rockford, in the county of Mercer and State of Ohio, have invented certain new and useful Improvements in Clover-Hullers, of which the following is a specification.

This invention has relation to certain new and useful improvements in clover hullers.

The object of my invention is to provide a simply constructed, adjustable, positively operating hulling mechanism especially adapted to be used in connection with clover hulling machines.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described, and particularly pointed out in the appended claim, it being understood that changes in the specific structure shown and described may be made within the scope of the claim without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a longitudinal sectionl view through a clover hulling machine embodying my invention, Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1.

My invention has for its object to improve the construction and operation of that class of machines in which clover heads are subjected to an abrading action, to remove the husk or dry calyx, from the seed kernel.

In the accompanying drawings the numeral 1 designates the bottom of a clover huller embodying my invention, from which extends the rear panel 2 provided with the door 2′ secured by means of the latch 3. Held between the sides 4, 4 is the intake hopper 5 from the bottom of which is continued the perforated concave 6 provided with the usual teeth 5′. Held above the concave 6 is the shaft 6′ carrying the nubbing cylinder 7 provided with the usual teeth or blades 7′.

Held to the pins 8, 8 secured within the sides 4, are the hangers 8′ which at their lower ends support the riddle 9 as clearly disclosed in Fig. 1.

Secured to the transverse frame member 9′ and to the forward panel 2, is the hopper 10 having a lower central escape opening 11, this hopper comprising a sheet metal member secured by means of the upper flanges 12 in the manner disclosed. Extending from the discharge opening 11, is the semicylindrical rasp casing 13 which is supported upon the transverse cleat 14, this cleat preferably being in the form of a metal bar secured within the housing as disclosed.

Supported upon the cleats 14, is the iron frame bar 15 having the depending ear 16 and a central bearing 17. Mounted upon the frame bar 15, is the bearing 18 this bearing being provided with a plurality of set screws 19 supporting the bearing plate 20. Revolubly held within the bearing 18 and extending through the bearing plate 20 is the stub shaft 22 provided near the upper end with the bearing collar 21 arranged to rotate upon the bearing plate 20. At its upper end this stub shaft carries the hub 23 from which extends the semi-spherical rubber 25, the upper surface of which is provided with a plurality of rasping teeth this rasping surface being arranged for coaction with the rasping casing 13. By means of these set screws 19 the rubber may be raised or lowered when properly adjusting the same. Secured to the lower end of the stub shaft 22, is the pinion 26 secured to the shaft by means of the set screw 27.

Held within the cleat 14 and the bearing ear 16, is the driving shaft 29 which at its inner end carries the pinion 30 meshing with the pinion 26 as clearly disclosed in Fig. 2. At its outer end this driving shaft carries the driving belt pulley 31 and the belt pulley 32 provided with the belts 33 passing over the pulley 34 carried by the cylinder shaft 6′.

Held below the rubber 25 is the casing 35 which has the curved bottom 36 from which extends the guard plate 37 a shaft 38 passing through the lower end of this casing as clearly disclosed in Fig. 1. Carried upon the shaft 38 is the roller 39 supporting the endless conveyer 40 which at its upper end passes over the roller 41 supported upon the shaft 42. This conveyer 40 empties upon the riddle 42, a fan 43 being located below the riddle and held within the fan housing 44 as disclosed.

Held above the riddle 9 in front of the nubbing cylinder 7 is the fan 45 arranged to blow the chaff over the riddle 9 upon the riddle 46 positioned in front of the riddle 9 and arranged to empty into the hopper 10.

The housing supporting the hulling mechanism is supported in front upon the axle

47 and at the rear by means of the axle 48 this axle carrying suitable wheels as shown.

The operation of my device is very simple. The clover heads after passing below the nubbing cylinder and over the riddles drop into the hopper 10 and fall upon the rubber 25. In order to insure the seed being carried between the rubber and the rasp casing I employ the two spiral blades 48 which form a force feed insuring the material being carried between the rubber and casing. After the seed has been treated, the same is carried upward by means of the conveyer 40 and deposited upon the riddle 42 from which it is shaken into any suitable receptacle.

The machine is simple and inexpensive in construction and both durable and efficient in operation.

Having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:

The combination in a machine of the class described, of a hopper having a centrally disposed discharge opening, a dome-shaped rasp casing surrounding said discharge opening, a supporting bar held below said rasp casing, a bearing carried by said bar, adjusting screws carried by said bearing, a stub shaft passing through said bearing having an extending collar, a bearing plate loosely carried by said shaft and resting upon said screws, a hollow semispherical rubber having a rasp surface for coaction with said rasp casing, two spiral feed blades carried centrally upon said semispherical rubber, a pinion adjustably secured to said stub shaft, a driving shaft, and a pinion carried by said driving shaft for coaction with said adjustably held pinion.

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

JOHN W. CLUTTER.

Witnesses:

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W. E. STRETE.