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CLOVER HULLER.

APPLICATION FILED SEPT. 14, 1903.

NO MODEL.

Fig. 1

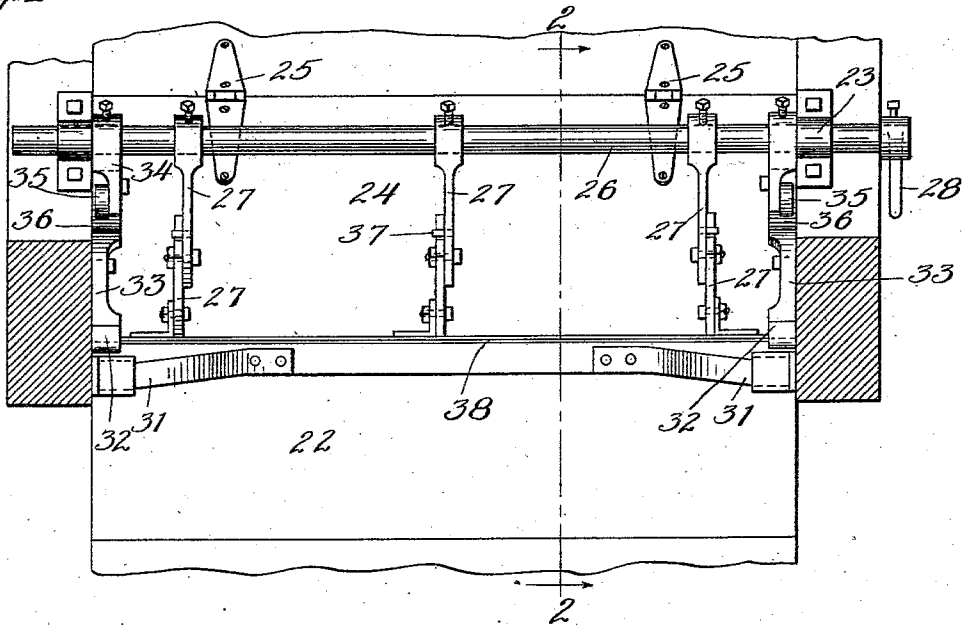


Fig. 2

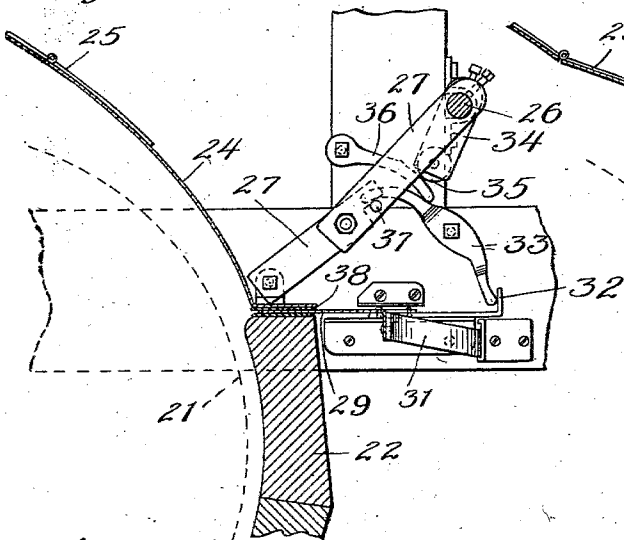
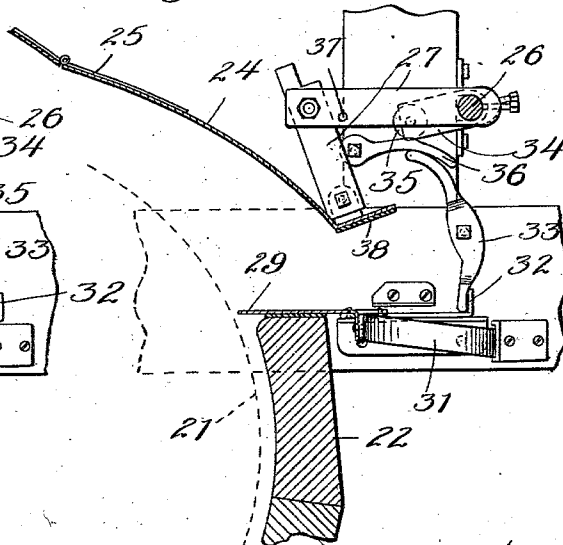


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

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CLOVER-HULLER.

SPECIFICATION forming part of Letters Patent No. 752,421, dated February 16, 1904.

Application filed September 14, 1903. Serial No. 173,091. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM N. RUMELY and WILLIAM C. ROBBY, citizens of the United States, residing in Laporte, in the county of Laporte and State of Indiana, have invented a new and useful Improvement in Clover-Hullers, of which the following is a specification.

This invention is an improvement upon the invention of said William C. Robby set forth in his application, Serial No. 88,588, filed January 6, 1902. In said application there is shown in a clover-huller a casing for the hulling-cylinder having a movable section in its upper part and adapted to be opened to allow the escape of stones, &c., this movable section being operated by suitable mechanism from the outside of the machine while running. Said application also shows in combination with said movable section an intercepting device movable inward from the casing and closing the entrance to the concave and springs for positioning such device acting on the opening of the movable casing-section. In this construction the intercepting device, it will be seen, is automatically positioned for action; but before closing the movable section the stone-intercepting device is required to be withdrawn against the power of its positioning-springs, and this operation was performed by hand and has proved difficult, because of the position of the intercepting device relative to the lever by which the movable section was opened. In our present invention we aim to overcome this difficulty by connecting the intercepting device with the lever for opening the movable section in such manner that the lever when operated to close the movable casing-section will also withdraw the intercepting device, both movements being thus attained through the medium of a casing-operating lever.

In the accompanying drawings, Figure 1 is a vertical section of a clover-huller, showing our invention in elevation. Fig. 2 is a section on the line 2 2 of Fig. 1; and Fig. 3 is a view similar to Fig. 2, showing the parts in the po-

sition they occupy when opened to intercept a stone.

In said drawings the hulling-cylinder is shown at 21 and its concave at 22.

24 is the movable casing-section, supported upon hinges 25 and connected to a cross-shaft 26 by several pairs of toggles 27. The shaft is rocked by hand-lever 28 and shortens the toggles, as indicated at Fig. 3, and thereby opens the section 24 at its bottom, so as to give opportunity for the throwing out of the stone or other foreign matter. The shaft 26 is supported at each side of the machine in a bearing 23. The intercepting device is shown at 29 just below the section 24, and it is thrust inward when the section is opened sufficiently to close the entrance to the concave by the action of springs 31. The action of the springs is limited and controlled by the engagement of the upturned lip 32 with the swinging lever 33, which form part of the mechanism by which we withdraw the intercepting device and which will now be described.

Upon shaft 26 is an arm 34, provided with an antifriction-roller 35, riding upon a swinging arm 36, supported upon a stationary part of the machine. The free end of this arm 36 bears upon the upper limb of the lever 33, and the lower limb of said lever bears against the lip 32 of the intercepting device. The normal position of the parts is shown at Fig. 2; but when a stone enters the machine the operator turns shaft 26 so as to carry the arm 34 to the position of Fig. 3. This position gives the arm 36 freedom to rise under the power exerted by the springs 31 upon the intercepting device, and the movement thus caused by the springs carries the intercepting device into its acting position and also rocks the lever 33 to the position as shown in said Fig. 3. When the stone has passed out, the hand-lever is reversed so as to carry the shaft 26 back to the position of Fig. 2, thereby depressing the arm of lever 36 and rocking lever 33, so that its lower limb will move the intercepting device outward. At the same

time the toggles 27 are moved back to their long position and the section 24 is closed, the entire operation, both in opening and closing, being thus caused by the hand-lever 28.

- 5 As in said previous application the toggles can only open in one direction, being provided with stops 37, adapted to secure this result. The bottom of the movable casing-section is provided with a portion 38, adapted when the
10 section is closed to form a close joint with the intercepting device and with the top of the concave.

We claim—

1. The combination in a clover-huller, of a
15 movable casing-section and a stone-intercepting device, of a hand-lever and connecting mechanism controlling the section and withdrawing the intercepting device.

2. The combination in a clover-huller, of a
20 movable casing-section, a stone-intercepting device movable into acting position by springs on the opening of said section, a hand-lever,

and connecting mechanism whereby the lever may not only open and close the casing-section but also withdraw the intercepting device. 25

3. The combination with the hulling-cylinder of a clover-huller, of a movable section in the casing of the cylinder, a stone-intercepting plate positioned by springs, and a single
30 hand-lever by which the section is operated and the plate withdrawn, and by which the plate is held in its normal position against the power of its springs.

4. The combination with the movable casing-section and the stone-intercepting plate, 35 of the hand-lever, the cross-shaft rocked by the lever, the arm 34 on the shaft, the swinging arm 36 and the lever 33 engaging the plate.

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Witnesses:

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