No. 870,515. PATENTED NOV. 5, 1907.

C. HUNNICUTT.

CORN GRADER.

APPLICATION FILED APR. 15, 1907.

2 SHEETS—SHEET 1.

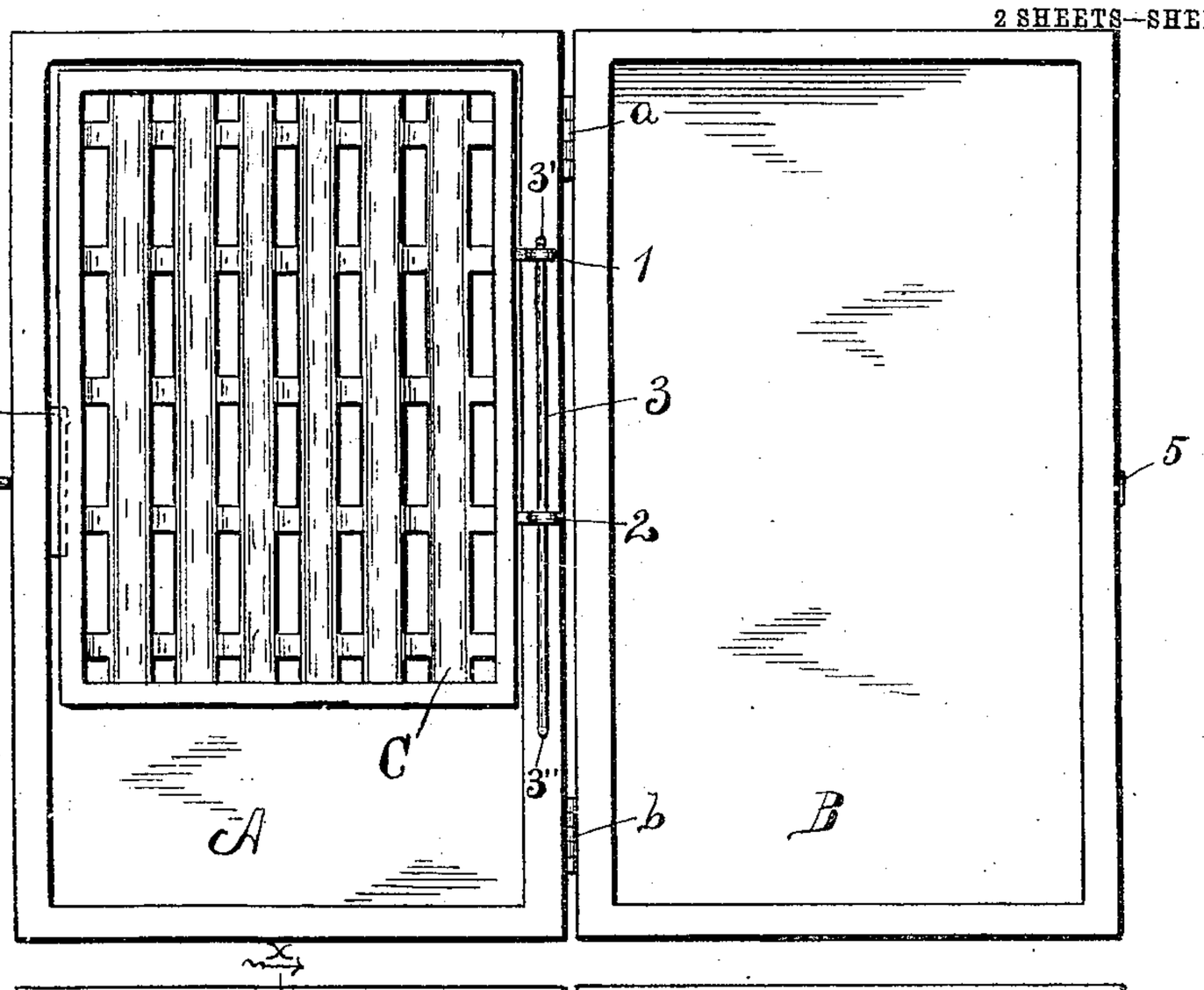

Fig. 1.

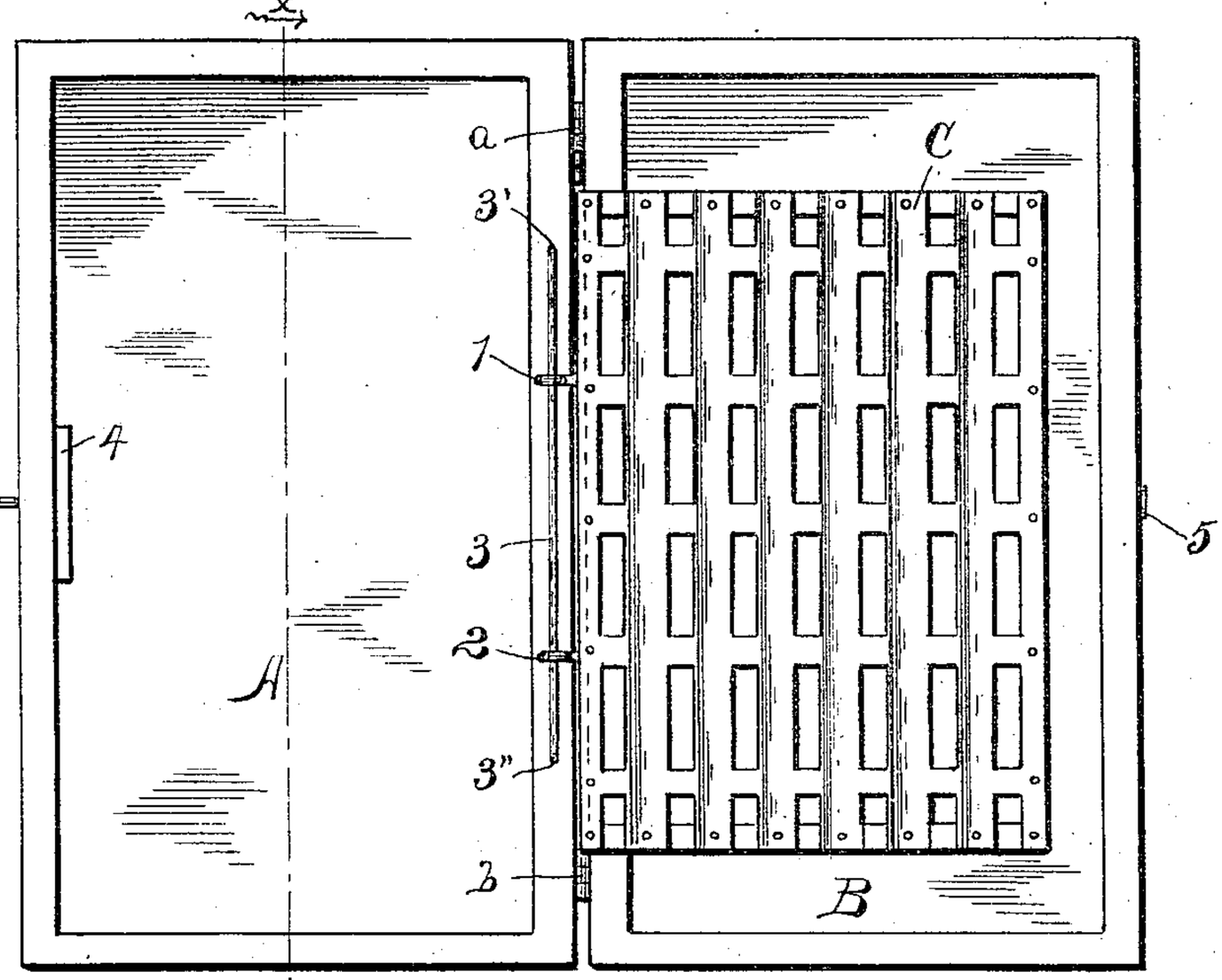

Fig. 2.

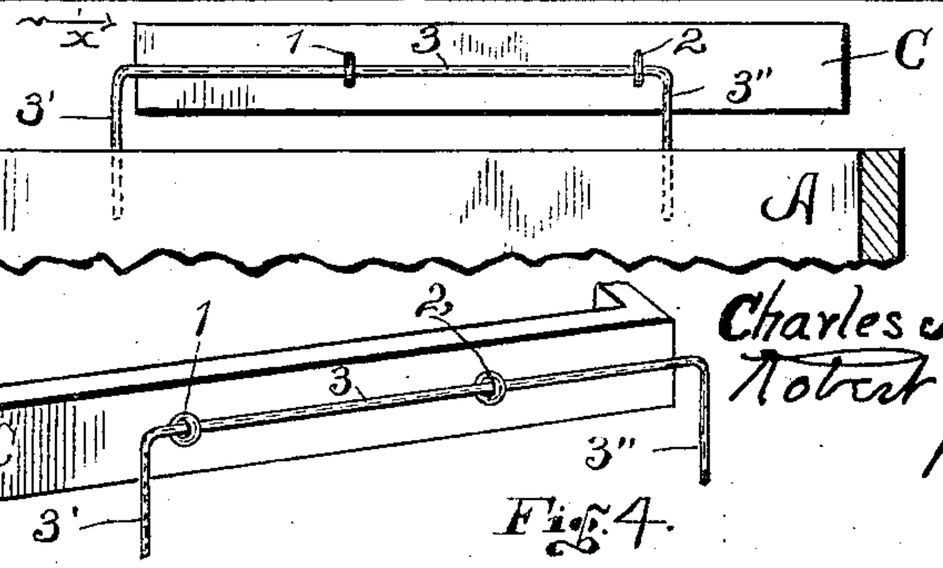

Fig. 3.

Fig. 4.

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2 SHEETS—SHEET 2.

Fig. 5.

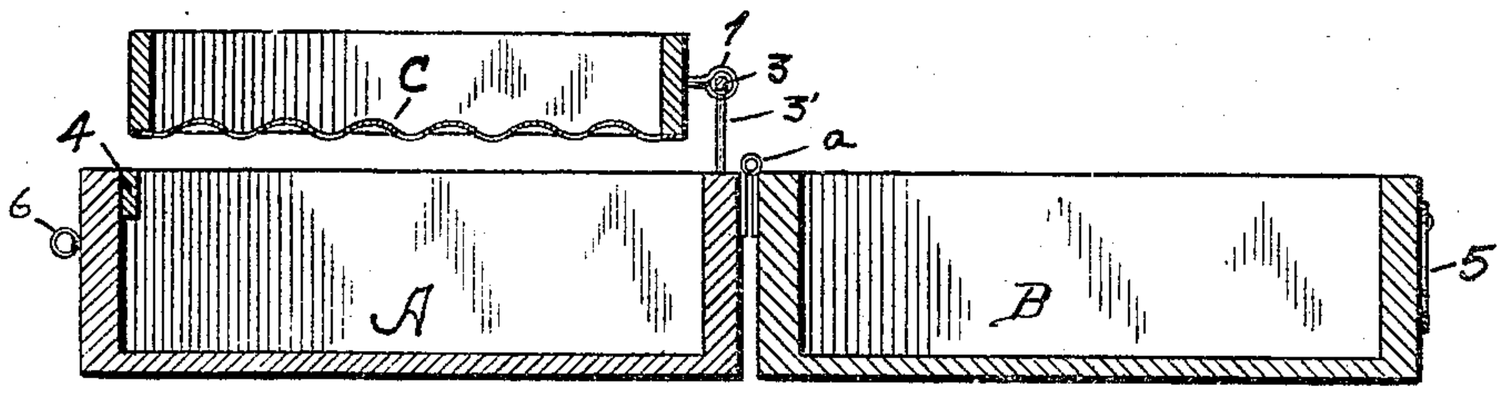
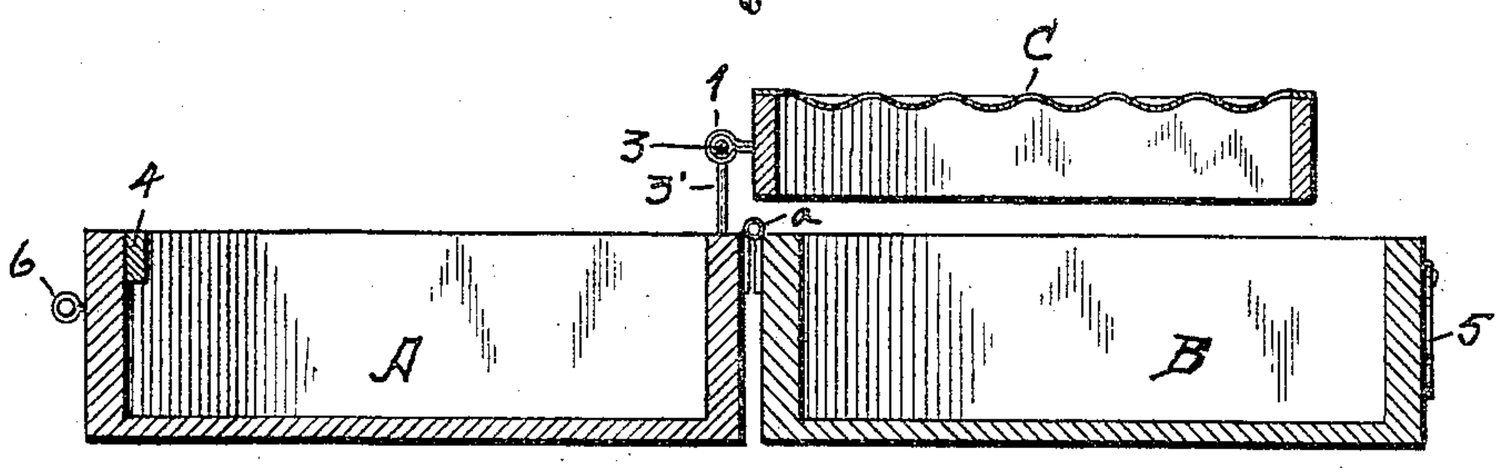


Fig. 6.



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UNITED STATES PATENT OFFICE

CHARLES HUNNICUTT, OF WILMINGTON, OHIO.

CORN-GRADER.

No. 870,515. Specification of Letters Patent. Patented Nov. 5, 1907.

Application filed April 15, 1907. Serial No. 368,223.

To all whom it may concern:

Be it known that I, CHARLES HUNNICUTT, a citizen of the United States, residing at Wilmington, in the county of Clinton and State of Ohio, have invented a new and useful Corn-Grader, of which the following is a full, clear, and accurate specification, being such as will enable others skilled in the art to which it appertains to make and use the same with absolute exactitude.

My present invention relates, more particularly, to a corn-grader having a screen or grading device for eliminating all undesirable grains, and with means whereby the screen or grading device may be easily operated for the purpose of separating the desirable from the undesirable grains and depositing them into separate receptacles.

Other objects and particular advantages will be brought out and made clear in the course of the following specification, and the preferred construction is shown most clearly in the accompanying drawings.

Referring now to the drawings in detail: Figure 1 shows a plan view of my invention as in operative position. Fig. 2 is a plan view of same, except that the screen or grading member is inverted or in elimination position. Fig. 3 is an elevation, partly in section, showing the manner of slidably mounting the screen-frame,—this view being taken from the line *x*—*x* of Fig. 2, as looking in the direction indicated by the arrows, and Fig. 4 is an isometrical view of a portion of the screen detached. Fig. 5 is a cross sectional view taken transversely of Fig. 1. And Fig. 6 is a cross sectional view taken transversely of Fig. 2.

Similar indices denote like parts throughout the several views of the drawings.

In order that my invention may be fully understood and its operation properly appreciated I will now take up a detail description thereof, in which I will describe the construction and operation as briefly and as compactly as I may.

Referring now to the drawings in detail: The letters A and B denote each a tray or box-like receptacle, which are identical with each other, they being hinged together by the hinges *a* and *b* whereby when closed together they form a case, but when opened out, as in Figs. 1 and 2, they form two separate receptacles.

The letter C designates a screen comprising an apertured metal bottom and a frame therearound substantially as indicated. Said screen should be of a total width approximately the same as the inside diameter of the trays, and it should be of a length approximately one-fourth less than the inside longitudinal length of the trays.

Secured in the outside face of the inner stile of the screen frame are two screw-eyes, designated by the numerals 1 and 2.

The numeral 3 designates a rod, having its end portions turned at right-angles thereto to form the prongs 3′ and 3″ integral therewith. The rod 3 should be located and adapted to slide endwise in the eyes 1 and 2, with the base of the prongs adapted to impinge the respective screw-eyes aforesaid. Extending down into the face of the inner stile of the tray A are two apertures adapted to snugly receive the end portions of the prongs 3′ and 3″ as indicated, whereby, when in place, the rod 3 will be supported in the relative position shown in Fig. 3.

From the above it is apparent that the screen C is now slidably mounted for longitudinal reciprocal movements, and it should be noticed in this connection that the length of the rod 3, and the positions of the screw-eyes 1 and 2, are such that the screen may have only a limited endwise movement which will not extend the ends of the screen beyond the ends of the trays, as is clearly indicated in the drawings.

On the inner face of the outside stile of the tray A is secured a guide-block 4 for supporting the free side of the screen C when in the position shown in Fig. 1.

When the trays A and B are closed to form a case, the screen is first detached, that is the prongs 3′ and 3″ are withdrawn from the apertures in the stile of the tray A, and the screen may be placed inside the case, after which the trays forming the case may be secured by the hook 5, attached to one of the trays, connected to the screw-eye 6, attached to the other tray, all substantially as indicated.

In this exemplification of my invention I have shown a screen-form of grader, but it should be understood that the invention is applicable in connection with any grading device that can be operated in the manner described herein.

Operation: The operation of my invention is very simple and effective. It is the desire of every corn-grower to secure a uniform stand of corn, for upon this depends the yield in bushels per acre. To get the planting machine to drop uniformly and thus secure the above results is the desideratum contemplated. As no planting machine can drop kernels uniformly unless the kernels are practically uniform in thickness, the purpose of the screen C is to eliminate the irregular and otherwise undesirable kernels. If, now, said screen be mounted as shown in the drawings it is apparent that if a quantity of grains of corn be deposited on the screen, when the screen is in the position shown in Fig. 1, that if the screen be reciprocated horizontally (and in this instance also longitudinally) the grains of corn of a size below a certain thickness will drop through the perforations of the screen and fall into the tray A, after which the screen may be inverted by turning it on the rod 3, as a hinge, to the position in which it is shown in Fig. 2, this of course will allow the rejected grains to be discharged into the tray B, after which the screen may be turned back to the position in

which it is shown in Fig. 1, and the former operation is repeated. This operation of the invention, it s evident, will require but one hand of the operator, leaving the other hand free to deposit the grains on the screen as required. It is of course apparent that the trays A and B may be dispensed with and the prongs 3′ and 3″ may be inserted in some relatively stationary object, as for instance the edge of an ordinary box, in which instance the undesirable grains may be deposited outside the box, or in a separate vessel provided for that purpose.

The principal utility of my device lies in the fact that I am able to secure a pivotal motion of the screen in connection with a horizontal reciprocatory motion thereof, and my invention lies more particularly in the above regardless of the means by which it is accomp ished.

I desire to have it understood that various changes and modifications may be made in the details of the construction of my invention without departing from the spirit of my invention or sacrificing any of the advantages thereof which are new and useful and which involve invention.

Having now fully shown and described my invention and the best manner for its construction and operation to me known at this time, what I claim and desire to secure by Letters Patent of the United States, is—

1. A corn grader comprising a grading-device having a corrugated bottom and having slots formed through the bottom in the depressions of said corrugations, two receptacles hinged together, a hanger-bar supported at its ends near the juncture of said receptacles, and means for pivoting one edge of said grading-device on said bar whereby the grading-device may be vibrated and inverted.

2. A corn grader comprising a grading-device having a corrugated bottom and having slots formed through said bottom, two receptacles hinged together, a hanger-bar supported at its ends near the juncture of said receptacles, and means for pivoting one edge of said grading-device on said bar whereby the grading-device may vibrated and inverted.

3. A corn grader comprising a frame having a bottom with elongated apertures formed therethrough, a hanger-bar to which said frame is connected for endwise reciprocating motion and also by which the frame is pivoted whereby it may be inverted, a receptacle located below the frame when the frame is in operative position, and a second receptacle located below the frame when the frame is in an inverted position.

4. A corn grader comprising a grading-device having a metal bottom with corrugations thereacross and with elongated apertures formed therethrough, two receptacles joined together by hinges, a hanger-bar removably supported at its ends near the juncture of said receptacles, means for pivoting one edge of the screen to said bar whereby the screen may be vibrated and inverted, and means whereby the receptacles may be formed into a case inclosing the screen and the hanger-bar after the latter has been detached from operative position, all substantially as set forth.

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

CHARLES HUNNICUTT.

Witnesses:
DOVE WILLIAMS,
D. K. HEMPSTEAD.