GRISWOLD & SEELEY.

Grain Separator.

No. 26,181. Patented Nov. 22, 1859.

Fig. 2.

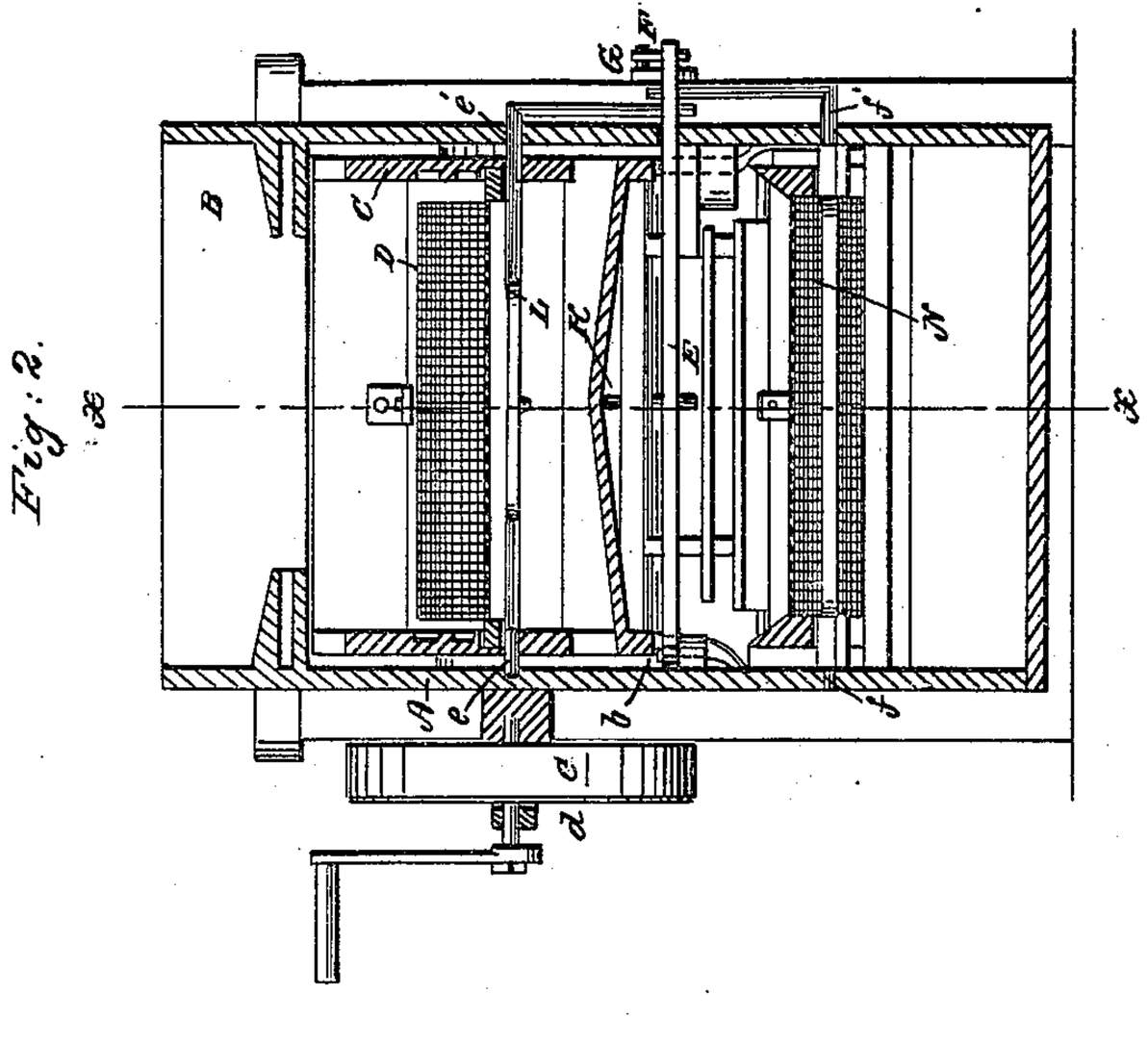
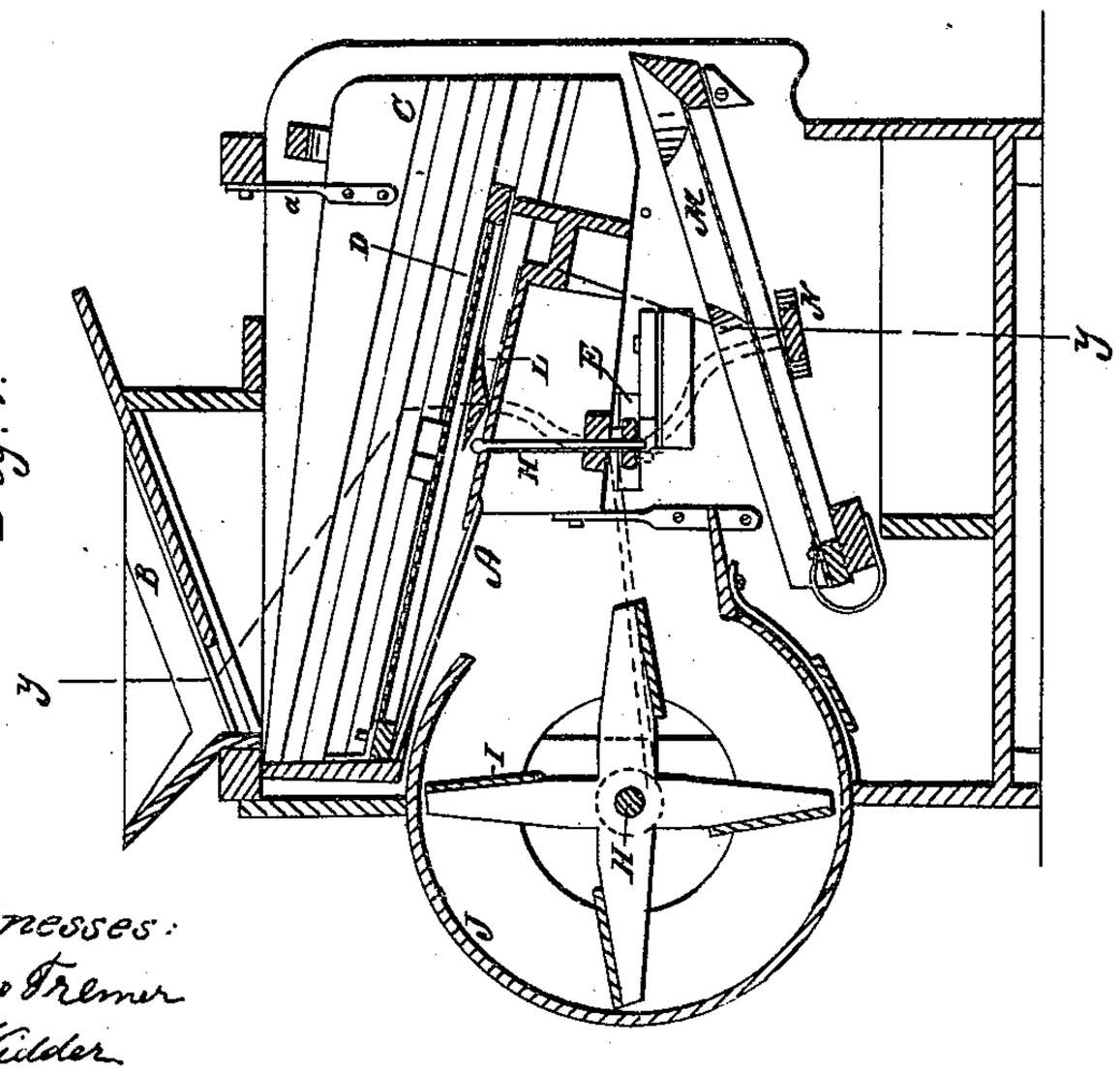


Fig. 1.



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UNITED STATES PATENT OFFICE.

P. GRISWOLD AND H. H. SEELEY, OF HUDSON, MICHIGAN.

GRAIN-SEPARATOR.

Specification of Letters Patent No. 26,181, dated November 22, 1859.

To all whom it may concern:

Be it known that we, P. GRISWOLD and H. H. SEELEY, both of Hudson, in the county Lenawee and State of Michigan, have invented a new and useful Improvement in Grain-Separators; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of our invention taken in the line *x*, *x*, Fig. 2. Fig. 2, a transverse section of the same, taken in the line *y*, *y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in giving the lowermost screen in the shoe of the separator a compound movement as hereinafter shown and described, and using in connection therewith a supplemental screen having a vertical movement only, whereby the separator by a very simple mechanism is rendered very efficient.

To enable those skilled in the art to fully understand and construct our invention we will proceed to describe it.

A, represents a case having a hopper B, on its upper end and a shoe C, suspended within it by elastic rods *a*. The shoe C, is provided with the usual or any proper number of screens but as the lowermost one D, is the only one connected with the invention, that one alone is represented.

Within the case A, and just below the shoe C, a horizontal bar E, is placed. One end of this bar is pivoted within the case as shown at *b*, and the opposite end is connected by a rod F, with a crank pulley G, which is at one end of the fan-shaft H. The fan I, is of usual construction and inclosed by a box J, which communicates with the interior of the case just below the shoe C. The fan-shaft H, is rotated by a belt *c*, from a driving pulley *d*, at one side of the case.

To the bottom of the shoe C, at about its center, a pendent rod K, is attached. This rod passes through the bar E, as shown clearly in Fig. 1. Within the case A, a horizontal bar L, is placed, the journals *e*, *e'*, of which are allowed to work in their bearings. The journal *e'*, extends through the side of the case A, and is bent down and at right angles to its lower end fitting in the bar E. The bar L, is directly below the screen D.

Within the case A, and directly underneath the center of an inclined screen M, a horizontal bar N, is placed, the journals *f*, *f'*, of which like these of the bar E, are allowed to work in their bearings. The journal *f'*, passes through the side of the case A, is bent upward at right angles with its horizontal position and passes through the end of bar E, see Fig. 2. The connecting rod F, and bearing *e' f'* are connected with bar E, at the same end.

The screen M, has an inclined position in the case A, its inner end being the depressed or lower end as shown clearly in Fig. 1. The screen M, it will be seen is not fitted in, nor has it any connection with the shoe C.

When the machine is put in operation the screen D, has a compound motion, to wit, a lateral motion given it by the shoe C, which is actuated by the vibration of bar E, the latter being operated by the connecting rod F, from the crank pulley G, a vertical vibration being given said screen by the rocking motion of bar L, which motion is produced by the connection of the bearing *e'* with the bar E. The screen M, also has a vertical vibration given it by the rocking motion of bar N, the latter being operated in consequence of the connection of the bearing *f*, with bar E. Thus it will be seen that the movement of the screens D, M, is effected by a very simple means not rendering the machine appreciably more complex than those of usual construction in which the screens have but one movement and much simpler than those in which the screens have a compound movement.

The lateral stroke is required to separate chess and cockle seeds from wheat and the vertical motion is required to separate the oats therefrom. This compound movement is also highly useful in the separation of different kinds of grain.

We do not claim giving one or more of

the screens of a grain separator a compound movement for that has been previously done; but,

We do claim as new and desire to secure by Letters Patent,

The combination with the screen D, of the rocking bar L, and vibrating bar E, as shown and described, for the purpose set forth.

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