

(No Model.)

E. G. CLYMANS.
TIMOTHY CLEANING ATTACHMENT FOR GRAIN SEPARATORS.
No. 597,459. Patented Jan. 18, 1898.

FIG. 1.

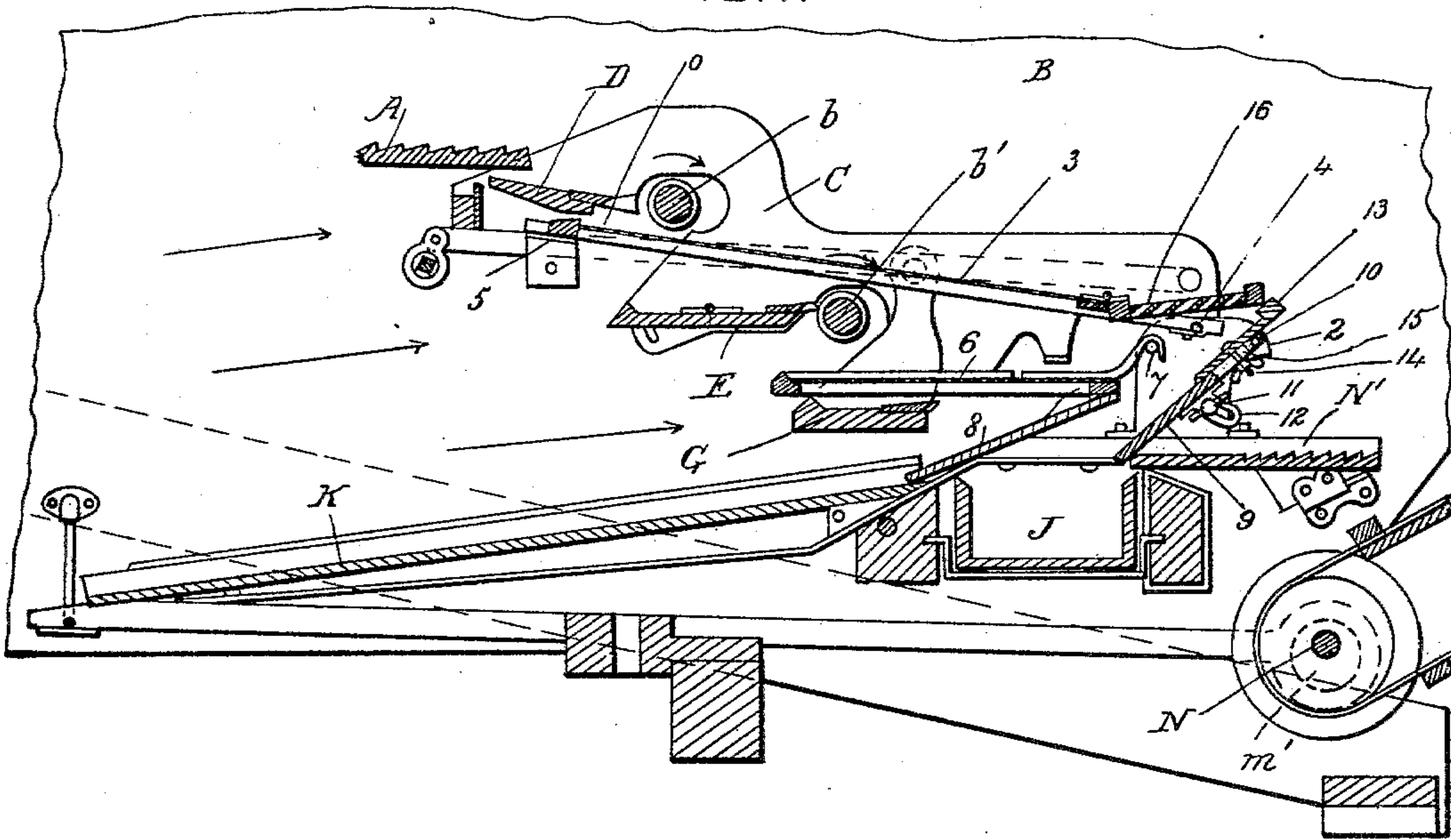
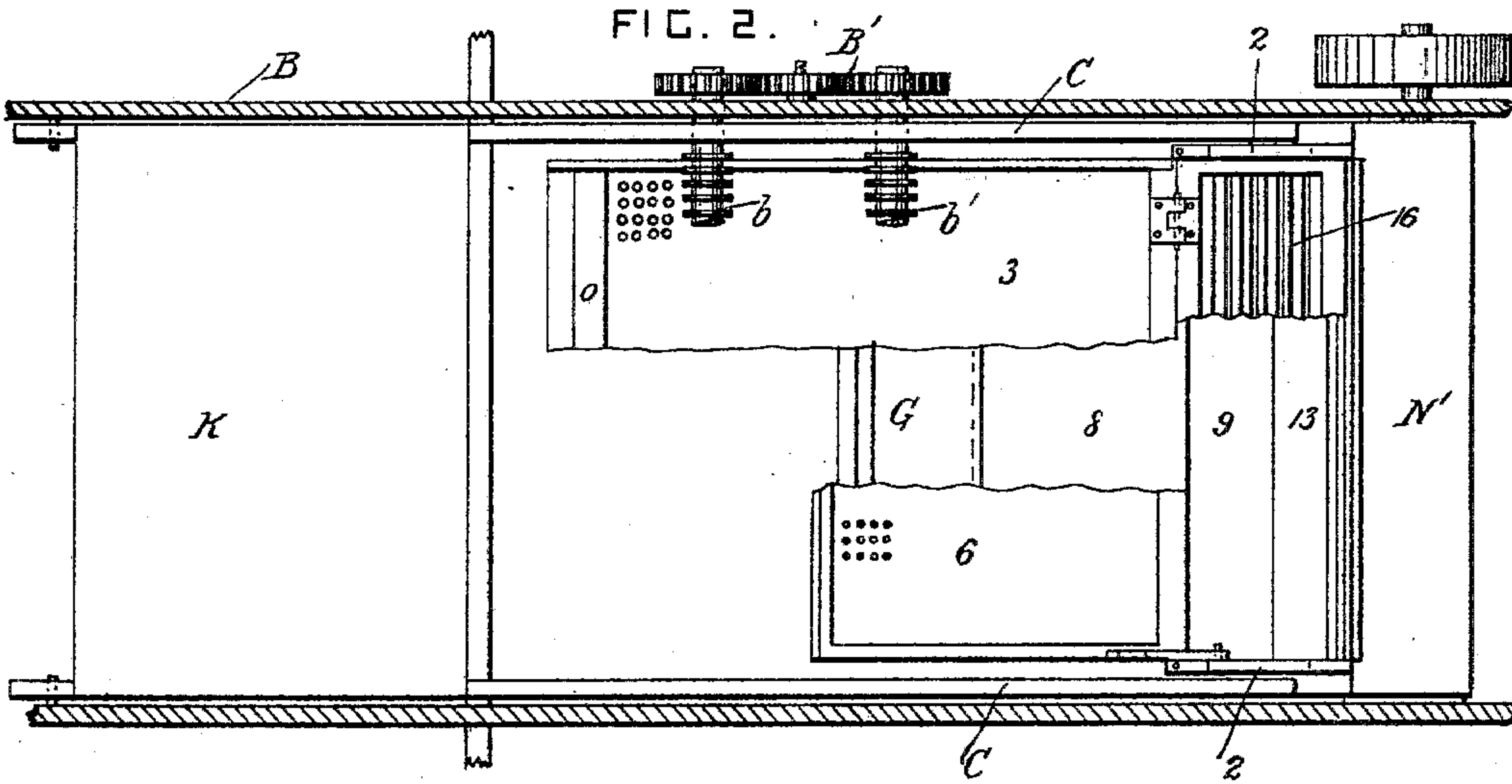


FIG. 2.



WITNESSES
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TIMOTHY-CLEANING ATTACHMENT FOR GRAIN-SEPARATORS.

SPECIFICATION forming part of Letters Patent No. 597,459, dated January 18, 1898.

Application filed January 18, 1897. Serial No. 619,623. (No model.)

To all whom it may concern:

Be it known that I, EZRA G. CLYMANS, a citizen of the United States, residing at Waynesborough, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Timothy-Cleaning Attachments for Grain-Separators; 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 relates to attachments to the grain-cleaning devices of separators or threshing-machines for the purpose of adapting them to clean timothy, flaxseed, or other small seeds.

This invention consists in the novel construction and combination of the parts hereinafter fully described and claimed.

This invention is an improvement upon the devices for which a patent, No. 537,602, was issued on April 16, 1895.

In the drawings, Figure 1 is a longitudinal section through the grain-cleaning devices of a separator, showing the timothy-cleaning attachments in position. Fig. 2 is a plan view showing portions of the same.

The timothy-cleaning attachments may be applied to many other grain-cleaning devices besides those shown. A is an inclined board, which conducts the grain and other material to the cleaning devices. A blast of air is forced through the cleaning devices in the direction of the straight arrows. B is a portion of the casing of a separator. Upper and lower grooved cleaning-rolls *b* and *b'* are journaled in the sides of the casing B, and B' are toothed wheels operating to revolve the said rolls in the same direction. C are two side plates supported in the casing B. D, E, and G are three grain-plates supported by the side plates C, one above the other in the form of steps, and provided with fluted plates at their rear edges. K is the main gather-board, which catches the grain which falls from the grain-plates and delivers it into a grain-spout (not shown) at the lower end of the gather-board. N' is a shaking-shoe supported in the casing, and J is the tailings-spout in front of the shoe N' and below and behind the

grain-plate G. The gather-board K and the shoe N' are shaken longitudinally by means of eccentrics *m'* on the stacker-shaft N and suitable intermediate connections. All these devices are used in cleaning grain and are not a part of the present invention.

In order to clean timothy or other small seeds, brackets 2 are secured to the top of the shoe N', one on each side. A shaking-screen 3 is arranged in an inclined position, with its front and upper end *o* in a position to receive the seed from the board A. The end *o* may be supported under the top grain-plate D, as shown, or it may come above the top grain-plate and under the board A. It is not material whether the screen 3 is placed above or below the cleaning-roll *b*, so long as it receives the seed and other material which slides down the board A. The screen 3 is shaken longitudinally by attaching its lower end to the pins 4 on the brackets 2, carried by the shoe N'; but the screen 3 may be shaken in any other approved manner—for instance, its upper end can be connected to the board A when the said board receives a longitudinally-reciprocating motion. The upper end of the screen 3 is supported on the guides 5 or in any other equivalent manner. A second and finer shaking-screen 6 is supported under the screen 3. The rear end of the screen 6 is pivoted to the brackets 2 by the pins 7 and its front end rests on any approved support—as, for instance, the lowest grain-plate G. A gather-board 8 is attached to the rear end of the screen 6, over the tailings-spout J, and conducts the seeds which fall through the screen 6 onto the main gather-board K. The screen 6 may be shaken longitudinally in any other approved manner. A tailings-board 9 is pivoted at its upper end by pins 10 to the brackets 2. This board 9 is adjustable in inclination, and its lower part is supported by the thumb-screws 11, which pass through slots in brackets 12, secured to the board 9, and engage with the brackets 2. The tailings-board 9 is extensible, being provided with a slidable extension-piece 13 at its upper part, and 14 are bolts which slide in slots 15 in the board 9 and secure the extension-piece in position when tightened up. A tailings-screen 16 is hinged at one end to the lower end

of the screen 3 and its other end rests on the extension-piece 13. The seeds and other matters slide onto the shaking-screen 3. The seeds fall through the screen 3 and the tailings and coarse rubbish pass onto the tailings-screen 16. The tailings fall through the screen 16 and slide down the tailings-board into the tailings-spout, and the coarse rubbish is discharged onto the shoe N'. The inclination of the tailings-screen 16 is adjusted, to adapt it to different materials, by means of the extensible tailings-board, the inclination of which is changed to suit the position of the extension-piece. As the rear end of the tailings-screen 16 always rests on the extensible tailings-board whatever adjustments may be made to these parts, the blast of air from the fan is always directed upward by the tailings-board through the slats of the tailings-screen and never passes between the said board and screen. The seeds which pass through the screen 3 are rescreened by the finer screen 6, and any rubbish mixed with them is taken out and discharged into the tailings-spout.

What I claim is—

1. In a timothy-cleaner, the combination, with a reciprocatory shoe provided with brackets on its upper side, of an adjustable tailings-board connected at its upper end by

pivots to the said brackets and provided with a slidable extension-piece projecting above the said pivots, a screen having its rear end pivoted to the said brackets, and a tailings-screen hinged to the said screen and resting on the said extension-piece, substantially as set forth.

2. In a timothy-cleaner, the combination, with a reciprocatory shoe provided with brackets on its upper side, of an adjustable tailings-board connected at its upper end by pivots to the said brackets and provided with a slidable extension-piece projecting above the said pivots, an upper screen having its rear end pivoted to the said brackets, a tailings-screen hinged to the said upper screen and resting on the said extension-piece, a lower screen arranged under the rear part of the upper screen and having its rear end pivoted to the said brackets, and a forwardly and downwardly inclined gather-board secured to the rear part of the said lower screen, substantially as set forth.

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

EZRA G. CLYMANS.

Witnesses:

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