J. STINE.

Clover-Seed Separators.

No. 211,603. Patented Jan. 21, 1879.

Fig. 1.

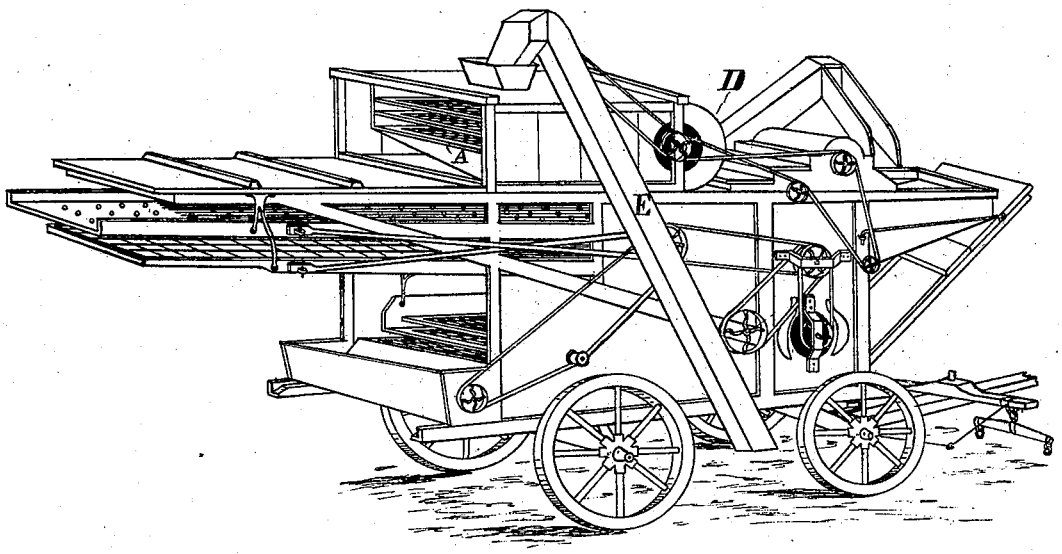
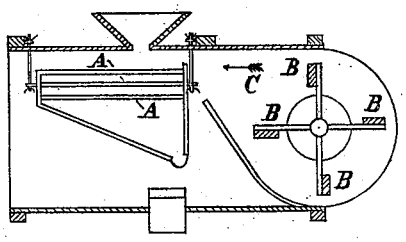


Fig. 2.



WITNESSES.

Wm. E. Moore.

Wm. J. Mullner.

INVENTOR.

John Stine,

PER

C. Bradford,

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN STINE, OF MOUNT AUBURN, INDIANA.

IMPROVEMENT IN CLOVER-SEED SEPARATORS.

Specification forming part of Letters Patent No. **211,603**, dated January 21, 1879; application filed February 18, 1878.

To all whom it may concern:

Be it known that I, JOHN STINE, of Mount Auburn, in the county of Shelby and State of Indiana, have invented a new and useful improvement for more thoroughly removing impurities and all extraneous matters from clover-seed, which improvement is fully set forth in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a combined clover huller and separator, with a supplementary fanning-mill placed on top of and attached to it, immediately over the stem-separating conveyer; and Fig. 2, a sectional view of the fanning-mill.

The object of my invention is to furnish improved means for subjecting the clover-seed to a second cleaning process after it has been delivered from the clover-huller, and while the clover-huller is in motion thrashing out the seed. This is accomplished by means of the fanning-mill being placed over the stem-separating riddles of the huller, in such a manner that the seed, as it is being delivered from the huller below, may be carried by elevators E to the hopper of the fanning-mill, and the seed, which always unavoidably passes out with the foreign matter over the tail of the fan, be dropped down upon the riddles of the huller. The elevators and the fan are propelled by belts and pulleys from the huller.

In the drawings, Fig. 2 represents the fanning-mill, which is constructed on the principle and after the design of an ordinary hand wheat-fan. A A are the riddles. The fan B revolves in the direction of the arrows, producing an "over-blast" current. The fanning-mill is placed parallel with the huller, and their rear ends point in the same direction. The exact position of the fan in regard to its relation to the huller must depend somewhat upon the kind of huller used, but it must be over the stem-separating riddles of the huller, and so that the waste seed and chaff, &c., from the fan will be collected on the said riddles, and again carried back to the fan by means of elevator E, if required.

It will be seen from the foregoing description that my improvement consists, essentially, in placing over the stem-separating riddles a second screening apparatus in addition to the one attached to and contained within the combined clover huller and separator.

The operation of my improvement is applicable to all kinds of clover-hullers and seed-separators, and the fan may be varied in its dimensions to suit the different kinds of machines to which it may be applied.

I am aware that in a thrashing-machine a shoe, screen, and fan have been arranged over the straw-carrier, to rescreen and refan the grain and deliver the tailing to the thrashing-cylinder, and I therefore lay no claim to such invention, which differs materially in construction from mine.

Having thus described my device, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the stem-separating riddles of a clover-huller, of a fanning-mill, having its tail-discharge placed immediately over the riddles of the huller, and the elevator E, connecting the seed-discharge of the huller with the hopper of said fanning-mill, whereby a portion of the seed will be discharged cleaned from the fan, and the tailings discharged upon the riddles, substantially as described.

JOHN STINE.

Witnesses:
U. C. PRATHER,
R. SMITH.