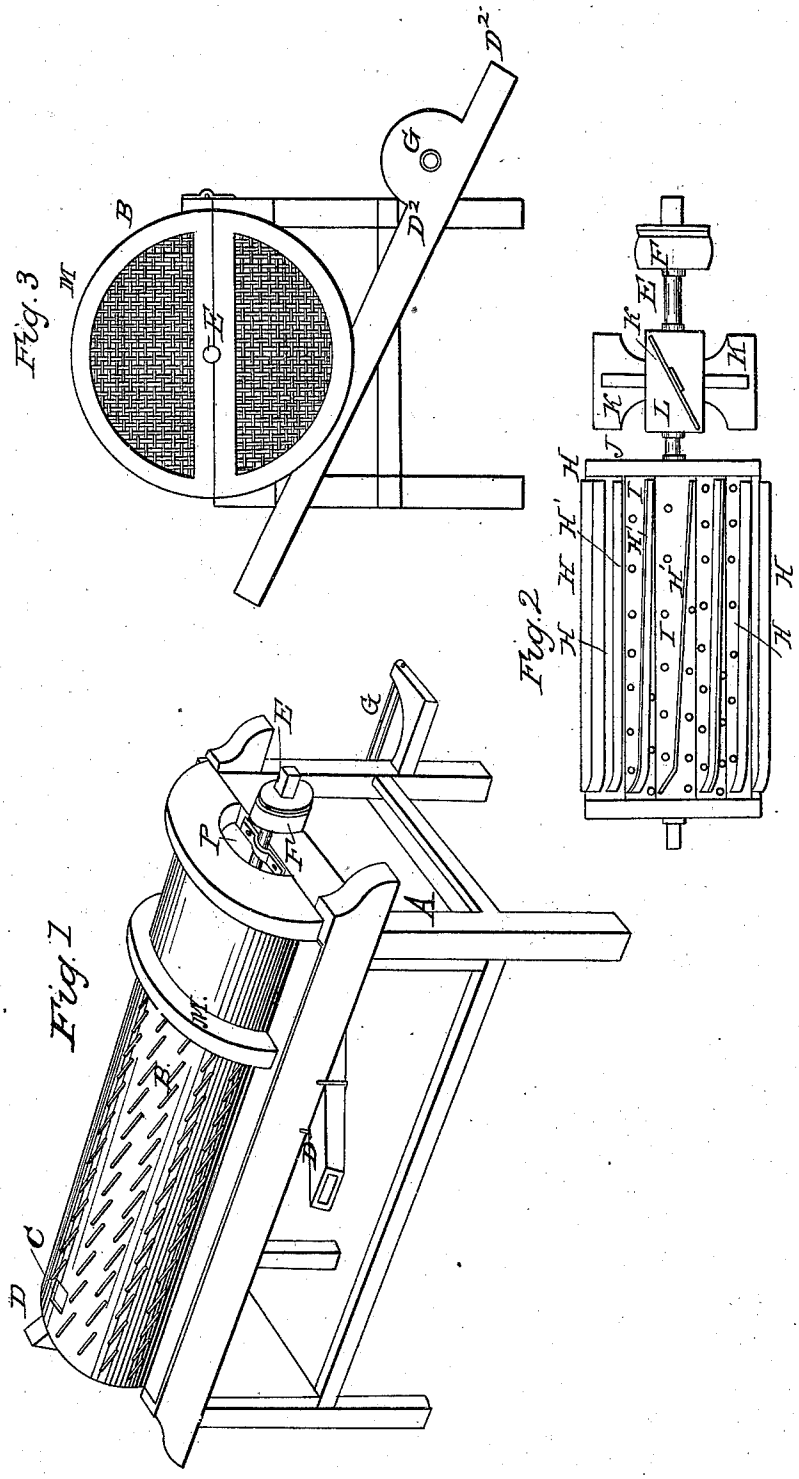
J. W. WEBSTER.

Smut Machine.

No. 3,617. Patented June 5, 1844.



N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JAMES W. WEBSTER, OF NEAR LURAY, VIRGINIA.

SMUT-MACHINE.

Specification of Letters Patent No. 3,617, dated June 5, 1844.

To all whom it may concern:

Be it known that I, JAMES W. WEBSTER, of near Luray, in the county of Page and State of Virginia, have invented a new and useful Improvement in Machines for Cleaning Grain of Smut and other Impurities, called "Webster's Improved Smut-Machine," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the machine. Fig. 2 is a view of the cylinder of beaters, shaft, wings, and driving pulley. Fig. 3 is a transverse section showing the reticulated position.

The frame A′, case B, hopper C, inclined discharging trunks D D^2, cylinder shaft E, driving pulley F, and fan shaft G of this machine are made in the usual manner.

The revolving cylinder of beaters H is made of wood and solid, the shaft E passing through the center of the same and turning in suitable boxes in the cross girts of the frame, in the usual manner. The beaters H for beating the smut from the grain, and drawing it gradually from the hopper end toward the discharging end of said cylinder are cast diagonally on the outside of segment plates I and at right angles to the outer surface of the same said beaters being slightly curved at the ends next the hopper, said segment plates I being perforated for screws or bolts to fasten them to the outer surface of the wood-cylinder to which they are further secured by bands and driven over the ends of said plates and cylinder. The aforesaid inclined and curved beaters H throw the grain against the interior roughened surface of the case B where the smut is separated from the grain and forced through the oblong perforations in the case and through the inclined trunk D near the feeding place C by a pressure of air within the case caused by a set of oblique wings K inserted into another wood cylinder L on the shaft E, the air being received at an opening P in the end of the case next the driving pulley. A perforated or reticulated partition M is placed between the aforesaid cylinder H and the oblique wings K for preventing the grain passing into the part of the case containing the wings K and at the same time allowing the air to pass through the meshes of said partition.

The inclined discharging spout or trunk D^2 is arranged in the frame below a discharging opening in the bottom of the case B communicating with said trunk, in which trunk, at an enlarged portion thereof, is placed a revolving fan on the shaft G around which a band passes leading from the driving pulley F for turning said fan which drives the remaining dirt among the grain out at the upper end of said trunk at D while the cleaned grain descends through the lower end into a receiver placed below it.

What I claim as my invention and which I desire to secure by Letters Patent is—

The combination of the cylinder of oblique curved beaters H, the oblique wings K and reticulated partition M under an arrangement as aforesaid for the purpose of cleaning grain as above set forth.

JAMES W. WEBSTER.

Witnesses:

JNO. O. LIONBERGER,

PETER K. KURTZ.