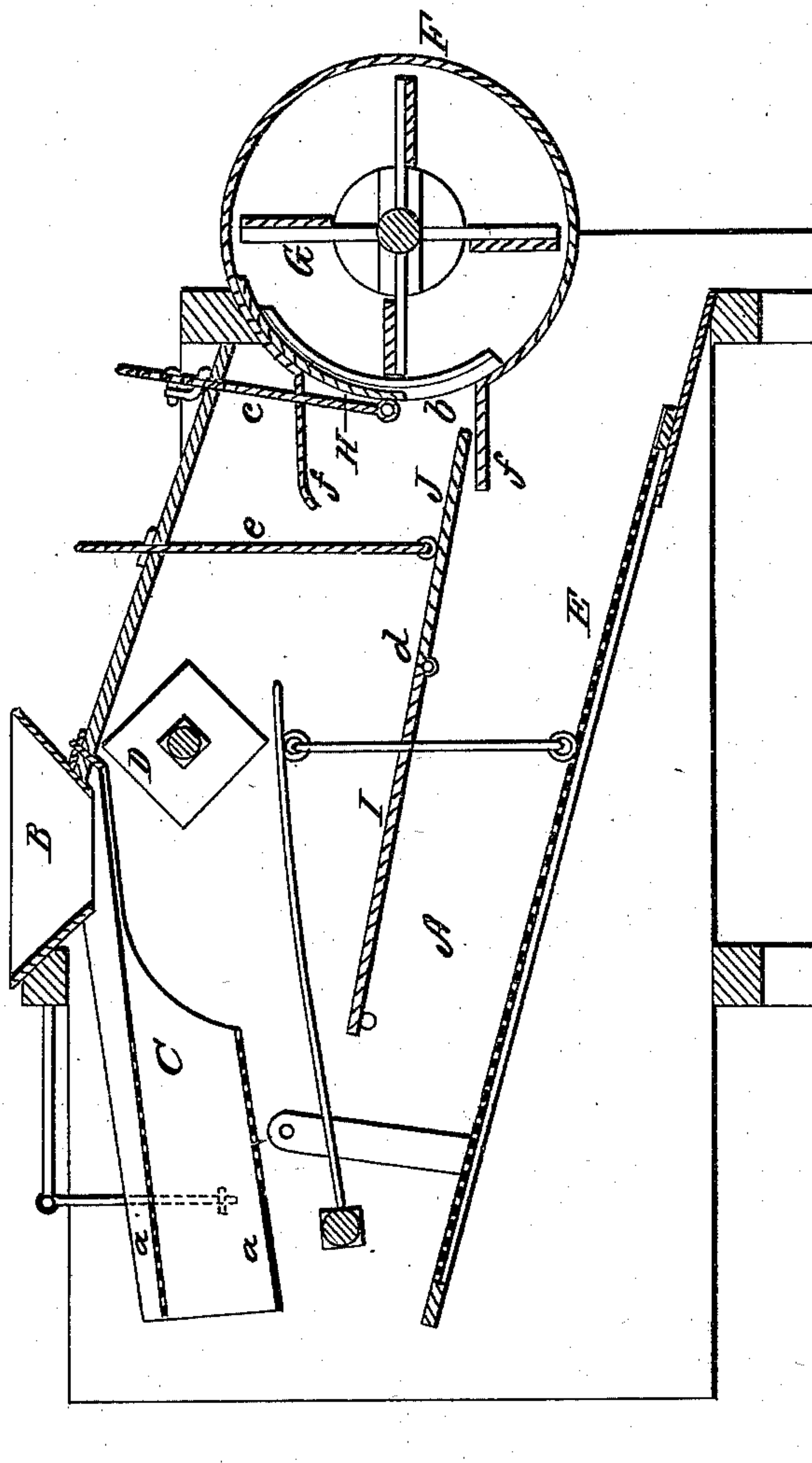


J. D. TIFFT.
Grain Separator.

No. 21,383.

Patented Aug. 31, 1858.



UNITED STATES PATENT OFFICE.

JNO. D. TIFFT, OF CUYAHOGA FALLS, OHIO.

GRAIN-SEPARATOR.

Specification of Letters Patent No. 21,383, dated August 31, 1858.

To all whom it may concern:

Be it known that I, JOHN D. TIFFT, of Cuyahoga Falls, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Grain Separators or Winnowers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a longitudinal vertical section of a grain separator or winnower constructed according to my invention.

This invention consists in having the discharge orifice of the fan case provided with a segment slide by which the size of the orifice may be regulated as occasion may require, and using in connection with said slide an adjustable blast director, the whole being arranged as hereinafter shown, whereby the device is better adapted than usual for winnowing both large and small grain.

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

A, represents the case or box of the machine, B, is the hopper, C, the shoe suspended in the upper part of the case or box and containing the riddles *a, a*.

D, is the wiper which agitates the shoe and E, is an inclined screen placed in the lower part of the case or box A, the shoe and screen being inclined in reverse directions.

The above parts are all of usual construction, well known, and therefore do not require a more minute description.

F, is a fan case of cylindrical form and attached to the front end of the case A.

G, is the fan placed in the case E, and *b*, is the discharge orifice.

H, is a segment slide which is fitted to the fan case F, so that it may work over the discharge orifice *b*, and by being properly adjusted contract said orifice more or less as may be desired. The slide H, has an upright *c*, attached to it, said upright passing through the top of the case or box and serving as a handle for the adjustment of the slide.

I, is a slightly inclined board placed in the case or box. This board is not much inclined from a horizontal position and to its end near the fan case F, a board J, is connected by hinges or joints *d*. The boards I, J, extend the whole width of the case or box A, and a rod *e*, is attached to the board J, said rod passing through the top of the

case or box A, and serving as a handle for the board J. The board J, is placed directly in front of the orifice *b*, and two horizontal ledges *f*, project outward from the inner side of the fan case F, one above and the other below the orifice *b*.

From the above description it will be seen that a blast of air of greater or less volume and intensity may be directed into the case or box by adjusting the slide H, and it will also be seen that the blast may be directed either on the riddles in the shoe C, or on the screen E, as may be desired by merely adjusting the board J. When the blast is to be directed on the riddles *a*, the board may rest on the lower ledge *f'*, and when it is to be directed on the screen E, the board J, is to be raised and brought in contact with ledge *f*.

The advantages of this invention are as follows:—By adjusting the circular slide H, the blast from the fan case may be graduated under every degree of motion with which the machine may be operated. In cleaning small seeds considerable motion is needed to clear the screens and but little blast, whereas in cleaning large seeds, a considerable blast is required and comparatively little motion. By means of the hinged directing board J, the blast may be directed to the riddles *a*, when small seed or grain is being cleaned in order to carry off the chaff and hulls, the screen E, in this case requiring but little or no blast. In order to clean wheat the greater blast is required on the screen E, in order to carry off smut and other foreign substances and but little blast is required in the riddles *a, a*. It will be seen therefore by adjusting the slide H, and board J, the several conditions required for the perfect cleaning of various kinds of grain are obtained.

I do not claim, broadly, the application of a valve to the fan case; nor do I claim, broadly, the employment of an adjustable apron or board; but

I claim, and desire to secure by Letters-Patent,

The employment of a circular slide valve H, in combination with the directing board J, when the parts are constructed and arranged as herein shown and described, for the purposes set forth.

JOHN D. TIFFT.

Witnesses:

C. W. WETMORE,
F. S. HEATH.