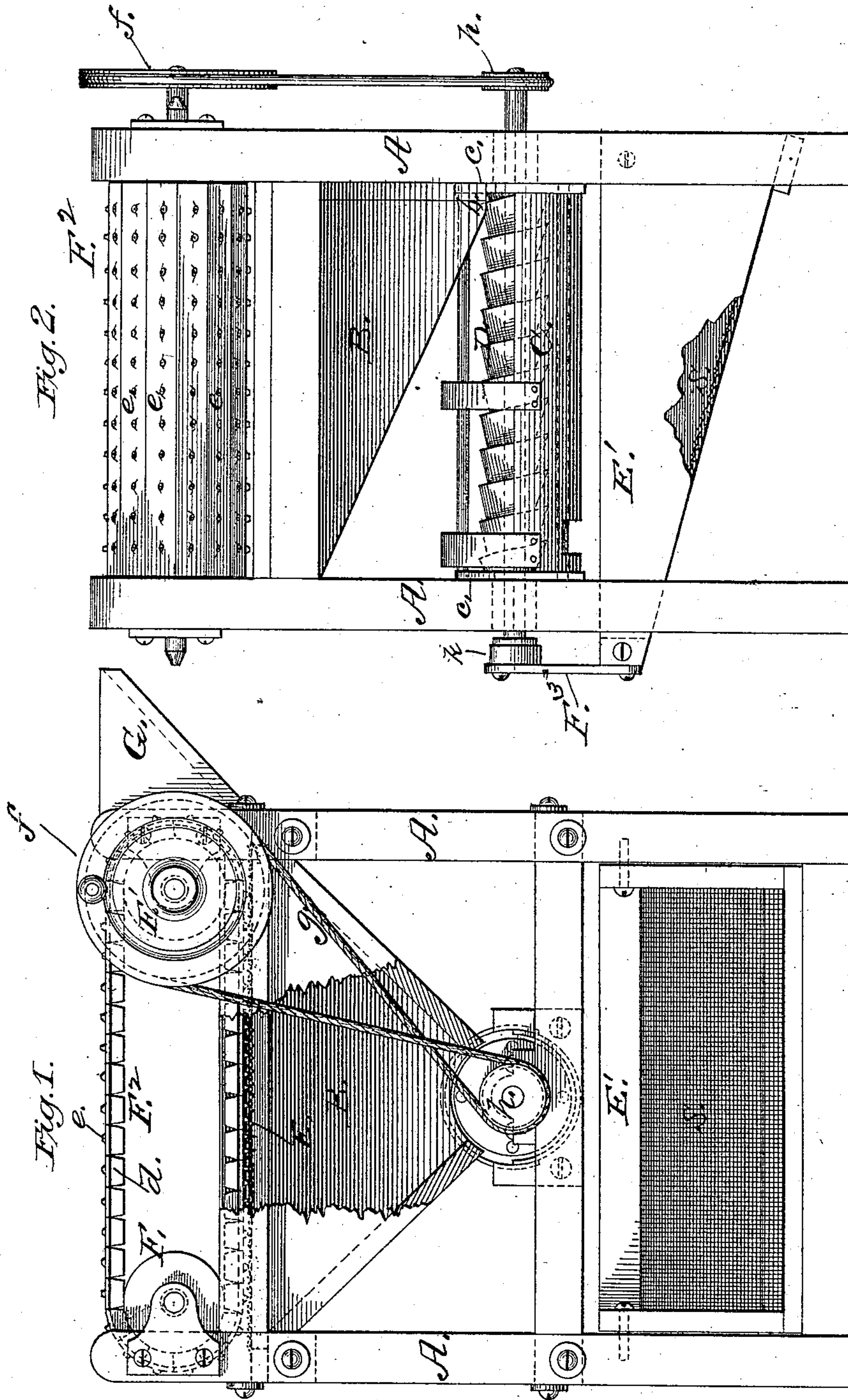


J. D. BATSON.
Machines for Cleaning Blue-Grass Seed.
No. 226,698. Patented April 20, 1880.



WITNESSES
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JOHN D. BATSON, OF LEXINGTON, KENTUCKY.

MACHINE FOR CLEANING BLUE-GRASS SEED.

SPECIFICATION forming part of Letters Patent No. 226,698, dated April 20, 1880.

Application filed October 4, 1879.

To all whom it may concern:

Be it known that I, JOHN D. BATSON, of Lexington, in the county of Fayette and State of Kentucky, have invented a new and valuable Improvement in Machines for Cleaning Blue-Grass Seed; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my improved blue-grass-seed cleaner. Fig. 2 is an end view thereof.

This invention has relation to improvements in machines for separating blue-grass seed from chaff and straw; and the nature of the invention consists in combining with a sieve or strainer a continuous rubbing-surface traversing the said sieve and in contact therewith, whereby the seed is rid of down, straw, and other impurities or foreign matters, as will be more fully hereinafter set forth.

In the annexed drawings, the letter A designates a strong upright frame supporting a funnel, B, that at its upper end occupies the whole space between the uprights A of said frame, and tapers off from rear to front at its bottom, and ends in a discharge-opening, b, at the front end of a semi-cylindrical trough, C, supported by said frame, and having a screw-conveyer, D, journaled in its circular heads or ends c. This conveyer is provided with beaters or knockers that loosen the down from the seed and deliver them separated to a screen below. At the upper end of the funnel is securely but removably fixed a sieve, E, that completely covers the said funnel, and is of a suitable mesh to allow the passage of the seed through it into the funnel or chute aforesaid.

F F' indicate rollers journaled in suitable bearings at the ends of the frame, and carrying an endless or continuous belt, F². This is composed usually of a flexible backing of canvas, leather, or other suitable material, to the inner face of which are secured, side by side, the beveled transverse (preferably wooden) strips d.

To the outer face of the backing are secured,

by means of rivets or in other suitable manner, the metallic plates e, punched full of holes from their under sides, so as to produce at their outer surfaces a degree of roughness. The belt F² is in contact, or very nearly so, with the sieve aforesaid from end to end and side to side. Upon the end of roller F' is a driving-pulley, f, connected by means of a crossed endless belt, g, to a small pulley, h, upon the adjacent end of the journal of the screw-conveyer D. The remaining end of the conveyer shaft or spindle is provided with a crank-wheel, k, an eccentric, or other equivalent device, that actuates a vertically-vibrating shoe, E', provided with an inclined screen, S, through the medium of a pitman, F³. This pitman is pivoted to the shoe at one end and coupled to the wrist of the crank-wheel k at the other, in the usual manner.

G indicates a hopper secured to the main frame, and terminating at a level with the sieve E. The entire apparatus derives motion from the driving-pulley, which, being actuated, conveys motion to the endless roughened belt, the conveyer, and shoe. The uncleaned seed is passed into the hopper, and, being seized by the rough surface of the belt, is carried between it and the sieve E, where it is subjected to a vigorous rubbing, the effect of which is to separate the seed from the stalk and to clean the former from down. The seeds pass down through the sieve into the funnel, whence they escape into the conveyer, and are discharged at the higher end of the sieve or screen S. Here the seed and down are violently agitated by the action of the pitman aforesaid, causing the down to clot or ball or to be formed into lumps, thus effectually separating it from the seed. The seeds pass through the meshes of the screen and are received upon a suitable cloth or receptacle, while the small foreign matters which may have passed through the primary sieve E are discharged at the bottom of the screen. At the same time the hay or grass, sticks, and other foreign matters pass out at the rear end of sieve E, and may be carried away by an ordinary endless conveyer or elevator.

It will be observed that the endless belt is continuous and in contact, or nearly so, with

the sieve E from end to end, so that its rubbing action is constant and uninterrupted while the uncleaned seed and grass are passing from the hopper to the rear end of the sieve.

5 This effects a complete separation of the seed from the straw and down and delivers the former to the chute or funnel in a practically-clean condition. The screen upon which the conveyer discharges the seed and chaff which
10 may have passed through the sieve effectually separates the latter from the former.

I am aware that the combination of a concave sieve and a cylindrical roller working in connection is not new in blue-grass-seed separators or cleaners, and I do not claim such devices.
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What I claim, and desire to secure by Letters Patent, is—

1. The combination, with the hopper B, a
20 conveyer, C D, below said hopper, and provided with beater-rods, and a vibrating inclined screen, S, below said conveyer, of a sieve, E,

at the upper end of the hopper, the rollers F F' at the ends of the sieve, and the endless belt F², passing around said rollers, and provided with roughened rubber surfaces in contact, or nearly so, with the sieve, substantially as specified. 25

2. In a machine for separating or cleaning blue-grass seed, the combination, with the flat
30 sieve E, horizontally arranged, of a continuous-running scrubbing-surface in contact therewith, and consisting of the flexible backing, the beveled transverse strips d, secured thereto side by side, and the roughened metallic
35 plates e, secured to the said strips, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JNO. D. BATSON.

Witnesses:

R. T. SANDUSKY,
E. W. OWEN.