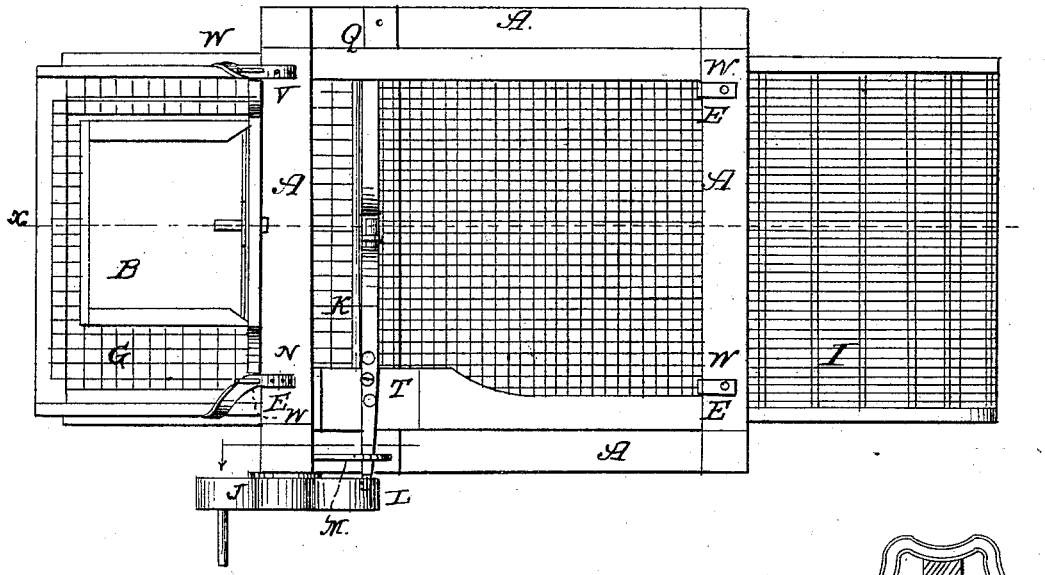
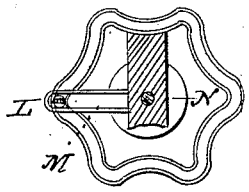
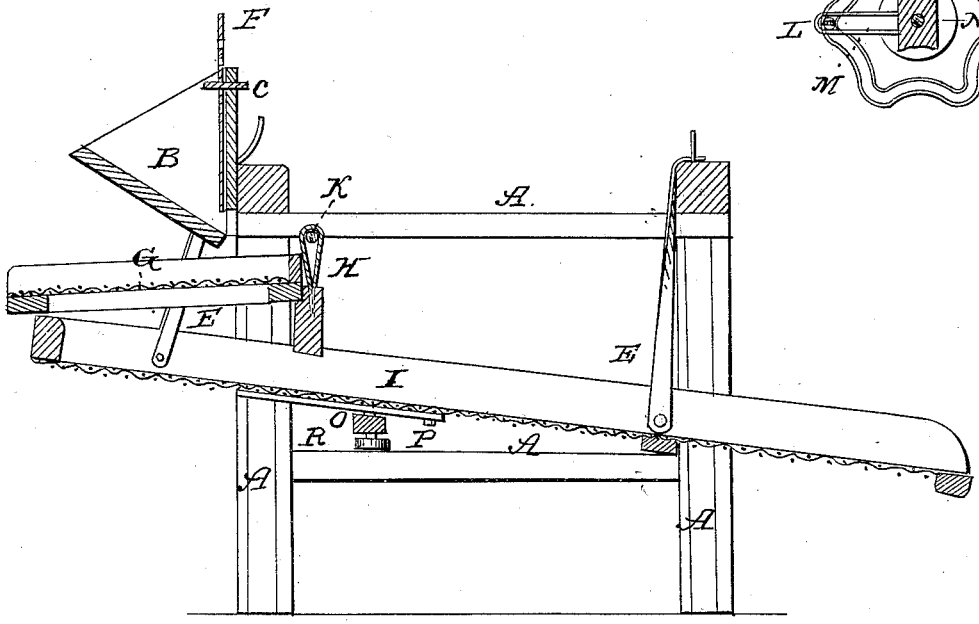
H. OGBORN.

Grain Screen.

No. 45,740. Patented Jan. 3, 1865.







WITNESSES
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UNITED STATES PATENT OFFICE.

HARRISON OGBORN, OF RICHMOND, INDIANA.

IMPROVED GRAIN-SCREEN.

Specification forming part of Letters Patent No. **45,740**, dated January 3, 1865.

To all whom it may concern:

Be it known that I, HARRISON OGBORN, of the city of Richmond, of the county of Wayne and State of Indiana, have invented a new and useful Machine for Screening Grains and Seeds; 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, in which—

Figure 1 is a plan or top view of my invention. Fig. 2 is a central side elevation taken in the red line *x x*. Fig. 3 is a sectional side elevation, taken in the line *y y*.

Letter A A is a suitable frame to support the working parts of my machine.

B is a hopper for holding the grain to be cleaned, as is clearly shown in Fig. 2, in which there is a sliding board, F, for opening and closing the discharge-orifice in the hopper, which board is held in any position desired by the pin C to regulate the flow of the grain upon the riddle G.

H is a staple, firmly fastened to the screen I, through which a reciprocating motion is communicated to the riddle G and screen I.

J, Fig. 3, is a grooved eccentric cam, attached to frame A A in any convenient manner, so that it can be easily rotated by hand or any other convenient power, the use and office of which is to communicate to the lever K a horizontal motion, and through it the same motion to the riddle G and screen I.

K is a lever, through which a motion is communicated to the riddle G and screen I. The inner end of this lever passes through the staple H in a loose manner. The central part of the lever is supplied with a series of holes, S S, for receiving a screw, T, or other suitable fastening, to form a loose joint, so that by putting the screw nearer the outer end of the lever a greater horizontal motion is given to the riddle and screen, and putting it farther from the outer end gives the riddle and screen less horizontal motion, and thus regulating the motion of the riddle and screen to suit the kind of grain or seed being cleaned. The outer end of the lever is supplied with a friction-roller, L, which runs in the eccentric groove J, while the lever K is held by a staple, M, or any other suitable device, from moving in a vertical direction.

N is a washer placed between the eccentric grooved cam J and frame A A′, to prevent any unnecessary friction.

O is a bar supplied with a hole near each end, and placed a little below screen I, against which the screen I will gently strike to prevent its clogging or becoming foul, as I will hereinafter explain.

P is a pin fastened firmly at the lower end in some rigid part of the frame A, and passing loosely through the hole Q in bar O, on which pin is placed a washer, R, which may be left on the pin or taken off to adjust the height of the bar O, so the screen will strike it lightly or heavily, as may be wished.

G is a short riddle placed directly beneath the discharge-orifice of the hopper, for screening out all light, chaffy matter and other foreign substances.

I is a long screen supplied with suspending-straps E E E E, one end of which is attached firmly to the screen I, the other end being supplied with a series of holes, V V, any one of which may be fitted over pins W W to adjust the position of the screen I.

In using my invention, the grain to be cleaned is poured into the hopper B, and the discharge-orifice of the hopper being opened by the rising of the board F, the grain is allowed to fall directly upon the riddle, G and through it onto the screen I, when, the eccentric grooved cam-wheel being rotated, the lever K will be forced to move horizontally, thus causing the riddle G and screen I to be moved quickly back and forth in a horizontal direction. The coarse particles will be thus moved to the lower and outer end of riddle G, where they will fall to the floor. The finer particles and the grain will fall through the riddle G onto the screen I, where the screen I will effectually screen the grain. The pure grain will fall upon the floor at the lower end of the long screen I, while the small particles of refuse matter will fall through screen I onto the floor, thus producing the most perfect results.

Having thus described the nature, construction, and operation of my invention, what I claim therein as new and useful, and desire to secure by Letters Patent, is—

The cam-wheel J and lever K, in combination with the riddle G, screen I, and adjusting-straps E, the several parts being constructed, arranged, and operating substantially as and for the purpose set forth.

HARRISON OGBORN.

Witnesses:

CHARLES D. SMITH,
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