

J. H. STURGEON.
Grain-Separators.

No. 215,078.

Patented May 6, 1879.

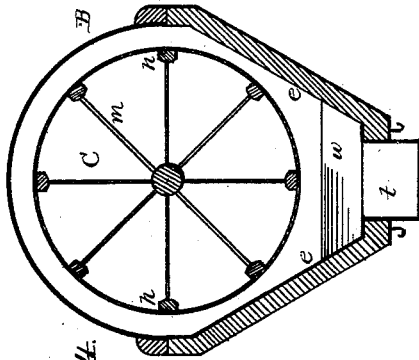


Fig. 4.

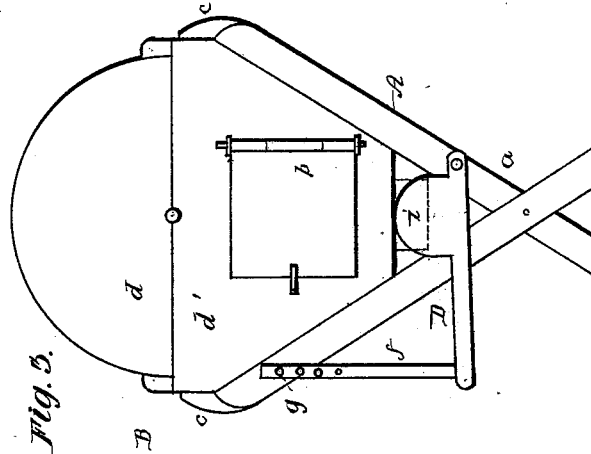


Fig. 5.

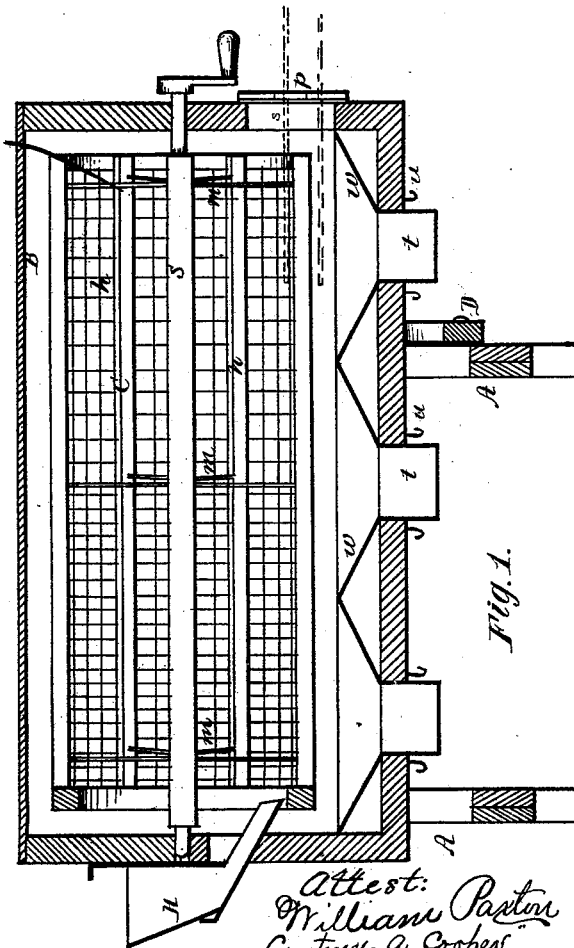


Fig. 1.

Attest:
William Pastor
County Clerk A. Cooper.

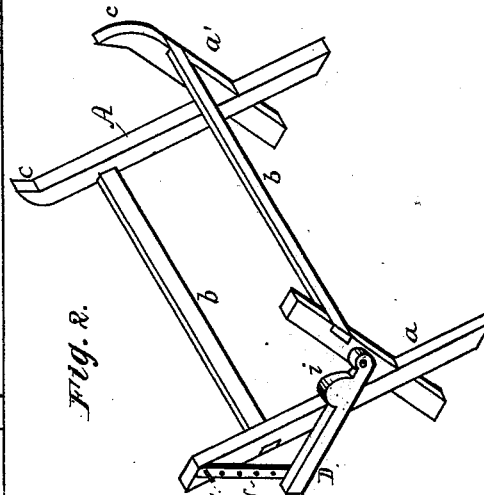


Fig. 2.

J. H. Sturgeon
Per his atty. C. E. Foster

UNITED STATES PATENT OFFICE.

JOHN H. STURGEON, OF OWENSVILLE, INDIANA.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **215,078**, dated May 6, 1879; application filed December 7, 1878.

To all whom it may concern:

Be it known that I, JOHN H. STURGEON, of Owensville, Gibson county, Indiana, have invented Improvements in Grain-Separators, of which the following is a specification.

My invention is an improved grain-separator, constructed as fully described hereinafter, so as to increase its efficiency, simplify its construction, and permit it to be easily regulated.

In the drawings forming part of this specification, Figure 1 is an elevation of a separator with my improvements; Fig. 2, a perspective view of the frame; Fig. 3, an end view; Fig. 4, a transverse section.

The machine consists of the supporting-frame A, case B, and reel C.

The frame consists of a pair of end pieces, *a a'*, connected by bars *b*, the legs *a'* having extensions or lugs *c*, with parallel faces to receive and hold the case, as shown.

The case is divided horizontally in the center into sections *d d'*, the upper being rounded, and the lower having inclined sides *e e* and a flat bottom, *e'*.

The case rests between the cross-legs of the end pieces, as shown in Figs. 1 and 3, the forward end bearing upon the rounded projection *i* of a lever, D, pivoted to the end piece, *a*, and having at the other end a perforated strap, *f*, hanging from a pin, *g*.

The reel consists of parallel bars supported by arms *m*, radiating from the central shaft, *s*, and carrying sections of cockle-wire, graduated to divide the grain into different grades, the grain being fed from a hopper, H, at one end.

Through the bottom *e'* extend three chutes, and within the lower section are plates *w*, inclined from each side toward each chute, and, with the inclined sides *e*, forming funnels for directing the different grades of grain to their respective chutes, beneath which, upon hooks *u*, are directly suspended the bags.

At the outer end of the case is an opening, *s*, closed by a door, *p*, and so arranged that a tool may be introduced either above or below the cockle-wire, to clean the latter, &c.

In grading the material, the inclination of the machine is a matter of much importance. For instance, if there is but a small portion of fine material and the inclination is too great, the fine material will not be sifted out, but will pass forward. If the inclination is not sufficient, the operations will be delayed.

By adjusting the lever D the inclination of the case and reel may be altered as required during the passage of the grain, this adjustment being quickly effected by means of the strap *f* and pin *g*, the rounded projection *i* insuring a bearing on the bottom near the center whatever may be the adjustment.

The case, being detachable from the frame A, may be readily removed and cleaned, while the whole structure is so simple that the machine may be readily made at a slight expense.

I claim—

1. The casing B, containing the reel C, and provided with an opening, *s*, arranged to permit access above and below the cockle-wire of the reel, as specified.

2. The combination of the end pieces, *a a'*, the latter having parallel guiding projections *c c*, the strips *b b*, lever D, pivoted to the end piece, *a*, and having a rounded projection, *i*, arranged to afford a rest for the flat bottom of the case B, and the adjusting-strap and pin *f g*, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. STURGEON.

Witnesses:

WASH JOHNSON,
J. M. DOUGHERTY.