

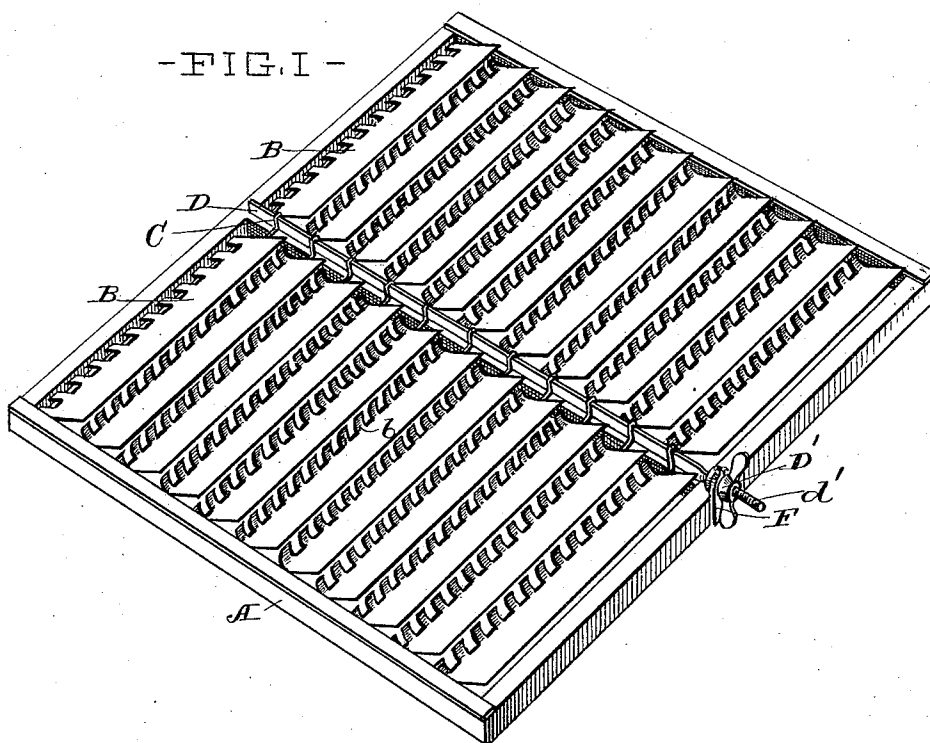
(No Model.)

E. E. DITCH.
SEPARATOR.

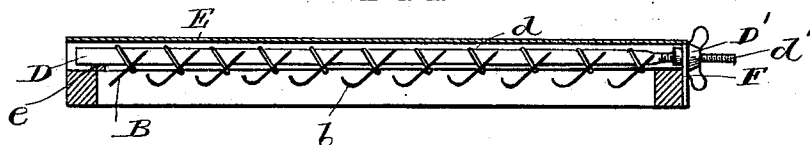
No. 579,793.

Patented Mar. 30, 1897.

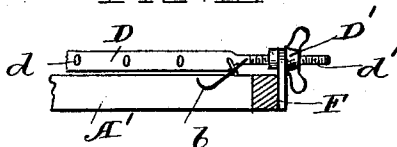
-FIG. I-



-FIG. II-



-FIG. III-



WITNESSES:

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SPECIFICATION forming part of Letters Patent No. 579,793, dated March 30, 1897.

Application filed October 12, 1896. Serial No. 608,610. (No model.)

To all whom it may concern:

Be it known that I, ELMER E. DITCH, of Ashland, Ashland county, Ohio, have invented certain new and useful Improvements in Separators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to screens or separators more especially adapted for use in threshing-machines; and it consists in so forming the screen as to adapt it to be changed from a finer to a coarser mesh; also, in so constructing the screen or separator as that the chaff and straw are readily driven back by the current of wind, and the grain, either wheat, oats, rice, or the like, as the case may be, allowed to pass through.

In the drawings, Figure I is a view in perspective illustrating a screen constructed according to my invention, showing the same with the central cap removed. Fig. II is a longitudinal vertical section taken through the screen and cap, showing more clearly the construction of the parts and their mode of operation. Fig. III represents a short section of the operating-bar, showing a modification in its structure.

A represents a framework in which the operative parts of the device are mounted and operate.

B B represent a series of slats located on both sides of a central bar A'. The slats B B are provided at their outer ends with small pintles, which are journaled in the outer bars of the frame A.

C represents a series of inverted-U-shaped cranks, which are attached to slats B B at their free ends, as shown in Fig. I. The cranks C are journaled at their lower ends at both sides in the central bar A', and at their upper ends engage slots *d d* in a reciprocating bar D. The bar D is free at one end and slides on a cross-bar *e*, which is secured to the under side of the cap E. The cap E is adapted to and does inclose the bar D and the cranks C.

Secured to the frame A is a plate or journal F, in which is mounted a thumb-nut D',

this thumb-nut being tapped or screw-threaded so as to engage with a screw-thread *d'* on one end of the bar D. An annular opening or groove is formed in the thumb-nut and is embraced by the plate or journal F, and thus by turning the nut in one direction or the other the slats B are oscillated in the bearing and the mesh closed or enlarged, as the case may be.

It will be noticed by reference to the drawings that the lower ends of the slats B B are curved upward, as at *b*, and that also the upwardly-curved portions of the slats are serrated or formed into slots, and it is thus that the mesh of the sieve is gaged. The closing up of the slats to each other forms the mesh smaller, while the reverse operation enlarges it.

I have shown in the drawings the upper ends of the U-shaped crank as engaging open slots in the bar D, but it is apparent that instead of these slots elongated holes or openings may be formed in the bar, as shown in Fig. III.

From the construction as above described an adjustable screen is obtained, and at the same time the mesh in said screen or the openings are so presented and located as that the air, which passes underneath the screens in the separator, will strike said screen in the direction of the arrow in Fig. II, thereby getting the direct current against the material to be separated and blowing the chaff and like matter back, allowing the grain to fall through the screen into the receptacle beneath.

What I claim is—

1. In a separator or screen, the combination with the oscillating slats mounted in a frame, said slats having their lower ends serrated and upturned, the upturned edges being adapted to form, in connection with the slats, the mesh of the separator, of inverted-U-shaped cranks secured to said slats and forming the inner journals thereof, said cranks being operated by means of a bar to which they are secured, substantially as and for the purpose shown and described.

2. In a separator or screen, the combination with the frame A provided with oscillat-

ing slats B, said slats having upturned serrated lower edges, and U-shaped cranks, of a central adjustable bar engaging said U-shaped cranks, and means for adjusting said
5 bar, whereby the slats are oscillated and the mesh of the separator altered.

In testimony whereof I sign this specifica-

tion, in the presence of two witnesses, this 5th day of October, 1896.

ELMER E. DITCH.

Witnesses:

WM. T. DEVOR,

J. E. BRUBAKER.