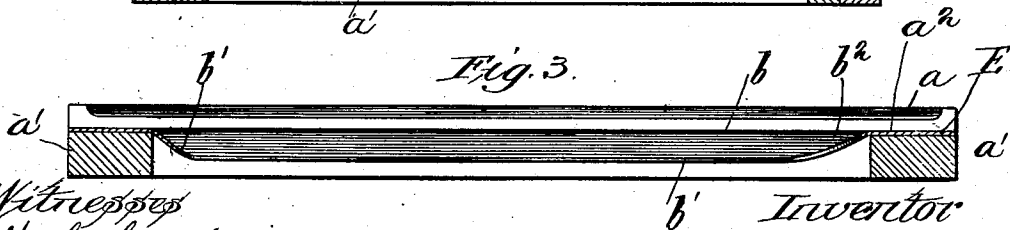
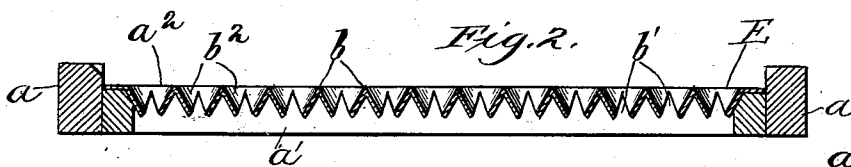
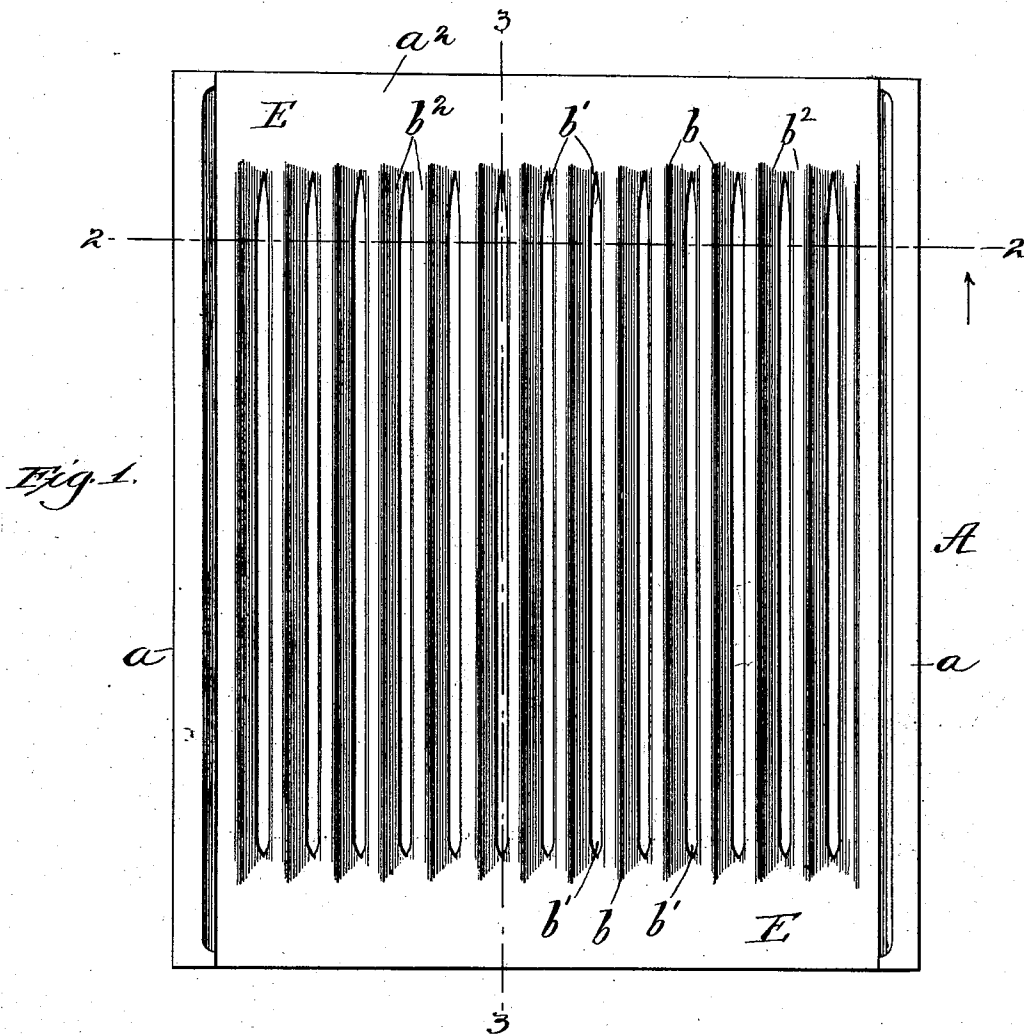


(No Model.)

J. BENESH.
GRAIN SCREEN.

No. 506,657.

Patented Oct. 17, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH BENESH, OF RACINE, WISCONSIN, ASSIGNOR OF ONE-HALF TO
W. G. ADAMS, OF SAME PLACE.

GRAIN-SCREEN.

SPECIFICATION forming part of Letters Patent No. 506,657, dated October 17, 1893.

Application filed September 27, 1892. Serial No. 447,088. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BENESH, a citizen of the United States, residing at Racine, in the county of Racine and State of Wisconsin, have invented a certain new and useful Improvement in Grain-Screens, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a plan view of a screen embodying my invention; Fig. 2, a section of the same taken on the line 2—2, Fig. 1; and Fig. 3, a similar section taken on the line 3—3, Fig. 1.

My invention relates to screens for use in grain separating machines, and especially to that type of screen in which the surface is composed of ribbed metal, or separate ribs of metal, with slots, or openings, between the ribs. In screens of this type, as heretofore constructed, the slots at each end are closed by the straight sides of the frame, making a substantially, straight, vertical stop at the ends of the slots, and extending the depth thereof; these stops obstruct the free passage of the grains, or seeds, off from the screen and result in the backing up of the grains, thus filling, or covering, the slots and so preventing the screenings from dropping down between the ribs.

It is the object of my present invention to overcome this defect, and to accomplish it, I bring the edges of the ribs gradually together at the ends of the slots at the lower end of the screen, and preferably, give a slight inclination to the metal upward, at these points, so as to provide short inclined ways, up and over which the grains, or seeds, readily pass off from the screen.

In constructing the screen, the metal surface, or covering, may be either one sheet of metal properly corrugated and slotted or the ribs may be formed of separate pieces fastened separately to the frame.

In the drawings, I have shown a construction with a metal sheet, which I will now describe. In these drawings, A, represents a screen frame which may be of wood or any other suitable material; it is rectangular in form and composed of the side bars, a , and end bars, a' . A sheet, B, of tin, galvanized iron, or any other suitable material, is cut in

form and size to correspond with this frame, so as to be properly fitted thereto; this sheet is corrugated and slotted so as to provide alternate ribs, b , and intervening spaces, or slots, b' , as shown in the drawings. The ribs are of triangular form with the ridges uppermost, though they may be of any other form, if desired. At the lower end of the screen, the edges of the ribs on each side of the slots are gradually drawn together and inclined outward slightly, so as to form at this end of each slot a short inclined way, b^2 , extending from the bottom of the slot upward and outward to the level edge, a^2 , of the screen. In the well known operation of screening, or separating, machines, the grains, or seeds, pass along down the screen, and are delivered over the lower edge thereof. Where there are abrupt stops, or shoulders, at these lower ends of the slots, some of the grains are stopped, and gradually back up and fill the slots; but, when constructed as described above and shown in the drawings, there is no stoppage of grains at these lower ends of the slots, but they slip readily over the inclined ways, and all danger of backing up and obstructing the screen is entirely obviated.

As already stated, the ribs, or bars, of the screen may be formed separately and attached to the frame in the usual way, but in this instance they must be shaped so that when placed alongside each other on the frame, as required, the edges of the ribs at the lower, or discharge end of the screen will be brought together on converging lines.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A grain screen consisting of alternate ribs and slots, the former constructed with converging edges at the discharge end of the screen, whereby the slots are tapered and closed, substantially as described.

2. A grain screen consisting of ribs, B, intermediate slots, b' , and inclined ways, b^2 , at the discharge ends of the slots, substantially as described.

JOSEPH BENESH.

Witnesses:

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