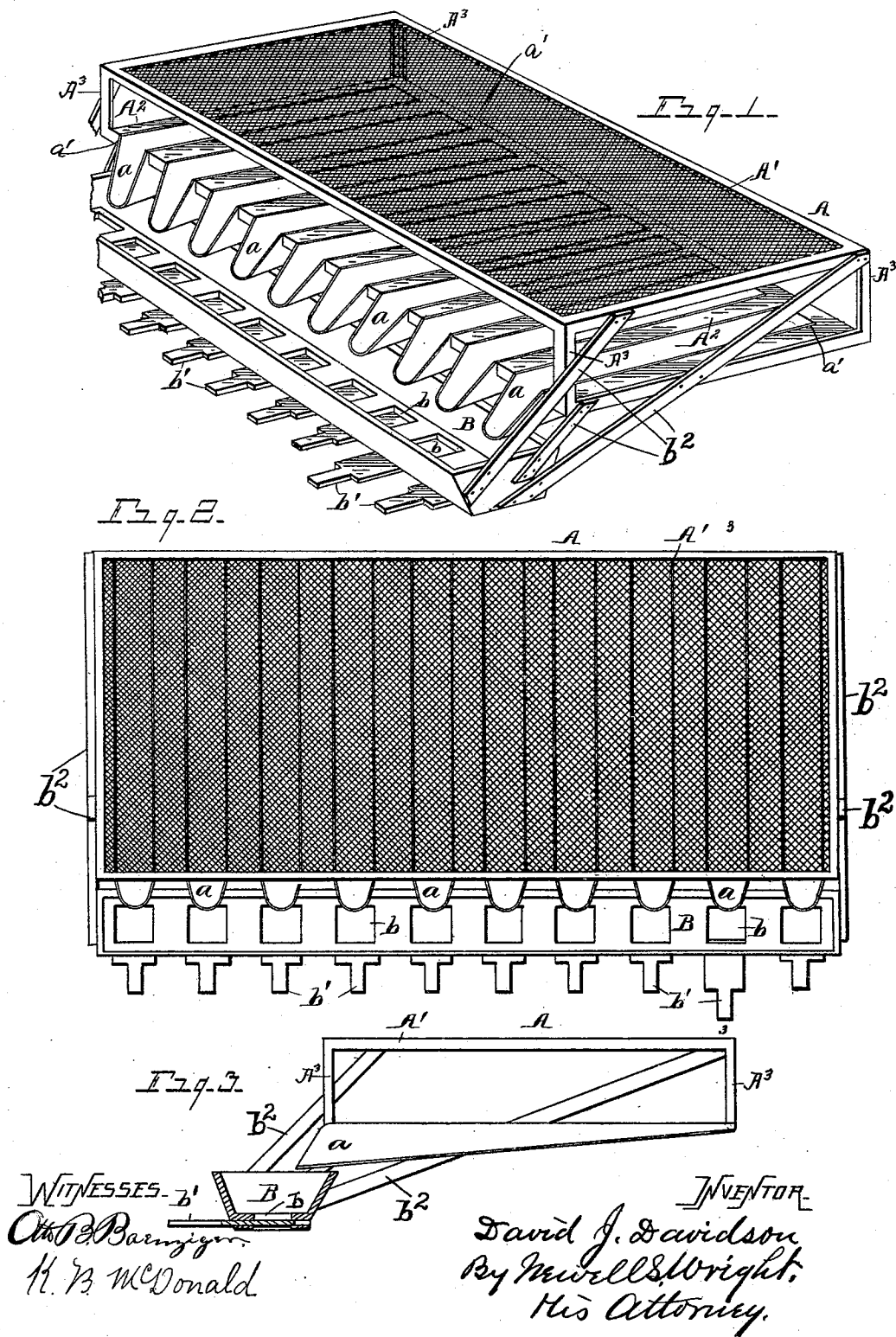


(No Model.)

D. J. DAVIDSON.  
SIEVE CUT-OFF.

No. 536,985.

Patented Apr. 2, 1895.



# UNITED STATES PATENT OFFICE.

DAVID J. DAVIDSON, OF PORT HURON, MICHIGAN, ASSIGNOR OF TWO-THIRDS TO ABRAHAM S. MARTIN AND STEPHEN G. MARTIN, OF SAME PLACE.

## SIEVE CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 536,985, dated April 2, 1895.

Application filed October 31, 1893. Serial No. 489,618. (No model.) Patented in Canada December 5, 1893, No. 44,824.

*To all whom it may concern:*

Be it known that I, DAVID J. DAVIDSON, a citizen of the United States, residing at Port Huron, county of St. Clair, State of Michigan, have invented a certain new and useful Improvement in Sieve Cut-Offs, (for which I have obtained Letters Patent of the Dominion of Canada, dated December 5, 1893, No. 44,824;) and I 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 appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object a new and useful sieve cut off for grain cleaners and analogous purposes, and it consists of the construction, combination, and arrangement of devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective illustrating my invention. Fig. 2 is a plan view. Fig. 3 is a vertical cross section on the line 3—3 Fig. 2.

The aim of my invention is to provide a sieve cut off for grain cleaners, and other uses, whereby the stock passing through a screen may be effectually cut off at any desired point, and across the entire width of the device, and whereby the stock so cut off at any desired point may be separately discharged.

In carrying out my invention I employ a screen frame A of suitable size and dimensions with which is secured a suitable graded screen A'. I prefer that this frame and screen should be rectangular, as shown. Beneath the screen frame and screen and spaced therefrom, I locate a series of transverse spouts or conductors *a*, preferably separated one from another by an intervening flooring A<sup>2</sup>. These spouts are open their entire length at the top thereof and extend across the entire width of the screen therebeneath. The spouts with the intervening flooring A<sup>2</sup>, it will be evident, form a closed bottom underneath the screen, the flooring being employed to close the spaces between the spouts.

The spouts are preferably made to incline downward toward one side of the screen frame, as by making the spouts to gradually deepen from one end toward the other as shown. At their lower ends the spouts are open so as to discharge their contents into a cut off box or trough B extending lengthwise of the screen, below the open ends of said spouts.

The box B is constructed with a series of discharge orifices *b*, preferably in the bottom thereof, said orifices, respectively, being controlled by a suitable valve or slide *b'*.

An independent discharge orifice *b* and controlling slide, are provided, as will be seen, for each of the spouts *a*, and said orifices *b* are made to register with the open end of the corresponding spout, so that when the corresponding slide is open, the stock falling from a given spout will discharge through the open orifice.

I would have it understood that the screen is to be agitated by any suitable means. The agitating mechanism, not forming a feature of my present invention, is not shown herewith.

The agitation of the screen, it is evident, will cause the stock passing therethrough to be discharged into the box B. The spouts and box preferably vibrate with the screen, the box, as shown, being secured to the screen frame by braces *b*<sup>2</sup>. The screen frame is shown supported above the spouts and flooring by means of posts A<sup>3</sup> at each corner. The upper edges of the spouts are located even with the surface of the intervening flooring. The extension and opening of the spouts upward under the screen entirely across the width of the screen therebelow is an important feature of my invention in connection with the other features above described.

What I claim as my invention is—

In combination, an agitable screen frame having a graded screen secured thereto, a series of inclining spouts opening upward their whole length, extending transversely across the full width of the screen therebeneath and

spaced therefrom, a cut off box extending longitudinally of the screen under the lower ends of the spouts, into which the several spouts discharge, said box constructed with discharge orifices and means to control the discharge therethrough, said orifices registering with the corresponding spouts, whereby when a given orifice is open, the corresponding spout will discharge therethrough, said

spouts closed therebetween, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

DAVID J. DAVIDSON.

Witnesses:

GEO. R. DAVIDSON,  
ALBERT JAY DE YOE.