

Nov. 7, 1933.

W. LUNSFORD ET AL

1,933,561

GRAIN SEPARATOR

Filed Dec. 12, 1930

2 Sheets-Sheet 1

Fig. 1.

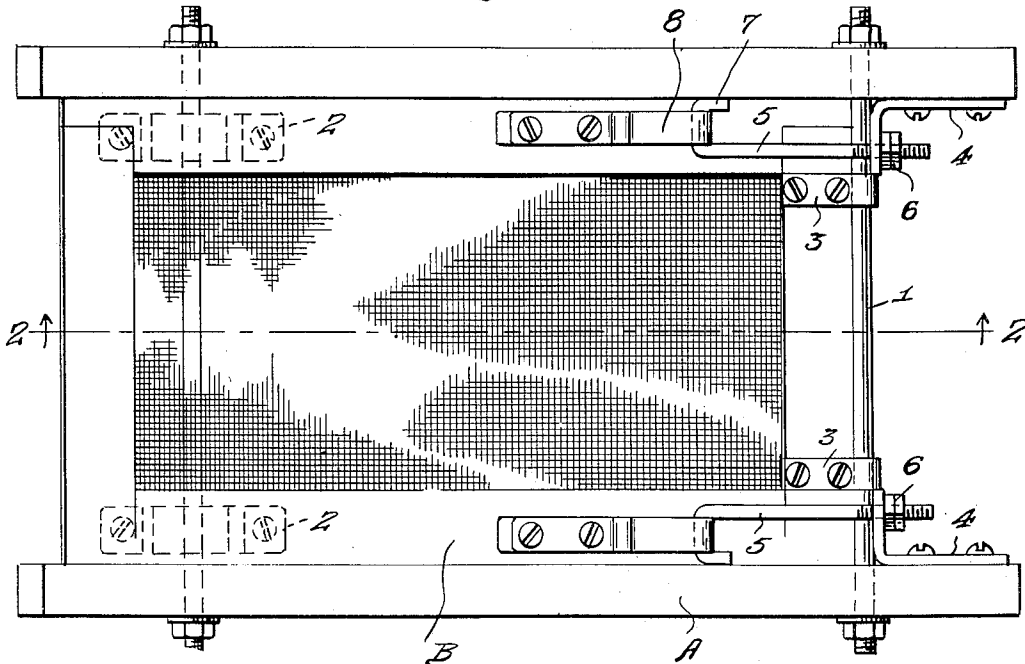


Fig. 2.

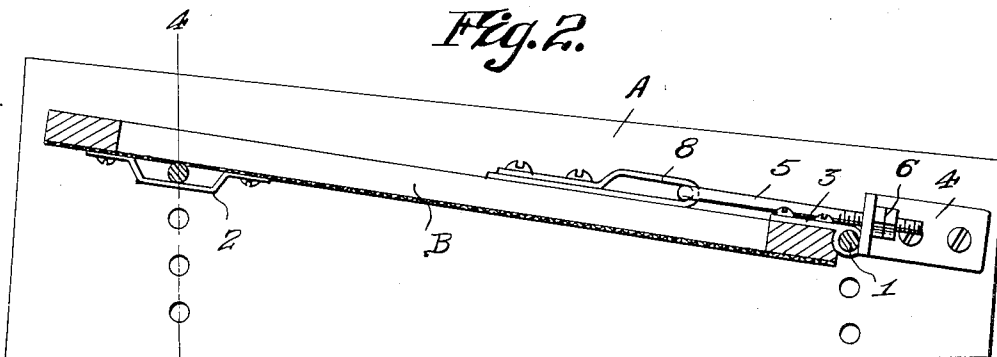
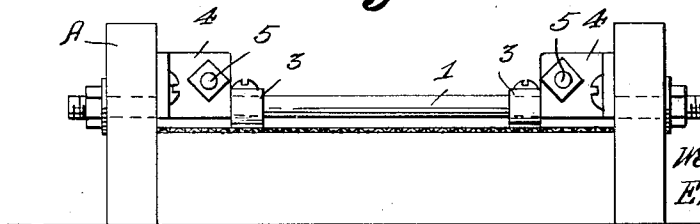


Fig. 3.



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Fig. 4.

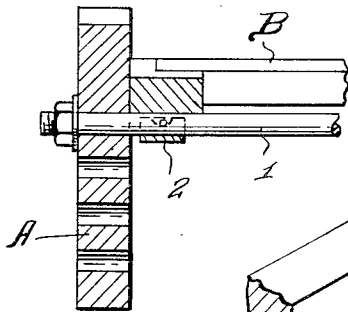


Fig. 5.

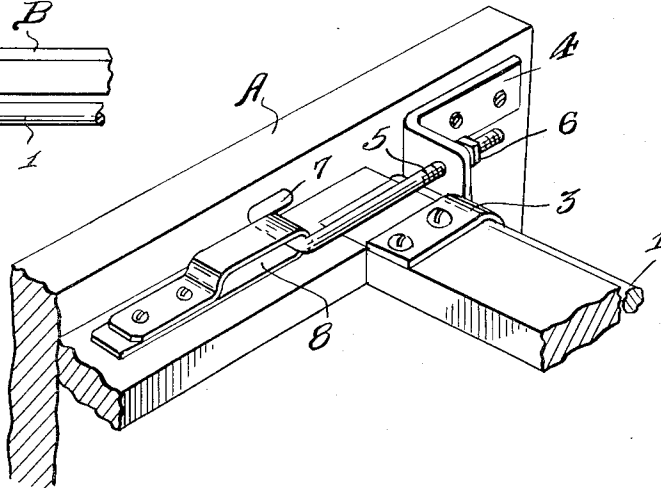


Fig. 6.

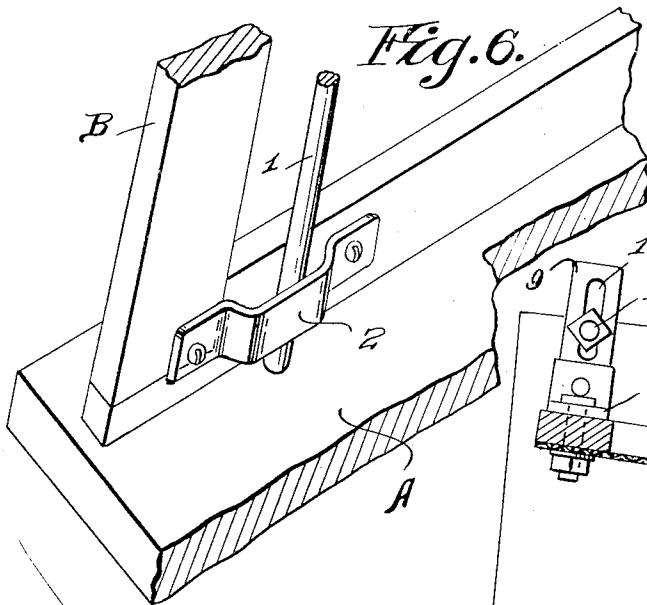
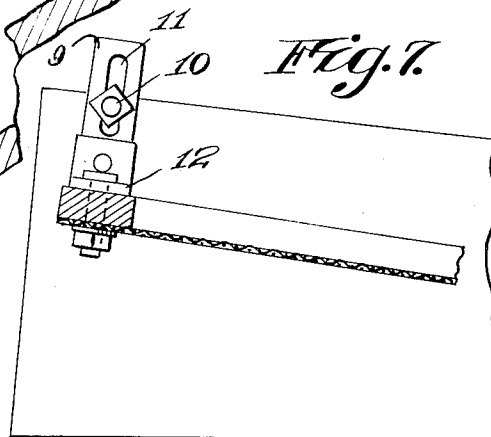


Fig. 7.



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1,933,561

GRAIN SEPARATOR

Wesley Lunsford and Elmer Weiny, Milton, Iowa

Application December 12, 1930

Serial No. 501,948

1 Claim. (Cl. 209—405)

This invention relates to improvements in separators for grain and the like, the general object of the invention being to provide means for rigidly connecting the screen frame to the shoe frame so as to prevent any movement of the screen frame with respect to the shoe frame which tends to damage the screen and causes leakage of grain.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a plan view of a shoe and sieve, showing the invention in use.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is an end elevation.

Figure 4 is a detail sectional view, the section being taken on line 4—4 of Figure 2.

Figure 5 is a detail perspective view showing the clamping means at the rear end of the device.

Figure 6 is a detail perspective view showing the means at the front end of the device for connecting the sieve to a cross bar.

Figure 7 is a detail sectional view showing a modification.

In these drawings, the letter A indicates the shoe and the letter B the sieve. Front and rear rods 1 pass through the shoe and the front end of the sieve frame is connected with the front rod by the brackets 2 which are fastened to the frame and engage the rod. These brackets are of elongated form so that the frame can be moved longitudinally on the rod. The rear end of the sieve frame is connected with the rear rod by the straps 3 which are fastened to the frame and are looped around the rod, the rod engaging the rear end of the frame, as shown. Angle brackets 4 are fastened to the rear ends of the side pieces of the shoe and have their inwardly extending flanges contacting the rear rod so that the rod is located between the end of the sieve frame and said brackets. Bars 5 have their rear ends threaded and passing through holes in the brackets 4 and nuts 6 are placed on the threaded parts of the bars and bear against the brackets. The front ends of the bars are bent into hook shape, as shown at 7. Looped straps 8 are fastened to the side mem-

bers of the sieve frame and the hooked ends of the bars 5 engage the loops of said straps.

Thus by tightening the nuts on the bars 5, said bars will exert a pulling action on the looped straps 8 so that the sieve frame is drawn against the rear rod 1, which firmly holds the sieve frame to the shoe frame.

In order to prevent any movement of the front part of the sieve frame in the shoe, we may provide a pair of brackets 9, each bracket being adjustably fastened to a side of the shoe by a bolt 10 passing through the side and through a slot 11 in the bracket. Each bracket is pivoted to a bracket 12 which is fastened to a side of the sieve frame. This arrangement is shown in Figure 7.

As before stated, this invention prevents movement of the sieve frame in relation to the shoe.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What we claim is:—

In a grain separator, a shoe, rods passing transversely through the shoe, a screen, bracket loops secured to the under face of the screen and embracing one of said rods, the screen having a swinging or pivotal connection with the other of said rods, the opening in said loops being of a height according with the diameter of the said rod but of a length materially greater than said diameter, brackets secured to the shoe on the inner faces thereof and formed with right angular ears, eye members secured on top of the screen, and hook members engaged in said eye members and having threaded shanks passing through said ears and nuts engaging said shanks and abutting the ears on opposite sides from said loops, the loops being elongated in the direction of the length of the screen.

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