

No. 682,281.

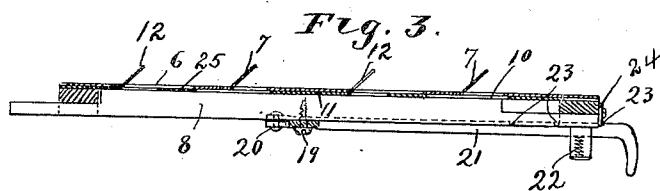
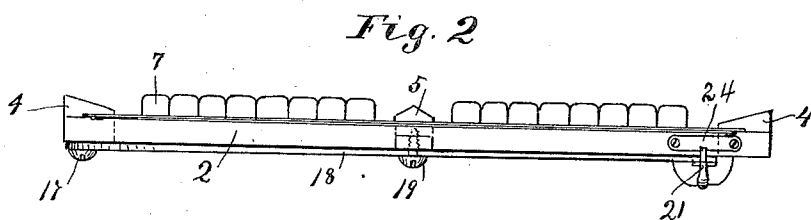
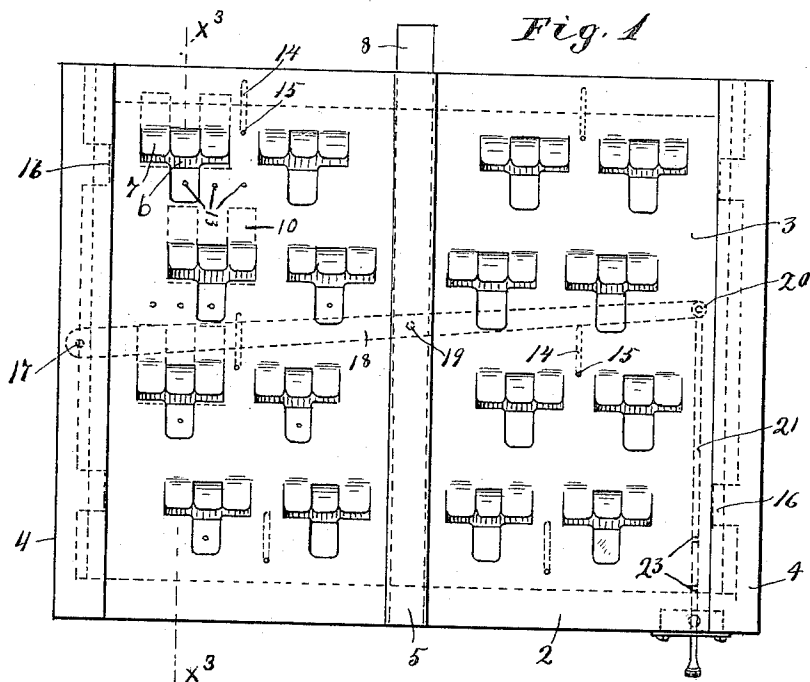
Patented Sept. 10, 1901.

M. SCHILL & J. A. HEINTZ.
ADJUSTABLE SCREEN FOR GRAIN OR SEEDS.

(Application filed Mar. 19, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses.

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2 Sheets—Sheet 2.

Fig. 4



Fig. 6.

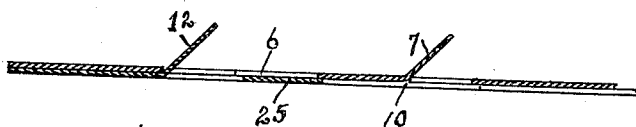


Fig. 5.

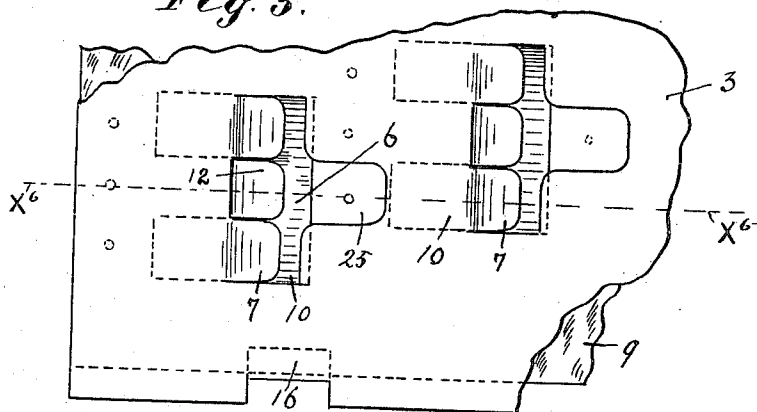


Fig. 8.

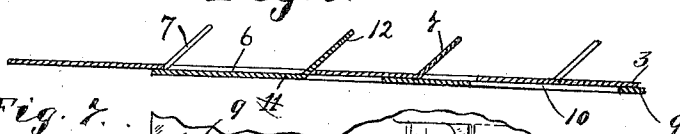
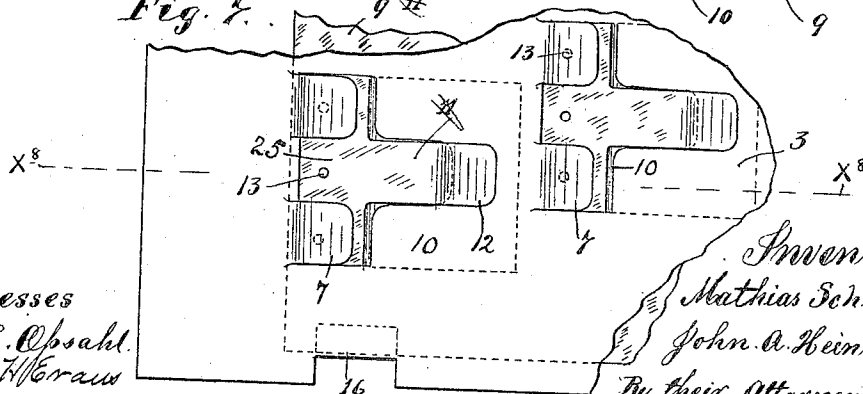


Fig. 7.



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UNITED STATES PATENT OFFICE.

MATHIAS SCHILL, OF FARMHILL, AND JOHN A. HEINTZ, OF MENOMONIE,
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ADJUSTABLE SCREEN FOR GRAIN OR SEEDS.

SPECIFICATION forming part of Letters Patent No. 682,281, dated September 10, 1901.

Application filed March 19, 1900. Serial No. 9,176. (No model.)

To all whom it may concern:

Be it known that we, MATHIAS SCHILL, residing at Farmhill, in the county of Pierce, and JOHN A. HEINTZ, residing at Menomonie, in the county of Dunn, State of Wisconsin, citizens of the United States, have invented certain new and useful Improvements in Adjustable Screens for Grain or Seeds, of which the following is a specification.

Our invention relates to improvements in adjustable screens for grain and seeds, and has for its object to provide a screen which may be used for different kinds of grain and in which the holes or apertures may be easily varied in size, according to the kind of grain or seeds to be screened.

To this end our invention consists in the construction, combination, and arrangements of parts hereinafter described, and specifically pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of our improved screen adjusted for apertures of the largest size. Fig. 2 is an end elevation thereof. Fig. 3 is a vertical section taken on line $x^3 x^3$ of Fig. 1 with the cleats removed. Fig. 4 is a detail in elevation, partly broken away, to show the guides for the under or sliding plate. Fig. 5 is a detail of the screen in plan when adjusted for apertures of the largest size. Fig. 6 is a vertical section on line $x^6 x^6$ of Fig. 5. Fig. 7 is a detail of the screen in plan when adjusted for apertures of the smallest size, and Fig. 8 is a vertical section on line $x^8 x^8$ of Fig. 7.

In the drawings, 2 represents the framework, to which the upper or stationary screen plate or sheet 3 is secured by bolts or screws and by side cleats 4 and the central cleat 5. This plate is formed with a series of apertures, each consisting of a transverse slot 6, having a central forwardly-extending cut-away portion 11. A pair of lips 7 project upwardly and forwardly from the ends of the rear side of the slot 6.

Slidably arranged upon the under side of the frame is a bar 8, upon the upper side of which is secured the lower screen-plate 9, with its upper surface contacting with the lower surface of the upper screen-plate. The

lower screen-plate is formed with a series of apertures, consisting each of two longitudinally-extending slots 10, as shown by dotted lines in Figs. 1, 5, and 7. The forward end of the material separating the slots 10 is upturned to form a lip 11, which projects upwardly and forwardly between the lips upon the upper plate. The space 12, caused by the upturning of the lip 11, connects the forward ends of the slots 10, as indicated in Fig. 5. The portions 25 of the under plate between each row of apertures are formed with small holes 13 for screening millet and small seeds. The lower screen-plate 9 is also provided with a series of narrow longitudinally-extending slots 14, which allow it to slide upon the pivots 15, by which it is attached to the upper screen-plate. The side edges of the upper screen-plate are turned under at intervals, as shown in Fig. 4, to serve as guides 16, in which the lower plate is adapted to slide.

Having fulcrum support on the frame at 17 is a transversely-extending lever 18, pivotally secured to the sliding bar 8 at 19. To the end 20 of this lever is pivoted a handle-bar 21, extending out beyond the frame and held normally pressed up against it by means of the spring 22. This handle-bar is provided with a series of notches 23, adapted to engage a plate 24 upon the frame and be held thereby in locked position.

Figs. 1 and 2 show the arrangement of the apertures and lips when the sliding screen-plate is forced back to its innermost position. In this position the upwardly-turned lips 12 of the lower plate stand in alinement with the lips 7 of the upper plate, leaving below them wide registering openings through both plates, the forwardly-extending portion of the slot 6 being closed by the portions 25 of the under screen. When so adjusted, the screen is adapted for use in screening wheat and coarser grains. When the sliding plate 9 is pulled out half the distance of its travel, the lips 12 of this plate are drawn forward in advance of the lips 7 of the upper plate, the tongues 11 closing the rear portion of the slot 6, while at the same time the portion 25 of the under screen is drawn out from beneath the slot 6, leaving the forward part of this

slot registering with the opening in the screen below. When the screen is so adjusted, there will therefore be three smaller openings adapted for use in screening oats and the finer grains. When the sliding plate 9 is pulled out the whole distance of its travel, as shown in Figs. 7 and 8, the tongues 11 and the portions 25 of the under plate between the rows of apertures will almost close the openings in the upper plate, leaving no apertures for the passage of grain or seeds except the small slots 13 and the narrow spaces between the edges of the apertures in the upper and lower screens.

15 Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a screen of the class described, the combination, with the frame, of two screening plates supported thereby and arranged one above the other, the plates being formed with registering apertures, lips projecting upwardly from one side of each of the apertures in the upper plate, lips arranged along the corresponding side of each of the apertures in the lower plate and projecting upwardly be-

tween the lips upon the upper plate, and means for adjusting said plates to carry the lips upon one plate out of alinement with the lips upon the other plate.

2. In a screen of the class described, the combination with a frame, of two plates slidably arranged one above the other, the upper plate being formed with apertures each consisting of a transverse slot having a central forward extension, and the lower plate being formed with apertures registering with the apertures in the upper plate, lips projecting upwardly from the ends of the rear side of the transverse slots in the upper plate, and lips projecting upwardly from the lower plate between the lips upon the upper plate, the lips upon the lower plate being of less width than the forwardly-extending part of the apertures in the upper plate.

In testimony whereof we affix our signatures in presence of two witnesses.

MATHIAS SCHILL.
JOHN A. HEINTZ.

Witnesses:

LOUIS WAGNER,
E. J. BATES.