

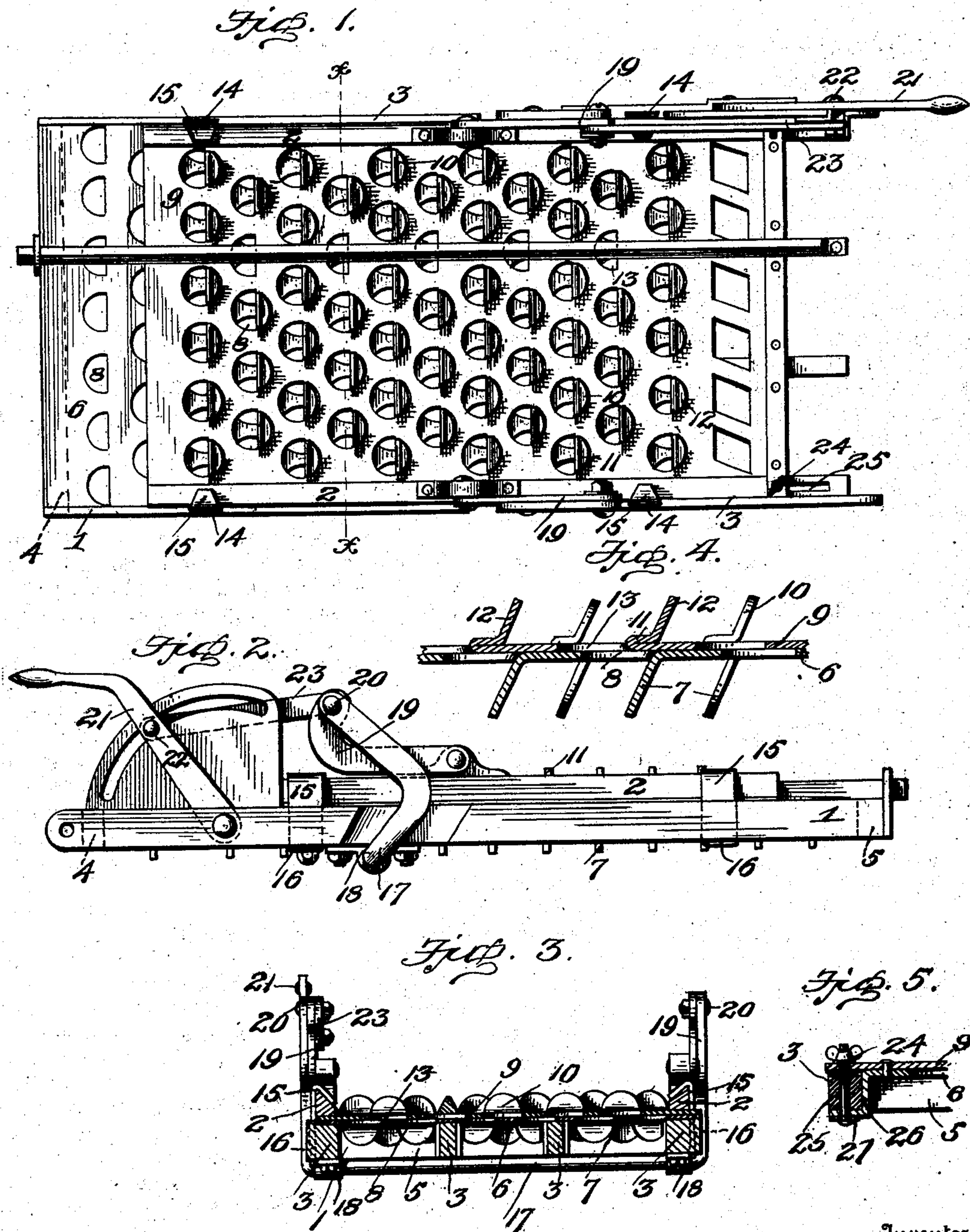
No. 693,447.

Patented Feb. 18, 1902.

J. SACORA.
GRAIN SCREEN.

(Application filed Feb. 8, 1900. Renewed Aug. 19, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN SACORA, OF DEKALB, ILLINOIS.

GRAIN-SCREEN.

SPECIFICATION forming part of Letters Patent No. 693,447, dated February 18, 1902.

Application filed February 8, 1900. Renewed August 19, 1901. Serial No. 72,581. (No model.)

To all whom it may concern:

Be it known that I, JOHN SACORA, a citizen of the United States, residing at Dekalb, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Grain-Screens; and I do 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.

The invention relates to grain-screens, and more particularly to that class of screens used in winnowers of grain-threshing machines.

The object of the invention is to provide a screen which shall be simple of construction, durable in use, comparatively inexpensive of production, and which shall be adjustable to regulate it to different materials to be screened.

To this end the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a plan view of my improved screen. Fig. 2 is a side elevation. Fig. 3 is a cross-sectional view on the line xx of Fig. 1. Fig. 4 is a vertical sectional view through the plates forming the two screen-sections. Fig. 5 is a detail view showing the locking device for holding the plates in adjusted position.

In the drawings the same reference characters indicate the same parts of the invention.

1 denotes the frame of the lower screen-section, and 2 the frame of the upper screen-section. The frame of the lower screen-section is composed of the longitudinal bars 3 and the cross-bars 4 and 5. Placed upon these bars and secured thereto is a lower screen-plate 6, which has tongues 7 struck up therefrom and bent downwardly to form openings 8.

9 denotes the upper screen-plate, which has tongues 10 struck up therefrom and bent back at 11 and resting upon the body of the plate and thence inclined rearwardly, as at 12, and serve to feed the material not sifted through the openings 13, formed by the said tongues 10, and the openings 8, formed by the tongues 7. By bending these tongues back and in contact with the body of the plate they are greatly strengthened.

The outer longitudinal pieces 3, constituting the lower screen-frame, are provided with slots 14, through which project plates 15, the lower angular ends 16 of which are secured to said side pieces, while the upper angular ends are bent over the beveled faces of the side pieces 2 of the upper screen-frame and serve as a guide to permit of the adjustment of the upper frame longitudinally with respect to the lower frame.

17 denotes a crank-shaft journaled in bearings 18, secured to the under side of the lower frame, and 19 denotes lugs projecting upwardly from the side pieces of the upper frame and connected to the cranks of said shaft by a pivot-bolt 20.

21 denotes an adjusting-lever pivoted to one of the side pieces of the lower frame and provided with a lateral stud 22, working through a segmentally-slotted guide-plate secured to said side piece of the lower frame. To this stud is pivoted one end of a link 23, which has its other end pivoted to the crank-arm. To adjust the frame, the lever is operated to slide one screen-plate with respect to the other, and thereby increase or decrease the size of the registering openings therein. When the screen-plates have been properly adjusted, they are locked in said adjustment by a thumb-screw 24, working through a vertical slot 25, formed in one of the side pieces of the lower frame. The lower end of the thumb-screw extends through an angular plate 26, secured to one end of the lower screen-plate, and is provided with a swiveled washer 27. By tightening this screw the angular plate and the upper screen-section are firmly clamped to the side bar of the lower screen-frame.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of this invention will be readily apparent without requiring an extended explanation. It will be seen that my improved screen is simple of construction, that said construction permits of its manufacture at small cost, and that it is exceedingly well adapted for the purpose for which it is designed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. A screen consisting of an upper frame and a lower frame, each of which is provided with a screen-plate having registering apertures, the lower screen-frame being formed with longitudinal slots, plates extending through said slots and having their lower ends passed into the side pieces of the lower screen-frame and their upper ends bent over the side pieces of the upper screen-frame, a slot formed in the end of one of the side pieces of the lower frame, a bolt extending through said slot, through the upper plate, and through an angular plate fastened to the lower screen-plate and provided with a washer and nut,

lugs secured to the side pieces of the upper screen-frame, a crank-shaft, links connecting the lugs with the crank-shaft, a pivoted lever, and a link connecting one of the cranks and said pivoted lever, substantially as set forth.

2. A screen-plate having tongues struck up therefrom to form apertures, said tongues being bent back and resting against the body of the plate and thence bent upwardly, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN SACORA.

Witnesses:

WALTER WHITE,
H. W. PRENTICE.