

No. 748,562.

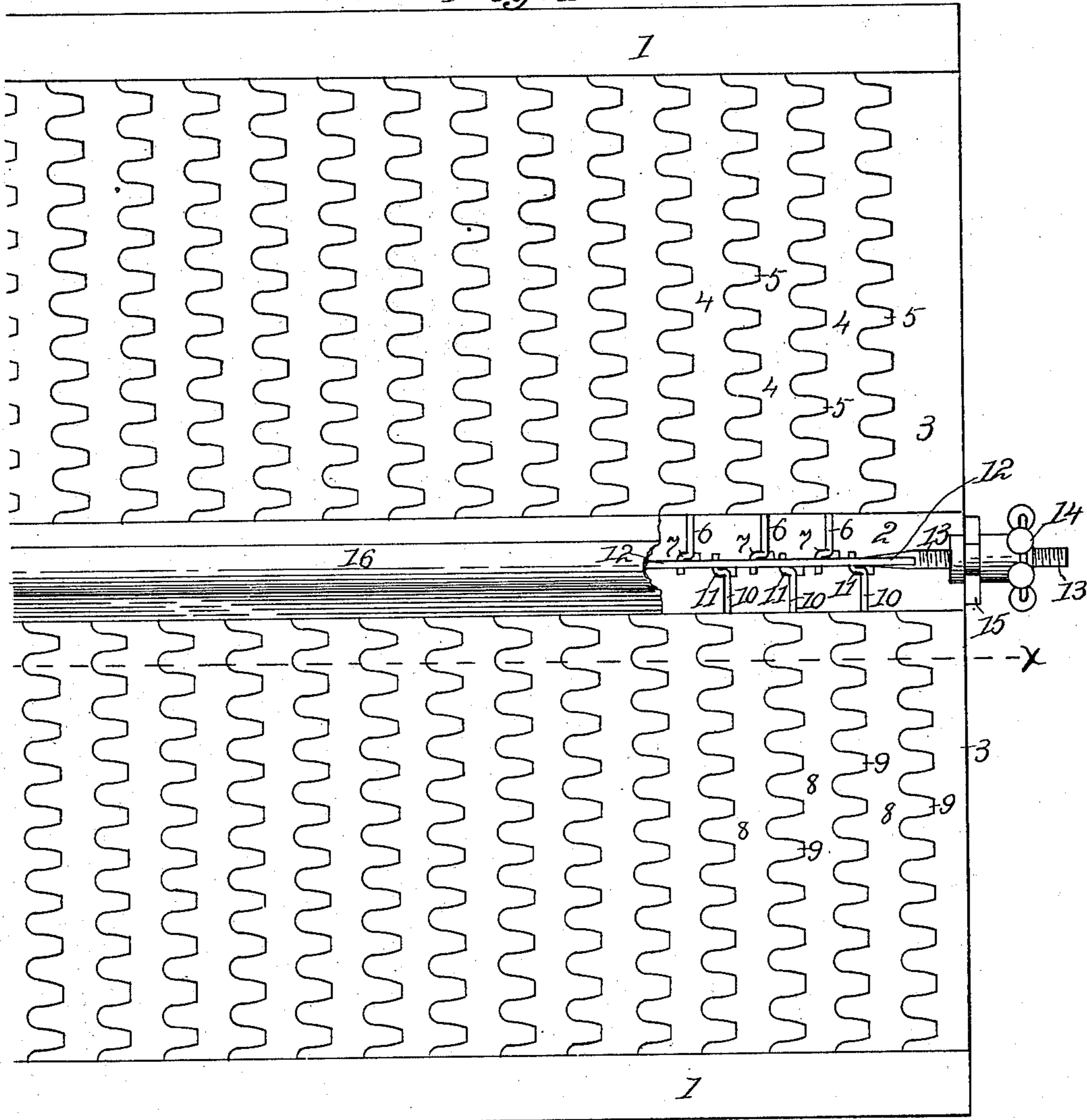
PATENTED DEC. 29, 1903.

W. C. ROWE.  
SEPARATING SCREEN.

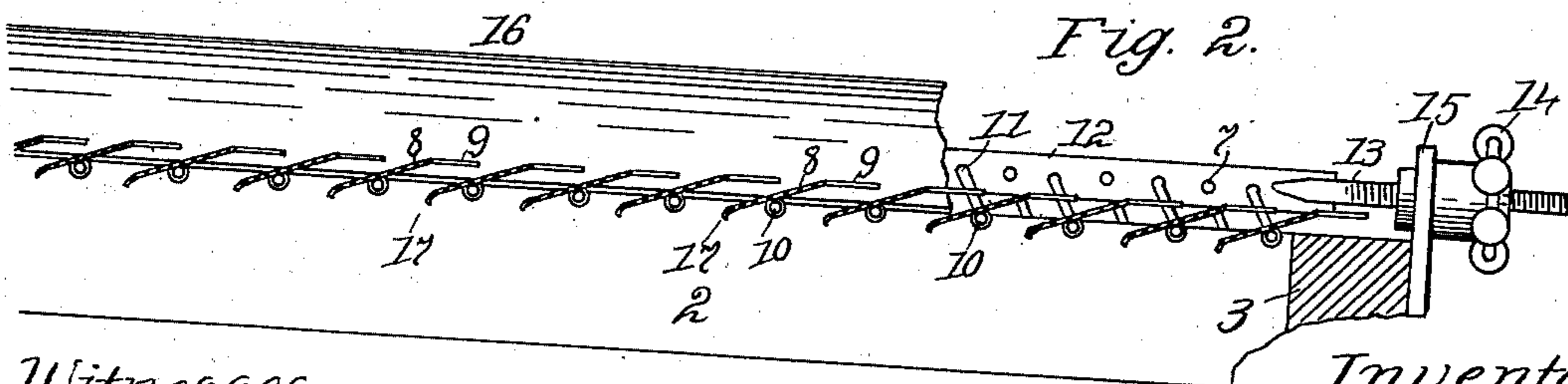
APPLICATION FILED JUNE 12, 1900.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



Witnesses.

*Nora Graham.*

*Ira C. Graham.*

Inventor

*Willard C. Rowe*

by *S. P. Graham*  
his attorney

# UNITED STATES PATENT OFFICE.

WILLARD C. ROWE, OF DECATUR, ILLINOIS, ASSIGNOR TO UNION IRON WORKS, OF DECATUR, ILLINOIS, INCORPORATED.

## SEPARATING-SCREEN.

SPECIFICATION forming part of Letters Patent No. 748,562, dated December 29, 1903.

Application filed June 12, 1900. Serial No. 20,027. (No model.)

*To all whom it may concern:*

Be it known that I, WILLARD C. ROWE, of the city of Decatur, county of Macon, and State of Illinois, have invented a certain new and useful Separating-Screen, of which the following is a specification.

This invention is intended to clean various kinds of grain, and it is particularly applicable to shelled corn. It is exemplified in the structure hereinafter described, and it is defined in the appended claim.

In the drawings forming part of this specification, Figure 1 is a plan of the discharge end of a screen embodying my improvements. Fig. 2 is a section on line *x* in Fig. 1.

The screen-frame 1 has a central bar 2, that divides the screen into two parts, and it also has end strips, as 3, one at each end.

The screen consists of a set of slats, as 4 or 8, which are attached to pivot-rods, as 6 and 10. The slats each comprise an imperforate strip mounted on the upper side of its pivot-rod in an oblique position, the upper rear edge of the slat being provided with teeth, as 5 and 8, that extend rearward and are diverted downward from the general plane of the slat. The slats are smooth on their upper surfaces. The teeth incline downward from the slats on an obtuse bend, and the forward ends of the slats curve downward, as shown at 17 in Fig. 2. If the slats are considered independent of the teeth thereon, it is correct to say that the rear edge of each slat except the rear-most one terminates above and in approximate vertical alinement with the front edge of the slat next adjacent and that the teeth are extended above the smooth surface of a slat. The pivot-rods are underneath the untoothed parts of the slats, at about the transverse center thereof, and the forward extension of each slat from the pivot-rod thereof is about half the distance between pivot-rods.

The screen is divided into two parts by the central bar 2, and the slats of one part of the screen are out of line with the slats of the other part. The pivot-rods 6 of slats 4 have rocking bearings in the upper surface of bar

2, and pivot-rods 10 of slats 8 have rocking bearings in the upper surface of bar 2 midway between the bearings of rods 6. The pivot-rods have cranked ends 7 and 11, and such cranked ends pivot in holes in an adjusting-bar 12. The adjusting-bar is sustained by the cranked ends of the pivot-rods. It is used to rock the slats, so as to give more or less space between the teeth and the overlapping smooth surfaces of the slats, and it rises and falls as the crank-arms rock. It has a threaded rod 13 on its rear end, and a nut 14 on such threaded end has an annular groove that rests in a slot in a fixed lug or standard 15. When the nut is turned, it rises and falls in the slot of the standard to correspond with the rise and fall of the adjusting-bar, and the crank-arms and the slats are adjusted by varying the inclination of the cranks. The adjusting-bar and the cranked ends of the pivot-rods are covered while in operation by a hood, as 16.

The screen is imperforate when viewed from above, there being no openings through which straws and the like may pass while moving in a vertical direction. The smooth surfaces of the slats are all inclined. The teeth alone assume horizontal positions, and grain that does not pass between the teeth moves freely down the smooth inclined surfaces in front of the teeth. The teeth are presented toward the inclined upper surfaces of the slats next adjacent, and the points of the teeth make the nearest approach—that is to say, the oblique spaces between slats are wider nearer the bottom—so that anything that starts through the spaces may complete the passage without clogging.

Short pieces of straw falling endwise cannot pass through the screen, but are arrested, tilted over onto the upper surface of the screen, and carried off.

I claim—

A separating-screen composed of two sets of axially-rockable, obliquely-disposed slats having teeth forming obtuse angles at their bases with edges of the slats, a bar separating

the two sets of slats, pivot-rods for the slats  
 journaled in the separating-bar, one set of  
 pivot-rods being out of line with the other set,  
 crank-arms on the pivot-rods, a bar connected  
 5 with the cranked ends of the pivot-rods and  
 carried thereby, and means for adjusting the  
 bar to vary the inclination of the slats.

In testimony whereof I sign my name in  
 the presence of two subscribing witnesses.

WILLARD C. ROWE.

Witnesses:

C. M. LYTLE,  
 L. P. GRAHAM.