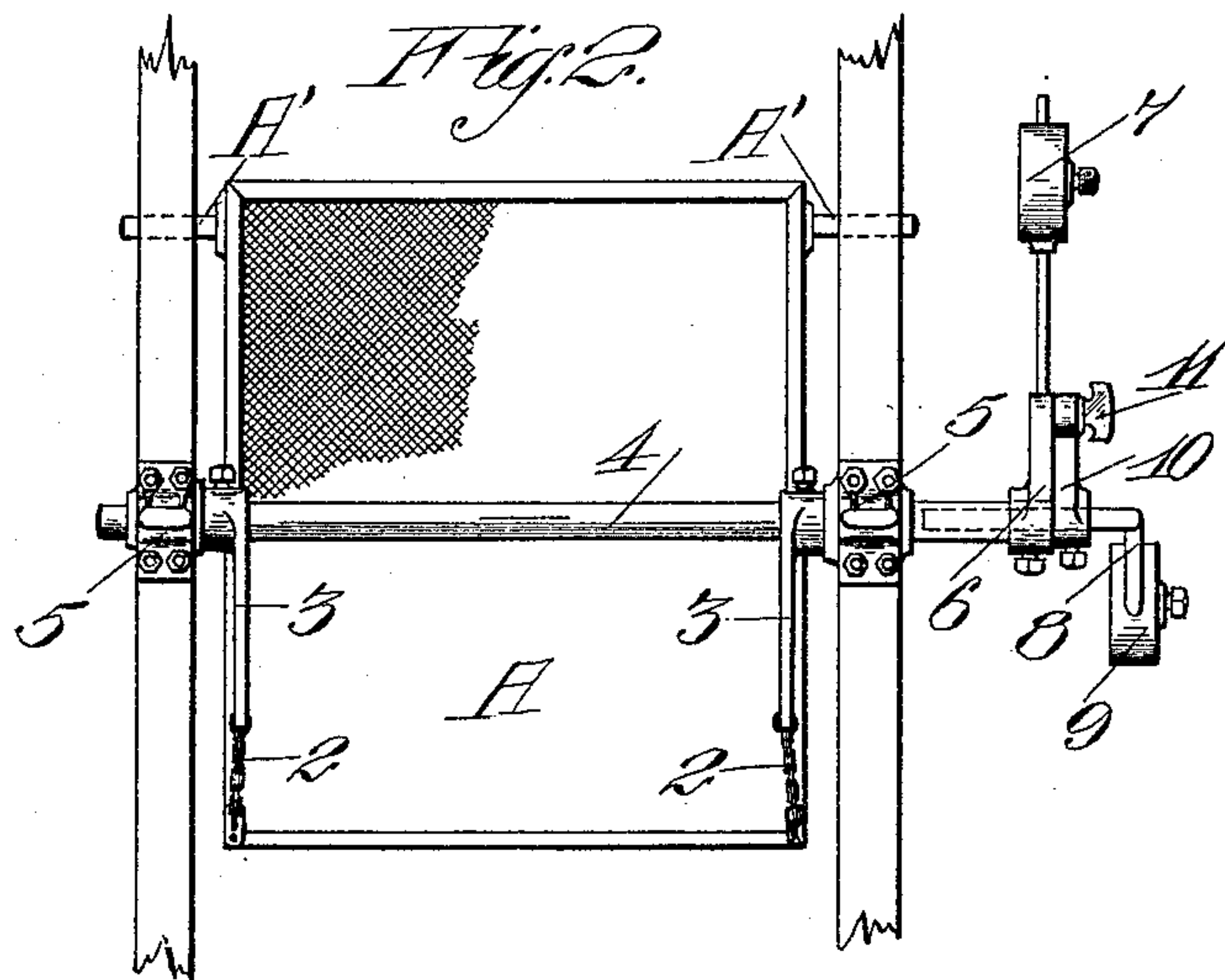
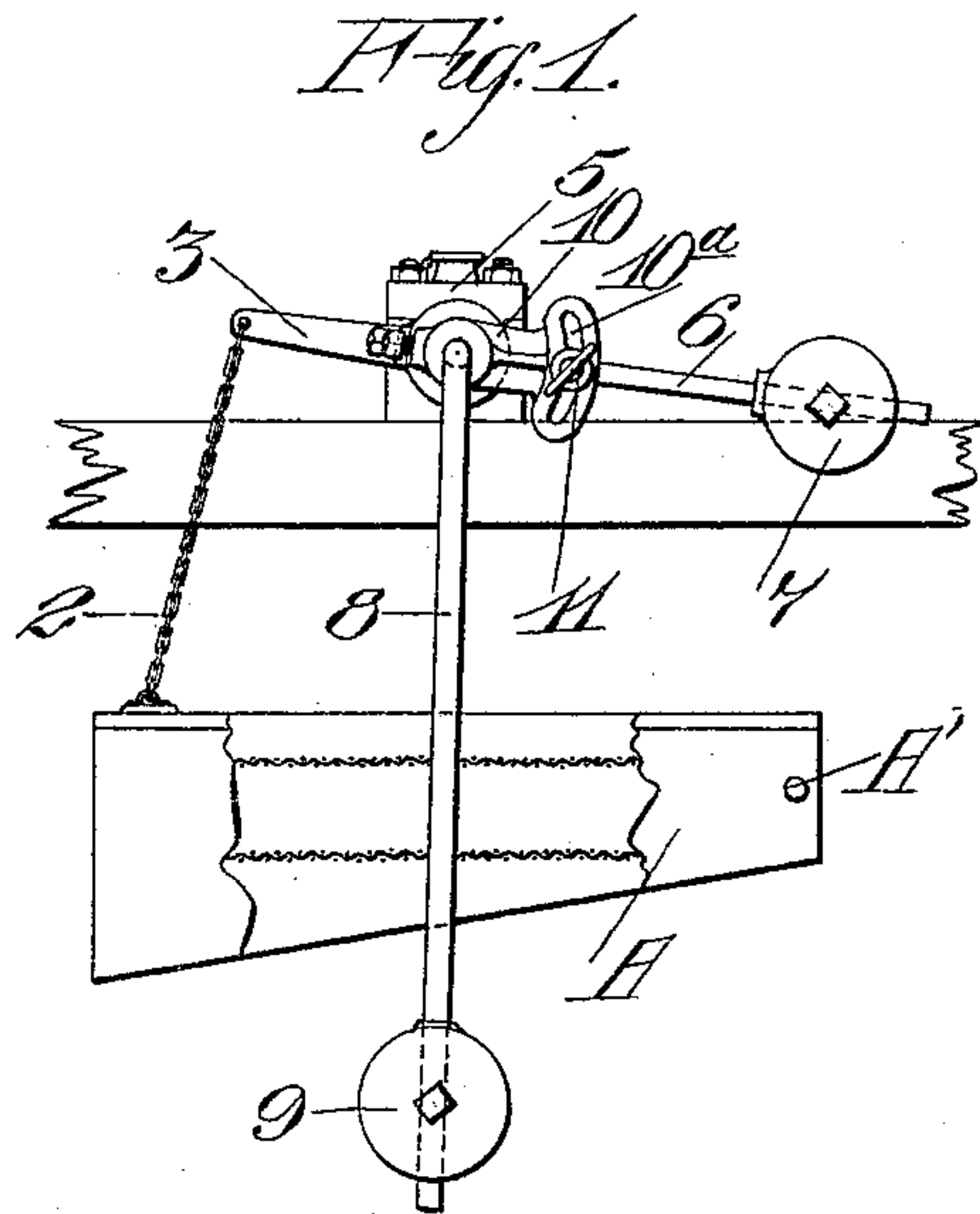


J. MARTYN.
 SCREEN LEVELING DEVICE FOR THRESHERS.
 APPLICATION FILED OCT. 29, 1908.

915,688.

Patented Mar. 16, 1909.



WITNESSES

J. H. Berg.
R. S. Brown.

INVENTOR

Joseph Martyn.
 BY *Geo. H. Strong.*
 ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH MARTYN, OF STOCKTON, CALIFORNIA, ASSIGNOR TO THE HOLT MANUFACTURING COMPANY, OF STOCKTON, CALIFORNIA, A CORPORATION OF CALIFORNIA.

SCREEN-LEVELING DEVICE FOR THRESHERS.

No. 915,688.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed October 29, 1908. Serial No. 460,052.

To all whom it may concern:

Be it known that I, JOSEPH MARTYN, citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented new and useful Improvements in Screen-Leveling Devices for Threshers, of which the following is a specification.

My invention relates to a means for maintaining a desired level or angle in the screens employed for separating grain from worthless material, and thus cleaning it; and the device is more especially designed for use in connection with the traveling threshers employed in conjunction with what are known as "combined harvesters", in which the level of the machine is constantly changing.

Referring to the accompanying drawings, Figure 1 is a side elevation illustrating my invention. Fig. 2 is a plan view.

For the purpose of leveling the screens employed in the threshing machines of combined harvesters, various counter-weighted devices have been employed, all of which have been so set that a certain level or angle of the screens would be effected, but no adjustment or change could thereafter be made.

It is the object of my invention to provide a means by which such screens are automatically maintained at a desired level or angle, and means by which such level or angle may be changed to suit conditions arising during the work.

The rear end of the shoe A containing the screens is supported by chains, or equivalent connections 2; the upper ends of which connect with lever arms 3. These arms are fixed to a tubular shaft 4, which is turnable in boxes as shown at 5. Upon one end of this tubular shaft is fixed an arm 6, extending in the opposite direction from the arms 3, and carrying upon it an adjustable counterweight 7. This weight serves to counterbalance the weight of the shoe and sieves; the inner end of the shoe being pivoted or supported, as shown at A'. Contiguous to the arms 6 is fixed an arm or pendulum rod 8, carrying at the lower end a weight 9, which is sufficiently large to hold the screens and the shoe at a certain desired angle, as the machine ascends or descends a hill; and this is accomplished by the combined action of the weights 7 and 9.

It is often desirable to change the relative

inclination of the screen; this depending upon the character of the grain being handled by the machine, and on other conditions; and in order to thus adjust the screens, the relative positions of the weights 7 and 9 must be changed so that their combined action will cause the screen to be tilted more or less with relation to the horizontal or level position. This change is effected by the employment of a slotted arm or link 10, which is fixed to the arm 8. The slot 10^a is curved on a radius, having its center coincident with the axis of the shaft 8.

11 is a locking device of any desired character which holds the arm 6 at any desired position with relation to the pendulum arm 8.

It will be seen that by setting this arm up or down the outer end of the screen frame may be correspondingly raised or depressed by the counterbalance weight 7. This being satisfactorily depressed, when the machine stands on a level, the inclination to the horizon will be maintained, whatever tilting action may be effected by the combined action of the weights 7 and 9, since the two weights will normally stand with certain relation to each other; the weight 9 being swung away from the perpendicular line by the action of the weight 7, and the co-action of these weights being ascertained, any change in the position of one with relation to the other will correspondingly act upon the arms 3 to raise or depress the end of the shoe which is connected with these arms.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In an apparatus of the character described, the combination with a cleaning shoe and a screen thereof, of a shaft having projecting arms, connections between said arms and the shoe, other arms projecting from the shaft one substantially at right angles to the other, a pendulum weight mounted on one of said last-named arms, a weight on the other of said last-named arms, said weights being adjustable on their arms, and means for changing the angular position of said last-named arm with that of the pendulum-arm, said means including an arm arranged parallel with one of the weight-carrying arms and adjustably connected thereto.

2. In a screen leveling device, the combi-

nation of a tiltable screen, a shaft, arms on
the shaft, connections between the outer ends
of the arms and the screen, other arms on
said shaft one of said arms having a pendu-
5 lum weight and the other of said arms ex-
tending substantially horizontally and pro-
vided with an adjustable weight, another arm
secured to the shaft and projecting there-
from in a direction substantially opposite
10 that of the first-named arms and parallel
with said horizontal weighted arm, and pro-

vided with a slot which is concentric with
said shaft, and a locking device between the
horizontal weighted arm and said slotted
arm.

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In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

JOSEPH MARTYN.

Witnesses:

H. E. THRELFALL,
F. O. MEYERS.