

No. 631,492.

Patented Aug. 22, 1899.

R. G. WILLIAMS.
SHAKE REGULATOR FOR GRAIN CLEANERS.

(Application filed Apr. 2, 1898.)

(No Model.)

Fig. 1.

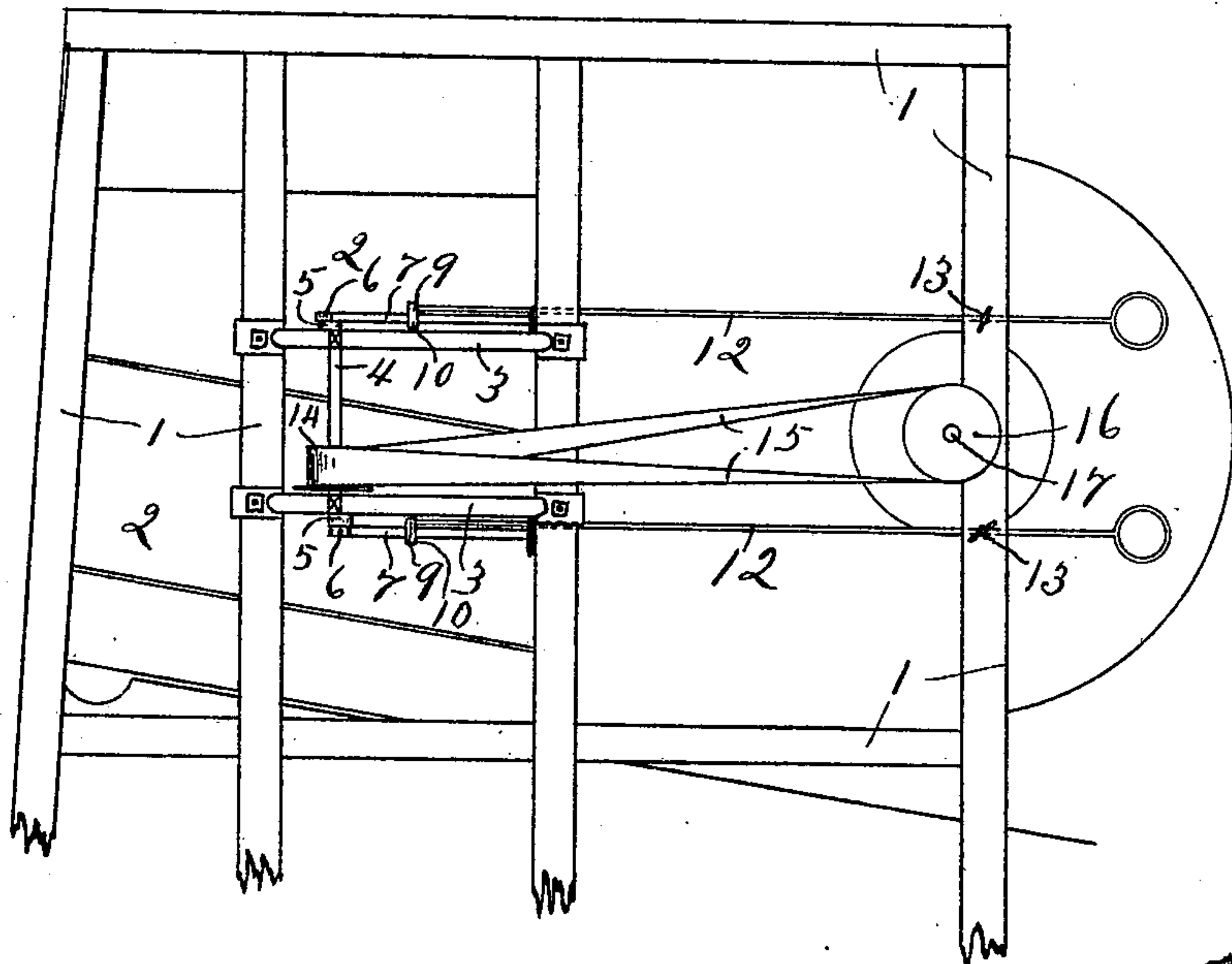


Fig. 2.

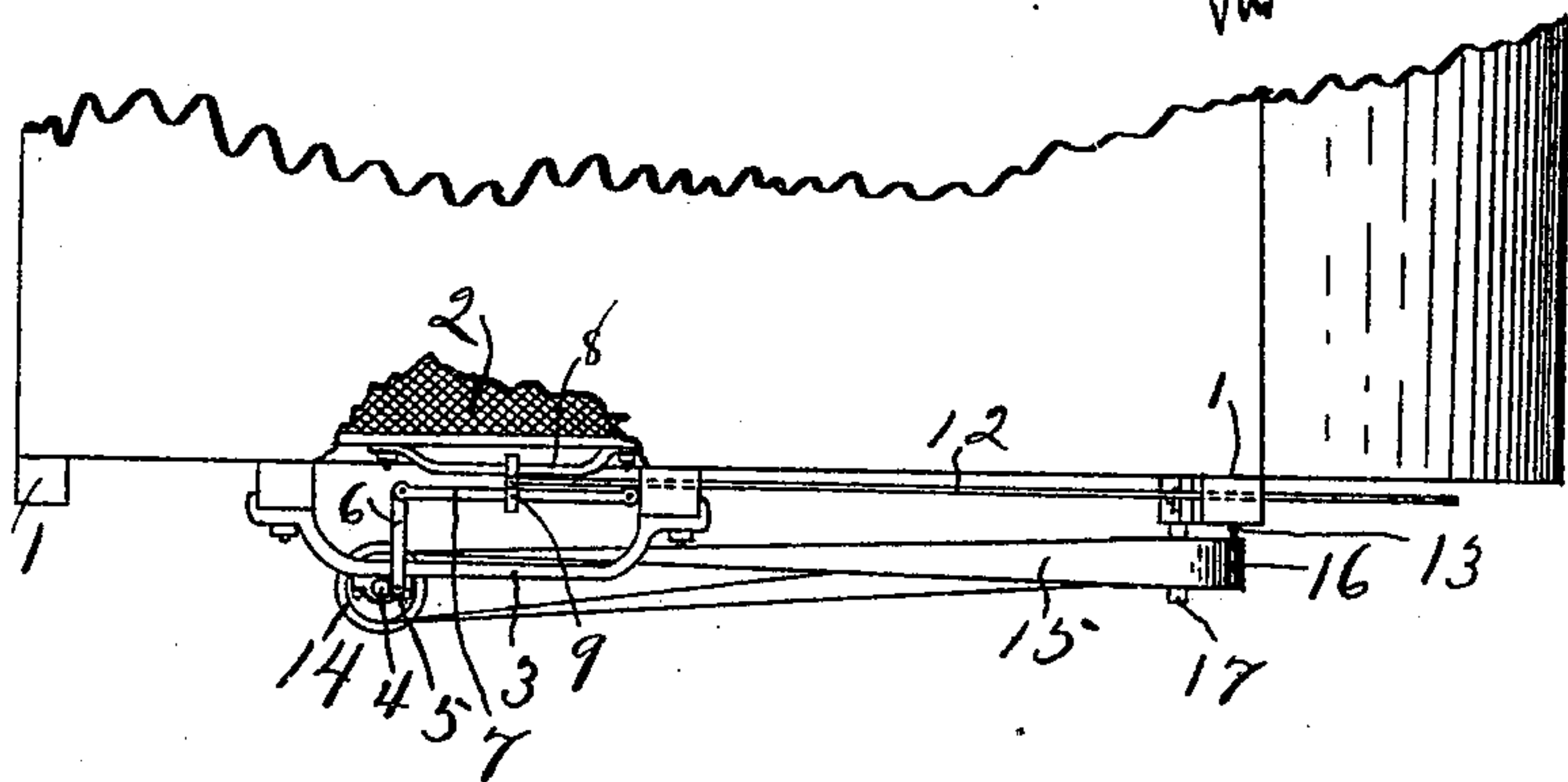


Fig. 4.

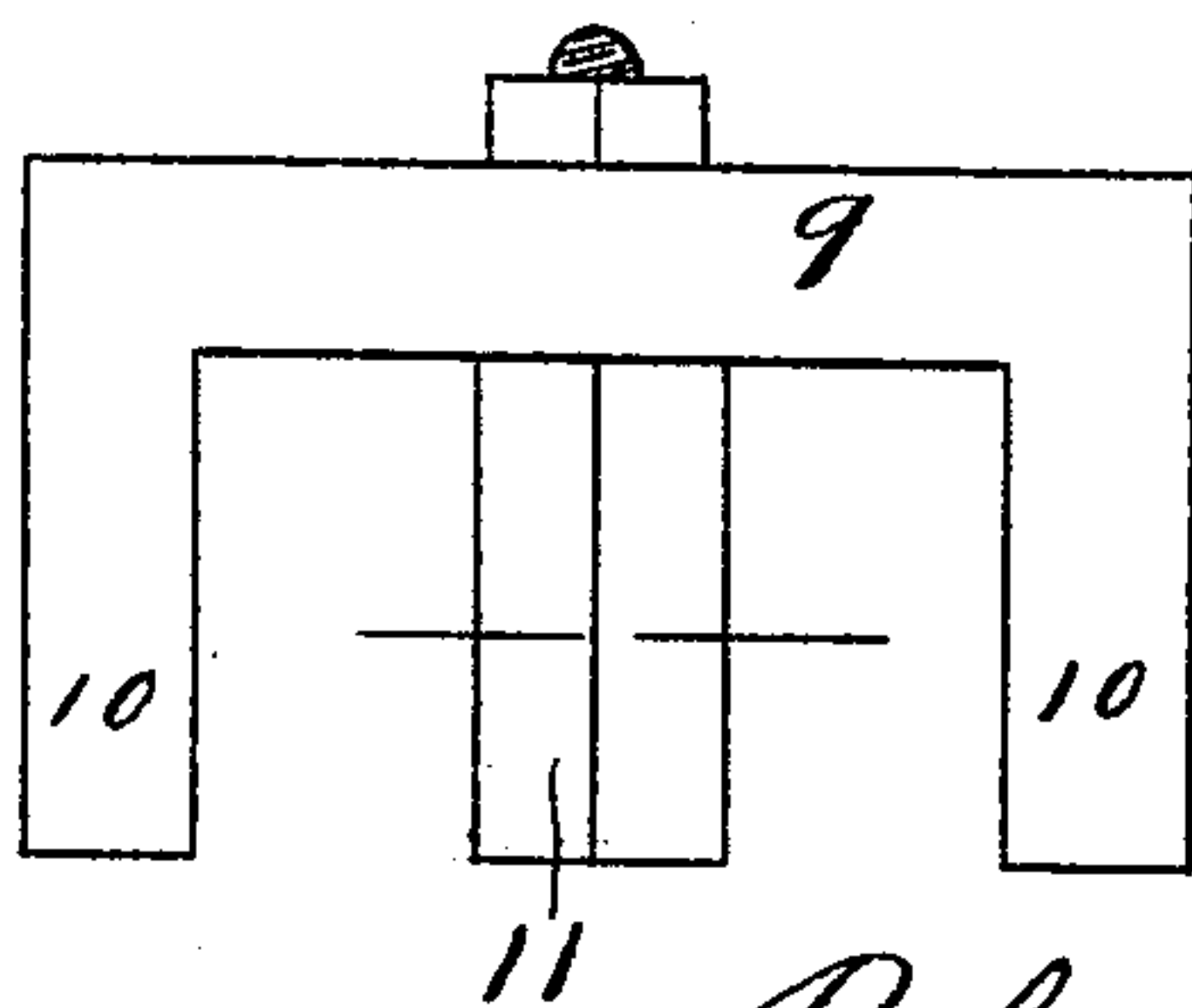


Fig. 3.

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ROBERT G. WILLIAMS, OF STOCKTON, CALIFORNIA.

SHAKE-REGULATOR FOR GRAIN-CLEANERS.

SPECIFICATION forming part of Letters Patent No. 631,492, dated August 22, 1899.

Application filed April 2, 1898. Serial No. 676,259. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. WILLIAMS, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Shake-Regulators for Grain-Cleaners; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to new and useful improvements in a shake-regulator for grain-cleaners, whereby the sieves of the cleaner may be given a longer or shorter vibratory motion; and it consists in the peculiar construction, novel combination, and adaptation of parts hereinafter described, and particularly pointed out in the claims hereunto annexed.

Referring to the accompanying drawings, Figure 1 is a side elevation of a grain-cleaner having my improved shake attached thereto. Fig. 2 is a top view of the same. Fig. 3 is an end view of one of the shake-adjusters. Fig. 4 is a detail sectional view of the center prong of the shake-adjuster.

Similar figures of reference indicate corresponding parts in the several views.

1 represents the frame of a cleaner, and 2 represents the shoes of the cleaner, which shoes are suspended in such cleaner in the usual manner and provided with the customary sieves.

To the frame 1 and suitably located thereon journal-brackets 3 are rigidly attached, and a vertical shaft 4 is journaled on such brackets 3. On either end of the shaft 4 a crank 5 is rigidly attached, such cranks being arranged in opposite directions on such shaft 4 and provided with a horizontal arm 6, which is journaled at one end on the crank, and at its other end said arm 6 is pivotally attached to the loose end of an oscillating arm 7, which is hinged to one of the ribs of the frame 1.

The shoes 2 are each provided with a curved rod 8, which is horizontally and rigidly attached at each end to the side of the shoe at a point on a level with the oscillating arm 7.

A shake-adjuster, composed of a head 9, having two prongs 10 depending from the ends of such head 9, is adapted to rest on and engage with the oscillating arm 7 and rod 8, and such head 9 is provided with a third prong 11, which is adjustably attached to the center of the same and adapted to be inserted between the arm 7 and rod 8. The cross-section of the prong 11 is oblong in form, as shown in Fig. 4, for the purpose of taking up lost motion when the parts are worn by turning the thicker side of the prong 11 against the arm 7 and rod 8. A handle 12 is inserted in and rigidly attached to the head 9 and adapted to extend rearwardly and be engaged by a thumb-screw 13, which is inserted in the frame of the cleaner.

The shaft 4 is provided with a pulley 14, which is rigidly attached thereto, and such pulley 14 is driven by a belt 15, which engages with the pulley 14 and a pulley 16, which is attached to the end of the fan-shaft 17, which is of the type usually employed in cleaners.

The mode of operating my improved shake-regulator for grain-cleaners is as follows: Motion having been imparted to the fan-shaft 17 by any suitable power, the pulley 14 and shaft 4, by means of the belt 15, are set in motion, thus causing the cranks 5 to revolve, which by means of the arms 6 vibrate the oscillating arms 7. The shake-adjusters 9 10 11 being in position on the arms 7 and rods 8 communicate an oscillatory motion to the shoes 2 and their accompanying sieves. When the oscillations of the shoes are too great, the operator loosens the thumb-screws 13, and by means of the handles 12 the shake-adjuster 9 10 11 is moved rearwardly, and such adjuster will then engage with the arms 7 nearer the hinge, which shortens the oscillations, and by moving the adjuster forward the oscillations are lengthened, and when suitably regulated the thumb-screws 13 are tightened.

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

In a shake-regulator for grain-cleaners, the combination with a grain-cleaner of the brackets 3 rigidly mounted on the side of such cleaner, the vertical shaft 4 suitably journaled on such brackets 3, the cranks 5 attached

each end of the shaft 4, the horizontal arms 6 journaled to the cranks 5, the oscillating arms 7 hinged to the side of the cleaner-frame and adapted to engage with the loose ends of the horizontal arms 6 the rods 8 rigidly attached to the side of the shoes 2, the shake-adjuster 9 10 11 adapted to engage with the rods 8 and oscillating arms 7, the handle 12 attached to the shake-adjuster, the thumb-screws 13 adapted to impinge upon the han-

dles 12 and suitable means of imparting motion to the shaft 4, all arranged and operating substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT G. WILLIAMS.

Witnesses:

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MOLBRY HAYNES.