

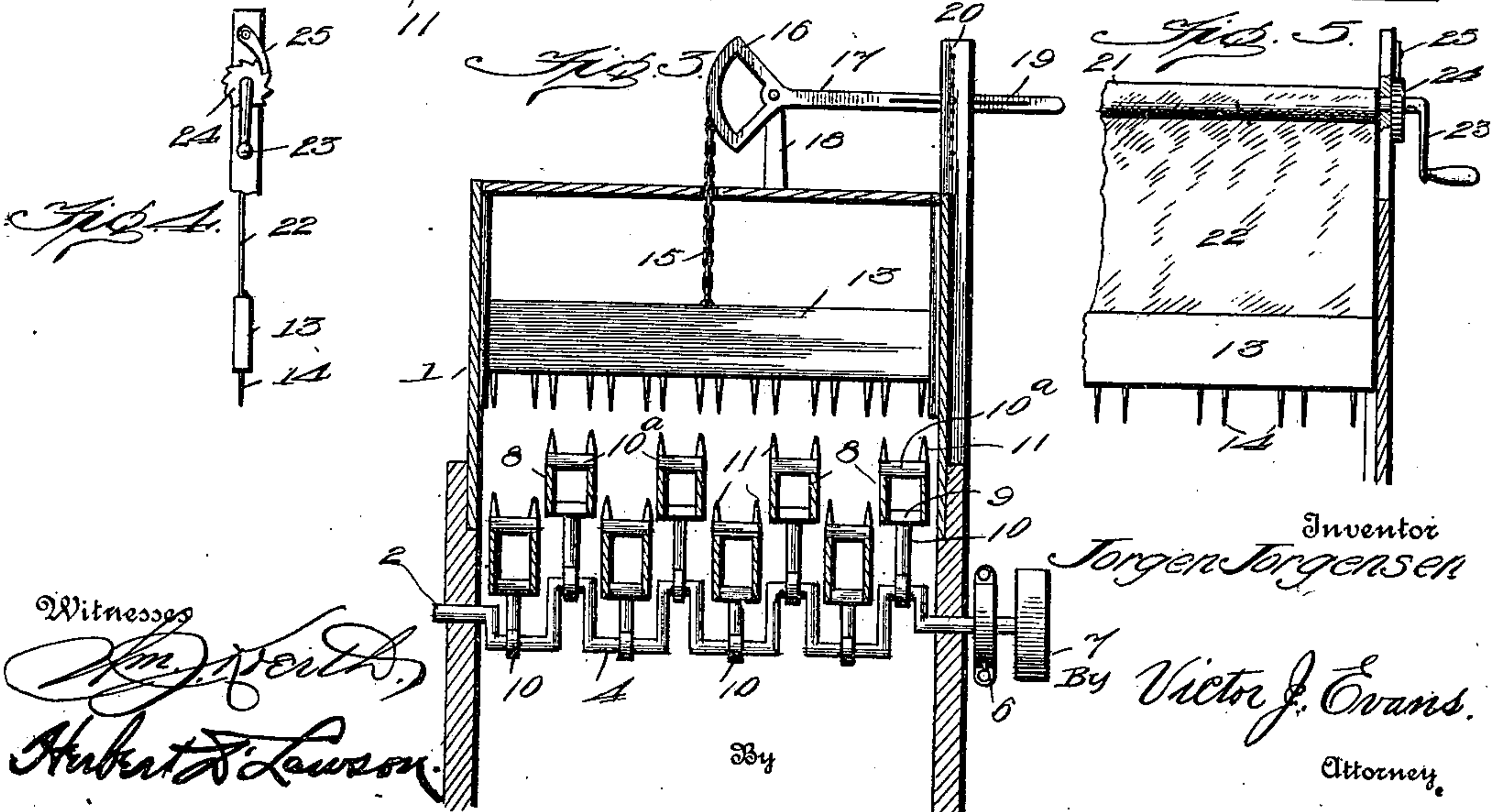
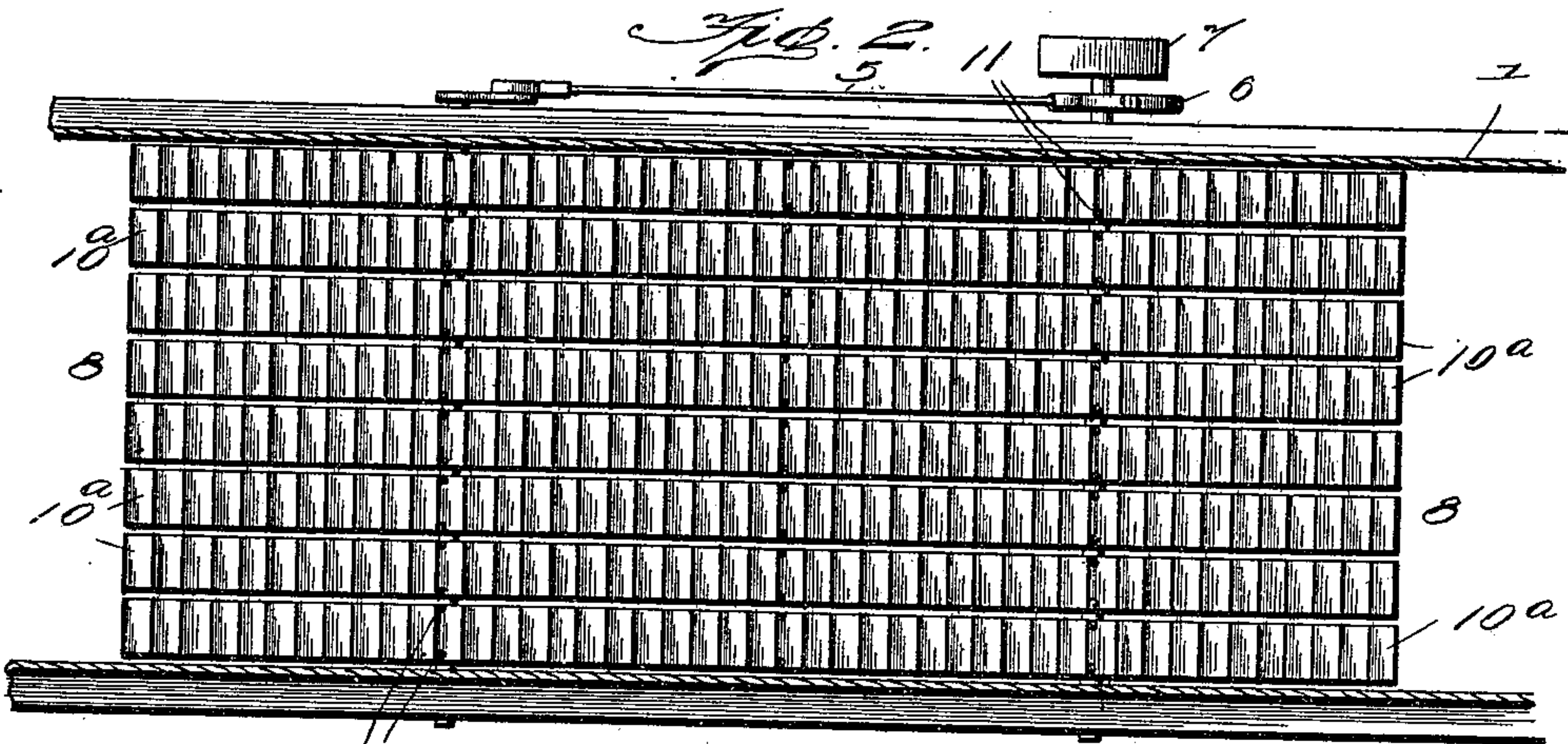
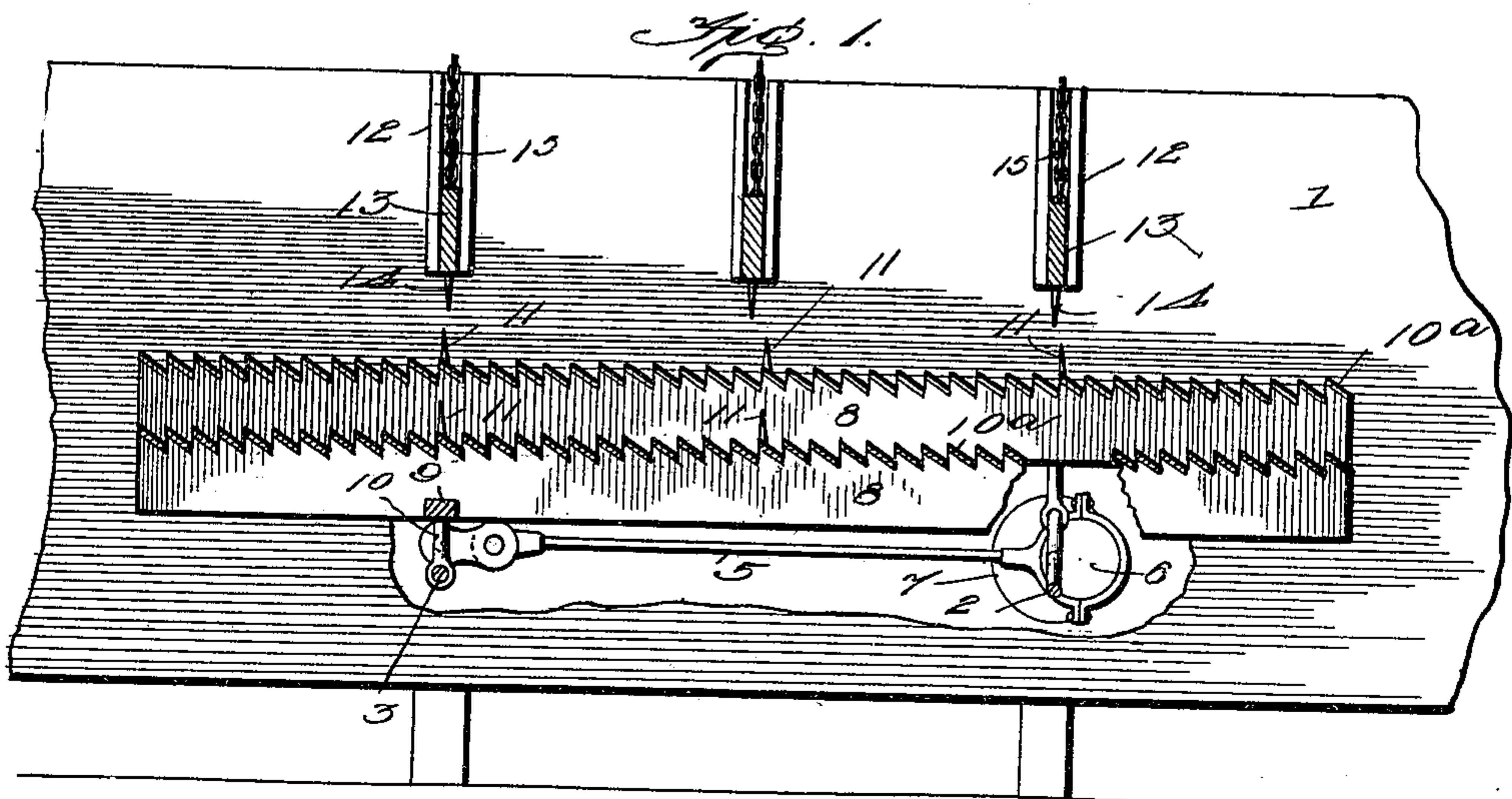
No. 675,221.

Patented May 28, 1901.

J. JORGENSEN.
GRAIN SEPARATOR.

(Application filed Oct. 6, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

JORGEN JORGENSEN, OF OMAHA, NEBRASKA.

GRAIN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 675,221, dated May 28, 1901.

Application filed October 6, 1900. Serial No. 32,253. (No model.)

To all whom it may concern:

Be it known that I, JORGEN JORGENSEN, a citizen of the United States, residing at South Omaha, in the county of Douglas and State of Nebraska, have invented new and useful Improvements in Grain-Separators, of which the following is a specification.

This invention relates to new and useful improvements in separators; and its primary object is to provide a device of simple construction adapted to effectively separate the grain from the straw and discharge the same from the machine.

To this end the invention consists in providing a frame upon which is mounted longitudinally-extending parallel strips having plates arranged on the upper surface thereof and forming a table. These strips are provided with downwardly-extending arms, which are mounted upon cranks formed with shafts which receive motion in any suitable manner. Sliding strips are arranged above the table and are provided with downwardly-extending teeth, and means are employed whereby the strips may be adjusted from or toward the table.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a longitudinal section through the separator, showing the wall thereof broken away. Fig. 2 is a plan view. Fig. 3 is a transverse section. Fig. 4 is a side elevation of the modified form of adjusting mechanism for the vertical slides, and Fig. 5 is a front elevation of one end thereof.

Referring to the figures by numerals of reference, 1 1 are the sides of the separator, and journaled therein at points adjacent to the ends of the frame are shafts 2 and 3, each of which is formed with a series of cranks 4, as shown. The crank-shaft 3 is operated from shaft 2 by means of a rod 5, which engages at one end an eccentric 6, mounted upon the shaft 2. It is obvious that when this shaft revolves the rod 5 will be reciprocated, and thereby impart motion to shaft 3. Any suit-

able means may be provided for driving shaft 2, and I preferably provide the same with a pulley 7, as shown.

Arranged above the shafts 2 and 3 are parallel longitudinally-extending strips 8, which are connected at their lower edges by blocks 9, having downwardly-extending arms 10 thereto, which are mounted upon the shaft before referred to. Inclined plates 10^a are arranged upon the upper edges of the strips 8, and teeth 11 extend upward at regular intervals from some of these plates, as shown in Fig. 1.

Vertical guides 12 are arranged upon the inner surface of the guides 1, substantially in alinement with the teeth 11, and slidably mounted therebetween are cross-strips 13, having teeth 14 extending downward therefrom. As shown in Fig. 3, these strips are connected by means of a chain 15 to a grooved segment 16, formed at the inner end of a lever 17. This lever is fulcrumed from a standard 18, extending upward from the top of the frame, and the outer arm of the lever is slotted, as at 19, for the reception of a pin adapted to project from a standard 20 and lock the lever in adjusted position. It will be seen that by raising and lowering the lever 19 the strip 13, secured thereto, will be lowered and raised toward or from the plates 10^a and the teeth 11 thereon.

In lieu of the mechanism above described for operating the slides I may, if desired, employ a roller 21, to which is secured one edge of a canvas sheet 22, the opposite edge of which is secured to the strip 13. This roller is adapted to revolve in any suitable manner, as by means of a crank 23, and a ratchet 24 and pawl 25 are provided, whereby downward movement of the strip is prevented.

Straw is fed upon the table in any suitable manner, and the shafts 2 and 3 are then set in motion. As these shafts revolve the series of inclined plates, together with their longitudinally-extending beams, will be given a circular movement and will rise alternately into close proximity to the teeth 14 upon the slides 13. The teeth 11 of the inclined plates will engage the straw when said plates move upward and will draw the same forward

through the teeth 14, thereby thoroughly separating the grain from the straw and permitting the same to be discharged between the inclined plates into a suitable receptacle
5 which may be provided therefor.

By raising and lowering the slides 13 the distance between the teeth 11 and 14 may be readily regulated and the resistance of the passage of the straw therebetween will be in-
creased or diminished.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without
15 departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of my invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

The combination with a frame; of crank-shafts journaled therein, longitudinally-extending parallel beams having serrated up-
per edges, parallel series of inclined plates ar-
ranged upon the beams, arms extending down-
ward from the beams and journaled upon the
cranks of the shafts, toothed slides mounted
on the frame, rollers journaled above the
frame, flexible aprons connecting said rollers
and the slides, means for preventing back-
ward movement of the rollers, and teeth upon
the inclined plates adjacent to the slides.

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

JORGEN JORGENSEN.

Witnesses:

HANS J. WINTHERLICK,
JACOB LEVY.