(No Model.) 4 Sheets—Sheet 1.

J. LUKASZEVIG.

GRAIN REGISTER AND SACKER.

No. 457,283. Patented Aug. 4, 1891.

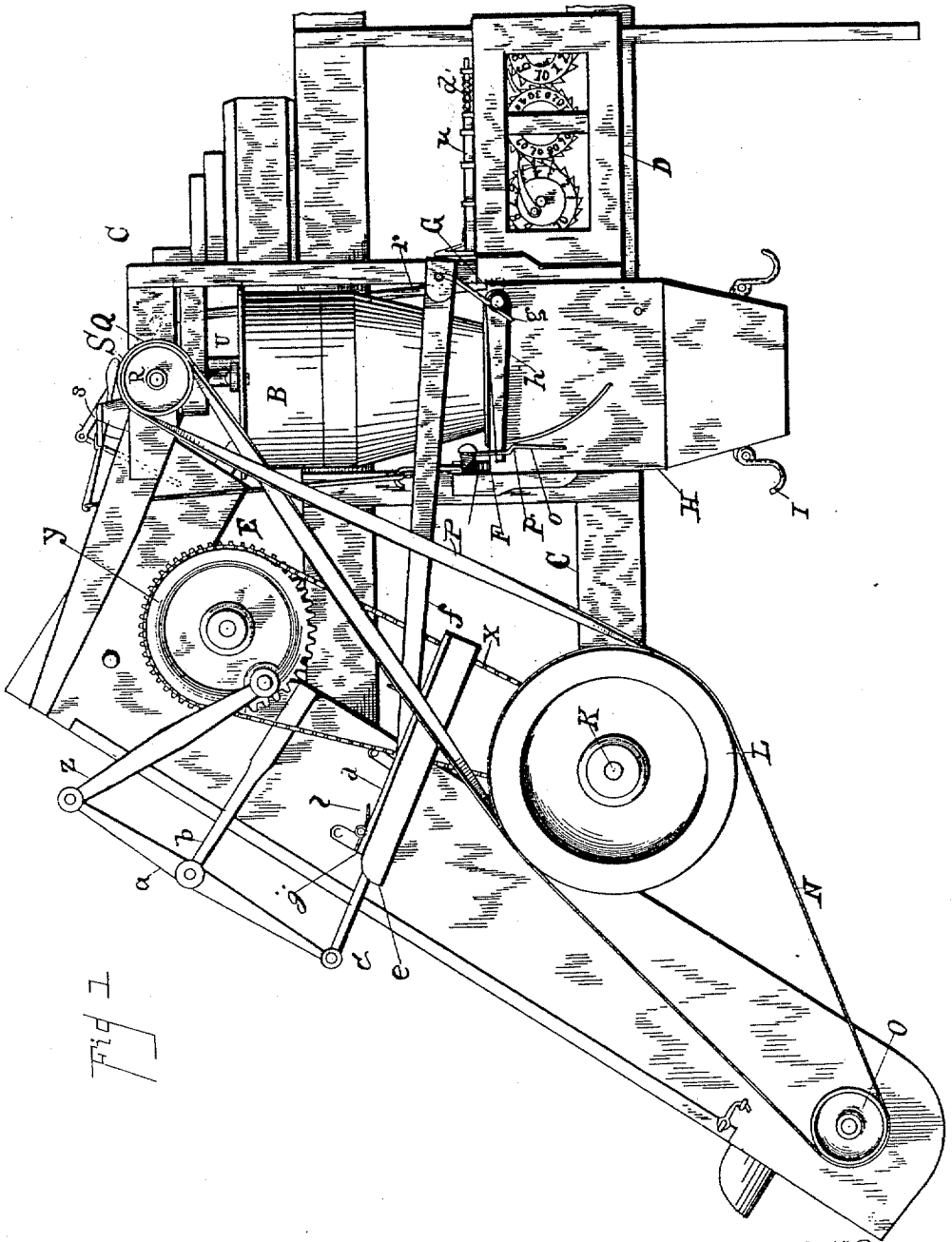


Fig 1

WITNESSES

T. Milloughby

R. F. Bishop.

INVENTOR:

John Lukaszevig

By W. H. Howard

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 4 Sheets—Sheet 2.

J. LUKASZEVIG.

GRAIN REGISTER AND SACKER.

No. 457,283. Patented Aug. 4, 1891.

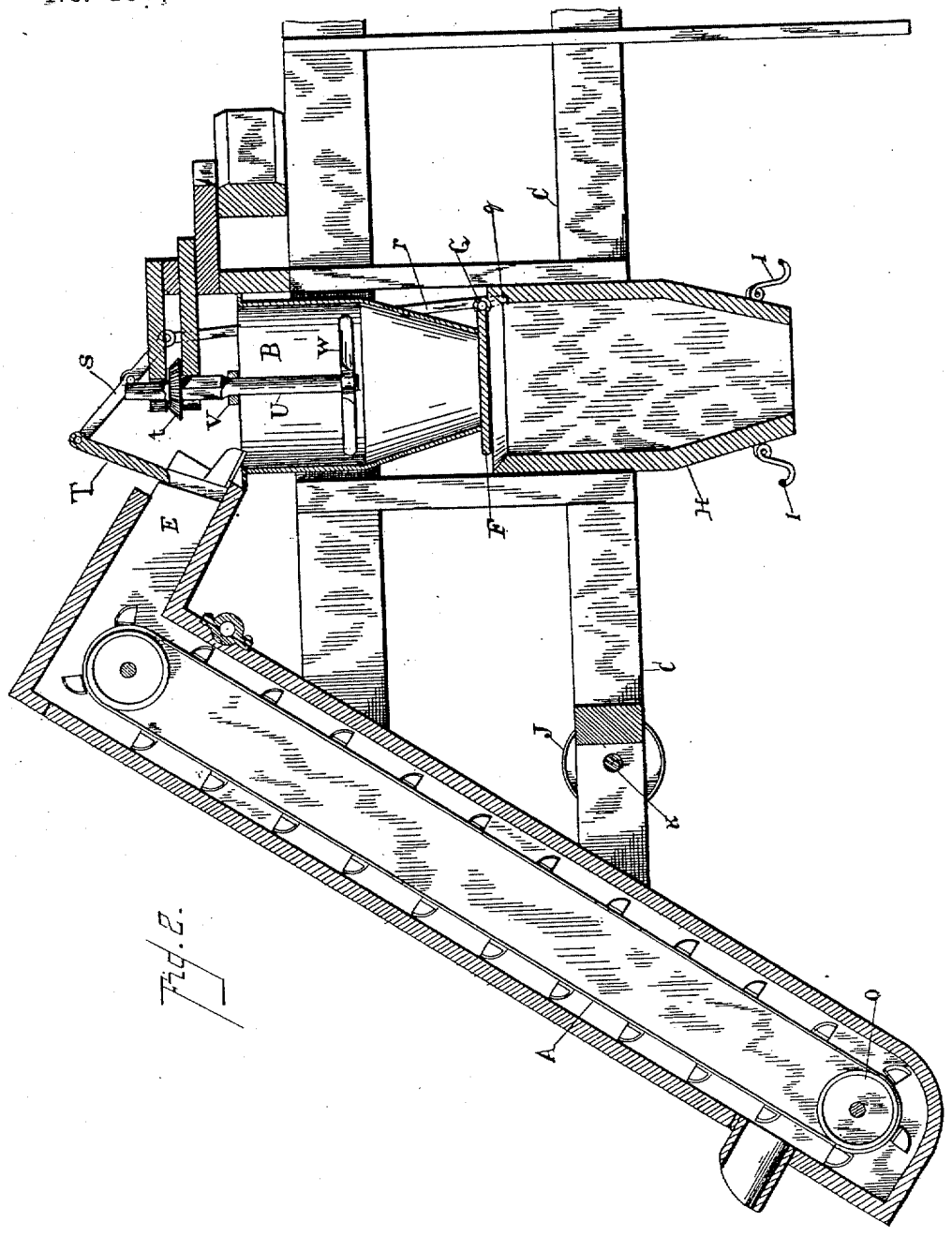


Fig. 2.

WITNESSES

T. Dillingham

R. H. Bishop

INVENTOR:

John Lukaszevig

By W. FitzGerald

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 4 Sheets—Sheet 3.

J. LUKASZEVIG.

GRAIN REGISTER AND SACKER.

No. 457,283. Patented Aug. 4, 1891.

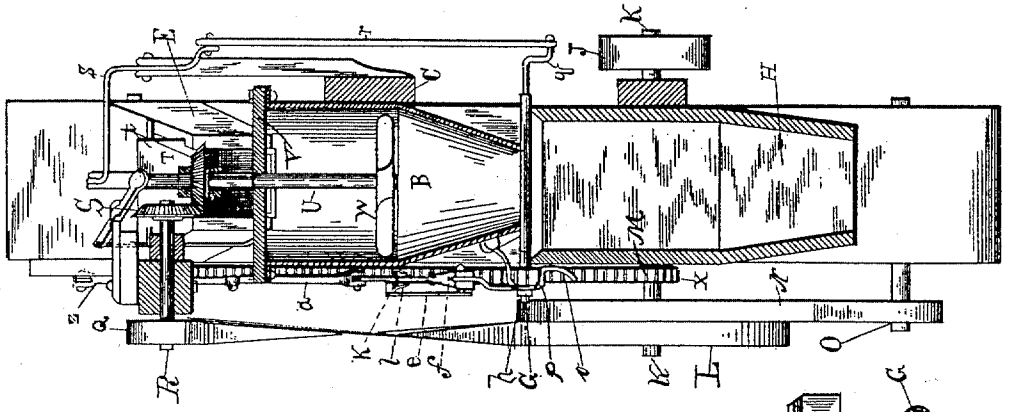


Fig 3

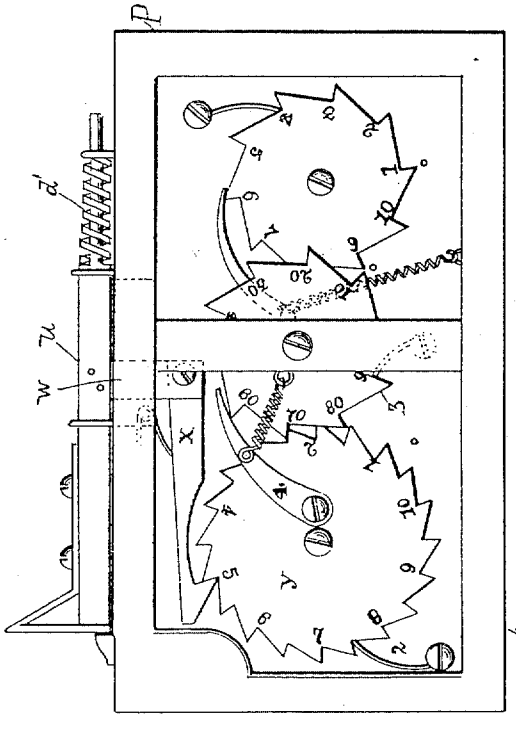


Fig 4

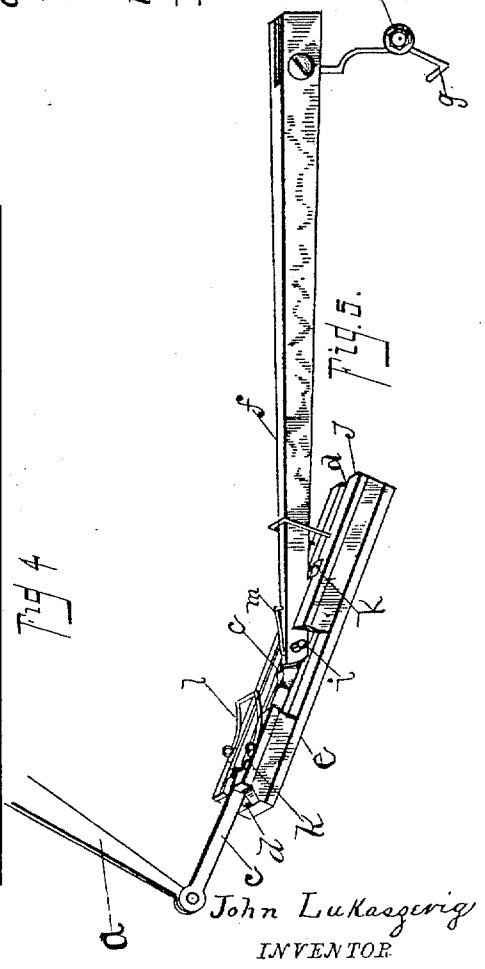


Fig 5.

WITNESSES

T. Willoughby

R. H. Bishop.

John Lukaszevig

INVENTOR

By W. J. FitzGerald

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

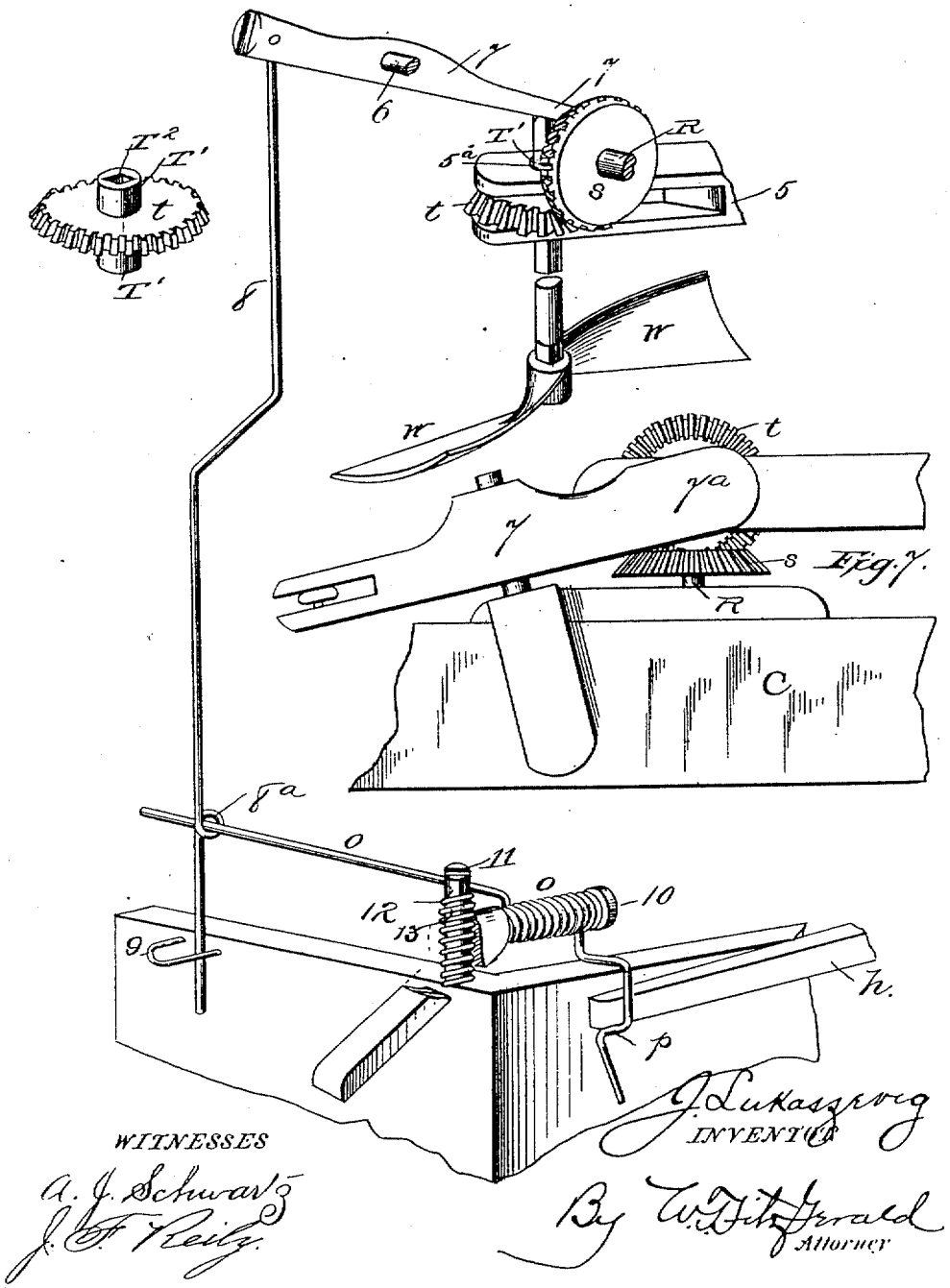
(No Model.) 4 Sheets—Sheet 4.

J. LUKASZEVIG.

GRAIN REGISTER AND SACKER.

No. 457,283. Patented Aug. 4, 1891.

Fig. 6.



WITNESSES

A. J. Schwartz

J. F. Reily.

J. Lukaszevig

INVENTOR

By W. Fitzgerald

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN LUKASZEVIG, OF CUSTER, WISCONSIN.

GRAIN REGISTER AND SACKER.

SPECIFICATION forming part of Letters Patent No. 457,283, dated August 4, 1891.

Application filed March 12, 1890. Serial No. 343,592. (No model.)

To all whom it may concern:

Be it known that I, JOHN LUKASZEVIG, a citizen of the United States, residing at Custer, in the county of Portage and State of Wisconsin, have invented certain new and useful Improvements in Grain Registers and Sackers; and I do hereby 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.

My invention relates to improvements in grain sackers and registers; and it consists in certain novel features, which will be hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved machine. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section thereof. Fig. 4 is detail view of the registering mechanism. Fig. 5 is a detail view of the devices for operating the said registering mechanism. Fig. 6 is a perspective detail view of the automatic trip mechanism, and Fig. 7 is a top plan view of the upper part of the same.

In carrying out my invention I employ an endless elevator A, of the usual or any preferred construction, which receives the grain from the thrashing-machine and conveys it upward and discharges it into the hopper B. The hopper B is supported in a frame C, which also supports the elevator and the register D, and the upper end of the elevator is provided with a spout E, which projects over into the hopper. The lower end or bottom of the hopper is open, and is normally covered by a valve or vibrating plate F, which is provided at one edge with the trunnions or shaft G, journaled in the sides of a funnel or bag-holder H, as shown. The funnel or bag-holder H is provided at its lower end on opposite sides with the spring supporting-arms I, upon which the bag is hung while being filled.

Power is imparted to the several parts of my machine by means of a suitable belt, which is driven by any desired motor, and the band-pulley J, around which the said belt runs and which is secured on the end of a driving-shaft K, which is journaled transversely in the frame C and is provided at the end opposite the band-pulley J with a driving-wheel L and sprocket-pinion M. A belt N runs around the driving-wheel L and a pulley O at the lower end of the elevator, so as to transmit motion to the elevator, and a second belt P runs around the driving-wheel L and a pulley Q on the end of a transverse shaft R, which is journaled transversely in the frame C above the hopper, as clearly shown. This shaft R is provided on its inner end with the bevel-pinion S, which meshes with a similar pinion T. This pinion has its circular collar T′ seated in openings 5^a in the recessed end of a supporting-piece 5, so that the pinion is free to revolve, and the center of the pinion is formed with the square opening T^2. Through this opening passes loosely the squared upper end of a vertical shaft U, which is supported by the cross-bar V, as shown, the bar being secured on the top of the hopper, and the lower end of this vertical shaft has a series of blades W, shaped like blades of a propeller, secured upon it.

The sprocket-pinion M is connected by a chain X with a sprocket-wheel Y, mounted on the side of the elevator near the upper end of the same, and a pitman Z has one end pivoted to the side of the said sprocket-wheel. The free end of this pitman Z is pivoted to the upper end of a lever *a*, which is fulcrumed at an intermediate point of its length to an arm *b*, projecting from the side of the elevator. The lower end of this lever *a* is pivoted to the front end of a follower or push-bar *c*, the front end of which fits in a groove *d* in the upper side of a guide *e*, secured on the side of the elevator, and this guide also supports the front end of a plunger *f*, the rear end of which is secured to and supported by a spring *g*, which is coiled around the end of the shaft G and has one end bearing against the under side of an arm *h*, projecting from the said shaft. The front end of the plunger *f* is provided with lateral pins *i*, which engage under the inwardly-projecting lips *j* on the side walls of the groove *d* and are adapted to rise through the notches *k*, and thus permit the plunger to ride backward over the guide to its initial position. The plunger is prevented from moving laterally from the guide by a bail or loop *l*, secured on the upper side of the guide and fitting over the plunger, and when it has reached its initial position it is thrown into engagement with the

groove by a spring *m*, secured on the upper side of the guide, as clearly shown.

Upon the top of the supporting-frame C is centrally pivoted on a transverse-projecting pivot-pin 6 a trip-lever 7, the rounded inner end 7^a of which normally rests upon the rounded upper end of the vertical shaft U. To the outer end of the lever 7 is pivoted the upper end of a rod 8, which extends down through a guide 9 and has an eye 8^a on one side near its lower end. Through this eye runs the inner end of the wire trigger *o*, the coiled center of which is pivotally secured on a pin 10. The trigger on the inner side of its pivotal point slides in a vertical guide-slot 11 of a pillar 12, and a spiral spring 13, which encircles this pillar, holds the inner end of the trigger normally pressed up, thereby raising the rod 8 and the outer end of the trip-lever 7. The outer part of the trigger is curved to extend over the free end of a latch *h* and to form a shoulder *p*, which extends beneath the said latch end, the lower extremity of the wire trigger being then curved outward. This latch *h* is rigidly secured to the projecting end of the shaft G, to which the vibrating plate F is secured. One end of the shaft G is provided with a crank-arm *q*, and this crank-arm is connected by a link or connecting-rod *r* with one end of a vibratory rod *s*, which is fulcrumed on the frame C and has its front end pivoted to a cut-off in the end of the spout E.

The registering mechanism is secured upon the frame C adjacent to and in rear of the bag-holder, and on the upper side of the casing containing the registering-dial I mount a sliding rod *u*, which is normally thrown forward by a spring *d*, and is provided with a depending arm *w*, which extends downward into the casing and has a pawl *x* pivoted to its lower end, said pawl engaging a ratchet disk or dial *y* and rotating the said dial to register each half-bushel. Backward movement of this dial is prevented by a detent 2, which is secured within the casing and engages the teeth of the dial, as will be readily understood. A second dial 3 is mounted in the casing and is engaged by a pawl 4, carried by the dial *y*, so as to count the bushels by tens. In a similar manner any number of dials may be employed, and the register thus adapted to count any quantity of grain.

In practice the machine is arranged for use with the valve F extending across the bottom of the hopper, and a sack or bag suspended from the arms I, as will be readily understood. The machine is then put in motion, and the grain will be carried up by the elevator and discharged into the hopper. The agitators or stirrers in the hopper will be continuously rotated, and the grain thus prevented from acmulating in the hopper to such an extent as to pack therein, as will be readily understood. The weight of the blades W, together with the pressure of the spring 13, will keep the stirrer down until the grain piles up in the hopper under it, when the blades W, which are shaped like the blades of a propeller, acting on the grain, cause the stirrer to rise, raising the vertical shaft U, which in turn presses up the inner end of the lever 7 against the tension of the spring 13, thereby disengaging the shoulder *p* of the spring-trigger from beneath the latch *h*, when the plate or valve F will fall and allow the grain to flow into the sack. The downward movement of the latch causes the spring *g* to act on the plunger so as to throw the same forward, when its front end will fall into position to be engaged by the end of the follower. The continued motion of the machine will then throw the plunger rearward against the sliding bar *u*, and thus operate the register, so as to indicate that one half-bushel has been let fall in the sack. This rearward movement of the plunger also causes the spring *g* to raise the latch *h*, thereby bringing the plate F up against the bottom of the hopper to hold another load of grain.

The downward movement of the plate F operates the cut-off *t* in the end of the spout, so as to throw the same downward and prevent the continued flow of grain into the hopper. The upward movement of the plate F of course raises the cut-off, so as to permit the grain to again flow into the hopper.

From the foregoing description, taken in connection with the accompanying drawings, it will be seen that I have provided a very simple and efficient machine, by the use of which the grain will be conveyed directly from the thrashing-machine to the sacks, and the quantity accurately measured and registered.

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

1. The combination of the cut-off for the hopper, the registering mechanism, the plunger having its rear end connected with the cut-off and adapted to actuate the registering mechanism, the follower adapted to engage the front end of the said plunger, and mechanism for operating the said follower, as set forth.

2. The combination of the hopper, the vibrating plate F, having the latch *h* secured on the end of its shaft G, the sprocket-wheel Y, mechanism for rotating said wheel, the vibrating lever, a pitman connecting said lever with the sprocket-wheel, the follower pivoted to the lower end of the said lever, the plunger actuated by said follower and adapted to act on the registering mechanism, and the spring *g*, supporting the plunger *f*, coiled around the end of the shaft G and having its lower bent end bearing against the under side of the latch *h*, as set forth.

3. The combination of the hopper, the vibrating plate F, having the latch *h* secured on the end of its shaft G, the guide provided with a longitudinal groove, the plunger having its front end playing in said groove, the spring *g*, supporting the plunger *f* and hav-

ing its lower bent end bearing against the under side of the latch *h*, the follower having its rear end playing in said groove and adapted to actuate the plunger, the bail secured on the guide and extending over the plunger, and the spring secured on the guide and adapted to throw the plunger into the groove therein, and the spring-actuated rod *u*, operating the register and arranged to be acted on by the plunger, substantially as set forth.

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

his
JOHN × LUKASZEVIG.
mark

Witnesses:
JOHN MCGREER,
MATHIAS SIMONIS.