

JONES & FESSLER.

Harvester Rake.

No. 62,035.

Patented Feb. 12, 1867.

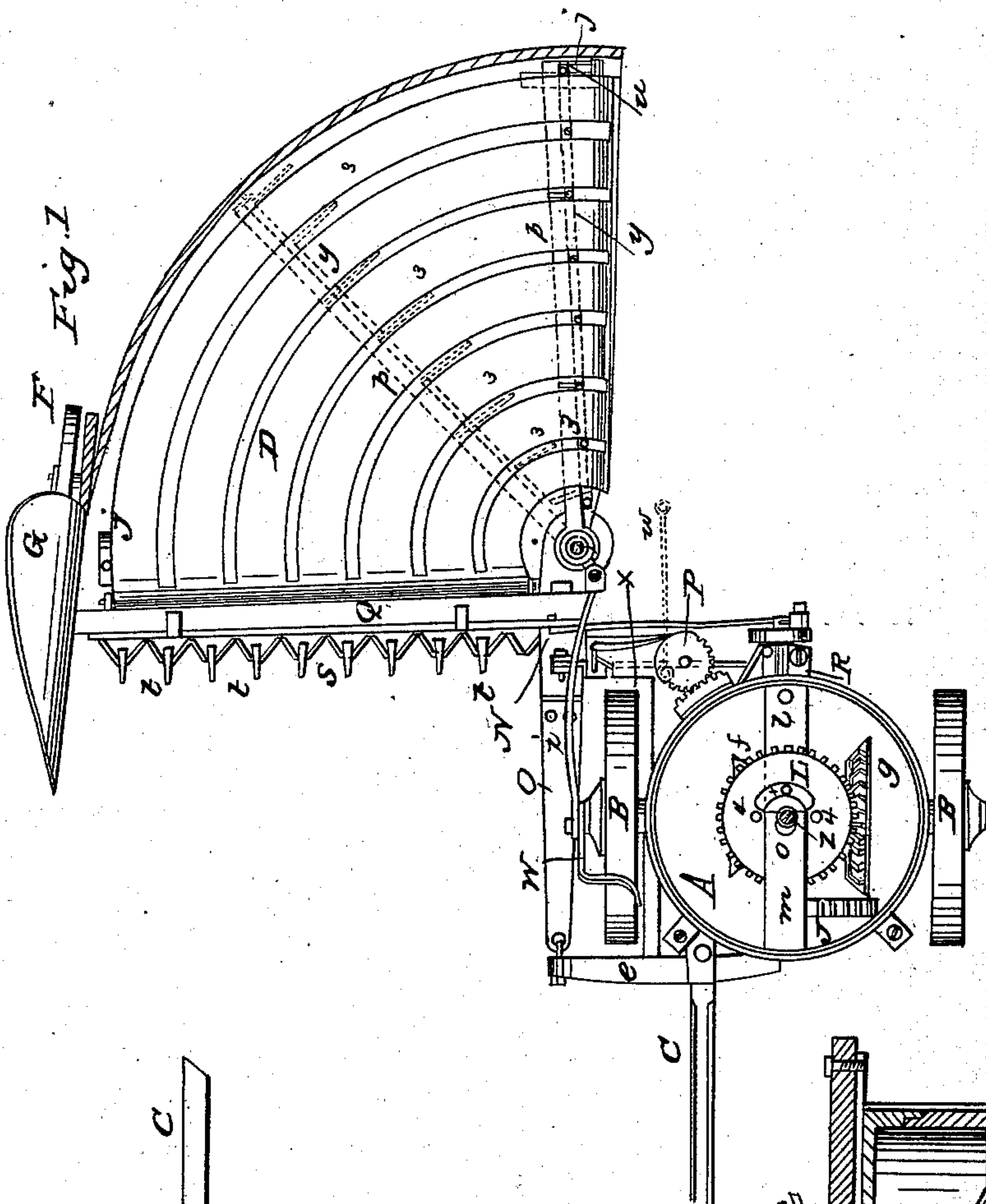


Fig. 2

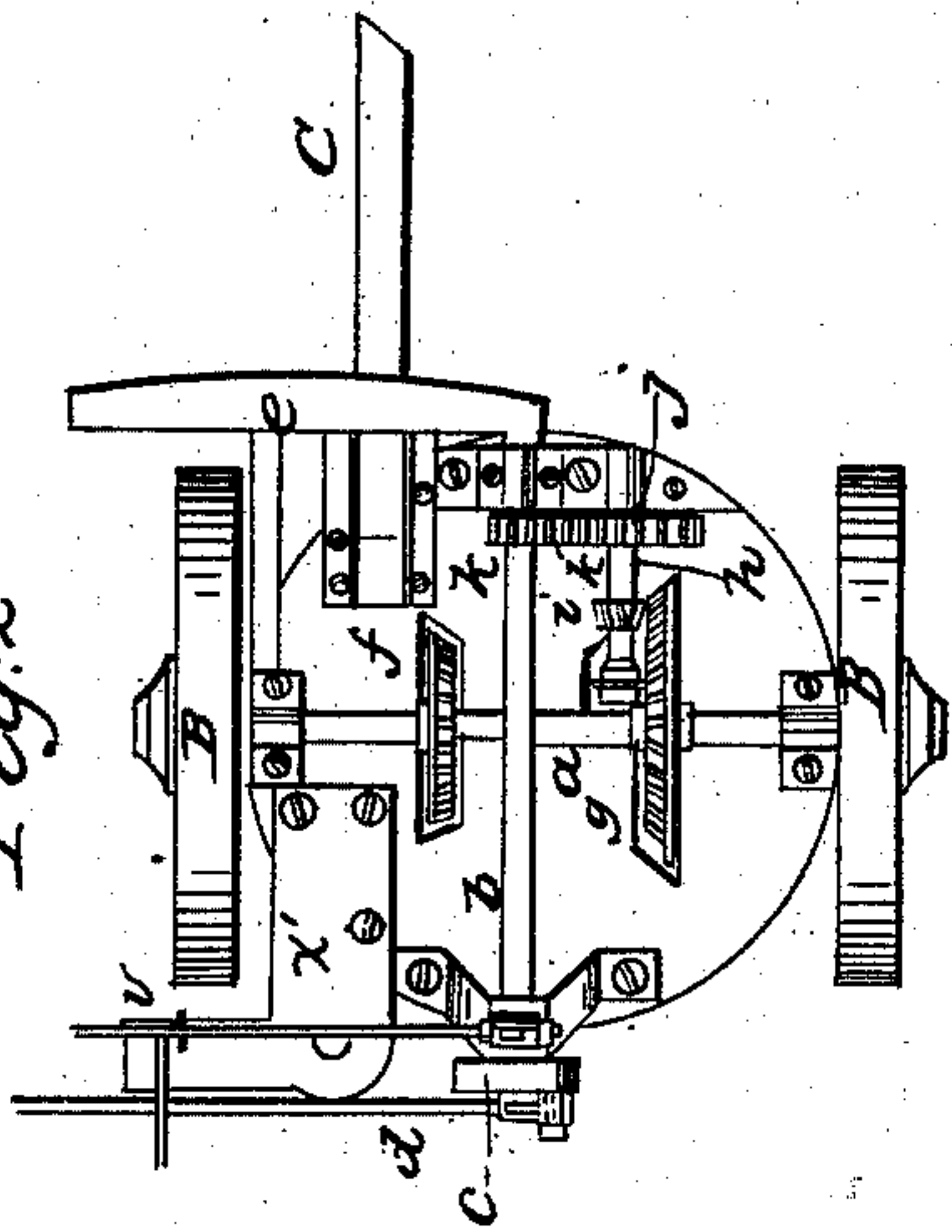
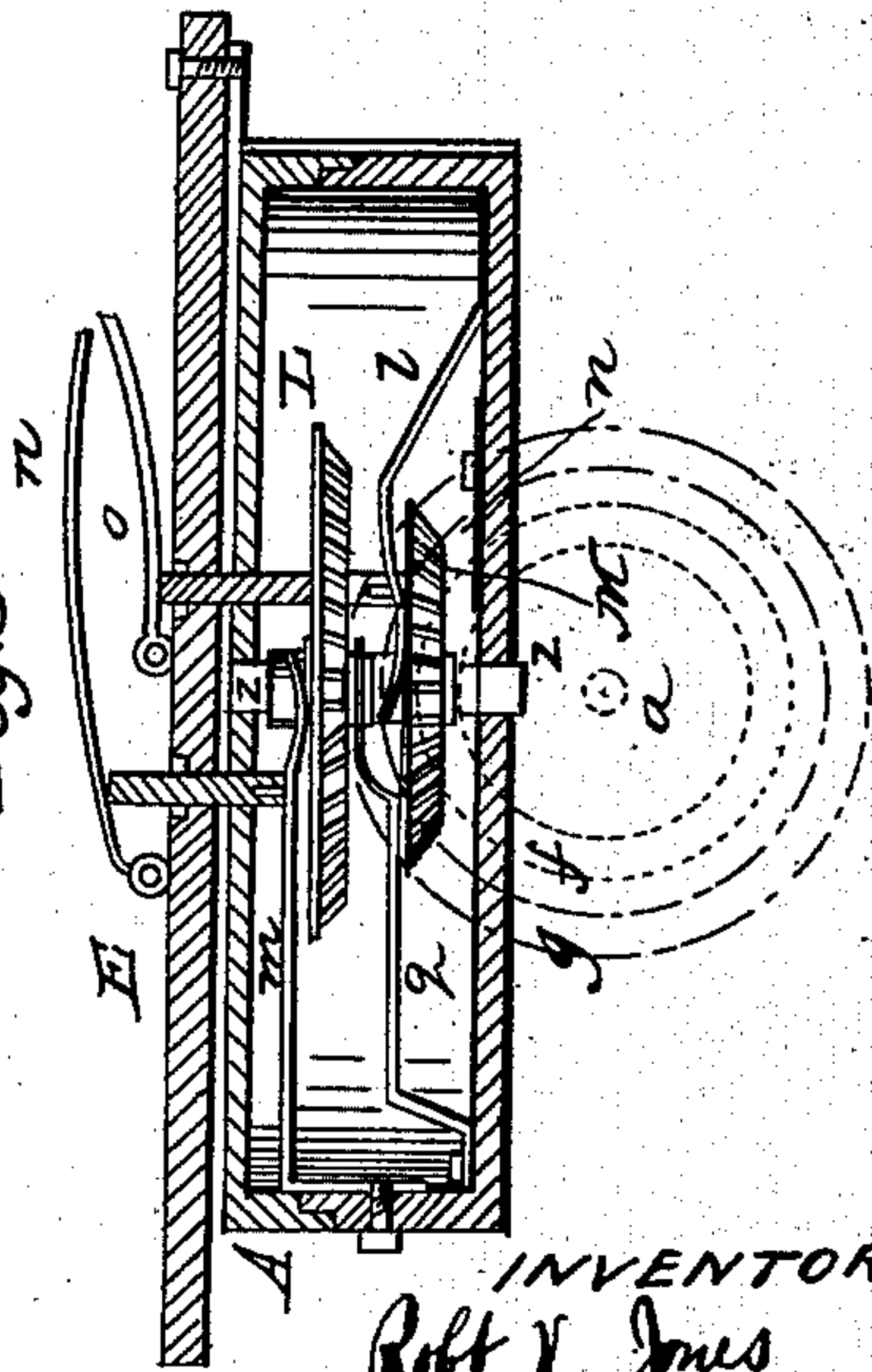


Fig. 3



WITNESSES

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# United States Patent Office.

ROBERT V. JONES AND HENRY FESSLER, OF CANTON, OHIO, ASSIGNORS  
TO THEMSELVES AND JAMES SHORT.

*Letters Patent No. 62,035, dated February 12, 1867.*

## IMPROVEMENT IN HARVESTER RAKES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, ROBERT V. JONES and HENRY FESSLER, of Canton, Stark county, Ohio, have invented certain new and useful improvements in "Combined Reapers and Rakes;" and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, and the letters and figures of reference marked thereon, making a part of this specification.

Figure 1 represents a plan view of the reaper and rake with the cap taken off the body.

Figure 2 represents an inverted plan view without the platform and attachments.

Figure 3 represents a longitudinal section of the metallic case.

In the annexed drawings, A represents a circular metallic case, having a movable lid, and resting upon the axle *a*. B B are suitable wheels at the ends of the axle, and upon said axle rests the above case A. D represents the platform, which is made in the ordinary forms and connected to the main frame. This platform is covered by a metallic shield hinged at the forward end, and provided with curved slots, as shown. Q is the cutter bar, which is provided with the sickle S, and guards *t*, as in the reapers now in use. Upon the inner end of the platform is a post which extends from the heel of the shoe N, and over which post is placed a metal sleeve, T. This sleeve is connected to the rake-shaft and rake-bar, which are on the platform D beneath the shield. The rake-bar *p* is provided with loops into which is placed the rake-shaft *y*, provided with the teeth 3, and the tumbler *u* at the far extremity; *j j'* are lugs or springs at each outer end of the platform for the purpose of operating the rake. The rake readily turns upon the metal post by means of the sleeve T, and whenever it nears the front end of the platform, the tumbler *u* strikes the lug *j'* and the teeth are thrown in a vertical position, and the hay or grain is then carried by said teeth to the rear of platform, when the tumbler strikes the lug *j* and throws the teeth in a horizontal position. In the latter position the rake is carried again to the front of the platform, and out of the way, when it again strikes lug *j'*, and passes back as before. The outer end of this platform is provided with a small wheel, F, and divider G, while the inner end is attached to the drag-bar O by means of the shoe N, the former of which is secured to the bar *e*, upon which rests the tongue C. *b* represents the crank-shaft, having the crank *c* at the rear end, and to which is secured the pitman *d*, (see fig. 2.) At the forward end of said shaft, which is under the case A, is a small cog-wheel, K, which meshes into a large cog-wheel, J, upon the counter-shaft *h*. The counter-shaft *h* has a small bevelled wheel, I, upon its rear end, which meshes into a larger bevelled wheel, *g*, upon axle *a*, and extends into the metal case A, so when the machine is moved forward, the axle, turning, revolves the wheels *g* J and K, turning the crank-shaft *b* and crank *c*, causing the pitman *d*, which is connected to the end of the sickle, to operate the same by its lateral motion. In the forward movement of the machine, a ratchet upon each end of the axle *a* causes it (the axle) to revolve and the sickle to operate, but when the machine is backed, the dogs in the wheel do not catch in the ratchets, and the wheels alone revolve upon the axle to prevent the operation. W represents a lever, which is attached to the hub of the right-hand wheel B. Connected to this lever is the rod *l'*, which is secured by a screw to a small collar *s'*, held around the sleeve T by a set-screw. This lever W is operated by hand to rake the grain from off the platform by the means heretofore set forth. X' is an L-shaped metallic plate secured under the case at the point nearest the platform, and is provided with a slot, within which is caught a bent rod, *v*, which is attached to a connecting-bar of the main frame and platform, and acts as a support for the end of said platform. When it is desired to keep the inner end of the platform down, this rod is extracted from the slot, and the end lowered. The cap of the metallic case A is made to revolve easily on its edge, but in the large machines we prefer having rollers under the cap to facilitate the motion of the cap around the bottom of the case. R is a rack-bar, which is attached to the cap by a metal plate, and which is intended to mesh into the cogs upon the horizontal wheel P, which is pivoted to the plate X'. Upon a vertical shaft, *z*, in the centre of the case A, are two bevelled wheels, set slightly apart, and operated by springs in the manner hereafter described. It will be seen in fig. 3 that both of the bevelled wheels L and M are placed in horizontal positions, and that there is a spring, *m*, above the top of wheel L, and a corresponding spring, *q*, underneath the said wheel, while above wheel M is the spring *l*, and below the wheel is the spring *r*, and that by means of said springs both wheels are kept apart. By reference to fig. 1, a curved slot, *x*, is shown in the wheel L, and two openings marked 4, 4, (one each side of the



spring *m*.) There are also two curved slots in the lid of the case, one of which is directly above the slot *x* in the wheel. Through each of these slots pass pins 1, 2, (see fig. 3,) and rest upon and over small studs on the springs *m* and *l*, respectively, and extend above the top of the case and through the wooden bed of the vehicle. Hinged to the top of the bed are treadles *n* and *o*, which rest upon the pins 1 and 2. Attached to the lid are two metal bolts (not shown) that go through the openings 4, 4 in both of wheels L and M, and by which means the lid is turned so that the rack-bar may operate the wheel P. The intention of the gearing within the case, the rack-bar R, and horizontal wheel P, is to operate the rake by means of the pitman *w* in lieu of the lever W heretofore set forth. It will be seen that by pressing upon the treadle *n*, the spring *m* forces the wheel L sufficiently far down to mesh into the wheel *g*, which is operated by the axle; then turning wheel L a portion of the way around, the foot is taken from the treadle, wheel L is forced up by the springs, and the foot is placed upon the treadle *o*, forcing wheel M against the cogs of the axle-wheel *f*, and also carried a portion of the way around. By these alternate movements of the treadles and wheels, the cap is turned back and forth, operating the wheel P and the rake.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The circular metallic case A, provided with the wheels L M *g* and *f*, springs *q m l* and *r*, in combination with the pins 1 and 2, treadles *n* and *o*, rack-bar R, and wheel P, all arranged and used substantially as herein specified.

2. The quadrantal-shaped platform D, with its slotted shield hinged as described, and rake-bar *p*, (connected to a stud at the geometrical centre of the platform,) rake-shaft *y*, tumbler *u*, and lugs *j* and *j'* for carrying the grain to the rear of the machine, the whole being constructed, arranged, and operating as specified.

3. The circular metallic case constructed as described, with rack-bar R, and wheel P, in combination with the platform and rake, the whole being constructed and operated in the manner herein specified.

As evidence that we claim the foregoing, we have hereunto set our hands in the presence of two witnesses.

ROBT. V. JONES,  
HENRY FESSLER.

Witnesses:

J. J. CLARK,  
W. W. CLARK.