H. A. ADAMS.

Harvesters.

No. 144,179. Patented Nov. 4, 1873.

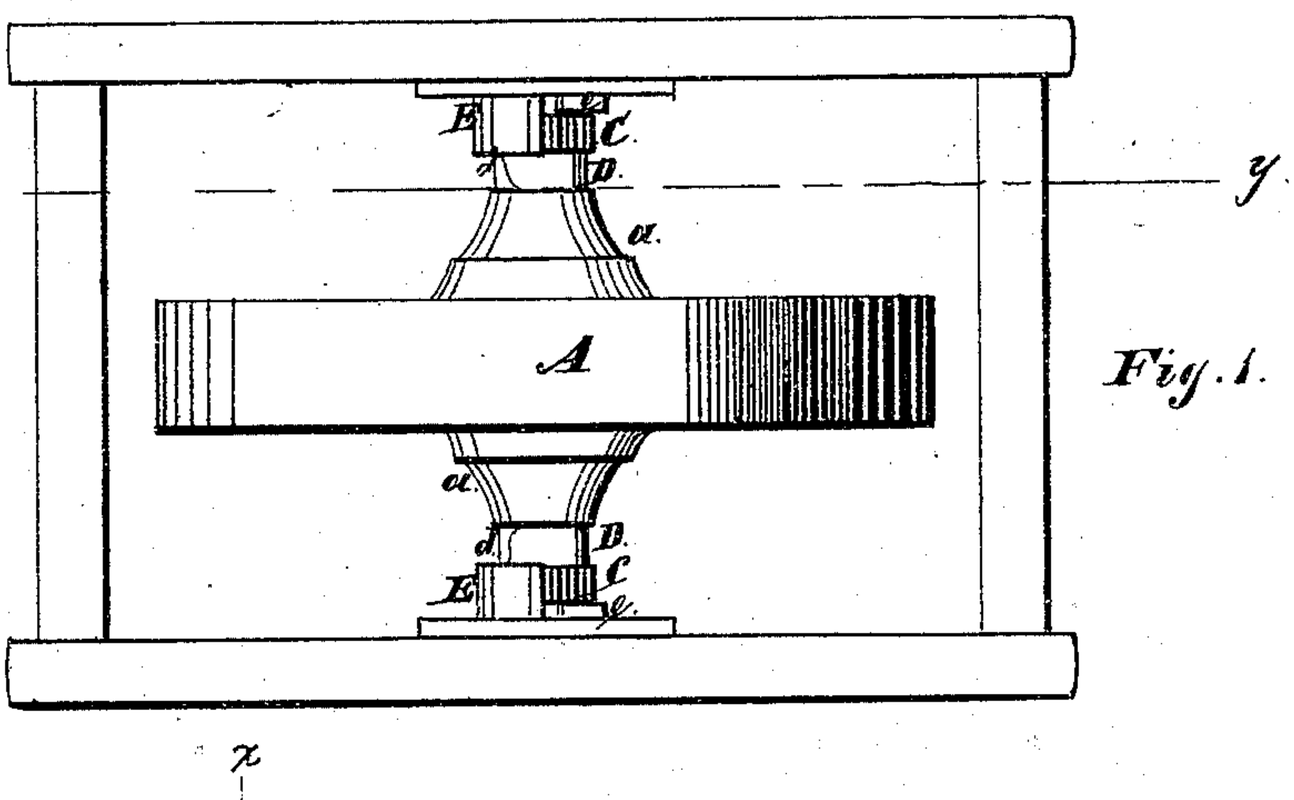


Fig. 1.

Fig. 2.

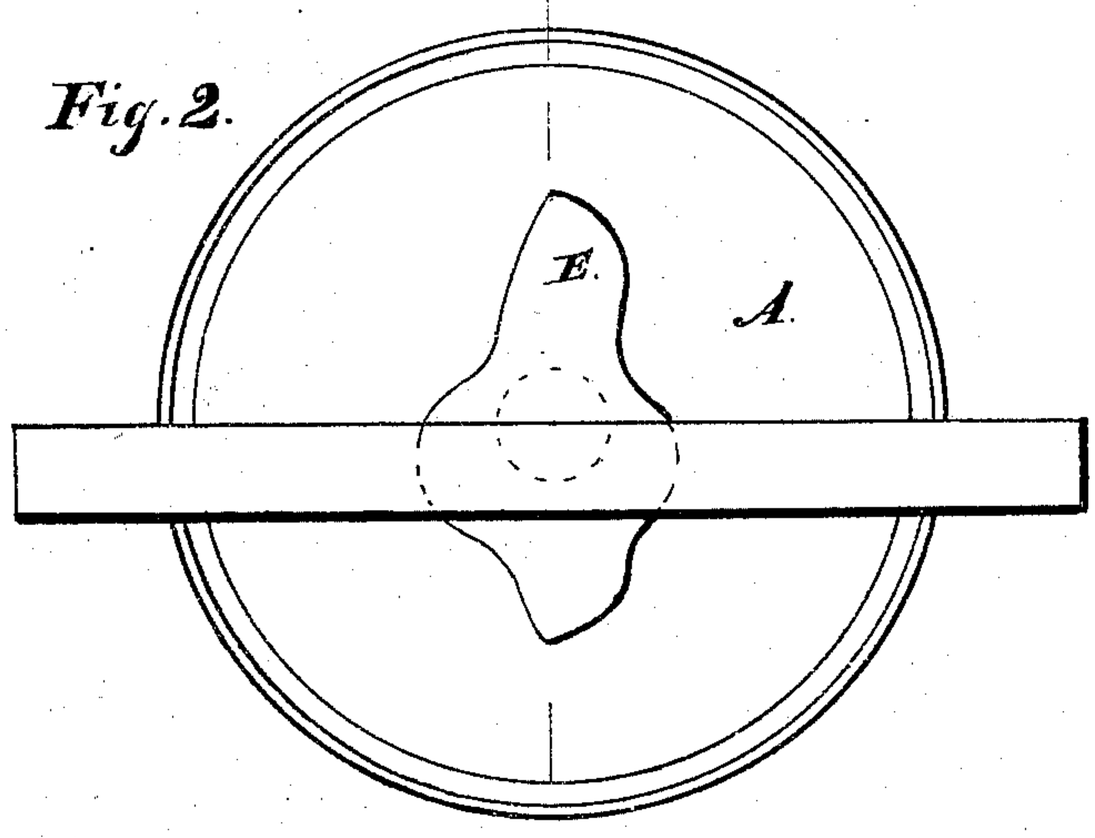
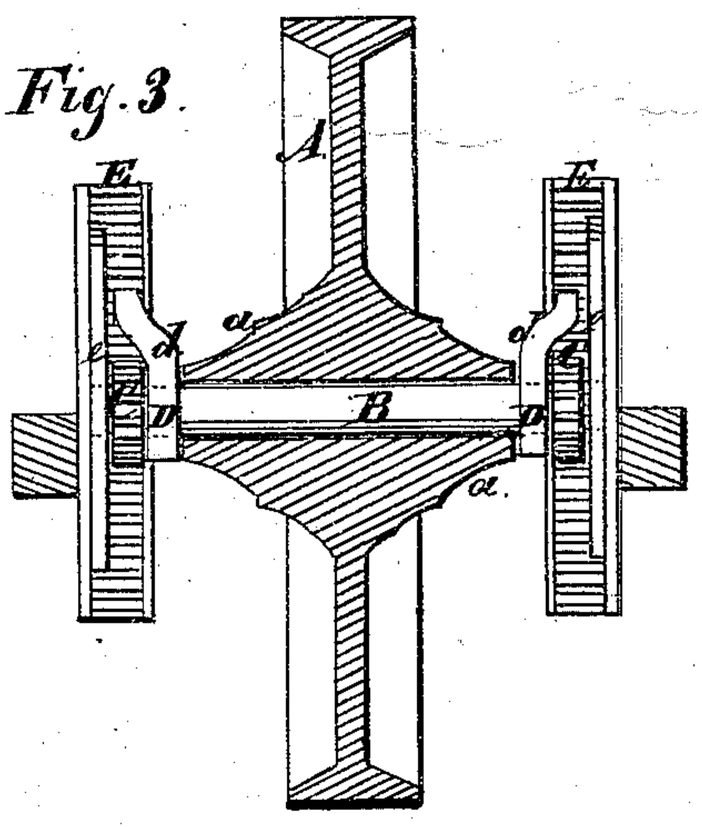


Fig. 3.



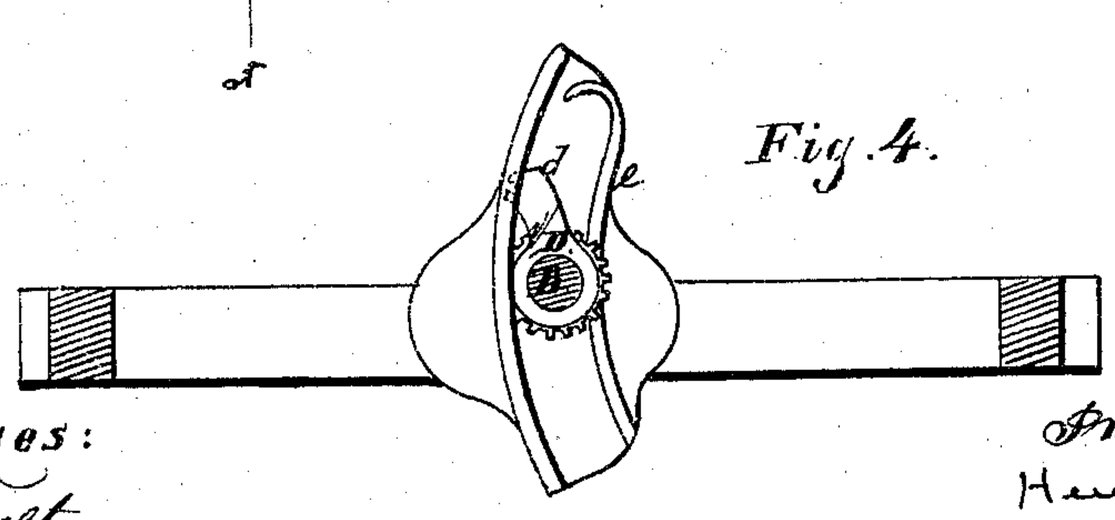


Fig. 4.

Witnesses:
H. P. Fielding
Heinrich F. Bruns.

Inventor:
Henry A Adams
by Coburn & Mumford
his attys

UNITED STATES PATENT OFFICE.

HENRY A. ADAMS, OF SANDWICH, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **144,179**, dated November 4, 1873; application filed May 13, 1873.

To all whom it may concern:

Be it known that I, HENRY A. ADAMS, of Sandwich, in the county of DeKalb and State of Illinois, have invented certain Improvements in Reaping and Mowing Machines, of which the following is a specification:

This invention relates to a mechanism for raising and lowering or adjusting the height of the frame of the machine upon the axle of the main or driving wheel.

In this invention, the said driving or traction wheel is mounted loose upon an axle, which is fitted at each end with a pinion. Upon each side of the traction-wheel the frame carries an internally-cogged segment, in which segments the pinions roll up and down to adjust the height of the frame upon the wheel. By the side of each pinion a dog is placed loose upon the axle, and is so arranged as to catch into the cogs of the segment above the pinion to hold the frame from lowering when the proper adjustment is reached, and a guard-rib upon the segments opposed to the cogs serves to retain the pinions to their work.

In the accompanying drawing, which forms a part of this specification, Figure 1 is a top or plan view of the traction-wheel mounted in a portion of the reaper-frame, and fitted with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a section on the line *x x* of Fig. 2. Fig. 4 is a section on the line *y y* of Fig. 1.

Like letters of reference made use of in the several figures indicate like parts wherever used.

To enable those skilled in the art to make and use my invention I will proceed to describe the same with particularity, making use, in so doing, of the aforesaid drawing by letters of reference thereto.

In the accompanying drawing, the letter A designates the traction-wheel of the machine, fitted to revolve loose upon a spindle or axle, B. To give a reliable bearing, the hub *a* of this wheel A is made to extend out each way a considerable distance, as shown. The axle B is fitted at each end with cogged pinions C, which are preferably keyed rigidly to the axle to revolve therewith. The axle projects a little at each end beyond the pinions to afford a means for securing the same from slipping out of place. Upon the axle, at each side, and just inside of each pinion, is a loose collar, D, from which projects an arm or dog, *d*, turned outward and upward to stand over the pinions. Upon the harvester-frame, at each side of the wheel A, are secured the internally-cogged segments E E, upon which roll the before-mentioned pinions. A rib or guard, *e*, upon each segment, serves to retain the axle in place, and, being curved at the top, this rib serves to prevent the frame from descending so far as to cause the axle to roll out of the cogged segment. The cogged segment is made of the form of an arc, so that when the frame is raised or lowered the gearing, which communicates motion from the traction-wheel to the machine, will always stay properly in mesh. This gearing is not shown in the drawing, but it should be such as is usually employed for this purpose.

It will be seen that the collar D serves not only to support the catch or dog *d*, but also as a means of filling the space upon the axle between the pinion and the hub at each side. In lieu of the collar D, a fork, or its equivalent, may be used to support the dogs.

The dogs *d* set into the cogged segments above the pinions, and resist the downward tendency of the frame-work, which would descend otherwise upon the pinions of its own weight. This weight serves to lock the dogs in place, and hold them from coming loose.

The frame may be raised by applying a suitable wrench to the pinions after the dogs are unlocked. As the pinions revolve in the proper direction they raise the frame. The wrench is unnecessary to lower the frame. Its own weight will carry it down when the dogs are unlocked, except to regulate the speed of the descent and to loosen the dogs in starting.

What I claim as my invention is—

The traction-wheel A, hub *a*, collars D carrying dogs *d*, pinions C, and cogged segments E, in combination substantially as specified.

HENRY A. ADAMS.

Witnesses:

HEINRICH F. BRUNS,

JOHN W. MUNDAY.