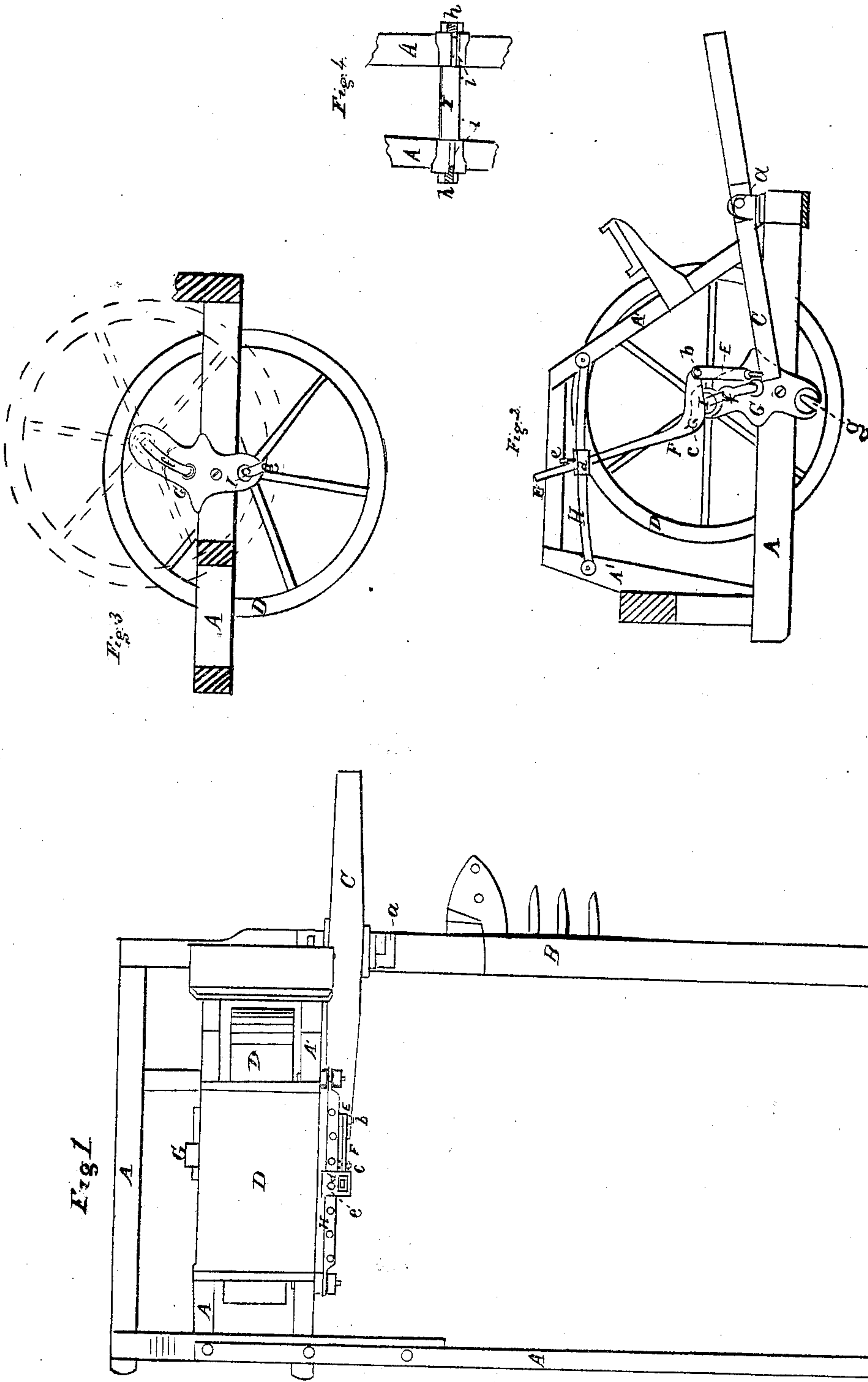


Moore and Patch. Mower.

No. 23,383

Patented Mar. 29, 1859



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UNITED STATES PATENT OFFICE.

J. A. MOORE AND A. H. PATCH, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 23,383, dated March 29, 1859.

To all whom it may concern:

Be it known that we, JOSEPH A. MOORE and ASAHEL H. PATCH, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Harvesters; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view; Figs. 2 and 3, side sections and elevations, and Fig. 4 plan of driving-wheel axle and bearings.

Similar letters of reference in each of the several figures indicate corresponding parts.

Our invention relates to an improvement in that character of combined reaper and mower which employs standards having long curved slots, said slots serving for the axle of the driving-wheel to be hung and adjusted in, and said standards, with the axle, when the harvester is used, bracing the frame laterally.

The nature of the improvement made by us in this character of harvester consists, first, in making provision, substantially as hereinafter specified, for the passage through the curved slots of the standards and withdrawal out of the same, without the necessity of removing the standards from the frame, of a driving-wheel axle which has its circumference enlarged from its journals to such an extent that the shoulders formed at each end will overlap a portion of the inner faces of the standards, and thus present a stop at each end for the standards to bear against in such manner that when the whole is screwed up the axle becomes a firm brace between the standards, and thus gives great strength, while the machine is quite light.

The second improvement made by us consists in connecting the tongue-adjusting lever F to a vertically-perforated curved stop-bar, H, by means of a slide, d, which is furnished with a vertical slot for the lever to play up and down in loosely as it is moved back and forth, a horizontal curved slot to allow it (the slide) to be fitted and moved over the bar, and a vertical passage through it to allow a stop-pin, e, to be passed through it and the stop-bar. Our arrangement of the stop-bar H and slide d, which allow of a vertical pin, e, for holding the lever F, being employed, we have found to be safe and reliable, and far preferable to notches and

springs, which soon fail to hold. It is also more effective than horizontal pins, which are liable to jolt out and allow the lever and tongue to change their positions.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

To employ the first feature of our invention we provide axle boxes or standards G, which are of curved form, as shown in the drawings, and constructed so as to allow the axle I to be placed above or below the frame. They are also each furnished with a long curved slot, f, in that part which extends above the frame, said slots admitting of considerable variety of change in the height of the driving-axle. In the part which extends below the frame another oblong curved slot, g, is provided. The upper slot is enlarged in the form of a circle, as shown at Z, at a point some distance above its lower termination, so that the axle I, which has journals of just the same diameter as the width of the slots, while its intermediate diameter is enlarged between its journals, may be adjusted, as hereinafter described. It is by thus constructing the slots that the axle, notwithstanding having a shoulder, i, can be inserted and withdrawn from the standards without the necessity of unscrewing or removing the standards from the frame. At the same time the advantage which results from having the axle act as a brace between the standards, and consequently to the frame, is obtained, as the driving-wheel turns loosely on the axle, and the shoulders of the axle overlap the solid portions of the inner faces of the standards, and the axle and standards are caused to bind against one another by means of clamping-nuts h, which screw on the screw ends of the axle and against the outer faces of the standards.

For various kinds of grasses and grains the changes of heights which the slots f permit will be sufficient, but in some parts of the country, where very tall grains are grown on rough soils, an additional elevation of the cutters is necessary. We therefore extend the boxes G below the frame A, and provide the extremities of the boxes with the additional slot g to receive the driving-axle, said slot being open at its lower termination, so as to allow the introduction of the axle into it and the withdrawal of the same therefrom without unscrewing the remaining standards. With our improved standards the

height of our cutters can be changed from two to thirty inches. This great range of height requires no complication of mechanism, but is effected in the most simple manner and without the necessity of unscrewing and removing the standards. Fig. 3 shows the highest and lowest change which the standards permit.

It is obvious that by tightening the nuts *h h* the driving-axle becomes a strong brace to hold the parts of the frame firmly together at a point where they are usually subjected to the greatest strain, owing to great weight and wrenching of the driving-wheel and cutter-gearing.

The tongue or pole C, to which the horses are attached, is hinged to the frame A, above and somewhat behind the line of the cutting apparatus, at a point *a*, (shown in Fig. 2,) which it has, we believe, been determined, from a long series of experiments, to be the best for all machines of the class in which the line of the cutting device is in front of the driving-wheel, inasmuch as we are enabled to construct the machine in such a manner that there is little or no weight upon the necks of the horses, and yet, in moving, the cutters are held to the ground, so as to cut a close and even stubble, and the necessity of using truck or caster

wheels for relieving the necks of the team, which add no little to the draft and weight of machines, avoided.

The handle of the lever F, which adjusts the cutters, moves from the front to the rear of the frame immediately at the side of the driver's seat, and is much more easily controlled by the driver than levers which have a vertical adjustment, and when adjusted it can be held in a more safe and reliable manner than when notches and springs, or any of the devices hitherto known, are employed.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The enlargement, as at Z, of the curved slots *f* of the standards G, substantially as and for the purposes set forth.

2. The arrangement relatively to each other of the vertically-perforated curved stop-bar H, slide *d*, constructed as described, and lever F, for the purpose set forth.

J. A. MOORE.

A. H. PATCH.

Witnesses:

THOS. J. GRIFFITH,

W. WYATT.