Sheet 1 2 Sheets.

W. Van Anden.

Mower.

No 3015
No 34019

Patented Dec. 24, 1861

Fig. 1.

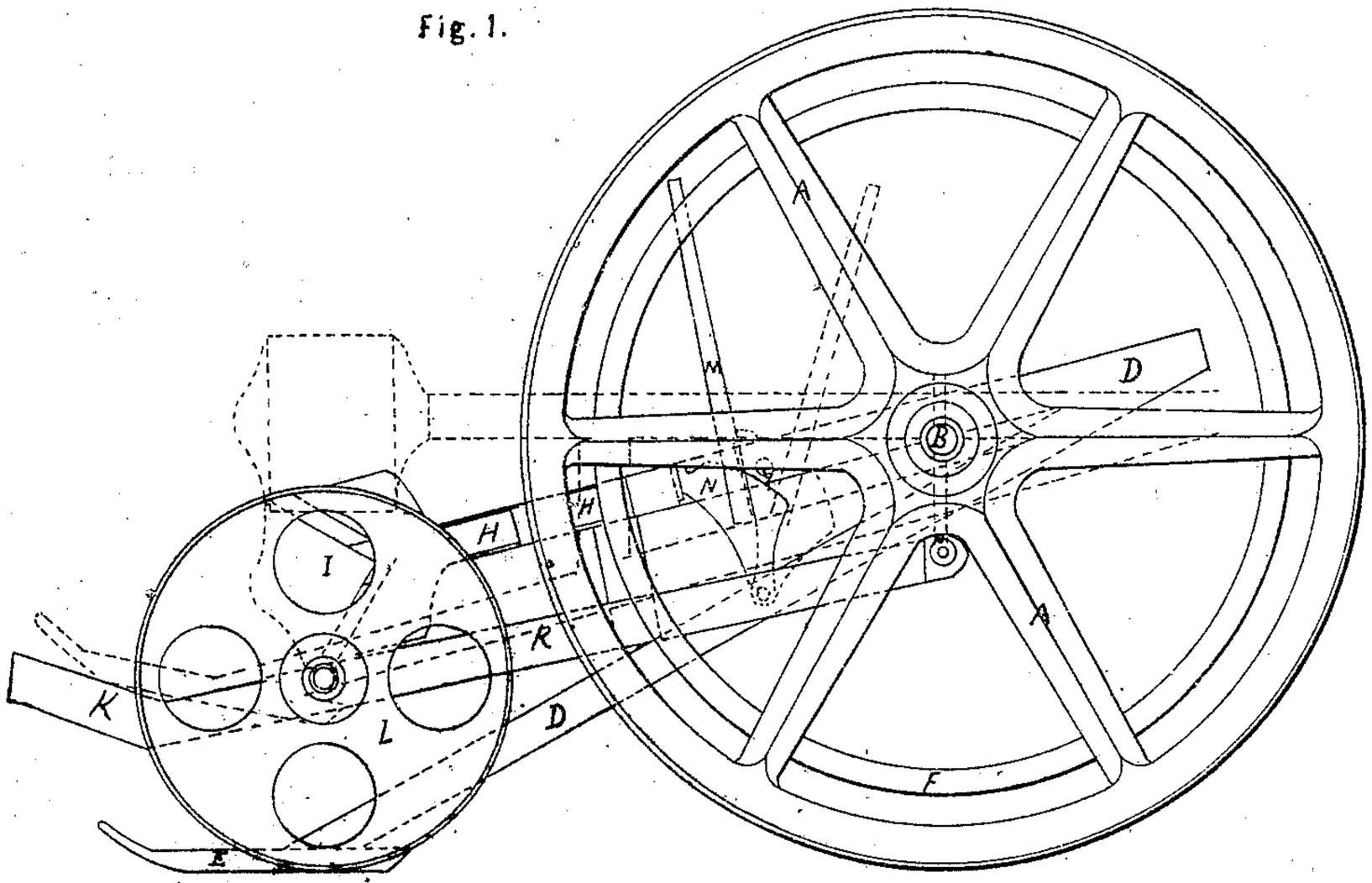
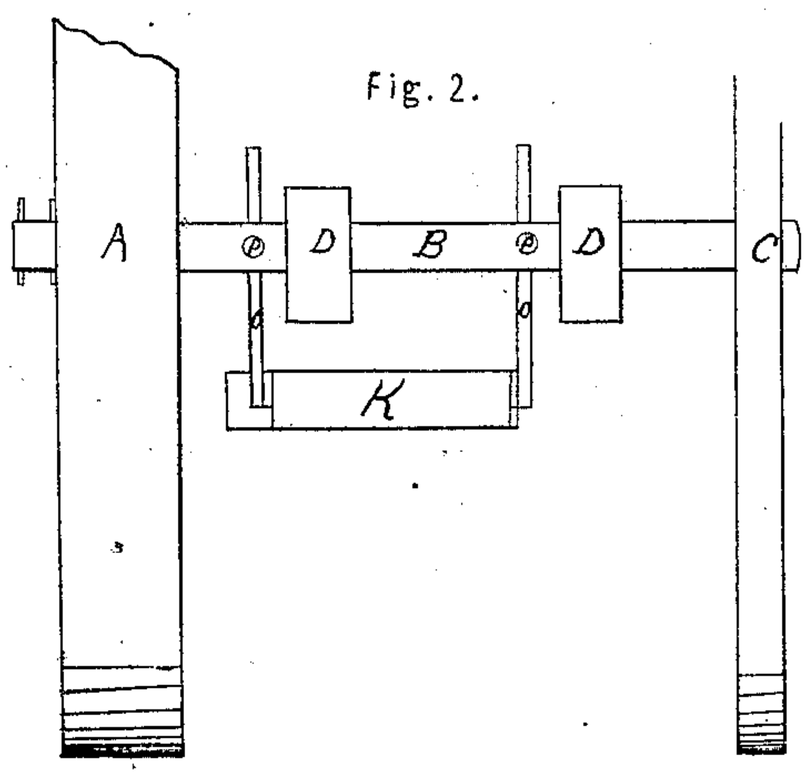


Fig. 2.



Inventor

Wm Van Anden

Sheet 2. 2 Sheets

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Fig. 4.

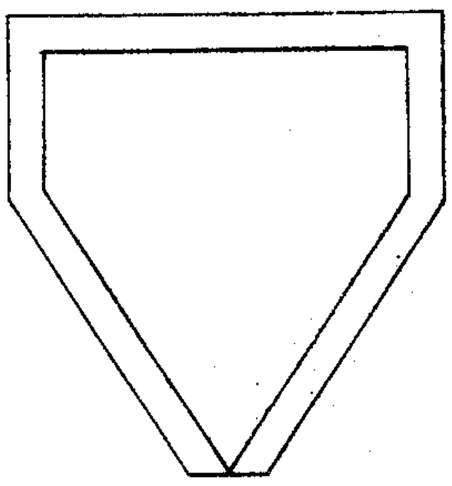

Fig. 5.

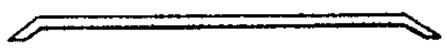

Fig. 6.

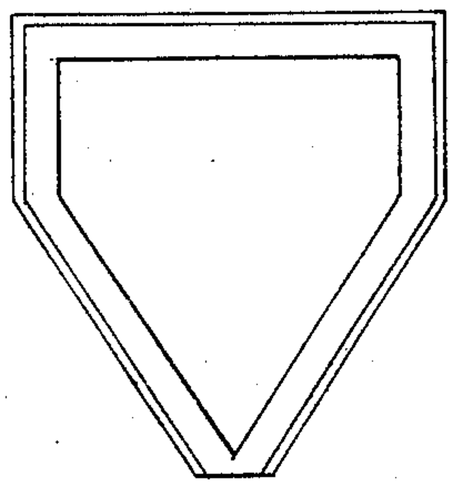

Fig. 3.

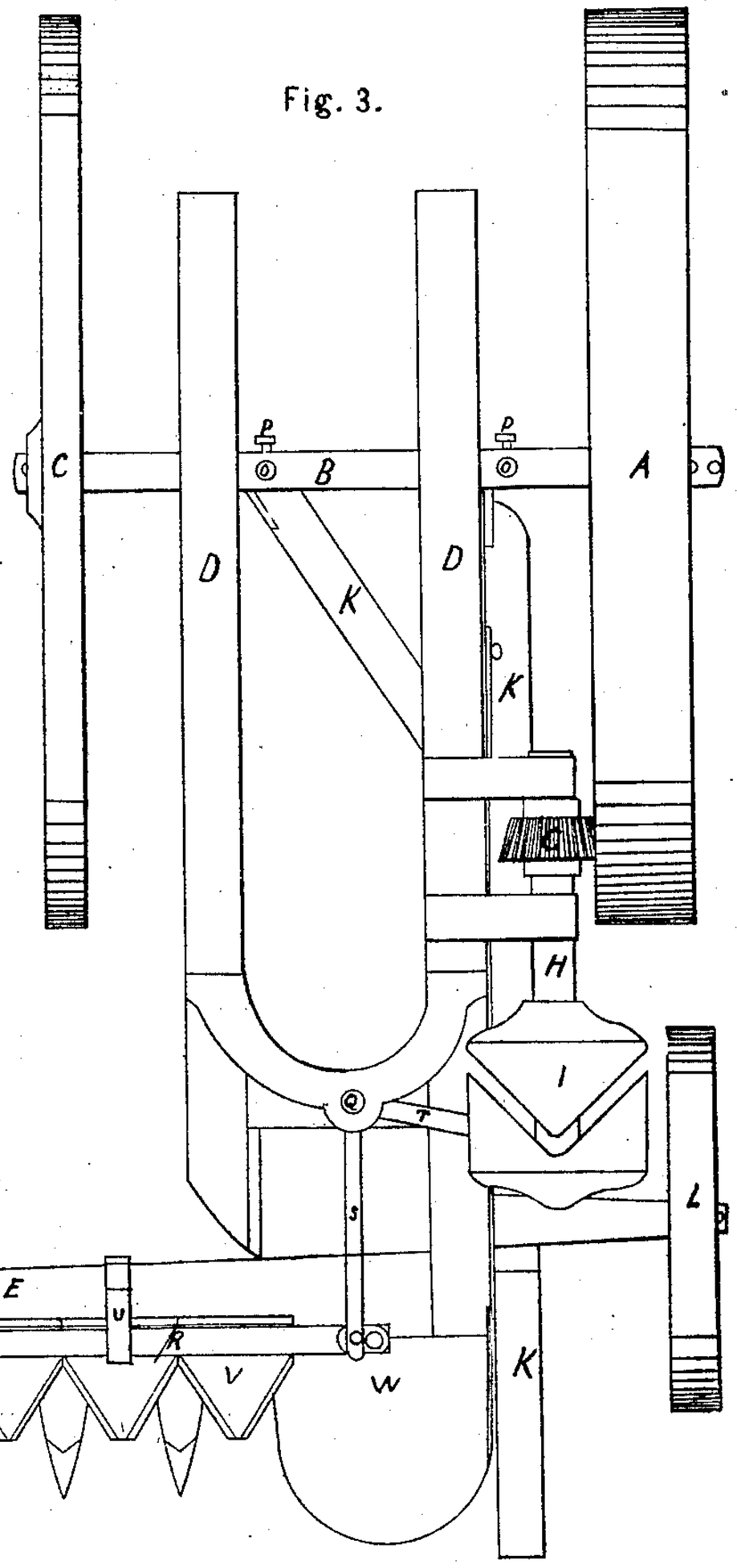

Fig. 7.

Inventor

Wm Van Anden

UNITED STATES PATENT OFFICE.

WM. VAN ANDEN, OF POUGHKEEPSIE, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **34,019**, dated December 24, 1861.

To all whom it may concern:

Be it known that I, WILLIAM VAN ANDEN, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Harvesters for Grass, Grain, and Similar Substances, the construction and operation of which I have described in the following specification and illustrated in its accompanying drawings with sufficient clearness to enable competent and skillful workmen in the arts to which it pertains or is most nearly allied to make and use my invention.

The nature of my invention consists, first, in the use and construction of adjustable bars for attaching the tongue; second, in the use of an adjustable cutter-bar holder.

In the accompanying drawings, Figure I is a side elevation of the harvester. (The dotted red lines show the finger-bar raised.) Fig. II is a rear elevation of the harvester. Fig. III is a plan view of the harvester. Fig. IV is a top view of one of the cutter-blades. Fig. V is a section of one of the cutter-blades. Fig. VI is a view of under or cutting edge of cutter-blade. Fig. VII is a view of section of finger-bar and adjustable cutter-bar holder.

In the figures, A is the main driving-wheel on the main axle B, and on the other end of which is the supplementary wheel C, which supports the inner end of the axle.

D is the main frame of the machine, fastened to the axle B, and to the lower end of which frame D is fastened the finger-bar E.

F is the main bevel-wheel, securely fastened to the main driving-wheel A.

G is a bevel-pinion for the purpose of transmitting the motion of the driving-wheel, by means of the large bevel-wheel F, to the shaft H and cam I.

R is the adjustable bars, fastened to the axle B by means of the adjustable rods O and set-bolts P, and to the forward end of which adjustable bars are fastened by means of an axle the tongue-wheel L, which wheel receives the weight of the finger-bar when raised.

M is a lever for raising the finger-bar E by means of the cam N, secured at the lower end to the adjustable bars K, and the upper part works on the pin T, and which cam N is provided with suitable indentations in order to hold the finger-bar E at any desired height.

Q is the rock-shaft for the purpose of transmitting the motion of the cam I, by means of its arms T and S, to the cutter-bar R and cutter-blades V V V.

U is the adjustable cutter-bar holder for securing the cutter-bar in its place.

Having now described all the different parts, I will proceed to describe the operation and construction of the same.

The general features and principle of working do not differ much from the harvesters now in use. As the machine is drawn over the ground by means of horse or other power attached to the end of the adjustable tongue-bar K, the driving-wheel A is turned; and by means of the large bevel-wheel F and the bevel-pinion G, shaft H, cam I, rock-shaft Q, and its arms S and T, motion is communicated to the cutter-bar R. This completes the working of the machine so far as regards the working of the cutters.

It will be seen that the height of the finger-bar and cutters is adjusted by means of the lever M and cam N. Should it be desired to hoist the cutter very high, the set-bolts P are unscrewed and the adjustable bolts O O secured to the ends of the adjustable bars K and raised as high as desired, and then the bolts screwed up, thus raising the bar K and the cam N, and by pulling back the lever M raises the finger-bar E. Should it be desired to raise it slightly, the adjustable bolts O can be lowered, and thus preserve always the level for the adjustable bar K for the tongue. It will at the same time be perceived that when the finger-bar F is raised the weight is not thrown on the team, but on the tongue-wheel L. The point of draft being below and attached to the axle B causes the shoes W and X to rest more lightly on the ground, causing less side draft.

The cutters are made from thin sheet metal and struck up at the heel, forming a concave front, with a flange at the heel on a line with the front cutting-edges, thus making the cutters easily to be sharpened and adding stiffness across the heel end, where the rivet-holes are made for fastening on the cutter-bar, which will keep them from springing, which has been a serious difficulty with the ordinary cutters.

The adjustable cutter-bar holder is formed of two parts, one of which is firmly screwed to the finger-bar, and slotted in such a manner that the bolt to which is fastened the loose

piece in its position by means of the nut, and at the same time allows it to be set in such a manner as to take up the wear of the cutter-bar and cutters, so as to always hold the cutter-bar snug on the finger-bar.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the adjustable bolts O O with the adjustable bars K, and with the main frame and axle, for the purpose and in the manner heretofore described.

2. The combination and arrangement of the adjustable cutter-bar holder U and cutters V with the finger-bar E, substantially as described, and for the purpose hereinbefore set forth.

WM. VAN ANDEN.

Witnesses:
ROBT. N. PALMER,
R. LEFFERTS,
D. B. COLLER.