R. F. COOKE.

Harvester.

No. 72,722. Patented Dec. 31, 1867.

Fig. 1

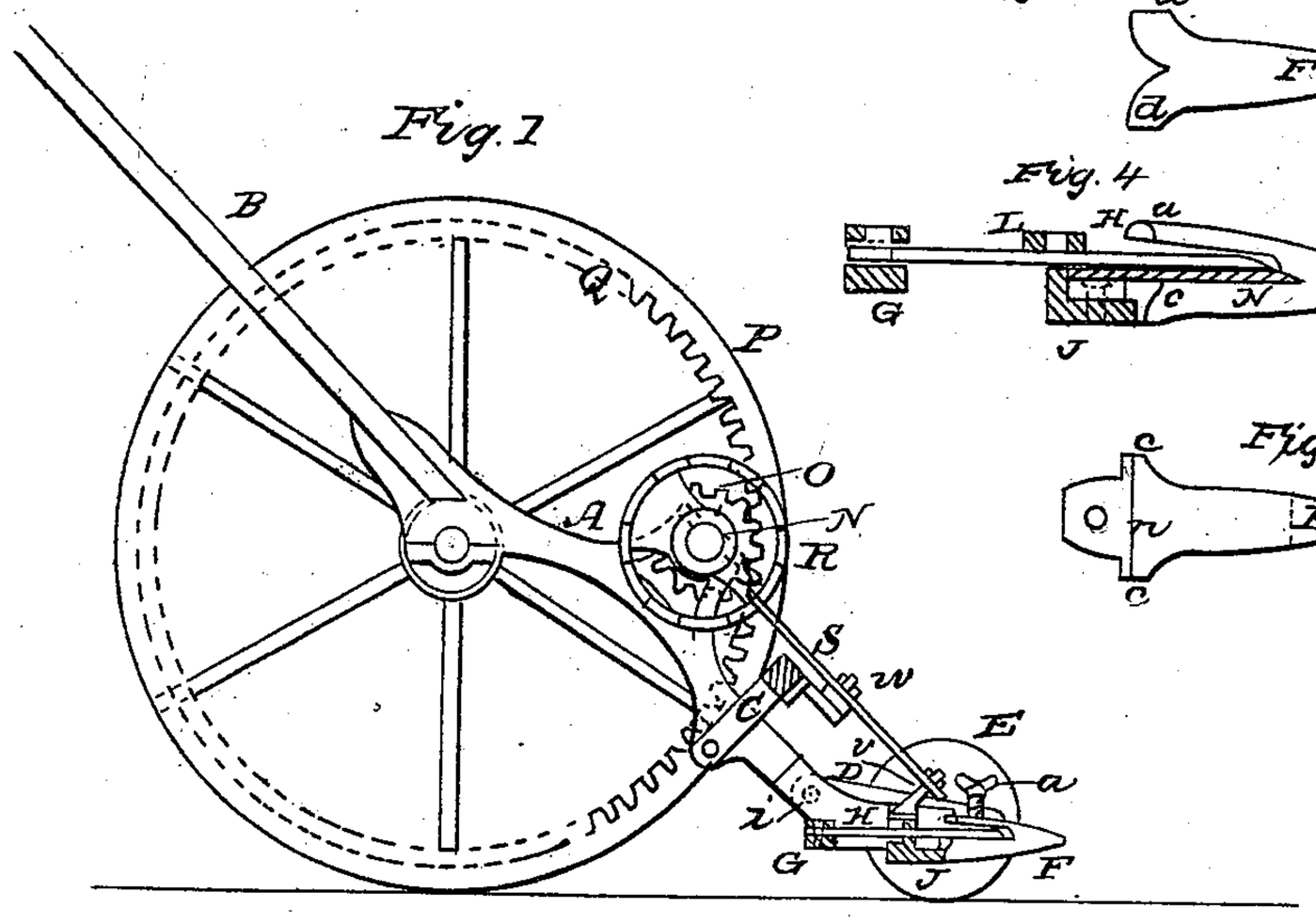

Fig. 2

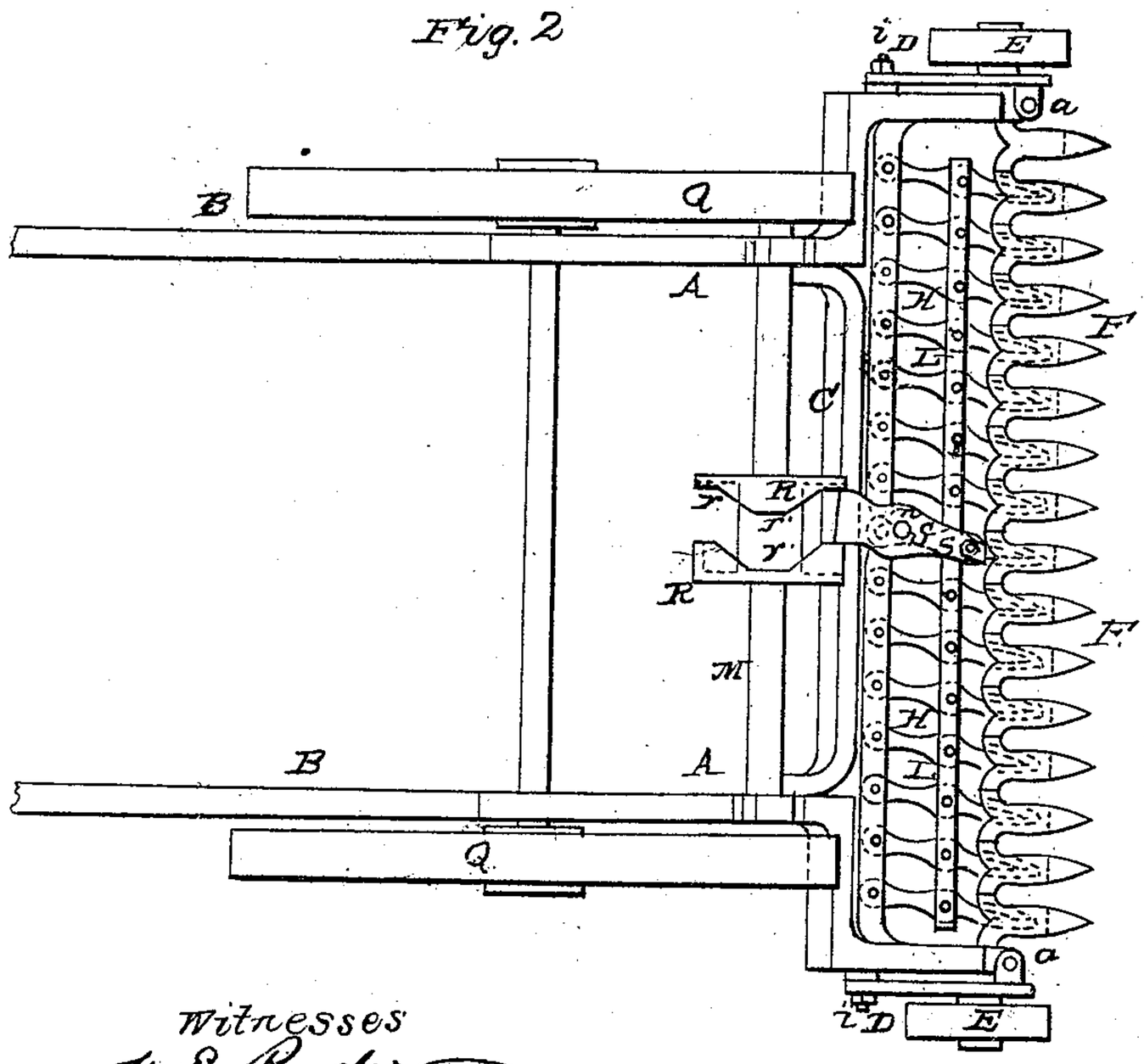

Fig. 3

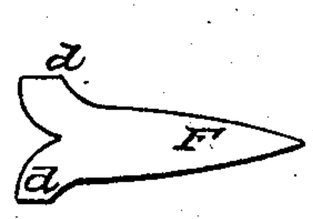

Fig. 4

Fig. 5

Witnesses
H. E. Roder
P. B. McCook

Inventor
Robert F. Cooke

United States Patent Office.

ROBERT F. COOKE, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND PEYTON B. W. COOKE, OF SAME PLACE.

Letters Patent No. 72,722, *dated December* 31, 1867.

IMPROVEMENT IN HARVESTERS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ROBERT F. COOKE, of Newark, in the county of Essex, in the State of New Jersey, have invented a new and improved Mowing-Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure I represents a longitudinal section.

Figure II, a top view of my improved mowing-machine.

Figure III is a top view of the divider on an enlarged scale.

Figure IV is a side view of the same, and

Figure V a bottom view of said divider.

Similar letters represent similar parts.

In the accompanying drawings, A A are the frames, supported on the axle of the machine. On the upper end of these frames, suitable handles, B B, are attached to propel the machine, and to the lower ends the cutting-apparatus and dividers are attached. C is a frame or bar, fastened between the frames A and A, to keep the same the proper distance apart. On the outside of these frames A, near their lower ends, levers D D are attached, turning on their centres *i*, and having, near their outer ends, small wheels E E, on which the lower ends of the frames are supported. These swinging levers, D, are attached on their outer ends to the frames A by means of set-screws *a*, whereby the position of the lower parts of the frames A, as well as of the cutting-apparatus, may be regulated, and consequently the depth the grass is to be cut or mowed off. To the lower ends of the frames A, a bar, J, (see Figs. I and IV) is attached, to which the dividers F are fastened. These fingers or dividers are constructed separate, and screwed upon the bar J, with a shoulder, *n*, on the under side, fitting against the edge of the bar, and projections, C C, on each side, so as to fit against each other. The upper part of these fingers or dividers, F, is likewise provided with side projections *d d*, fitting against the adjoining projections, so as to strengthen that part of the dividers laterally. Upon the lower parts of these fingers or dividers the lower cutter-bar N is fastened. Some distance behind the bar J, another bar, G, is likewise attached to the lower ends of the frames A upon which the cutters or knives H are fastened. These cutters or knives H, are made separate, and capable of swinging on suitable centres fast to the bar G. Near the middle of the knives the same are all connected together through a connecting-bar or rod, L, in such a manner that any motion communicated to this rod L will be transferred to all the cutters or knives H simultaneously, and causing said knives to swing sidewise on their fixed centres on the bar G. M is a shaft, supported in suitable bearings in the frames A, and having on its end a pinion, O, meshing in a rack or teeth, P, provided on the inner rim of one of the wheels, Q. On this shaft M a double cam-wheel, R, is attached, or a drum with suitable grooves may be used. Between these cams one end of the lever S is fitted. This lever S turns on a suitable centre, *w*, fast to the bar C, and is attached at its lower end to a pin, *v*, fast on the connecting-bar or rod L, and communicates its motion derived from the cam-wheels R to said bar L, and consequently to the cutters or knives H. The cam-wheels R are constructed with inclined and straight surfaces *r r'* alternately, in such a manner that when the inclined surfaces pass the end of the lever S, motion will be communicated through said lever to the knives H, while, when the straight surfaces of said cam pass the end of the lever S, said lever, and consequently the knives H, will be at rest. The object of this construction of the cam-wheels, or, if a drum is used, of the groove in said drum, is for the purpose of keeping the knives at rest after each stroke, while the machine moves forward as much as has been cut or mowed off, reducing thereby the friction, and consequently the wear of the cutter. The arrangement of knives, made separate, and swinging on a fixed centre, as above described, has the advantage that thereby a diagonal or drawing cut is obtained, which is impossible by the usual plan of attaching the knives to a cutter-bar.

What I claim as my invention, and desire to secure by Letters Patent, is—

The cam-wheels or grooved drum R, constructed with inclined and straight surfaces *r r'*, alternately, so that when the inclined surfaces *r* pass the lever, motion will be communicated to the knives, and when the straight surfaces *r'* pass the lever, the knives will be at rest, substantially as and for the purposes described.

ROBERT F. COOKE.

Witnesses:

HENRY E. ROEDER,

P. B. W. COOK.