

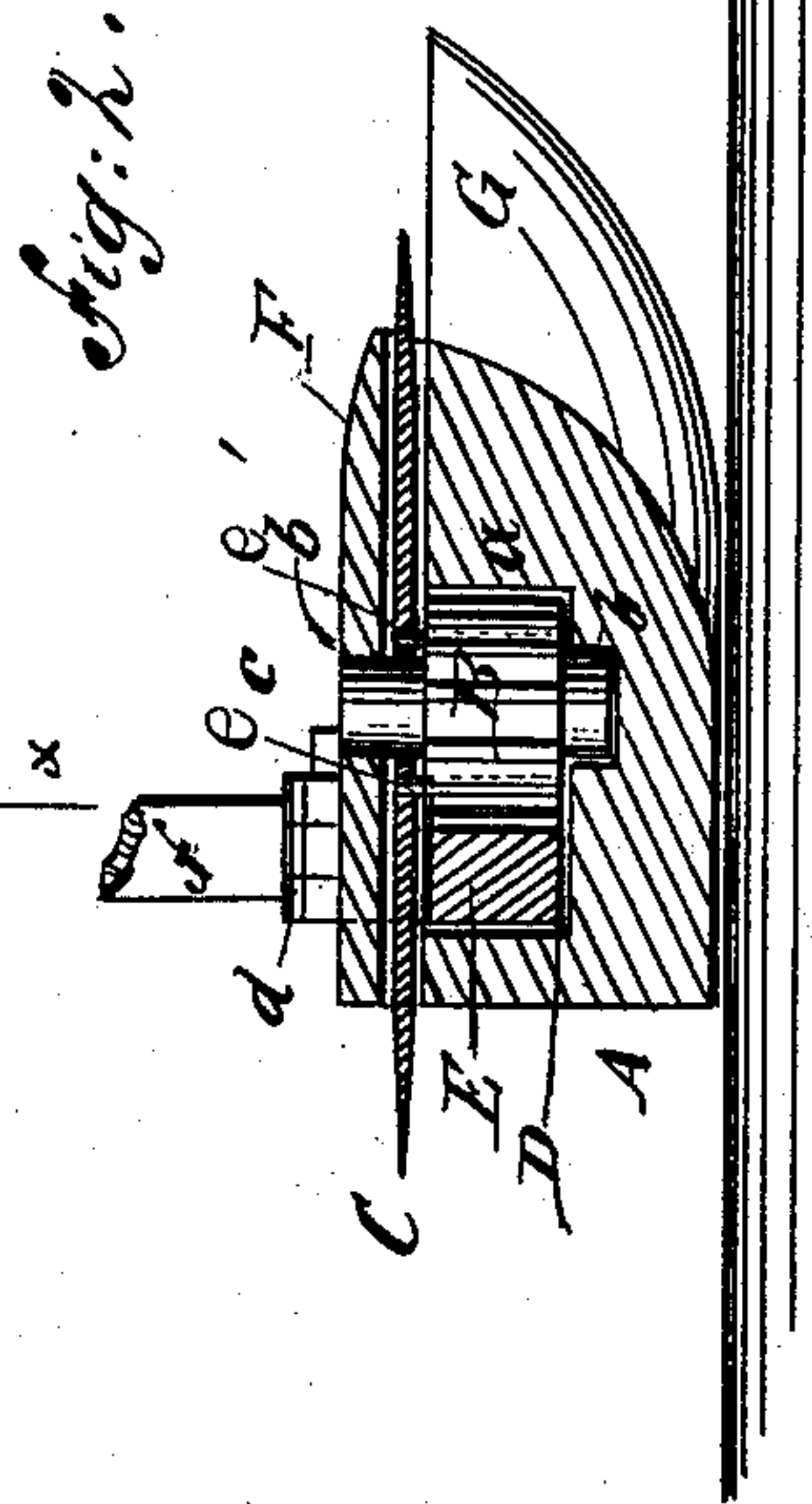
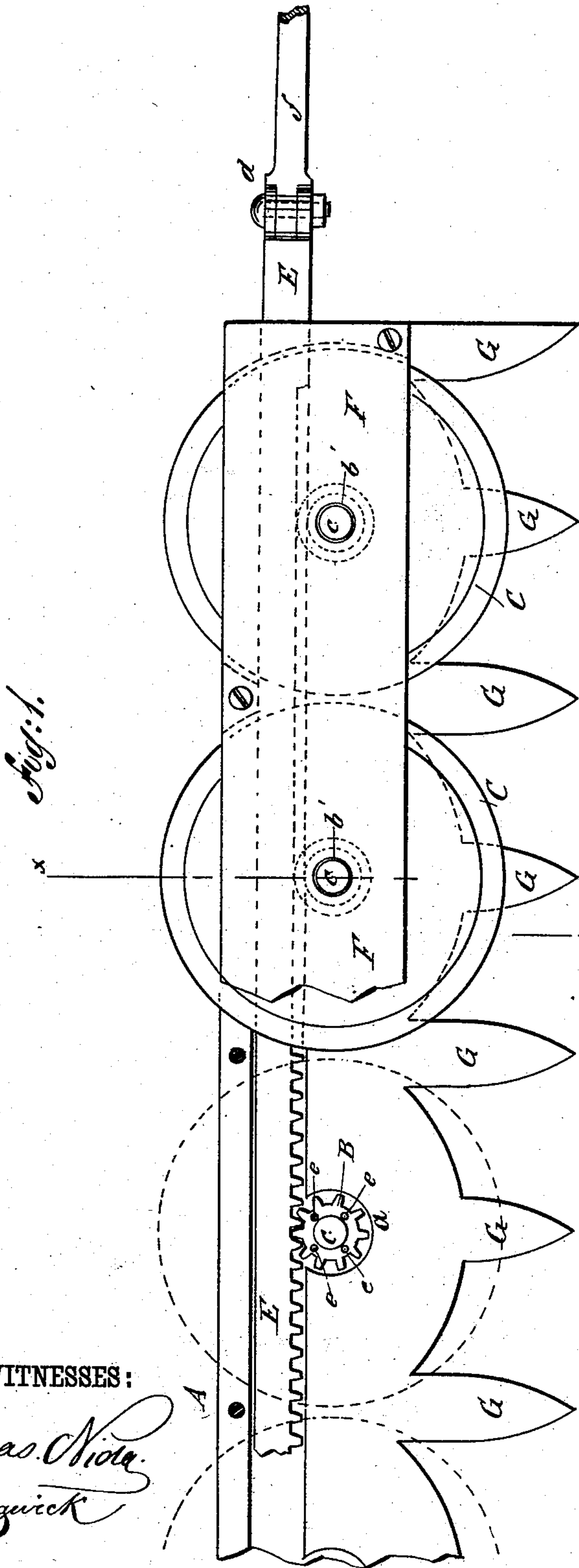
(No Model.)

D. M. KELLER.

CUTTING APPARATUS FOR MOWERS AND REAPERS.

No. 349,105.

Patented Sept. 14, 1886.



WITNESSES:

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DAVID M. KELLER, OF RAPHINE, VIRGINIA.

CUTTING APPARATUS FOR MOWERS AND REAPERS.

SPECIFICATION forming part of Letters Patent No. 349,105, dated September 14, 1886.

Application filed November 27, 1885. Serial No. 184,102. (No model.)

To all whom it may concern:

Be it known that I, DAVID M. KELLER, of Raphine, in the county of Rockbridge and State of Virginia, have invented a new and useful Improvement in Cutting Apparatus for Mowing and Reaping Machines, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a plan view, partly in section, of a portion of a cutting apparatus embodying my improvement. Fig. 2 is a transverse section taken on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts in the different figures.

The object of my invention is to increase the efficiency of mowers and reapers, to lighten their draft, and to render their cutting-edges more lasting.

The invention consists in the peculiar construction and arrangement of parts, as herein after fully described, and pointed out in the claim.

The finger-bar A, which is jointed to the frame of the machine, is substantially like that of the usual form, excepting that it is enlarged at intervals along its length to form chambers *a*, for receiving the pinions B, and is provided with a longitudinal groove for the rack E, which engages all of the pinions B. A plate, F, secured to the top of the finger-bar A, is provided with bearings *b'*, for receiving the upper ends of the shafts *c* of the pinions B and the cutters C. The plate F also confines the rack E in its place in the finger-bar. The guards G, formed on or attached to the finger-bar A, project outward under the circular cutters C, to protect them from injury, and to divide the grain-stalks and hold them in position to be operated upon by the cutters. The rack E, upon the end nearest the running-gear of the machine, is provided with eyes *d*, for receiving the pitman *f*, by which the rack-bar is reciprocated. The stroke of the pitman and the rack-bar is sufficient to cause the cutters C by the engagement of the rack E with the pinions B to make a half-revolution in each direction.

By means of this arrangement of circular knives reciprocated in the manner described I am enabled to produce a true drawing cut, which readily severs the grain-stalks with the smallest consumption of power and with the least possible wear upon the cutting-edges.

It will be noticed that as the cutters make only a half-revolution in either direction only half of the periphery of each cutter is used, so that after one-half of the cutters become dulled by use the cutters may be removed and turned half-way round to bring a new cutting-edge into position for use.

When the cutters become dulled by use, they may be ground separately upon an ordinary grindstone or emery-wheel. They may also be readily replaced by new ones when worn or damaged by use without the necessity of employing a mechanic.

The rack E and the pinions B are preferably made of steel, and the shafts of the pinions B are formed integrally with the pinions, and the circular cutters C are secured to the pinions B and shafts C by lug-pins *e* in the top of the pinion and corresponding holes in the circular cutters, so that when the cutter is to be replaced by a new one it may be removed from its pinion without the necessity of throwing away the pinion.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a cutting apparatus for mowing and reaping machines, the combination, with the finger-bar A, provided with a longitudinal groove, and the chambers *a*, and the plate F, provided with the bearings *b'*, of the pinions B, provided with the shaft *c* and pins *e*, the rack E, engaging the said pinion, and the circular knives C, provided with apertures for the reception of the shafts and the pins of the pinions, substantially as herein shown and described.

DAVID M. KELLER.

Witnesses:

WM. T. HUTCHESON,
WM. T. RUSH.