

(No Model.)

S. B. SWEENEY & J. M. GHORMLEY.

ENDLESS REAPING SICKLE.

No. 334,304.

Patented Jan. 12, 1886.

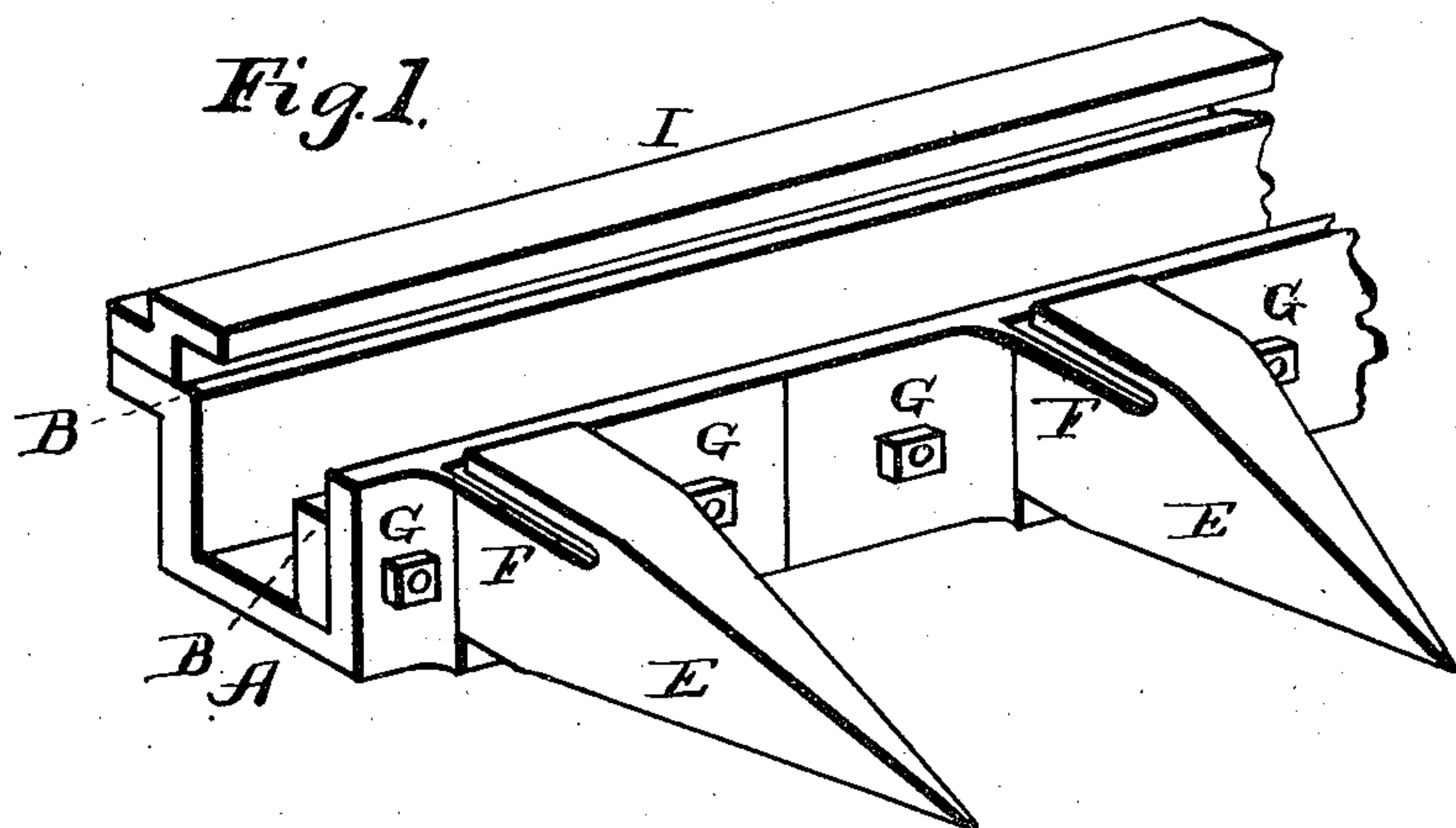


Fig. 2.

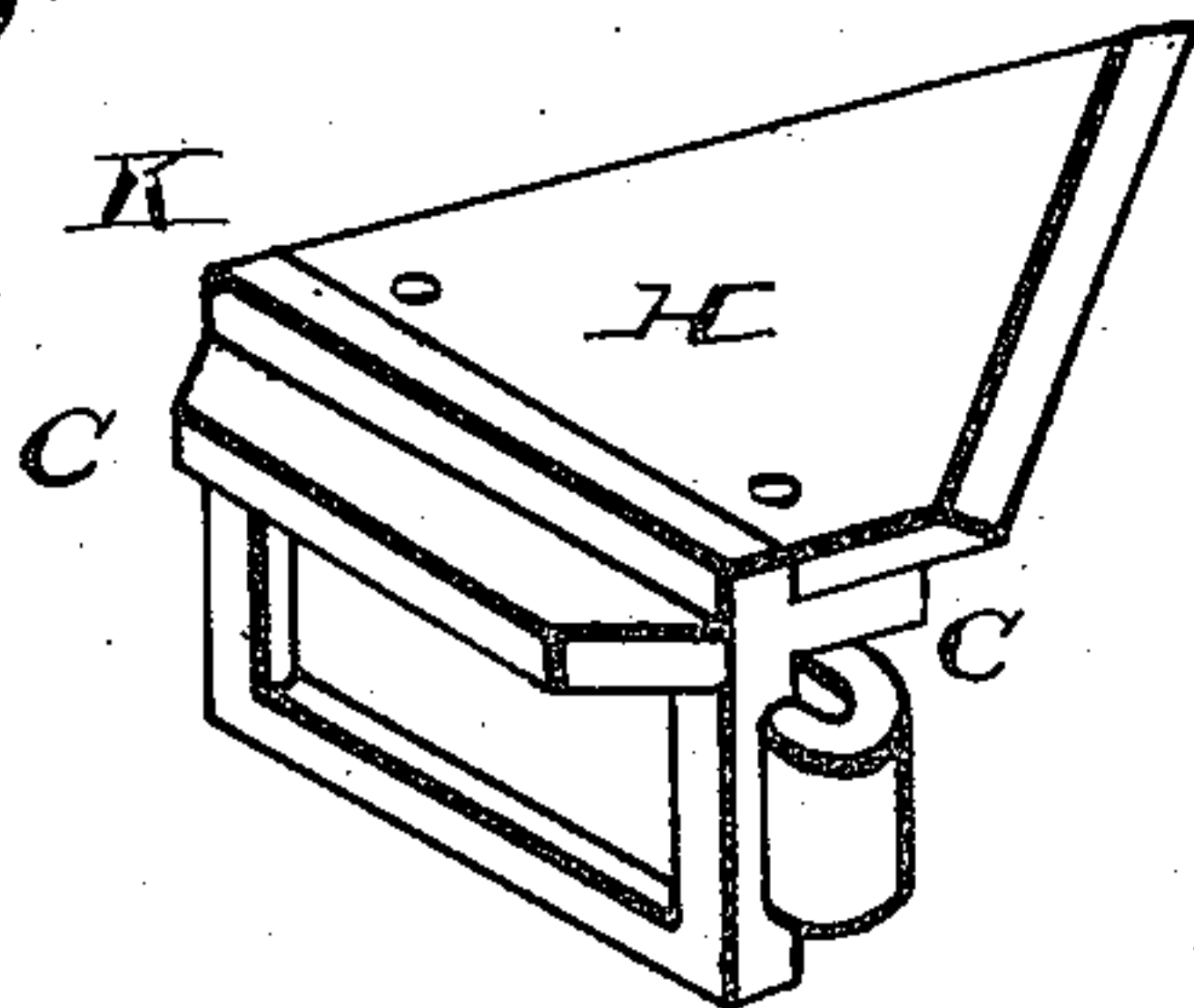
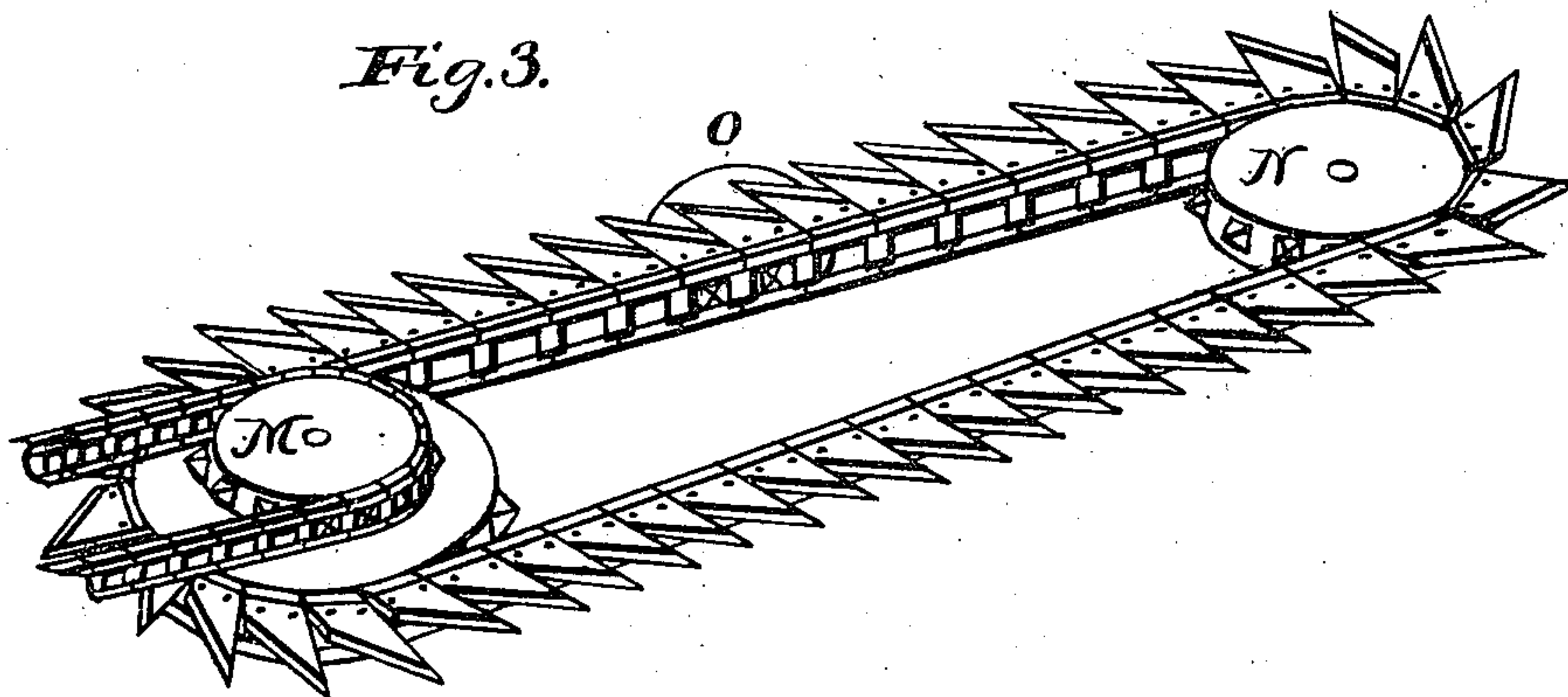


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL B. SWEENEY, OF ROACHDALE, AND JUSTUS M. GHORMLEY, OF
WAVELAND, INDIANA,

ENDLESS REAPING-SICKLE.

SPECIFICATION forming part of Letters Patent No. 334,304, dated January 12, 1886.

Application filed May 16, 1884. Serial No. 131,798. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL B. SWEENEY and JUSTUS M. GHORMLEY, residing, respectively, at Roachdale, in the county of Putnam and State of Indiana, and Waveland, in the county of Montgomery and State of Indiana, have invented a new and useful Endless Reaping-Sickle, of which the following is a specification.

10 The objects of our improvements are, first, to provide a continuously-moving sickle, thereby diminishing draft; second, to provide for the fastening of a sickle-section to a chain-link, so that each section may be
15 separated from the sickle and ground separately and accurately upon any grindstone, and that a broken section may be replaced easily and readily at any time or place; third, to provide a bar constructed in such a shape
20 that an endless-chain sickle can be used successfully as a reaping-sickle; fourth, to provide for regular cutting of the grain by so spacing the guards at a different interval apart from that of the sections that part of
25 the sickle-sections will be cutting and part idle at all times while the sickle is in motion, thereby making a regular and continuous cut and diminishing the draft. We attain these objects by the mechanism illustrated in
30 the accompanying drawings, in which—

Figure 1 represents the bar, or a section thereof, with two slotted guards and an adjustable guide attached. Fig. 2 represents one link of the chain with section attached,
35 and Fig. 3 represents a complete sickle and its sprocket-wheel and driving-chain attached.

Similar letters represent similar parts throughout the different views.

40 In Fig. 1, A represents the bar proper, formed with three right angles, making it very strong, and forming a groove, through which the chain in its forward movement passes. B B are the supports upon which the flanges C C on the link, Fig. 2, rest. E represents slotted guards,
45 through which the sections pass in their forward movement, which are fastened to the bar with bolts at G. These guards have steel flanges at F, which form sharp cutting-edges

on the sides of the guards, which operate in connection with the cutting-edges of the sickle-
50 sections. I is an adjustable guide, which prevents the sickle from rising up, and is fastened to the back side of the bar with bolts, which pass through slots, allowing the guide to be slipped forward as the back of the sickle
55 wears, thus preventing the sickle from becoming too loose.

Fig. 2 represents a link with a section, H, attached. C C are the flanges, which run on the supports B B and in the grooves formed
60 by the guards on the front and the adjustable guide on the rear, causing the sickle to pass the entire length of the bar perfectly true and level.

The flanges and link are made of one piece, 65 with a raised part at K, which supports the back of the section. The sections H are of steel, and are fastened to the flanges on the link with two rivets.

In Fig. 3, M represents the driving sprocket-
70 wheel with two sets of sprockets. The lower sprockets are for the sickle and the upper sprockets for the driving-chain; or it can be driven through the medium of any other suitable system of gearing. N represents a
75 sprocket-wheel, which supports the outer end of the sickle and conducts it around the end of the bar and into the groove formed by the bar, its guards, and adjustable guides. O
80 is a small sprocket-wheel located opposite the center and on the back side of the bar, which supports the center of the sickle on its return, and is an adjustable tightener for the chain.

We are aware that prior to our invention 85 sickles have been used in connection with guards in cutting grain, and therefore do not claim such combination broadly; but

What we do claim as our invention, and desire to secure by Letters Patent, is— 90

The improved cutting apparatus for mowing-machines, consisting, essentially, of the following instrumentalities: the finger-bar A, having a longitudinal groove for the passage of the chain, bearings B B for the flanges
95 of the links, guards E with lateral cutters F,

the flanged adjustable holder-bar I, adapted to engage one of the flanges of the cutter-holders, and the cutter-carrying sections, each in the form of a chain-link, with a hook
5 at one end and an engaging bar at the other, the lateral flanges C C to rest upon the bearings B B, the whole constructed and ar-

ranged for joint operation substantially as specified.

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Witnesses:

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JAMES M. RICE.