

J. H. Manny, Mower.

No. 14,026

Patented Jan. 1. 1856.

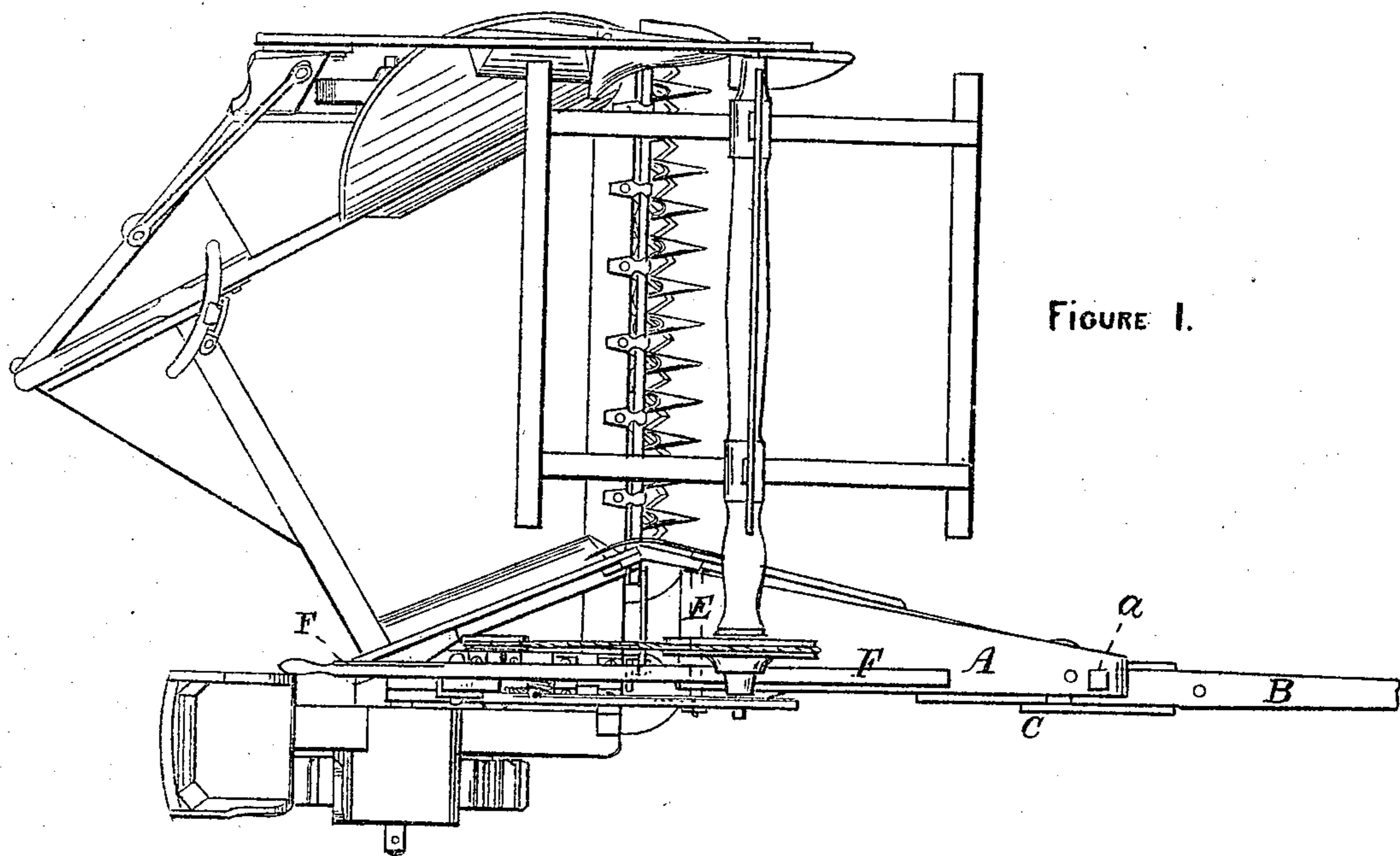


FIGURE 1.

FIG. 2.

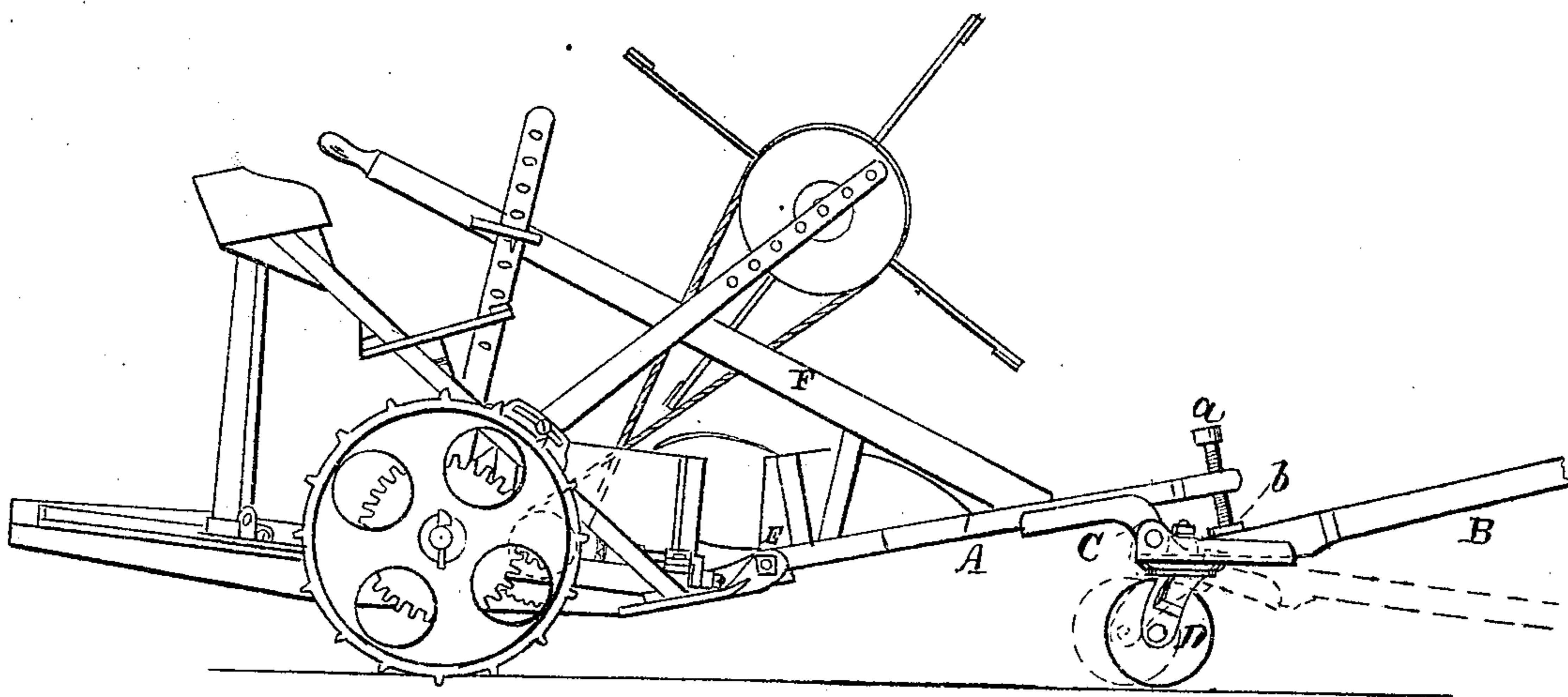
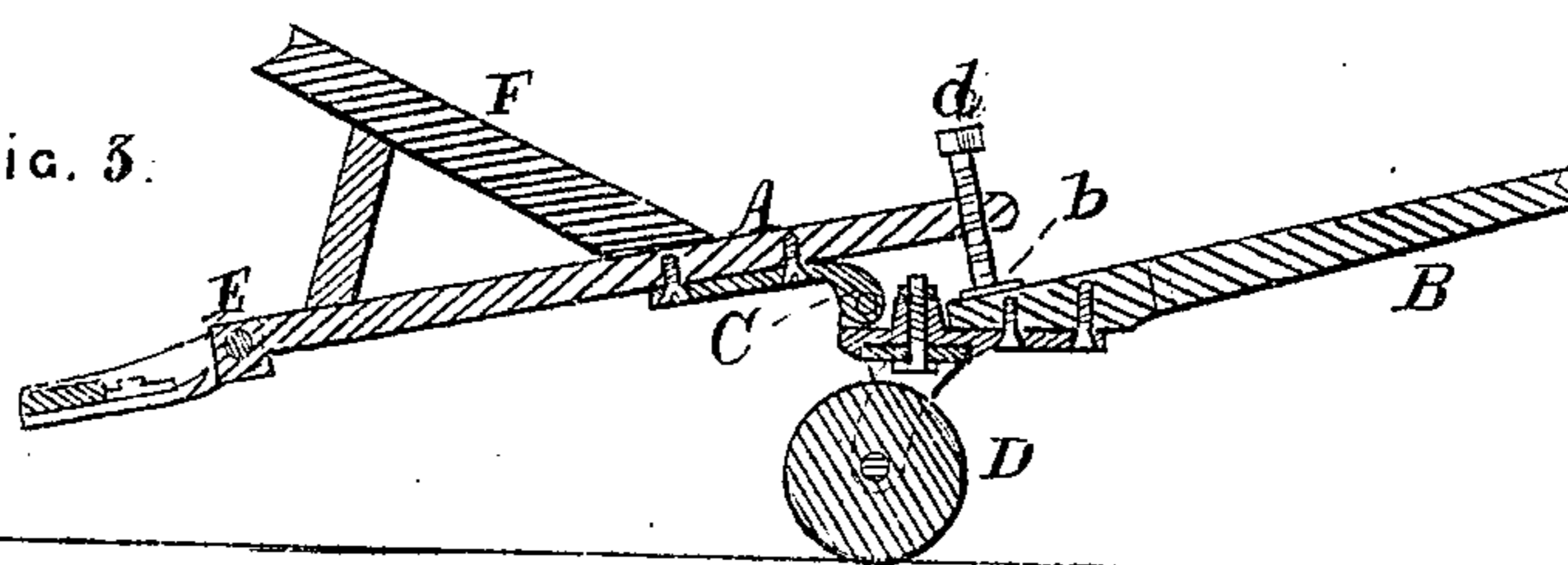


FIG. 3.



UNITED STATES PATENT OFFICE.

JOHN H. MANNY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 14,026, dated January 1, 1856.

To all whom it may concern:

Be it known that I, JOHN H. MANNY, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Machines for Harvesting Grain and Grass, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of the same, and in which—

Figure 1 represents a plan of a harvesting-machine embracing my improvements. Fig. 2 represents a side elevation of the same; and Fig. 3 represents a sectional view, to show more particularly the construction of the swivel-joint of the wheel which supports the front of the machine.

In my harvesting-machine as heretofore constructed with a rigid tongue for the horses to draw by hinged to the front of the main frame, and with a rigid arm or branch extending from the tongue back over the frame of the machine to raise and lower the cutters, I have found that, notwithstanding the machine was well balanced on the axis of the driving-wheel on level ground, it would often preponderate in front of that axis and bear oppressively upon the horses' necks in advancing down descending ground, or when the rakes happened to stand too far forward the weight of the machine would also preponderate too much in front. When the machine was working up an inclined surface its weight would frequently preponderate so much in the rear of the axis of the driving-wheel as to lift the tongue, and thereby tend to choke the horses. To remedy these and other defects, I contrived a method of supporting the weight of the front of the machine and the greater part of the weight of the tongue by means of a swivel-wheel, for which contrivance I have applied for Letters Patent; but this arrangement I found defective, because in crossing furrows or narrow depressions the swivel-wheel would descend suddenly and allow the cutter to run into the ground.

The object of my present invention and improvement is, among other things, to cure this defect; and it consists in constructing the tongue to which the horses are harnessed with a joint between the point at which the rear end of the tongue is connected to the machine and the front end of the tongue, this intermediate joint being supported at the proper height

by one or more wheels, and also provided with means of adjustment, whereby the turning upward of the front end of the tongue on this intermediate joint as a pivot is limited, while its turning downward to the ground is unrestricted, without affecting materially the height of the cutters of the machine. Further, this adjustment limits the lowering of the intermediate joint and of the cutters, but leaves them free to rise without affecting materially the height of the forward end of the tongue. From this construction of the tongue it follows that while the horses are in the main relieved from carrying on their necks the preponderating weight of the front of the machine, they are nevertheless enabled to support the front of the machine and to keep the cutter from running into the ground while the wheel that supports the joint of the tongue is crossing a furrow or other narrow depression in the ground generally smooth.

This machine in its general construction and arrangement is similar to that described in Letters Patent granted to me on the 17th day of October, 1854, antedated June 15, 1854, which Letters Patent have been since surrendered and reissued. It is therefore not here necessary to make a description in detail of the machine represented in the drawings with this improvement applied thereto, especially as this improvement is applicable to other machines.

This machine, as shown in the drawings, is fitted with a tongue consisting of two pieces, A and B, connected together by a joint, C, which is supported by a swivel-wheel, D. The rear end of the tongue is connected by a joint, E, to the main frame of the machine. From the rear part, A, of the tongue a rigid arm, F, projects backward across the joint E to the main frame, to which it is connected by an adjustable fastening at its rear end, which fastening admits of this end of the arm being raised and lowered to raise and lower the cutter, and set in any position required to hold the cutter at the proper elevation. The front end of the rear section, A, of the tongue projects across the hinge C, over the rear end of the front section, B, and the projecting end of the rear section is fitted with an adjusting-screw, *a*, which passes through it and extends toward a plate, *b*, on the rear end of the front section. By turning this screw to make its point project more or less the front section of the tongue

will be allowed to rise a less or greater distance from the ground without lifting the forward end of the rear section, as the joint C can only turn downward until the lower end of the adjusting-screw *a* comes in contact with the plate *b*.

In harnessing the horses to the front of the machine the forward end of the front section of the tongue is fastened up by the harness at the height most convenient for the horses, which will be higher from the ground for tall than for low horses. The cutter is then set by the adjusting-arm F at the average height at which it is intended to work it, and the adjusting-screw *a* is turned until its lower end reaches the plate *b* on the tongue. The adjustment is now complete. With the front end of the tongue upheld by the harness and the joint thus adjusted it is plain that when the swivel-wheel D is crossing a furrow or other narrow depression, instead of dropping down and causing the cutters to run into the ground, as would be done in case the flexure of the joint were not limited by the set-screw or other equiv-

alent means, the swivel-wheel and cutter will be upheld by the tongue and carried across such furrow, while at the same time the joint will be free to flex to allow the wheel to pass over a ridge.

It is obvious that the construction and arrangement of the joint of the tongue and the manner of limiting its flexure may be varied to any extent without changing the principle of the invention; but such changes are so obvious to any competent mechanic that to describe them would be superfluous and render this specification unnecessarily prolix.

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

The tongue with an adjustable joint, constructed and operating substantially in the manner herein set forth.

In testimony whereof I have hereunto subscribed my name.

JOHN H. MANNY.

In presence of—

P. H. WATSON,

A. E. H. JOHNSON.