A. Sherwood,
Mower.

No. 95522. Patented. Oct. 5. 1869

Fig. 1.

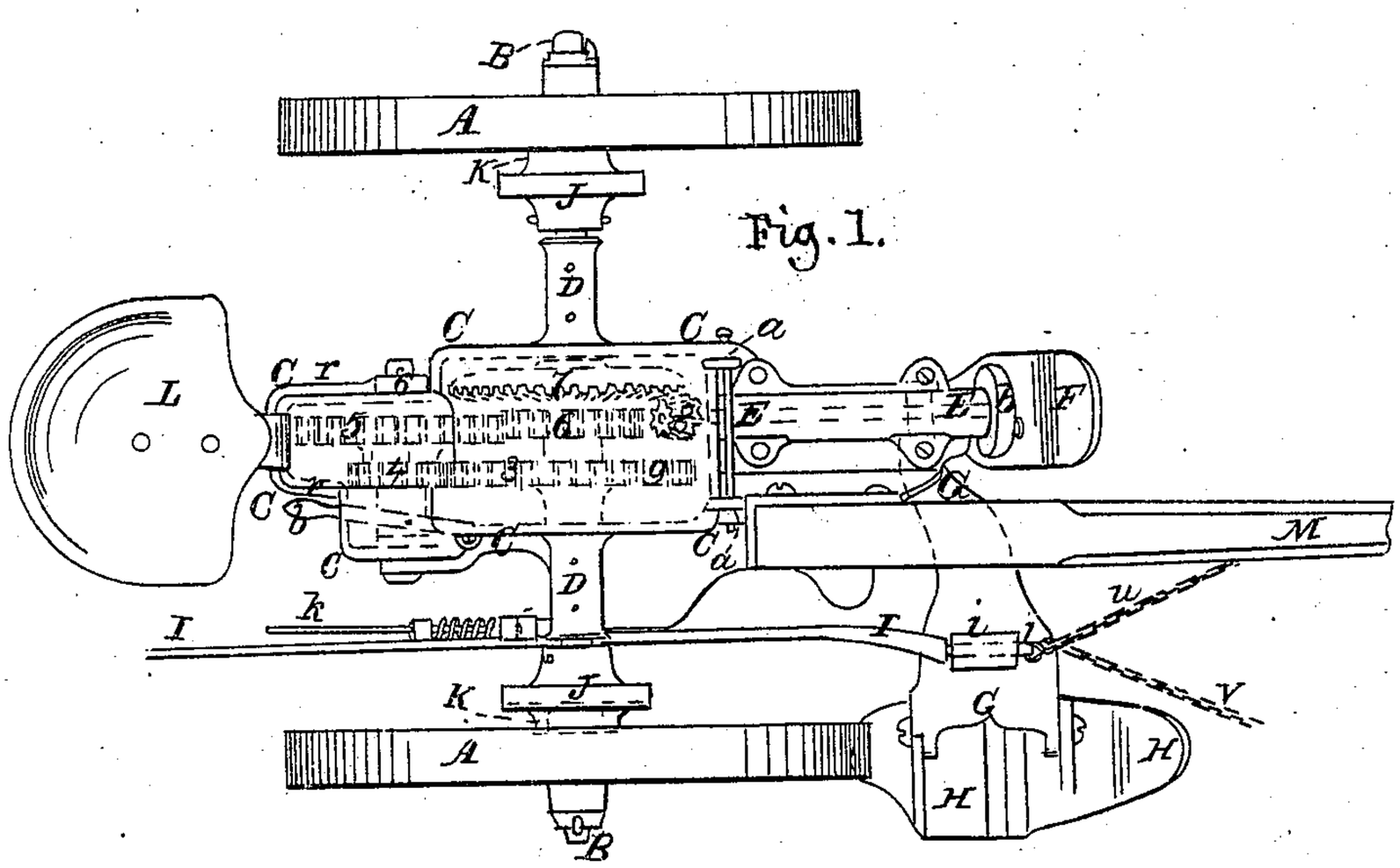


Fig. 2.

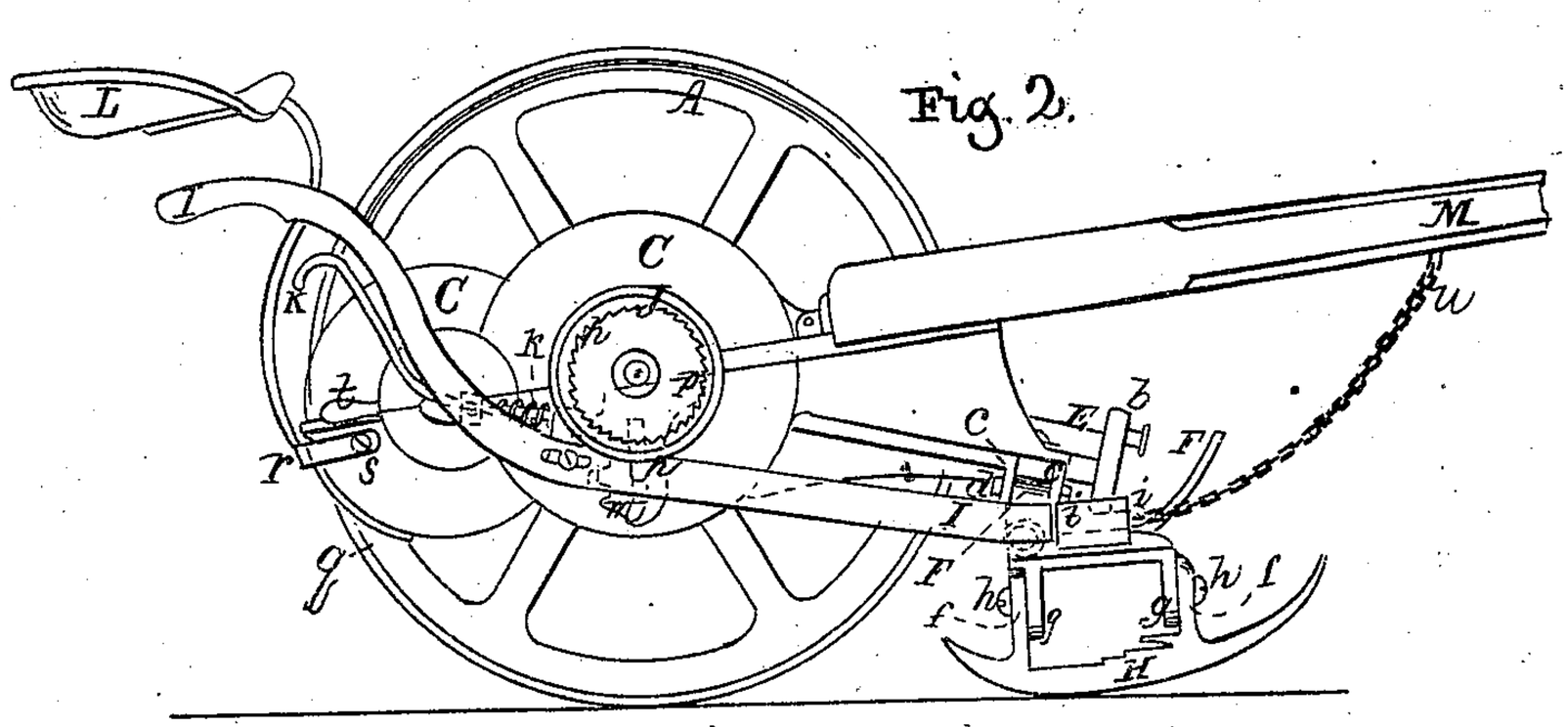


Fig. 3.

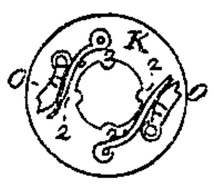


Fig. 4.

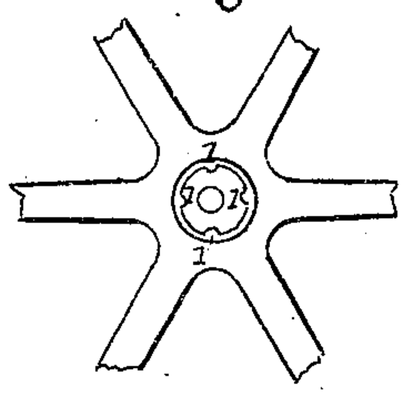
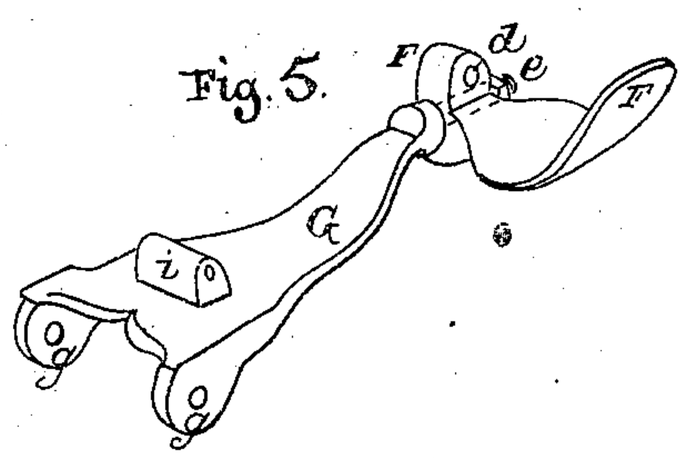


Fig. 5.



Witnesses.
Edmund Masson

Allen Sherwood.
By Atty A. B. Stoughton.

UNITED STATES PATENT OFFICE.

ALLEN SHERWOOD, OF AUBURN, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **95,522**, dated October 5, 1869.

To all whom it may concern:

Be it known that I, ALLEN SHERWOOD, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Grass-Harvesting Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of so much of a grass-harvesting machine, as will illustrate my invention. Fig. 2 represents an elevation thereof, with a wheel removed, to better represent the parts otherwise concealed by it. Figs. 3, 4, and 5 represent details of the machine.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the machine in all of the drawings.

This invention relates, first, to the hinged and swiveling connection, by which the finger-bar and cutting apparatus is attached to the main frame through the coupling-arm; second, it relates to the particular construction of the pawl-plate and the hub, so that the former may be put in position on the hub or removed when necessary, said pawl-plate serving as the head of the box containing the spring-pawls and ratchet.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A A are the main carrying and driving wheels, arranged on the axle B so as to be fast and loose thereon under certain circumstances, and as is common in harvesting-machines. Upon the axle B is balanced and secured the gear-box C, which, besides inclosing the driving-gear, as shown by dotted lines in Fig. 1, is also the main frame of the machine, said box, case, or main frame being hung to the axle B by the hollow trunnions, sleeves, or bosses D D cast on said box, through which the axle passes. The top of the box or case is hinged to the under portion, as at *a a*, so as to give access to the gearing therein for oiling, repairs, &c. A long hollow boss, E, is cast or made on the box or case for the shaft of the crank-wheel *b* to pass through and turn in; and underneath this long boss E there are cast two lugs, *c c*, to which a shield or protector, F, is hinged by a pivot at *d*, said shield or protector, in addition to its protection of the crank-wheel *b*, serving as a support for the swivel-shank *e* of the coupling-arm G, so that said coupling-arm, while capable of rocking or rolling in the piece F, has also a motion with the piece F on its pivot-pin *d*, said two motions being at nearly right angles to each other.

The inner shoe H, which carries the finger-bar and cutting apparatus and the several appliances used in connection with the cutting apparatus, is hinged to the coupling bar or arm G by the lugs *f f* and *g g*, respectively, on each, through which the pivot-pins *h h* pass, and on the coupling-arm is cast a lug, *i*, into which the point *j* of the raising, lowering, or holding lever I takes for raising, lowering, or holding the cutting apparatus in any desired position, it having a spring locking-lever, *k*, connected with it, which takes into one of the notches of the keeper *m* pendent from the frame, and on which keeper the lever I is adjustable by a slot and set-screw, as at *n*.

The clutch or ratchet and pawl boxes are made and connected with the axle and wheels as follows: The ratch portion J is secured to the axle B, and the pawl-plate K is secured to the heel of the hub of the wheel by means of recesses 1 1 1, &c., cast or made in the hub, and corresponding projections 2 2 2, &c., cast or wrought upon the pawl-plate K, so that the latter can be dropped upon the former and there held without finishing and fitting elaborately as heretofore done. It is obvious that the projections and depressions may be reversed and any suitable number of them used without changing the character of the invention. When the wheel and the pawl-plate thus united are slipped upon the journal of the axle, the pawls *o* connect with the ratchet-teeth *p*, and the plate itself closes or forms a top to the ratchet-box, thus making the parts snug and protected from dirt, &c.

The driver's seat L is secured to the rear of the box-frame C by a support passing partially around the rear of the box and secured at *q*, and by a strap, *r*, passing around said support horizontally, and fastened to the frame at *s*. The gears in the box-frame work as follows: The gear 3 is fast on the main axle, and always runs with the axle. From this main

gear 3 motion is transmitted through the gears 4, 5, 6, 7, and 8 to the crank-shaft, and thence to the cutters. The gear 4 can be slid upon its shaft by a clutch-lever, *t*, projecting through the box-frame, and there is a clutch or semi-clutch on the hub of the gear 4 that works in connection with a similar semi-clutch on the hub of the gear 5 that is fast upon its shaft, so that when the gear 4 is slid away from that 5 by the clutch-lever, all the gears beyond the one 4 are motionless. When the gear 4 is moved the other way, motion is transmitted through all of them and to the cutters. A drag-chain, *u*, runs from the pole M to and connects with the coupling-arm G, and a second drag-chain, *v*, may extend from the coupling-arm and be fastened to an arm projecting laterally from the pole. These chains relieve the coupling-arm of much strain, particularly in turning the machine around.

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

1. The combination of the coupling-arm with the hinged supporting-piece F, whereby said coupling-arm can swing with and also roll independent of said supporting-piece, as and for the purpose described.

2. The combination of the clutch-plates K with the hubs of their respective wheels, when united thereto by recesses 1 and projections 2, and when said plates form one of the inclosing ends of the spring-pawl and ratchet-chambers, as described and represented.

ALLEN SHERWOOD.

Witnesses:
A. B. STOUGHTON,
EDMUND MASSON.