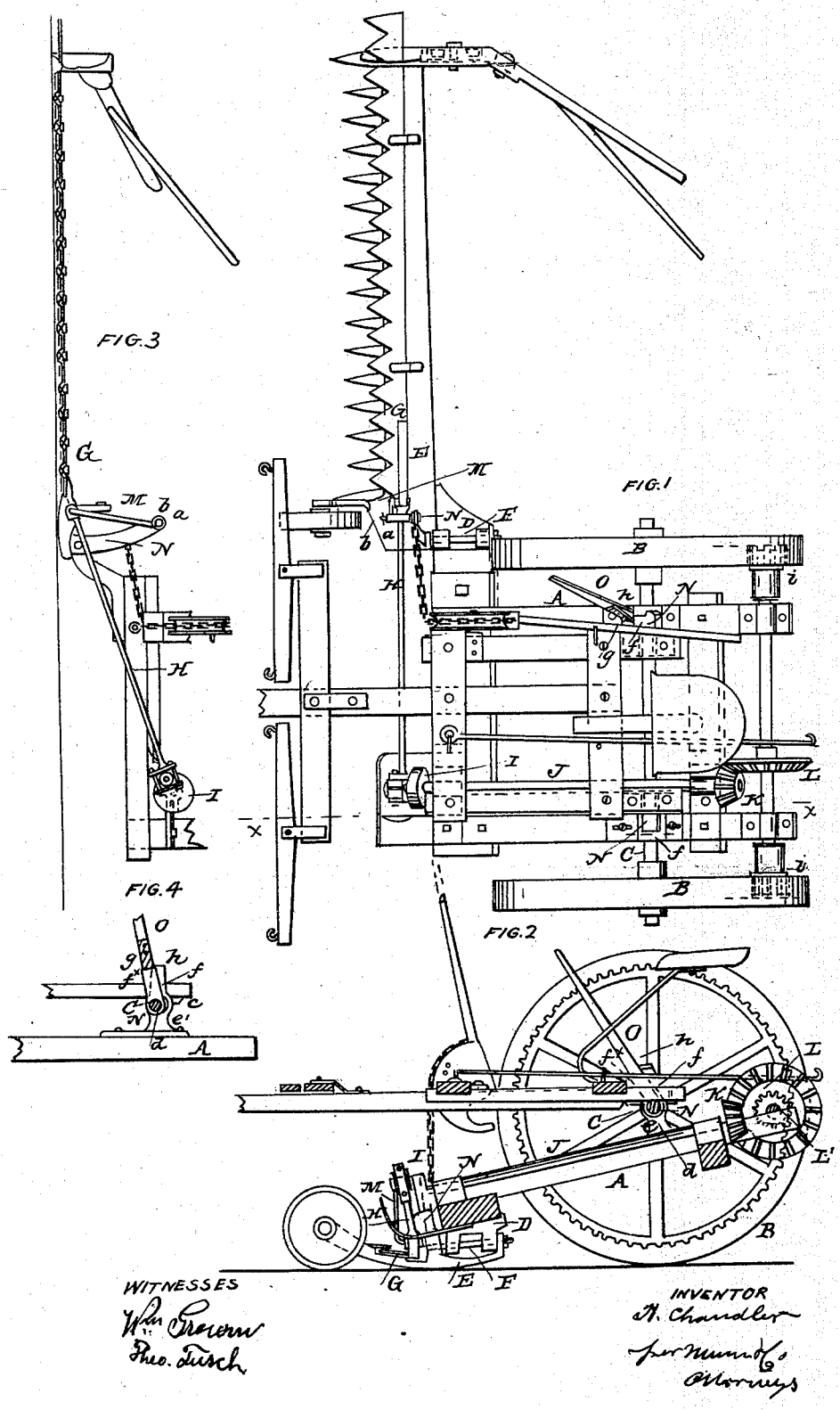
H. CHANDLER.

Grain and Grass Harvester.

No. 49,501. Patented Aug. 22, 1865.



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UNITED STATES PATENT OFFICE.

HEWETT CHANDLER, OF NEW GLOUCESTER, MAINE.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **49,501**, dated August 22, 1865.

To all whom it may concern:

Be it known that I, HEWETT CHANDLER, of New Gloucester, in the county of Cumberland and State of Maine, have invented a new and Improved Grass and Grain Harvester; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 1; Fig. 3, a front view of a portion of the same; Fig. 4, a detached side view of a catch or fastening pertaining to the same.

Similar letters of reference indicate corresponding parts.

The invention relates to a novel and improved arrangement of parts for throwing the sickle-driving mechanism in and out of gear, as hereinafter fully shown and described.

A represents the main frame of the machine, which is mounted on two wheels, B B, the latter being placed loosely on their axle C.

To the front end of the main frame A, at its right-hand side, there is attached a pendant, D, which is slightly inclined outward from its upper to its lower end, and has the finger-bar E connected to it by a joint, F, as usual in many harvesters.

G is the sickle, placed on the finger-bar E and arranged in the ordinary way, and having a connecting-rod, H, attached to its inner end, said rod being connected at its outer end to a crank-pulley, I, which is, at the front end of the shaft J, placed longitudinally on the main frame, and having a bevel-pinion, K, at its rear end, which gears into a bevel-wheel, L, on a shaft, L′, at the back part of the main frame A. The inner end of the rod H, where it is connected to the sickle G, has an arm, M, secured to it, which projects upward, and has an eye, *a*, at its upper end, said eye being fitted on a pin, *b*, which projects at right angles from a standard, N, at the inner end of the finger-bar. The lower end of the arm M is fitted loosely in the connecting-rod H, so that it may work therein and admit of the free reciprocating movement of the sickle under the action of the rod H and crank-pulley I, and at the same time serve to suspend the inner end of the sickle, so as to preserve the latter from any undue pressure and friction under the oblique action of the connecting-rod. The eye *a* is about on a horizontal line with the shaft J, as will be seen by referring to Fig. 3. Thus by this simple arrangement much friction is avoided in the operation of the sickle and the draft of the machine proportionably reduced.

The axle C has bosses N′ N′ upon it, provided each at their lower parts with a lip, *c*, and these lips are fitted in recesses *d* in blocks or beds *e′* on the main frame A. (See Figs. 2 and 4.)

The axle C passes through oblong slots *e* in upright plates *f* at the outer sides of the blocks or beds *e′*, to admit of a forward-and-backward movement of the axle when the bosses N′ N′ are turned. This is accomplished by having one of the bosses N′ provided with a handle, O, which is fitted in a socket, $f^{\times}$, attached to the bearing, and has a spring, *g*, bearing against it, said spring having a tendency to press the handle O against or toward the upright plate *f* of the block, on which the boss N′, having the handle O attached, rests, said upright plate having a lip, *h*, at its upper edge projecting inward.

By moving the handle O forward the axle C will be moved in the same direction and bear against the front edges of the slots *e e* in the upright plates *f f*, the spring *g* pressing the handle O in front of the lip *h* to prevent a casual backward movement of the axle. By this adjustment of the axle C teeth at the inner peripheries of the wheels B B are made to gear into pinions *i i* on the shaft L′ and communicate motion to said shaft, and consequently to the sickle.

In order to throw the sickle out of gear, the handle O is moved backward, which throws the wheels B out of gear with the pinions *i i*, the handle O being pressed behind the lip *h*. By this arrangement a very simple means is obtained for throwing the sickle-driving mechanism in and out of gear.

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

The lips *c* on the axle C, resting in recesses *d* in the blocks *e′*, and employed, in combination with the lever O, to throw the pinions *i i* in and out of gear, as explained.

HEWETT CHANDLER.

Witnesses:

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