

M. & W. P. BALES.

Harvester.

No. 107,214.

Patented Sept. 13, 1870.

FIG. 1.

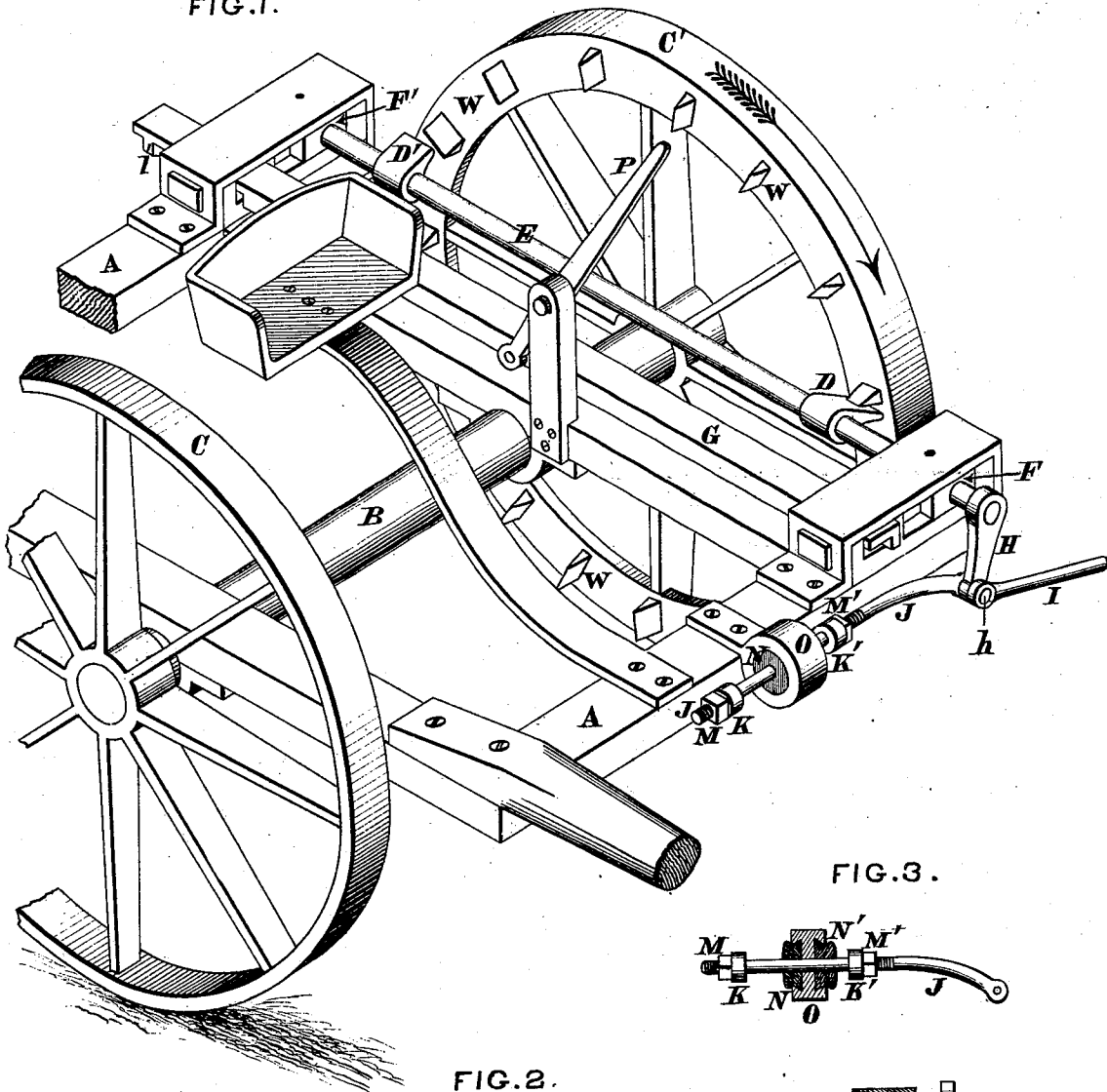


FIG. 3.

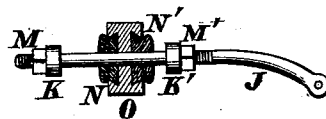
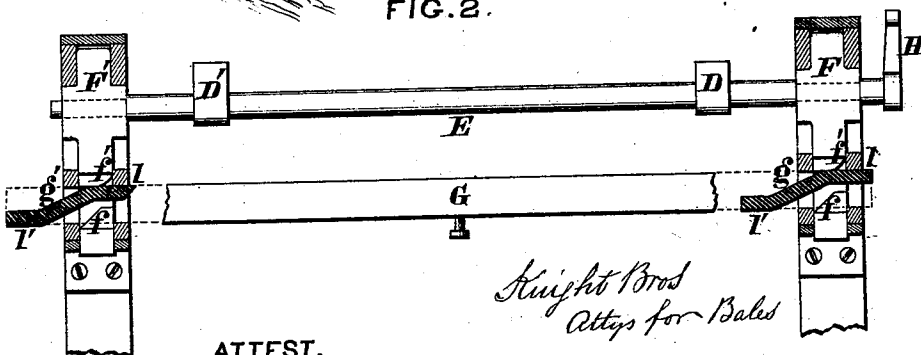


FIG. 2.



ATTEST.

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Atty for Bales*

UNITED STATES PATENT OFFICE.

MOSES BALES AND WILLIAM P. BALES, OF LONDON, OHIO.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **107,214**, dated September 13, 1870.

We, MOSES BALES and WILLIAM P. BALES, of London, Madison county, Ohio, have invented certain new and useful Improvements in Harvesters, of which the following is a specification:

Nature and Objects of the Invention.

Our invention is especially designed for that class of harvesters whose cutter is reciprocated by a verge and pallet movement; and the first part of our improvement consists in a device for placing the pallet-shaft either in or out of gear with the cogs or wipers upon the face of the ground-wheel; and the second part of our improvement is a provision whereby the stroke of the reciprocating parts is regulated and made effective.

General Description with reference to the Drawing.

Figure 1 represents, by a perspective view, portions of a harvester embodying our improvements. Fig. 2 is a partially-sectionalized plan of the pallet-shaft and shifter in their coupled or geared position. Fig. 3 is a longitudinal section of the device for controlling the reciprocation.

A represents the main frame of a harvester-carriage, mounted upon a customary axle, B, and pair of ground-wheels C C', of which the wheel C is armed, on that side of it nearest the frame, with a series of equidistant cogs or wipers, W, so placed as to act alternately and isochronously upon a pair of pallets, D D', which project from a rock-shaft, E, that is journaled in adjustable blocks or boxes F F', having beveled orifices f f' for the reception of the oblique ribs g g' upon a shifter, G, whose reciprocation in direction of its length operates to move said boxes, and therewith the pallet-shaft, either in or out of gear with the ground-wheel C. At either extremity of the stroke of the shifter the longitudinal portions, l or l', of the ribs, engaging with similar or parallel portions of the boxes, hold the pallets securely either in or out of gear until a reverse movement of the shifter. The shifter

is operated by means of a lever, P, which is pivoted to the frame.

The pallet-shaft has at one end an arm, H, whose wrist h in one direction carries a customary pitman, I, connected to the cutter, and in the other direction a rod, J, having collars k k', adjustable toward or from one another by means of nuts M M'. That part of the rod between the collars traverses a pair of india-rubber cushions, N N', confined in a recessed bracket, O, that projects from the frame. By adjusting the collars toward or from the said cushions, the length and position with respect to the finger-bar of the stroke of the cutter is, within certain limits, regulated at will, the violent percussion of the reciprocating parts is moderated, and a portion of the momentum of each stroke is stored up and imparted to the return stroke, thus insuring prompt action of the cutter, and shortening the period of inaction at the end of each stroke, during which, in the common cutting apparatus, the sections become choked by the accumulating matter. The cushions N N', causing the rod J to return, are also useful by preventing a too severe impact of the pallets upon the wipers of the ground-wheel.

Claims.

We claim as our invention—

1. The described arrangement of wipers W, rock-shaft E, pallets D D', adjustable boxes F f F' f', shifter G g g' l l', and lever P, for the object explained.

2. The arrangement, in the described connection with the rock-shaft operating the cutter, of the rod J, collars K K', nuts M M', cushions N N', and bracket O, for the purposes stated.

In testimony of which invention we hereunto set our hands.

MOSES BALES.
W. P. BALES.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.