

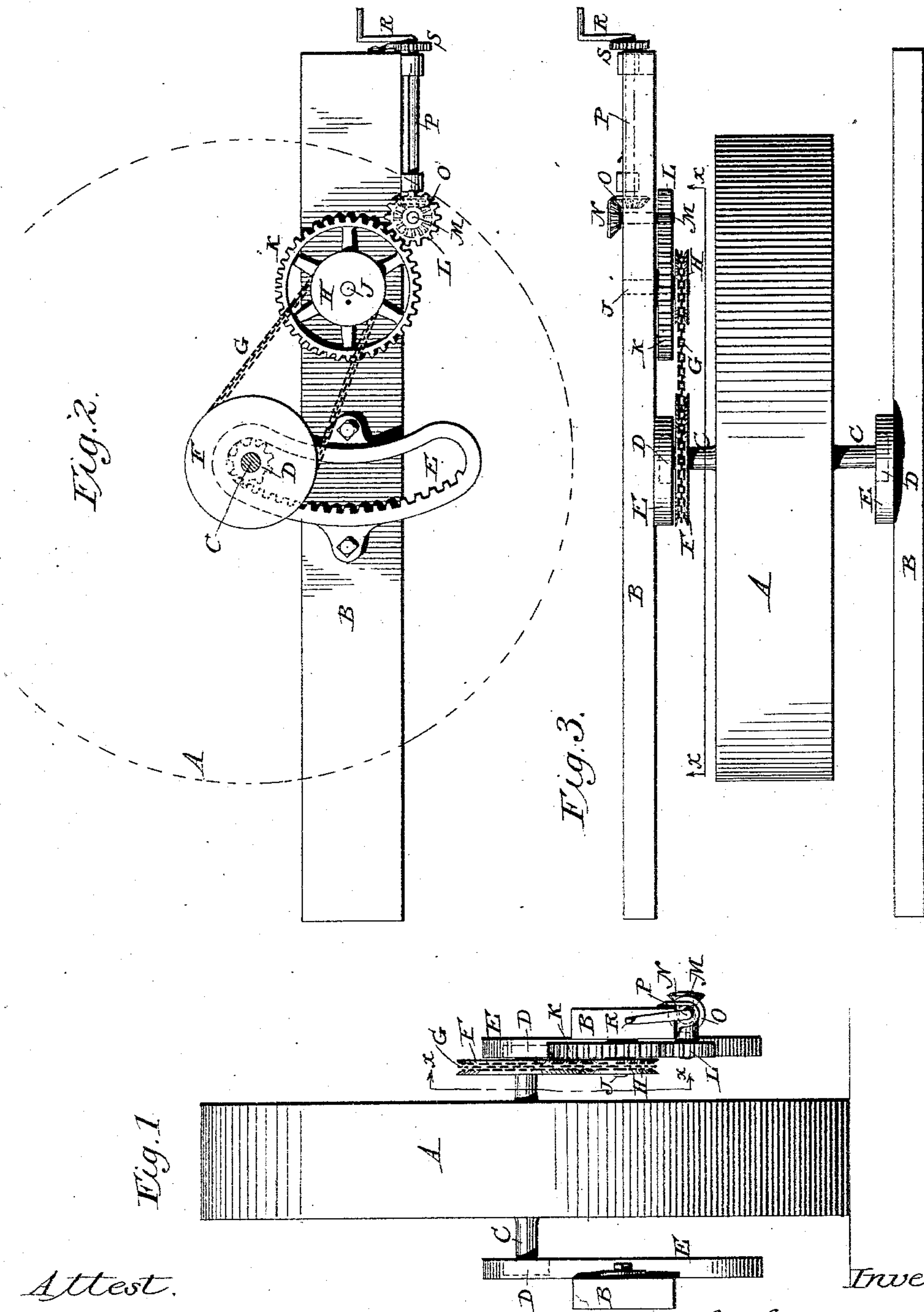
(No Model.)

G. G. HUNT.

FRAME ADJUSTING MECHANISM FOR HARVESTERS.

No. 315,624.

Patented Apr. 14, 1885.



Attest.
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UNITED STATES PATENT OFFICE.

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FRAME-ADJUSTING MECHANISM FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 315,624, dated April 14, 1885.

Application filed December 3, 1883. Renewed March 18, 1885. (No model.)

To all whom it may concern:

Be it known that I, G. G. HUNT, of Plano, in the county of Kendall and State of Illinois, have invented certain Improvements in Frame-Adjusting Mechanism for Harvesters, of which the following is a specification.

This invention relates to that class of machines wherein the vertical adjustment of the main frame with respect to the main supporting-wheel is effected through the medium of an axle on which the main wheel revolves loosely, the axle being provided with pinions which engage with vertical rack-plates bolted to the frame, so that the rotation of the axle by means of the manual devices connected therewith will serve to raise or lower the frame, as the case may be.

The invention consists in a peculiar arrangement of devices for revolving and holding the axle, designed to overcome the difficulties experienced in the use of the ordinary mechanism for such purpose, and to enable the attendant to adjust the machine with a moderate expenditure of power.

Referring to the accompanying drawings, Figure 1 is an elevation showing the main frame, the wheel, and my improved adjusting mechanism. Fig. 2 is a vertical section on the line *xx* of Figs. 1 and 3, looking in the direction indicated by the arrows. Fig. 3 is a top plan view.

Referring to the accompanying drawings, A represents the main or ground wheel by which the machine is carried and from which motion is communicated to the various operative parts in the ordinary manner.

B represents the main frame, which may be of any ordinary or approved form adapted to permit the location of the wheel therein.

C represents the main axle extended loosely through the wheel, and provided at each end with the spur-pinion D, secured firmly thereon.

The pinions D are mounted, as represented, within grooved rack-plates E, bolted firmly to the main frame, and provided with internal teeth on one side to engage the pinions, so that by the rotation of the pinions the rack-plates and frame may be raised or lowered, as usual.

Near one end of the axle C, I secure firmly thereon a sheave or sprocket-wheel, F, from

which an endless chain, G, is extended to and around a small sheave or pulley, H, mounted on a stud or journal, J, secured to the main frame.

It will be observed that the rack-plates are curved in the arc of a circle described from the journal J as a center, and that consequently the rising and falling motion of the rack-plates and frame has no effect upon the tension of the chain G.

On the side of the sheave H, I secure or form a spur-wheel, K, of relatively large diameter, arranged to gear into and receive motion from a small pinion, L, secured on one end of a short shaft, M, which is extended through a box or bearing to a point outside of the main frame, where it is provided with a bevel-pinion, N. This pinion N engages with and receives motion from a corresponding pinion, O, secured on one end of a shaft, P, which is mounted lengthwise of the main frame in bearings thereon, and provided at its outer end with a hand-crank, R.

It will be observed that by revolving the crank, motion will be transmitted through the shaft P and pinion O to the pinion N, and thence through the small pinion L to the large gear K, which will in turn impart motion to the small sheave H, and thence through the chain G to the large sheave F and the axle to which it is secured. The relative size of the parts is such that the axle may be rotated and the frame raised or lowered by the expenditure of comparatively little power on the hand-crank.

For the purpose of holding the frame at the desired elevation, I propose to employ locking devices, such as represented at S in the drawings, or their equivalent devices.

I am aware that endless chains have been employed to revolve a harvester-axle having adjusting-pinions thereon, and I lay no broad claim thereto. In practice it is found, however, that the peculiar arrangement of operating devices represented herein gives better practical results than any other at present known in the art.

The present invention is restricted to those matters and things which are hereinafter claimed, and as to all matter which may be

described or shown but which are not claimed the right is reserved to make the same the subject of a separate application.

Having thus described my invention, what I claim is—

1. In a harvester, the frame and rack-plates, combined with the main wheel, the axle provided with the pinions and sheave, the endless chain, the sheave H and gear K, mounted in the main frame and having a common center, the pinions L and N, and the pinion O, having a hand-crank connected therewith.

2. In a harvester, the main frame and its curved rack-plates, the main wheel, the axle

provided with the two pinions and sheave within the main frame, the sheave H and gear K, also located within the main frame, the endless chain, the pinion L, located within the frame, its shaft extended to the outside of the frame, the beveled gear N, applied to the outer end of said shaft, and the shaft P, mounted lengthwise of the frame, and provided at one end with the pinion O and at the opposite end with a hand-crank, R.

GEORGE G. HUNT.

Witnesses:

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