

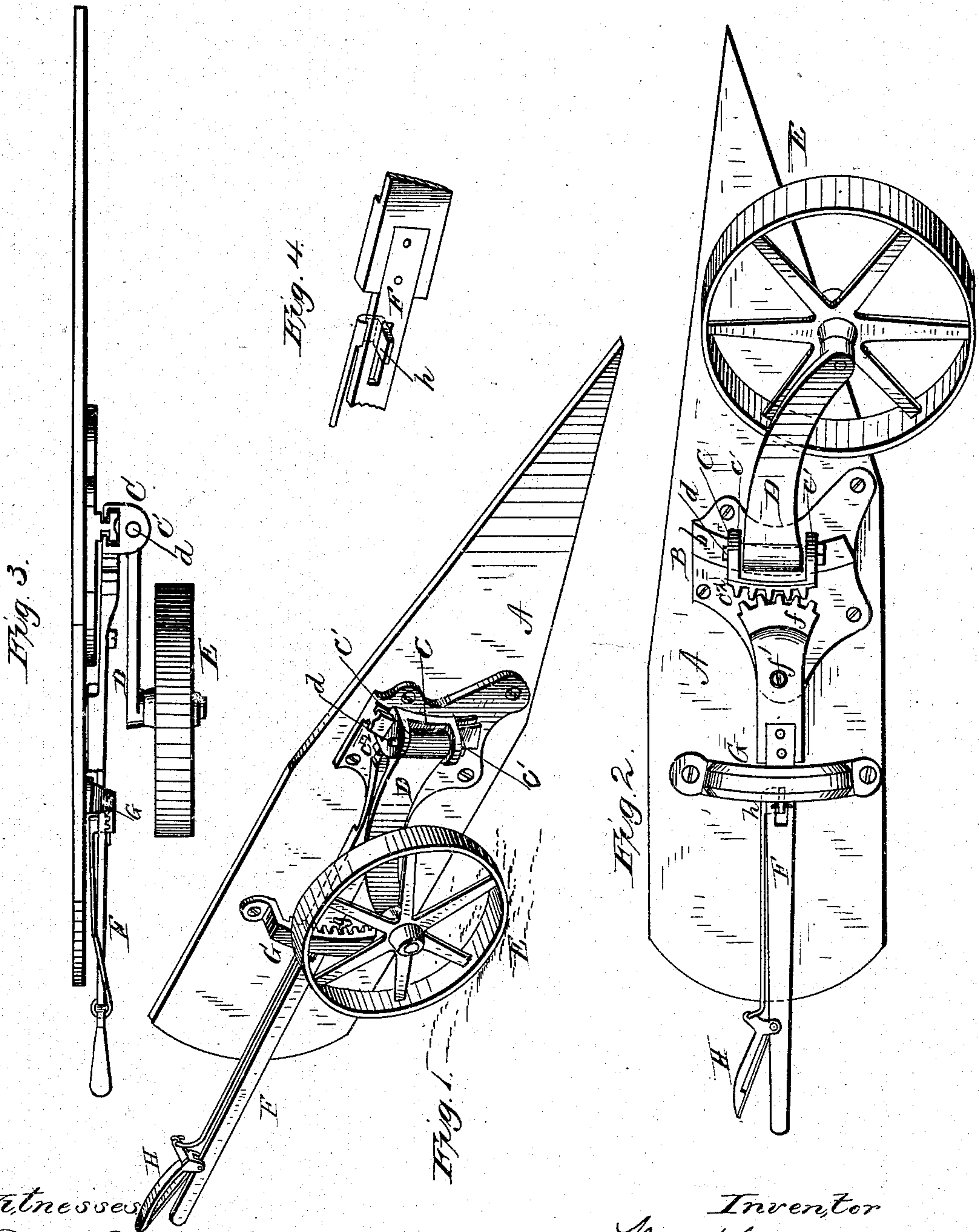
(Model.)

W. K. MILLER.

MEANS FOR ADJUSTING THE GRAIN WHEEL OF HARVESTING MACHINES.

No. 252,495.

Patented Jan. 17, 1882.



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WILLIAM K. MILLER, OF CANTON, OHIO.

MEANS FOR ADJUSTING THE GRAIN-WHEEL OF HARVESTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 252,495, dated January 17, 1882.

Application filed August 5, 1881. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM K. MILLER, of Canton, county of Stark, State of Ohio, have invented certain new and useful Improvements in Means for Adjusting the Grain-Wheel of Harvesting-Machines, of which the following is a full and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view, showing the outer grain-board with the grain-wheel and my improved means for adjusting the same applied. Fig. 2 is a side elevation, and Fig. 3 a plan view, of the same; and Fig. 4 is a perspective view of a portion of the lever for adjusting the wheel and its sliding latch.

In the ordinary construction of the outer side of the grain-platform of a reaping-machine where due attention is given to the requirements for effecting the proper separation of the cut grain from that which is left standing, and to the operation of the rake for removing the cut grain, but little space can be allowed for the adjustment of the carrying caster-wheel, and in order to give said wheel sufficient movement to adjust the outer end of the platform, as required, it has been found necessary to increase the length or height of the supporting bracket or device to such an extent as to interfere with the proper separation of the grain or the action of the rakes, &c.

The object of my improvement is to remedy this difficulty, and to this end the invention consists in attaching the swiveling arm of the carrying-wheel to a sliding block moving upon a curved way for increasing the throw of the outer or wheel end of said arm, and in providing said sliding block with a rack-segment operated by means of a corresponding segment on a pivoted lever, as hereinafter explained.

In the accompanying drawings, A represents the outer grain or dividing board of a reaper-platform, and B a metal bracket or plate secured to its outer side, as shown. This plate has a curved raised track, *b*, formed upon it, made preferably in T shape in horizontal section, extending from top to bottom of the plate, or thereabout, and upon this track is mounted a grooved sliding block, C, the groove in which corresponds in form to the form of the track or way *b*, adapting it to fit and slide thereon. The

block C has outwardly-projecting lugs *c'* *c'* formed upon it, in which bearings are formed for the pivot *d* of a swiveling arm, D, the outer swinging end of which is provided with a shaft for the grain or carrying wheel E, as shown. The track *b* is concavo-convex, concave on its forward face, and, by preference, in the arc of a circle, the radius of which would be equal to the length of the arm D, or thereabout, as by such arrangement, when the arm is swung forward of its pivotal support, as shown in Fig. 2, the height of the platform and cutting apparatus would remain unchanged under any adjustment of the block C, said block merely moving around or relatively to the carrying-wheel as a center; but the track may be formed in an arc of a circle of less or greater diameter, and the length of the swiveling arm may also be varied as required, the arrangement being such as to give a greatly increased throw to the outer end of said arm as compared with the movement of the block when the wheel is in its normal carrying position in rear of said block. The rear vertical face of the block C has a rack-segment, *c*², formed upon it in the arc of a circle concentric with the track *b*, and with this rack a toothed segment, *f*, on the forward end of a lever, F, engages for actuating the block C and moving it up and down on the way *b*. The lever F is pivoted at *f'* in a lug or ear formed on the plate B, so as to be removable therewith, and with the carrying-wheel and the rack-segment on its forward end is formed in the arc of a circle of which said pivot *f'* is the center, so that as the lever is vibrated the segment *f* preserves always the proper relation to the rack *c*² for actuating the same. The lever F in rear of its pivot works behind or inside of a guiding-loop, G, secured to the board A, and provided on its inner, or it may be its rear, face with a toothed rack, *g*, with which a sliding latch, *h*, (see Fig. 4,) engages for holding the lever, and with it the carrying-wheel, at any desired adjustment. The latch or pawl *h* is operated by means of a sliding rod and a thumb-lever, H, adapted to be grasped with the end of lever F when it is desired to adjust the outer end of the platform. This arrangement of the adjusting-lever is such that when the lever is raised the wheel will be thrown down relatively to the platform, or,

rather, the platform will be raised when the lever is raised and depressed when the lever is depressed.

By the arrangement of parts described it will be seen that the wheel, when in its normal or working relation to the platform, in being adjusted, is made to move about double the distance traveled by the sliding block C, to which its supporting-arm is pivoted, and that by varying the curvature of the track on which said block moves and the length of the carrying-arm D any desired adjustment or throw of the carrying-wheel relatively to the outer end of the platform may be obtained without increasing the height or width of the outer grain-board or of the parts connected therewith for supporting the carrying-wheel.

Having now described my invention, I claim—

1. In a harvesting-machine, a grain-wheel 20 connected by a swiveling arm with a sliding block adjustable in the arc of a circle on a curved way or track adapted to hold said block against displacement both laterally and in line with the path of the machine. 25

2. The grain-wheel mounted in a swiveling arm pivoted to an adjustable block moving on a curved way or track and provided with a rack-segment, in combination with the lever and its rack-segment for adjusting the same, 30 substantially as described.

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