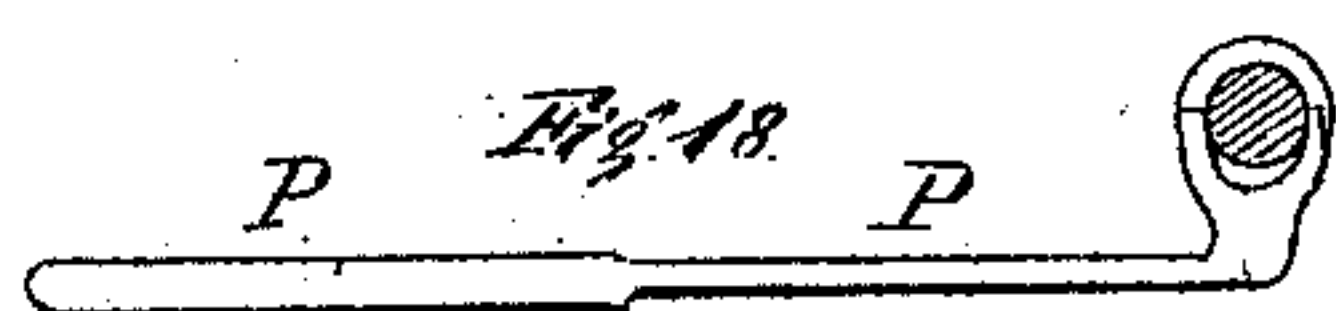
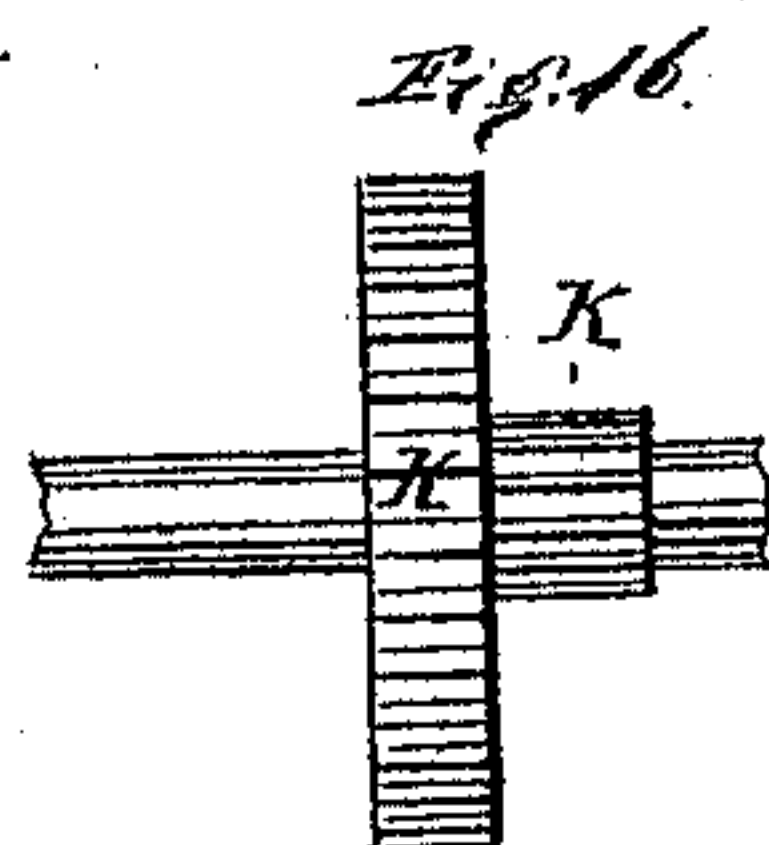
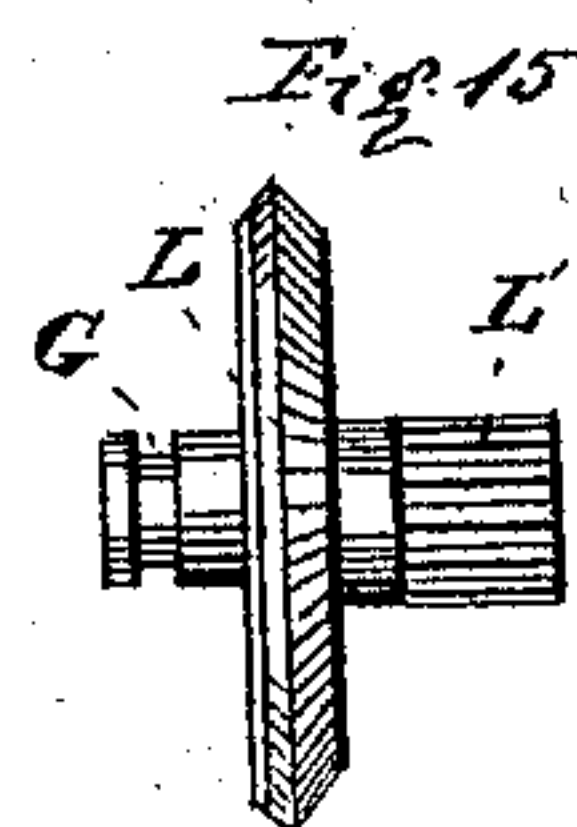
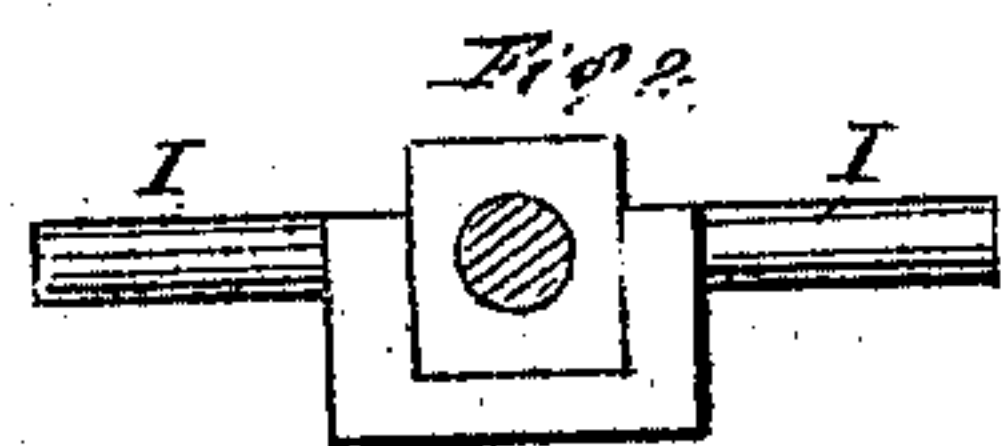
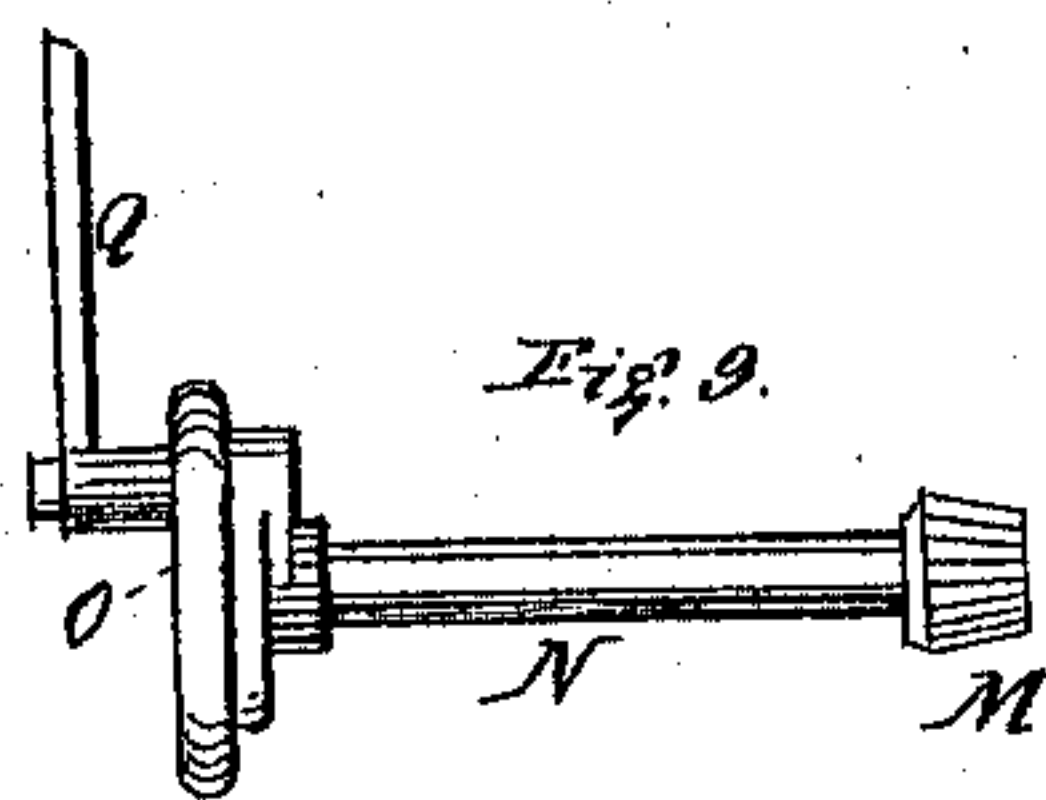
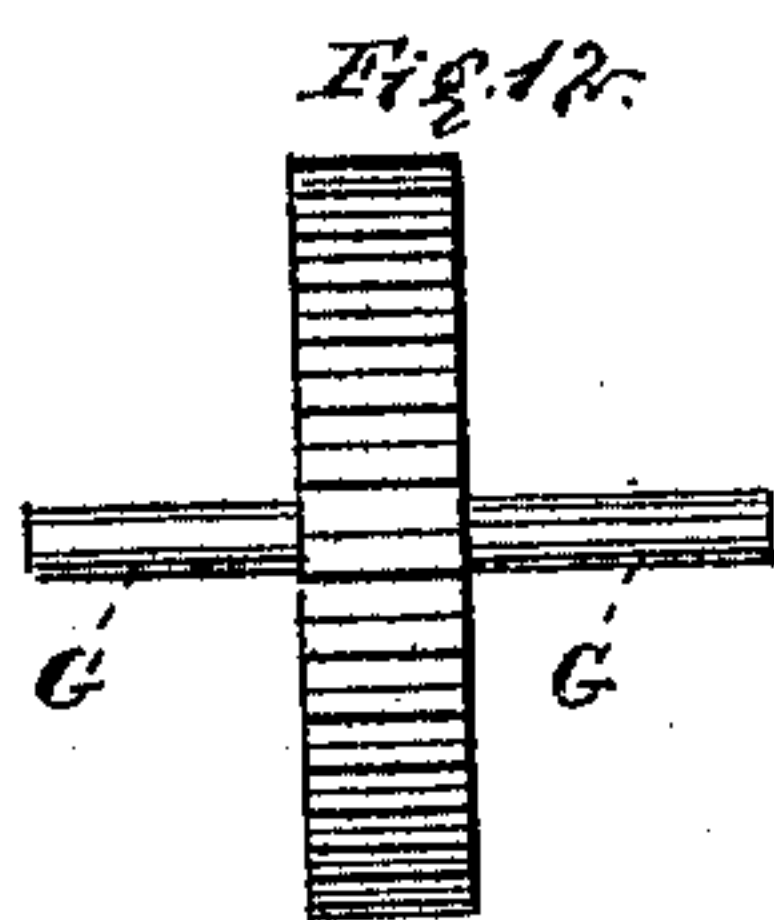
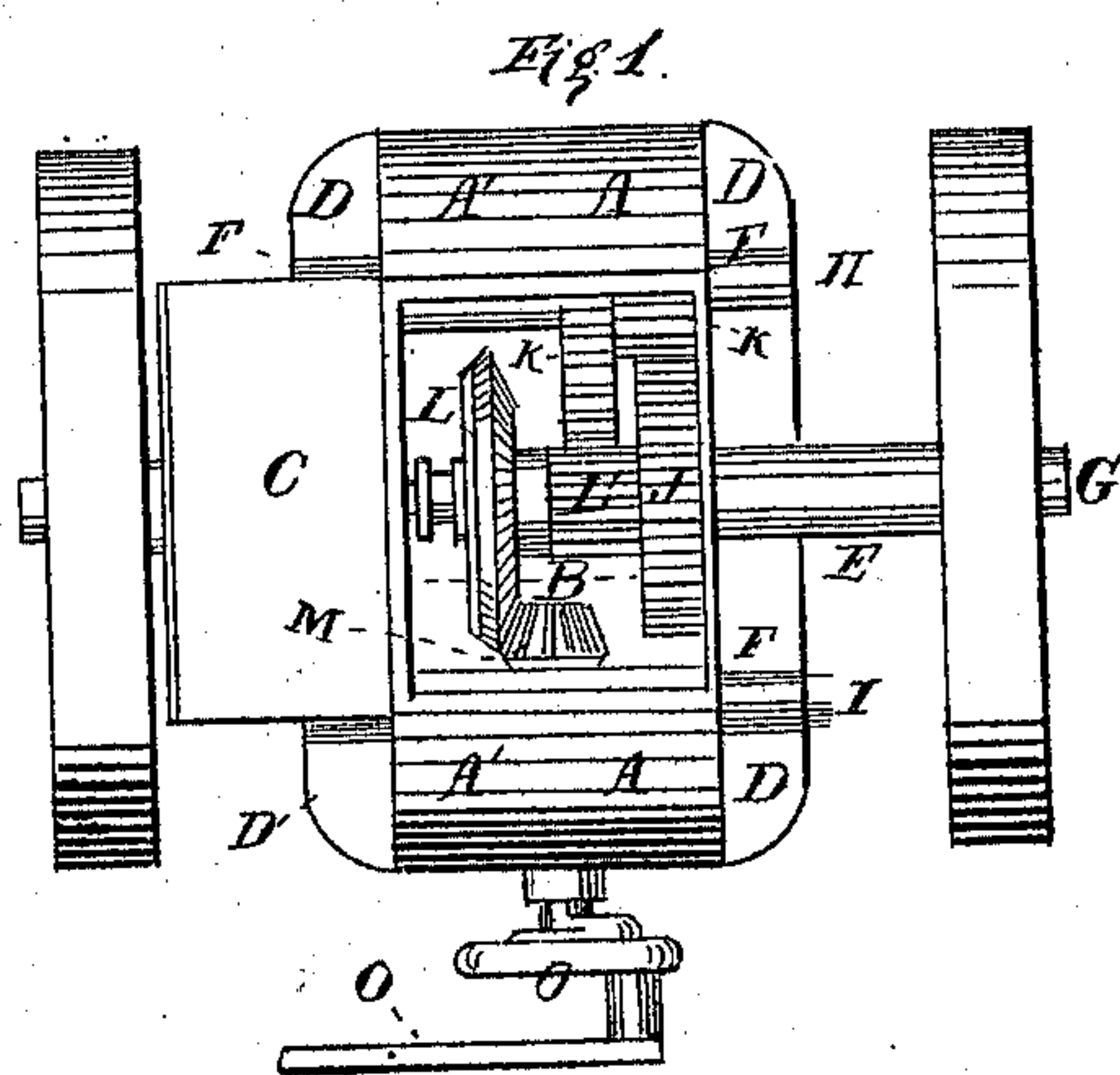


G. W. N. Yost, Mower.

No. 81,569.

Patented Aug. 25. 1868.



Witnesses
James Derismon
William Wansleben

G. W. N. Yost, Inventor
By Atty
J. Clayton.
per d.

UNITED STATES PATENT OFFICE.

GEORGE W. N. YOST, OF CORRY, PENNSYLVANIA, ASSIGNOR TO CORRY MACHINE COMPANY, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 81,569, dated August 25, 1868.

To all whom it may concern:

Be it known that I, GEORGE W. N. YOST, of Corry, Erie county, Pennsylvania, have invented a new and useful Improvement of Climax-Gearing, an improvement and addition to my invention of a climax-body, for grass and grain cutting machines.

The accompanying drawing, illustrating it, with the following description, the specifying letters of drawing and description referring to one another, will enable others to make and use the invention.

As the specification of my climax-body fully describes that invention, it is only necessary to say herein that A and A' are two cases, composing the body. B is the opening or mouth of the body. C is the lid to cover the mouth. D is a rib on each case, along the middle of the side of the body. E is the main hub, in the middle of each case and rib, for the main axle. F is a hub in each case and rib, midway between the main hub and each end, for the fastening-bolts; and H is the hind-end bolt, and I is the fore-end bolt, fastening and holding the cases together.

On the main axle G, within the body, next the inside of the case A, fasten the main driving-wheel I, two and one-half inches wide, ten inches in diameter, with thirty-three cogs in its periphery, all more or less, and with a slight shoulder-hub, next the inside of the case A, three and one-half inches in diameter and an eighth of an inch thick, all more or less, to prevent the wheel rubbing against the case.

On the bolt H, turned smooth and even, to serve for an axle as well as bolt, put a combined pinion and spur-wheel, K and K', cast in one piece or fastened solidly together, the pinion K two and one-half inches wide, five inches in diameter, and sixteen cogs in its periphery, all more or less, and put next the inside of the case A, so that its cogs will gear into the cogs of the driving-wheel, and the spur-wheel K', two and one-half inches, ten inches in diameter, and thirty-three cogs in its periphery, and with a hub projecting out and over the axle-bolt to the inside of the case A', to prevent any end-chase of the pinion and spur-wheel in revolving over the axle-bolt.

On the main axle G, next the driving-wheel I, put the combined pinion and bevel-wheel L

and L', the pinion three inches wide, five inches in diameter, and sixteen cogs in its periphery, all more or less, and put next the driving-wheel, so that its cogs will gear into the cogs of the spur-wheel K', and the bevel-wheel two and one-half inches wide, ten inches in diameter, and forty-four cogs in its periphery, all more or less, with a slight hub, half an inch long, more or less, between the pinion and bevel-wheel, so that the bevel-wheel may gear into a bevel-pinion in the middle, between the insides of the case A and A', and with a hub projecting out and over the main axle to within an inch, more or less, of the inside of the case A', to allow an inch, more or less, of end-chase, to throw the bevel-wheel in and out of gear with a bevel-pinion. Depress the bolt I in the middle, between the cases A and A', so as to receive and support a box for the gudgeon of the bevel-pinion, and make that depression square, three inches wide, and two and one-half inches deep, more or less.

Make a box four inches square and three inches thick, all more or less, or as thick as desired, for the pinion-gudgeon to run in, and make a slot in the bottom and sides of that box as wide as the diameter of the bolt, and deep, so that the inside of the slots, or the box between the slots, will fit the depression in the bolt, and through the box, on a line lengthwise from the middle of the hind end to the middle of the fore end of the body bore a hole one and one-fourth inch in diameter, more or less, for the bevel-pinion gudgeon to run in. Insert the box in the depression of the bolt, the bottom and sides of the depressed part of the bolt fitting and going into the slots in the box, to hold the box firmly in place, and fasten the box down to the bolt by a strap over the top of the box, and screwed down to the bolt on each side, or by any convenient way.

Make a hole in the middle of the fore end of the body, half in case A and half in case A', large enough for a box for a bearing of the pinion and crank-shaft. Through the hole in the fore end of the body and the hole in the box on the support-bolt I put the pinion and crank-shaft N, extending far enough into the body beyond the support-bolt I to receive a bevel-pinion, and extending far enough without the body to receive the crank and pitman.

On the inner end of the pinion and crank-shaft N fasten the bevel-pinion M, two and one-half inches wide, three inches in diameter, and twelve cogs in its periphery, all more or less, and on the outer end of the shaft fasten the crank-wheel O. To the crank-wheel O attach an ordinary pitman, Q, and any other needed cutting machinery adapted to a two-wheeled grass and grain cutting machine.

Thus made, the gearing is simple, neat, evenly balanced, and compacted within the least practicable room.

None of the gear-wheels described are new; all are old and familiar; but I think the peculiar arrangement and combination new, and I know them to be useful. Therefore, I claim nothing

broadly, but limit myself to the specific combination described; and

What I claim, and wish patented, is—

The support-bolt I, when used to fasten together the cases A and A', forming the body, and also to support the gudgeon-box of the bevel-pinion shaft N within the body, as described, for grass and grain-cutting machines.

In testimony that I claim the above-described invention, I have hereunto signed my name, this 26th day of June, 1868.

G. W. N. YOST.

Witnesses:

JAMES DENSMORE,
C. W. ARCHBOLD.