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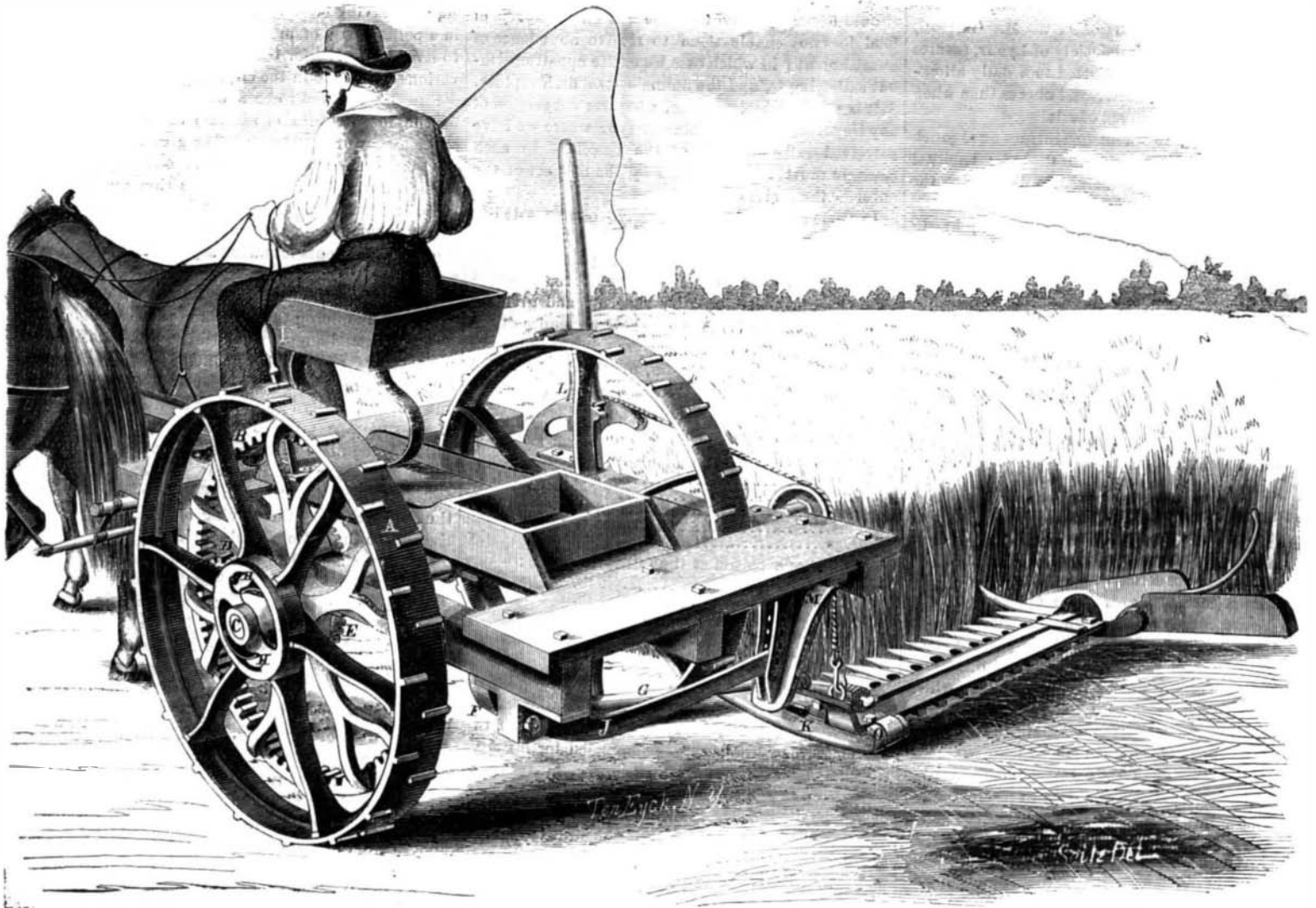
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Improved Mowing and Reaping Machine.

When it was first proposed to do the work of the hay field by machinery, nearly every one outside of the inventive world deemed it his special duty to scout the thing as impossible and absurd to the last degree. Scarcely was the idea broached, however, than the patient inventors set their wits to work, and as a consequence, there are quantities of mowing machines in the market, for each of which there is

it is on the same shaft as the crank wheel, F. To the latter is attached to the connecting rod, G, driving the cutter bar. It will be noticed that the wheel hub is open, and that two palls, H, are fitted inside, having small springs on their back to keep them up to their work. The hub of the traction wheel is made unusually large, and has a series of ratchet teeth cast inside, in which the palls set. By this arrangement the wheels move the main shaft only,

On close examination it will be seen that the cutter bar is received by the shoe, K; the cutter bar fits the shoe snugly between two jaws, O, and by the simple removal of a small pin (behind the hanger in the engraving) the cutter bar can be removed and laid on the back of the machine, and thus easily transported to or from the field. There is also a reel shaft and fixtures accompanying this machine, but it has been omitted in our engraving, as not



KEYSTONE MOWING AND REAPING MACHINE.

claimed some special excellence. The croakers find their prophecies falsified, and themselves laughing-stocks; while the farmer enjoys very greatly the relief from the arduous labor entailed by the duty in question.

The machine herewith illustrated is of the class known as "side drafts," having the cutter playing between shields arranged and shown projecting from the side of the mower. The machine has large traction wheels, A, which are peculiar in their construction; they constitute one point covered in the patent claim. The body of the wheel is similar to all others, having an internal wheel, B, fastened to the main shaft, C, by which the cutters are driven through the intervention of the pinion, D, which is on the same shaft with the bevel gear, E; the latter meshing into a small pinion not seen in the engraving;

when the machine advances; immediately upon backing, the palls slip over the teeth and the gearing does not work. The handle, I, at the driver's side, is for the purpose of throwing the pinion out of gear with the bevel wheel, E. The cutter bar and fixtures are carried at the back of the machine by the flat bar, J, and is also braced by a spring rod which takes hold of the shoe, K, at its forward side; this rod ends in an india-rubber cushion, confined in a cylinder, so as to act as a spring and prevent damage to the machine in case of sudden contact with an unyielding object. The vertical lever, L, has a cord attached which runs over a pulley at the back and is attached to the small staple; this is for the purpose of raising the cutters and fixtures when desired to clear obstacles, and the holes in the hanger, M, admit of a suspension of the apparatus, if desired.

forming a special feature of the invention. The large traction wheels on this machine give it very easy draft, and the arrangement of the gearing, &c., for driving the cutter bar, as also the apparatus for disconnecting it from the main driving gear, and the ratchet attachment in the wheel, constitute striking and useful novelties. Two patents have been issued on this invention, bearing date Oct. 4, 1859 and June 3, 1862. Further information can be had by addressing the patentee, Mr. David Zug, Shaefferstown, Lebanon Co., Pa. The patentee wishes to dispose of territorial rights.

FAST STEAMBOATING.—The *Daniel Drew*, a fast steamer on the Hudson, is said to have recently achieved 16 miles in 86 minutes. This statement is almost incredible.