J. B. WEBSTER, W. A. DORR, & M. McCLENATHAN.

Harvester.

No. 165,280. Patented July 6, 1875.

Fig. 1.

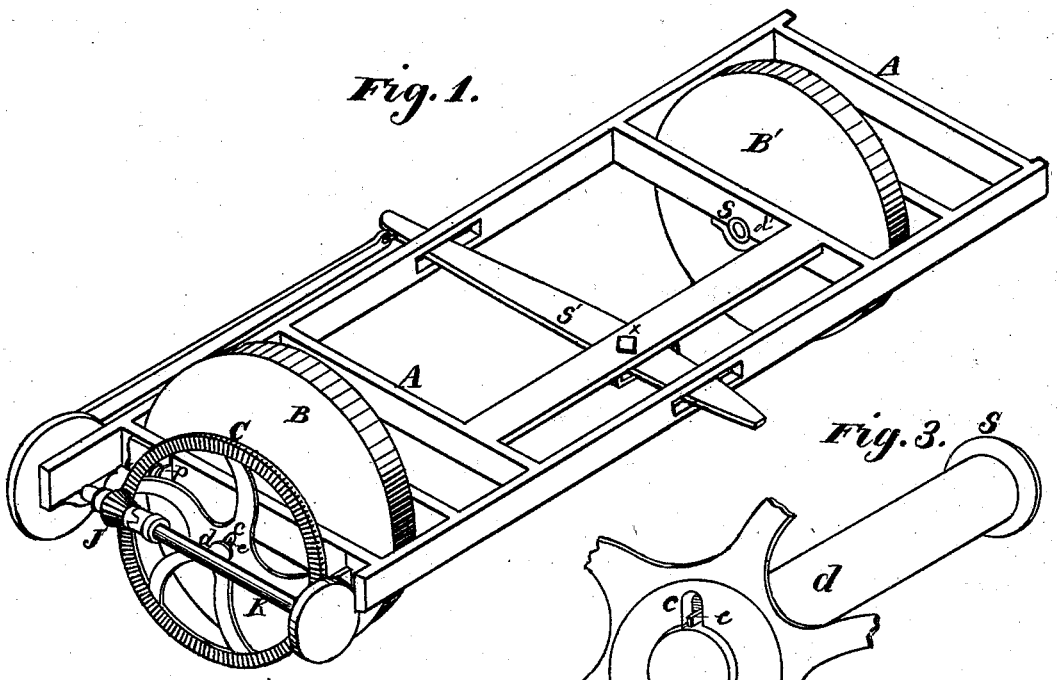

Fig. 3.

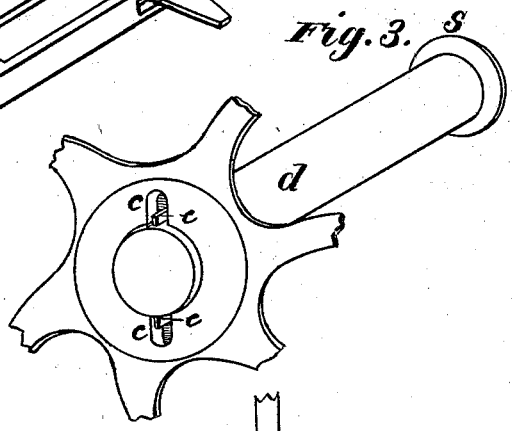

Fig. 2.

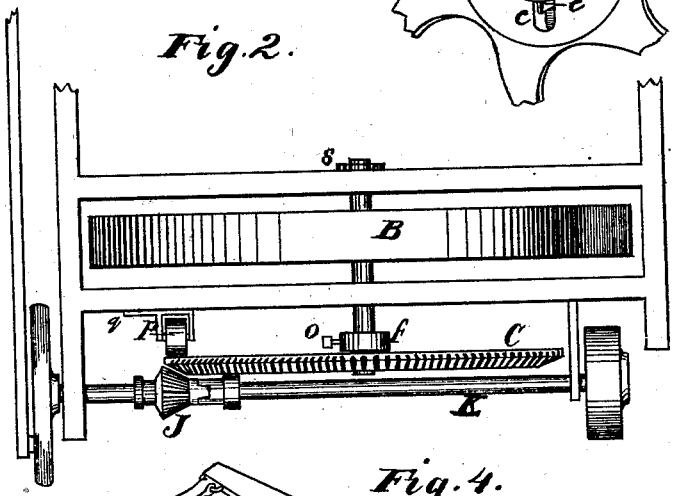

Fig. 6.

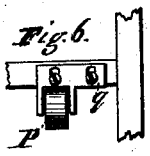

Fig. 4.

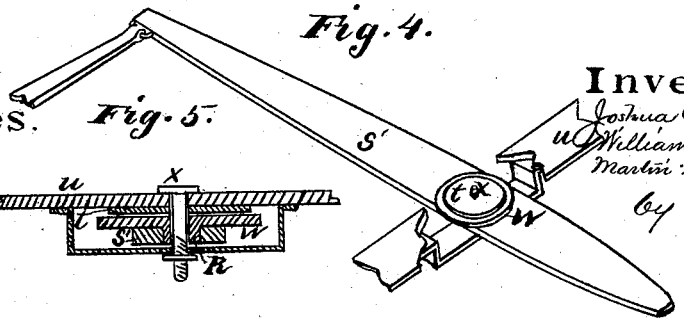

Fig. 5.

Witnesses.

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UNITED STATES PATENT OFFICE.

JOSHUA B. WEBSTER AND WILLIAM A. DORR, OF STOCKTON, AND MARTIN McCLENATHAN, OF MERCED, CALIFORNIA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **165,280**, dated July 6, 1875; application filed November 6, 1874.

To all whom it may concern:

Be it known that we, JOSHUA B. WEBSTER and WILLIAM A. DORR, of Stockton, San Joaquin county, and MARTIN McCLENATHAN, of Merced, Merced county, State of California, have invented Improvements in Harvesters; and we do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said improvement without further invention or experiment.

Our invention relates to improvements upon the harvester or header for which Letters Patent No. 150,114, dated April 20, 1874, were granted to us; and it consists of an improved arrangement of the loose gear-wheel which we employ to drive the machine, and an improved bearing for the pitman-lever which drives the sickles.

In order to describe our invention so that others will understand its construction and operation, reference is had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a perspective view of our invention. Fig. 2 is an enlarged view of one end of the machine. Fig. 3 is an enlarged section, showing the key. Figs. 4, 5, and 6 are detailed views of the operating-lever joint, and other details.

A is the header-frame, which is supported and balanced upon the wheels B B′. C is the loose gear-wheel, which is secured to the shaft or axis *d* of one of the bearing-wheels B, outside of the end timber of the frame. To attach this gear-wheel so that it will be loose upon the end of the shaft *d*, we make a slot or keyway, *c*, partly through one side of the central hole through which the shaft passes, so that the keyway will be on the outside of the hub. The end of the shaft *d* we provide with a short projecting pin or rib, *e*, which will enter the slot or keyway *c*. The gear-wheel is first slipped upon the shaft, and the pin or projection is then secured to the end of the shaft, upon one side, so that the wheel can be moved out until the pin or projection enters the slot; or the pin or projection can be made permanent, and the wheel slipped upon the shaft from the opposite end. A collar, *f*, which is placed upon the shaft inside of the gear-wheel, is then moved up against the inside end of the hub of the gear, and secured by a set-screw, O. By this means the gear C can be made to engage with the pinion *j* on the transverse shaft K, which passes across outside of the gear-wheel with more or less mesh, according to the work to be done. The pressing-roller *p*, which is secured to the end timber of the header-frame, so as to bear against the inside rim of the gear-wheel C, opposite the pinion *j*, we make adjustable by slotting the screw-holes in the plate *q*, (see Fig. 6,) through which it is screwed to the under side of the timber, so that the amount of pressure against the inside of the rim can be regulated by setting it out or in, as desired. The inner end of the shaft *d* of the bearing-wheel B, and also both ends of the opposite shaft *d′* of the bearing-wheel B′, we provide with an enlarged head, S, which prevents the shafts from shifting in their boxes when the weight of the machine comes upon either wheel on a side hill, as the enlarged ends prevent the shafts from slipping through their boxes, so as to crowd upon the wheels or working mechanism. To relieve the friction and wear which is usually encountered in this class of machines at the fulcrum of the lever S′, which reciprocates the sickle, we secure a wear-plate, *t*, on the under side of the beam U, beneath which the lever is secured by the bolt or pin X; and on the upper face of the lever we secure another wear-plate, W, which has a projecting circular rim, R, extending downward around the hole, through which the pin X passes, so that when the lever is in place the two wear-plates will be, together with the circular rim R, between the bolt and the lever S′.

Having thus described our invention or improvement, what we claim, and desire to secure by Letters Patent, is—

1. The bevel gear-wheel C, having the par-

tial keyway *c*, in combination with the pin or rib *e*, on the end of the shaft *d*, and the sliding ring or collar *f*, with its set-screw O, substantially as and for the purpose above described.

2. The gear-wheel C, in combination with the adjustable pressing-roller *p*, substantially as and for the purpose above described.

3. The lever S, with its wear-plate W and projecting circular rim R, in combination with the beam U, with its wear-plate *t*, and the bolt or pin X, substantially as described, for the purpose specified.

In witness we hereunto set our hands and seals.

JOSHUA B. WEBSTER. [L. S.]
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Witnesses:
SAML. C. BATES,
JAMES H. BUDD.

1,000 words do.