

C. POMEROY.
Harvester-Cutters.

No. 138,192.

Patented April 22, 1873.

Fig. 1.

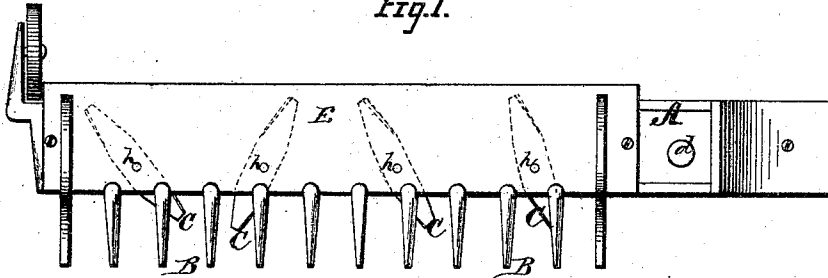


Fig. 2.

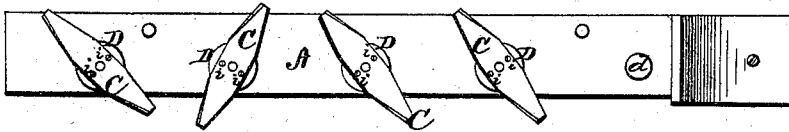


Fig. 3.

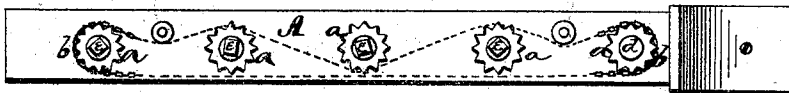
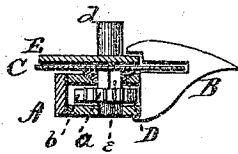


Fig. 4.



Witness:

Jas. C. Hutchinson
C. L. Everts

Inventor.

Chas. Pomroy.

per

Hander & Mason
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES POMEROY, OF MATTOON, ILLINOIS.

IMPROVEMENT IN HARVESTER-CUTTERS.

Specification forming part of Letters Patent No. **138,192**, dated April 22, 1873; application filed December 26, 1872.

To all whom it may concern:

Be it known that I, CHARLES POMEROY, of Mattoon, in the county of Coles and in the State of Illinois, have invented certain new and useful Improvements in Sickle-Bar; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

My invention relates to that class of sickle-bars in which the knives are operated by means of spur-wheels, which are rotated by an endless chain; and consists in so placing the knives upon the ends of the rotated shafts that they can at all times be removed by extracting the single cap-bar which holds the knives in place, all as more fully hereinafter set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my entire sickle-bar. Fig. 2 is a similar view with the covering-plate and fingers removed. Fig. 3 is an interior view of the hollow bar, showing the endless chain and spur-wheels; and Fig. 4 is a transverse vertical section of the same.

A represents a hollow bar or box of suitable dimensions forming the finger-bar, to which the fingers or guards B B are firmly attached. Within the hollow bar A, at suitable regular intervals, is placed a series of spur-wheels, *a a*, around which passes an endless chain, *b*, in the manner shown in Fig. 3. The journals of the spur-wheels *a* have their bearings in the upper and lower sides of the bar A. *d* is the upper journal of the spur-wheel nearest the inner end of the bar, and this journal extends a suitable distance above the bar, so as to be connected to and rotated by any suitable machinery for that purpose on the frame of the harvester, and by this means rotating all the spur-wheels through the medium of the endless chain *b*. *ee* are the journals of the other spur-wheels projecting through and about on a level with the upper surface of the bar A. The extreme upper ends of these journals are square, and the upper side of the bar A

around said journals is countersunk, as shown in Fig. 4. C C represent the knives, which may be in diamond, star, or other suitable shape, with four, six, or eight cutting-edges, as desired, so that when one set of edges is dull the knives can be turned over and the other set used. Each knife is laid in a groove on the upper side of a disk, D, and held by two small rivets or screws, *ii*, which can readily be taken out when desired to turn the knife. The under side of this disk is beveled to correspond with the countersink in the upper surface of the bar A, and it has a square recess to fit over the journal *e*. The knives C C are so set on their respective journals that their cutting overlap without the knives coming in contact with each other. On top of the knives is placed a covering-plate, E, which contains hardened pivots *h* passing directly through the plate and on the top of the center of each knife, thereby holding the same in their places and causing them to rotate true.

It will be thus seen that the knives, when connected to the disks D and set upon the ends of the shafts, are simply held in place by the covering-plate E, so that, when one or more of them become broken or worn or require replacing, it is only necessary to remove this plate and lift out the knife or knives.

This sickle-bar will be of very light draft and less expensive to keep in repair, there being nothing liable to break except the chain, which can be easily fitted in the field at a small cost by having extra links for the chain with the machine.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the spur-wheels *a a*, shafts *ee*, and endless chain *b*, the knives C C connected to the socket-disks D D and held in place by the covering-plate E, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of December, 1872.

CHARLES POMEROY.

Witnesses:

U. ORSBORN,
ED. WALSH.