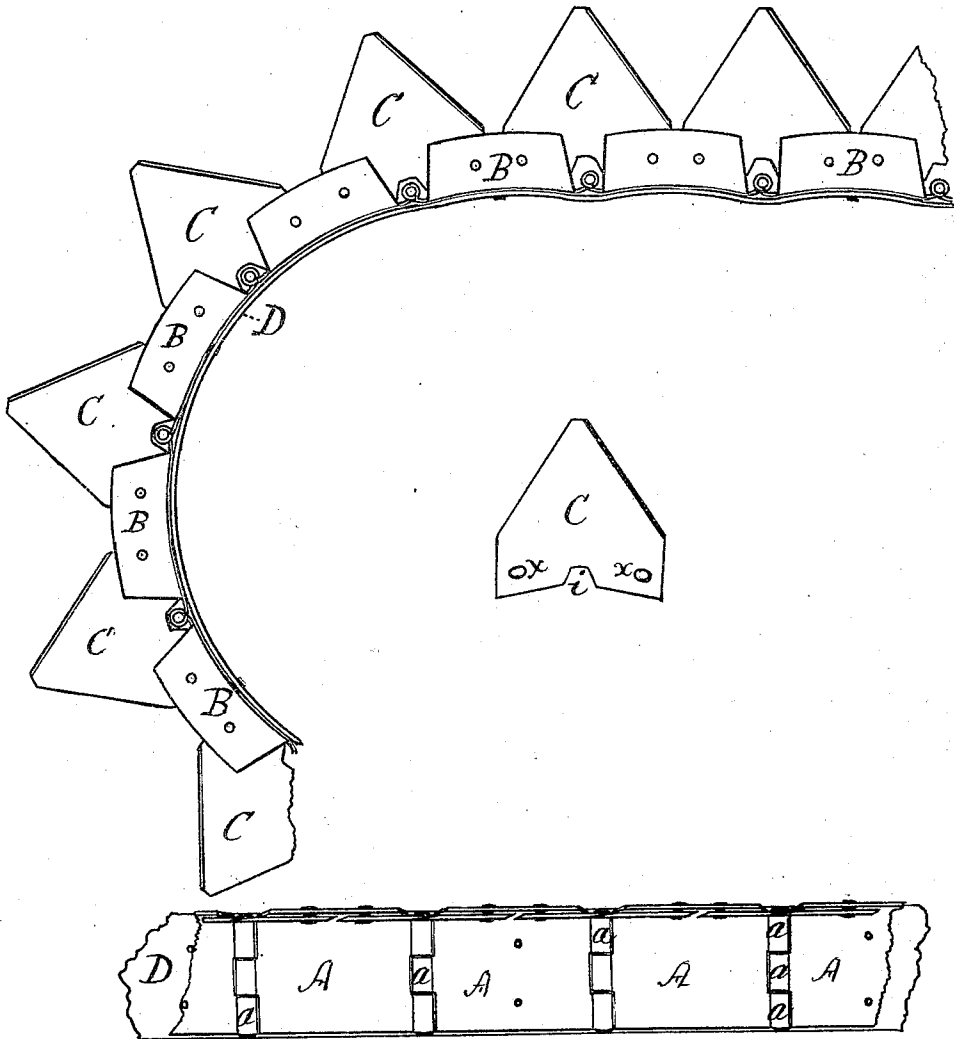


H. UNGER.

Improvement in Harvester-Cutters.

No. 131,580.

Patented Sep. 24, 1872.



Witnesses  
A. B. Davidson.  
Egna Potter

Hiram Unger  
Inventor  
H. P. K. Peck  
Attorney

# UNITED STATES PATENT OFFICE.

HIRAM UNGER, OF GERMANTOWN, OHIO.

## IMPROVEMENT IN HARVESTER-CUTTERS.

Specification forming part of Letters Patent No. 131,580, dated September 24, 1872.

*To all whom it may concern:*

Be it known that I, HIRAM UNGER, of Germantown, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in Cutting Apparatus for Harvesting-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents a top view or plan of my endless-belt-cutting apparatus with a portion broken away. Fig. 2 represents a front elevation of a portion of the same. Fig. 3 is a detached cutter-blade.

My improved cutting apparatus consists of the combination of pivoted blades with an endless belt of hinged metal plates having laterally projecting flanges, in such a manner that the endless belt will retain the blades in a horizontal plane when in use.

The endless belt is formed of the thin metal plates A, which are connected by close hinges *a*, and each of the plates A has a flange, B, which is bent laterally at right angles to its plate, as represented in Fig. 1. The flanges B are perforated with two holes corresponding with holes *x x* in the blades C. The holes *x x* are elongated longitudinally of the belt so as to allow the belt to have the necessary flexibility to revolve around suitable pulleys at the opposite sides of a harvester to which the cutting apparatus may be applied for use. The blades C may be secured to the flanges B by means of bolts and nuts, and a suitable notch, *i*, is made in the central part of the rear edge of the blades so as to provide room for the free action of hinges *a* and allow the necessary flexibility of the endless belt which carries the blades. For the purpose of securing the necessary friction of the hinged belt upon pulleys to be used to propel it, an endless leather belt, D, is fastened upon the inner side of the plates A, which are made of thin elastic metal.

When my apparatus is in use the hinged metal belt will occupy transversely a vertical position, which will cause the blades C and the flanges B to retain a horizontal plane. It

will be readily understood that the belt will have a continuous rotation from left to right at the front edge of the grain-platform. The cutter-blades may be reversed in position, so as to bring the rearmost edge into use when the edge which has been doing the work has become too much worn for the purpose; and to avail of this feature of construction and operation I have made the cutting-blades with edges beveled alternately on the upper and under sides. I propose using this cutting apparatus in combination with the open slotted guard-finger, which will be secured to the front edge of the grain-platform and have its short prong underneath the cutters in the usual position. To protect the endless belt which carries the cutters from contact with obstacles or the stubble, I propose to provide a continuous shield to surround the endless belt. Such a shield may be secured to the lower prongs of the guard-fingers in front of the belt, and to the bottom of the platform, underneath which the belt will pass through its return movement.

It will be seen that the ordinary cutter-blades may be used as well as the guard-fingers described, as parts of my new cutting apparatus, and the shear-cut availed of without the injurious effects of the reciprocating motion. By forming the body of the hinged belt of the series of metal plates to the flanges of which the cutting-blades are pivoted, the apparatus will not require any auxiliary devices (except vertical pulleys around which the belt will traverse) to retain the cutters in their horizontal plane.

Having described my improved cutting apparatus for harvesting-machines, I claim, and desire to secure by Letters Patent—

The hinged flexible metal belt A *a*, provided with the lateral flanges B, in combination with the pivoted cutters C, arranged for use, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 29th day of July, A. D. 1872.

HIRAM UNGER.

Witnesses:

H. P. K. PECK,  
G. L. PRINDLE.