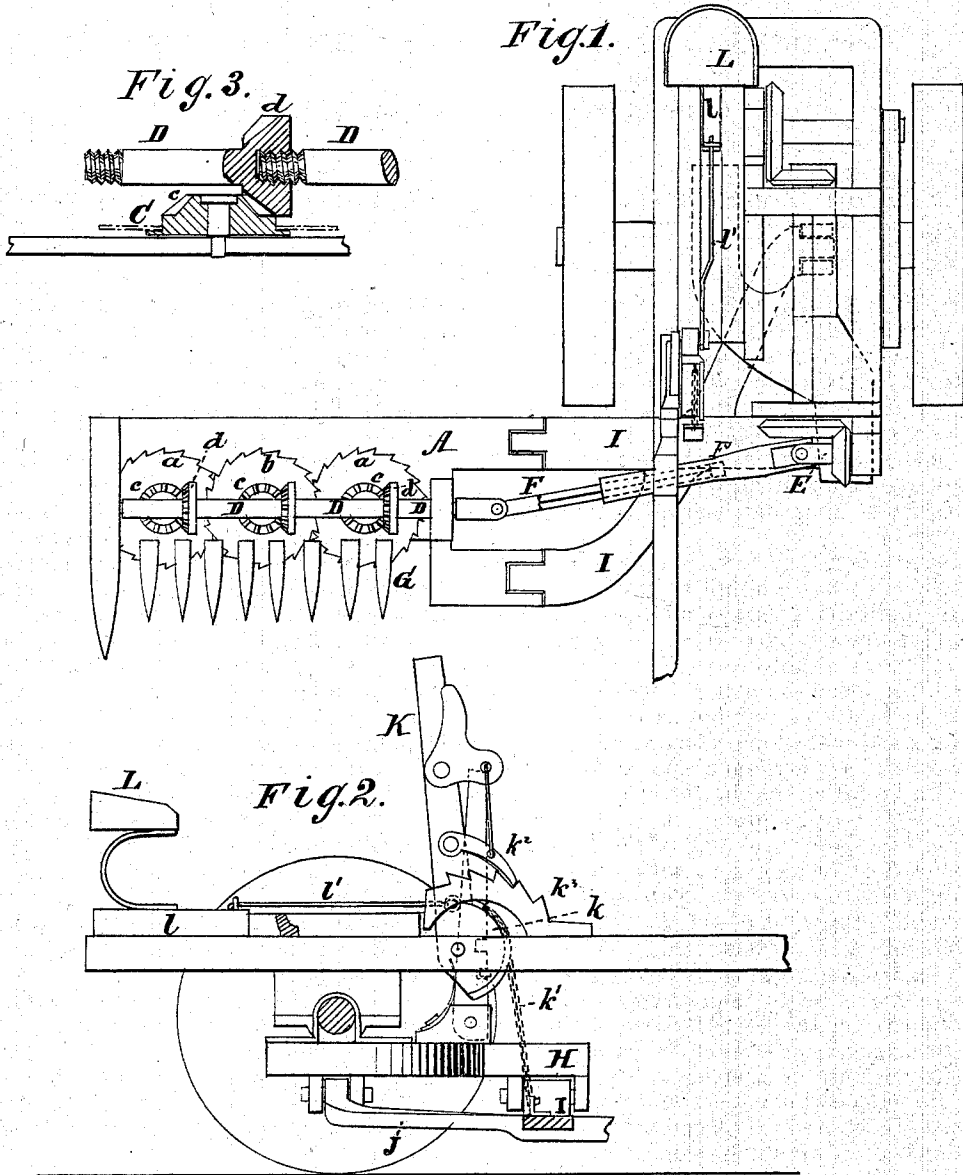


W. K. RAIRIGH.
Harvesters.

No. 139,611.

Patented June 3, 1873.



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UNITED STATES PATENT OFFICE.

WILLIAM K. RAIRIGH, OF PLUMVILLE, PENNSYLVANIA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 139,611, dated June 3, 1873; application filed December 7, 1872.

To all whom it may concern:

Be it known that I, WILLIAM K. RAIRIGH, of Plumville, in the county of Indiana and State of Pennsylvania, have invented certain Improvements in Harvesters, of which the following is a specification:

The invention consists in certain improvements upon harvesters, which will be first fully described and then clearly pointed out in the claims.

Figure 1 is a top view. Fig. 2 is a side elevation. Fig. 3 is a detail view.

A in the drawing represents the cutter-frame, on which are arranged three rotary saws, *a b a*, so that the middle one will overlap the other two in the usual manner. These saws are all made to rotate in the same direction, and to cut against the stationary finger-bars *G*. Each of these saws is arranged upon a hub, *C*, pivoted on its lower side in cutter-frame, and on its upper side provided with a bevel-pinion, *c*. *D* is a shaft provided with three bevel-pinions, *d d d*, which gear with pinions *c* that serve to rotate the saws. This pinion-shaft *D* is double-jointed to a rod, *F*, which is itself double-jointed to a small shaft, *E*, connected with and driven from the axle. The object of the double joint, by which the small shaft *E* is connected with the rod *F*, is to allow said rod to accommodate itself to different planes of cut without interfering with or changing the proper position of the pinion on the short shaft. This shaft *D* is constructed in three sections, each of which has a screw-threaded end and socket, to enable it to be detachably connected with the others. By this construction, if any one of the pinions *d* becomes worn or fractured it may be readily removed and replaced. *H* is a cutter-frame holder

hinged to the axle and connected to the cutter-frame by the intermediate cross-bars *I I* pivoted at both ends and fastened together in the middle. It is made separate and independent for the purpose of raising and lowering the points of the guards and cutting-edges of the saws. *J* is a pivoted spring-pressed bar, which is pivoted to holder, and enables it to be secured at various points of vertical adjustment on a tooth, *J'*, in the tongue-frame *M N*. *K* is a lever having a cam-end, *k*, over which passes a chain, *k'*, that is attached to the cross-bars *I I* for the purpose of raising the cutter-frame. This lever is provided with a pawl and ratchet, *k'' k'''*, by which it may be held at different points of elevation. *L* is the seat supported upon a slide, *l*, which is attached to the lever *K* by a rod or link, *l'*. By thus combining the cross-bars and sliding seat with the same lever the weight of the driver is thrown beyond the axle whenever the cutter-frame is raised. This serves to relieve the horses from unnecessary pressure upon their necks.

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

1. The pinion-shaft *D* made in three sections, as and for the purpose described.
2. The combination, with the cutter-bar and sliding seat *L*, of lever *K* connected with each and arranged as described, so that the seat is thrown rearwardly whenever the cutter-bar is raised.

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Witnesses:

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