G. B. & C. B. GARLINGHOUSE.

Harvester.

No. 36,775. Patented Oct. 28, 1862.

Fig. 2.

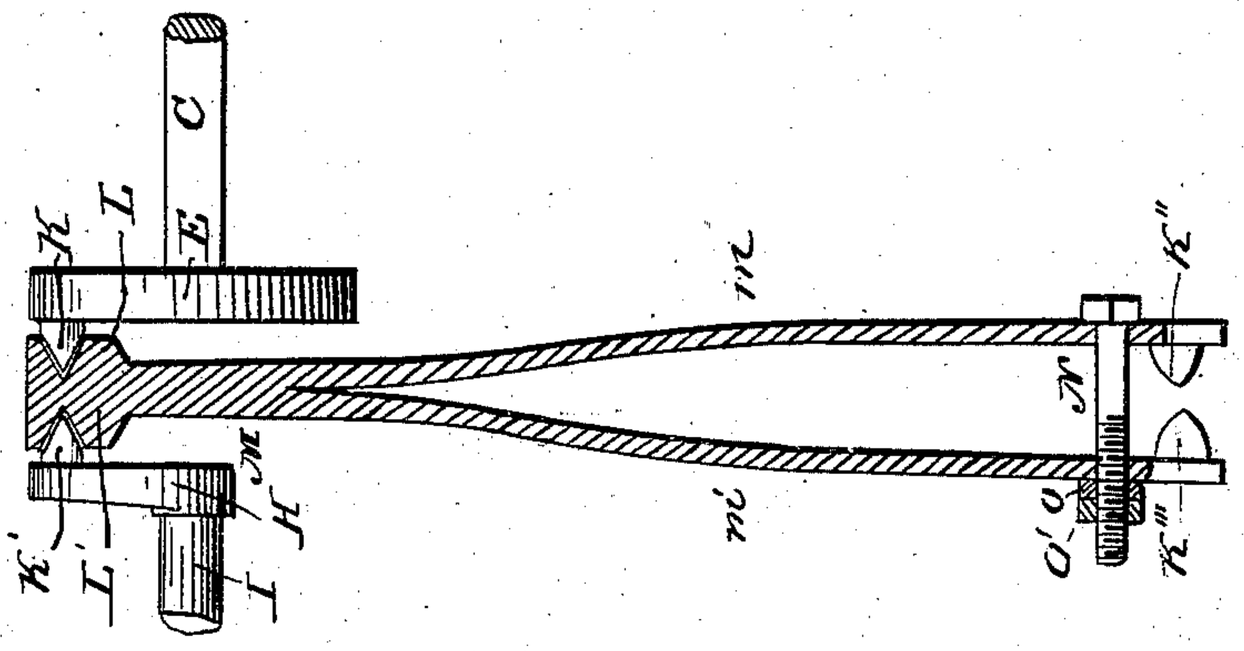
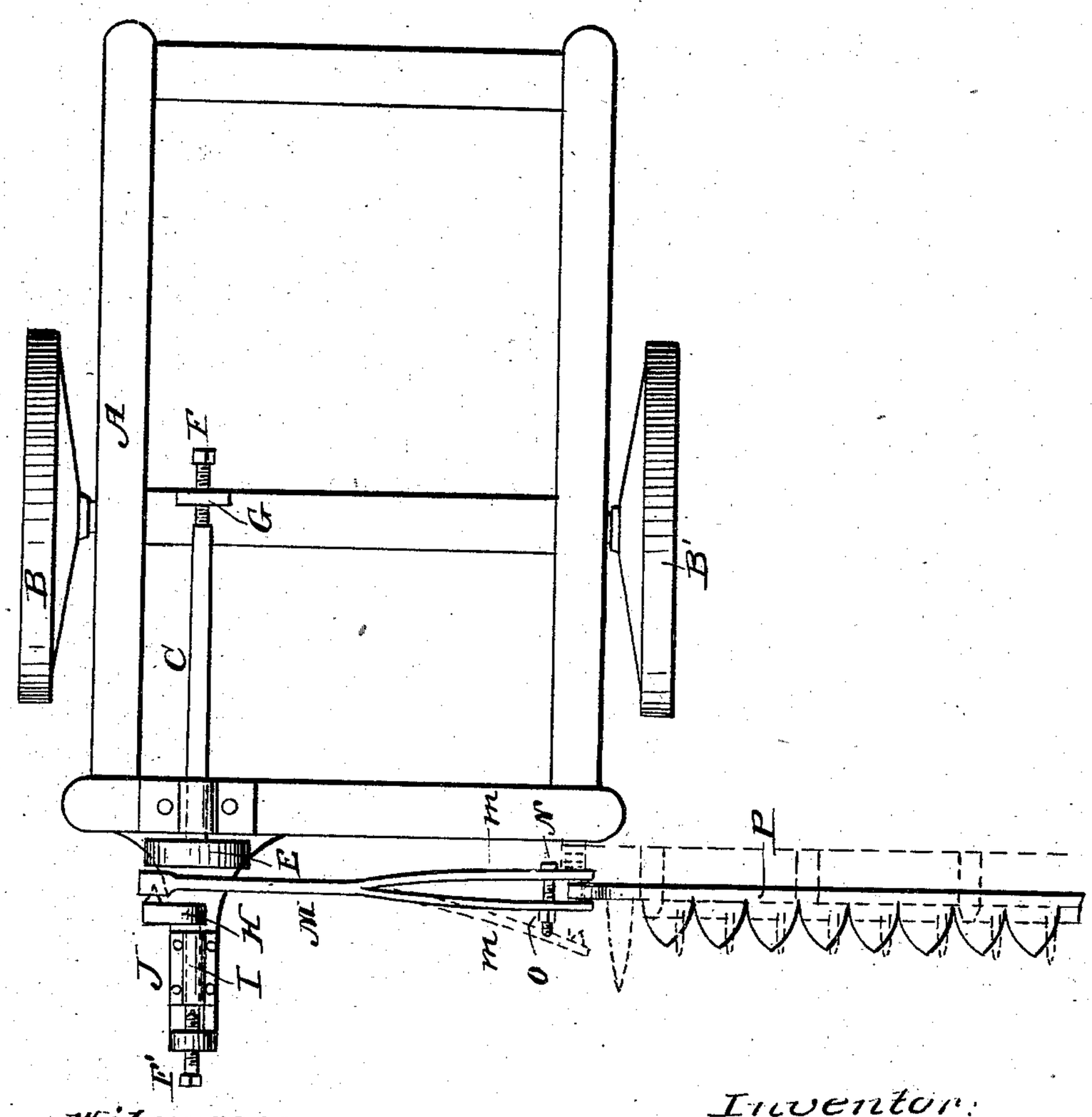


Fig. 1.



Witnesses:
A. B. Guy
Benj. F. Fosdick

Inventor:
G. B. Garlinghouse
C. B. Garlinghouse
per Knight Bros Attys

UNITED STATES PATENT OFFICE.

GEO. B. GARLINGHOUSE AND CYRUS B. GARLINGHOUSE, OF ALLENSVILLE, INDIANA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **36,775**, dated October 28, 1862.

To all whom it may concern:

Be it known that we, GEORGE B. GARLINGHOUSE and CYRUS B. GARLINGHOUSE, both of Allensville, Switzerland county, Indiana, have invented a new and useful Improvement in Harvesters; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification.

The object of our invention is to prevent the slack motion which use always engenders in the hinges or coupling-joints which connect the cutter-bar to the pitman and the latter to the drive-shaft, and which, growing rapidly upon itself, causes imperfect cutting and frequent destruction of the bar; and our invention relates to an arrangement of adjustable and conical hinges, as hereinafter set forth.

Figure 1 is a top view of our improvement. Fig. 2 is an enlarged view of the pitman.

A is a frame supported on ground-wheels B B′. C is the drive-shaft, which may be driven by any customary connection with one of the ground-wheels. The front portion of the shaft C is collarless and of uniform diameter, so as while journaling in box D to be capable of longitudinal adjustment therein. To the front end of the shaft C is affixed a fly-wheel or crank, E. The rear end of said shaft C is countersunk to receive the conical or conoidal point of a set-screw, F, tapped through a bracket, G, on the frame A.

H is a crank, the shaft of which is journaled at I in a bracket, J, and is countersunk at its forward end to receive the conical or conoidal point of a set-screw, F′, which is tapped through said bracket J.

To the above-described parts the pitman is coupled by a compensating hinge-joint as follows: K K′ are two conical or conoidal pintles or gudgeons, which project opposite to each other from the fly-wheel E and crank H, respectively. The pintles K K′ occupy sockets or countersinks L L′ on opposite sides of pitman M, near its rear end or heel. The outer extremity of pitman M consists of two branches, *m m′*, armed on their opposing sides with conical or conoidal gudgeons K″ and K‴, similar to those before described, and which occupy sockets in the heel of the cutter-bar P, similar to those in the heel of the pitman. The gudgeons K″ K‴ are brought to their proper bearings in the sockets of the cutter-bar by means of a screw-bolt, N, and nut O, while a similar office is filled for the hinge K K′ L L′ by one or more screws, F F′. An outward spring being given to the branches *m m′* causes them to press firmly against the nut and the bolt-head, and prevents shaking loose by the violent agitation of the bar.

It will be seen that any looseness or rattle of the cutter-bar can be removed by advancing the screws, and hence this important and extremely destructible limb is never liable to hammer in its bearings or to fall short of its effective cutting-stroke. The provision of two screws, F F′, also enables the pitman to be set accurately in line. This form of hinge is found to retain its lubricating-oil much longer than the common cylindrical form.

We have selected to illustrate our invention a form which practical test has proved effective and durable; but various modifications are practicable. For example, the branches *m m′* may be rigid, one of them being attached and drawn toward the other by a bolt near each end, or the gudgeons and sockets may be reversed, or the gudgeons may be adjusted by screwing in and out, so as to dispense with separate screws.

The improvement may be applied to one or both hinges.

We claim herein as new and of our invention—

1. The conical or conoidal coupling-hinge K K′ L L′ and set-screws F F′, arranged and adapted to the cutting apparatus of a harvester in the manner and for the purposes set forth.

2. The branched pitman *m m′*, having conical or conoidal gudgeons K″ K‴, adjustable in the line of their common axis within corresponding sockets in the cutter-bar by means of screw N or its equivalent, substantially as set forth.

In testimony of which invention we hereunto set our hands.

GEORGE B. GARLINGHOUSE.
CYRUS B. GARLINGHOUSE.

Witnesses:
GEO. H. KNIGHT,
WILLIAM ZETTLE.