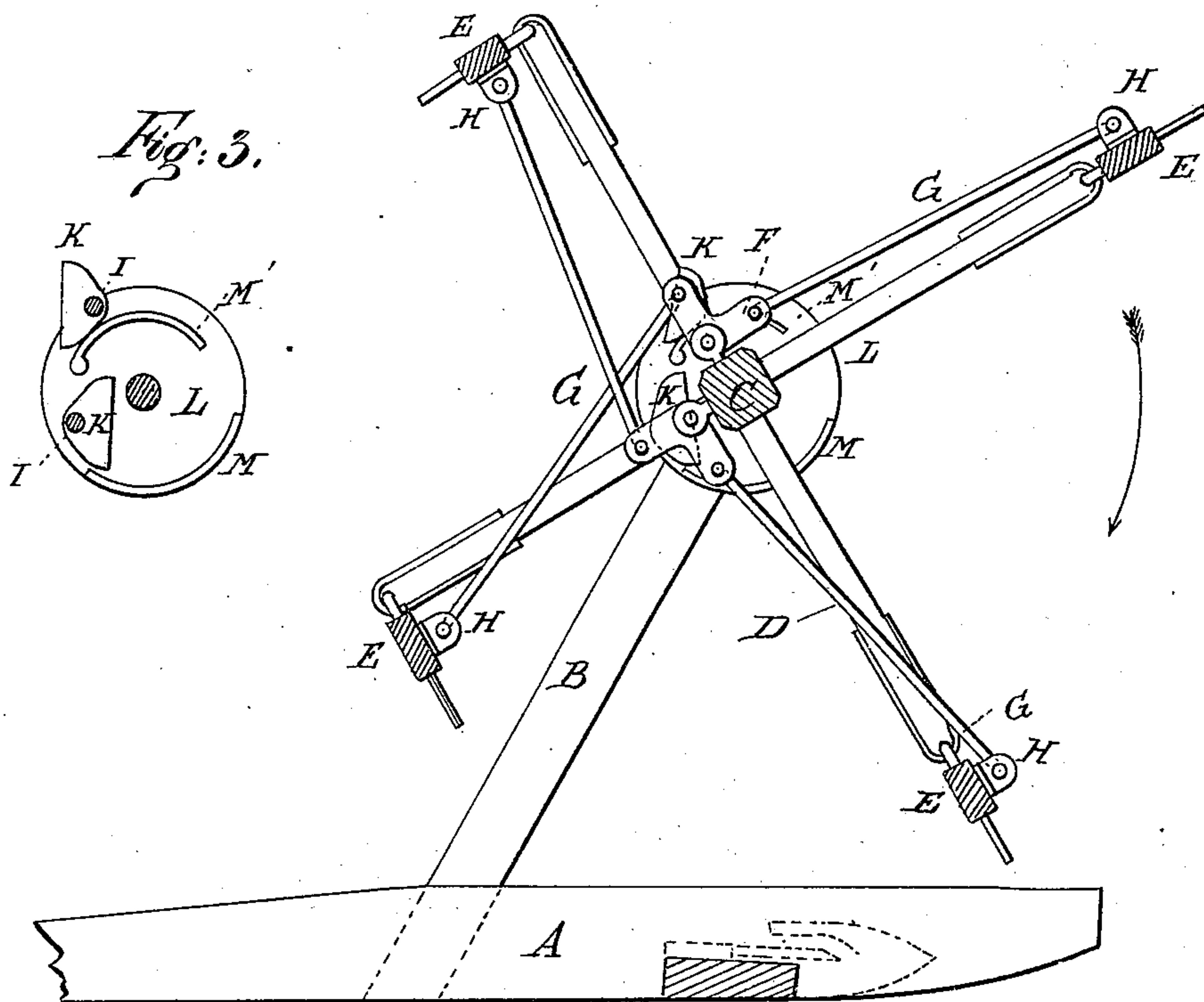


W. H. AKENS.  
Harvester-Reel.

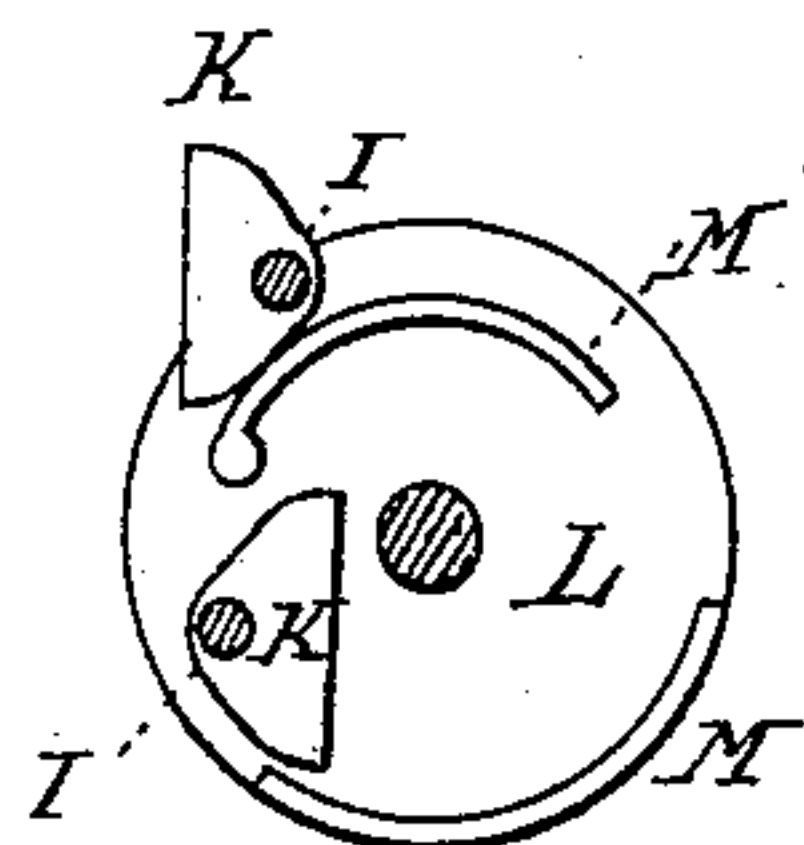
No. 226,585.

Patented April 20, 1880.

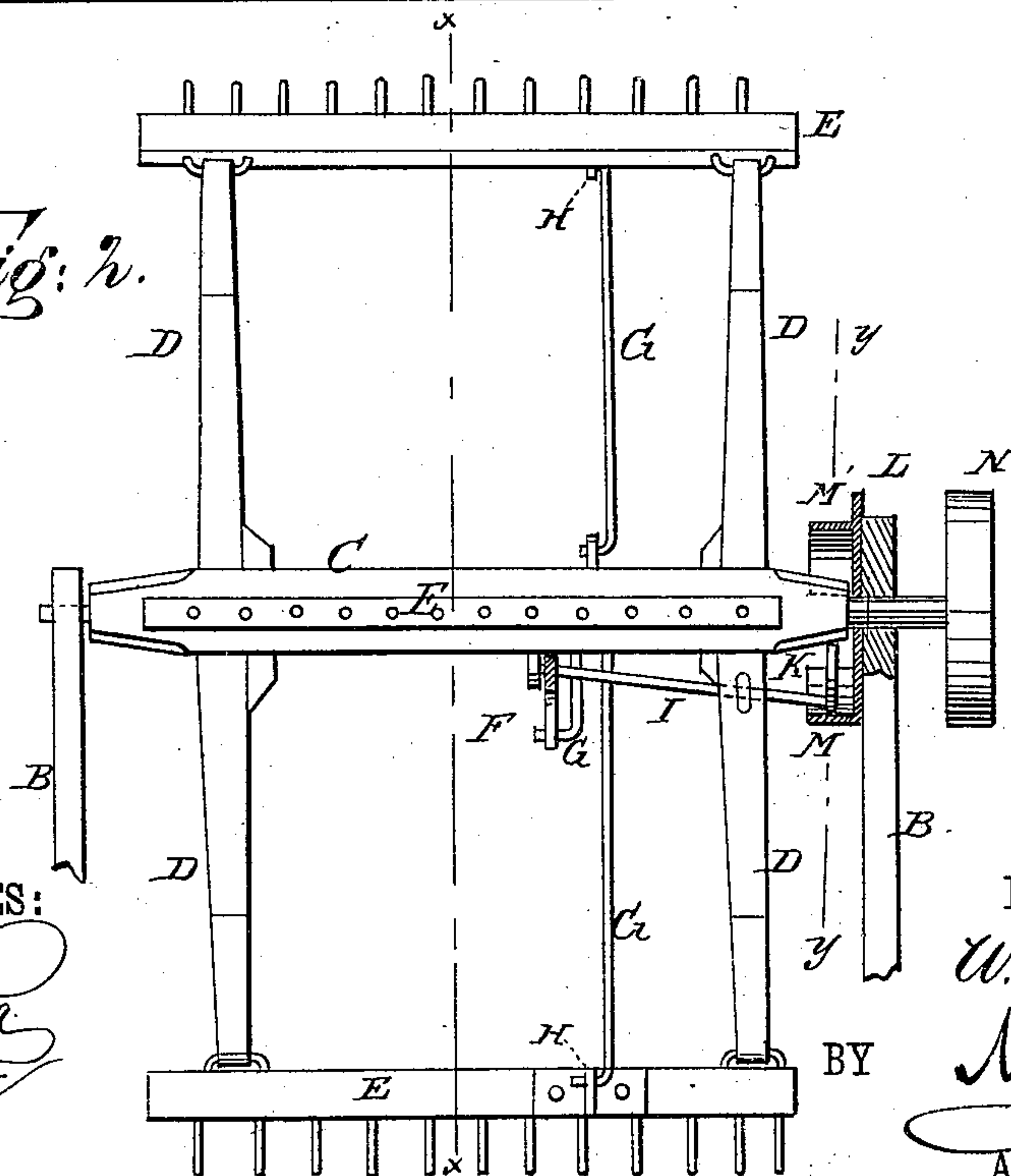
*Fig: 1*



*Fig: 3.*



*Fig: 2.*



WITNESSES:

*Chas. Nida*  
*C. Sedgwick*

INVENTOR:

*W. H. Akens*

BY

*Munn & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

WILLIAM H. AKENS, OF PENN LINE, PENNSYLVANIA.

## HARVESTER-REEL.

SPECIFICATION forming part of Letters Patent No. 226,585, dated April 20, 1880.

Application filed August 26, 1879.

*To all whom it may concern:*

Be it known that I, WILLIAM H. AKENS, of Penn Line, in the county of Crawford and State of Pennsylvania, have invented a new and Improved Harvester-Reel, of which the following is a specification.

Figure 1 is a sectional elevation on line *x x*, Fig. 2. Fig. 2 is a plan of the device. Fig. 3 is a transverse section on line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple and convenient device for gathering cut grain into gavels.

The invention consists of a circular plate fixed upon one of the standards and having a journal of the axle passing centrally through it, and having fixed on its inner face two segmental cams, with which the **D**-shaped pieces engage as the device is revolved, and thereby cause the rakes to move on their hinges, as is desired.

In the drawings, **A** represents a reaper table or platform, and **B B** the standards supporting the device. **C** is the axle of the device, carrying the spiders **D D**, that are preferably composed of arms or spokes tenoned into the axle. **E E** are the horizontal toothed bars or rakes, that are hinged to the ends of the arms or spokes. **F F** are the elbow-cranks, and **G G** the hooked rods connecting the opposite rakes, and **H H** the lugs on the rakes, into which the outer ends of the rods hook. **I I** are the horizontal rods, that have one end firmly fixed in the apex of the elbow-cranks, while on their other ends they carry the **D**-shaped plates **K K**. **L** is the circular plate through which the axle-journal passes, and **M M'** are the segmental

cams or flanges fixed upon its face. **N** is the pulley by means of which power is applied to operate the device.

When in position and made to revolve, the **D**-shaped plates on the rods **I I** engage and move successively and in alternation on the inside of the cam **M** and the outside of the cam **M'**, which movement causes them (the **D**-shaped plates and the connected rods) to move slightly first in one direction and then in the contrary one alternately, and this movement is imparted to the rakes through the elbow-cranks **F F** and rods **G G** with the effect of making them assume by turns the position shown in Fig. 1. From this it will be seen that a rake, as it rakes the grain over the cutting-bar onto the platform, gradually assumes a position at right angles to the arm, so that as the latter moves upward the gavel may readily fall from the rake, and so that as the device revolves the rakes change their position twice in each revolution.

This mechanism is found in practice to be simple, effective, and easy to keep in order, and possessing in these respects great advantages over any of those now in use.

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

The combination of the pivoted rake-bars **E**, cranks **F F**, rods **G G** and **I I**, and the **D**-shaped plates **K K** with the plate **L**, provided with the flanges or cams **M M'**, substantially as herein shown and described.

WM. HARRISON AKENS.

Witnesses:

W. C. BURT,  
AMOS LINE.