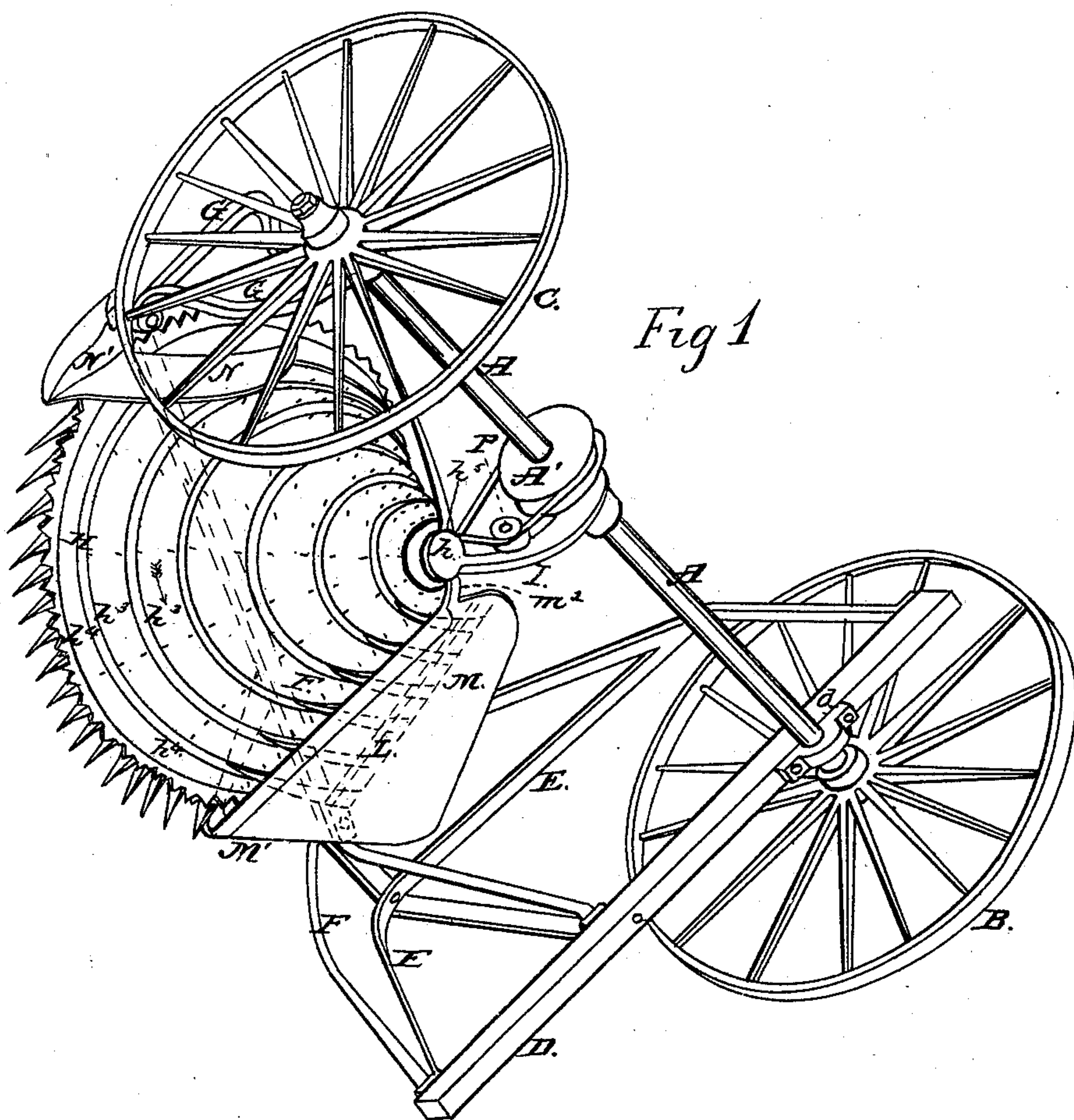


W. M. & G. H. HOWE.
HARVESTING-MACHINE.

No. 171,021.

Patented Dec. 14, 1875.



Witnesses.

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Fig 5.

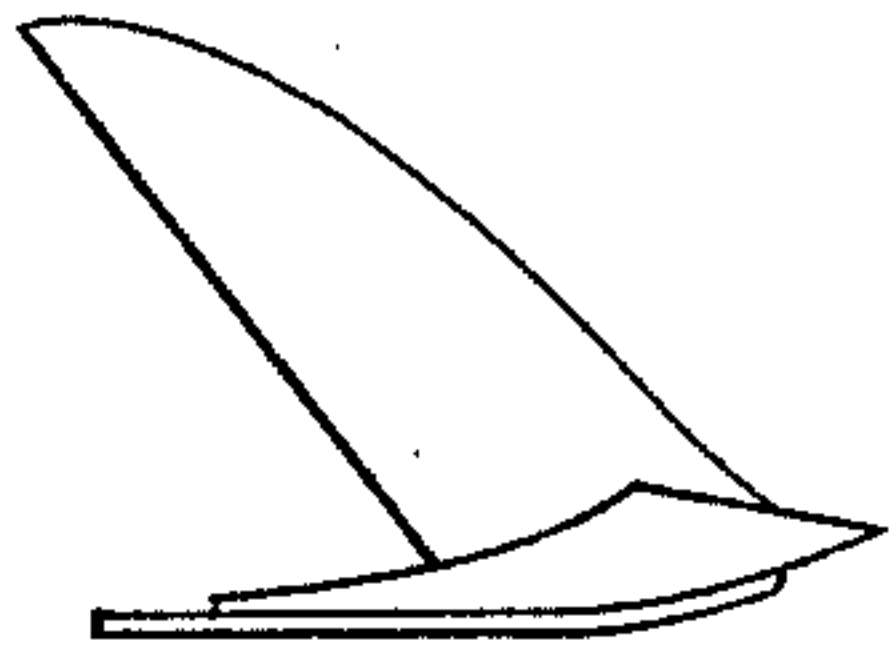


Fig 3.

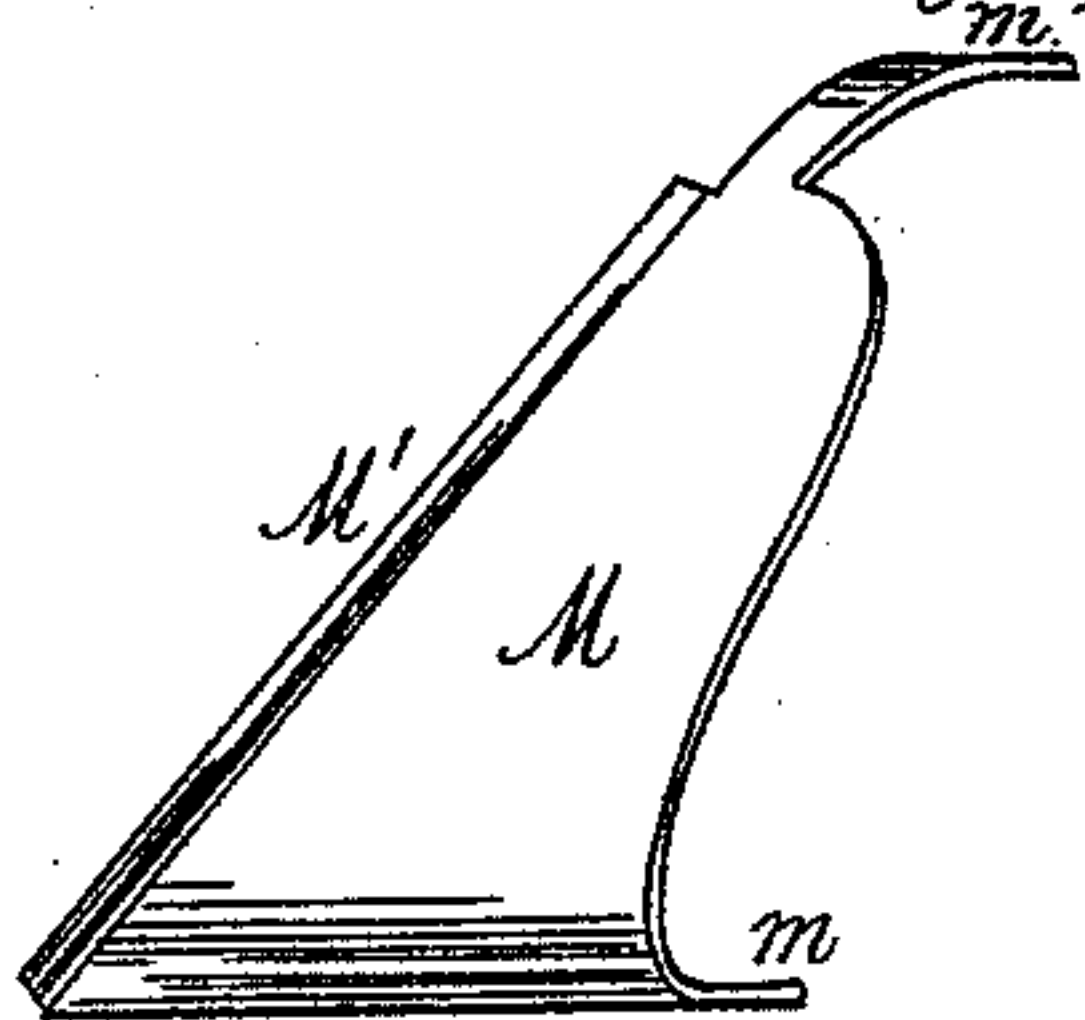


Fig 4.

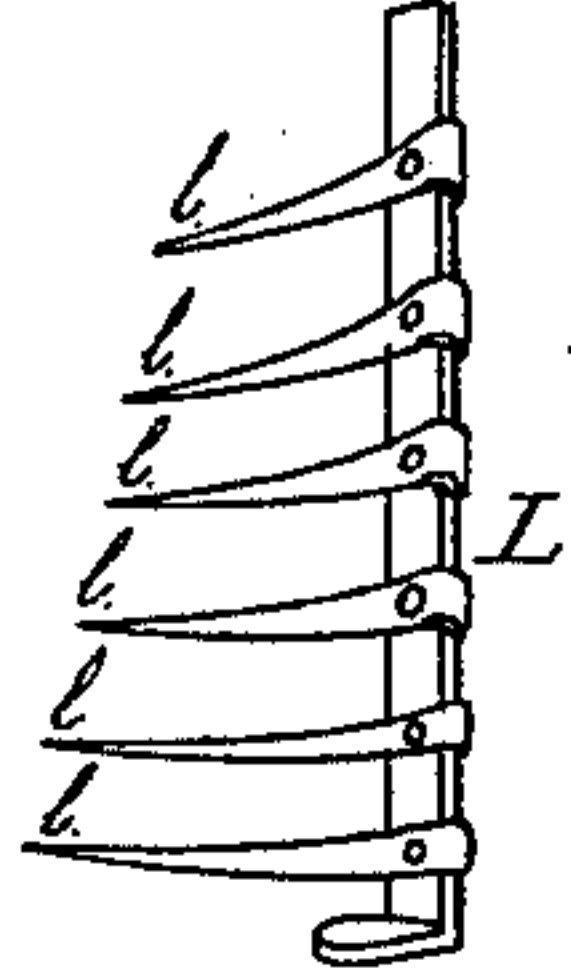
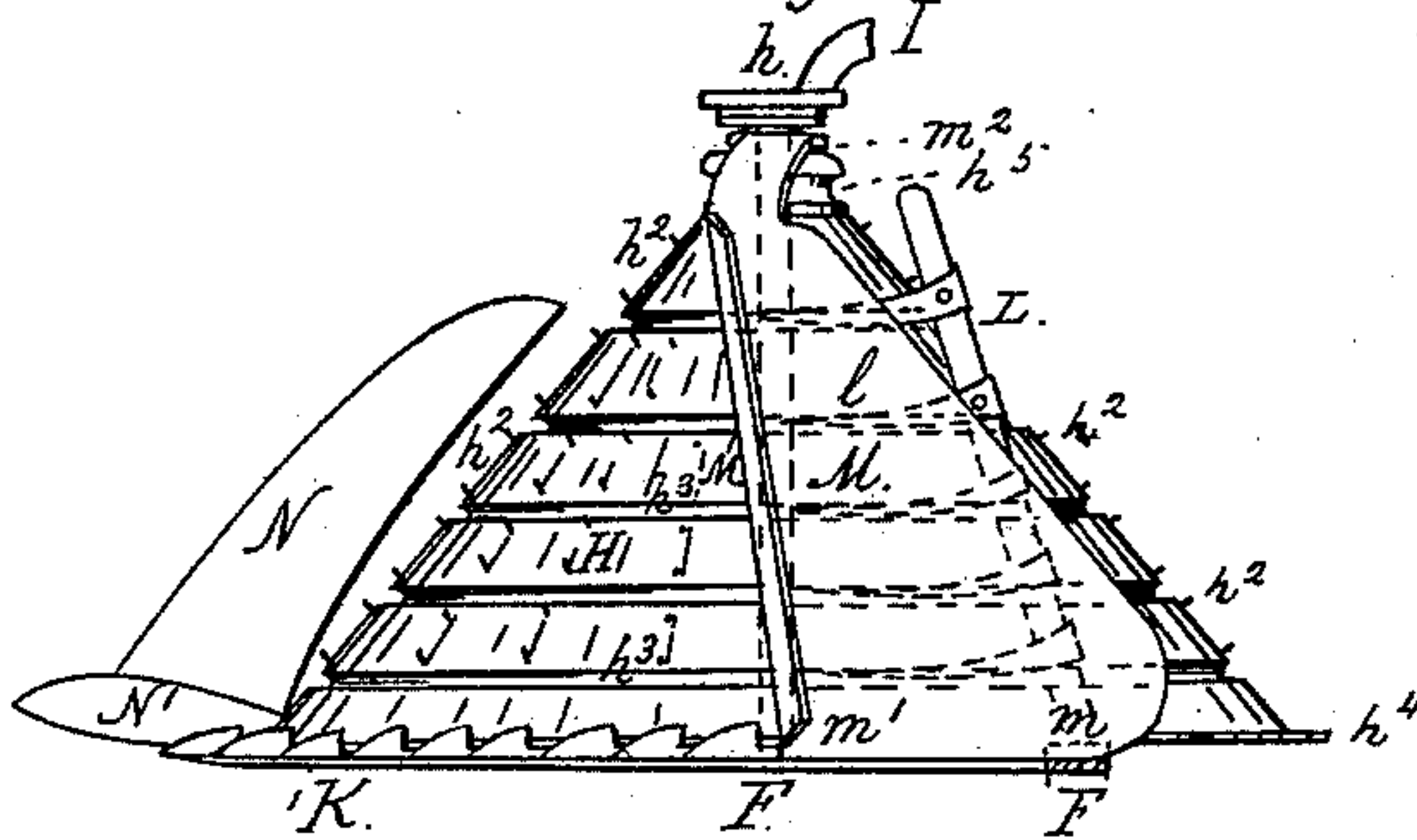


Fig 2.



Witnesses.

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UNITED STATES PATENT OFFICE

WILLIAM M. HOWE, OF AUSTIN, AND GEORGE H. HOWE, OF WINNEBAGO CITY, MINNESOTA.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 171,021, dated December 14, 1875; application filed July 17, 1875.

To all whom it may concern:

Be it known that we, WILLIAM M. HOWE, of Austin, in the county of Mower, and GEORGE H. HOWE, of Winnebago City, in the county of Faribault, both in the State of Minnesota, have invented certain new and useful Improvements in Reaping-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in reaping-machines, the nature of which will be fully explained by reference to the accompanying drawings.

Figure 1 represents a perspective view of apparatus constructed according to our invention. Figs. 2, 3, 4, and 5 show detail views of parts separately.

In each of the views similar letters of reference are employed to indicate corresponding parts wherever they occur.

A represents the main or driving shaft of the apparatus, which is supported by means of the wheels B C, the wheel B being affixed to the shaft A, while the wheel C turns freely on the same. D is the tongue or pole, which is supported by a bearing, d , through which the shaft A passes. E is a framing, supported by and affixed to the tongue or pole D, and to which is connected one end of a cross-bar, F, extending across the machine, and at its opposite end supported and carried by a framing, G, constructed as shown by Fig. 1, and supported at its upper end by a bearing, g , through which the shaft A passes. H is a revolving platform, conically shaped, and revolving on an axis, h , the upper end of which is supported by a bracket, I, supported in a bearing, A' , on the shaft A, while its lower end is supported by the cross-bar F. The revolving platform H is formed with a series of rows of teeth or projections, h^2 , and grooves or channels h^3 , hereinafter more fully explained, and at its lower edge it has mounted on it a circular serrated cutter or knife, or series of blades, h^4 ,

adapted to engage with a series of fingers, K, supported by a plate or extension carried by the cross-bar F or other suitable framing. L is a bar, bracketed to the cross-bar F, and supporting a series of arms or fingers, l , in position that their points or front ends shall be received within the grooves or channels h^3 , and allow of the free passage between them of the teeth or projections h^2 of the platform H. M is a guide-plate, supported at its lower end, at m , by being attached to the cross-bar F, and at m^1 by being attached to or forming part of the plate or extension supporting the fingers K, while at its upper end m^2 it is supported by the shaft or axis h . The guide-plate M is formed at its front edge with a face plate or projection, M' , to facilitate the gathering of the grain between the plate M and the fingers l , as hereinafter fully set forth. N is a dividing plate or guide, supported and carried by a heel-piece, N' , supported by an extension from the framing G. The platform H is caused to revolve when required by means of a strap or band, O, passing round a pulley, h^5 , formed on or affixed to the upper end of the platform H. This band O receives motion from a pulley, A' , formed on or affixed to the shaft A. P is a tension-pulley, over which the band Q passes, supported and revolving on a pin carried by the bracket I.

The operation of the apparatus is as follows: The apparatus is driven forward in the direction of the arrow 1 through the grain to be cut. The platform H and circular cutter or knife h^4 are caused to revolve by the axle A and wheel B in the direction of the arrow 2, thereby severing the stalks of grain as the machine advances. The grain thus cut falls against the platform H, and is carried by the teeth or projections h^2 onto the arms or fingers l and beneath the plate M, in position to be received and collected by any suitable apparatus for binding or otherwise disposing of the cut grain.

It will be seen that the arms or fingers l , while they serve as guides for the conducting away of the grain beneath the plate M, by reason of their ends being received within the grooves h^3 and below the surface of the platform H, serve to clear the said platform from any

grain which might otherwise remain between the teeth h^2 and clog or otherwise impede the operation of the apparatus.

Although we have shown the platform H constructed in the form of a perfect, or nearly perfect, cone, it may be constructed in the form of a cylinder.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A revolving platform, H, provided with a series of teeth or projections, h^2 , and provided at its base with a circular serrated knife or series of blades, h^4 , substantially as described.

2. The combination, with a revolving platform, H, having a series of teeth or projections, h^2 , and a series of grooves or channels,

h^3 , and provided at its base with a circular serrated knife or series of blades, h^4 , of the fingers or arms l and plate M, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

WILLIAM M. HOWE.
GEORGE H. HOWE.

Witnesses to signature of Wm. M. Howe:
RUSH B. WHEELER,
HENRY S. JUDSON.

Witnesses to the signature of GEORGE H. Howe:
S. S. ABBOTT,
R. E. ABBOTT.