H. BRACKETT.

Harvester Dropper.

No. 89,733. Patented May 4, 1869.

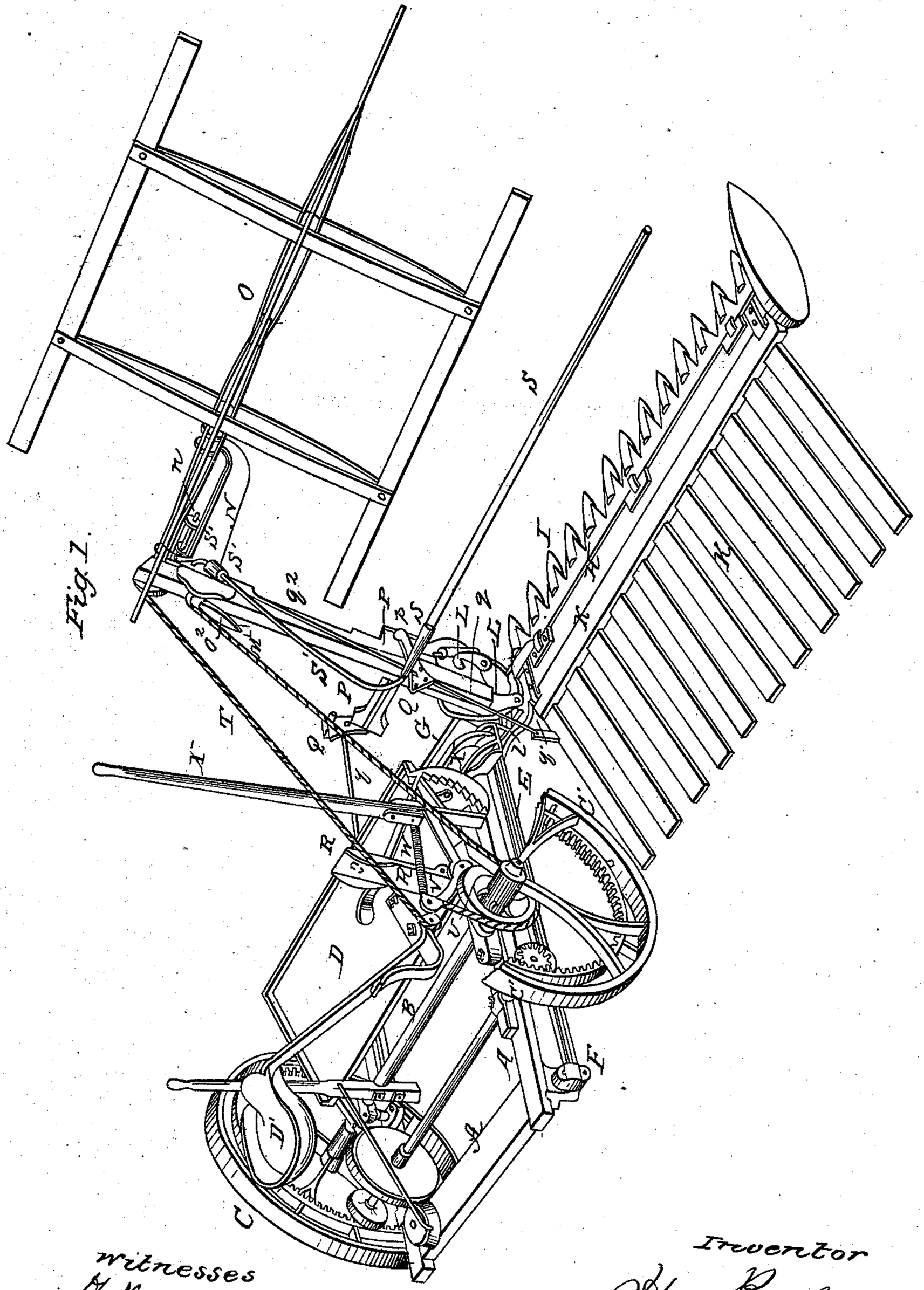

Fig. 1.

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HENRY BRACKETT, OF VALLEY FALLS, NEW YORK.

IMPROVEMENT IN DROPPERS FOR HARVESTERS.

Specification forming part of Letters Patent No. **89,733,** dated May 4, 1869.

To all whom it may concern:

Be it known that I, HENRY BRACKETT, of Valley Falls, Renssalaer county, State of New York, have invented certain new and useful Improvements in Droppers for Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective of a harvesting-machine embracing my improvements, taken from the rear grain side of the machine.

The novel features of this application relate chiefly to the construction and arrangement of the parts for operating the dropping or tilting platform and cut-off, and the other parts of the machine, except so far as they are requisite to a proper understanding of said improvements, need not therefore be described in detail.

My invention consists in mounting a rock-shaft for operating the dropping or dumping platform in an adjustable bracket or bearings on the single reel-post, and also in mounting the cut-off or its actuating-arm in bearings on the adjustable reel-shaft bracket, so that the cut-off and reel shall be simultaneously adjusted in adapting them to tall or short grain, as will be hereinafter set forth.

In the annexed drawing, A represents the main frame, suspended on a main axle, B, which is mounted on two independent driving and carrying wheels, C C′, the inner one of which, C′, is represented broken away, in part, for the purpose of showing other parts hereinafter described.

D is a seat and tongue plate or frame hinged to axle B; E, the main shoe, pivoted at its rear end in a swiveling box, F, attached to the rear end of the frame A; G, a hinged brace or coupling, connecting the forward end of shoe E flexibly with the front outer corner of frame A, and arranged in front of said frame. H is the finger-bar, connected with shoe E at a point in advance of the drive-wheels, and I the reciprocating knife or sickle-bar.

All the above parts may be of any desired or usual construction; and the arrangement of gearing for operating the cutters may be such as is represented in the drawing, or any other usual or known arrangement for that purpose.

K represents a dropping or dumping platform, which may also be made in any of usual well-known forms, and is intended to be attached to and drawn forward by the finger-bar.

L is an arching flanged standard, of irregular form, bolted or otherwise attached to the main shoe E through flanges or feet *l l′*, arranged the one in front and the other behind the finger and cutter bars, in such manner as to cause the standard to stride said bars.

M is the single reel-post, pivoted at its foot to standard L, and made adjustable thereon for setting the reel forward or back, as the character or condition of the grain may require.

N is an adjustable two-armed bracket, in bearings in the arms of which is mounted the shaft of reel O. Said bracket or support N is provided with flanges *o o*, which embrace the post M, and are connected at their outer edges by an eccentric, o^1, by the rotation and proper adjustment of which, by means of handle o^2, the bracket N may be clamped to and held at any desired height upon the reel-post M, or loosened for adjustment thereon, as required.

At a point intermediate between standard L and reel-bearer N is a second bracket or casting, P, also connected adjustably to the reel-post, and provided with bearings, in which is mounted a rock-shaft, *p*, provided at its ends with vibrating crank-arms Q Q′, both of which expand in width as they recede from the shaft, and are provided each with a number of perforations, for a purpose hereinafter set forth. The outer arm, Q, is connected by a rod or link, *q*, with a pivoted shoe-piece or treadle, R, arranged in convenient position to be operated by the foot of the driver occupying seat D′.

By varying the point of attachment of link or rod *q* with arm Q, through the perforations therein made for that purpose, the throw of shaft *p*, when operated by treadle R, may be varied as required. The arm Q′ of shaft *p* is intended to be connected, through adjustable link or rod q^1, with the dropping or dumping platform for operating the same. By adjusting the rod q^1 from one to another of the perforations in arm Q, the position and extent of movement of the platform may be varied to suit the crop to be operated upon.

The reel-bearer or bracket N is armed with perforated lugs *n n*, in which is mounted the

swinging arm S′ of the separating-rod or cut-off S. The rod S and arm S′ may be made continuous or in one piece, bent in form substantially as shown; or the arm S′ may be provided with a sleeve, *s*, in which the rod S may be inserted and secured in any proper manner. Arm S′ is provided, near its pivoted end, with an adjustable wrist or sleeve, *s′*, to which one end of a rod, q^2, is attached, the other end of said rod being adjustably connected with arm Q′ of rock-shaft *p*. The upper end of rod q^2 is flattened and provided with a number of perforations, which adapt it to permit the adjustment of the height of the cut-off arm and of the reel-support N, to which said arm is pivoted.

It will be seen from the foregoing that all the devices for operating the platform and cut-off, except the foot-lever and the end of link *q*, connected thereto, are supported by the single adjustable reel-post, and that the cut-off and platform, with the exception of the pivotal support of the latter, are also supported by said post, and in such manner as to freely allow the vertical or horizontal adjustment of the reel relative to the cutters, while, also, the position of the platform and cut-off relative to said cutters, and the extent of movement or throw of either the platform or cut-off, or both, may be readily adjusted to suit the varying conditions of the grain to be operated upon.

The operation of the several parts will be understood without further description.

The reel is driven by a band, T, from a pulley, U, on the main drive-wheel axle. A pivoted reel-guide standard, V, provided with guiding-pulleys *v v* to the reel-band, is connected, by a link or brace and coiled spring, W, with the lifting segment-lever X, or, if preferred, some fixed point on the main frame, and serves to keep the reel-band taut under all the varying positions of the hinged finger-bar and main shoe relative to the main axle, and also serves to permit the adjustment of the reel-post or reel-shaft on said post without requiring a change of the driving-belt.

The connection of the yielding brace *w* adjustably with the lifting-lever is, however, preferred, as adapting the reel-belt to the varying distance between the reel-shaft and its driving-pulley on the main axle consequent upon the raising or lowering of the cutters.

These, with other parts of the machine, are more fully set forth in other applications of even date herewith, and need not, therefore, be further described here.

Having now described my invention, what I claim as new under this application, and desire to secure by Letters Patent, is—

1. Mounting the rock-shaft, which supports the dropping or tilting-platform, and by means of which said platform and the cut-off are operated, upon the reel-post, substantially as described.

2. The adjustable bracket or bearer P, provided with bearings for the rock-shaft *p*, in combination with the reel-post, as set forth.

3. The single overhung reel-post, carrying the devices for operating the dropping or tilting platform and cut-off, in combination with the straddling standard L, substantially as described.

4. The treadle R, shaft *p*, and adjustable links $q\ q^1\ q^2$, for sustaining and operating the platform and cut-off, when arranged and operating substantially as described.

5. The single pivoted reel-post, in combination with the arched straddling standard L, arranged on the pivoted main shoe, in front of the inner drive-wheel, substantially as described.

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Witnesses:
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