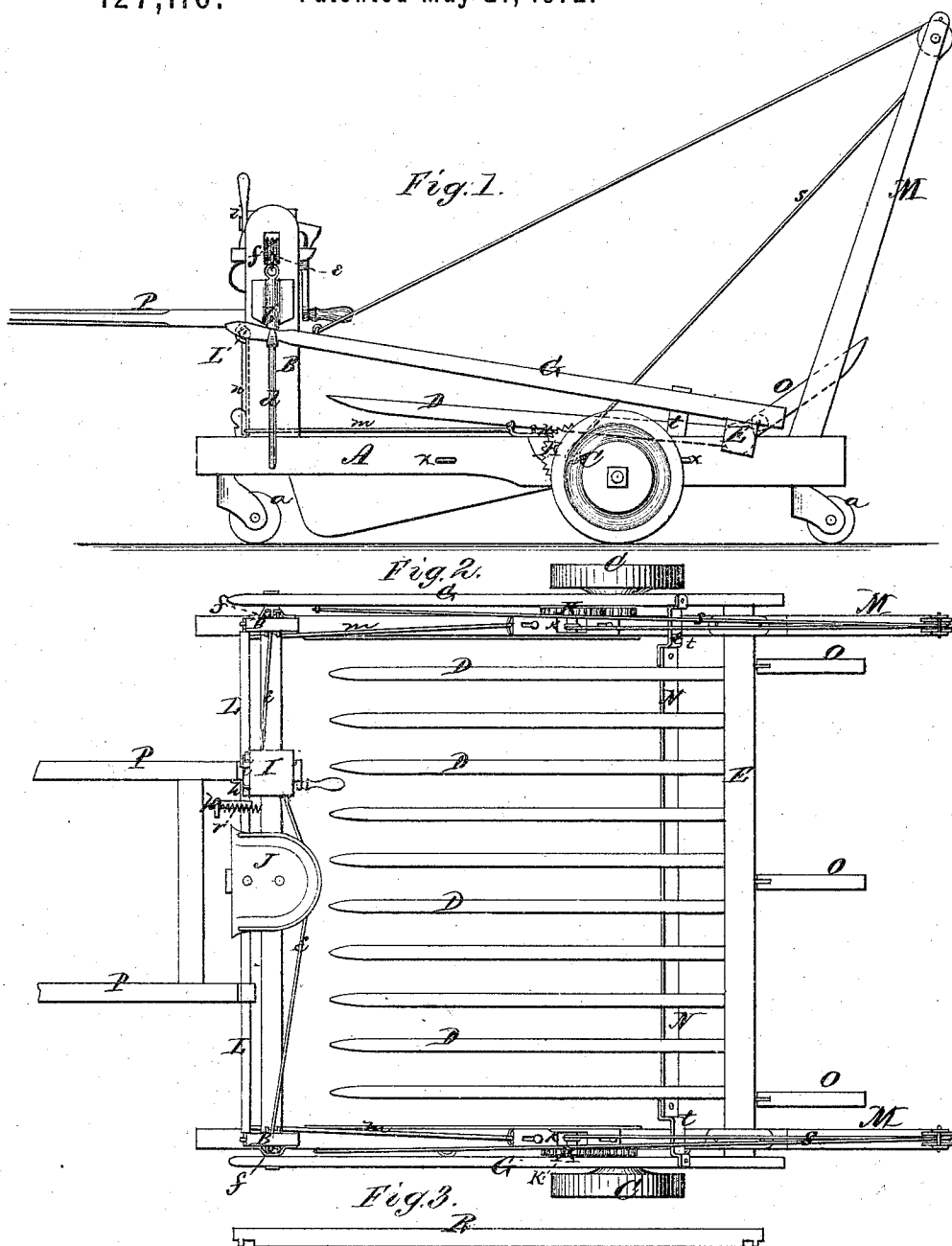


A. STREAN.
Improvement in Hay-Gatherers.
127,116. Patented May 21, 1872.



Witnesses
Jas. A. Ellis.
Wm. A. Ellis

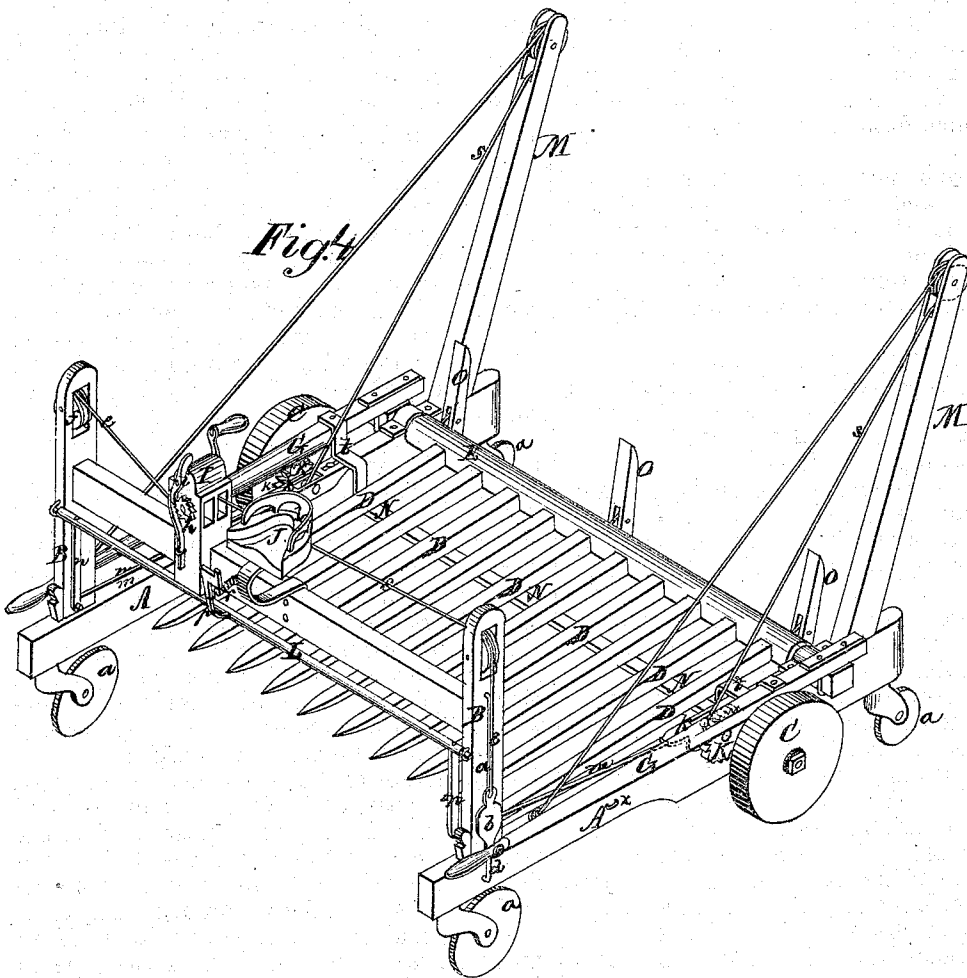
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A. STREAN.

Improvement in Hay-Gatherers.

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UNITED STATES PATENT OFFICE.

ALEXANDER STREAN, OF HARRODSBURG, INDIANA.

IMPROVEMENT IN HAY-GATHERERS.

Specification forming part of Letters Patent No. 127,116, dated May 21, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, ALEXANDER STREAN, of Harrodsburg, in the county of Monroe and State of Indiana, have invented certain new and useful Improvements in Hay-Gatherers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a "Hay Gatherer and Hauler," intended as an improvement upon a similar machine for which Letters Patent were granted to me June 6, 1871, and will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 represents a side elevation; and Fig. 2, a plan view; and Fig. 3, a side view of the cross-bar, hereinafter described; and Fig. 4 represents a perspective view of my hay-gatherer.

A A represent two parallel side beams, connected at their front ends by an upright frame, B, and supported both at their front and rear ends by caster-wheels *a a*. To the outer sides of these beams are also attached the driving-wheels C C. D E represent the rake, the head E of which is placed in suitable boxes on the rear ends of the side beams A A, and to each end of the same, outside of the side pieces, is attached a lever, G, which extends forward along the side of the front frame B, and rests upon a slide, *b*, moving up and down on a guide-rod, *d*, on the side of the frame B. A cord, *e*, is attached to each of the slides *b*, and passes over a pulley, *f*, in the top of the side pieces of the frame B and to a windlass, I, arranged on the frame along the side of the seat J. The windlass is provided with a ratchet-wheel, *h*, and spring hand-pawl *i*, and by means of this device the driver can raise the teeth D D up from the ground while going to or from the field, or whenever desired. To the inside of each driving-wheel C is attached a

cog-wheel, into which a similar wheel, K, is made to gear when desired to raise and unload the rake. The cog-wheel K is mounted in a box, *k*, which slides in a recess in the side piece A, and has a rod, *m*, attached to it. This rod runs along the top of the side piece, and is attached to an arm, *n*, extending downward from a shaft, L, in the frame B. To this shaft is attached a foot-lever, *p*, by which the driver can at any time throw the wheels K in gear. A spring, *r*, attached to the foot-lever *p*, throws them out of gear again. To the shaft of each wheel K, within the box *k*, is attached a cord, *s*, which passes around a pulley in the upper end of a standard, M, placed on the extreme rear end of the side piece A. From this pulley the cord passes forward and is attached to the front end of the lever G. Each of these levers is, by a bent bar, *t*, connected with the end of a bar, N, running under and supporting the teeth D D. By these means the driver can at any time, with the mere pressure of his foot, raise the rake-teeth perpendicularly and unload the rake. To the rear side of the rake-head E are pivoted standards O O, which prevent the hay from falling off; and when the rake is raised they give or yield so that the rake will be unloaded. P P are the shafts attached to the frame B for hitching the horse to the hay-gatherer. On the left side of the machine are staples *x x* to attach the team to when moving the machine from place to place, and in this case the driving-wheels C C are taken off. This machine may be used to haul stacks by hitching the team to the rear end or to the rake-head. When used for this purpose the stack is built on posts and rails passing from post to post, so that the teeth can pass between the posts. The machine is backed under and the ends of the teeth raised so that the weight of the hay rests on them, and then a cross-bar, R, is placed under the teeth and resting on the side pieces A A. The front frame B is made higher for this purpose; and, if not high enough, it can be removed entirely, the machine being drawn from the hind end.

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

1. The arrangement of the side beams A A, front frame B, rake D E, and driving-wheels

C C on the side beams, substantially as shown and described.

2. The combination of the rake D E, levers G G, slides *b b*, cords *c c*, windlass I, and ratchet *h* with pawl *i*, all constructed and arranged substantially as and for the purposes herein set forth.

3. The combination of the cog-wheels K, sliding boxes *k*, rods *m*, arms *n*, shaft L, and foot-lever *p* with spring *r*, all constructed and arranged substantially as and for the purposes herein set forth.

4. The combination of the wheel K with its shaft within the sliding box *k*, cord *s*, standard M, lever G, and rake D E, all constructed and arranged substantially as and for the purposes herein set forth.

5. The combination of the levers G G, connecting-bars *t t*, and bar N under the rake-teeth, substantially as and for the purposes herein set forth.

6. The standards or posts O O pivoted or hinged to the rake-head E, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ALEXANDER STREAN.

Witnesses:

DAVID H. DE BORD,
R. W. CARR.