D. G. HUSSEY.

Horse Rake.

No. 48,179. Patented June 13, 1865.

Fig. 1,

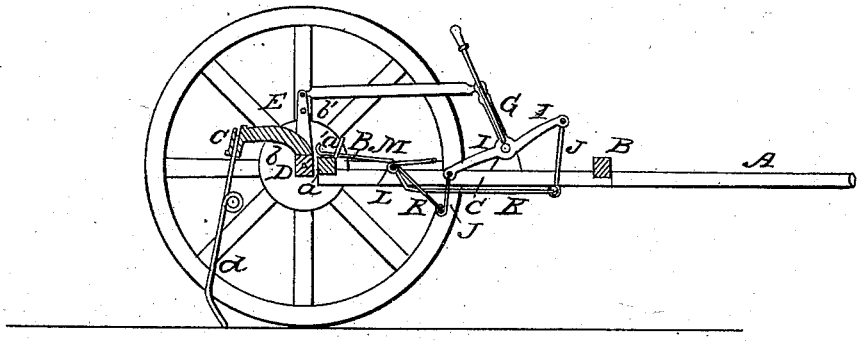


Fig. 2,

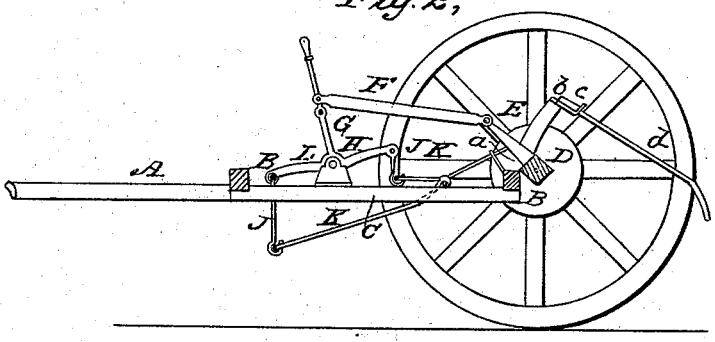
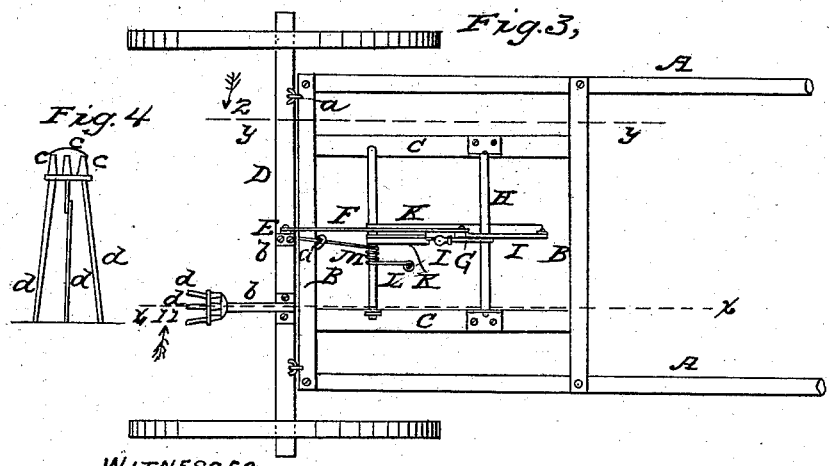


Fig. 3,

Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

DAVID G. HUSSEY, OF NANTUCKET, MASSACHUSETTS.

IMPROVEMENT IN HORSE-RAKES.

Specification forming part of Letters Patent No. **48,179**, dated June 13, 1865.

To all whom it may concern:

Be it known that I, D. G. HUSSEY, of Nantucket, in the county of Nantucket and State of Massachusetts, have invented a new and Improved Hay-Rake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 3, and looking in the direction indicated by arrow 1; Fig. 2, a side sectional view of the same, taken in the line *y y*, Fig. 3, and looking in the direction indicated by arrow 2; Fig. 3, a plan or top view of the same; Fig. 4, a detached rear view of one of the rake-heads.

Similar letters of reference indicate like parts.

This invention relates to a new and improved mode of forming or constructing the rake-heads.

The advantages pertaining to the invention will be fully described hereinafter.

A A represent two thills, which are connected by cross-bars B B, the latter having two longitudinal parallel bars, C C, attached to them, said bars B C constituting the frame of the machine, which is mounted on wheels.

D represents the rake-head, which is attached by hinges *a a* to the rear cross-bar, B, and which forms the axle of the machine. This rake-head has a series of curved arms, *b*, attached to it at suitable and equal distances apart. The shape of these arms is shown clearly in Figs. 1 and 2, and they are provided with sockets *c*, (three, more or less,) which receive the ends of the teeth *d*, the latter being secured in the former by brazing or any other proper means. The main portions of the teeth *d* are straight, their lower parts only being bent, the curved arms *b* causing the teeth to have a proper position for raking up a load. By this arrangement I am enabled to temper the teeth properly, so that they will be durable.

The ordinary curved-wire rake-teeth, in consequence of requiring to be bent or curved, cannot be tempered before bending, and they cannot be evenly tempered when bent, it being very difficult to temper a curved wire or rod in a proper manner. In case of the breaking of a tooth a new one may be applied without any difficulty.

Only one arm *b*, with its teeth *d*, is shown in the drawings, that being sufficient, as they are all precisely alike.

The rake-head D has a standard, E, attached to it, and the upper end of the latter is connected by a rod, F, with a lever, G, attached to a rock-shaft, H, the bearings of which are on the longitudinal bars C C. The rock-shaft H has two arms, I I, projecting from it at opposite sides of its axis, and about at right angles with the lever G. The ends of these arms I I are connected by links J J with the front ends of treadles K K, the rear ends of which are fitted on a shaft, L, attached to the bars C C. By this arrangement of lever and treadles, in connection with the standard E and connecting-rod F, it will be seen that the rake-head D may be adjusted or operated so as to keep the rake-teeth in a proper position to perform their work (see Fig. 1) and also elevated, so that they may discharge their load, (see Fig. 2,) and it will also be seen that the power of the feet and hand may be employed to effect this result, if necessary, the hand grasping the lever G. The driver, therefore, will have perfect control over the rake at all times or under any circumstances, the seat being placed on the machine so that the driver will be within convenient reach of lever G.

M represents a rod fitted on the shaft L, and having a hook, *a'*, at its rear end to catch over a pin, *b'*, on standard E. This rod and hook serve as a catch or fastening to hold the rake-teeth in an elevated position when the same are not required to be in contact with the ground—as, for instance, in drawing or transporting the device from place to place, turning in the field, &c.

I do not confine myself to the precise arrangement of the treadle and lever as herein described, for said parts may be differently disposed and the same end attained.

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

The curved arms *b*, provided with two or more sockets, *c*, and teeth *d* inserted therein, substantially as described.

DAVID G. HUSSEY.

Witnesses:

ALLEN SMITH,

CHAS. H. BAILEY.