

## Improvement in Hay Tedders.

No. 120,626.

Patented Nov. 7, 1871.

Fig. 2.

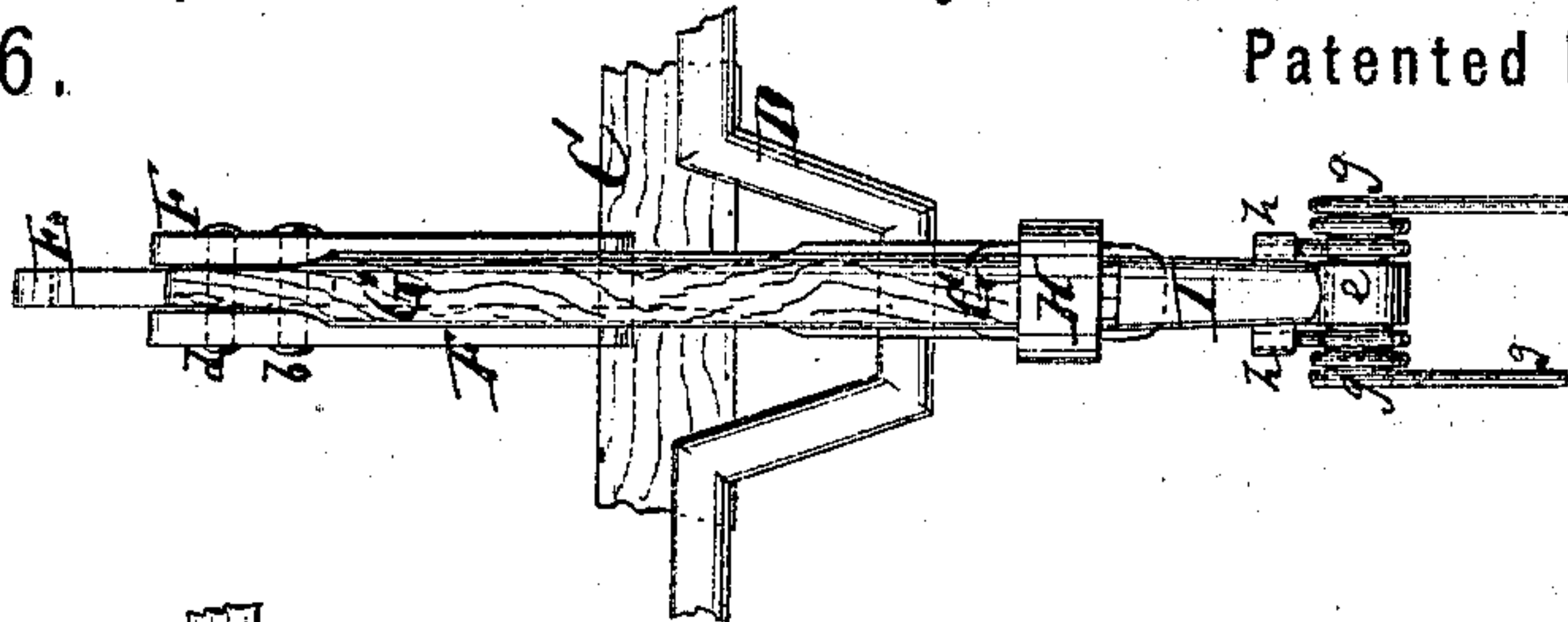
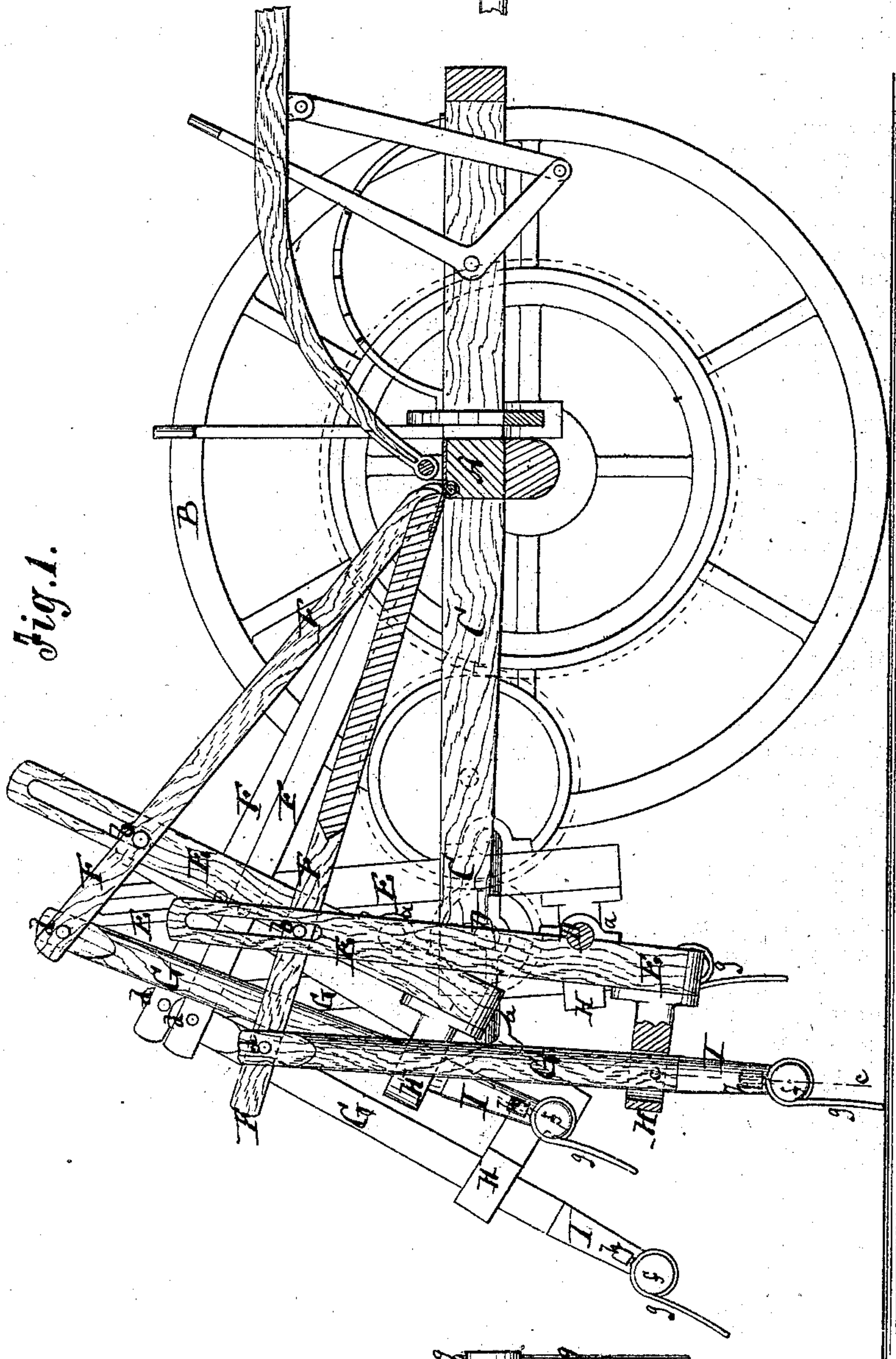
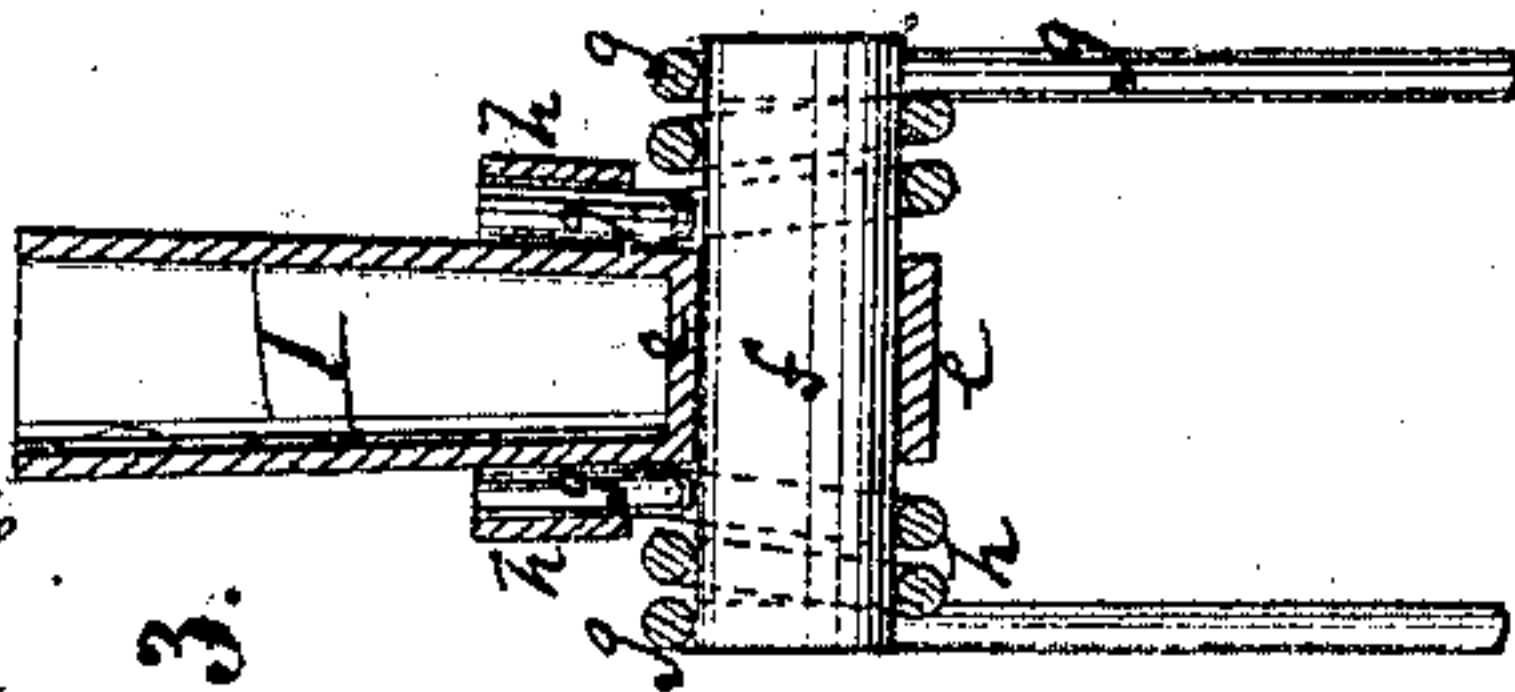


Fig. 1.



*Fig. 3.*



**Witnesses:**

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# UNITED STATES PATENT OFFICE.

JOHN K. COLLINS, OF HARTFORD, VERMONT.

## IMPROVEMENT IN HAY-TEDDERS.

Specification forming part of Letters Patent No. 120,626, dated November 7, 1871.

*To all whom it may concern:*

Be it known that I, JOHN K. COLLINS, of Hartford, in the county of Windsor and State of Vermont, have invented a new and Improved Hay-Tedder; 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 drawing forming part of this specification.

Figure 1 represents a side elevation, partly in section, of my improved hay-tedder. Fig. 2 is a detail back view of one of the forks and its shank. Fig. 3 is a detail transverse section of the ferrule which holds the fork, the line *c c*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate corresponding parts.

This invention relates to a new manner of hanging the forks of a hay-tedder, and is an improvement upon the patent granted me, October 12, 1869, No. 95,656. My invention consists in the improvement hereinafter fully described and subsequently pointed out in the claim.

A in the drawing represents the axle or cross-beam of the hay-tedder, supported by wheels B and made part of a frame, C, in which are the bearings of a crank-shaft, D, operating the forks. Rotary motion is transmitted by one or both of the wheels B to the shaft D by gearing chain or other means. The cranks of the shaft D pass through journals *a* which are affixed to the lower parts of rods E E. The upper end of each rod E is slotted and connected with a pin, *b*, which is

held in the forked end of a lever, F, hinged to the axle A or other part of the frame C. From the front end of the lever F is suspended, by a pin, *d*, the shank G of the fork. The lower part of the shank passes through a tubular guide, H, that projects from the rod E, as shown. The crank in revolving causes the rod E to vibrate on the pin *b*, and to impart, by means of the connection H, the same motion to the fork G. But the latter being pivoted to the lever F can play freely up and down by swinging on the hinge of the same, in which case the pin *b* will change its position accordingly, in the slot of the rod E. Thus the fork is made self-adjusting to the formation of, and made to drop in actual contact with, the ground, to be most effective in operation. To the lower end of each shank G is secured a ferrule, I, which carries at its lower end a transverse tube, *e*. Through this tube is fitted a short rod, *f*, around the ends of which the wires *g* constituting the tines of the fork, are wound. The upper ends of these wires are secured in small tubular sockets *h h* that project from the sides of the ferrule.

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

The pivoted tine-shanks G, the pivoted levers F having pins *b d*, and the rods E having tubular guides H at one end and elongated slots at the other, constructed and combined together in a hay-tedder, as and for the purpose specified.

Witnesses:

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