

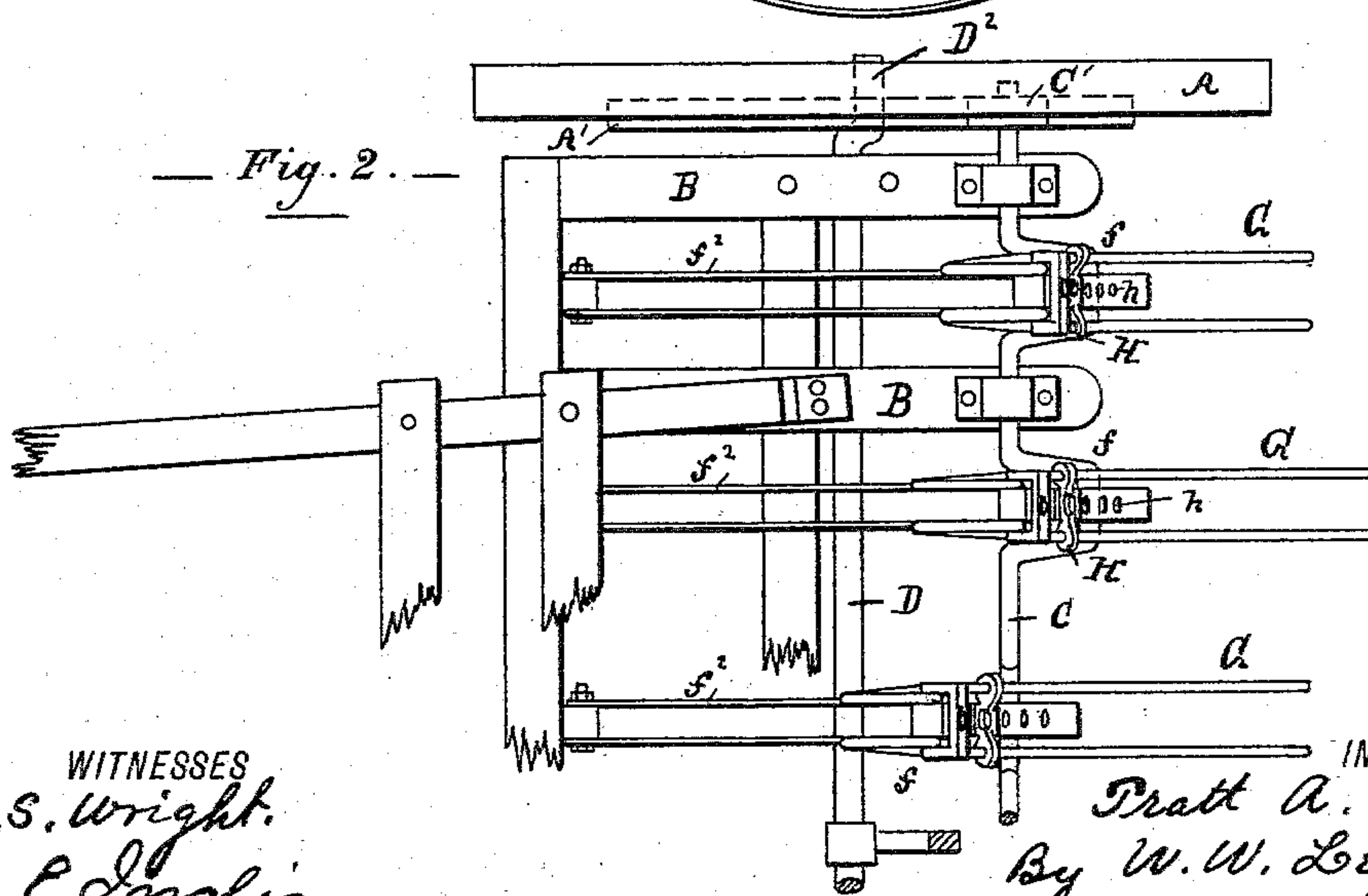
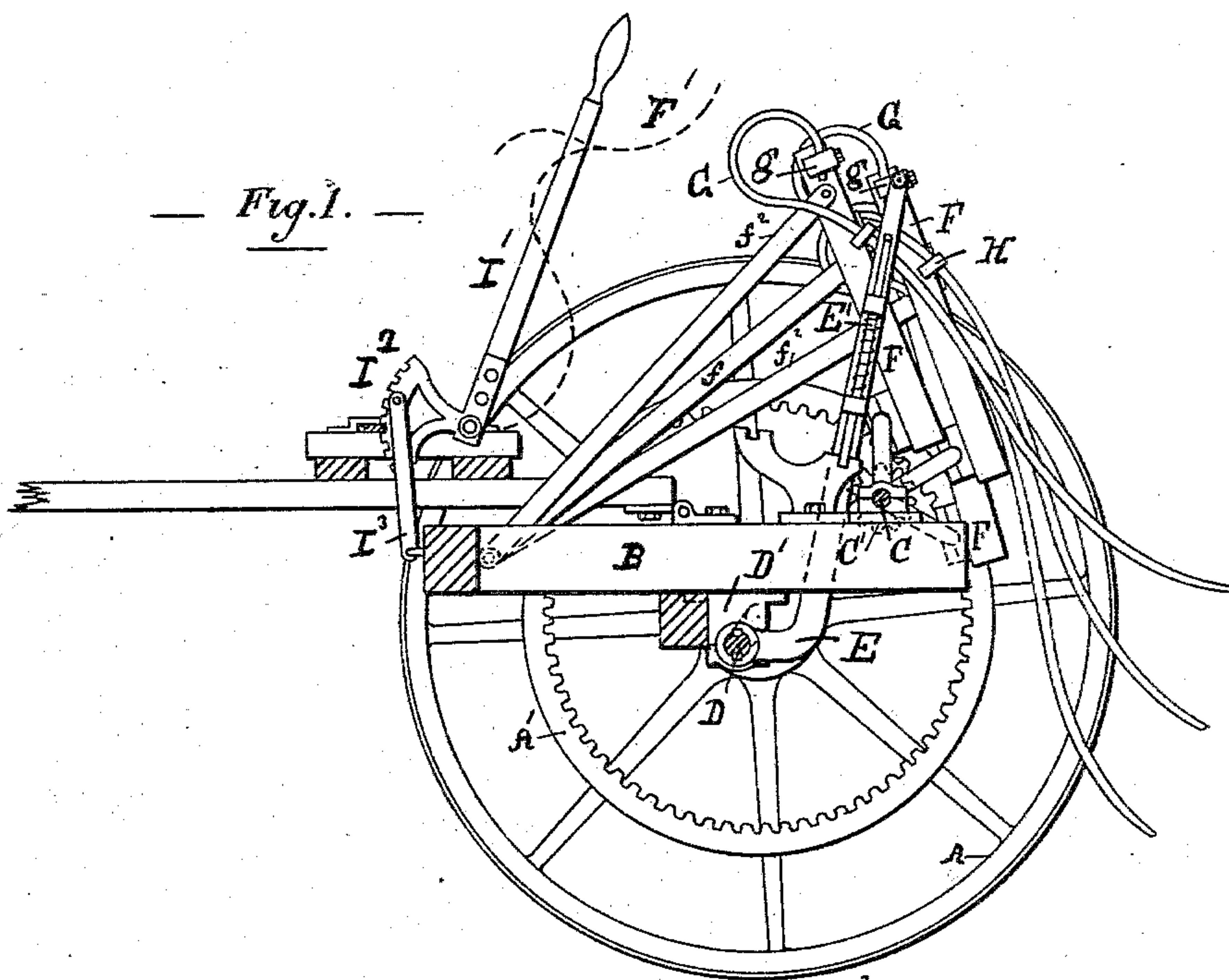
(No Model.)

P. A. SPICER.

HAY TEDDER.

No. 280,873.

Patented July 10, 1883.



WITNESSES
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PRATT A. SPICER, OF MARSHALL, MICHIGAN.

HAY-TEDDER.

SPECIFICATION forming part of Letters Patent No. 280,873, dated July 10, 1883.

Application filed February 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, PRATT A. SPICER, of Marshall, county of Calhoun, State of Michigan, have invented a new and useful Improvement in Hay-Tedders; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to that class of hay-tedders in which the supporting-wheels are provided with cogs that operate pinions on a shaft carrying the tedder-teeth, such pinions being capable of adjustment toward and from the cogs for the purpose of throwing them into and out of action, thereby causing the tedder-teeth to operate or remain stationary, as occasion requires.

The object of my invention is to provide a novel construction and combination of parts, whereby the tedder-teeth can be thrown into and out of action; and the invention has other objects, which will be hereinafter explained.

In the accompanying drawings, illustrating my invention, Figure 1 is a longitudinal section of a hay-tedder embodying my invention, and Fig. 2 is a broken top plan view of the same.

Referring to the drawings, the letter A indicates the supporting-wheels; B, the main frame; C, the shaft which drives the tedder-teeth; C', the pinions at the ends of this shaft, there being preferably one at each end of the shaft, said shaft preferably made in two parts meeting at the middle.

A' represents the annular cogged wheel, either fastened to or made upon the face of the wheel A, and adapted to mesh with the pinion C'. The shaft C is fastened rigidly to the frame B.

D is the axle. It is fastened rigidly to the frame by suitable attachments, D'. Its ends D² are bent into the form of a crank, so that the skein or journal for receiving the hub of the wheel is carried out to the side, as shown in the drawings.

E is an end lever, provided with a suitable thumb-latch, E'. This lever is rigidly keyed or otherwise secured to the shaft D, so that by forcing the lever forward or backward it will

turn the axle or shaft D with it. It is now apparent, by inspection of the drawings, that as this lever is forced forward the hub of the main wheel and the pinions C' are caused to recede from each other, and so the pinion is engaged with the cogs A', and the teeth will then operate upon the hay as the machine is drawn forward. If the lever is forced backward to the position shown in Fig. 1, these centers may be caused to approach each other, and so throw the teeth out of gear and out of action.

F represents the arm which supports the tedder-teeth, which arm, at its lower end, is engaged at *f* to its crank upon the tedder-shaft, while its upper end is connected by links *f*² to the forward-portion of the frame.

G is the tedder-tooth. It is suitably secured by a clip, *g*, to the upper end of the arm F. The tooth is curved into the form substantially as shown in Fig. 1, and passes loosely through the eyes in a block, H, for this purpose. There is therefore no danger of deranging either the tooth itself, the arm F, or its attachment to the crank upon the shaft C. The block H is made preferably so as to provide for the adjustment up and down upon an arm, F. This is accomplished, as shown in Fig. 2, by a series of adjusting-holes, *h*. The object of this adjustment of the block up and down the arm F is to set the tooth, so that when it strikes the ground it will strike at a point either farther forward or farther backward, as the case may be, so as readily to attach the machine for working a heavy or a light crop of hay.

I' represents the lever, a segment, I² the latch, and I³ a link connected at one end with the segment and at the other end with the frame B. This serves as a means for lifting the tooth, so as not to touch the ground when the machine is being transported from place to place.

F' represents the location of the seat. The tedder-teeth are arranged in pairs in the usual manner. The arms F, it will be observed, have their lower ends terminating at the crank-shaft C, and their upper ends are connected by links with the frame, as before described. This feature of terminating the arms at the crank, instead of causing them to project well below the cranks, as is customary, is a valuable feature of my improvements, for there is less liability of fouling with hay or of striking obstructions over which the implement may be drawn.

It will be observed that the tedder-teeth are very long, and extend from the ground upward to the upper end of the supporting-arms F, and are there curved into the form of a loop. This 5 gives a very wide range of flexibility to the tooth, and enables it not only to operate easily and yieldingly, but gives it a wider range of elasticity in throwing the hay, thus causing the machine to operate more easily and steadily 10 and without so great wear upon its working parts.

What I claim is—

1. The combination, in a hay-tedder, of an axle having at each end a crank, on which 15 cranks are mounted supporting-wheels provided with a cogged ring, a single lever rigidly fixed to the axle, a shaft having a series of cranks and a pinion at one end to engage and disengage the cogged ring, and tedder-teeth 20 connected with the cranks of the shaft and having a pivotal connection by means of links with the main frame of the machine, substantially as described.

2. The combination, in a hay-tedder, of the 25 crank-shaft, the arms secured at their lower ends to the cranks of said shaft, and the tedder-teeth connected with the arms at their upper ends and at points between their ends, substantially as described.

3. The combination of the axle having a 30 crank at each end, on which cranks are mounted supporting-wheels provided with a cogged ring, a single lever rigidly fixed to the axle, a crank-shaft in rear of the axle, having a pinion for engaging and disengaging the cogged 35 ring, rigid arms secured at their lower ends to the cranks of the said shaft, links connecting the upper portions of the arms with the main

frame, and tedder-teeth secured to and carried by the said rigid arms, substantially as described. 40

4. The combination, in a hay-tedder, of the crank-shaft, the arms secured at their lower ends to the cranks of the said shaft, and the tedder-teeth attached to the said arms, and hav- 45 ing their upper ends bent into the form of a loop and secured by a clip to the upper end of the arms carried by the crank-shaft, substantially as shown and described.

5. The combination of the rotating cranked 50 shaft, the arms secured to the cranks of the said shaft and having their upper ends connected with the forward portion of the main frame, the tedder-teeth having their upper ends secured to the top portions of the arms, 55 and the blocks H, attached to the said arms, and having eyes through which the tedder-teeth extend and are adapted to slide, substantially as and for the purpose described.

6. The combination, in a hay-tedder, of the 60 shaft having cranks, the arms secured to the cranks of said shaft and having their upper ends connected with the main frame, the tedder-teeth having their upper ends secured to the top portions of the arms, and the blocks 65 H, adjustable up and down on said arms, and having eyes through which the tedder-teeth extend and are adapted to slide, and means for holding the blocks in their adjusted position, substantially as described. 70

In testimony whereof I sign this specification in the presence of two witnesses.

PRATT A. SPICER.

Witnesses:

GEO. S. WRIGHT,
N. J. FRINK.