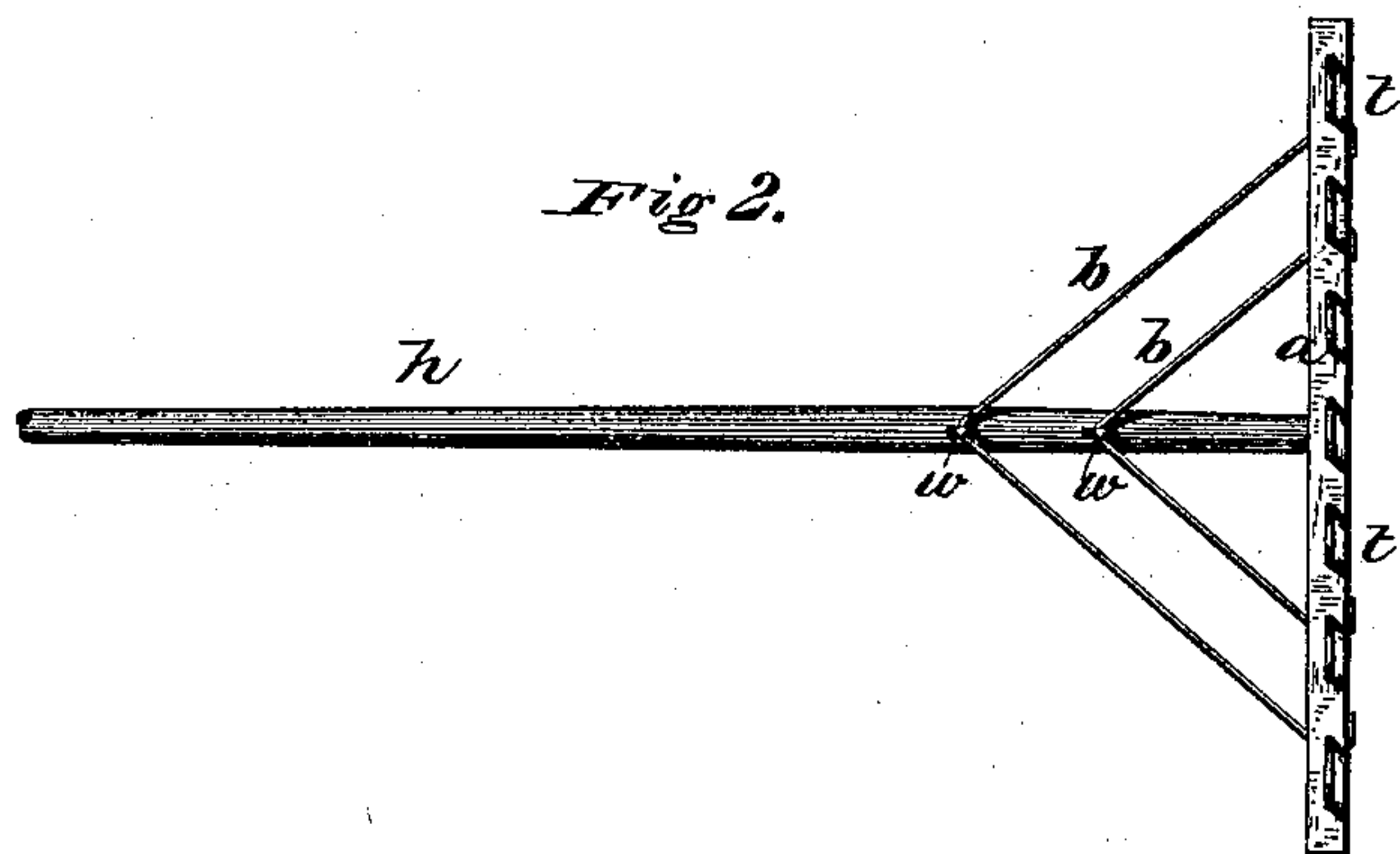
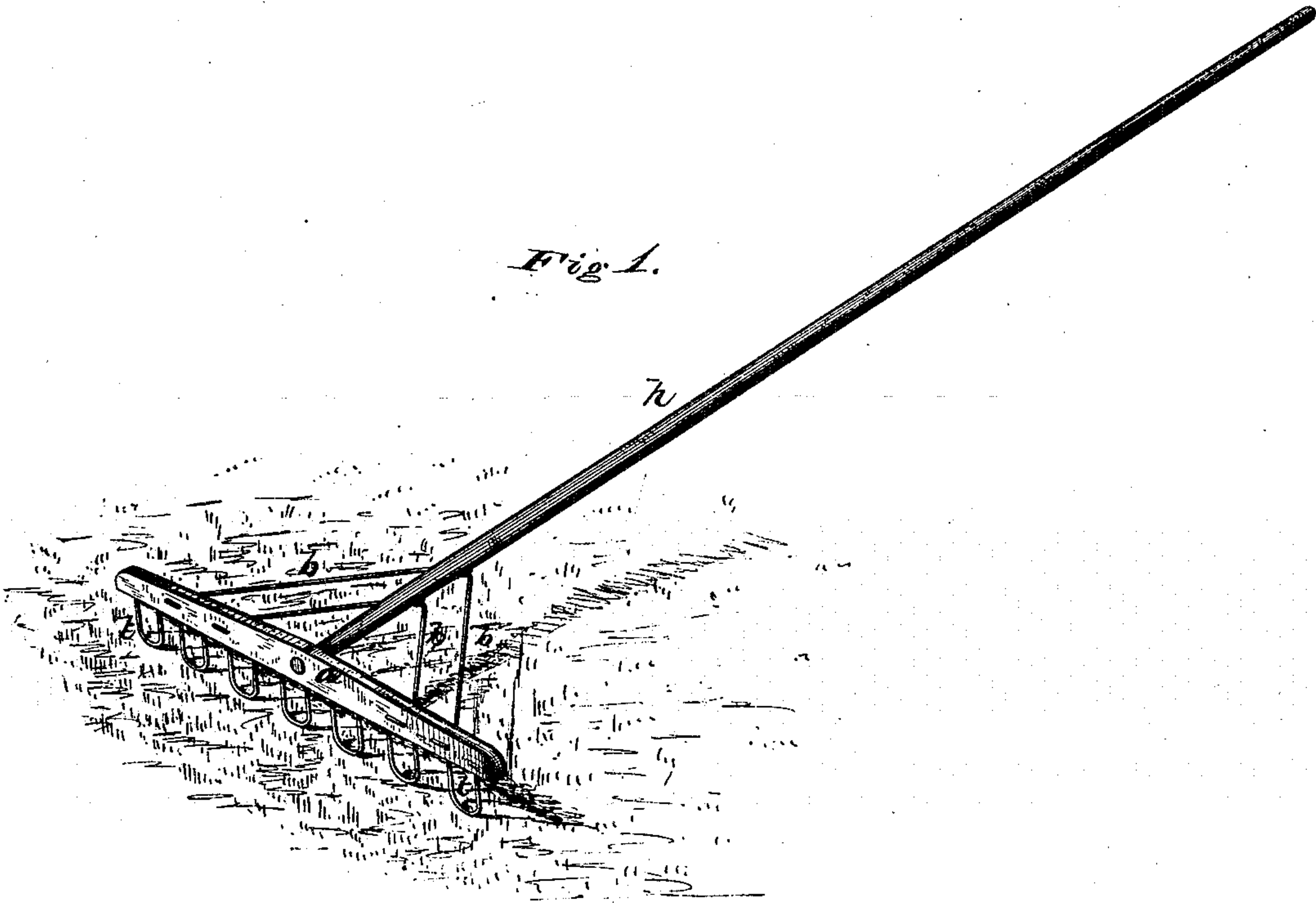


D. J. STARRETT.  
Hand Hay-Rake.

No. 201,365.

Patented March 19, 1878.



*Witnesses.*

*Harry King*  
*F. McKenny.*

*Inventor.*

*David J. Starrett.*  
*By Hill & Ellsworth*  
*His Atty.*

# UNITED STATES PATENT OFFICE.

DAVID J. STARRETT, OF THOMASTON, MAINE.

## IMPROVEMENT IN HAND HAY-RAKES.

Specification forming part of Letters Patent No. **201,365**, dated March 19, 1878; application filed August 17, 1877.

### *To all whom it may concern:*

Be it known that I, DAVID J. STARRETT, of Thomaston, in the county of Knox and State of Maine, have invented a new and useful Hand Hay-Rake; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 a plan from the under side.

Similar letters of reference in the accompanying drawings denote the same parts.

This invention is an improvement upon the ordinary hand hay-rake; and consists in a new mode of constructing and applying the teeth, substantially as I will now proceed to set forth.

In the drawings, *a* is the rake-head, and *h* the handle. *t t* are metal teeth, constructed in the form of short staples, the legs of which are at such distance apart that when the teeth are inserted in the rake-head, the distance from one staple to another will be substantially equal to the distance between the two legs of any one staple, thereby spacing all the teeth properly for their work.

The points of the teeth may be sharpened and driven into the rake-head, or they may pass entirely through and be bent down on the back of the rake-head to secure them thereto.

The bows *b b* are of metal. They are secured

to the handle by means of wire staples *w*, or other equivalent fastening, and to the head, preferably, by passing their ends through it and bending them against its front side, as shown. Extending in a straight line from the staples to the points of attachment to the head, they brace the latter more firmly, while they are stronger and cheaper than the old-fashioned wooden bows.

This construction of the teeth and bows is one which greatly reduces the machinery necessary for the manufacture of hand-rakes, and correspondingly cheapens their cost.

The rakes have been thoroughly tried by actual work in the field, and have given the most satisfactory results.

While the peculiar form of teeth herein described is especially adapted to hand-rakes, it is, obviously, also applicable to horse hay-rakes, harrows, and to other devices employing teeth for raking purposes.

I claim as my invention—

A hay-rake having metal teeth, constructed in the form of staples, the space between the two legs of each staple being substantially the same as the space between two proximate staples.

D. J. STARRETT.

Witnesses:

J. C. LEVEMALER,  
S. P. SWETT.