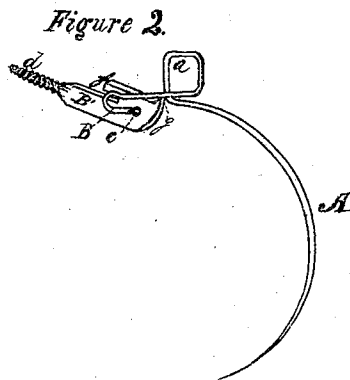
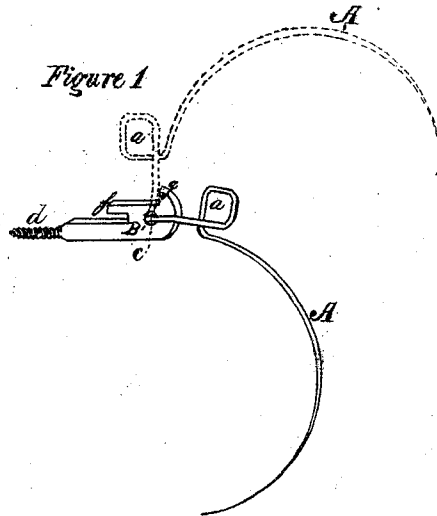


GEORGE NOTMAN.

Improvement in Attaching Teeth to Horse Hay-Rakes.

117,917.

Patented August 8, 1871.



Witnesses:

Parker & Sweet, Jr.  
W. Peyton

Inventor:

George Notman.  
By James L. Norris,  
his Attorney  
Washington, D. C.

# UNITED STATES PATENT OFFICE.

GEORGE NOTMAN, OF DEERFIELD, OHIO.

## IMPROVEMENT IN HAY-RAKES.

Specification forming part of Letters Patent No. 117,917, dated August 8, 1871.

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

Be it known that I, GEORGE NOTMAN, of Deerfield, in the county of Portage and State of Ohio, have invented a new and useful Improvement in Attaching Teeth to Horse Hay-Rakes; and I do hereby declare the following to be a clear and exact description thereof, sufficient to enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing making part of this specification.

The nature of my invention relates to the ready attachment of rake-teeth and their bearings.

To enable those skilled in the art to which my invention relates the better to understand the parts which I deem new and useful, I will proceed to describe its construction and operation, reference being had to the accompanying drawing.

Figure 1 is a perspective view of my improvement, showing the rake-tooth in position, also showing in dotted lines the relative position of the tooth when in the act of being inserted in or detached from its bearing. Fig. 2 shows a detached view of the improved parts.

A represents an ordinary steel-wire rake-tooth, bent in the usual semicircular form. The end B of this tooth I bend or turn in the manner of a hook, having the bent or hooked arm parallel with the body of the tooth, and projecting at a right angle from the plane of the same. It is important that the arm of the hook should be brought parallel with the body of the tooth, so that when in its bearing it may fit snugly against the sides of the bearing-plate, and thereby preventing its movement sidewise. If deemed necessary, the body of the hook may be slightly bent or turned upward at an angle from its plane,

thereby preventing a tendency to turn sidewise in its bearings. At *a*, near its bearing, the tooth is given a complete turn, forming a circle or other suitably-formed opening above and in the same plane with the body of the tooth. Through this opening the bar is placed by which the teeth of the rake are raised or lowered at the will of the operator. B' is a flat metallic plate, having a circular opening at *c* through which the tooth is hooked, and forming a bearing therefor. The lower part of one end of B' is prolonged, forming a shank, *d*, which passes through the axle-tree of the wheeled rake, and is secured on the opposite side by a nut. *f* is a prong or projection from the plate B', above the shank *d*, which is also inserted in the axle-tree, and prevents the plate B' from turning. At the front and upper corner of plate B' is formed the shoulder *g*.

To affix the tooth to the rake, first bring the body of it in line with the axle-tree with the hook downward, the point of which insert in the bearing. Now carry the tooth directly upward until it is perpendicular to the axle-tree, and the hook will find its proper place. The plate B' may now be let down past the shoulder *g*.

To disengage the tooth from the rake, reverse the preceding order.

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

The bearing-plate B' formed with the shank *d*, prong *f*, and opening *c*, in combination with the rake-tooth, constructed as described, and for the purpose set forth.

GEORGE NOTMAN.

Witnesses:

JOHN H. HOFFMAN,  
GEORGE SHILLIDAY.