

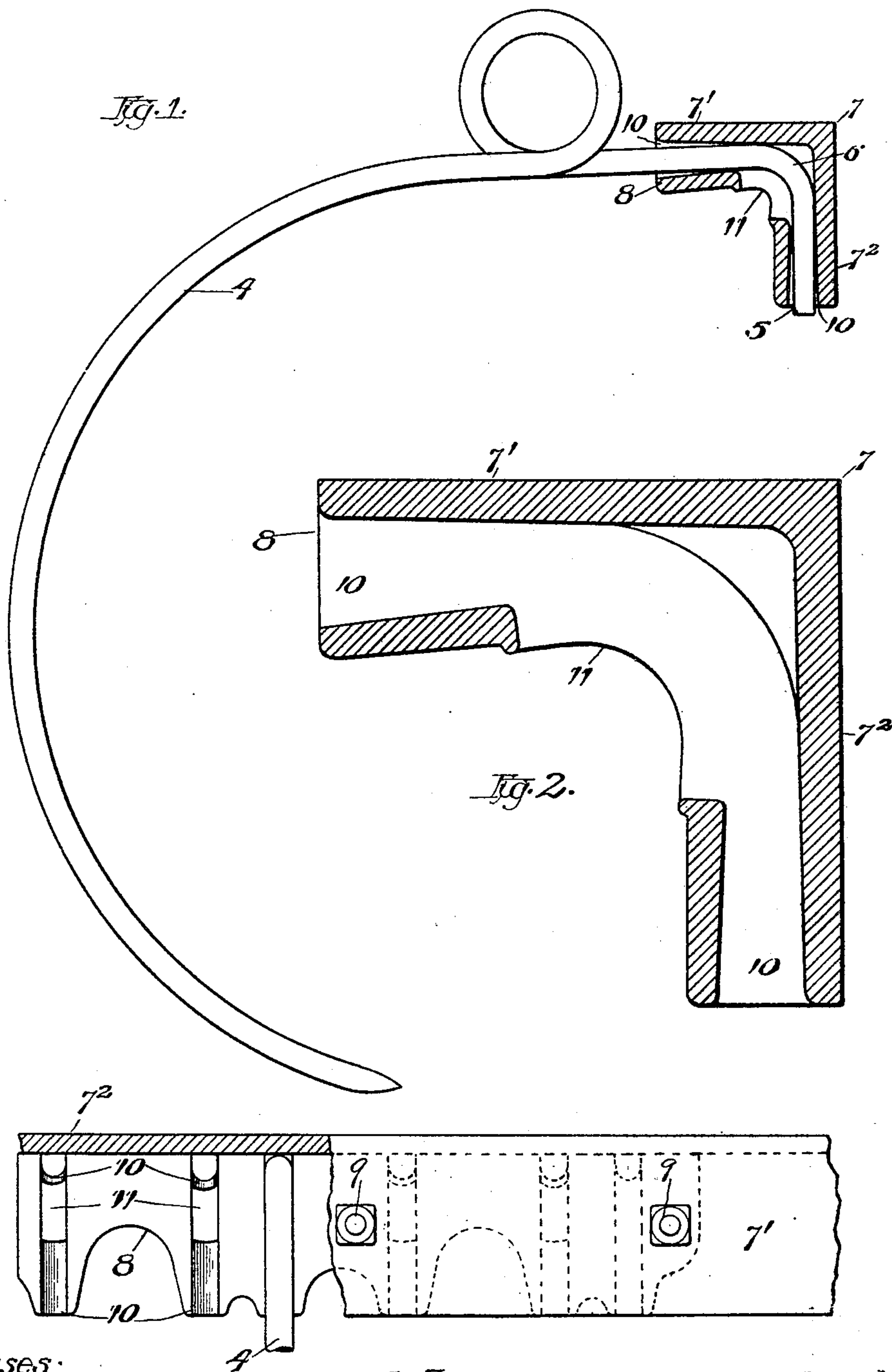
No. 795,335.

PATENTED JULY 25, 1905.

E. W. BURGESS.

HAY RAKE.

APPLICATION FILED MAY 29, 1905.



Witnesses:

F. W. Hoffmeister

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Fig. 3.

Inventor.

E. W. Burgess

# UNITED STATES PATENT OFFICE.

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## HAY-RAKE.

No. 795,335.

Specification of Letters Patent.

Patented July 25, 1905.

Application filed May 29, 1905. Serial No. 262,764.

*To all whom it may concern:*

Be it known that I, EDWARD W. BURGESS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hay-Rakes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to hay-rakes, and particularly to an improved holder for the rake-teeth which is designed to secure a tooth to the rake-head, the tooth having its end bent at substantially right angles with the body portion, in line therewith, and having the two portions joined by a curved portion of any desired radius, the object of the invention being to improve the well-known form of holder in which the tooth is secured to the rake-head by means engaging the curved portion thereof by cutting away the curved contacting portion of the holder, and thus eliminate the friction between the teeth and holders at those points and provide a freedom of movement of the tooth whereby it may float upon the surface of the ground more freely. These objects are obtained by the mechanism illustrated by the drawings accompanying this application, in which—

Figure 1 represents a rake-tooth and a cross-section of a rake-head and holder. Fig. 2 represents a detached view of a tooth-holder and rake-head in section, the scale being enlarged. Fig. 3 represents a part of the rake-head and a holder designed to hold several teeth in connection therewith.

The same reference-numerals represent like parts throughout the various views.

4 is a rake-tooth having a common form throughout its body portion and having one end 5 bent at substantially right angles with the body portion and in the same plane therewith and the two portions joined by a curved portion 6, having any desired radius.

7 is an angle-steel rake-head having horizontal and vertical web portions 7' and 7<sup>2</sup>, respectively, and 8 a tooth-holder having the same angular form and designed to secure a series of teeth to the head by being secured thereto by means of the bolts 9. The holders

are preferably formed with tooth-receiving grooves 10 in their oppositely-disposed webs, adapted to receive either a series of three or four teeth, as shown in Fig. 3, as it is sometimes desirable to have a greater or less number of teeth in a given length of head. The grooves or seats 10 in the holders are not continuous from one side of the holders to the other, but have a central opening 11 in their bottoms, that extends entirely through the body portion of the holder opposite the curved portion of the tooth in a manner to leave the tooth unsupported at that part excepting at its sides. The tooth is held by means of the holder contacting with the straight or angular portions only, as shown in Fig. 1. The benefits flowing from this construction are the freedom of movement to a limited extent of the tooth relative to the holder, a cheaper holder, and one in which all tendency of the tooth to "bind" in the groove is avoided.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a hay-rake, the combination of a rake-head comprising two web portions at an angle one with the other, a tooth comprising an end portion bent at an angle relatively to and in the same plane as the body portion, said angle being approximately equal to the angle between the web portions of the head, and a tooth-holder secured to the head within its angle and engaging with said two portions of the tooth at opposite ends of the bent portion and not engaging therewith.

2. In a hay-rake, the combination of a rake-head, a tooth comprising an end portion bent at an angle relatively to and in the same plane as the body portion, a tooth-holder secured to the head and provided with a groove in which said tooth portions are seated, said groove engaging with the angular portions only for securing the same to the head.

3. In a hay-rake, the combination of a rake-head, a tooth comprising an end portion bent at an angle relatively to and in the same plane as the body portion, a tooth-holder secured to the head and provided with a groove in which said tooth portions are seated, said groove having an opening through its bottom wall between said portions.



4. In a hay-rake, the combination of a rake-head, a tooth comprising an end portion bent at an angle relatively to and in the same plane as the body portion, a curved intermediate portion uniting the adjacent portions, a tooth-holder secured to the head and provided with a groove in which said angularly-arranged tooth portions are seated, said groove having

an opening through its bottom wall opposite the curved portion of the tooth.

In witness whereof I hereto affix my signature in presence of two witnesses.

EDWARD W. BURGESS.

Witnesses:

T. H. ALFREDS,

J. C. WARNES.