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PATENTED NOV. 14, 1905.

B. B. PHILLIPS.

HAY RAKE.

APPLICATION FILED MAY 22, 1905.

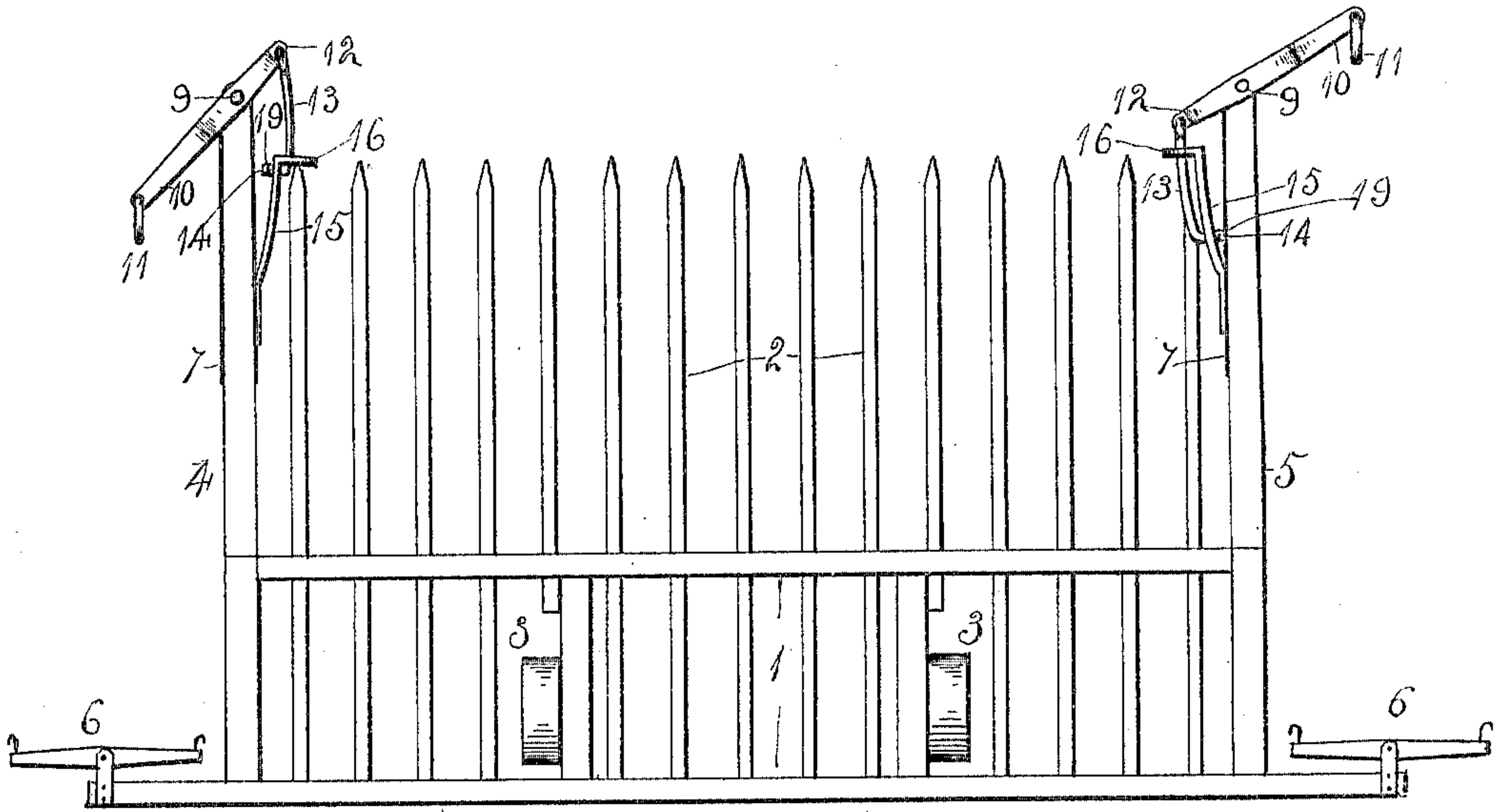


Fig. 1.

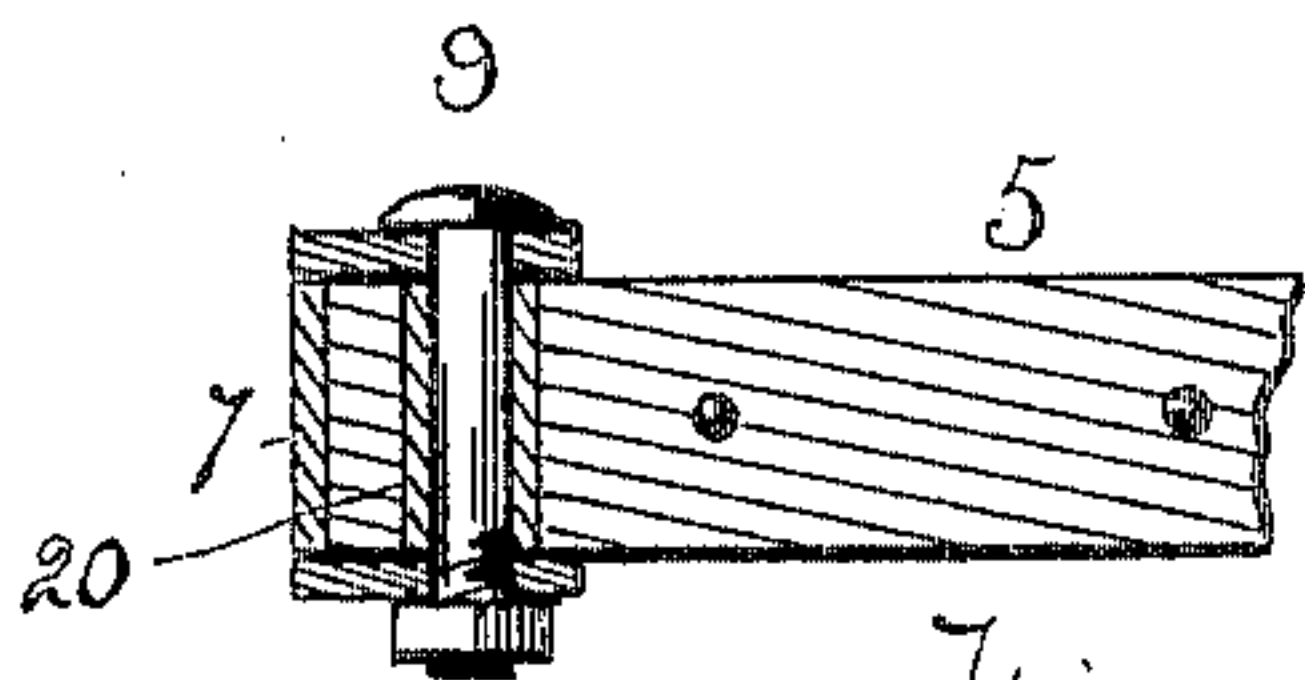


Fig. 3.

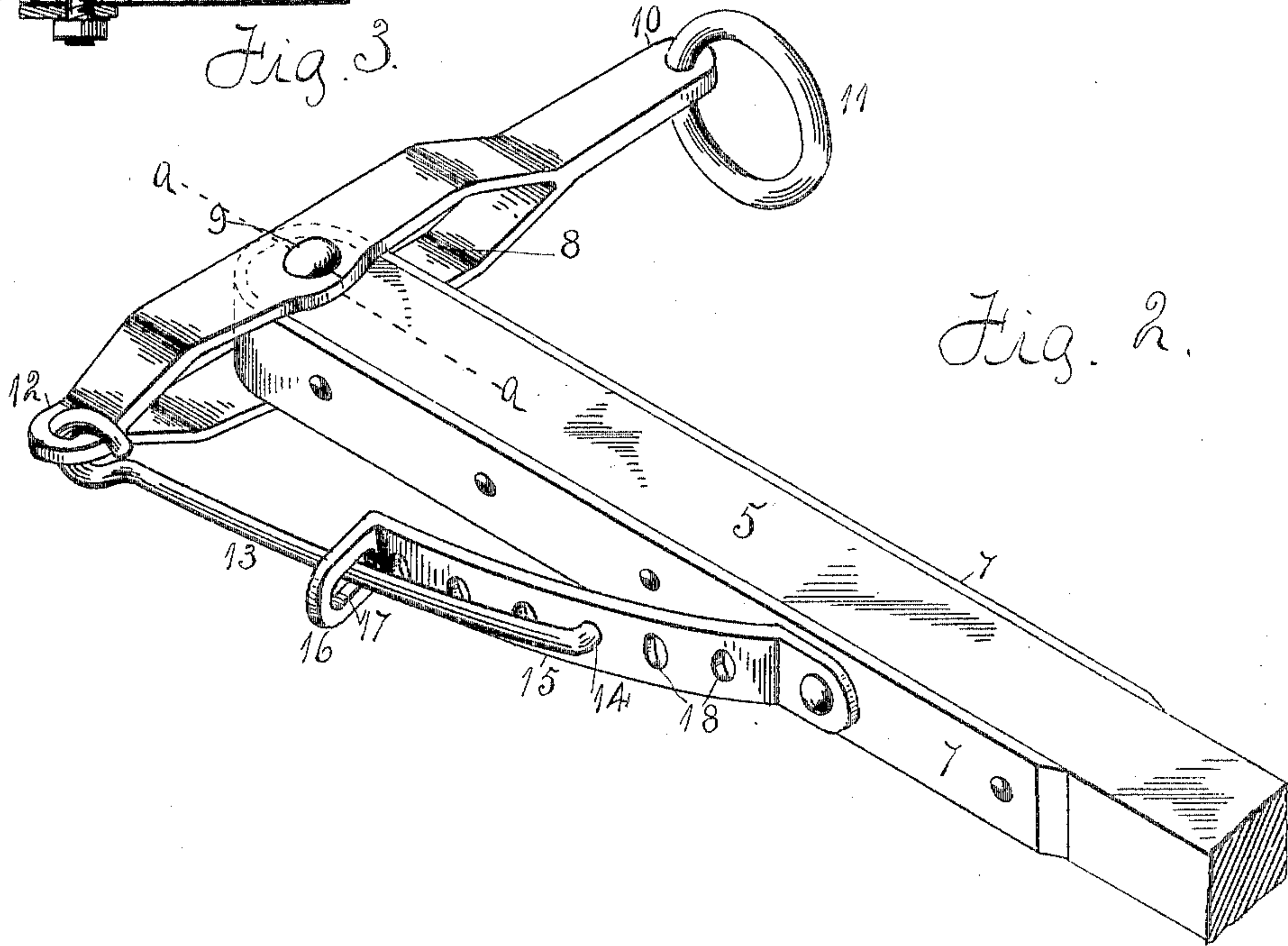


Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

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HAY-RAKE.

No. 804,498.

Specification of Letters Patent.

Patented Nov. 14, 1905.

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To all whom it may concern:

Be it known that I, BARZILLA BOWEN PHILLIPS, a citizen of the United States, residing at Seymour, in the county of Wayne and State of Iowa, have invented certain new and useful Improvements in Hay-Rakes, of which the following is a specification.

The object of this invention is to provide an adjustable hitch for horses in connection with the poles of a hay-rake in order that the horses, whether long or short, may be hitched close to the swingletrees.

In the accompanying drawings, Figure 1 is a plan view of a hay-rake, showing my improvements in connection therewith. Fig. 2 is an isometrical representation of the forward end of one of the poles. Fig. 3 is a section on dotted line *a a*, Fig. 2.

The hay-rake shown in the accompanying drawings is of an old and well-known construction and comprises the frame 1, supporting the fingers 2. The frame is supported by the wheels 3. The poles 4 and 5 are rigidly connected to the frame. The swingletrees 6 are connected to the rear bar of the frame. As my improvements are applied to the forward end of each of the poles a description thereof in connection with one pole will suffice. The ends of the poles are bound by a metallic band 7 and riveted in place. To the free or forward end of the pole is pivoted a cross-bar by a pole located in the central opening 8 of the cross-bar and a bolt or rivet 9, passing through both branches of the cross-bar and pole. A ferrule 20 is located in an opening in the forward end of each pole, and the bolt 9 passes through the ferrule, which prevents the wood splitting and the hole enlarging. In the end 10 of the cross-bar is located a ring 11. In the end 12 of the cross-bar is hooked a link 13, having its end 14 turned at substantially right angles to the length of the link. To one side of the pole is secured a bracket 15, having its free end 16 bent outwardly and provided with a slot 17. The main bar of this bracket is provided with a series of holes 18.

By means of the link 13 a connection is formed between the cross-bar and the bracket 15 which will hold the cross-bar against movement. By changing the end 14 of the link

into the various holes 18 the position of the end 10 of the cross-bar is changed from the position shown in connection with the pole 4 to the position shown in connection with the pole 5, Fig. 1. A pin 19 is passed through an opening in the end 14 of the link 13, which holds it from displacement in its connection with the bracket 15. As the horses are hitched to the swingletrees, it is better to have them close-hitched thereto, and as horses vary in length it is necessary that they should be close-hitched to the rings. This is accomplished by adjusting the rings to fit each horse.

I claim as my invention—

1. A pole attachment comprising a pole, a cross-bar having a pivotal connection with the pole, and means for holding the cross-bar against movement in an adjustable manner in connection with the pole.

2. A pole attachment comprising a pole, a cross-bar having a pivotal connection with the pole, and a link connection between the cross-bar and pole for holding the cross-bar against movement.

3. A pole attachment comprising a pole, a cross-bar having a pivotal connection with the pole, and a link connected to the cross-bar and adjustably connected to the pole for holding the cross-bar against movement.

4. A pole attachment comprising a pole, a cross-bar having a pivotal connection with the pole, a bracket secured to the pole, and a link forming a connection between the cross-bar and bracket for holding the cross-bar against movement.

5. A pole attachment comprising a pole, a cross-bar having a pivotal connection with the pole, a bracket secured to the pole and provided with a series of holes, a link connected to the cross-bar and capable of being inserted in the holes of the bracket.

6. A pole attachment comprising a pole having its sides and end metallic bound, a cross-bar having a pivotal connection with the pole, and means for holding the cross-bar against movement in an adjustable manner in connection with the pole.

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Witnesses:

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