

No. 715,427.

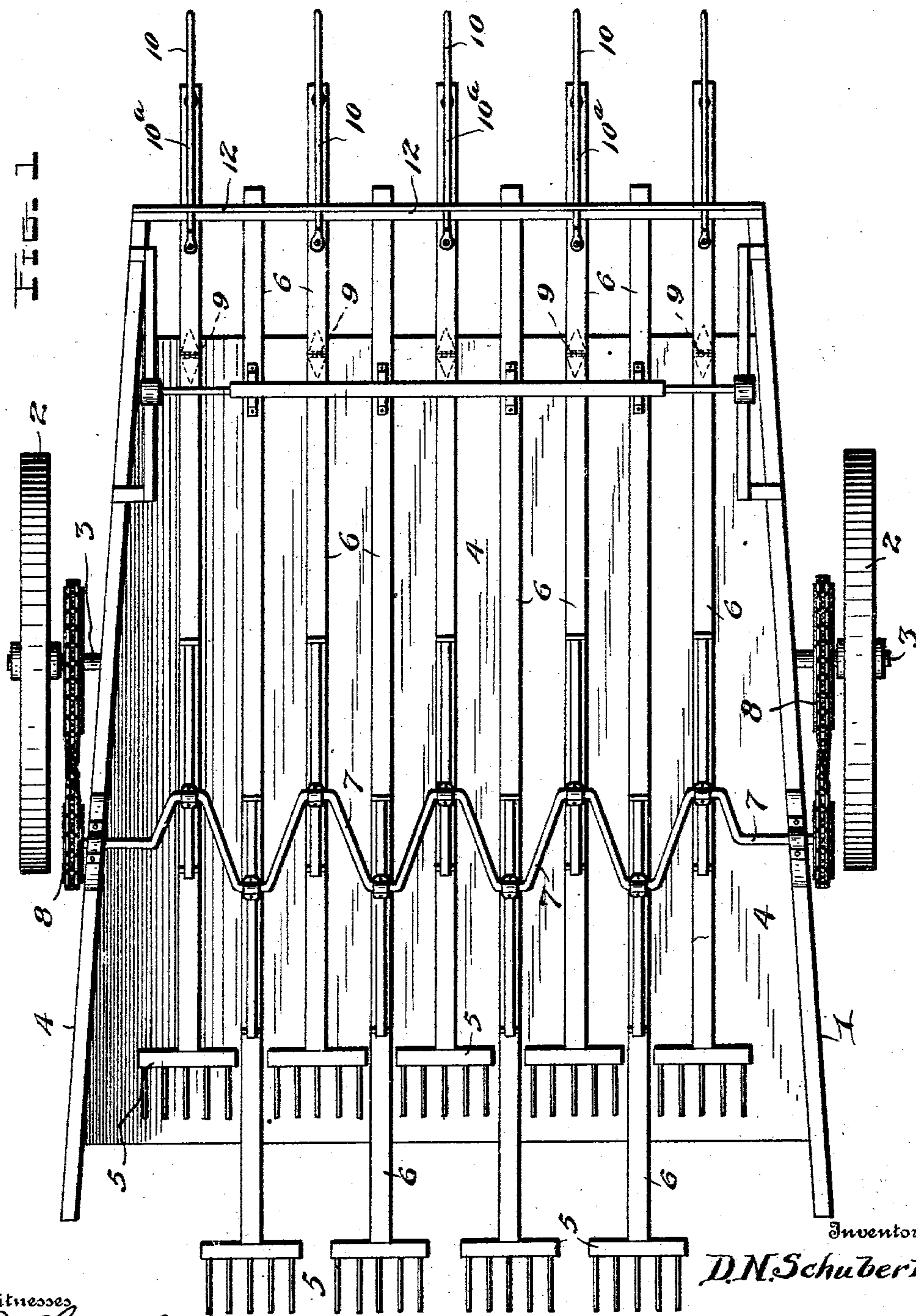
Patented Dec. 9, 1902.

D. N. SCHUBERT.  
COMBINED HAY RAKE AND LOADER.

(Application filed July 31, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
*J. A. Grubner, Jr.*  
*Quinn*

By

*A. B. Wilson & Co.*  
Attorneys

Inventor  
*D. N. Schubert*

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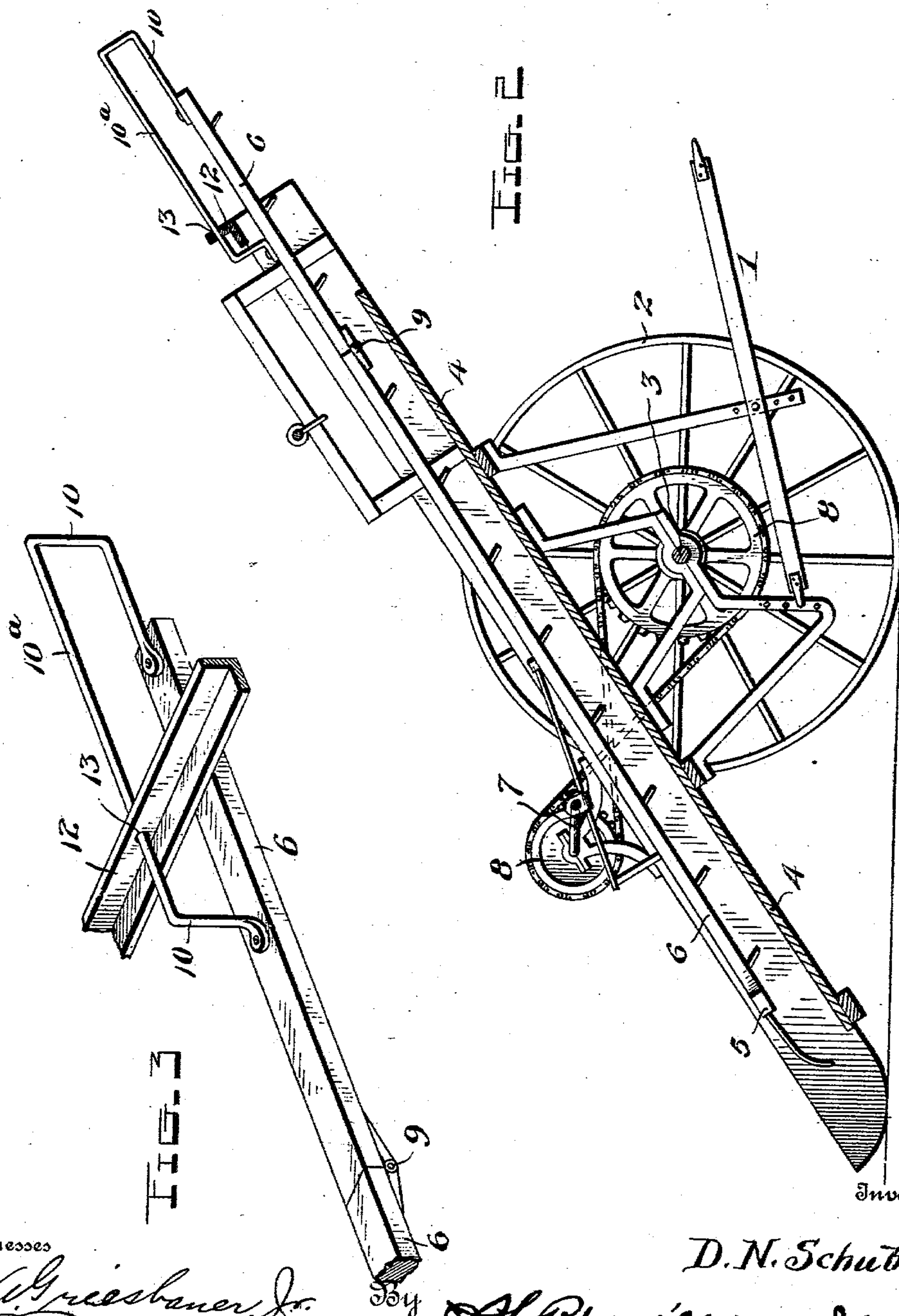
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Inventor

D. N. Schubert

A. B. W. & Co.  
Attorneys

Witnesses

J. A. Grieshaber, Jr.  
D. N. Schubert



# UNITED STATES PATENT OFFICE.

DANIEL N. SCHUBERT, OF ALVADA, OHIO, ASSIGNOR OF ONE-HALF TO JOHN W. PETER AND JACOB L. BLINN, OF ALVADA, OHIO.

## COMBINED HAY RAKE AND LOADER.

SPECIFICATION forming part of Letters Patent No. 715,427, dated December 9, 1902.

Application filed July 31, 1902. Serial No. 117,860. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL N. SCHUBERT, a citizen of the United States, residing at Alvada, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in a Combined Hay Rake and Loader; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hay rakes and loaders, and has for its object to improve the construction of machines of this character, whereby they will be made more efficient and positive in action.

With the above and other objects in view, which will readily appear as the nature of the invention is better understood, said invention consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of a hay-loader, showing the improvements applied thereto. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a detail perspective view of the upper end of one of the elevator-bars and a portion of the cross-bar supporting the same.

In the drawings, 1 denotes the frame; 2, the supporting-wheels; 3, the axle carrying said frame; 4, the bed or floor; 5, the rake-heads; 6, the elevator-bars, and 7 the cranked shaft for operating the rakes and elevator-bars, and 8 denotes the gearing for driving said shaft. These parts may be of any well-known or approved construction and are not claimed in this application.

In carrying out my improvement I form a break in each alternate elevator-bar near the upper end of the loader, and hinge the two sections thus formed together, as shown at 9. To the extreme upper end of each of said hinged bars I attach a bracket or hanger 10, which is constructed of a wire rod bent to form an oblong loop or bail, having its free ends bolted to said bar, as shown.

12 denotes a cross-bar, preferably of light angle-iron, fixed at its ends to the framework

of the loader. This bar is provided along its length with a series of openings 13, through which are adapted to pass the upper rod 10<sup>a</sup> of the hangers 10. By this arrangement the elevator-bars will be supported at their upper ends, and in the upward movement of the same, caused by the cranked shaft 7, the upper ends of the bars will not, because of the hinged joint, be allowed to press down upon the hay and bind the same, as is usually the case, and while the said ends are held up they are not prevented from having a free reciprocating movement by the construction of support herein shown, and consequently the hay will be continuously acted on and fed by the elevators up to the point of delivery.

It is frequently the case in loaders of this character that the hay is not acted upon by the elevator-bars after it reaches about the middle of the ascent, the hay being pushed up the rest of the distance by the hay taken on at the lower end of the machine forcing upwardly. This causes a choked condition at the delivery end of the machine, breaks up the hay, and causes the machine to work hard, and consequently increases the draft, which difficulties are caused by the dropping of the ends of the elevator-bars as they approach each other in operation, thus preventing a free discharge of the hay. Thus it will be seen that the advantages derived from the improvements herein claimed are a continual acting of the elevators upon the hay, giving a continuous steady feed, hinging the ends of the elevator-bars and supporting the same, thus preventing choking of the machine and the consequent breaking up of the hay and increased draft of the machine.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, mode of operation, and advantages of my improved combined hay rake and loader will be readily apparent without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described my invention, what



I claim as new, and desire to secure by Letters Patent, is—

1. In a hay rake and loader, the combination with the supporting-frame and wheels;  
5 of a series of rigid elevator-bars, a series of jointed elevator-bars arranged in alternation, and means for supporting the outer ends of said jointed bars to allow the same to reciprocate, substantially as described.
- 10 2. In a hay rake and loader, the combination with the supporting-frame and wheels; of a series of rigid elevator-bars and a series of hinged elevator-bars arranged in alternation, elongated brackets or hangers fixed to

the ends of said hinged elevator-bars, a cross- 15  
bar fixed to the sides of said loader and provided with a series of openings adapted to receive said hangers and support the ends of said elevator-bars, substantially as and for the purpose set forth. 20

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DANIEL N. SCHUBERT.

Witnesses:

WARREN P. DILLON,  
FRANK KEOPFER.