

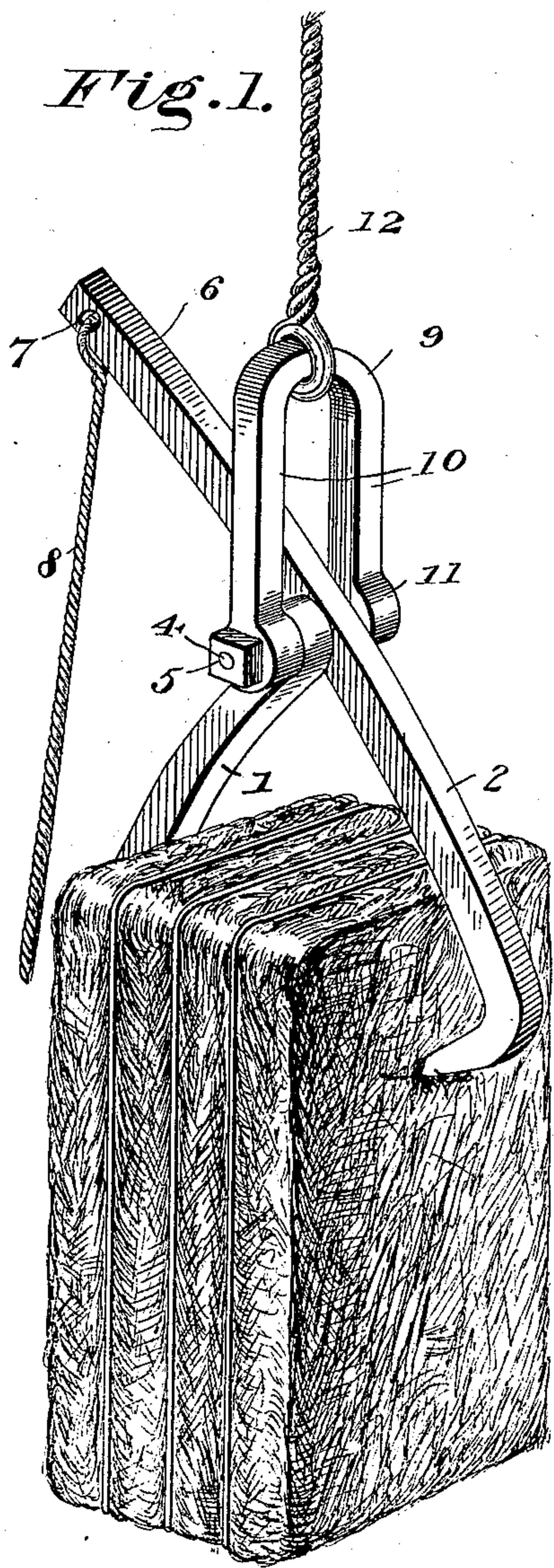
(No Model.)

D. E. LYON.  
GRAPPLE.

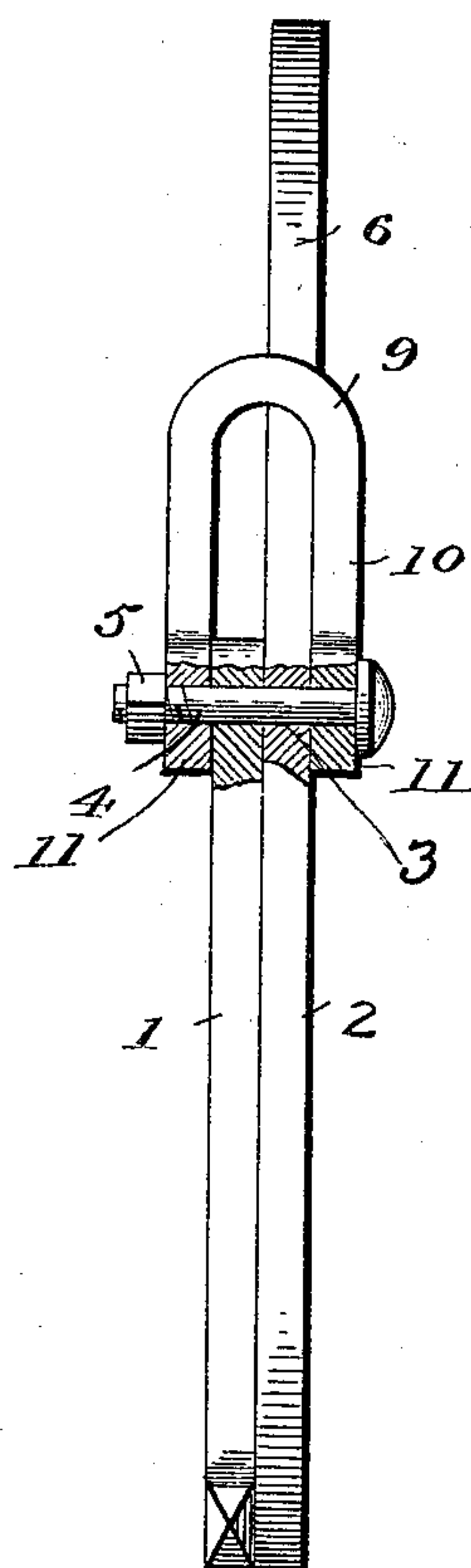
No. 521,913.

Patented June 26, 1894.

*Fig. 1.*



*Fig. 2.*



Inventor

*Daniel E. Lyon,*

Witnesses

*Julius M. Keiser*  
*D. E. Lyon*

By his Attorneys.

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

DANIEL E. LYON, OF OSWEGO, ILLINOIS.

## GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 521,913, dated June 26, 1894.

Application filed December 18, 1893. Serial No. 493,990. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL E. LYON, a citizen of the United States, residing at Oswego, in the county of Kendall and State of Illinois, have invented a new and useful Grapple, of which the following is a specification.

My invention relates to a grapple or hay-fork adapted for elevating bales of hay, straw, &c., from a vehicle to a mow, and it has for its object to provide a simple, inexpensive, and efficient construction wherein the elevating or draft rope is connected to the pivotal point of the jaws to allow free movement of both of the jaws in operation.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings: Figure 1 is a perspective view of a grapple embodying my invention. Fig. 2 is an edge view, partially broken away to show the pivot-bolt and the connection between the members.

Similar numerals of reference indicate corresponding parts in both figures of the drawings.

1 and 2 represent, respectively, the jaws of the improved grapple, which are provided with perforations or bearings 3 to receive the transverse pivot-bolt 4, upon one end of which is threaded a nut 5. The jaw 2 is extended beyond the pivotal point to form a trip-arm 6, having a terminal perforation 7, by means of which a trip-rope 8 is connected to the trip-arm.

9 represents a supporting clevis or loop, having parallel arms 10, which terminate in eyes 11. The arms of the clevis or loop are arranged at an interval corresponding with the combined thicknesses of the upper ends of the jaws, and the terminal eyes 11 are fulcrumed upon the pivot-bolt upon opposite sides of the jaws, as shown clearly in Fig. 2.

The elevating or draft rope 12 is connected

to the clevis or loop in the ordinary or any preferred manner.

From the above description it will be seen that the grapple is supported from the pivotal point of the jaws, thus leaving both of the jaws free to adjust themselves to the load. Therefore, the jaws are held in operative position by gravity and not by the clamping motion produced by the supporting rope being connected to an extension of one of the jaws.

The construction of the improved grapple is simple and the operation thereof is facilitated by the freedom of the jaws.

It will be observed that the  $\cap$ -shaped clevis or loop serves as a stop for the movements of the extended arm 6 of the jaw 2 of the grapple.

Having described my invention, what is claimed is—

The herein described grapple having pivotal jaws 1 and 2 arranged in contiguous planes with their adjacent sides in contact, a pivotal bolt 4 engaging registering perforations in said jaws, an inverted U-shaped clevis or loop provided at the extremities of its parallel arms with eyes 11 engaging said pivot-bolt, the interval between the arms of the clevis or loop being equal to the combined thicknesses of the jaws 1 and 2, whereby said jaws fit snugly therebetween and are held from lateral vibration thereby; the clevis or loop being adapted for attachment to an elevating or draft rope, and an arm 6 integral with and formed as an extension of the jaw 2 and provided with a terminal perforation for the attachment of a trip-rope, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DANIEL E. LYON.

Witnesses:

WILLIAM CLIGGITT,  
CHARLEY J. LYONS.