

No. 682,752.

Patented Sept. 17, 1901.

S. A. SAXON.
GRAPPLING DEVICE.

(Application filed May 2, 1901.)

(No Model.)

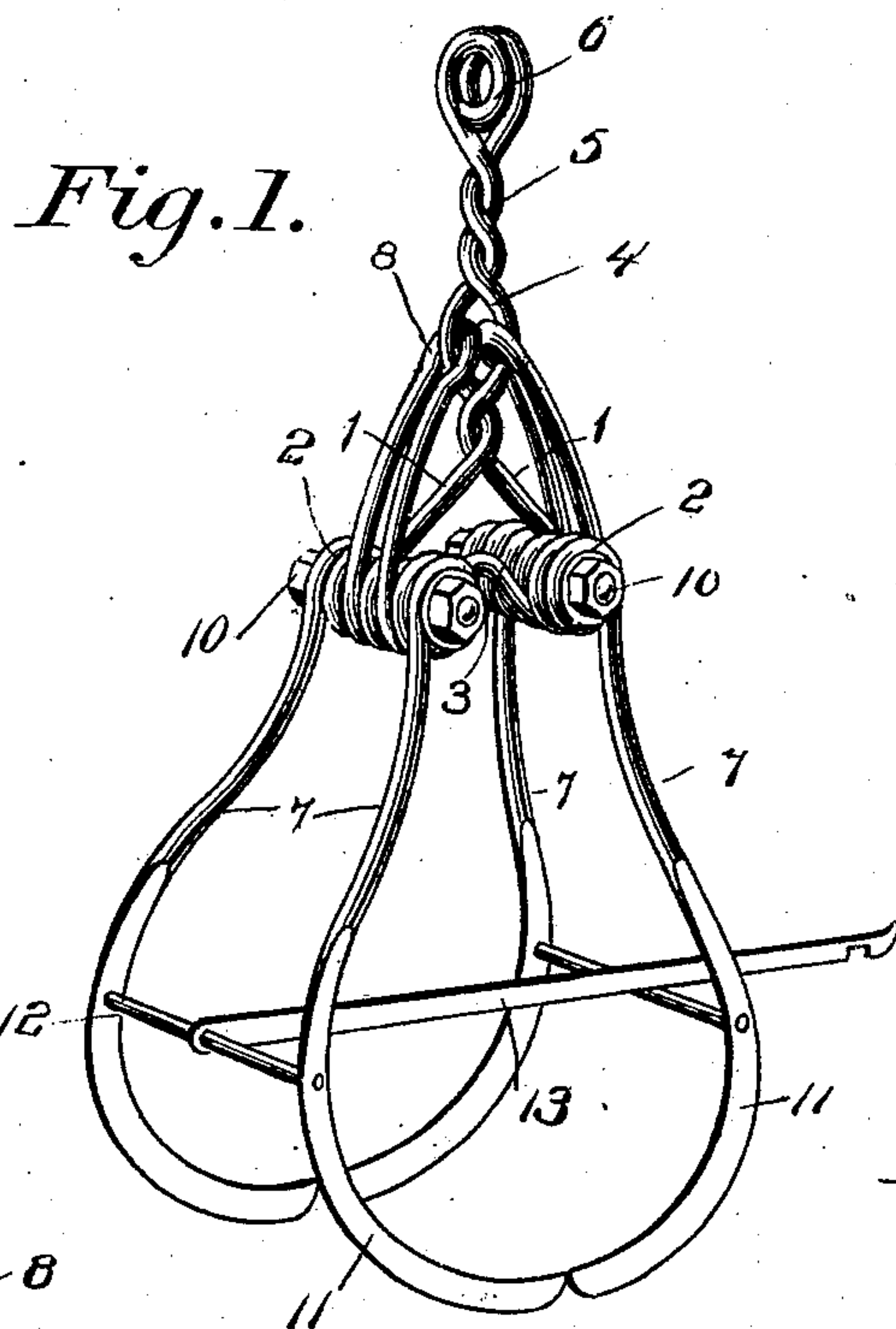


Fig. 3.

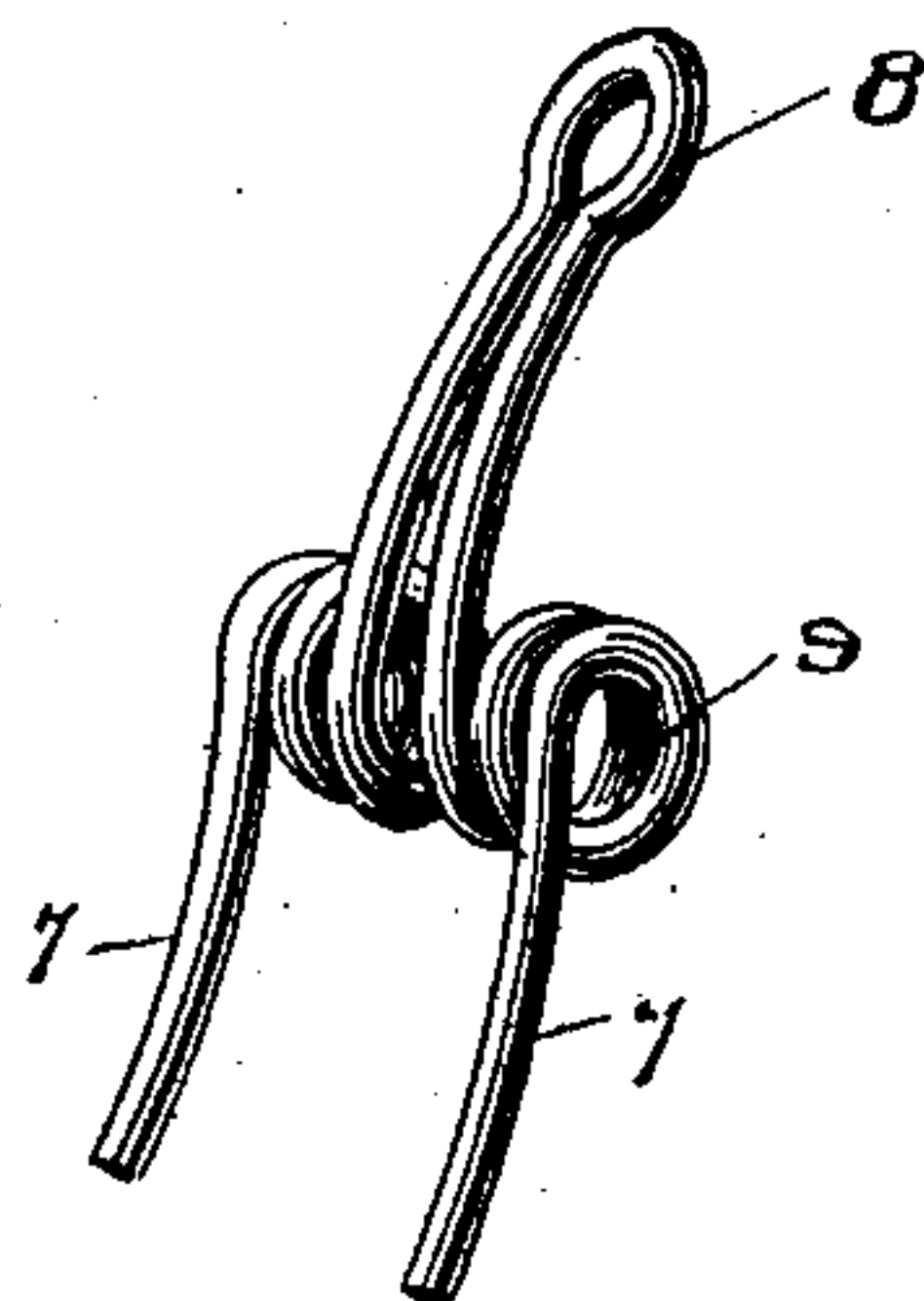


Fig. 4.

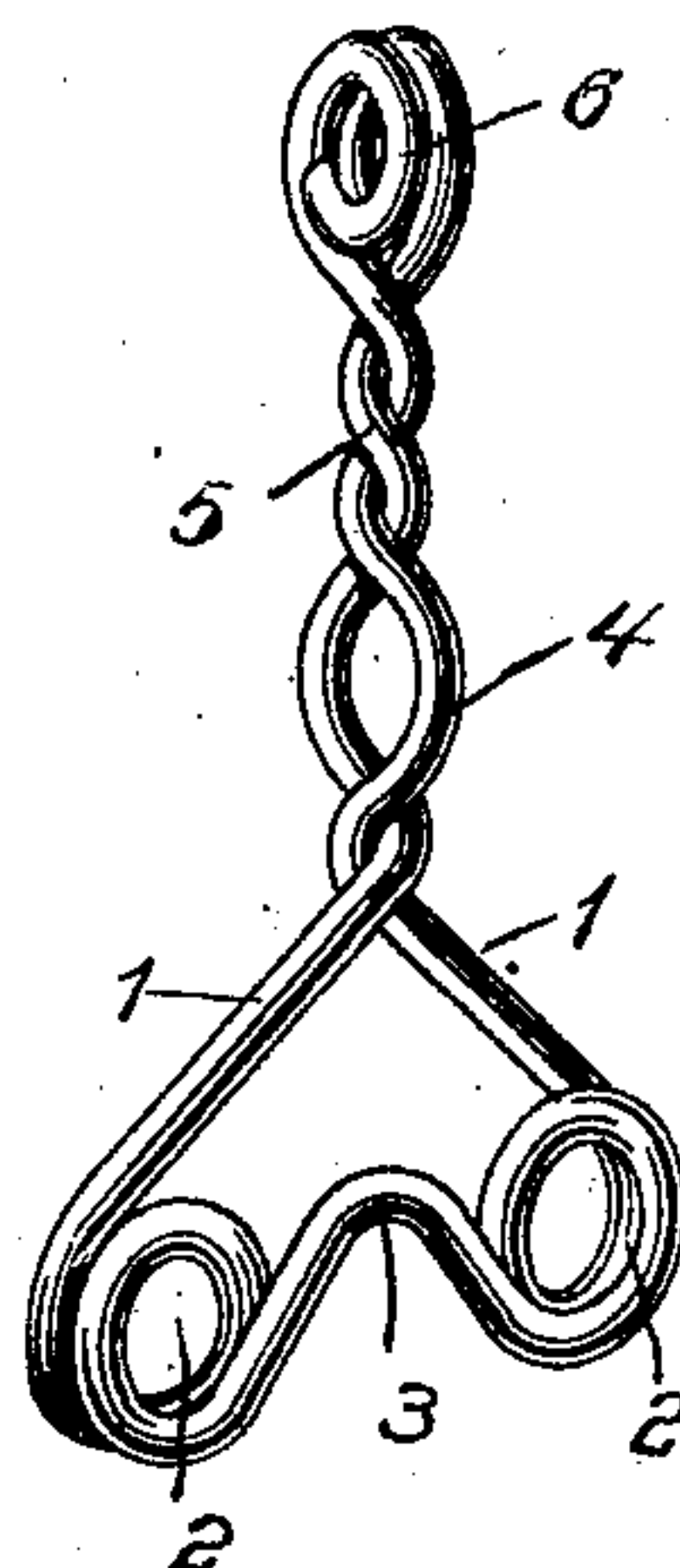
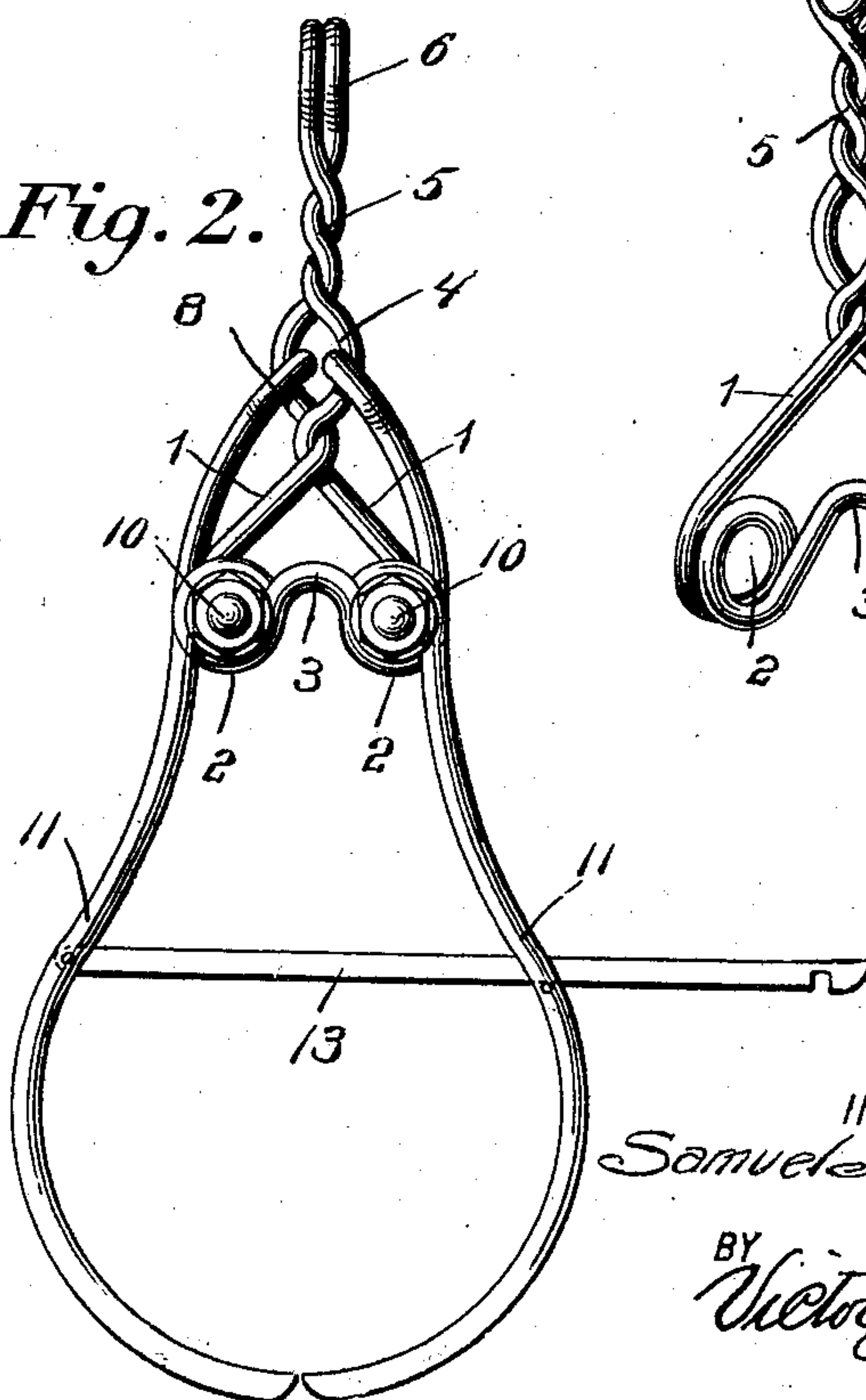


Fig. 2.



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GRAPPLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 682,752, dated September 17, 1901.

Application filed May 2, 1901. Serial No. 58,542. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. SAXON, a citizen of the United States, residing at Sang, in the county of Van Buren and State of Arkansas, have invented new and useful Improvements in Grappling Devices, of which the following is a specification.

My invention has relation to improvements in grapples, and especially to that kind or class designed and intended for seizing, holding, or engaging any object, and is especially designed for removing foreign substances from excavations, wells, &c.; and the object is to provide an improved implement whereby the object to be engaged is automatically grasped or seized by the grapple and held so as to be withdrawn or lifted out of the excavation, tube, or well in which it is lodged.

A further object is to simplify and improve the construction shown in my former Letters Patent, No. 435,590.

To these ends my invention consists in an improved implement which will be more fully described hereinafter and the novelty of which will be particularly pointed out and distinctly claimed.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a view in perspective of my improved grapple. Fig. 2 is a side elevation. Fig. 3 is a detail perspective showing one of the retaining spring-arms for the grappling-jaws, and Fig. 4 is a detail perspective of the hanger or supporting-bracket for the jaws.

Referring to the drawings, 1 designates a hanger or bracket preferably made of a single piece of wire bent at its middle portion to form two strands, substantially as shown. At points either side of and adjacent to their junction the strands are coiled or bent to provide eyes or rings 2 2, held apart by a bridge or brace connection 3. From the eyes 2 2 the strands of wire are carried upward and twisted to form an eye or aperture 4 and from thence are twisted to form a shank 5, terminating in a suspension-ring 6, substantially as shown in Fig. 4 of the drawings.

7 7 designate duplicate spring gripping-jaws made of a single strand of wire and bent at its central portion to form a loop 8, adapted

to engage within the eye 4 in the shank of the suspension-bracket. At the termination of the bars of the loop are formed alining eyes 9, between which engage and register the eyes 2 2 in the base portion of the hanger. Through the eyes formed, respectively, in the bracket and jaws is passed a pin 10, which serves to hold the jaws securely in position on the bracket, substantially as shown in Figs. 1 and 2 of the drawings. From the eyes 9 each of the strands of the jaws extend downwardly to form curved gripping-arms 11, substantially as shown. These arms are held apart by means of transversely-arranged brace-rods 12, to one of which is pivotally secured, at approximately the middle thereof, a trigger-bar 13, having a notch formed at its free end which engages over the rod 12 of the opposite pair of jaws.

The operation of the device is as follows: The hooks or jaws are drawn apart until the notch in the free end of the trigger-bar engages with the transverse brace-rod of the opposite jaw. The grapple is then lowered into the excavation or well until it reaches the object which is to be removed. When the trigger-bar comes into contact with the obstruction, it will be disengaged and the jaws be freed to spring inward toward each other to seize and hold the object.

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

1. A grappling device consisting of a suspension-bracket formed with bearing-eyes, spring grappling-jaws having their upper ends connected to the stem of the suspension-bracket and formed with bearing-eyes adapted to register with the bearing-eyes in the suspension-bracket, pins to hold the jaws and bracket together, and a trigger-bar having one end pivotally supported on one of the jaws and the other end adapted to detachably engage the opposite grappling-jaw.

2. A grappling device consisting of a suspension-bracket formed with bearing-eyes, and with an eye in the stem, spring grappling-jaws having upwardly-extending loops, looped within the eye in the stem of the bracket, and formed with bearing-eyes at the base of the loops, pins projected through the bearing-eyes of the suspension-bracket and those of the grappling-jaws, grappling-arms

integral with the loops and eyes of the latter,
cross-bars fixed between the grappling-arms,
and a trigger-bar having one end pivotally
supported on a cross-bar and the other end
5 formed to engage the other cross-bar, whereby
the grappling-arms are held apart and the
trigger-bar may be released when contacting
with an obstruction so that the grappling-

arms spring together to inclose the obstruction or object. 10

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

SAMUEL A. SAXON.

Witnesses:

J. K. HATCHETT,
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