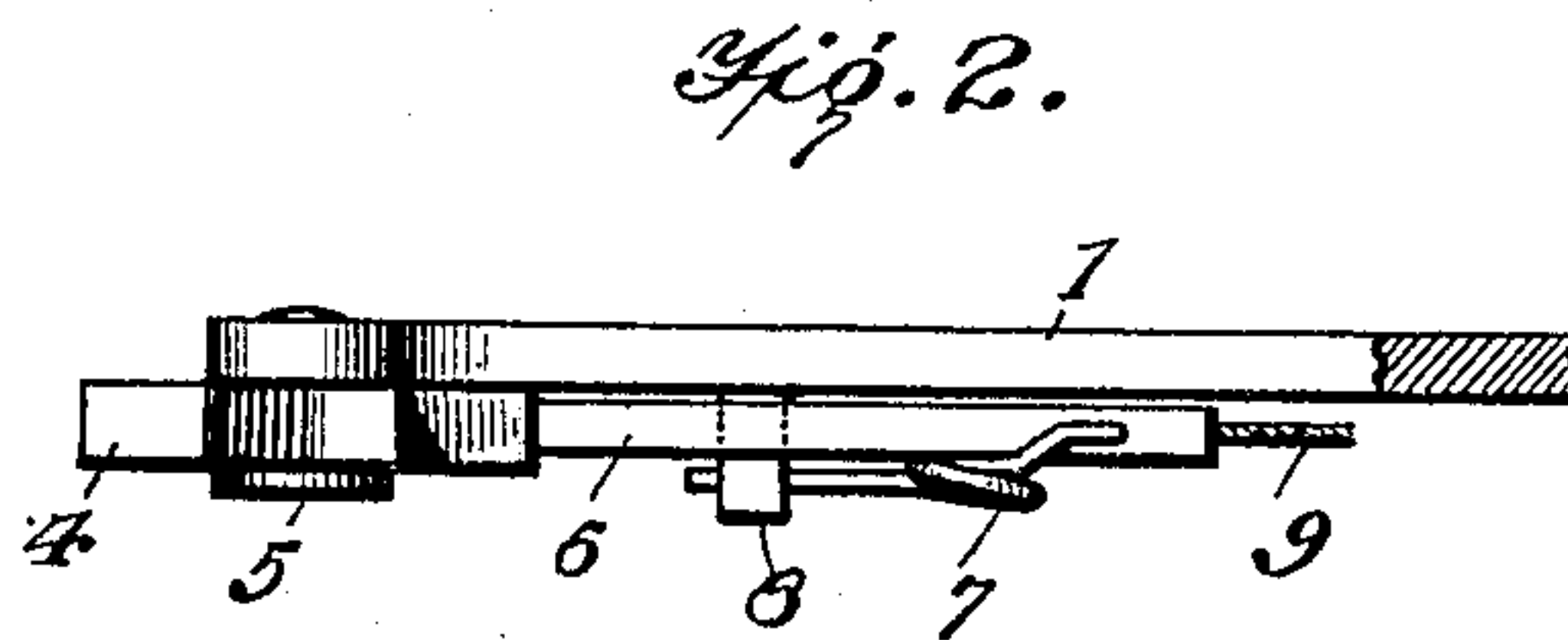
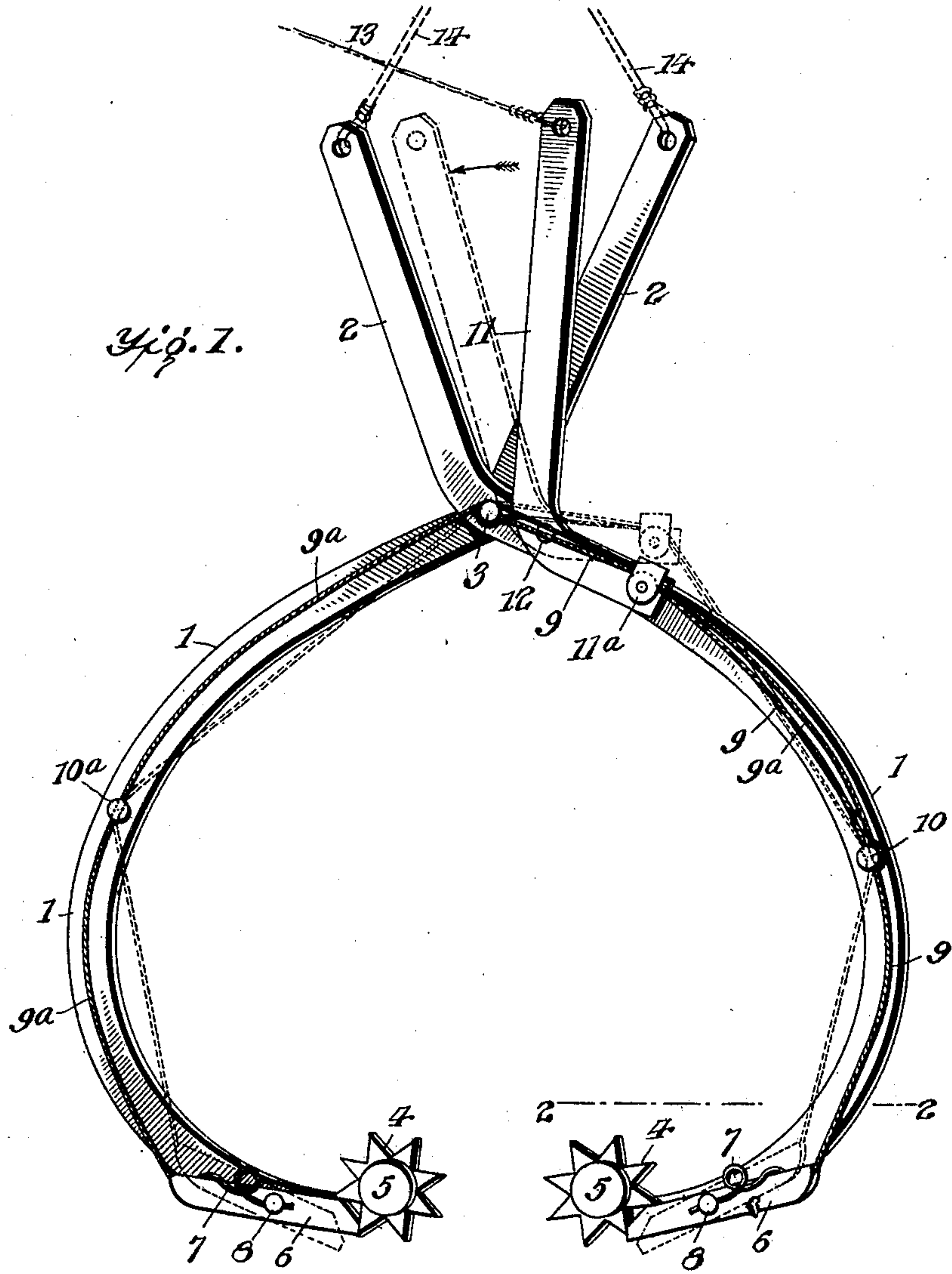


M. C. MYERS.
LOAD LIFTING AND RELEASING DEVICE.
APPLICATION FILED JULY 10, 1908.

913,540.

Patented Feb. 23, 1909.



WITNESSES
L. H. Schmidt.
Amos W. Hart

INVENTOR
MARK C. MYERS,
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MARK C. MYERS, OF OROVILLE, CALIFORNIA.

LOAD LIFTING AND RELEASING DEVICE.

No. 913,540.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed July 10, 1908. Serial No. 442,853.

To all whom it may concern:

Be it known that I, MARK C. MYERS, a citizen of the United States, residing at Oroville, in the county of Butte, State of California, have invented an Improvement in Load Lifting and Releasing Devices, of which the following is a specification.

My invention is an improvement in devices in the nature of tongs adapted for lifting a load such as bales, packages, logs, weights, and various other articles or objects.

The improvement relates chiefly to means attached to the tongs proper for gripping and releasing a load.

The details of construction, arrangement, and operation of parts are as hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is a face view of my improved device; Fig. 2 is a horizontal section on the line 2—2, Fig. 1.

The jaws 1 are curved and provided with straight shanks 2 and pivoted together at their angle 3, in a manner similar to a well-known form of ice-tongs. A toothed or star wheel 4 is mounted rotatably on a pivot 5 applied to the lower end of each jaw, so that the wheels constitute the lower terminals of the jaws. They are arranged in the same general plane with the jaws and are engaged by dogs, or pawls, 6, each consisting of a bar that is pivoted to a jaw and arranged adjacent to a star wheel in such manner that it may engage and lock the same as shown in Fig. 1. Wire springs 7 are attached to the pivots 8 of the pawls, their free ends bearing on the outer ends of the pawls as shown. Cords, ropes, or wires 9, 9^a, are attached to the outer ends of the pawls for use in releasing them from the star wheels, or, in other words, unlocking the latter.

The cord 9 passes through a stud 10 fixed in the middle portion of a jaw 1, and is attached to the pivot 3 of the jaw. The other cord, or rope, 9^a, passes through a similar stud 10^a on the other jaw and over the jaw pivot 3 and down to the stud 10, to which it is secured. Thus the two cords or ropes 9, 9^a, lie together, or parallel, between the points 3 and 10. When relaxed, as indicated by full lines Fig. 1, they do not have sufficient tension to overcome the springs 7; but it is evident that by applying traction between the points 3 and 10, the cords or

ropes will assume the angles indicated by dotted lines, and tilt the pawls 6 on their pivots and thus release them from engagement with the star wheels 4, so that the latter will be free to rotate. The means for applying such tension is an elbow-lever 11, which is pivoted at 12 to one of the jaws adjacent to the pivot 3 of the latter. A pull rope 13 is attached to its outer end, as indicated by dotted lines, and the cords or ropes 9, 9^a, pass over a pulley 11^a attached to the shorter arm of the lever. By pulling on the rope 13, it is obvious the lever 11 will be tilted, or carried to the position indicated by dotted lines, and thus the ropes 9, 9^a, will be carried out from the tongs, as is also indicated by dotted lines. A hoisting rope 14 is attached to the shanks 2 of the tongs.

It is apparent that, when tension is released on the hoisting rope 14, the jaws 1, 1, may be opened to embrace, or receive, between their free ends, the article or object which it is desired to lift; and, upon applying tension by the ropes 14, the jaws will be closed so as to embrace and grip the object. Thus the latter may be lifted and carried as conditions require; and, upon pulling the rope 13, the pawls will be released from the star wheels 4 and the latter thereby allowed to rotate so as to permit the object lifted to pass easily out between the points of the jaws. It is apparent that the pawls may be thus caused to release the star wheels even when the lifting device is suspended bodily in the air, or this may be effected after the load has been lowered so as to rest upon any foundation.

In brief, by my improved attachment for the tongs or lifting device proper, I provide for convenient and rapid release of any object that may be lifted by it.

What I claim is:

1. The improved lifting device comprising curved jaws pivoted together and provided with extended shanks, toothed wheels pivoted to the free ends of the jaws, spring-pressed pawls engaging and normally locking the said wheels, cords connected with the outer ends of the pawls, and an elbow lever pivoted to one of the jaws and one end of the same arranged for engagement with the cords, so that, upon operating said lever, tension will be applied to the cords, substantially as described.

2. The improved lifting device comprising curved jaws pivoted together, wheels

mounted rotatably on the opposite free ends of the same, pawls for locking such wheels, and means connected therewith for operating the pawls and thereby releasing the wheels, substantially as described.

3. The combination, with curved jaws pivoted together, of toothed wheels mounted rotatably on the opposite free ends of the jaws, pivoted spring-pressed pawls normally en-

gaging the wheels, cords connected with 10 their free ends and passing over guides on the jaws, an elbow lever pivoted to one of the jaws, and its shorter arm engaging the pawl cords, as shown and described.

MARK C. MYERS.

Witnesses:

I. L. TUCKER,
ERLE S. GARDNER.