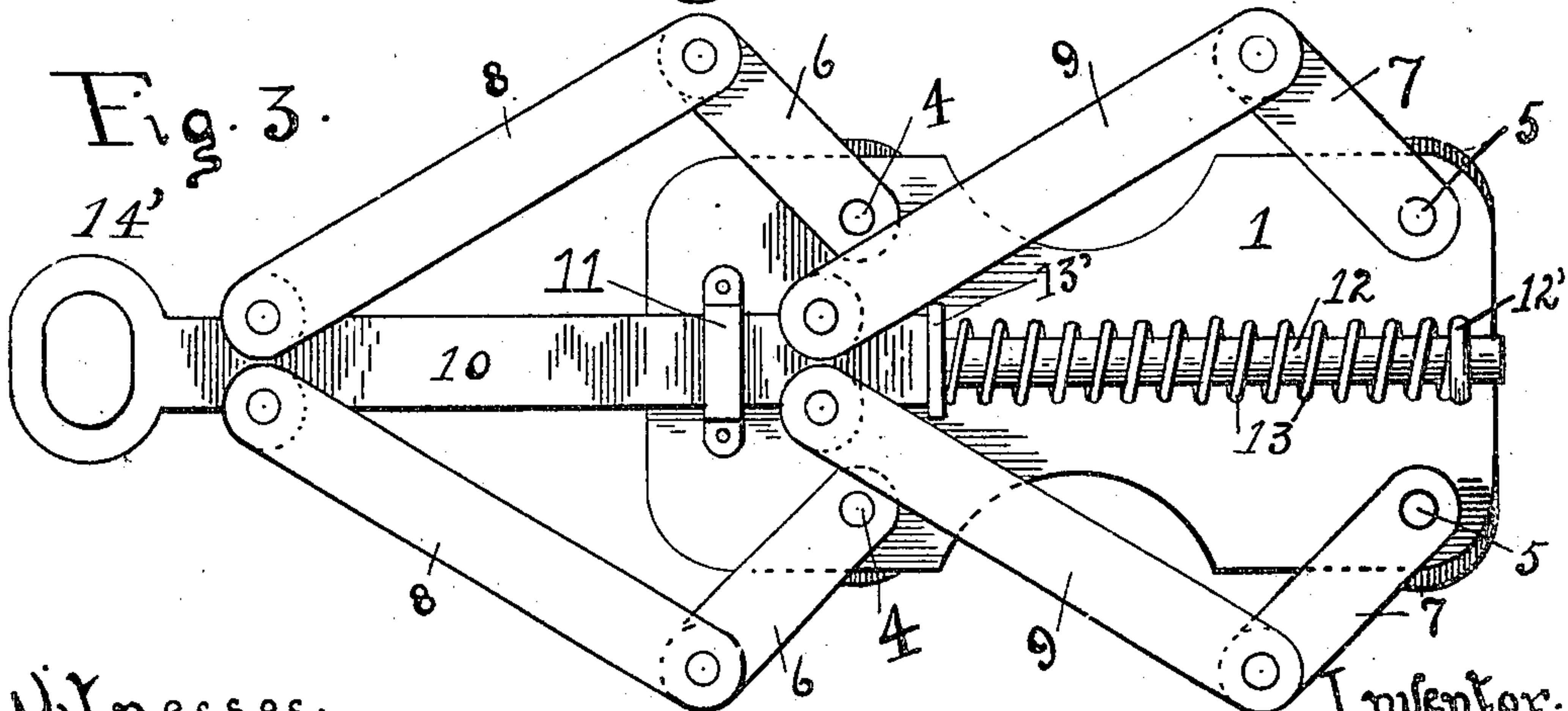
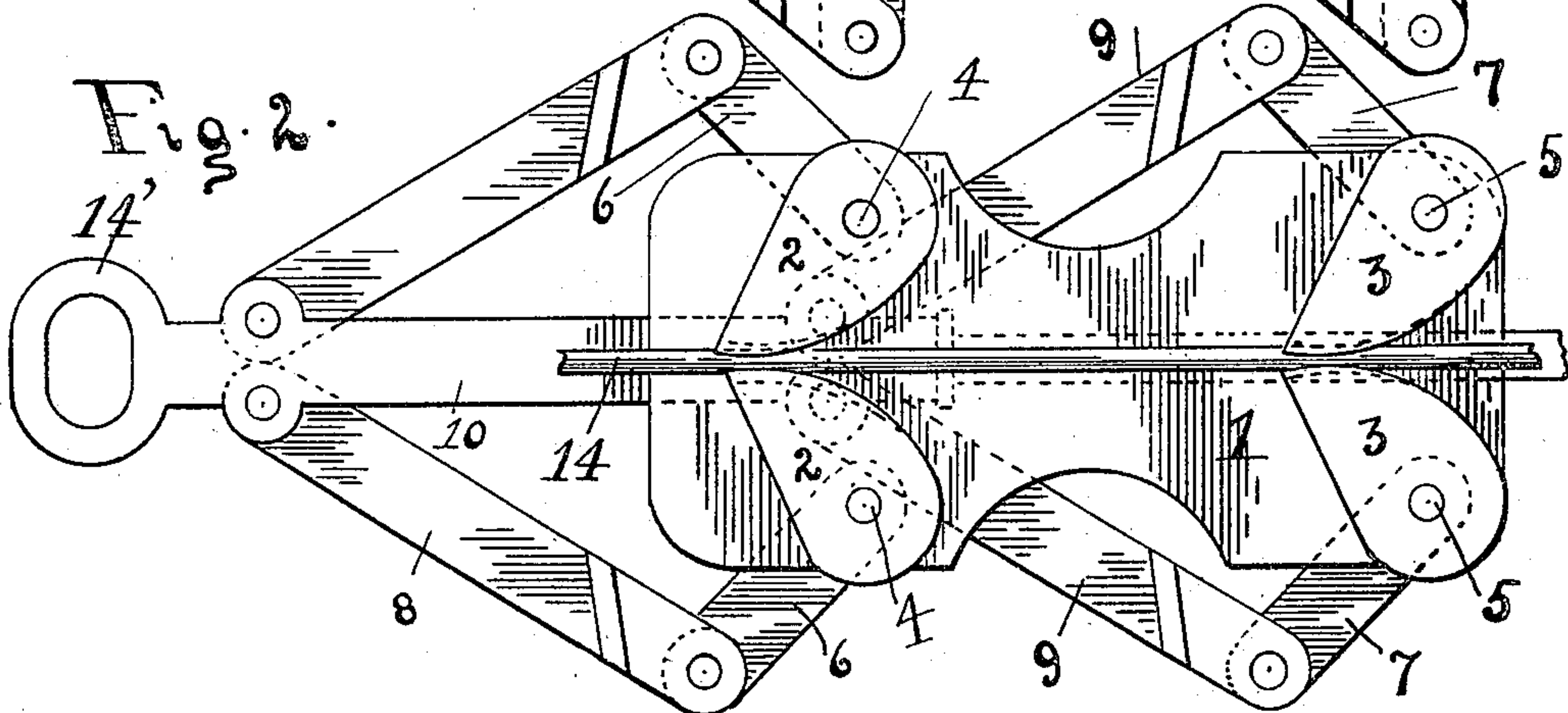
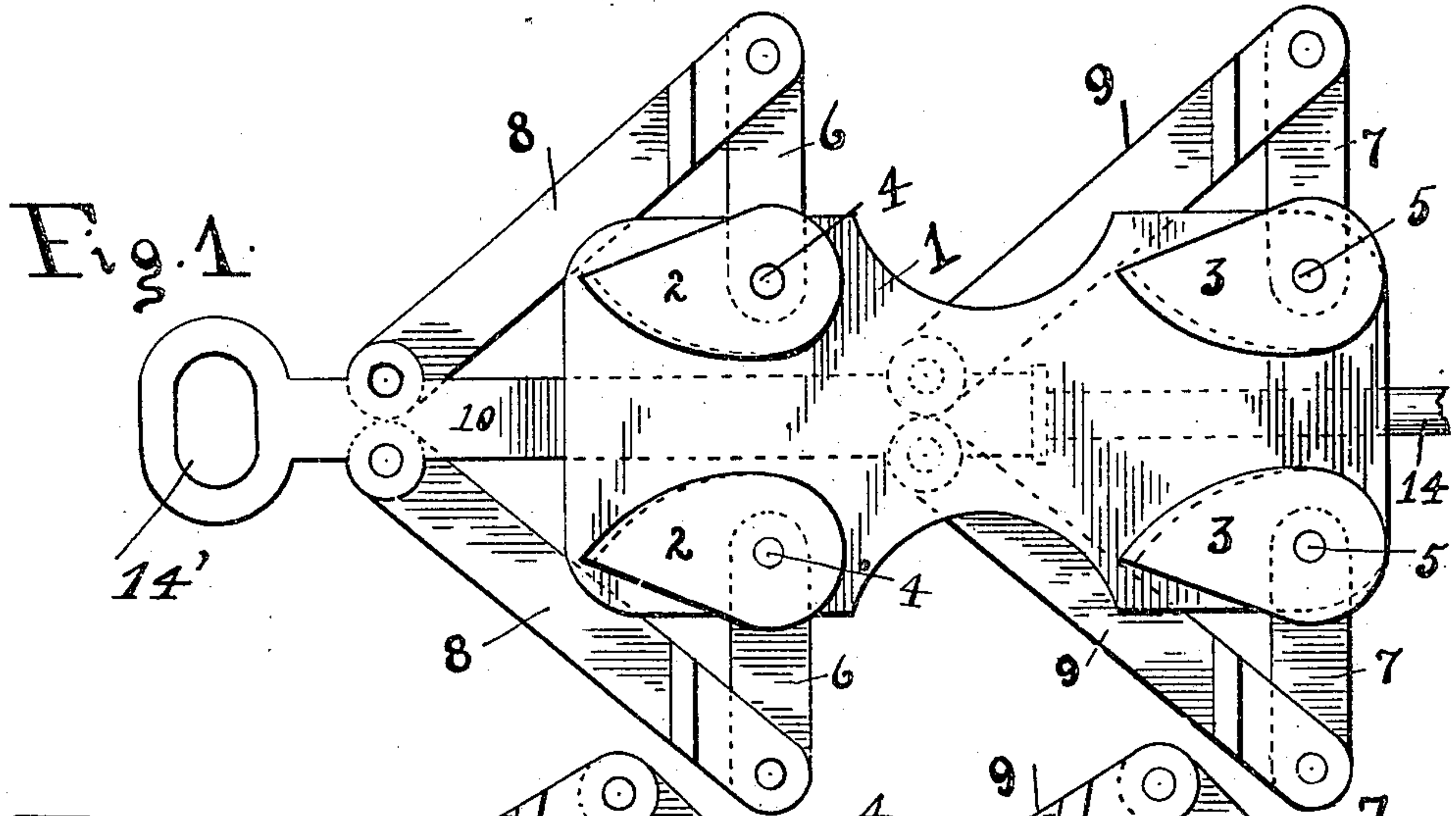


No. 837,549.

PATENTED DEC. 4, 1906.

E. P. DUBRULE.  
WIRE TIGHTENER.  
APPLICATION FILED AUG. 29, 1906.



Witnesses.  
J. H. Holmes  
J. Compton.

Inventor.  
E. P. Dubrule  
by M. A. Ackerman  
his atty.



# UNITED STATES PATENT OFFICE.

EMANUEL P. DUBRULE, OF SAN FRANCISCO, CALIFORNIA.

## WIRE-TIGHTENER.

No. 837,549.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed August 29, 1906. Serial No. 332,520.

*To all whom it may concern:*

Be it known that I, EMANUEL P. DUBRULE, a subject of the King of Great Britain, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Wire-Tighteners; and I hereby declare the following to be a full, clear, and exact description of the same.

The hereinafter-described device is designed for the use of linemen in the erecting of telephone and telegraph lines, the object of the invention being the production of a simple, inexpensive, and effectual device for use in the drawing taut of the line-wire being connected to the line-poles, the device being designed to grasp the free end of the wire in order that a pulling strain exerted thereon will cause the same to act as a block for stretching the wire and holding the wire so stretched or tightened until secured to the line-poles.

To comprehend the invention, reference should be had to the accompanying sheet of drawings, wherein—

Figure 1 is a plan view of the device with its actuating-rod forced inward to open the gripping-jaws, which is the position into which the jaws are placed when the device is about to be placed onto the free end of the wire. Fig. 2 is a similar view disclosing the actuating-rod forced outwardly and the gripping-jaws closed to grasp the wire, a portion of the wire being illustrated as held within the gripping-jaws; and Fig. 3 is a horizontal plan view of the said device, said view disclosing the disposition of the spring-held actuating-rod and the toggle connection therewith for controlling the opening and closing of the gripping-jaw with the inward-and-outward movement of the said actuating-rod.

In the drawings the numeral 1 is used to designate any suitable supporting or base plate, to the upper face of which are pivoted two pairs of eccentric gripping-jaws 2 3, the pivot-studs 4 5 for the respective pairs of co-acting gripping-jaws extending through the supporting or base plate 1 and are connected, respectively, to the toggle members 6 7, which in turn are articulated to the toggle members 8 9, the free ends of said members being pivoted to the longitudinally-movable rod 10. This rod 10 works within the guide 11, secured to the under face of the supporting or face plate 1, Fig. 3 of the drawings, the inner end portion 12 of the said rod being re-

duced and rounded and working through the guide 12'. This portion of the actuating-rod 10 is surrounded by a compression-spring 13, which bears against the guide 12' and the shouldered portion 13' of the rod 10, the pressure of said spring 13 holding the actuating-rod 10 forced outwardly to maintain closed, through the described toggle connections, the gripping-jaws 2 3.

The cam-face of each eccentric gripping-jaw as the pairs of gripping-jaws are thrown inward by the outward movement of the actuating-rod 10 gradually tightens on the section of the wire 14 placed between the jaws when opened, the tension or pressure of the jaws increasing with the outward pull exerted on the actuating-rod.

The outer end portion of the rod 10 terminates in an eye 14', to which one end of a cable, rope, or wire is attached, by means of which an outward pull is exerted on the rod 10, the described devices thus answering as a snatch-block for gripping the wire to be drawn taut.

When it is desired to attach or to release the device from the wire, the operator is simply required to force inward the rod 10, which actuates the toggles to force open the eccentric gripping-jaws. The moment the operator releases the inward pressure on the rod 10 the tension of the compressed spring 13 forces the rod 10 outwardly, forcing inward or closed, through the medium of the toggle connection, the eccentric gripping-jaws.

Owing to the gripping-jaws being eccentric, it is apparent that the greater becomes the pulling strain exerted on the rod 10 the tighter the jaws clamp the wire 14, which clamping of the wire will be maintained until the jaws are released by the rod 10, being forced inward to operate the toggle connections to open the said jaws.

Having thus described the invention, what is claimed as new, and desired to be protected by Letters Patent, is—

In a device for the described purpose, the combination with a suitable supporting-plate, of independent eccentric co-acting gripping-jaws arranged in pairs on one face of the supporting-plate, of studs to which said jaws are secured extending through the said plate, of a longitudinally-movable actuating-rod working in guides on the opposite face of the supporting-plate, a compression-spring for normally holding the said rod outwardly

pressed, and of toggle connections interposed  
between the actuating-rod and the studs of  
the gripping-jaws, said toggles operating to  
close and open the gripping-jaws with the  
5 outward-and-inward movement of the actu-  
ating-rod.

In witness whereof I have hereunto af-

fixed my signature in the presence of wit-  
nesses.

EMANUEL P. DUBRULE.

Witnesses:

N. A. ACKER,  
J. COMPTON.