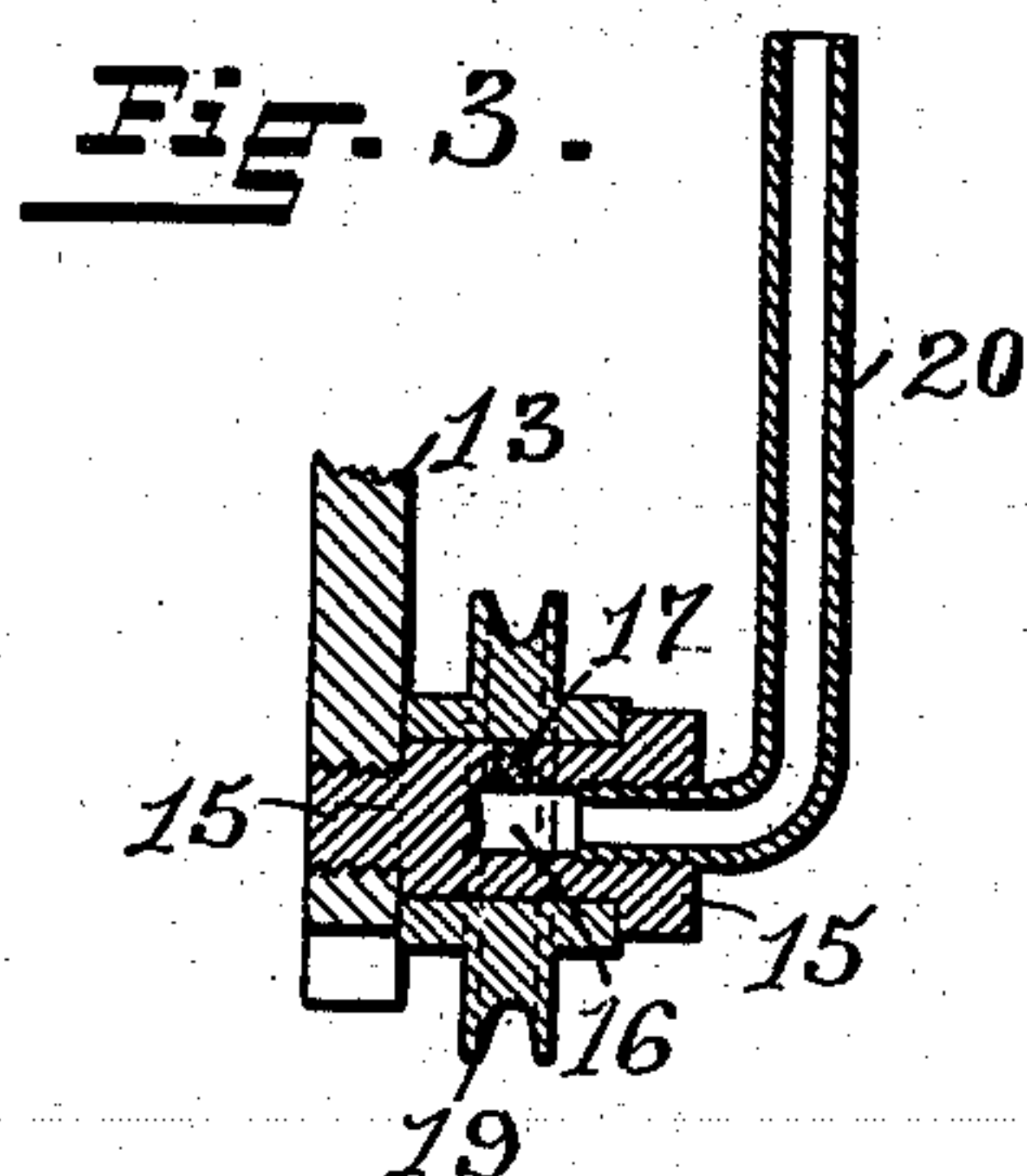
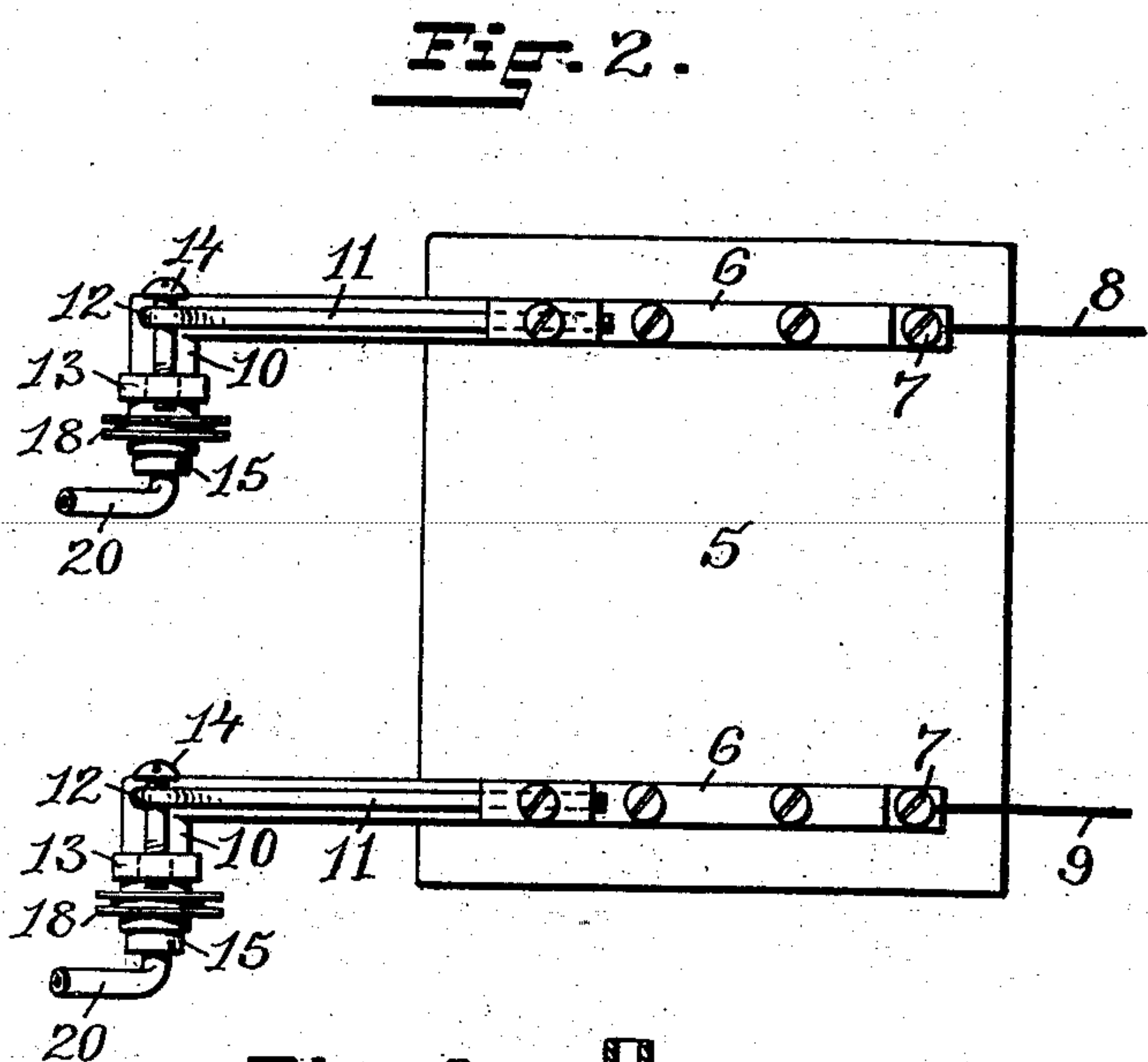
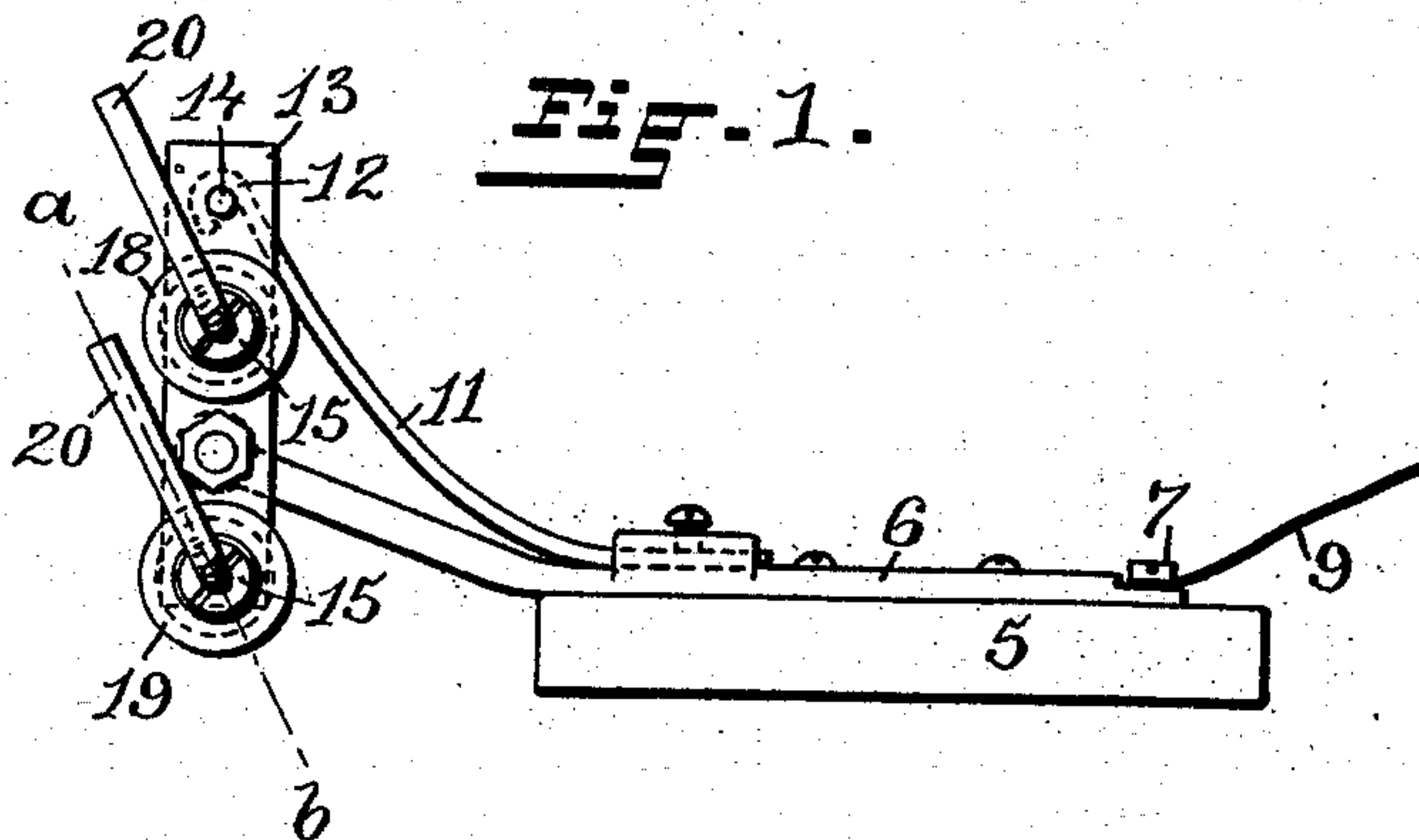


(No Model.)

J. K. PRITCHARD.  
ELECTRICAL CONTACT DEVICE.

No. 503,775.

Patented Aug. 22, 1893.



WITNESSES:

Henry J. Miller  
M. F. Bligh

INVENTOR:

James K. Pritchard,  
by Joseph A. Miller & Co.  
Attys.



# UNITED STATES PATENT OFFICE.

JAMES K. PRITCHARD, OF PROVIDENCE, RHODE ISLAND.

## ELECTRICAL CONTACT DEVICE.

SPECIFICATION forming part of Letters Patent No. 503,775, dated August 22, 1893.

Application filed March 20, 1893. Serial No. 466,934. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES K. PRITCHARD, of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Electrical Contact Devices; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in devices by which electrical connections are formed between stationary-conductors and traversing-mechanisms which are adapted to be operated by electrical-currents.

The object of the invention is to produce a simple and effective trolley connection by means of which a tension is created on the stationary-conductor.

Another object of the invention is to create a more intimate contact between the trolley-wheels and the stationary-conductor, as well as providing devices for lubricating these wheels.

The invention consists in the peculiar construction of the bracket for supporting the trolley-wheels in contact with a wire, together with such other novel features of construction and combination of parts as will hereinafter be more fully described and pointed out in the claims.

Figure 1 represents a side view of the improved connecting-device. Fig. 2 represents a plan view of the same, Fig. 3 being a sectional view of one of the pulley-wheels and its lubricator taken on a line *a—b*, Fig. 1.

Similar numbers of reference designate corresponding parts throughout the views.

When it is desired to conduct currents of electricity from a stationary source to a movable-mechanism which is adapted to be operated by the currents, the carriage on which the mechanism is mounted having a short traverse, as an elevator-car, the custom has been to connect stationary-conductors, leading from the source of energy to some convenient point, to the mechanism by means of flexible-cables carrying conductors; in elevator-shafts these are not practical as they soon wear out from the constant motion, or catch on projections and break; and it is to overcome these

difficulties that I have devised the present invention.

In the drawings 5 indicates a base which is made of slate, fiber, or any other suitable insulating material. This base may be secured to an elevator-car in any ordinary manner, and secured to its upper surface are two bent metallic-arms 6—6 having binding-posts 7—7, or other well known means, for connecting with the local circuit-wires 8 and 9 leading to and from the lamps, or fans, in the elevator-car. On the outer ends of the arms 6—6 are the hubs 10—10, and secured to the main portion of the arms are the bent-springs 11—11 having hooks, or stops, 12—12 at their outer ends.

Pivoted to the studs 10—10 are the cross-plates 13—13 having stop-pins 14—14 at their upper ends which are engaged by the springs 11—11 to keep the plates 12—12 in nearly vertical positions. The stud-shafts 15—15 are secured in perforations in the plates 13—13, at equal distances from the pivots securing these plates to the hubs 10 of the arms 6—6, and have lubricating-chambers 16—16 formed in their main portions which are connected by small perforations 17 more or less filled with leather plugs to retard the flow of the lubricant to the surfaces of these shafts on which are journaled the trolley-wheels 18 and 19 having peripheral-grooves, while extending upward from the ends of the stud-shafts are the lubricating-tubes 20—20 which connect with the lubricating-chambers in the same and may be filled from time to time.

The bare conductor-wires are secured at the top and bottom of the elevator-shaft, or, when used in the horizontal position, at the ends of the traverse of the mechanism so that they will be unobstructed for the whole length, sufficient looseness may be allowed to place the wires between the trolley-wheels 18 and 19, the wires extending on the outside edge of one (18) and on the inside of the other (19) and engaged in the peripheral-grooves. This arrangement of the wires will tend to throw the upper portions of the plates 13—13 toward the springs 11 the force of which will be exerted toward throwing the plates back into position and creating a slight tension on the wires which will make a better contact



than if the wheels merely ran against the wires.

This device is particularly adapted for conveying currents from stationary-conductors to elevators for use either in electric-lights, bells, fans, or otherwise. It may also be adapted for use in factories where movable lights are desired, and in fact wherever the unobstructed trolley-wires may be erected.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In an electric contact device, peripherally-grooved trolley-wheels mounted in pairs on pivoted-plates electrically connected with one arm of a circuit, and springs for exerting a strain on the plates, as described.

2. The combination with the insulating-

base 5, the arms 6—6 secured thereto having the hubs 10—10 and the springs 11—11 secured to the arms and furnished with the stops 12—12, of the plates 13—13 pivoted to the hubs 10—10 having the pins 14—14, the stud-shafts 15—15 secured to the plates 13—13 and having the lubricating-chambers 16—16 and outlets 17, the lubricating-tubes 20—20 secured to said shafts, and the grooved trolley-wheels 18 and 19 journaled on the shafts, as and for the purpose described.

In witness whereof I have hereunto set my hand.

JAMES K. PRITCHARD.

Witnesses:

HENRY J. MILLER,  
M. F. BLIGH.