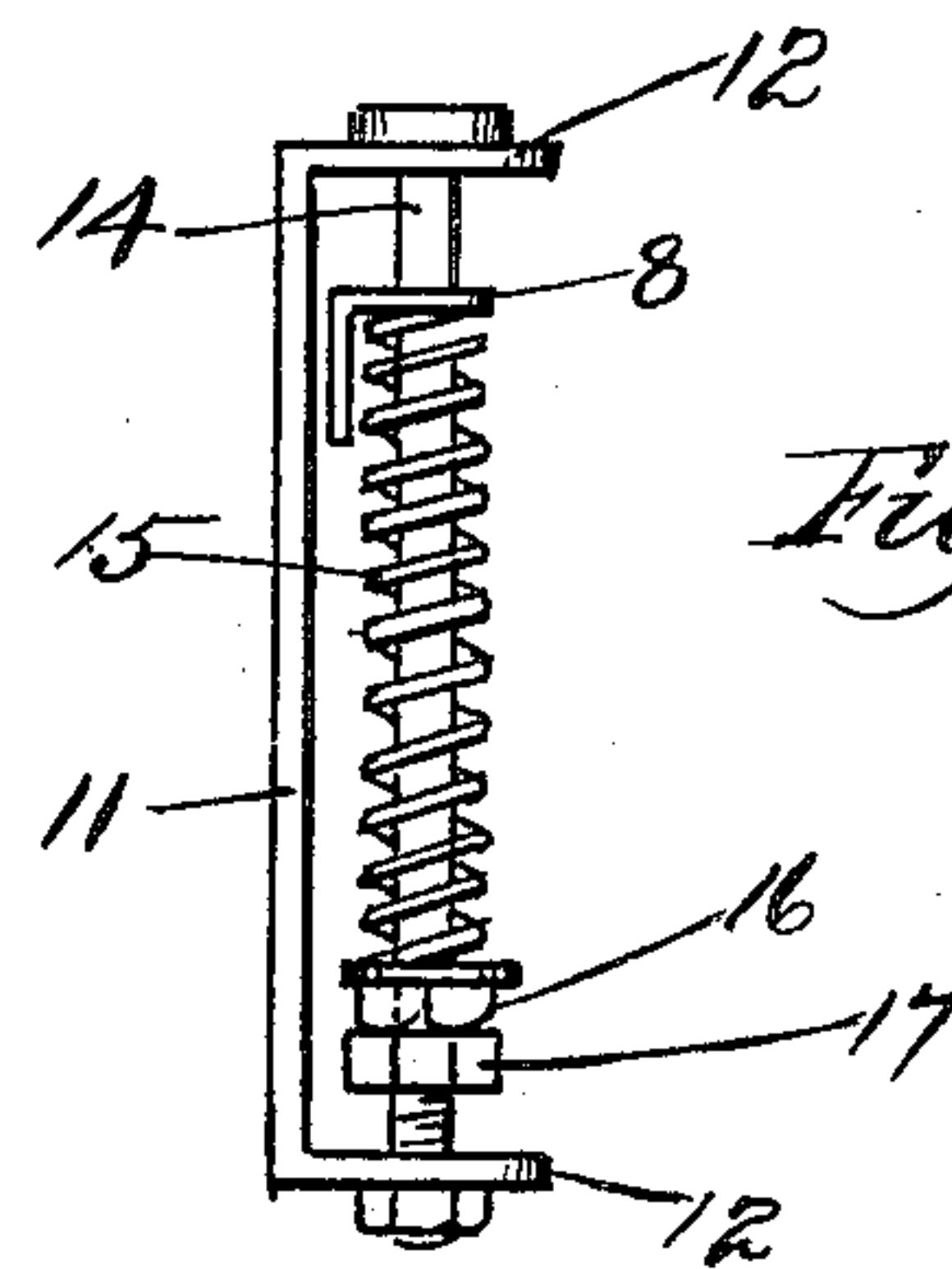
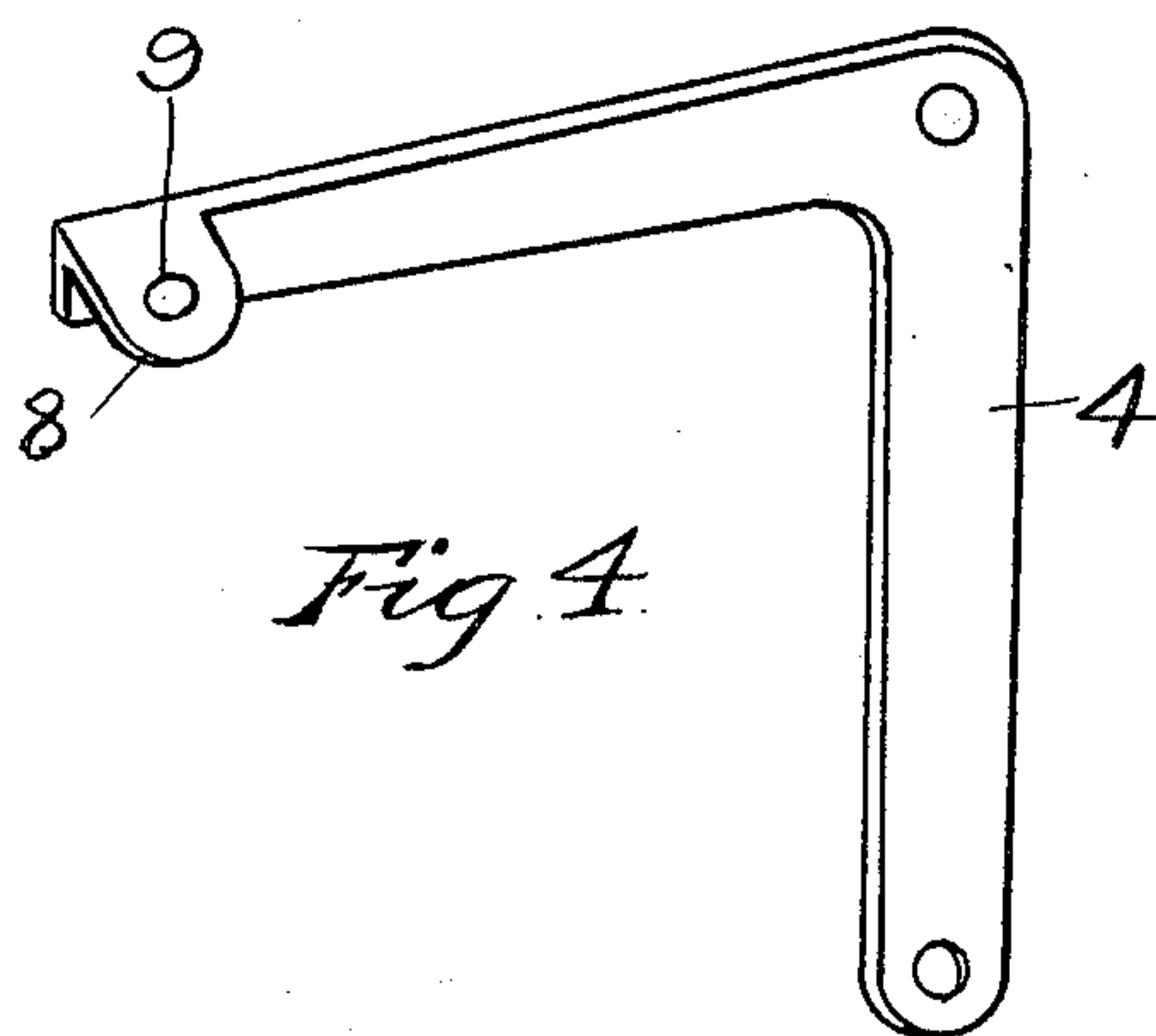
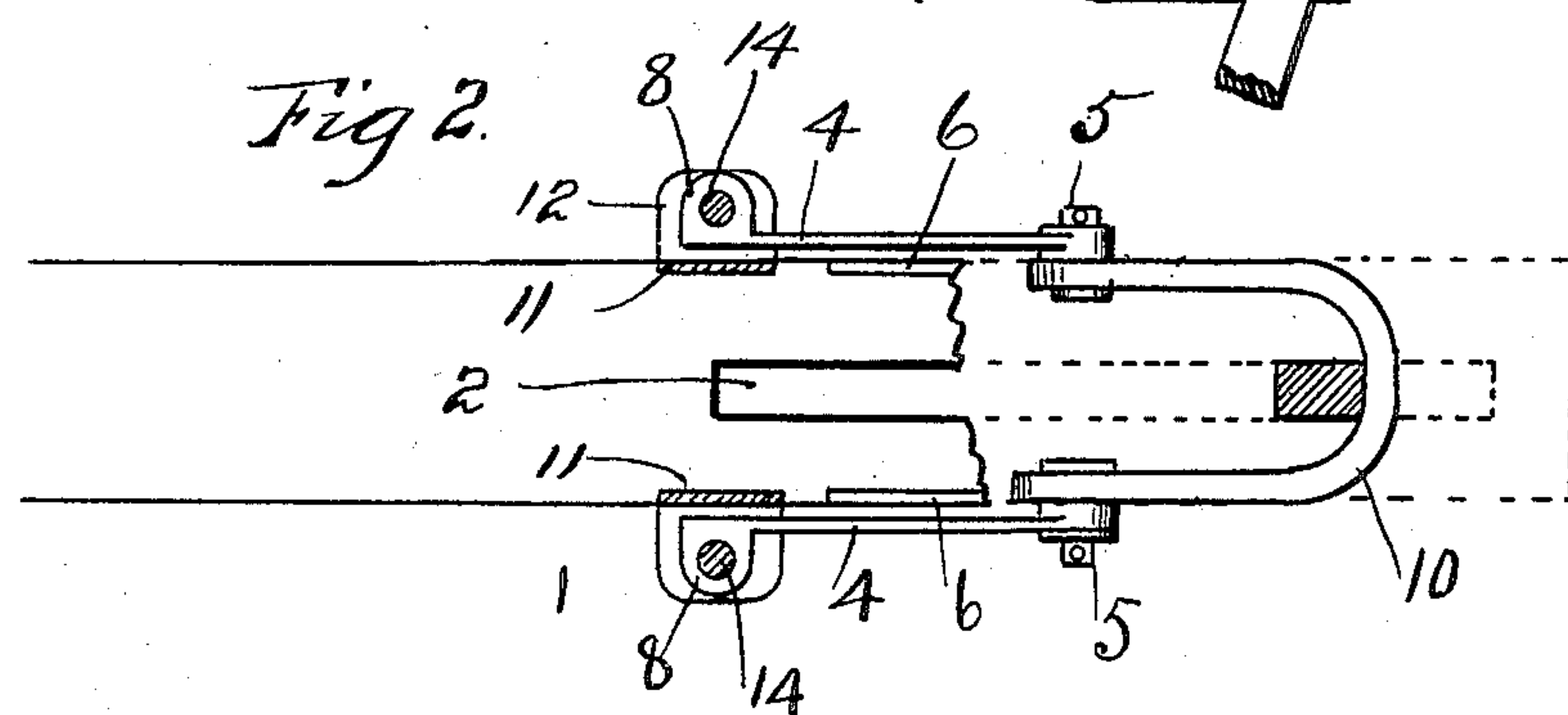
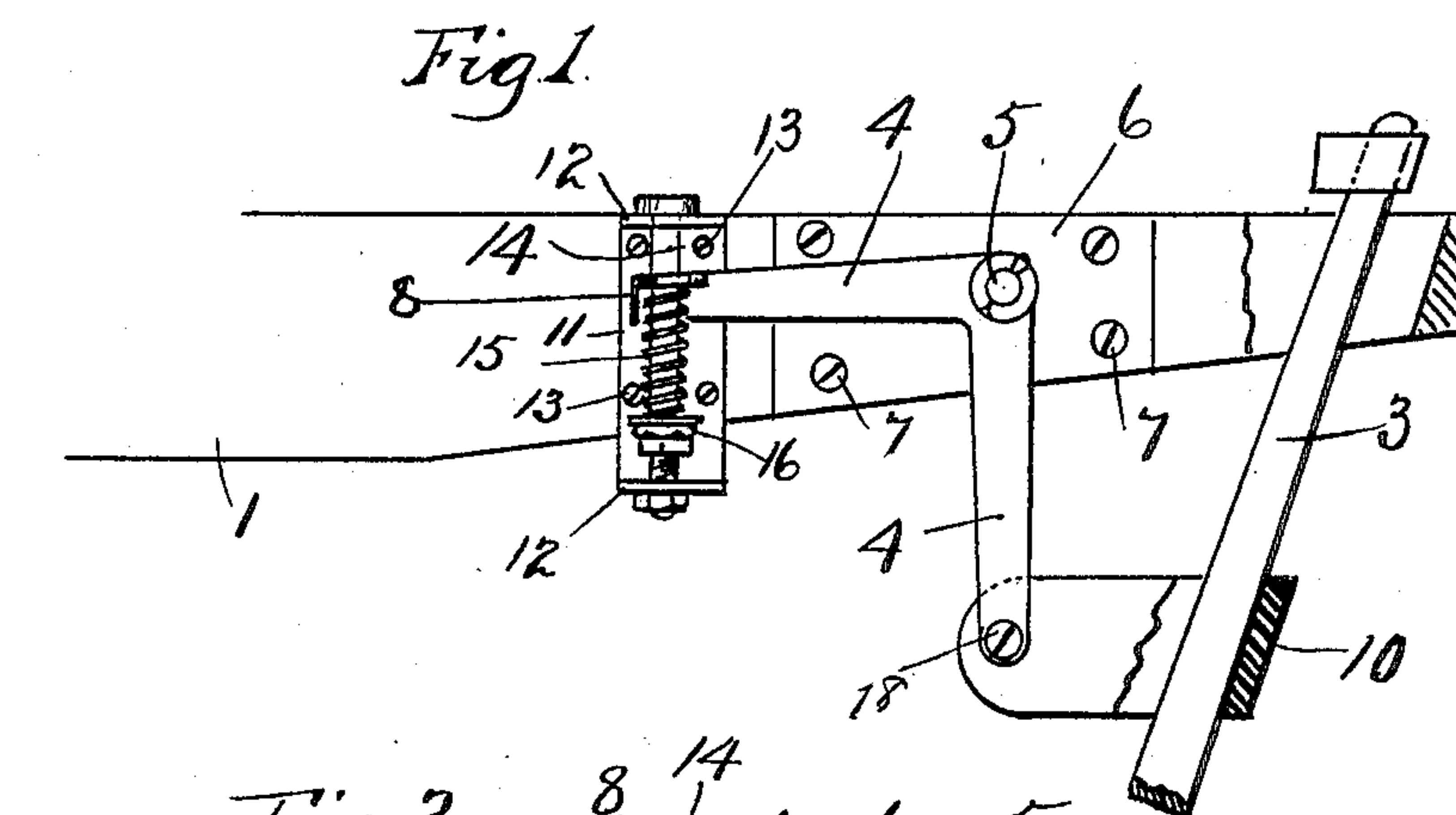


No. 828,676.

PATENTED AUG. 14, 1906.

F. O'DONNELL.
PICKER CHECK.

APPLICATION FILED JUNE 20, 1905.



Witnesses
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PICKER-CHECK.

No. 828,676.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed June 20, 1905. Serial No. 266,130.

To all whom it may concern:

Be it known that I, FELIX O'DONNELL, a citizen of the United States of America, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Picker-Checks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to picker-checks, and has for its object to produce a novel and effective means for supporting the picker-staff and through it to gradually check the movement of the shuttle as it enters the shuttle-box after having been thrown swiftly across the loom.

When the shuttle enters the shuttle-box, thrown with great violence by the picker across the loom, the force of the impact is received on the picker-staff on the opposite side, which staff is carried backward and forced against the spring-cushioned strap, which strap supports the staff and causes it to gradually stop the movement of the shuttle and effectually prevents it from rebounding.

30 This device is particularly adapted for a weft-replenishing loom, as it is of the utmost importance that the shuttle should stop in a given position beneath the bobbin-holder, so that the bobbin may be readily transferred from said holder into the shuttle when the same needs replenishing.

The invention is fully set forth in this specification and more particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation showing a portion of the lay with my spring checking device attached thereto, one side of the end of the lay and one side of the contact-strap being broken away. Fig. 2 is a plan view of the lay, showing my device attached thereto, the end of the lay being broken away and shown in dotted lines to more readily show the working mechanism. Fig. 3 is an enlarged view of the bracket and bolt on which the spring is mounted, also showing the means for adjusting the tension on said spring. Fig. 4 is an enlarged perspective view of one of the knee-levers.

Referring to the drawings, at 1 is the usual lay, which is longitudinally slotted at 2 for the reception of the usual picker-staff 3.

This staff is mounted and actuated in the usual manner. (Not shown.)

On each side of the lay is pivotally hung a bell-crank lever 4 4, each being pivoted on the pins 5 5 to the plates 6 6, which plates are secured to each side of the lay by screws 7 7 and serve to provide a suitable support for said pivot-pins 5 5. Near the outer end of the horizontal arm 4 of each of said levers is an ear 8, which extends out laterally from said arm and is provided with the hole 9, formed through it, allowing said ear to loosely engage the pin 14 to move freely up and down thereon and is arranged to engage and rest upon the coil-spring 15, hereinafter described. To the lower end of the downwardly-extending arm of each bell-crank lever is secured the strap 10, that is bent in a U shape and extends from the lower end of each of said levers around back of the picker-staff, as shown in Fig. 2. The ends of this strap 10 are connected to the lower end of each bell-crank lever 4 by the bolts 18. This strap is short enough so that when the said levers are in their normal position the strap will engage the staff and hold it somewhat forward of its rearmost position.

At 11 11 are brackets, each having outwardly-turned ears 12 12 on both their top and bottom ends. (See Fig. 3.) These brackets are secured to the lay in an upright position by the screws 13 13. Extending through each of the ears 12 12 is the pin 14, having a head on its upper end and being threaded up a portion of its length from its lower end. Around this pin is the coil-spring 15. The lower end of this spring rests on the nut 16, which is threaded onto the pin 14. The ear 8 on the outer end of the arm 4 is arranged to engage the upper end of this spring 15, and the tension of said spring against this arm may be nicely adjusted by setting the said nut 16 and locking it in the desired position by the check-nut 17.

The idea of having a pair of bell-crank levers—one pivotally hung on each side of the lay—is a very practical construction, as one end of each lever is made to rest on a spring the tension of which may be nicely adjusted in a very simple manner. The downwardly-extending arms of each lever offers a very convenient place to fasten the end of the U-shape strap that engages the back of the picker-staff and supports the same against

a too-rapid backward movement. By this construction the springs may be nicely adjusted to assist in gradually stopping the movement of the shuttle and effectually prevent it from rebounding.

My improved device is extremely simple in construction, inexpensive to manufacture, effective in operation, and easy to attach to any loom.

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

1. In a loom, a lay, a picker-staff, a pair of levers pivoted to said lay, a strap attached to said levers to engage the back of the picker-staff and flexible means whereby said levers will yield and ease back said staff when it receives the impact of the flying shuttle.

2. In a loom, a lay, a picker-staff, a pair of levers pivoted to said lay, a strap attached to one end of said levers to engage the back of the picker-staff, and flexible means engaging the opposite end of said levers whereby said levers will yield and ease back said staff when it receives the impact of the flying shuttle.

3. In a loom, a lay, a picker-staff, a pair of bell-crank levers pivoted to said lay, a flexible strap attached to the lower end of each of said levers to engage the back of the picker-staff, and a spring arranged to engage the opposite end of each of said levers to allow said levers to yield and take the shock and ease back the staff when it receives the impact of the flying shuttle.

4. In a loom, a lay, a picker-staff, a pair of bell-crank levers one pivoted on each side of the lay, a flexible strap attached to the downwardly-extending arm of each of said levers and passing around back of said staff, and a spring arranged to engage the opposite end of each of said levers to take the shock and ease back the staff when it receives the impact of the flying shuttle.

5. In a loom, a lay, a picker-staff, a pair of bell-crank levers one pivoted on each side of the lay, a flexible strap attached to the downwardly-extending arm of each of said levers and passing around back of said staff, a spring arranged to engage the opposite end of each of said levers to take the shock and ease back the staff when it receives the impact of the flying shuttle, and means whereby said tension on said spring may be adjusted.

6. In a loom, a lay, a picker-staff, a pair of levers one pivoted to each side of said lay, a flexible strap attached to one end of each of said levers and extending around back of said staff, a spring arranged to engage the opposite end of said levers, and means for adjusting said spring to cause more or less tension on said lever.

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

FELIX O'DONNELL.

Witnesses:

HOWARD E. BARLOW,
E. I. OGDEN.