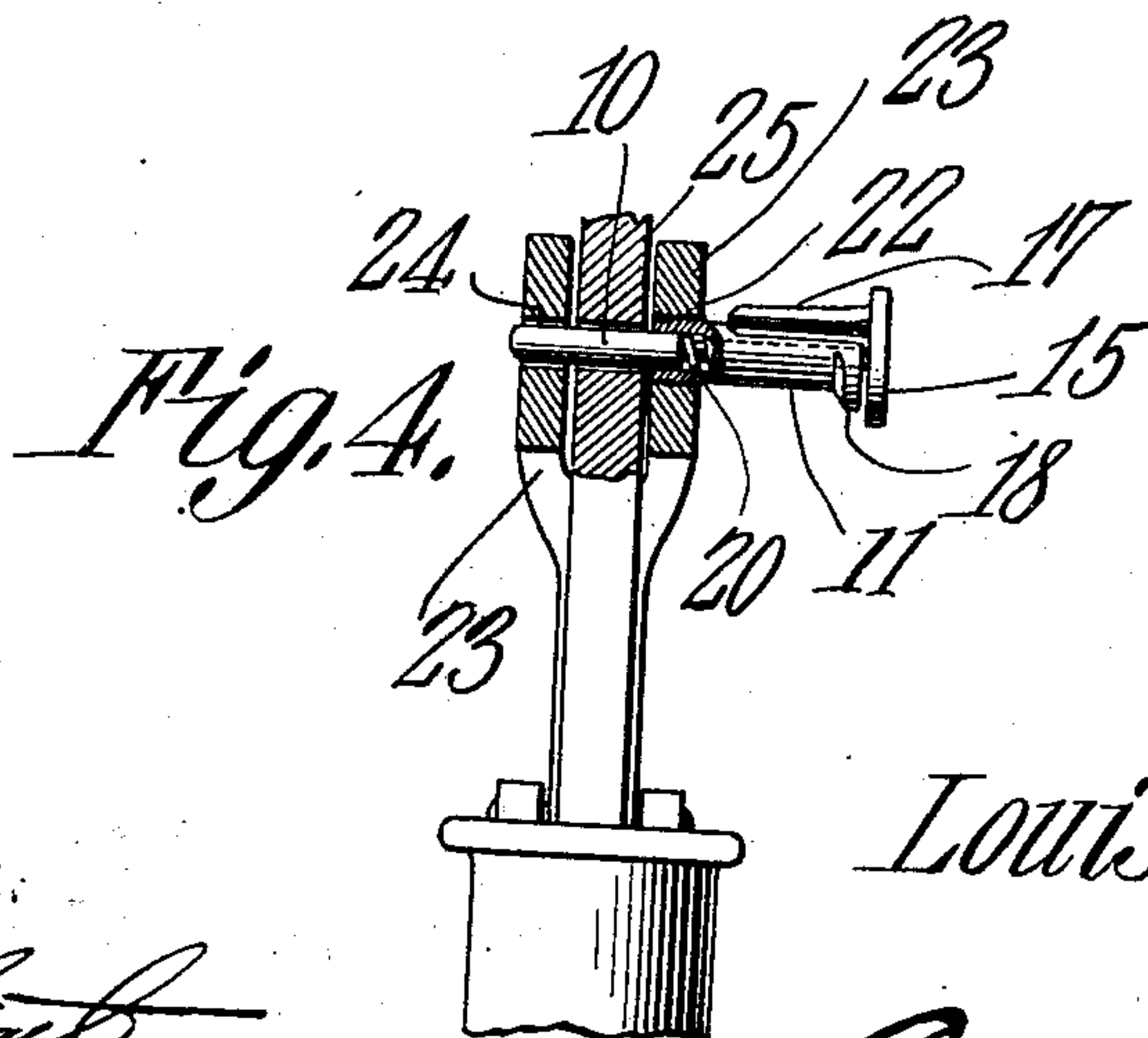
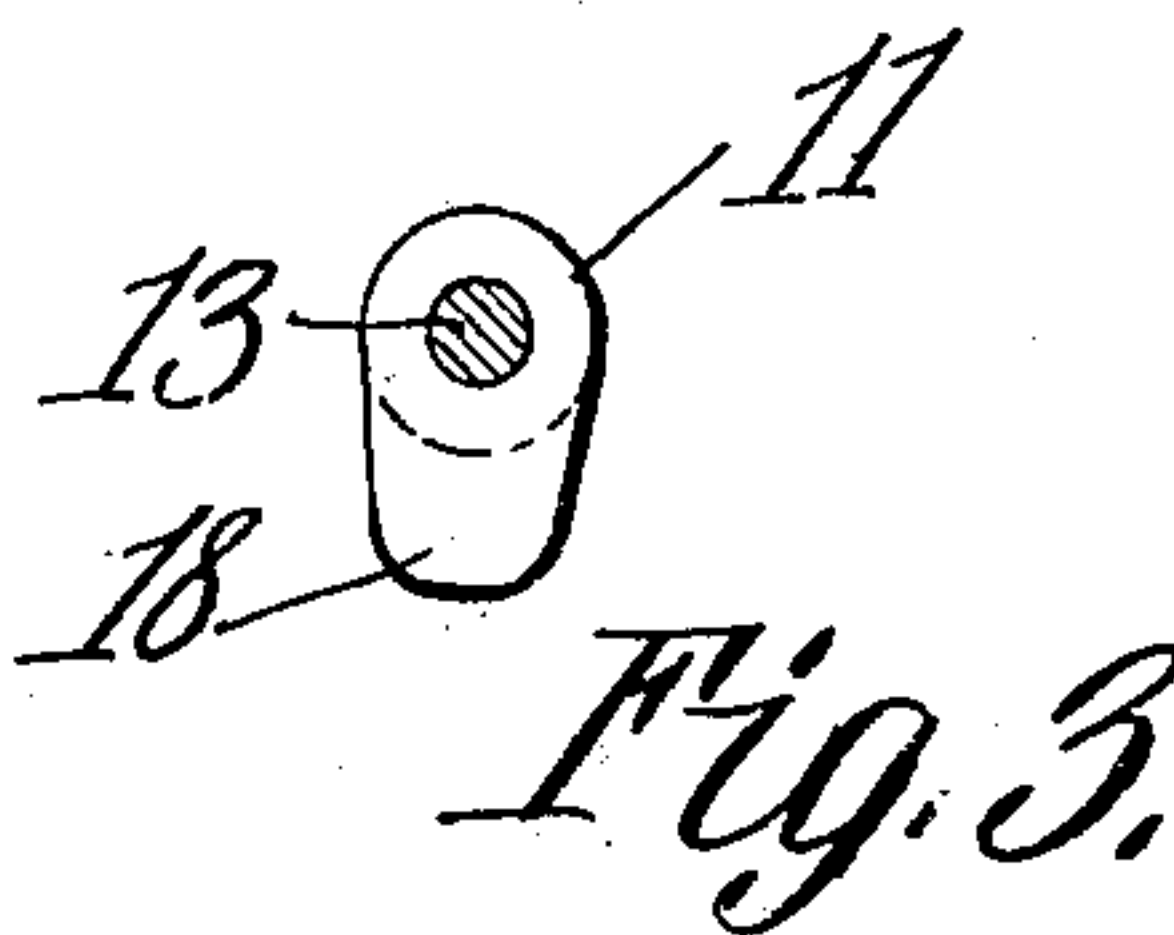
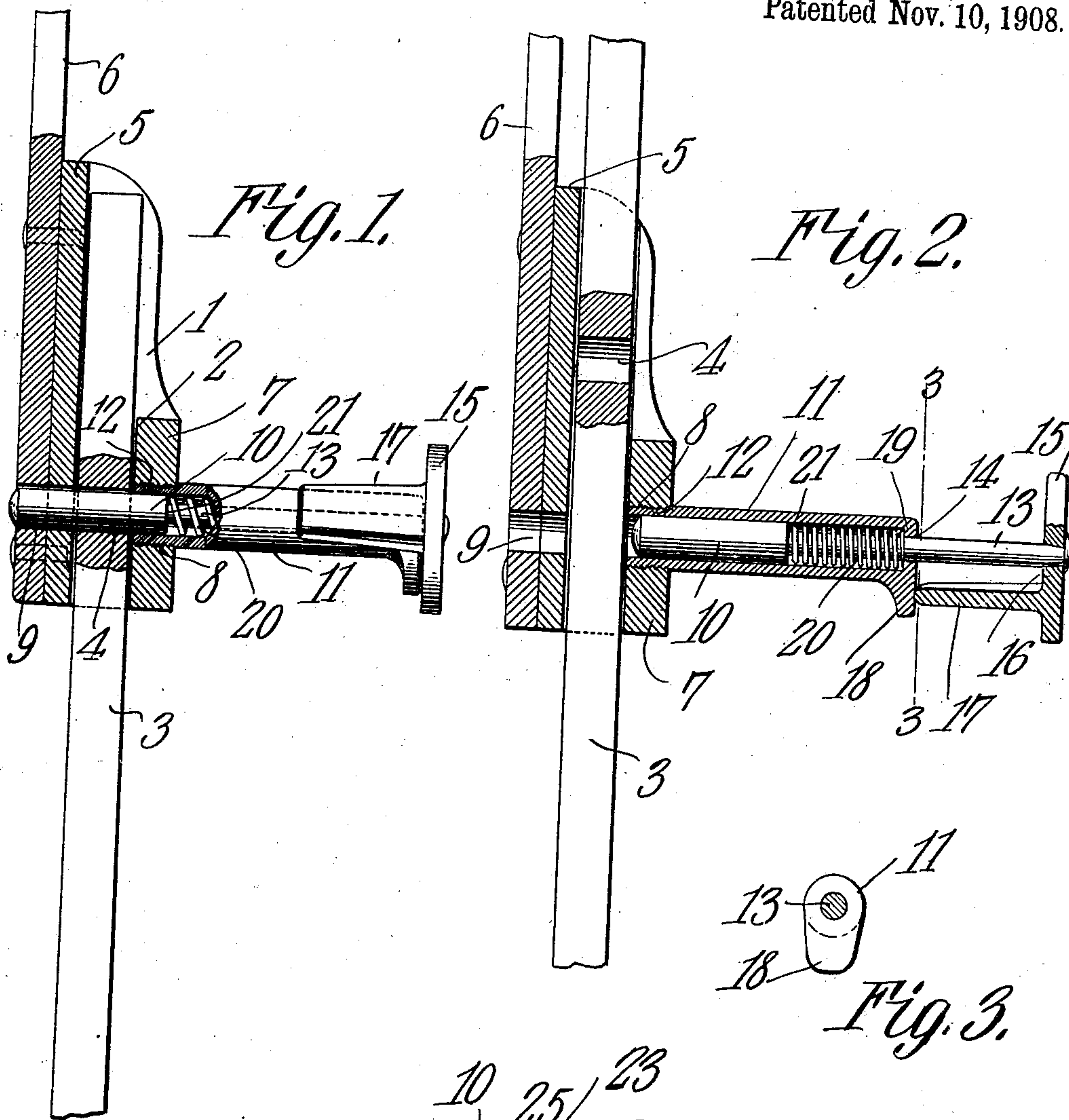


L. C. HAMEL.
PUMP COUPLING.
APPLICATION FILED APR. 26, 1907.

903,712.

Patented Nov. 10, 1908.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LOUIS C. HAMEL, OF APPLETON, WISCONSIN.

PUMP-COUPLING.

No. 903,712.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed April 26, 1907. Serial No. 370,460.

To all whom it may concern:

Be it known that I, LOUIS C. HAMEL, a citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Pump-Coupling, of which the following is a specification.

This invention relates to improvements in devices for connecting pumps to their operating devices, and it has for its object to provide an improved mounting for the coupling pin that is especially adapted for use on couplings for windmills and similar devices wherein it is desirable or necessary at times to disconnect the pump from the motor and to connect it for manual operation, the present invention providing a device of this character that may be readily applied to any of the ordinary couplings employing a pin or bolt connection without the necessity of fitting it according to variations in the sizes of the couplings, and it is capable of being advantageously applied to couplings already in use.

To these and other ends, the invention comprises the various novel features of construction and combination and arrangement of parts, which will be hereinafter more fully described, and pointed out particularly in the claims appended hereto.

In the accompanying drawing:—Figure 1 is a sectional view of the pump coupling showing my present invention applied thereto, the connecting pin being shown in operative position. Fig. 2 is a view similar to Fig. 1, the pin supporting sleeve being shown in section, and the pin being shown in its retracted position. Fig. 3 represents a transverse section on the line 3—3 of Fig. 2. Fig. 4 shows the application of the invention to a pump handle.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The pump coupling shown in the present embodiment of my invention is of the ordinary type that is applied to windmills and analogous devices, comprising a casting 1 having a vertically extending aperture 2 to loosely receive the pump rod 3, the latter being provided with one or more apertures 4 extending transversely thereof and adapted to receive the connecting pin. The rear wall 5 of the casting is riveted, or otherwise secured, to the connecting rod 6 of the windmill or other form of motor, a gas en-

gine being employed in many instances, and the forward wall 7 of the casting is provided with a threaded aperture 8, the rear wall of the connecting rod being provided with an aperture 9 which is arranged in alinement with the axis of the threaded aperture at the opposite end of the casting.

The connecting pin 10 in the present instance is fitted within and adapted to reciprocate axially of a sleeve 11, the latter having one end threaded, as at 12, and screwed into the threaded aperture 8 of the casting. The connecting pin is provided with a reduced operating stem 13 which projects through a reduced opening 14 in the sleeve and is provided with an operating head 15, the latter being preferably composed of a casting having a tapered aperture 16 into which the correspondingly shaped end of the pin operating stem is driven, the end of the latter being riveted to prevent disengagement of the parts. On the under side of the head is provided a projection 17 which extends inwardly toward the coupling a distance substantially equivalent to the movement of the pin in locking and unlocking the coupling relatively to the pump rod, and on the other end of the sleeve is formed a laterally extending lug 18, the projection on the head being moved into and out of line with the said lug by a relative rotary movement between the head and sleeve.

The bore 14 of the sleeve is sufficiently reduced relatively to the full diameter of the interior of the sleeve to form a shoulder or abutment 19 adapted to cooperate with the outer end of a helical compression spring 20 which is inclosed within the sleeve and encircles the pin operating stem, the inner end of the spring cooperating with a shoulder 21 formed at the outer end of the connecting pin. The spring normally acts to move the pin toward the pump rod, and when the aperture 4 therein registers with the axis of the pin, the latter will pass through the aperture in the pump rod and rest in the aperture 9 formed in the rear wall of the coupling, thereby forming an operative connection between the pump and its motor or operating mechanism, the normal tendency of the spring serving to retain the pin in locked position. Whenever it is desirable to disconnect the pump relatively to its operating means, the pin is retracted by manipulation of the head 15, and after the pin has been retracted, the head is turned about

the pin as an axis, bringing the projection 17 in line with the laterally extending lug 18 on the sleeve, and when the head is released, these parts operate to retain the pin 5 in retracted position, and the pump rod and coupling will operate freely relatively to one another, the pump rod operating loosely through the vertical aperture 2 of the coupling.

- 10 In applying the invention to a pump handle, a threaded aperture 22 is formed in one of the fork members 23 of the handle, the threaded aperture being arranged in alignment with the aperture 24 in the opposite
15 fork member, the pump rod 25 being connected and disconnected relatively to the handle or operating part by manipulating the pin in the manner hereinbefore described.
- 20 The improvement may be applied to couplings, pump handles, and other operating parts in a very simple way, one of the apertures of the usual connecting pin being tapped to receive the threaded end of the
25 sleeve, the axis of the latter being alined relatively to the other pin receiving aperture, and it may be advantageously applied to couplings, and the like, that have been in use so long that the pin receiving apertures
30 are considerably worn, the sleeve in such cases serving as a bushing to eliminate the lost movement between the coupling and the pump rod.

What is claimed is:—

- 35 1. A pin attachment for pump couplings comprising a sleeve having one end adapted to be inserted into one of the pin-receiving apertures of the coupling and the other end closed up to a central perforation and also
40 provided with a side lug or ledge adapted

when the sleeve is in place to project downwardly, a connecting pin having its stem projecting through the perforation in the end of the sleeve, a spring housed in the sleeve and surrounding the stem of the pin, 45 and a head secured to the outer end of the stem and of an area greater than that of the end of the sleeve, said head having at one side a projection parallel with the stem and constituting a distance and gravity member 50 for maintaining the pin in the retracted position by engaging the ledge.

2. A pin attachment for pump pistons comprising a sleeve formed at one end with its screw threads for insertion into the pin- 55 receiving aperture of the coupling and having the other end closed and formed with a lateral lug or ledge, the sleeve with the lug or ledge being all cast in one piece, a connecting pin housed in said sleeve and hav- 60 ing one end projected beyond the threaded end thereof, said pin being provided with a stem extending through a perforation in the closed end of the sleeve, a spring surrounding the stem of the pin within the sleeve, and 65 a head secured to the outer end of the stem, said head being of greater area than the end of the sleeve and having formed on it a spacing projection parallel with the stem and constituting a distance and gravity 70 member for maintaining the pin in the retracted position by engaging the ledge on the sleeve.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses. 75

LOUIS C. HAMEL.

Witnesses:

WM. F. KAMPS,
PAUL STAEDT.