W. FULTON.

CONNECTING PIN.

APPLICATION FILED APR. 1, 1908.

**914,133.** Patented Mar. 2, 1909.

Fig. 1.

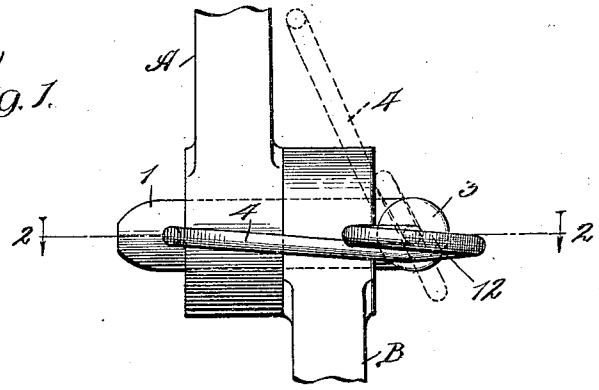



Fig. 2.

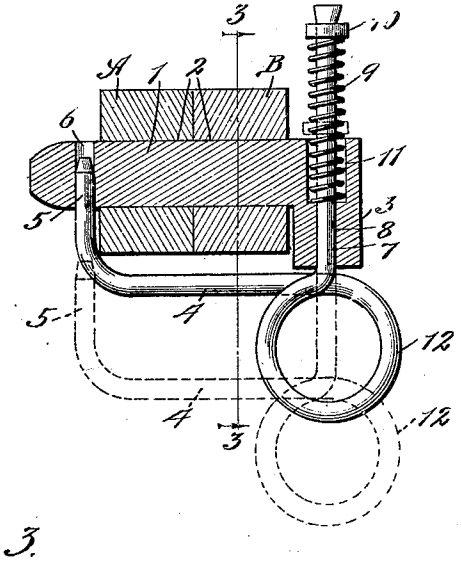
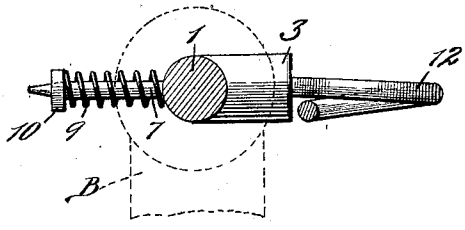



Fig. 3.




Witnesses:

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# UNITED STATES PATENT OFFICE.

WILLIAM FULTON, OF SOUTH BELOIT, ILLINOIS.

## CONNECTING-PIN.

No. 914,133. Specification of Letters Patent. Patented March 2, 1909.

Application filed April 1, 1908. Serial No. 424,499.

*To all whom it may concern:*

Be it known that I, WILLIAM FULTON, a citizen of the United States, residing at South Beloit, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Connecting-Pins, of which the following is a specification.

This invention relates to pins used for connecting together two parts, such as the reciprocating connecting rod of a wind mill and the plunger of a pump, and its object is to provide improved means for locking the pin in place so that it shall not work out of its opening or otherwise become accidentally displaced.

In the accompanying drawings, Figure 1 is a view showing the pin in operative relation with two parts to be connected. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 2.

In the drawings, A and B indicate two parts to be united, for example, the reciprocatory connecting rod of a wind mill and the plunger of a pump to be actuated by the mill.

The connecting pin 1 is adapted to extend through the openings 2 in the parts A and B, and has at one end means for supporting a keeper to be hereinafter described. Said supporting means, in this instance, comprises an angular head 3, which also serves to limit the longitudinal movement of the pin with relation to the parts A and B in one direction.

The keeper 4, as herein shown, is pivotally and slidably supported in the head 3 and its free end 5 is adapted to enter an opening 6 in the connecting pin 1. The opening 6 is formed in the end of the connecting pin opposite to the head thereof, the keeper 4 being intended to extend around the parts A and B to be connected for the purpose of locking the connecting pin against accidental displacement.

The pivot or support 7 of the keeper 4 is slidably and rotatably mounted in an opening 8 in the head of the connecting pin and extends sufficiently far beyond one side of said head to permit of interposing a coiled compression spring 9 between said head and a collar or equivalent device 10 mounted upon said pivot 7. In the present embodiment, the head 3 is counterbored at 11 to receive one end of the coiled spring 9. The latter tends to move the keeper 4 into its operative position.

In order to provide means for readily operating the keeper 4 a ring 12 may be attached thereto. The keeper 4 together with its pivot 7 and the ring 12 may be conveniently and cheaply formed of a single piece of wire bent as indicated in the drawings.

In use, the keeper 4 is drawn by the operator to one side of the connecting pin 1 far enough to permit said pin to be inserted through the two parts to be connected, and said keeper may then be engaged with said pin as shown in Fig. 2, in which position the keeper is held by the spring 9. The keeper 4 effectively prevents the connecting pin from becoming accidentally displaced.

It will be understood that the end 5 of the keeper need not be inserted in the opening 6. Said keeper will accomplish its purpose if it simply embraces the parts to be connected. The device herein shown may therefore be used in connection with rods or plungers of varying thickness.

I claim as my invention:

1. A connecting pin provided with a head; a keeper having a support slidably mounted in said head, the body portion of said keeper lying outside of said pin; and a spring tending to move said body portion toward said pin.

2. A connecting pin provided with a keeper having a pivot extending at right angles to the body portion of said keeper, said pivot being slidably mounted in said pin, and a coiled spring surrounding said pivot and interposed between said pin and a fixed point on said pivot.

3. A connecting pin provided with a keeper having a pivot extending at right angles to the body portion of said keeper, said pivot extending transversely through said connecting pin and being slidably and rotatably mounted in said pin, a part fixed with relation to said pivot, and a coiled spring surrounding said pivot and interposed between said pin and said part.

4. A pin for connecting two parts, said pin having an opening in one end, a keeper slidably mounted in the other end of said pin transversely thereof, one end of said keeper being adapted to enter said opening.

5. A connecting pin provided with a head, and having a recess therein near its end opposite said head, a keeper having a support slidably mounted in said head transversely of said pin, said keeper being adapted to embrace the parts to be connected, and having

a point adapted to enter said recess; a part fixed on said support; and a spring interposed between said head and said part.

6. A pin for connecting two parts, said pin being provided with a keeper having a support slidably mounted in said pin near one end, said keeper being adapted to embrace said parts and having a point arranged to enter the opposite end of said pin.

7. A connecting pin provided with a head; a keeper having a pivot slidably and pivotally mounted in said head, said keeper having a point adapted to enter said pin; a part fixed with relation to said pivot; a spring interposed between said head and said part; and a finger-receiving ring on said keeper, said keeper, ring and pivot being formed from an integral piece of wire.

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Witnesses:
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