

(No Model.)

W. H. BURNHAM & J. H. MILLER.
COMPENSATING PUMP ROD.

No. 428,800.

Patented May 27, 1890.

Fig. 1.

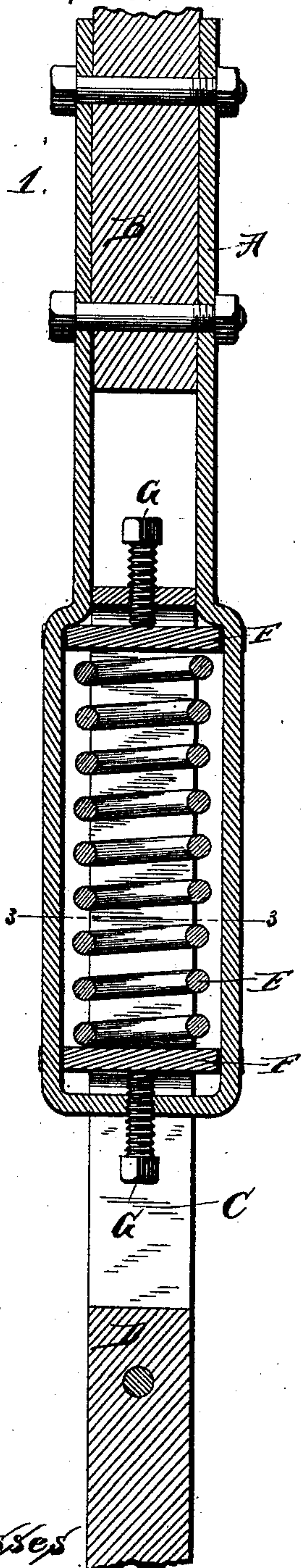


Fig. 2.

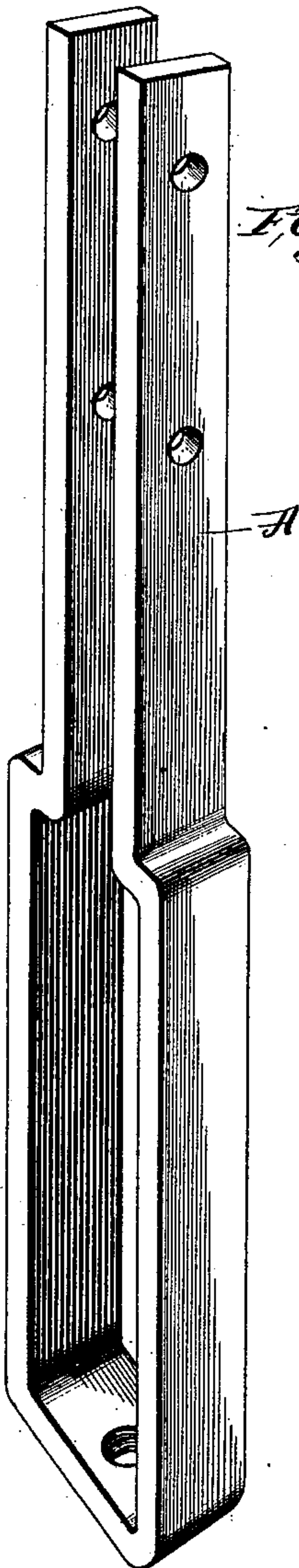


Fig. 3.

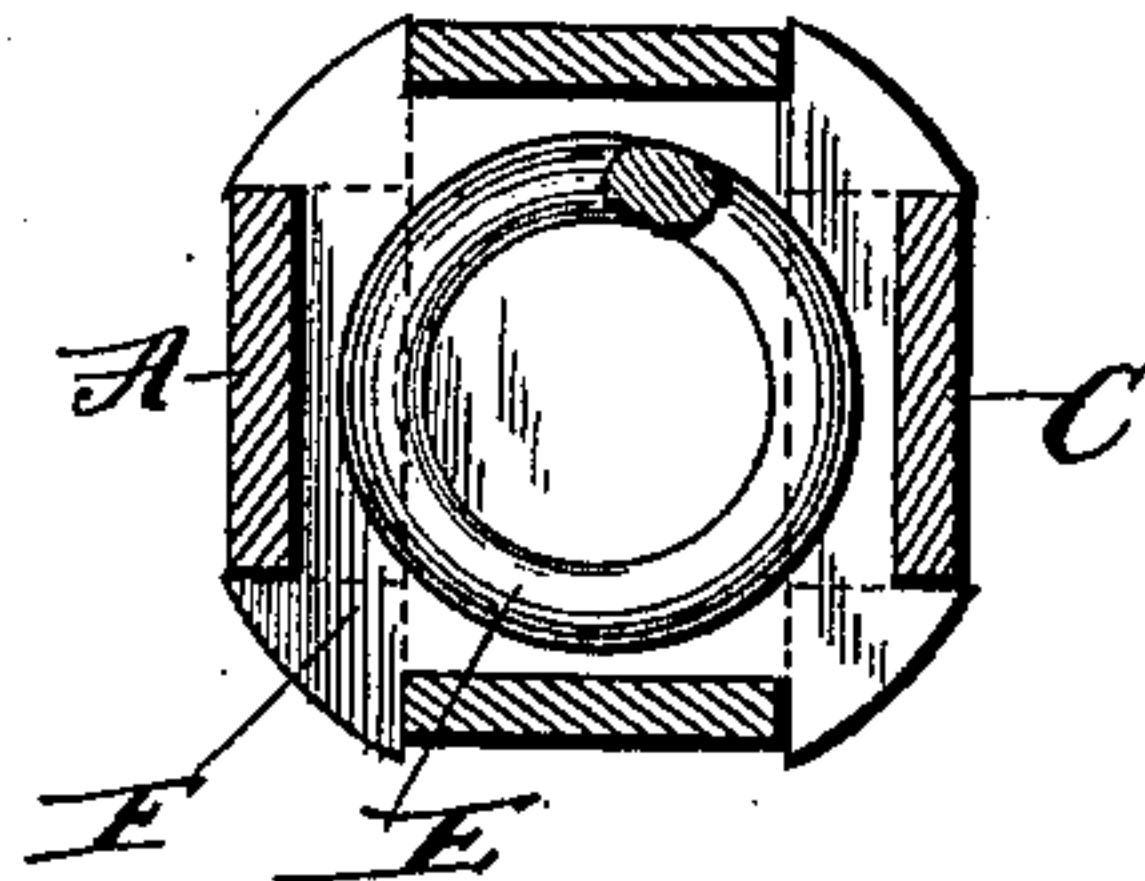
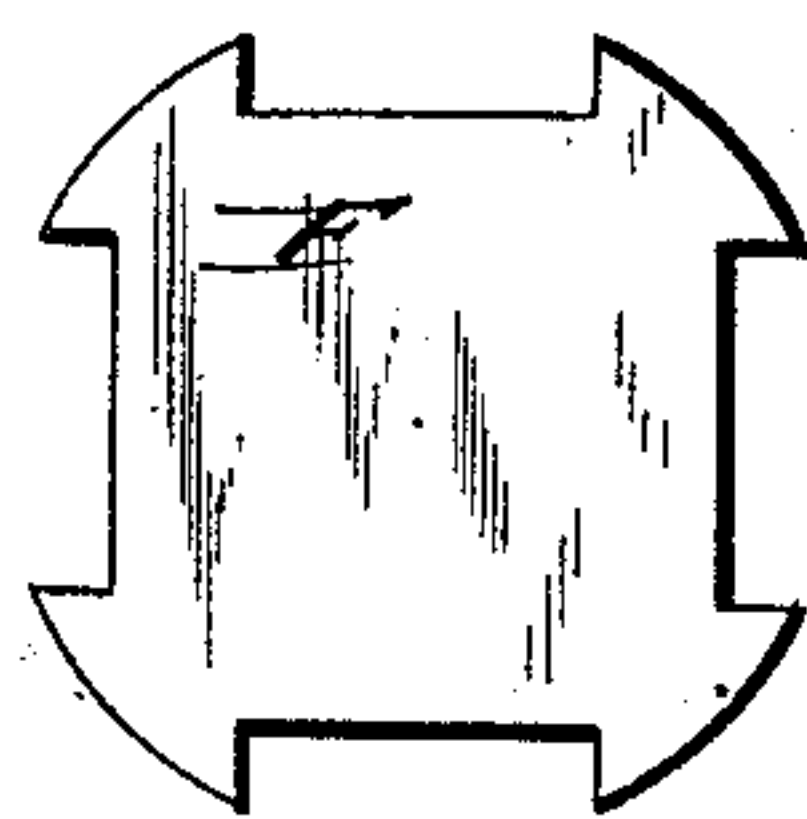


Fig. 4.



Witnesses
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By *Coburn & Thacher*
Attys

UNITED STATES PATENT OFFICE.

WILLIAM HENRY BURNHAM AND JOHN H. MILLER, OF BATAVIA, ILLINOIS,
ASSIGNORS TO THE UNITED STATES WIND ENGINE AND PUMP COM-
PANY, OF SAME PLACE.

COMPENSATING PUMP-ROD.

SPECIFICATION forming part of Letters Patent No. 428,800, dated May 27, 1890.

Application filed March 17, 1890. Serial No. 344,137. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM HENRY BURNHAM and JOHN H. MILLER, citizens of the United States, residing at Batavia, in the county of Kane and State of Illinois, have invented a certain new and useful Improvement in Compensating Pump-Rods, which is fully set forth in the following specification, reference being had to the accompanying
10 drawings, in which—

Figure 1 represents a vertical sectional view of our invention; Fig. 2, a perspective view of one of the coupling-irons. Fig. 3 is a transverse sectional view taken at the line 3 3, Fig. 1; and Fig. 4 is a view of one of the washers detached.
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The object of this invention is to prevent pumps, when obstructed, from being injured by the action of the pump-rod driven by
20 non-yielding power, such as windmills. The means which we use for accomplishing this purpose consists of a two-part pump-rod with a spring placed between separate ends, giving an elasticity to the pump-rod which prevents breakage to a large degree in case of
25 an obstruction in the pump.

Our invention consists of the special construction of the devices with which the two parts of the pump-rod are coupled together
30 and the devices which serve to keep the spring in place, as hereinafter fully described.

A represents the coupling-strap, which is secured by bolts or other suitable attaching devices to one portion of the pump-rod B. C
35 is the coupling-strap attached to the other end of the pump-rod, which is represented by D. These metal straps form a loop projecting beyond the respective ends of the parts of the pump-rods to which they are attached,
40 in which the coil-spring E is placed. The

coupling-strap C is within the loop of the coupling-strap A, as clearly shown in Fig. 1, so that the coupling-straps form a chamber which contains the spring. At each end of the spring there is a washer F, which is loose
45 and movable within the chamber formed by the coupling-straps A and C.

G are set-screws passing through the ends of the coupling-straps, by which the washers are set up to increase the tension of the spring
50 E between washers.

The looped coupling-straps which couple the two parts of the pump-rod together, by their construction, have between their looped ends the spring E, so held in position by the
55 washers that the power applied to the pump-rod compresses the spring, and whenever any obstruction occurs in the pump the spring gives an elasticity to the rod, which largely prevents breakage. The set-screws placed
60 behind the washers regulate the tension of the spring as desired.

This invention is an improvement on our compensating pump-rod patented by us April
17, 1888, No. 381,211.
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We claim as new and desire to secure by Letters Patent—

1. In cushioned pump-rods, the coupling-straps A and C, the pump-rods B and D, and spring E within the looped ends of the pump-
70 rod couplers, substantially as specified and shown.

2. In cushioned pump-rods, the coupling-straps A and C, spring E, washers F, and set-screws G, substantially as specified and shown.
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Witnesses:

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