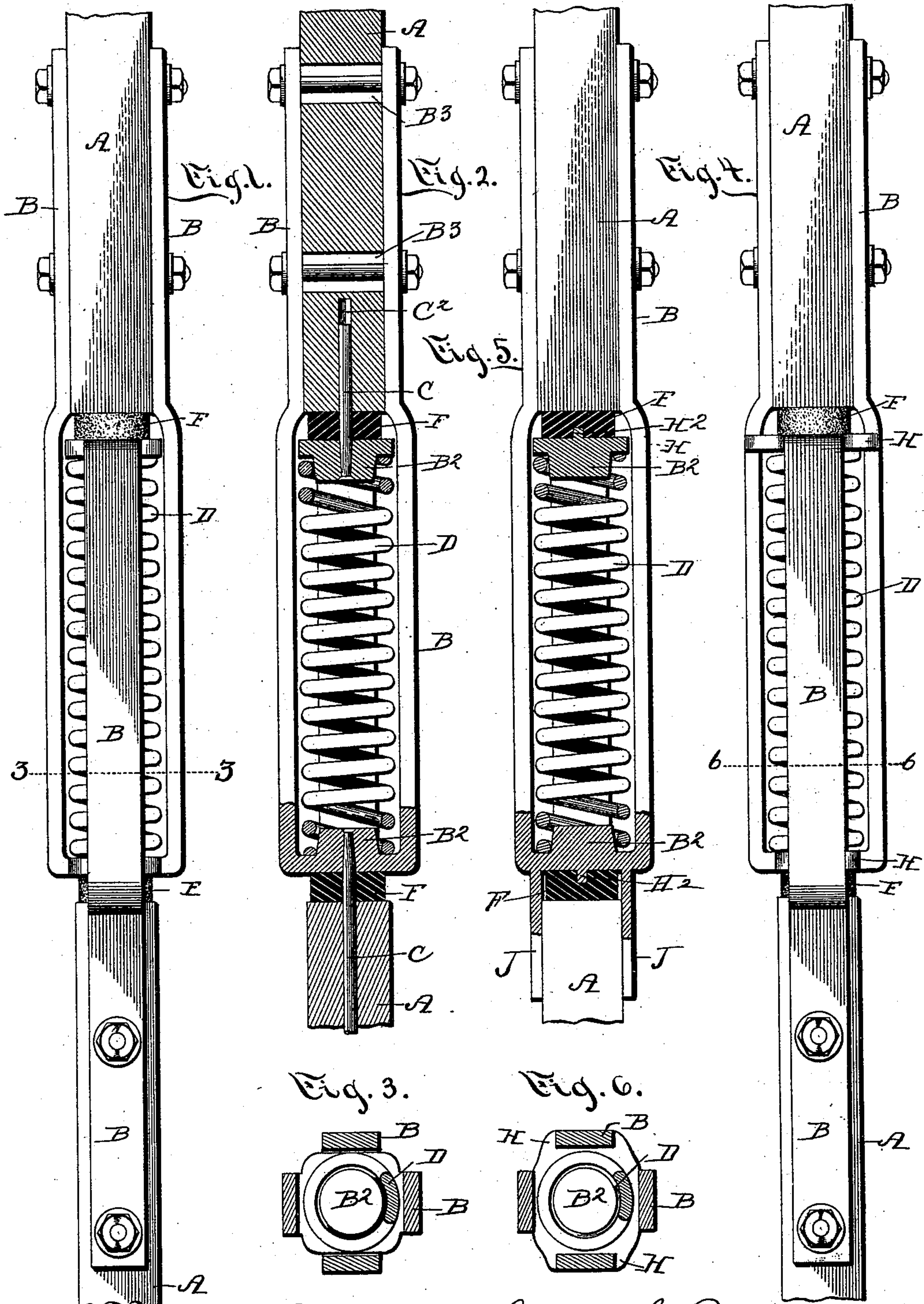


(No Model.)

G. H. BEEBE.
COMPENSATING PUMP ROD.

No. 551,176.

Patented Dec. 10, 1895.



Witnesses:
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R. E. Orwig.

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UNITED STATES PATENT OFFICE.

GEORGE H. BEEBE, OF MARSHALLTOWN, IOWA.

COMPENSATING PUMP-ROD.

SPECIFICATION forming part of Letters Patent No. 551,176, dated December 10, 1895.

Application filed March 18, 1895. Serial No. 542,154. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. BEEBE, a citizen of the United States of America, residing at Marshalltown, in the county of Marshall and State of Iowa, have invented an Improvement in Compensating Pump-Rods, of which the following is a specification.

The object of this invention is to provide a simple, cheap, strong and durable device that may readily and quickly be attached to a pump-rod, to minimize the shocks and jars incident to pumping, and further to provide a device in which all lateral movement of the rod is prevented and all frictional contact of metal parts obviated so as to dispense with the use of oil for lubricating the contacting surfaces.

My invention consists in certain details in construction hereinafter set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the complete device connected with the abutting ends of a wooden pump-rod. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view through the line 3 3 of Fig. 1. Fig. 4 is a side elevation of a modified form of the device. Fig. 5 is a longitudinal sectional view of another modified form, and Fig. 6 is a transverse sectional view through the line 6 6 of Fig. 4.

Referring to the accompanying drawings, the reference-letter A is used to indicate the pump-rod, preferably made of wood, and rectangular in cross-section. The device for connecting the adjacent ends of the rod comprises two yokes of identical construction, composed of a single piece of metal with its parallel side pieces B perforated to admit bolts whereby they may be clamped to the sides of the rod. The central portion of the yoke is bent at right angles to the sides and there are annular bars B² formed thereon. These two yokes are secured to the abutting ends of the rod with one yoke operating within the other. Slots B³ are formed in the ends of the rod to admit the bolts, so that the yokes may readily be adjusted vertically relative to the rod for the purpose of adjusting the tension of the spring, as hereinafter described.

C indicates a guide-pin passed through the

central portion of the bars B² and riveted in position and inserted in a longitudinal bore C² in the adjacent end of the pump-rod, thus preventing any lateral movement of the rod at the joint thus formed.

D indicates an extensile coil-spring within the yokes and in engagement with the bars B².

F indicates a rubber cushion secured to the ends of the yokes to prevent the concussion of the yokes with the ends of rod. The pins C² are passed through these cushions to hold them in position.

After the parts are in place on the pump-rod the spring may be adjusted to any suitable tension by moving the yokes longitudinally upon the rod.

In practical use it is obvious that an upward pull upon the pump-rod will, if there is any considerable opposition at the other end of the rod, contract the spring until the tension is sufficiently great to overcome the opposition or weight and the rod be raised. It is obvious further that there can be no lateral movement of the rod and that no metal parts are in frictional contact and that no lubrication is necessary.

In the modified form shown in Figs. 4 and 6 the only difference consists in dispensing with the guide-pin C, and substituting therefor integral lugs H on the horizontal ends of each yoke to engage the sides of the mating yoke and thus prevent a lateral movement at the connection. In this form the rubber cushions are each held in place by an integral pin H² on the end of the yoke.

In the modified form shown in Fig. 5 integral lugs J are formed in the corners of the yokes B to overlap the sides of the rods and thus guide the yokes and prevent lateral movements of the rod.

I claim as my invention—

1. A compensating pump rod, comprising a wooden rod made in two sections having longitudinal holes in their adjacent ends, two like yokes with their end portions perforated and adapted to be attached to the ends of the pump rod, metal pins fixed to and projecting outwardly from the central portions of the yokes to enter said holes in the ends of the wooden pump rod, and an extensile coil-spring interposed between the yokes, substantially as set forth.

2. An improved compensating pump rod, comprising a wooden rod made in two sections, each having horizontal slots near their ends and longitudinal holes in the ends, two
5 like yokes with their end portions perforated and adapted to be attached to the end of a pump rod, annular bosses on their central portions, an extensile coil spring interposed between the yokes and in engagement with

the annular bosses, pins fixed to and project- 10
ing outwardly from said central portions, and rubber cushions on the said pins, all arranged and combined, substantially as and for the purposes stated.

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Witnesses:

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