(No Model.)

J. M. ROHRER.

DRAFT SPRING.

No. 311,260. Patented Jan. 27, 1885.

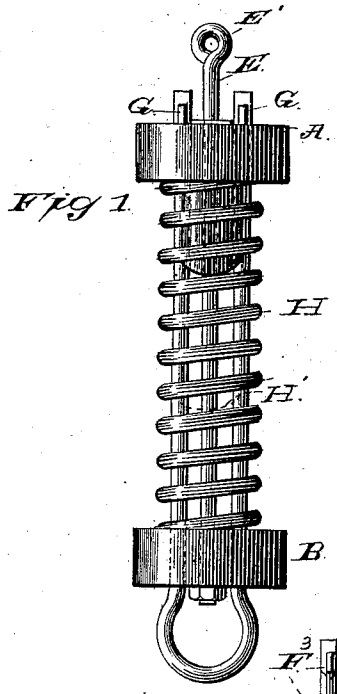


Fig. 1.

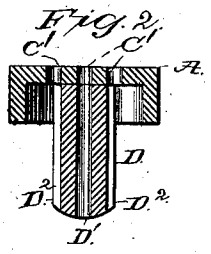


Fig. 2.

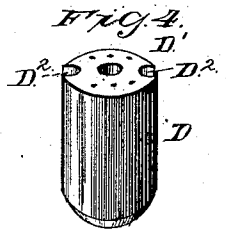


Fig. 4.

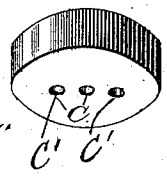


Fig. 3.

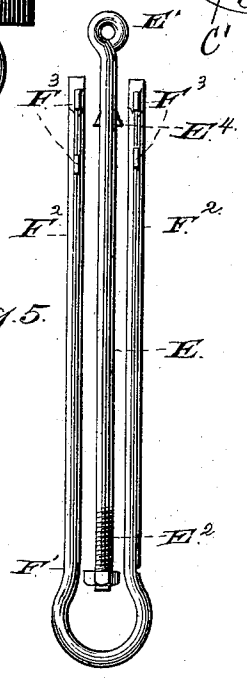


Fig. 5.

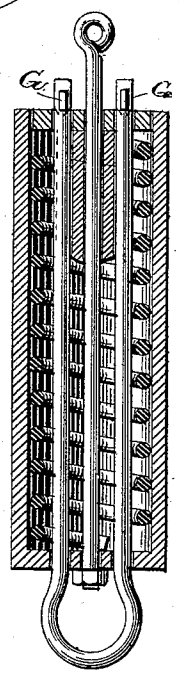


Fig. 6.

Witnesses
H. A. Clark.
R. B. Turpin.

Inventor
Jacob M. Rohrer
By R. S. & A. Lacey
Attys

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JACOB M. ROHRER, OF CHEWSVILLE, MARYLAND.

DRAFT-SPRING.

SPECIFICATION forming part of Letters Patent No. 311,260, dated January 27, 1885.

Application filed March 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB M. ROHRER, a citizen of the United States, residing at Chewsville, in the county of Washington and State of Maryland, have invented certain new and useful Improvements in Draft-Springs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to spring-tugs for harness; and it consists in the peculiar construction, combination, and arrangement of the several parts, as will be hereinafter described.

In the drawings, Figure 1 is a side view of my tug. Fig. 2 is a sectional view of the cap and plug. Fig. 3 is a detail view of the cap. Fig. 4 is a detail view of the plug. Fig. 5 is a detail view of the draft-rods. Fig. 6 is a sectional view of the tug incased in the manner presently described.

The caps A B are perforated by three holes, C, for the passage of the draft-rods, presently described. I prefer to form each of these caps with flanges projected laterally from their peripheries over the spring, hereinafter described. A plug, D, is secured to the inner face of the cap A, and is made of a suitable diameter to fit snugly within the spring. The outer end of this plug is rounded or chamfered, so it may be readily inserted into said spring, and so that it will not catch or bind against the coils of the spring when drawn therein, as will be described. I form this plug with a central longitudinal opening, D′, registering with the middle hole, C, of cap A, and also with grooves D^2 in its outer sides, which are in line with the outer openings, C′, as clearly shown in Fig. 2. The draft-rod E is provided at one end with an eye, E′, and is passed down through caps A and B, and has its end, E^2, which extends through cap B threaded to receive the retaining-nut E^3. This rod is provided near eye E′ with a shoulder, E^4, which prevents the rod from extending too far through cap A, as will be understood. The draft-rod F is bent at its middle portion, forming the eye or loop F′, and the legs F^2, which are provided near their ends with a slot or slots, F^3 F^3, to receive the retaining-key G.

In putting the device together the legs F^2 are first passed through cap B, thence along resting in grooves D^2 in the plug D, and thence through the openings in the cap A, when they may be secured by keys G passed through slots F^3. It will be seen by adjusting the keys from the outer to the inner slots the tension of the spring may be increased when weakened by use, or when otherwise desired.

It is manifest the draft-rods could be secured in various ways other than by nuts and keys without involving a departure from the broad principles of my invention. The spring H is placed over the rods E F and plug D, its ends bearing against the caps A B under the flanges thereof. In Fig. 6 I have shown the flange of the cap B extended, so as to form a casing for the spring draft-rods and plug, and protect same from the weather.

In practice I design my tug primarily for use in connection with traces of harness, in which case I secure eye F′ in suitable manner to the whiffletree and connect the eye E′ to the trace. As a draft is exerted the spring yields and takes the jars off the animal, as is well understood. When a strong draft is exerted, the plug may be drawn down into the spring, as will be understood from the dotted lines H′, Fig. 1.

The draft, jars, &c., cause a constant friction of the draft-rod E on the disk A, which will soon become worn and useless. To avoid this wear is the object of the plug D. This plug provides a long bearing-surface for the rod E, as well as for the legs of rod F, and prevents any considerable wear of the disk, as will be apparent. I have shown the plug as secured to the cap A. It is obvious, however, that where so desired it may be cast integral therewith.

It will be seen that by the arrangement and manner of securing the draft-rod E, shown and described, said rod forms a complete swivel, rendering the operation of the device smoother and easier, as is obvious.

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

1. The spring-tug substantially as described,

consisting of the cap A, provided with apertures C C′ C′, the plug D, extended from the inner face of cap A, and provided with central opening, D′, and longitudinal side grooves, D^2 D^2, and having its lower extremity rounded or chamfered, whereby it may be readily inserted in and is freed from interference with the spring, the cap B, the rod E, extended through openings C D′, and cap B, and provided with eye E′, and draft-rod F, bent to form legs F^2, which are carried upward through cap B, lapped into grooves D^2, and thence through openings C′ C′, the spring, and the retaining devices, substantially as set forth.

2. In a spring-tug, the combination, with the perforated end caps, and the spring, of draft rod E, having eye E′ on one end, and having its other end threaded, as described, and provided with a retaining and adjusting nut, and the draft-rod F, having its legs F^2, provided near their ends with a series of slots, and the keys fitted to said slots, and adjustable from one to the other thereof, whereby the tension of the spring may be adjusted, substantially as set forth.

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

JACOB M. ROHRER.

Witnesses:
O. M. KRAMER,
R. W. BISHOP.