June 17, 1930.

W. RODERS, JR

1,765,179

TENSIONING SPRING

Filed Dec. 20, 1927

FIG. 1

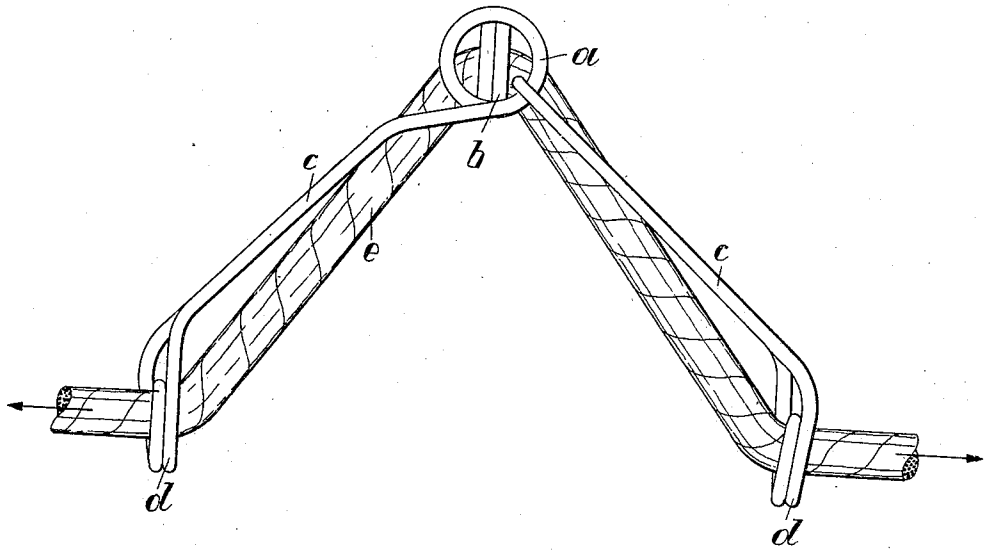
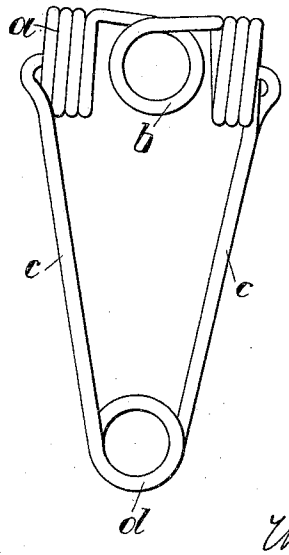


FIG. 2



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UNITED STATES PATENT OFFICE

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TENSIONING SPRING

Application filed December 20, 1927. Serial No. 241,434.

This invention relates to tensioning spring for flexible draft means.

It is well known how to make a flexible draft means, such as, for instance, a rope yieldable by leading the rope over several spring connected points of suspension arranged in different planes. In the prior constructions, the repeated tensioning and relaxing of the spring device will cause a certain displacement of the rope relative to the points of guidance which causes friction at these points and then injury to the rope. Attempts have been made to obviate this drawback by the use of rollers at these points, but their axles must be greased, and the construction is complicated and thus expensive.

It is an object of this invention to provide means for maintaining the draft line or rope in certain position during a normal draft and to permit yielding upon the development of abnormal conditions where absorption of shock is desired, as, for instance, when the load encounters an obstruction as when a plow strikes a stationary rock or other hidden obstruction.

Specifically, in the present invention, the objections are effectively eliminated by guiding the angularly disposed portion of the rope exactly through the fulcrum of the two legs of the spring device, when no relative displacement of the rope will occur. The entire device is bent in the simplest manner from a single length of spring wire.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a side view; and

Figure 2 illustrates a front view.

In the present embodiment of the invention, a single length of metal, such as spring wire, is shaped to form a coil *a* which acts as a spring, the same having an integral loop or eye *b* through which a rope projects, and the material is further shaped to form the arms *c* having the integral coils *d* forming eyes through which the rope *e* is threaded.

The rope is thus held at an angle by the device and the relatively rigid character of the device will be relied upon to maintain the rope in its angularly disposed position during normal operation, but will permit it to move as the device yields in order that the rope may assume different angles with relation to that which is illustrated, according to the draft or force employed in the draft rigging.

It is seen from an inspection of the drawing that the device can be made inexpensively, since it comprises but a single piece of metal and, notwithstanding its simplicity and inexpensive structure, it has been found efficient and satisfactory in use.

I claim:

1. A tensioning device for cordage comprising a resilient structure shaped to provide two alined coils forming eyes which are on the same plane and an intermediate eye on a different plane said eye being located between coils, the several eyes being resiliently connected by angularly disposed arms.

2. A tensioning device for cordage comprising a resilient bar which is shaped to provide a centrally located eye through which a rope may be threaded, resilient coils on opposite sides of said eye and positioned at right angles thereto, a pair of diverging arms which converge from the outer ends of the coils the same being shaped to provide at the junction of each pair of

side arms eyes which are normally in the same plane as the eye between the resilient coils.

3. In a tensioning device, a spring wire or rod which is shaped to provide diverging side members with eyes for the passage therethrough of a rope to maintain the rope in the same plane and in V-shaped formation, such wire also being bent to provide coils and an eye located between and at right angles with coils, also to provide a pair of arms which extend from the coils, each of the arms converging and being shaped to provide eyes which are in the same plane.

In testimony whereof I affix my signature.

WILHELM RÖDERS, JR.