Sept. 4, 1928.

1,682,796

W. E. OLSON

TENSION DEVICE FOR WINDING MACHINES

Filed June 1, 1925

Fig. 1

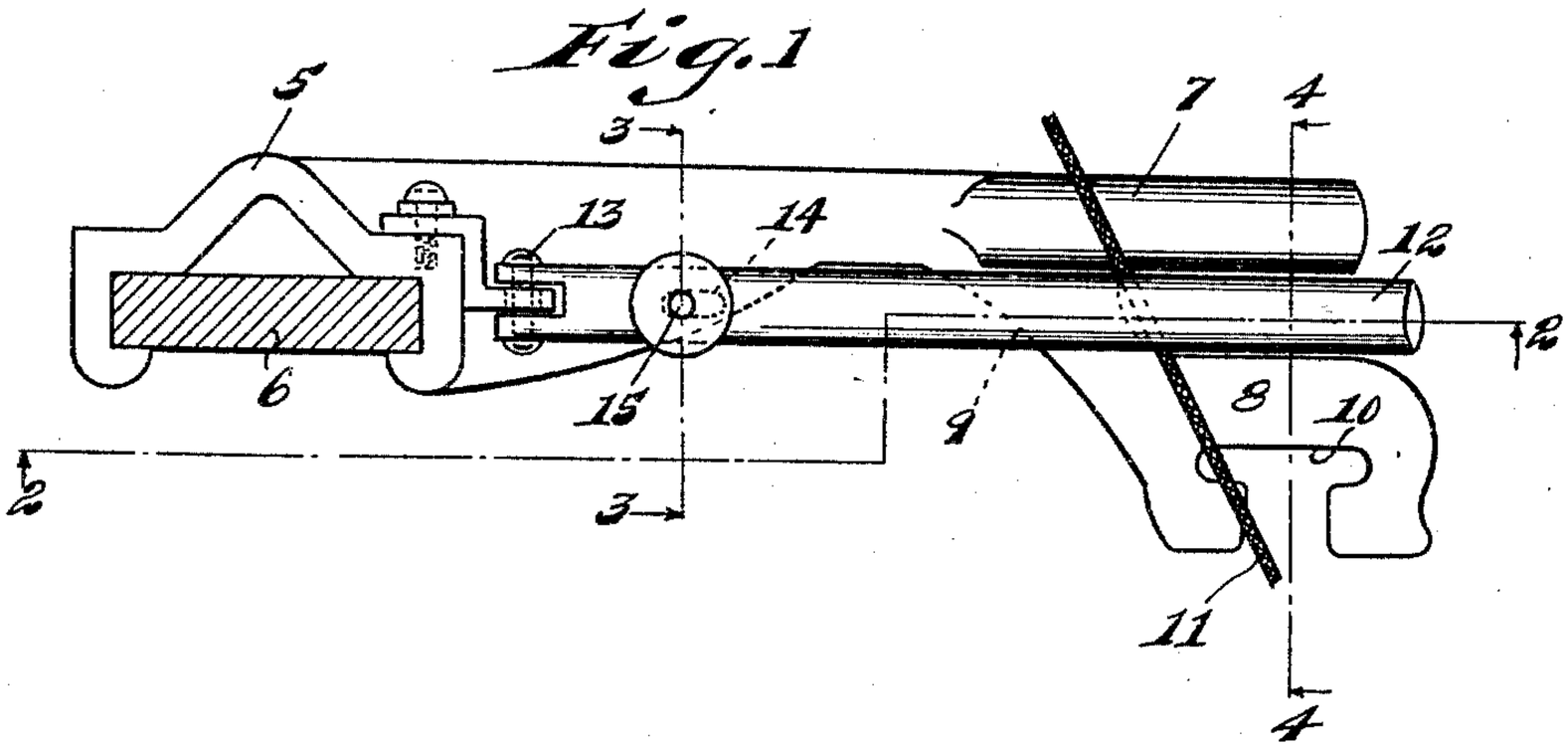


Fig. 2

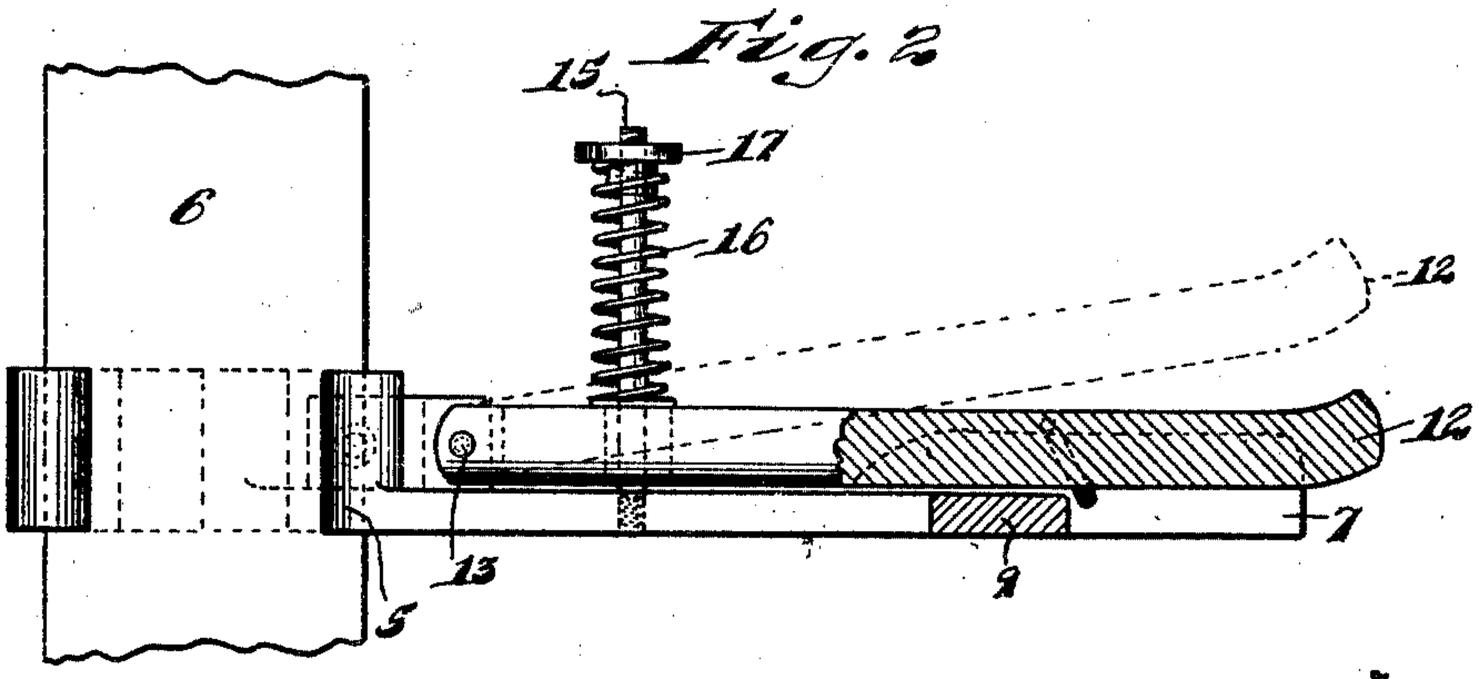


Fig. 4

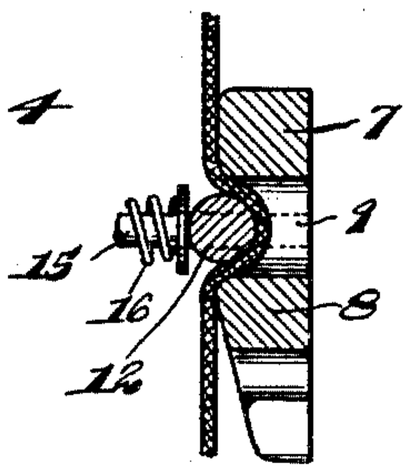
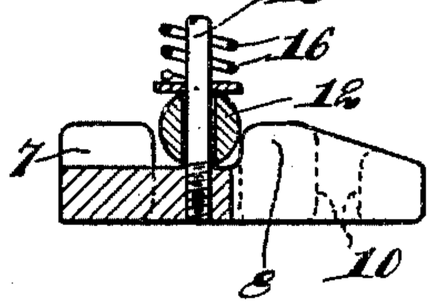


Fig. 3



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UNITED STATES PATENT OFFICE.

WALTER E. OLSON, OF CHICAGO, ILLINOIS.

TENSION DEVICE FOR WINDING MACHINES.

Original application filed March 24, 1924, Serial No. 701,407. Divided and this application filed June 1, 1925. Serial No. 34,031.

My invention relates to improvements in tension devices for winding machines and the like, and has for its object the provision of an improved construction of this character adapted and arranged to exert tension on a thread, strand of yarn or the like, being fed into a winding machine or the like, the present invention being a division of my prior application, filed March 24, 1924, Serial No. 701,407.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Fig. 1 is a side view of a device embodying the invention;

Fig. 2 is a partial section taken substantially on the line 2—2 of Fig. 1;

Fig. 3 is a partial section taken on the line 3—3 of Fig. 1; and

Fig. 4 is a section taken on line 4—4 of Fig. 1.

The preferred form of construction as illustrated in the drawings comprises a suitable bracket 5 adapted and arranged to be secured to a supporting bar 6. The bracket 5 carries an integral guide arm or finger 7 and a corresponding guide finger 8 is formed integrally therewith and adjacent thereto, a web 9 joining the fingers 7 and 8 and passing under the space between them. The finger 8 is also provided on its outer side with a lateral extension having a guide notch 10 through which the strand or thread 11 may be passed as desired. A clamping finger 12 is pivoted on the bracket 5 at 13 and yieldingly held in position by a spring. The guide 12 is provided with an elongated slot 14 passing freely over an upstanding post 15 on bracket 5 and a compression spring 16 is arranged between an adjustable head 17 on said post and the upper side of the guide 12 and whereby the guide 12 is yieldingly held in the space between the guides 7 and 8.

In use the device is mounted in a convenient position to permit passage of a thread or strand 11 therethrough and to the winding machine. The thread or strand 11 will thus be caused to assume a tortuous path passing under the yieldable guide or clamping member 12 so that the tension on the thread tends to raise the clamping member 12 out of the space between the guides 7 and 8 and thus relieve the resistance on the thread or strand. By this arrangement the thread or strand will always have sufficient resistance exerted thereon to introduce sufficient tension therein for proper winding operation and this tension will be automatically relieved when other tension is introduced into the thread or strand. In this way a substantially uniform tension will always be exerted on the thread or strand greatly facilitating the winding operation.

The specific arrangement of parts is a simple and effective one for the purpose.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise construction disclosed but desire to avail myself of such variations and modifications as come within the scope of the appended claim.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

A device of the class described comprising a bracket, two adjacent parallel guide members on said bracket and adapted to support a thread running freely on the surface thereof both transversely and longitudinally of said guide members, one of said guide members being formed with a lateral extension provided with a guide notch, a clamping member pivoted to the bracket to swing into and out of the space between said guide members and a spring yieldingly holding the clamping member in said space, substantially as described.

In testimony whereof I have signed my name to this specification.

WALTER E. OLSON.