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A. MACKENZIE & T. M. NORTON.

EXTENSIBLE CLOTHES LINE SUPPORT.

APPLICATION FILED JUNE 11, 1906.

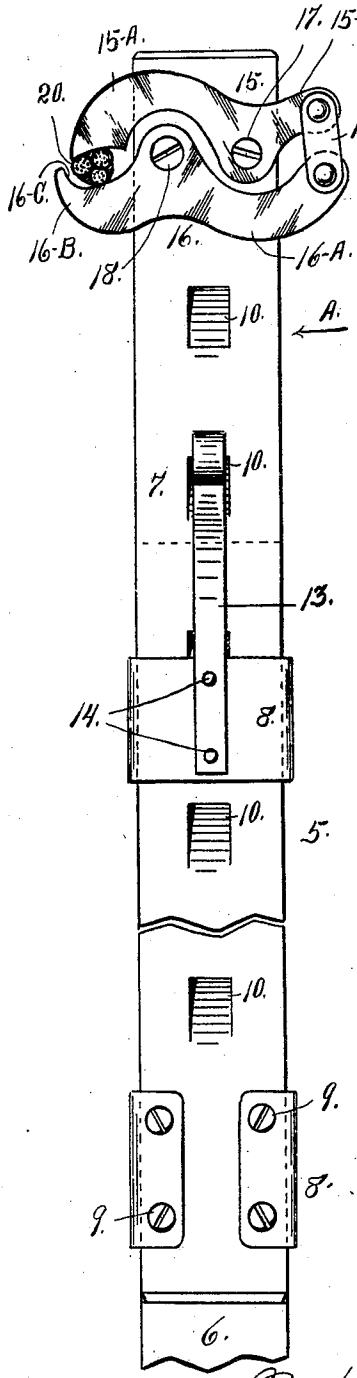


Fig. 1.

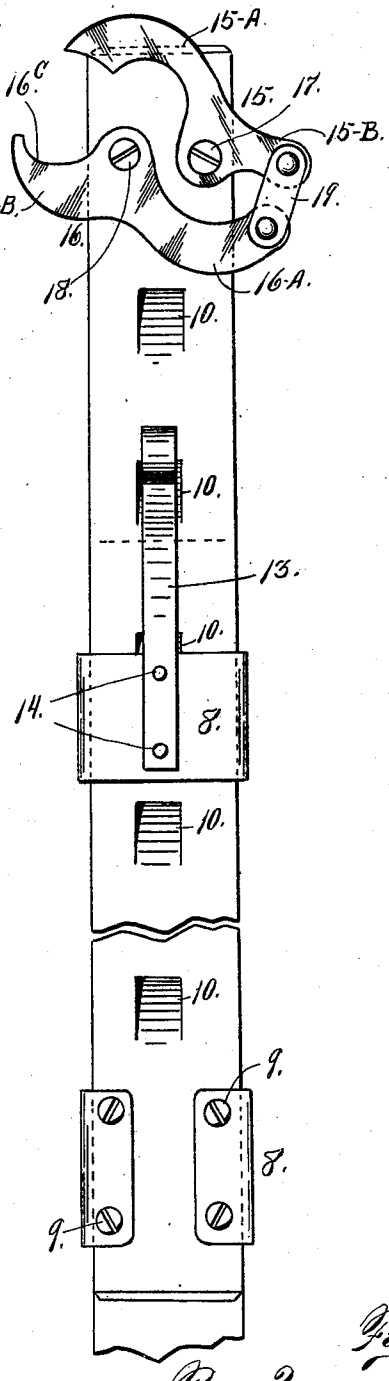


Fig. 2.

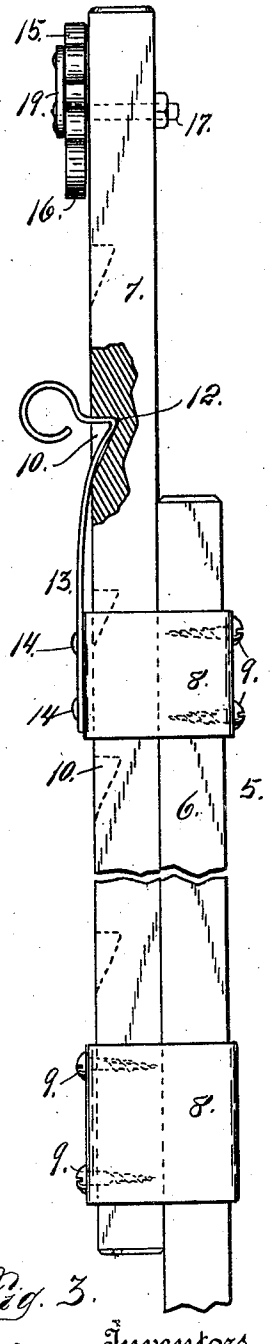


Fig. 3.

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EXTENSIBLE CLOTHES-LINE SUPPORT.

No. 880,031. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed June 11, 1906. Serial No. 321,167.

To all whom it may concern:

Be it known that we, ARCHIBALD MACKENZIE and THOMAS M. NORTON, both citizens of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Extensible Clothes-Line Supports; and we 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.

Our invention relates to improvements in clothes line supports and it possesses two features of importance: first, the means for automatically gripping the clothes line; second, the extensible feature. The extensible feature consists in a pair of overlapping bars slidable upon each other, one of said bars carrying a spring pawl, while the other bar is provided with recesses adapted to receive the pawl which springs automatically thereinto as the two bars are moved the one upon the other. The arrangement is such that the bars may be quickly moved for purposes of extension, the action of the spring pawl in this case being automatic; while in order to shorten the bar it is necessary to hold the pawl out of engagement with the ratchet notches. The gripping feature consists of two interlocking lever-like jaws mounted upon the upper extremity of one member of the supporting bar. These jaws are pivoted or fulcrumed in different planes and in such a manner that each jaw has a long and a short arm, the long and short arms of the two jaws being oppositely arranged.

Having briefly outlined our improved construction, we will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a view of our improved clothes line support showing the jaws in the gripping position, one member of the extensible bar being partly broken away. Fig. 2 is a similar view showing the jaws open. Fig. 3 is a view taken at right angles to Figs. 1 and 2 and shown partly in section. This view is obtained by looking at Fig. 1 in the direction of arrow A.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the extensible bar composed of two members 6 and 7. These bars are slidably connected by means of metal loops 8 formed as shown in the drawing by attaching the extremities of the loop to one bar by means of screws 9 or other suitable fastening devices, after the plate has been passed around the other bar, the connection being so made that while the loop is carried along by one bar it slides freely over the other bar. As shown in the drawing one of the loops is attached to one member and the other loop to the other member.

The member 7 is provided with ratchet recesses 10 adapted to receive the tooth 12 of a spring pawl 13. This pawl as shown in the drawing is secured to one of the loops 8 by means of suitable fastening devices 14. The loop 8 to which the spring pawl is secured, is connected with the bar 6 so that as the two bars are moved one upon the other, the tooth 12 of the spring pawl carried by one bar will engage the ratchet recesses of the other bar. These recesses are so formed that their upper extremities are formed at right angles to the body of the bar while their other wall is inclined outwardly as it extends downwardly. By virtue of this arrangement the member 7 carrying the notches is locked against downward movement by the spring pawl when in the clothes line supporting position.

Upon the upper extremity of the member 7, are mounted two lever-like jaws 15 and 16, respectively fulcrumed on the said member as shown at 17 and 18. The jaw 15 is provided with a long arm 15^A and a relatively short arm 15^B; while the jaw 16 is provided with a relatively long arm 16^A and a short arm 16^B. The two devices are so arranged that the short arm of the jaw 15 is adjacent the long arm of the jaw 16; while the long arm of the jaw 15 is adjacent and coöperates with the short arm of the jaw 16. The arms 15^B and 16^A of the two jaws are connected by a link 19. When the device is in use the jaw 16 is lowermost upon the bar and its short arm 16^B is hollowed out as shown at 16^C to form a seat for the clothes line 20 which as shown in the drawing (see Fig. 1) is composed of a number of twisted strands of wire.

In using the device, assuming that the jaws are open as shown in Fig. 2, the bar is elevated until the line 20 engages the seat 16^C of the jaw 16. Then as the line is raised or becomes taut, the pressure on the arm 16^B of the jaw 16, actuates its opposite arm 16^A to cause the two jaws to close or occupy the position shown in Fig. 1. It will be understood that the outer extremity of the arm 16^A travels more rapidly than the arm 16^C. This rapidly traveling extremity of the arm 16^A acting upon the short arm of the jaw 16, causes the arm 15^A to travel rapidly as compared with the arm 16^B. Hence while the arm 16^B is slightly lowered during the closing action of the two jaws, this movement is slight as compared with the travel of the arm 15^A. Hence the latter arm catches the arm 16^B with the result that the two arms grip the line as shown in Fig. 1.

After the line has been gripped by the two jaws, if it is desired to further elevate the line, it is only necessary to slide the bar member 7 upwardly upon the member 6 until the tooth 12 of the pawl 13 engages one or more notches below.

Attention is called to the fact that our improved device may be employed for purposes other than for supporting clothes lines. For instance it may be used for taking down and hanging up pictures or other articles where there is a cord, wire or rope to be grasped by the device at the end of the bar.

Having thus described my invention, what I claim is:

1. A bar having pivoted at one extremity thereof two coöperating gripping jaws with suitable link connection, whereby they are closed automatically when pressure is applied to the gripping extremity of one of the jaws.

2. A line supporting bar in combination with two lever-like jaws each pivotally mounted on the bar and each having one arm longer than the other, the long arm of each jaw being disposed adjacent the short arm of the other jaw, and a link connection between two adjacent arms of the jaws while the other two adjacent arms are constructed to automatically grip the line to be supported as pressure is applied to one of the gripping arms.

In testimony whereof we affix our signatures in presence of two witnesses.

ARCHIBALD MACKENZIE.
THOMAS M. NORTON.

Witnesses:
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