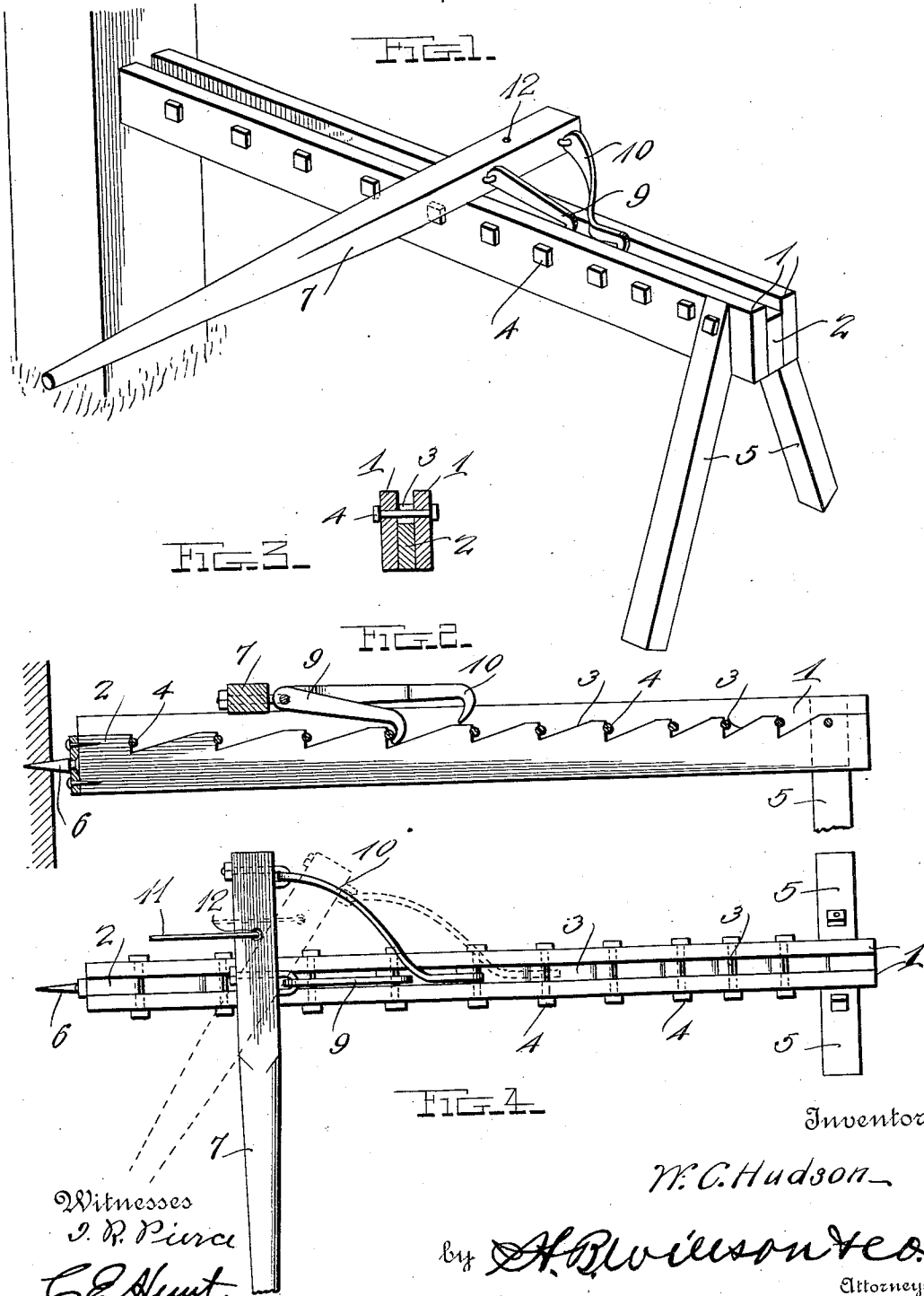


W. C. HUDSON.
WIRE STRETCHER.
APPLICATION FILED APR. 18, 1912.

Patented Apr. 8, 1913.

1,058,239.



UNITED STATES PATENT OFFICE.

WILLIAM C. HUDSON, OF JASPER, ARKANSAS.

WIRE-STRETCHER.

1,058,239.

Specification of Letters Patent.

Patented Apr. 8, 1913.

Application filed April 18, 1912. Serial No. 691,650.

To all whom it may concern:

Be it known that I, WILLIAM C. HUDSON, a citizen of the United States, residing at Jasper, in the county of Newton and State of Arkansas, have invented certain new and useful Improvements in Wire-Stretchers; 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.

This invention relates to improvements in wire stretchers.

One object of the invention is to provide a wire stretcher having an improved construction and arrangement of operating mechanism by means of which a wire may be readily stretched to the desired degree with comparatively little effort on the part of the operator.

Another object is to provide a wire stretcher which will be exceptionally strong and durable in construction, efficient and reliable in operation, and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings Figure 1 is a perspective view of my improved wire stretcher; Fig. 2 is a vertical longitudinal sectional view; Fig. 3 is a vertical cross sectional view; and Fig. 4 is a plan view showing in full and dotted lines the manner in which the stretcher is operated.

My improved stretcher comprises a fulcrum member consisting of a pair of longitudinal side bars 1 of suitable width and length between which is secured a central ratchet bar 2. The bar 2 is of less width than the bars 1 and has its upper edge disposed a short distance below the upper edges of said bars 1, whereby said upper edges of the side bars form guide flanges. The upper edge of the bar 2 is notched to form a series of ratchet teeth 3. The bars 1 and 2 are bolted together by a series of bolts 4, one of which is disposed in each of the notches of the bar 2 and constitutes part of the tooth formed by the notch.

At one end of the bars 1 and 2 are secured a pair of diverging supporting legs 5, which may be of any suitable length for supporting this end of the stretcher at the desired

elevation. Suitably secured in the opposite end of the bars, and projecting longitudinally a suitable distance beyond said end, is a spike or spur 6 which is adapted to be forced into a tree, post, or other object for supporting this end of the stretcher in operative position.

Slidably engaged with and supported on the upper edge of the bars 1 is a stretching lever 7, which may be of any suitable length, and which has its handle end projecting beyond one side of the bars, as shown. Loosely connected to the lever 7, near the shorter end thereof, is an outer fulcrum or tooth engaging hook 10, while at a suitable distance from said end of the lever and from the outer hook 10 is an inner fulcrum or tooth engaging hook 9. The hook 10 is connected to the lever at a point in line with the teeth 3, while the hook 10 is bent into the form of a compound curve to permit the outer end thereof to work between the upper edges of the side bars 1 and to engage the teeth 3 and bolts 4. The outer ends of the hooks 9 and 10 are shaped to slide freely over the teeth 3 when the lever is moved in one direction and to engage the teeth and form a fulcrum for the lever when the latter is moved in the opposite direction.

In the operation of the device the end of the wire 11 to be stretched is secured in an aperture 12 formed in the lever between the pivots of the hooks 9, 10, as shown in Fig. 4. When the lever is swung forwardly the hook 10 engages one of the teeth of the bar and acts as a fulcrum, on which the lever swings while making this stretch of the wire and to slide the hook 9 forwardly to engage one of the teeth beyond the tooth engaged by the hook 10. When the hook 9 is thus engaged the same will form the fulcrum on which the lever is swung rearwardly to engage the hook 10 with another tooth. In this manner the lever is swung forwardly and backwardly to engage first one and then the other of the hooks with the teeth of the bar, each operation of the lever stretching the wire a little tighter until the desired tension is obtained.

The teeth or notches in the first half of the length of the stretcher are preferably five inches apart. In the first half of the remaining length the teeth are preferably four inches apart, while in the last half of the remaining length the teeth are preferably three inches apart. This variation in

the distance between the teeth enables the slack in the wire to be rapidly taken up and after the slack has been taken up permits the wire to be stretched gradually to the desired extent.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

I claim—

1. In a wire stretcher, a fulcrum member comprising side bars, a ratchet bar arranged between said side bars, a series of ratchet teeth in said ratchet bar, a series of bolts arranged through said bars and constituting part of said ratchet teeth, a stretching lever loosely engaged with said fulcrum member and fulcrum hooks loosely connected with said lever and adapted to be alternately engaged with said ratchet teeth by the move-

ment of the stretching lever thereby providing successive fulcrums for the lever as the latter is advanced in stretching the wire.

2. In a wire stretcher, a fulcrum member comprising side bars, a ratchet bar arranged between said side bars, a series of ratchet teeth in said ratchet bar, a series of bolts arranged through said bars and constituting part of said ratchet teeth, said teeth and bolts at the inner end of said ratchet bar being arranged at a greater distance apart than the teeth and bolts at the other end of the bar, a stretching lever loosely engaged with said fulcrum member and inner and outer fulcrum hooks loosely connected to said lever and adapted to be alternately engaged with said teeth by the movement of the lever, whereby, the slack in the wire is rapidly taken up and the wire then stretched.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM C. HUDSON.

Witnesses:

JOHN R. SPENCER,
W. PLEAS SPEANS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."