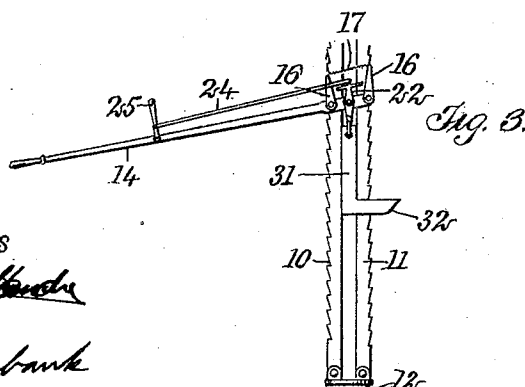
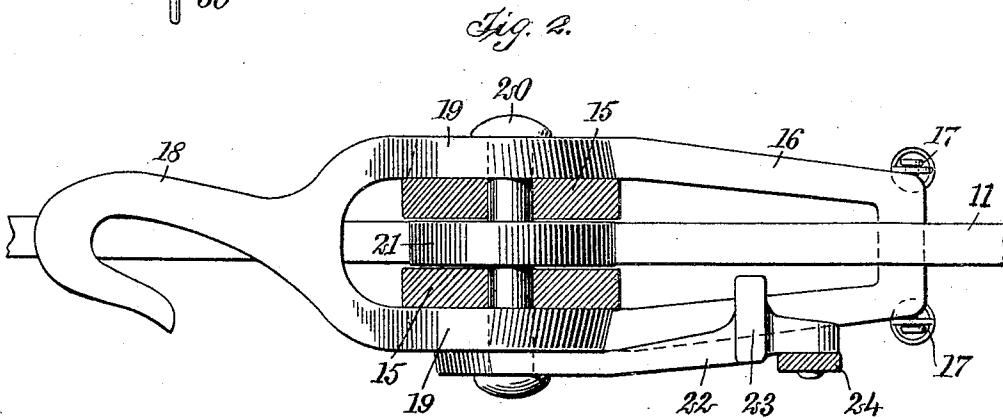
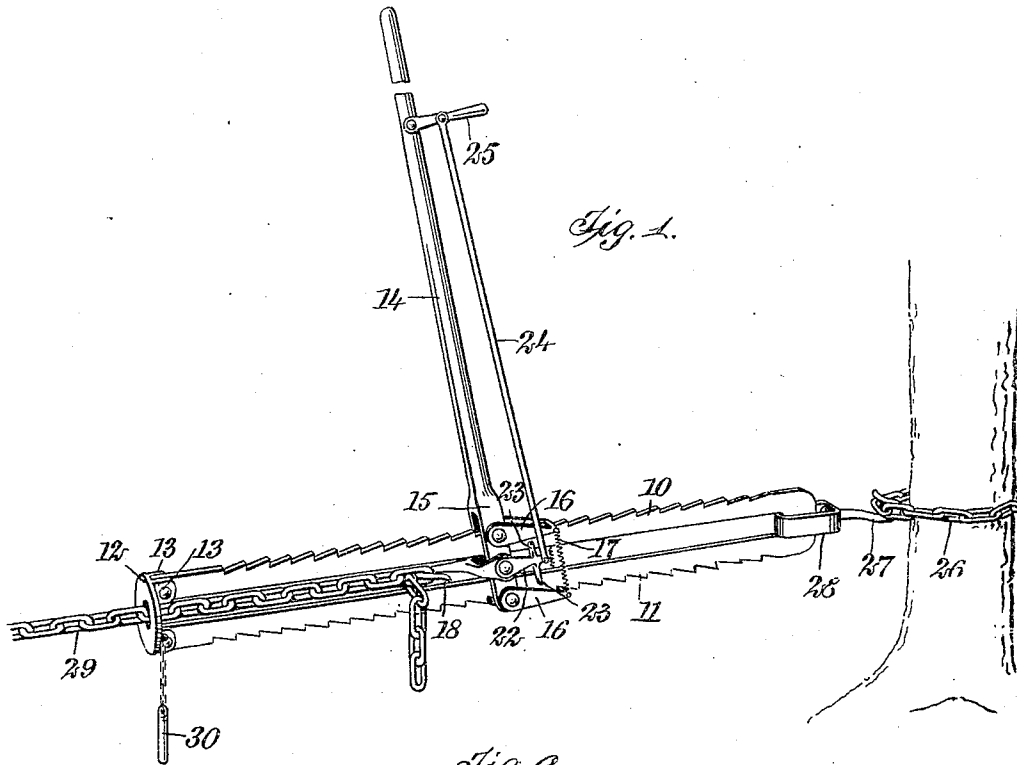


F. STANLAKE.
WIRE STRETCHER.
APPLICATION FILED JAN. 16, 1909.

932,828.

Patented Aug. 31, 1909.



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK STANLAKE, OF OWOSSO, MICHIGAN.

WIRE-STRETCHER.

932,828.

Specification of Letters Patent. Patented Aug. 31, 1909.

Application filed January 16, 1909. Serial No. 472,626.

To all whom it may concern:

Be it known that I, FREDERICK STANLAKE, a citizen of the United States, and a resident of Owosso, in the county of Shiawassee and State of Michigan, have invented a new and Improved Wire-Stretcher, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in wire stretchers, and more particularly to that type of stretcher in which there are employed a ratchet member and a pivoted lever member having dogs in engagement with the ratchet member and having its pivot movable longitudinally of the ratchet.

One special object of my invention is to provide an improved form of connection between the lever and the ratchet.

Another object is to so construct the ratchet that it may be supported on end and used for raising weights, buildings, or heavy objects; and a third object is to provide means for facilitating the releasing of the dogs from the ratchet, so that the device may be worked in the reverse direction.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a perspective view of a device constructed in accordance with my invention; Fig. 2 is a plan view of a portion thereof, the separate arms of the lever being shown in section; and Fig. 3 is a side elevation on a smaller scale, showing the device employed for lifting.

In my improved device I employ two oppositely-disposed ratchet bars 10 and 11, directly united at one end and connected to a foot piece or base 12 at the opposite end. The two bars lie in substantially the same plane and spaced apart a uniform distance throughout their length. The ratchet teeth on the two bars are upon opposite sides and face away from the foot piece or base 12. The base is preferably in the form of a circular disk having upwardly-extending lugs 13, between which the ends of the two ratchet bars are rigidly secured. The disk is provided with a central aperture in alinement with the slot between the two bars and through which the wire, chain, rope, or the like, which is being stretched, may extend. In connection with the two ratchet bars, I employ a handle or lever 14, separated at its

lower end to form two separate parallel branches or arms 15, lying upon opposite sides of the two ratchet bars. The two branches or arms carry two U-shaped pivotally-mounted pawls or dogs 16 disposed upon opposite sides of the two ratchets, and drawn toward each other into engagement with the ratchets by small transversely-extending coil springs 17. Intermediate the two ratchet bars, I provide a hook 18 having two separate branches or arms 19 disposed adjacent the outer surfaces of the two branches or arms 15 of the latter. The two arms 15 and the two arms 19 are connected together by a transversely-extending pivot pin 20, and on this pin and between the two arms 15 is a roller 21 of a diameter substantially equal to the distance between the ratchet bars, and of a thickness substantially equal to the thickness of said bars and to the distance between the arms 15. Pivotaly connected to the pin 20 at one end thereof, is a releasing lever 22 extending between the two pawls 16 and having upwardly and downwardly-extending projections 23, for engagement with said pawls to move the latter out of engagement with the ratchets. The reversing lever is connected by a link 24 to a short handle 25, pivoted to the lever 14 adjacent its outer end, whereby the person operating the main lever 14 may hold the reversing lever in any desired position.

In the use of my improved device as a wire stretcher, an anchor chain 26 is secured to any stationary object, as, for instance, a tree or post, and is connected to the end of the two ratchet bars in any suitable manner, as, for instance, by a hook 27 and ring 28. A chain 29 connected to the wire to be stretched, is extended through the aperture in the base plate 20 and connected to the hook 18. By moving the lever back and forth in the plane of the two ratchet bars, the hook 18 and the lower end of the lever are caused to move along the ratchet bar by the alternate engagement of the two pawls. If the pawls reach the end of the ratchet bar and the wire is not stretched to the desired tension, a pin 30 may be extended through the chain adjacent the base plate 12, to prevent the return movement of the chain, and the latter may then be detached from the hook 18 and the lever and pawls returned to the end of the ratchet bar adjacent the base plate. In case it is desired to loosen the wire or chain 29 gradually, this may be accom-

plished by swinging the lever 14 back and forth and alternately detaching the two pawls from engagement with the ratchet bars.

5 In case the device is to be employed for lifting, it is supported on end substantially as shown in Fig. 3, and instead of employing a chain 29, I employ a slide 31 located between the two ratchet bars and having an
10 outwardly - extending branch, shoulder or arm 32, which may engage with the device to be lifted. Otherwise, the construction for stretching wire or for lifting weights, is identically the same.

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

A device of the class described, including two ratchet bars connected together at each
20 end and having their teeth disposed upon

opposite edges, a lever disposed in the plane of said bars and having two arms disposed upon opposite sides of said bars, two pawls pivoted to said arms and in engagement with said ratchet bars, a hook disposed intermediate said bars and having two arms 25 pivotally secured to the arms of said lever, a second lever pivoted to one of the arms of the first-mentioned lever, and means for operating said last-mentioned lever to hold 30 either of said pawls out of engagement with its corresponding ratchet bar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK STANLAKE.

Witnesses:

OSCAR C. POST,
C. E. HERSHEY.