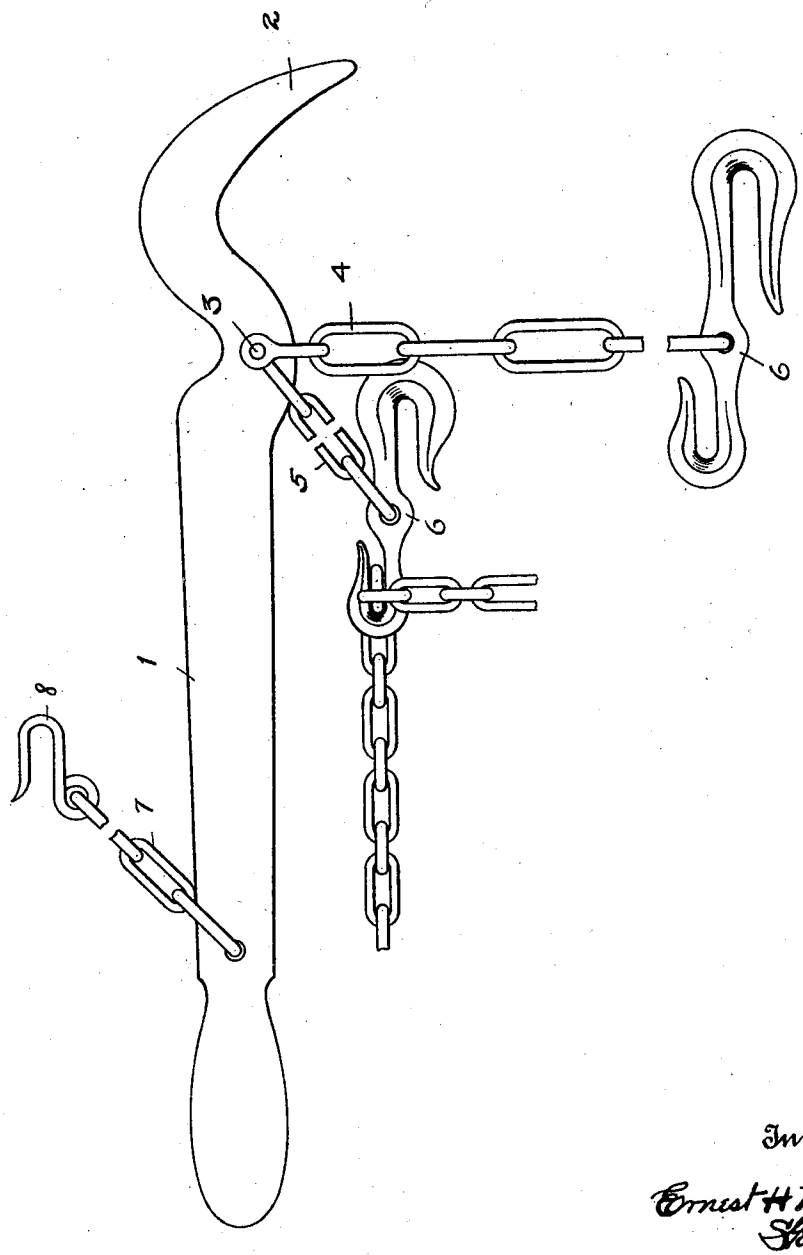
E. H. NELSON.

CHAIN TIGHTENER.

APPLICATION FILED NOV. 15, 1921.

1,407,946. Patented Feb. 28, 1922.



Inventor

Ernest H Nelson.

Geo. Stevens.

Attorney

UNITED STATES PATENT OFFICE.

ERNEST H. NELSON, OF DULUTH, MINNESOTA.

CHAIN TIGHTENER.

1,407,946. Specification of Letters Patent. Patented Feb. 28, 1922.

Application filed November 15, 1921. Serial No. 515,195.

To all whom it may concern:

Be it known that I, ERNEST H. NELSON, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Chain Tighteners, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to chain tighteners and has special reference to one designed for use in tightening binding chains such as commonly used in transporting logs or lumber, and the novel construction of my present invention will enable the same to be used in connection with various forms of binding lines or chains inasmuch as the principal object thereof is to provide means whereby the hook of the binding lever is operative for the purpose of binding within the chain accompanying same.

Other objects and advantages of the device will appear in the further description of the invention.

Referring to the accompanying drawing forming part of this application in which like reference characters indicate like parts:

The figure represents a broken elevation of one of the improved tighteners embodying the invention.

I am aware that somewhat similar devices have already been patented wherein a length of chain, having one or more hooks attached thereto in combination with a tightening lever, have been used, but these have not contemplated nor shown the peculiar combination of the present invention.

1 represents a hand operated lever of a flat piece of metal and having a hook 2 formed on one end of thereof. In the neck of the hook is a pivotal point or pin 3 upon which are mounted two short lengths of chain 4 and 5, the latter being preferably shorter than the former. The chain 4 is preferably considerably longer than the lever 1, or sufficiently so at least to provide ample room for operating the hook 2 within the links of same and the links must be sufficiently large for such purpose.

At the extreme ends of each length of chain 4 and 5 is pivotally mounted a double grab hook 6, the opposite ends of which are formed into different sized hooks, one smaller than the other so that it becomes possible to engage different sized chains, or the loop of a rope may be passed about the end of either chain just back of the hooks, they standing in transverse position and act as a cross bar to prevent the slipping off of the loop.

Near the handle end of the lever 1 is a short length of chain 7 having a suitable hook 8 at the extreme end thereof for holding the lever in position against the chain or rope being tightened, the same being common in similar devices.

It is evident from the foregoing that with this device either binding chains or ropes may be tightened, as the hook 2 during the tightening process engages only the links in the chain 4, the latter, as before stated, being sufficiently long to provide for such operation, and, this being the case, it is immaterial what size of chain is being engaged.

In many cases it may become desirable to tighten a chain with such small links that the hook 2 could not conveniently be engaged therein, or in the event of a rope or wire being tightened, there would be nothing with which to engage the hook, were it not for the fact that the chain 4 is provided for the purpose.

The double reversed hooks 6, as is obvious, add latitude to the application of the device, as chains of different size may be conveniently grabbed thereby.

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

1. In a tightening device of the character described, the combination with a hand operated lever having a hook at one end thereof, of two short lengths of chain pivotally mounted in the neck of said hook, one length of said chains being of sufficient length and size of link to be cooperatively engaged by the hook for tightening purposes, and grab hooks mounted upon the free ends of both lengths of chains, substantially as described.

2. The combination with a hooked tightening lever of the class described, of a piece of chain attached thereto adjacent the neck of the hook of sufficient length to be engaged by the latter for tightening purposes, a grab hook on the free end of the chain for engagement with the chain being tightened, and a second piece of chain attached to the previously described combination with a

grab hook at the free end thereof for engagement with the opposite end of the chain being tightened.

3. The combination with a hooked tightening lever having two short lengths of chain attached thereto for engagement with a line or rope to be tightened, one of said chains being sufficiently long and of a size to be cooperatively engaged by the hook, of double ended grab hooks pivotally mounted in the ends of the chains, substantially as and for the purpose described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ERNEST H. NELSON.

Witnesses:
S. C. BRONSON,
S. GEO. STEVENS.