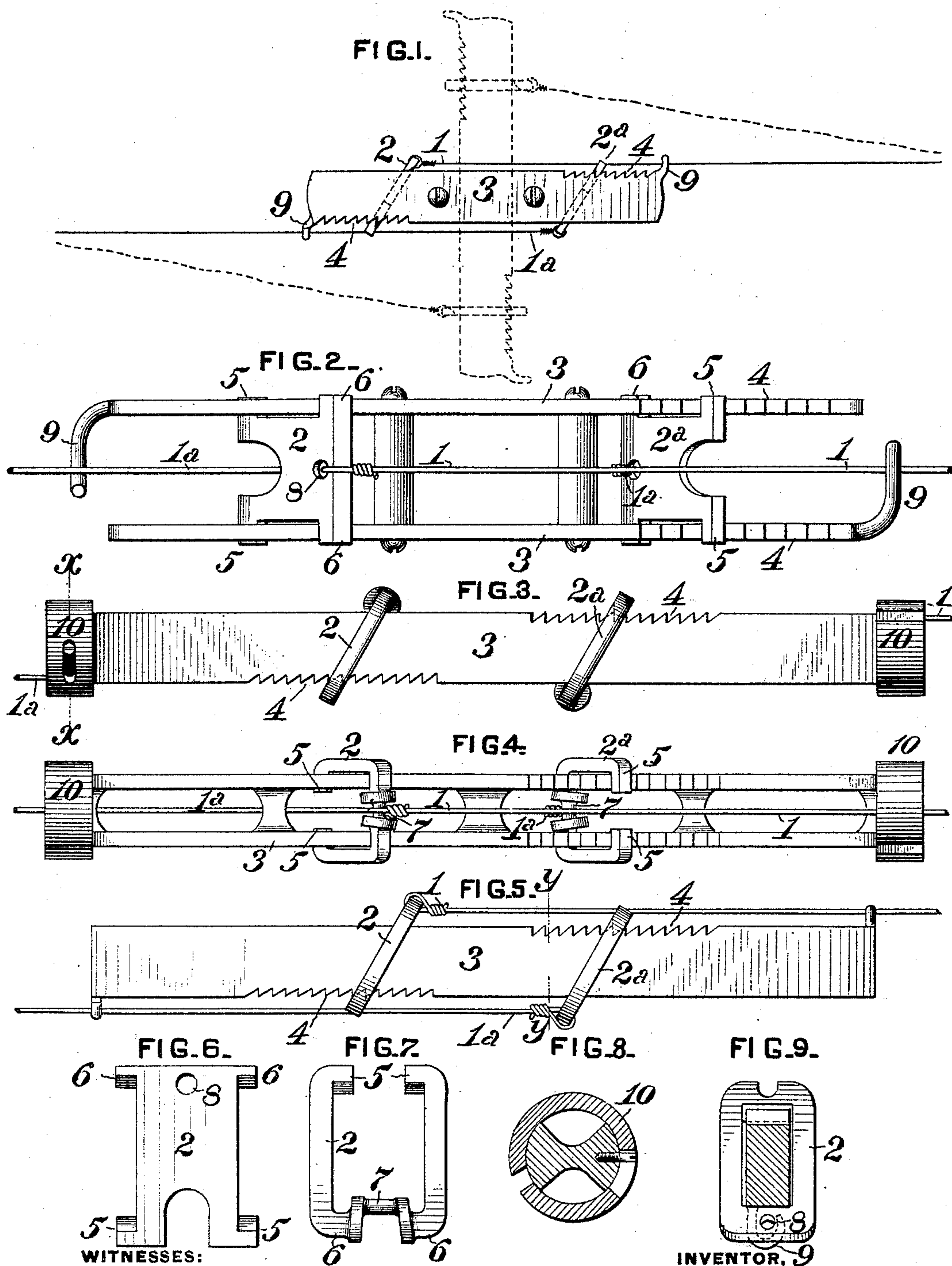


(No Model.)

S. H. STUPAKOFF.
WIRE TIGHTENER.

No. 497,733.

Patented May 16, 1893.



WITNESSES:

Samuel B. Wolcott
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INVENTOR, 9

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UNITED STATES PATENT OFFICE.

SIMON H. STUPAKOFF, OF PITTSBURG, ASSIGNOR TO THE UNION SWITCH AND SIGNAL COMPANY, OF SWISSVALE, PENNSYLVANIA.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 497,733, dated May 16, 1893.

Application filed September 5, 1892. Serial No. 445,085. (No model.)

To all whom it may concern:

Be it known that I, SIMON H. STUPAKOFF, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Wire-Tighteners, of which improvements the following is a specification.

The invention described herein relates to certain improvements in means for tightening wires, and has for its object a device incorporate in or forming a part of a line of wire, whereby the tension of such line of wire may be easily and quickly adjusted as required.

In general terms the invention consists in the construction and combination substantially as hereinafter more fully described and particularly claimed.

In the accompanying drawings forming a part of this specification, Figure 1 is a view in side elevation of my improved tightener in operative position in a line of wire. Fig. 2 is a plan view of the same on an enlarged scale. Figs. 3 and 4 are side and plan views respectively, of a modified form of the tightener. Fig. 5 is a side elevation of a further modification of the tightener. Figs. 6 and 7 are detail views of the movable blocks or links. Figs. 8 and 9 are transverse sections, the planes of section being indicated by the lines *x, x*, and *y, y*, Figs. 3 and 5 respectively.

In the practice of my invention, the adjacent ends 1, 1^a, of a line of wire are attached to one end or side of the blocks or links 2, 2^a, arranged on the bar 3. The bar 3 may consist of two plates arranged parallel with each other, as shown in Figs. 1 to 4, inclusive, or of a solid bar as shown in Figs. 5 and 9. The opposite edges of the bar are provided with a series of teeth or notches 4, the teeth or notches on the edges being oppositely pitched, so as to hold one of the blocks or links as against movement in one direction and the other link as against movement in the opposite direction. The parts 2, 2^a, may be made in the form of blocks adapted to fit between the side plates, as shown in Figs. 1, 2 and 6, and provided with lateral wings or lugs 5 and 6, projecting over the edges of the side plates. The inner edges of the lugs 5 are suitably shaped to engage the teeth or notches 4, while the inner

edges of the lugs 6 are constructed to bear upon and slide along the smooth portions of the edges of the bar.

As shown in Figs. 3, 4, and 7, the parts 2, 2^a, may be made in the form of split links so as to fit around the bar 3. In this form the lugs 5 project inwardly over the edge of the bar so as to engage the teeth or notches 4, while the closed ends of the links correspond to the lugs 6, and bear upon the plain portions of the edges of the bar, said lugs being connected by pins 7, formed integral therewith.

In the construction shown in Figs. 5 and 9, the parts 2, 2^a, are made in the form of closed links, the inner edge of one end of the links being constructed to engage the teeth or notches in the bar. That end of each bar or link opposite the one constructed to engage the teeth or notches, is provided with suitable means for connecting such as the hole 8 or the pin 7, for attaching the ends of the wires.

After the ends of the wires have been attached in the manner described and the blocks or links slipped onto the bar 3, the latter is turned to a position at an angle to the normal direction of the line of wire, and the links slid along the same toward each other if it is desired to tighten the wire. The bar is turned in such direction to a position parallel with the line of wire, that the ends of the wire will overlap as shown in Fig. 1.

In order to hold the device in a position parallel with the wire, hooks 9 are formed on the ends of the bar 3, for engaging the wire, as shown in Figs. 1, 2 and 5. Any other suitable means may be employed for locking the ends of the bars to the wire, as, for example, split rings 10 may be arranged on the ends of the bar as shown in Figs. 3, 4 and 8. When the bar is turned to parallelism with the wire the latter passes through the gaps in the rings which are then turned to the position shown in Fig. 8, thereby locking the end of the bar to the wire. The rings are held in position on the bars by pins passing through slots in the rings to permit of their adjustment.

I claim herein as my invention—

1. In a wire tightener, the combination of a bar having oppositely pitched teeth along its edges, the teeth on one edge extending from a point near the center of the bar toward one

end, and the teeth on the other edge from a point near the center toward the opposite end, blocks or links both movable along the bar and provided with oppositely projecting lugs
5 at one end adapted to engage the teeth on the bar and at the opposite ends with means for attaching the wires thereto, and means for locking the bar parallel approximately so with the wire, substantially as set forth.
10 2. In a wire tightener, the combination of a bar having oppositely pitched teeth or notches along its edges, blocks or links movable along

the bar and adapted to engage the teeth or notches and provided with means for connection with the ends of the wire to be tightened 15 and split rings rotatable around the bar for locking the latter parallel or approximately so with the wire, substantially as set forth.

In testimony whereof I have hereunto set my hand.

SIMON H. STUPAKOFF.

Witnesses:

DARWIN S. WOLCOTT,
R. H. WHITTLESEY.