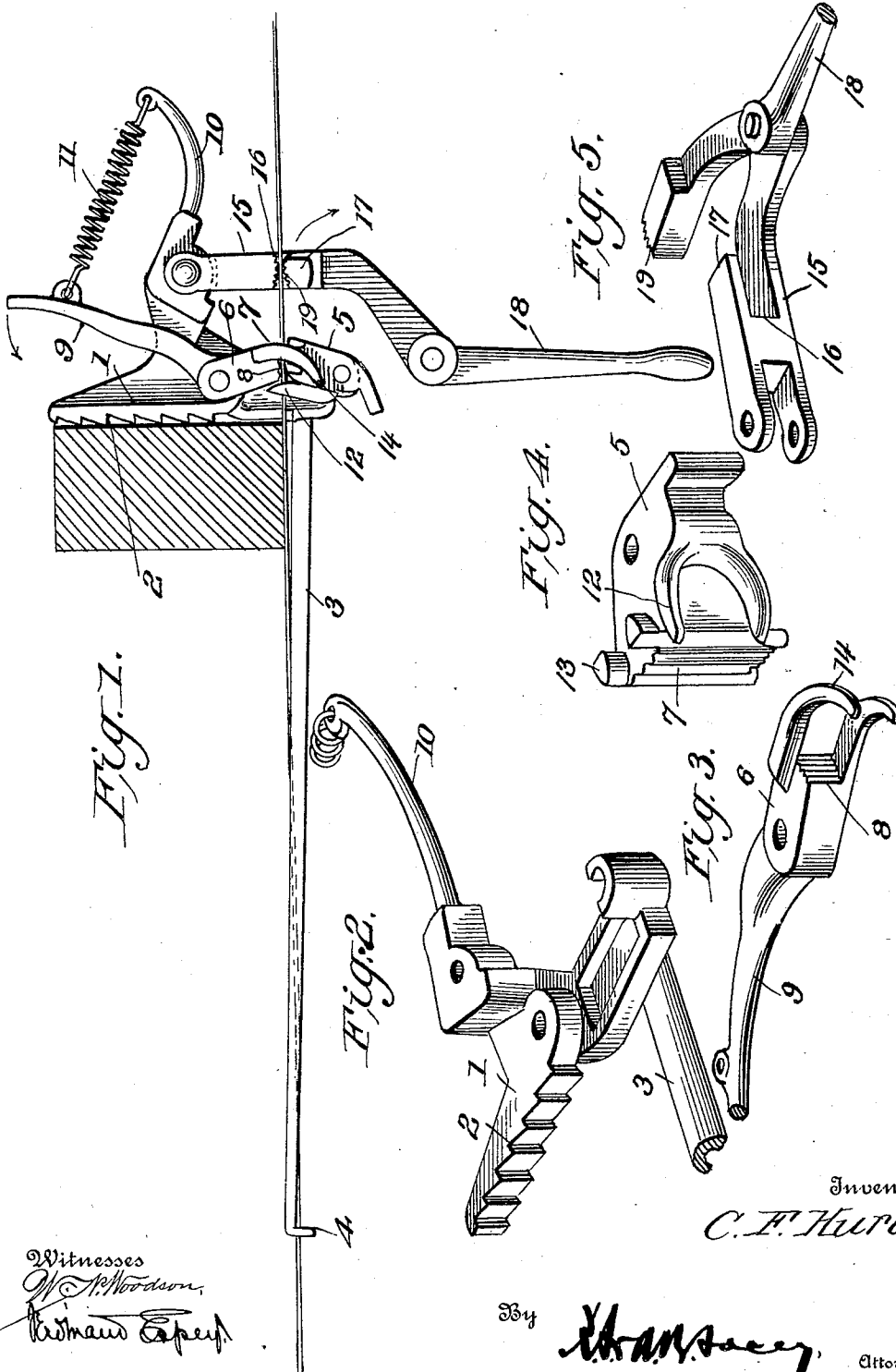


C. F. HURD.
WIRE STRETCHER.
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WIRE-STRETCHER.

1,065,366.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES F. HURD, citizen of the United States, residing at Reno, in the county of Washoe and State of Nevada, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention has relation to wire stretchers, and has for its object to provide a strong and durable stretcher of simple structure the parts of which are so arranged that they may be easily and readily operated during the process of stretching a wire.

With the above object in view the stretcher includes a head adapted to be placed against the side of a post and to which is attached a guide arm. Holding pawls of peculiar form are pivoted upon the head and have parts that engage and overlap each other to hold the wire between them. A two part lever is fulcrumed to the head and is adapted to grip the wire as it is being stretched and pulled between the holding pawls. This lever is of peculiar configuration, the object being to render it possible to fulcrum the lever in close proximity to the work engaging side of the head.

A still further object of the invention is generally to improve this class of devices so as to render them more useful and commercially desirable.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be made within the scope of the invention as defined by the appended claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a top plan view of the wire stretcher applied to a post with parts broken away; Figs. 2, 3, 4 and 5 are perspective views of parts of the wire stretcher disconnected from each other.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

The wire stretcher includes a head 1 which is provided at one side with a series of teeth 2. The side that bears the teeth 2 is adapted to be applied to the side of a post during the operation of stretching a wire, as illustrated in Fig. 1 of the drawing. An

arm 3 is attached to the head 1 and is adapted to extend along the wire which is being stretched and is provided with a loop 4 through which the wire passes. Holding pawls 5 and 6 are pivoted upon the head 1 and are provided with roughened work engaging surfaces 7 and 8 respectively. The pawl 6 is provided with an arm 9. An arm 10 is carried by the head 1 and a coiled spring 11 is attached at one end to the arm 10 and at its other end to the arm 9. This spring is under tension with a tendency to draw the free end portion of the arm 9 toward the arm 10. The pawl 5 is provided with spaced guide fingers 12 between which the wire that is being stretched is passed. The pawl 5 is provided upon its upper and lower sides with spaced lugs 13. These lugs are arranged in pairs and a pair is located each side of the pawl. The pawl 6 is provided at its upper and lower sides with fingers 14. These fingers project through the spaces between the members of the pairs of lugs 13 and consequently the work end portion of the pawl 5 is received between the fingers 14.

A lever 15 is fulcrumed upon the head 1 and has end portions disposed at an angle to each other. This lever is provided with a shoulder 16 and a flange 17 projecting from said shoulder. A handle 18 is fulcrumed upon the lever 15 and is provided with a roughened end 19 which is adapted to coöperate with the shoulder 16 in gripping a wire when it is being stretched.

In operation the side of the head 1 having the teeth 2 is applied to the side of a post and the wire to be stretched is passed through the loop 4 and then the pawl 6 is turned so that the fingers 14 are moved out of the spaces between the lugs 13 upon the pawl 5. The wire is then laid between the pawls 6 and 5 and the pawl 6 is released so that the fingers 14 will move into the spaces between the lugs 13 and thus the wire is gripped between the surfaces 7 and 8 of the said lugs. It is of course to be understood that the pawl 6 is swung or turned under the influence of the spring 11 when the said pawls grip the wire. The handle 18 is then turned upon its pivotal connection with the lever 15 and the wire is laid against the shoulder 16 and under the flange 17.

It is obvious that by turning the handle 18 upon the lever 15 the wire will be gripped between the roughened end 19 and the shoulder 16. Then by swinging the lever

and handle in a direction away from the arm 3 the wire will be drawn between the paws 5 and 6. When the lever 15 has been swung to the limit of its swinging movement in a direction away from the arm 3, it is swung back toward the said arm and at the same time the handle 18 is swung upon the lever which releases the wire, but in the meantime the paws 5 and 6 hold the same. Thus the lever is brought back toward the said paws and when it is swung away from the paws it grips the wire at a point nearer the paws and the wire is again moved between the paws as the lever is swung away from the same. This operation is repeated until the wire is sufficiently stretched. It will therefore be seen that during the operation of stretching a wire the fingers 14 carried by the pawl 6 and the guides 12 carried by the pawl 5 will retain the wire between the paws and at the same time the movement of the fingers 14 through the spaces between the lugs 13 and against the said lugs will cause the work engaging

ends of the paws 5 and 6 to move simultaneously away from and toward each other as the wire is released and gripped.

Having thus described the invention, what is claimed as new is:

A wire stretcher comprising a head, paws pivoted on the head, resilient means for holding the paws toward each other, one of the paws having at its opposite sides spaced lugs, the other pawl having at its opposite sides fingers which project through the spaces between the lugs, one of the paws having at its edge fingers located in the vicinity of the upper and lower sides of the pawl, said fingers extending beyond the inner end of the pawl opposite to the pawl to which they are attached.

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

CHARLES F. HURD. [L. S.]

Witnesses:

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