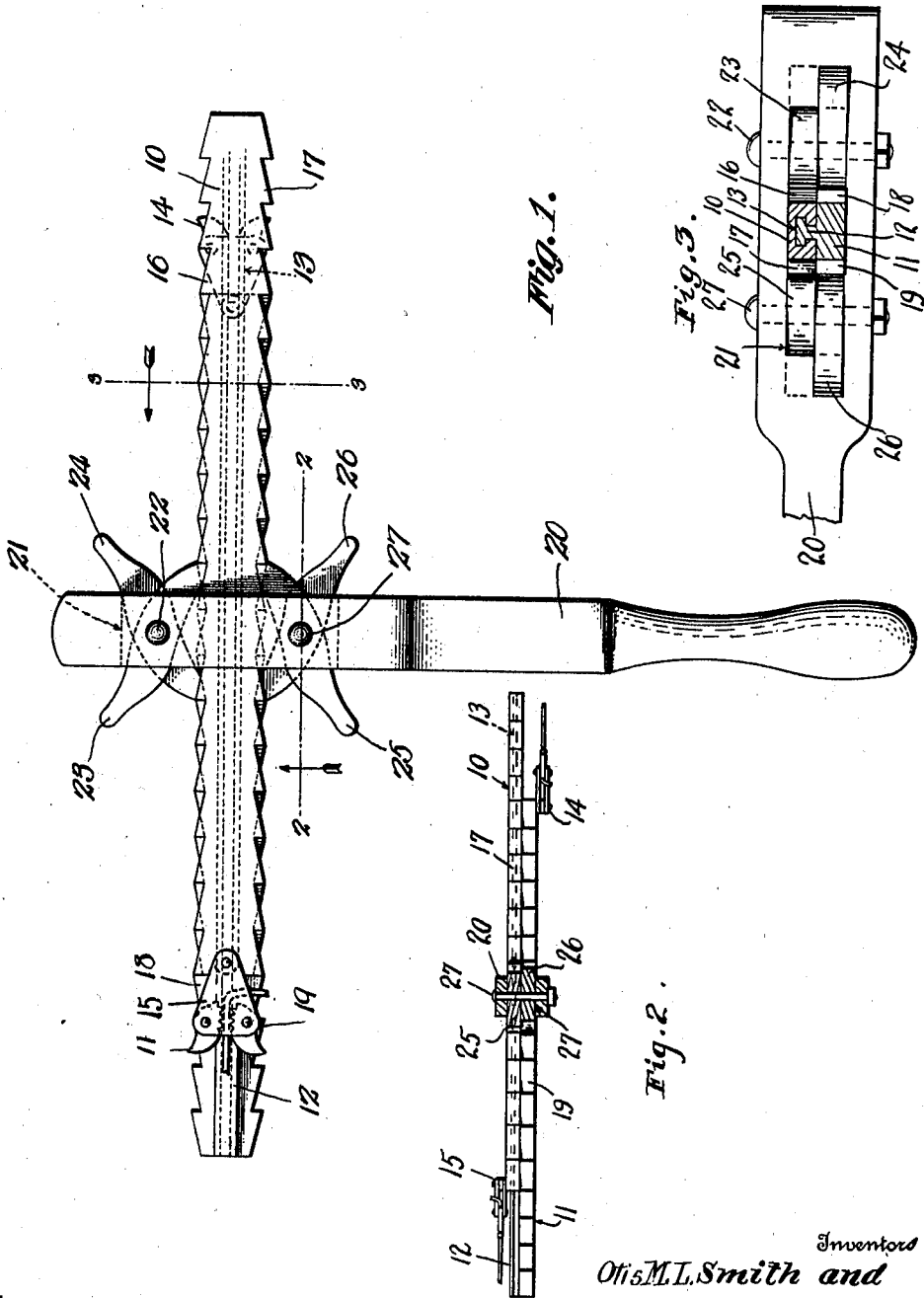


O. M. L. & E. K. SMITH.
WIRE STRETCHER.
APPLICATION FILED MAY 6, 1909.

982,542.

Patented Jan. 24, 1911.



Witnesses

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By *[Signature]* *[Signature]*

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UNITED STATES PATENT OFFICE.

OTIS M. L. SMITH AND ESTUS K. SMITH, OF NEWARK, TEXAS.

WIRE-STRETCHER.

982,542.

Specification of Letters Patent.

Patented Jan. 24, 1911.

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To all whom it may concern:

Be it known that we, OTIS M. L. SMITH and ESTUS K. SMITH, citizens of the United States, residing at Newark, in the county of Wise, State of Texas, have invented certain new and useful Improvements in Wire-Stretchers; and we do hereby 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 wire stretchers, more particularly to devices of this class for stretching or straining wire fence members, and has for one of its objects to provide a simply constructed implement of this character which is double acting in its operation.

With this and other objects in view, the invention consists in general of two beams arranged to slide over each other longitudinally and provided with reversely arranged ratchet teeth, and a lever having a plurality of pawls engaging with the teeth, each beam having an independent wire grip device, so that when the lever is actuated the beams will be moved in opposite directions simultaneously.

The invention further consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claim, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of the improved implement. Fig. 2 is a plan view of the same, partly in section on the line 2—2 of Fig. 1. Fig. 3 is a transverse section on the line 3—3 of Fig. 1.

The improved device comprises two main beams 10—11 arranged to slide longitudinally upon each other, or with their confronting faces in contact as shown. One of the beams is provided with a tongue 12 and the other provided with a groove 13 in which the tongue fits, the tongue and groove being preferably "dove tailed" as shown in Fig. 3, so that while the beams are free to move over each other longitudinally they will be held against lateral movement. A wire grip device 14 is connected to one of the beams and a similar wire grip device 15 connected to the free end of the other beam.

The beam 10 is provided with ratchet teeth 16—17 at its opposite edges, while the beam 11 is provided with similar ratchet teeth 18—19 at its opposite edges, the teeth

of the beam 10 being arranged reversely to the teeth of the beam 11.

The improved device is provided with an operating lever 20, the lever having a transverse aperture 21 through which the beams pass, the beams being thus slidable through the lever.

Pivoted at 22 within the aperture 21 at one side of the beam are two pawls 23—24, the pawls extending in opposite directions and engaging respectively with the teeth 16—18 of the beams, while similar pawls 25—26 are pivoted at 27 in the aperture 21 and engage respectively with the teeth 17—19 of the beams. By this means the pawls 24—26 engage with the teeth of the beam 11 from opposite sides, while the pawls 23—25 engage in a similar manner with the teeth of the beam 10 from opposite sides thereof.

By this arrangement of parts when the free end of the lever 20 is moved in one direction the pawl 24 will operatively engage the teeth 18 of the beam 11, while the pawl 25 will operatively engage the teeth 17 of the beam 10, and thus move the beams away from each other or in opposite directions, and when the free end of the lever is moved in the opposite direction the pawl 26 will operatively engage the teeth 19 of the beam 11 while the pawl 23 will operatively engage the teeth 16 of the beam 10, and thus move the beams in opposite directions, thus the device is double-acting, as each half stroke of the lever results in a movement of the beams. At each movement of the lever two of the pawls become active, and at the return stroke the other pair of pawls become effective.

The improved device is simple in construction, can be inexpensively manufactured, and operates effectually for either straining strand wires of fences, the members of woven wire fences, or for stretching the confronting ends of broken wires in splicing them.

All of the parts of the implement are of metal, and may be of any required size and of any suitable strength.

What is claimed is:—

A wire stretcher comprising two beams slidable one upon the other and with ratchet teeth in both edges of both beams, the teeth of one beam being reversely arranged to those of the other beam, wire engaging means connected to one end of each beam,

an operating lever, two pawls pivoted to
said lever and alternately engaging the teeth
of one of said beams, and two pawls pivoted
to said lever and alternately engaging the
5 teeth of the other of said beams, so that each
beam is engaged by one of its pawls at each
half stroke of the lever.

In testimony whereof, we affix our signatures in presence of two witnesses.

OTIS M. L. SMITH.
ESTUS K. SMITH.

Witnesses:

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M. H. HARMON.