

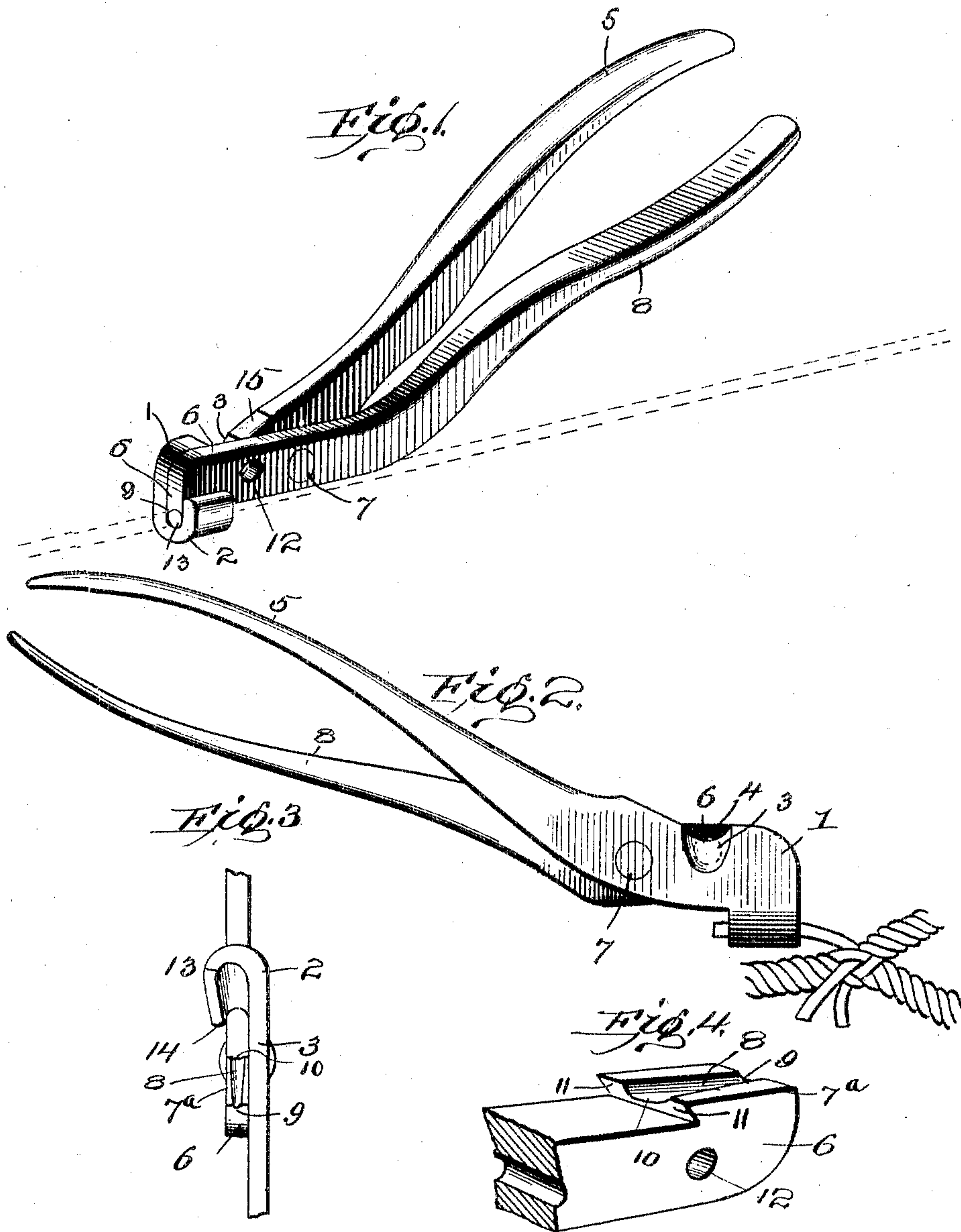
No. 777,021.

PATENTED DEC. 6, 1904.

L. HANSEN.  
PLIERS.

APPLICATION FILED MAY 21, 1904.

NO MODEL.



Inventor

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Witnesses

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## UNITED STATES PATENT OFFICE.

LAURITS HANSEN, OF SEATTLE, WASHINGTON.

## PLIERS.

SPECIFICATION forming part of Letters Patent No. 777,021, dated December 6, 1904.

Application filed May 21, 1904. Serial No. 209,072. (No model.)

*To all whom it may concern:*

Be it known that I, LAURITS HANSEN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Pliers; and I 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 improvements in wire-stretchers, and more particularly to that class known to one versed in the art to which this invention relates as "pliers" or "pin-cers."

The object of the invention is, primarily, to improve the construction of pliers for use in splicing wire-strand cables, both for drawing the end through tight and pushing the points through from the farther side.

Another object of the invention is to improve the construction of pliers so as to produce a device which can be operated with one hand and which is durable and simple in construction and efficient in operation.

A further object of the invention is to construct a device which is provided with handles bent at an angle to the plane in which the jaws are formed, so that when said handles are grasped by the operator of the device, the same gripping a strand of wire, the hand of the operator will be entirely removed from engagement with the gripped strand.

A still further object of the invention is to improve the construction of the gripping-jaws so as to insure of the retention of the pliers in a fixed predetermined position after the adjustment of the same.

With these and other objects in view the invention consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a device constructed in accordance with the present invention. Fig. 2 is a side view of the device, showing the same secured

to one strand of a cable, the end of which is being formed into an eye. Fig. 3 is a front view of the device, showing the jaws in an opened position. Fig. 4 is an enlarged fragmentary perspective view of one of the jaws.

Referring to the drawings by numerals, 1 designates one of the jaws of the pliers, which is provided with an integral approximately U-shaped clamping member 2. Said jaw 1 is also provided with a notched or cut-out portion 3, which is formed with a cutting edge 4. Formed integral with the jaw 1 is an angular handle 5, which is curved inwardly near its outer edge. A coacting jaw 6 is pivotally assembled at 7 with jaw 1 and is provided with a handle 8, similarly constructed to handle 5. Jaw 6 is provided with an approximately flat integral extension 7<sup>a</sup>, which is provided with a tapering channel or groove 8, said channel or groove 8 diverging toward the rear portion of said jaw 6, thereby producing the narrowest portion of the groove 8 near the forward end 9 of the jaw 6 and the widest portion of said groove near the rear portion 10 of the integral extension 7<sup>a</sup>. Upon the integral extension 7<sup>a</sup> adjacent to the termination 10 of the groove an abutment 11 is formed. Said jaw is provided with an aperture 12, which is constructed for permitting the passage of a strand of wire therethrough, so as to permit of the severing of said strand by means of the cutting edge 4, formed upon jaw 1, coming in contact with said strand, and as pressure is exerted upon the handles for closing the same together the severing of the wire will be completed.

The inner face of the curved or rounded portion 2 of the jaw 1 is of greater width near its forward end 13 than at its rearward end 14, owing to the fact that by this construction the gripping-surfaces of the jaws are permitted to engage the strand with better results than is possible to be obtained with a flat surface. It will be apparent that by the tapering channel 8, formed upon one of the jaws, and the peculiar construction of the curved portion of the opposite jaw the gripping function of the device insures of the retention of the same when once adjusted upon



a strand without the liability of the pliers slipping upon the strand. The flat portion 15, formed upon the jaw 1, provides a suitable surface for the employment of the device as a driving instrument for any purpose desired.

It will be obvious upon referring to the drawings that owing to the construction of the approximately U-shaped portion 2 any lateral play of the strand of wire when positioned between the jaws will be impossible. Furthermore, the construction of the inner face, as heretofore described, conforms to the contour of a strand or cable, which is adapted to be gripped by the pliers.

It will be apparent from the foregoing description of the present invention and by reference to the accompanying drawings that certain alterations, modifications, and changes may be made in the construction of devices in accordance with the present invention, and I therefore reserve the right to make such alterations, modifications, and changes as shall fairly fall within the scope of the present invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the character described, comprising a plurality of pivotally-connected jaws, one of said jaws provided with a channel formed upon its meeting edge, said channel diverging toward the rear end of said jaw, the other jaw provided with a curved integral engaging surface diverging toward its forward

end, and integral angular handles secured to said jaws.

2. A device of the character described, comprising two pivotally-connected jaws, one of said jaws provided with an integral approximately U-shaped extension, the other jaw provided with a diverging groove formed upon its engaging surface and extending rearwardly, and severing means formed upon said jaws.

3. In a device of the character described, the combination of a plurality of pivotally-connected jaws, one of said jaws provided with an integral shoulder having a diverging groove extending to the rear of the shoulder, the other jaw provided with a curved, integral, grooved extension adapted to be positioned around the engaging surface of the other jaw, and severing means formed upon said jaws.

4. A device of the character described, comprising a plurality of pivotally-connected jaws, one of said jaws provided with an approximately U-shaped extension projecting therefrom near the outer end thereof, the other jaw provided with a grooved engaging surface, said grooved surface portion adapted to normally extend between the U-shaped integral extension of the other jaw.

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

LAURITS HANSEN.

Witnesses:

G. WARD KEMP,  
HANNAH HANSEN.