

April 17, 1928.

1,666,801

E. B. VARNEY
WIRE BENDING PLIERS
Filed Jan. 25, 1927

Fig. 1.

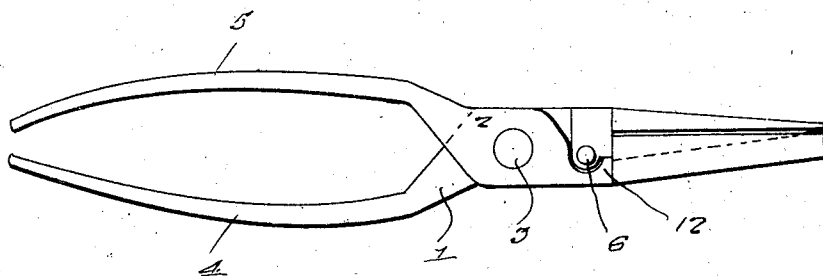


Fig. 2.

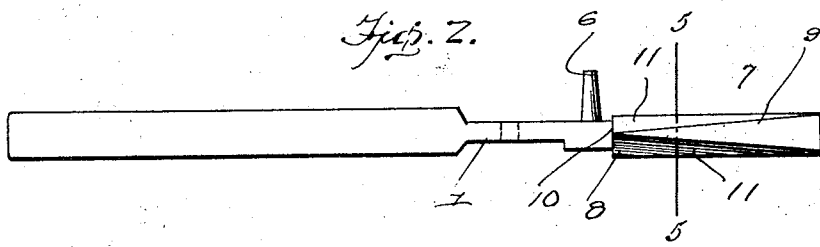


Fig. 3.

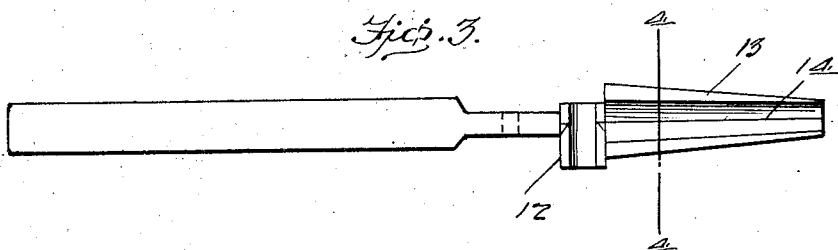
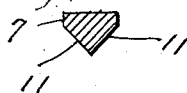


Fig. 4.



Fig. 5.



Inventor

Ernest B. Varney

By *Clarence A. O'Brien*
Attorney

Patented Apr. 17, 1928.

UNITED STATES PATENT OFFICE.

ERNEST BERTON VARNEY, OF PUEBLO, COLORADO.

WIRE-BENDING PLIERS.

Application filed January 25, 1927. Serial No. 163,396.

My present invention pertains to wire bending pliers, and contemplates the provision of pliers which while simple and inexpensive in construction and susceptible of ready operation are possessed of the practical advantages hereinafter ascribed to the same.

The invention consists of the improvement as hereinafter described and definitely claimed.

In the accompanying drawings, forming part of this specification:

Figure 1 is a side elevation illustrating a pair of pliers constituting the preferred embodiment of my invention.

Figure 2 is an inverted plan view of the male member of the pliers.

Figure 3 is a top plan view of the female member of the pliers.

Figure 4 is a transverse section taken through the jaw of the female member in the plane indicated by the line 4—4 of Figure 3.

Figure 5 is a transverse section taken through the jaw of the male member in the plane indicated by the line 5—5 of Figure 2.

Similar numerals of reference designate corresponding parts in all the views of the drawings. The several parts of my novel pliers are preferably formed of steel, and the plier members having portions 1 and 2 arranged side by side, and pivotally connected together by a pintle 3 and merged into handles 4 and 5, respectively, the said handles being preferably shaped as best shown in Figure 1. The portion 1 is comprised in what I designate the male member of the pliers, and it will be understood by the comparison of Figures 1 and 2 that the said portion 1 is provided adjacent to its forward end with a lateral mandrel 6, and carries at its forward end a jaw 7. The said jaw 7 is shaped as illustrated in Figures 1, 2, and 5—i. e., is generally increased in depth from its forward end to its heel end 8, is provided on its under side with the longitudinally inclined face 9 tapered in width from the forward end of the jaw to a point 10 at the heel end of the jaw, and is also provided with inclined sides 11 which are increased in height as they recede from the forward end of the jaw and approach the heel end thereof.

The portion 2 of the female member of the pliers is merged at its forward end into a laterally disposed channel portion 12, and the said channel portion 12 is provided at its forward side with the female jaw 13. In the

upper side of the said jaw 13 is provided a depression 14 which is increased in depth from the forward end of the jaw 13 to the forward side of the lateral projection 12, and is of angular form in cross section as indicated by 15 in Figure 4.

It will be appreciated from the foregoing that the angularity of the depression 14 in cross-section is increased as the said depression recedes from the forward end of the jaw 13, and that the upper jaw 7 is shaped to fit the depression in the lower jaw, and consequently when a straight wire is laid between the jaws and the handles 4 and 5 are moved toward each other, the wire will be bent to an angle determined by the distance the wire is located from the forward end of the jaw.

It will also be appreciated from the foregoing that by the cooperation of the mandrel 6 with the channeled projection 12, small wire loops may be expeditiously and easily formed, the mandrel 6 being arranged to enter the channel or depression in the projection 12 when the jaws are brought together, and in this connection it will be understood that the depression or channel in the projection 12 is of semi-circular form in cross section, and that the first manipulation of the jaws will bring about the bending of the wire into a half loop, and that by then placing the half-loop on the mandrel 6 and closing the jaws again, more of the loop will be formed. The operation indicated is repeated until the entire loop is formed, and it will be noted that the mandrel 6 is slightly tapered toward its end remote from the portion 1 so that the loop may be easily removed after the formation of the loop.

Manifestly in the manner described, a loop for a binding post may be expeditiously and easily formed.

The construction herein described in detail constitutes the preferred embodiment of my invention. I do not desire, however, to be understood as limiting myself to the specific construction and relative arrangement of the parts as disclosed, my invention being defined by my appended claim within the scope of which modifications may be made without departure from my invention.

Having thus described the invention, what I claim is:—

A pair of wire bending pliers comprising side by side portions pivotally connected to

gether and having handles at their rear ends, jaws carried at the forward ends of the said side-by-side portions and extending longitudinally therefrom, one of the
5 jaws having a longitudinal depression increased in depth from the forward end of the jaw to the heel end of the jaw, and the other jaw having a longitudinal projection adapted to enter said depression, and one
of the side by side portions being also provided with a lateral projection of channel cross section, and the other side-by-side portion equipped with a lateral mandrel arranged to cooperate with the said channeled
projection. 10 15

In testimony whereof I affix my signature.

ERNEST BERTON VARNEY.