M. N. FEDERSPIEL.

ORTHODONTIA PLIERS.

APPLICATION FILED JULY 2, 1914.

1,108,493.

Patented Aug. 25, 1914.

Fig. 1.

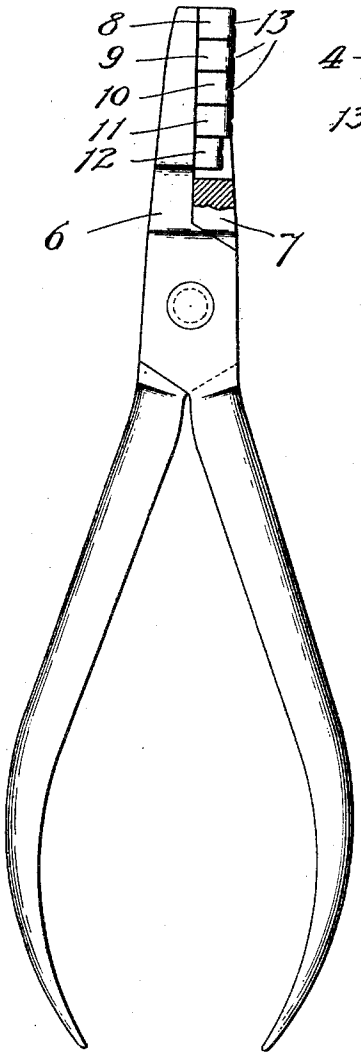


Fig. 2.

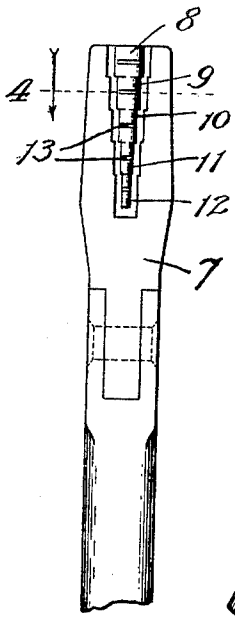


Fig. 3.

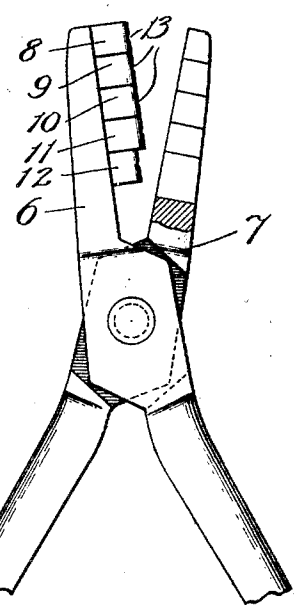


Fig. 4.

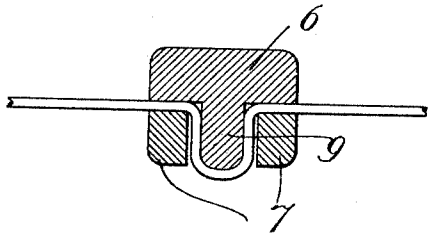


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

MATTHEW N. FEDERSPIEL, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO CHRISTOPH F. MONTAG AND THEODORE H. MONTAGUE, DOING BUSINESS AS BLUE ISLAND SPECIALTY COMPANY, OF BLUE ISLAND, ILLINOIS.

ORTHODONTIA-PLIERS.

1,108,493. Specification of Letters Patent. Patented Aug. 25, 1914.

Application filed July 2, 1914. Serial No. 848,571.

To all whom it may concern:

Be it known that I, MATTHEW N. FEDERSPIEL, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Orthodontia-Pliers, of which the following is a specification.

My invention relates to certain new and useful improvements in orthodontia pliers, and is fully described and explained in the specification and shown in the accompanying drawing, in which—

Figure 1 is a side elevation of my improved device, one furcation of the bifurcated jaw being broken away; Fig. 2 is an elevation looking from the left of Fig. 1; Fig. 3 is a view similar to Fig. 1 with the jaws open; Fig. 4 is a section on the line 1 of Fig. 2, and Fig. 5 is an elevation of the work done by the device.

Referring to the drawings, 6 and 7 are two jaws adapted to oppose each other and mutually pivoted so as to be opened and closed by the handles provided as in any ordinary pair of pliers. The jaw 6 is provided with a projecting rib composed of several parts 8, 9, 10, 11 and 12, of gradually decreasing width in the plane of the jaw and the part 12 being lower than the parts 8 and 11, inclusive, as shown in Figs. 1 and 3. The jaw 7 is bifurcated to straddle the rib on the jaw 6, the space between its furcations being made progressively narrower from the end toward the pivot, so that when the jaws are closed together, each part of the furcations is spaced at substantially an equal distance from the adjacent part of the rib.

The several parts of the rib on the jaw 6 are provided with notches 13 to engage and center the wire which is to be used.

The operation of the device will be readily apparent. A piece of wire of the sort commonly employed in orthodontia work is placed across that part of the rib of the proper width to furnish the desired interior spacing in the bend to be made. The jaws are then brought together and the wire is not only bent into the loop form, but the parts adjacent to the loop are engaged between the plane surfaces of the jaws so as to turn them out into a perfectly straight line. It is thus possible to make bends of five different sizes, as illustrated, and in each case the bends are perfectly proportioned and the original straight line of the wire is maintained.

I realize that considerable variation is possible in the details of the construction herein shown, and I do not intend to limit myself thereto, except as pointed out in the following claims, in which it is my intention to claim all the novelty inherent in the device as broadly as is permitted by the state of the art.

I claim as new and desire to secure by Letters Patent—

1. A device of the class described comprising two opposing plane jaws, a rib projecting from one jaw and consisting of a series of separate parts of different widths, the other jaw being bifurcated to straddle the rib and having the space between its furcations of various widths corresponding to the width of the rib parts.

2. Orthodontia pliers having opposing plane jaws, a rib on one jaw consisting of a series of parts differing in width and height, the other jaw being bifurcated to straddle the rib and having the space between its furcations of different widths corresponding to the different rib parts, for the purpose set forth.

3. A device of the class described comprising two opposing plane jaws, a rib projecting from one jaw and consisting of a series of separate parts of different widths, the other jaw being bifurcated to straddle the rib and having the space between its furcations of various widths corresponding to the width of the rib parts, the said rib parts being provided with notches to hold the material operated upon.

In testimony whereof I have hereunto set my hand this 30th day of June, 1914.

M. N. FEDERSPIEL.

In presence of two subscribing witnesses:

GEORGE A. CHRITTON,

THEODORE H. MONTAGUE.

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