No. 715,674. Patented Dec. 9, 1902.

F. L. LEMON.

PIN BENDER.

(Application filed Apr. 9, 1902.)

(No Model.)

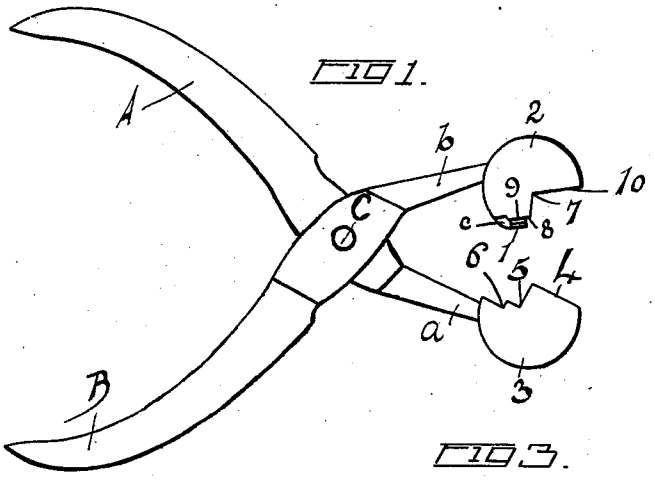


FIG. 1.

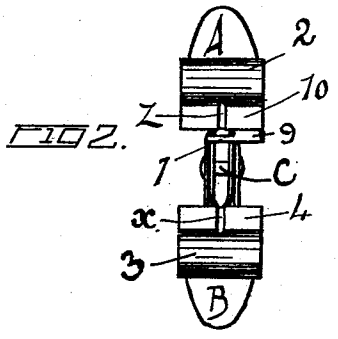


FIG. 2.

FIG. 3.

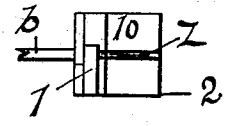
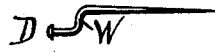


FIG. 4.



Witnesses:
F. Larson.
C. B. Maystrick

Inventor:
Frank L. Lemon
per: Geo. W. Sues
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK L. LEMON, OF LINCOLN, NEBRASKA.

PIN-BENDER.

SPECIFICATION forming part of Letters Patent No. 715,674, dated December 9, 1902.

Application filed April 9, 1902. Serial No. 102,131. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. LEMON, residing at 125 and 127 North Twelfth street, Lincoln, in the county of Lancaster and State of Nebraska, have invented certain useful Improvements in Pin-Benders; and I do hereby declare that the following is 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, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to a new and novel improvement in pincers adapted to be used by printers in bending pins adapted to be used upon the platen to hold the cards and sheets to be printed.

In the accompanying drawings I have shown in Figure 1 a side view of a pair of pincers as used in my invention. Fig. 2 shows a front view disclosing the pincers open. Fig. 3 shows a detached detail of the pin-holder and connected jaw, while Fig. 4 shows a pin after having been bent with one of my pincers.

It is well known that the average printer relies upon a bent pin in order to support the cards and sheets to be printed, the pin usually being bent with the fingers and teeth or with some handy device. As these pins are apt to get lost it is desirable to have a number of them conveniently at hand, and in order to provide a ready means of bending these pins I construct a pincer comprising two counterpart plier members A and B, united by means of a suitable pin C and to the ends *a* and *b* of which I secure the bending-jaws 2 and 3. One of the jaws, as the one 3, for instance, is provided with a flat surface 4, provided with a semicircular groove *x* and being so cut as to form the angular portions 5 and 6, as is shown in Fig. 1. The remaining jaw member 2 is provided with the flat surface 10, provided with a counterpart semicircular groove *z*, mating with the groove *x* and being cut so as to provide the angular portion 7 and the flat portion 8, to which is secured a holder 9, provided with the extension 1, below which extension 1 is adapted to be held the neck of the pin. These two jaw members are so cut that they readily unite to form a tight union. The groove *z*, it will be noticed in Fig. 3, for instance, extends along the full biting-jaw surface of each of the members 2 and 3, so that when these portions are tightly brought together a pin held below the holder 1 will be entirely embedded between the grooves *x* and *z*. Now when it would be desired to bend a pin the operator would place the same below the holder 1, so that the head would come within the depression *c* of the jaw 2 and then close these two jaws. The groove *x* within the jaw-surface 4 would first come in contact with the pin and as the jaws were closed the pin would be bent until it came in contact with the edge 10, the head of course preventing the pin sliding forward. The operator would then continue to press the jaws together, so that the pin would gradually be drawn inwardly until the jaws were entirely united, the pin in that condition resting within the grooves *x* and *z*, provided for the same. When the jaws are open, the pin of course can readily be removed from below the holder 1. It is of course understood that these jaws could be provided with two holders, so that two or more pins could be simultaneously bent.

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

1. The combination with two pivotally-connected plier members, of jaws secured to the end of each plier member, one of said jaws having a broad grooved surface from which extend two angular surfaces, a complementary jaw having a broad grooved biting-surface from which also extend two counterpart angular surfaces and a holder secured to one of said jaws to receive the head of a pin, said jaws when brought together being adapted to bend a pin bayonet-shaped, as and in the manner set forth.

2. The combination with two pivotally-connected plier members, of jaws secured to the end of each plier member, one of said jaws having a broad surface from which extend two angular surfaces, a complementary jaw having a broad biting-surface from which also extend two counterpart angular surfaces, said jaws when brought together being adapted to bend a pin bayonet-shaped, as and in the manner set forth.

3. The combination with two pivotally-con-

nected plier members connected with a hinge, of jaws constructed with and forming a part of each plier member, said jaws being between said hinge and the extreme or handle end of said plier members, one of said jaws having a broad grooved surface from which extend two angular surfaces, a complementary jaw having a broad grooved biting-surface from which also extend two counterpart angular surfaces, said jaws when brought together being adapted to bend a pin bayonet-shaped as and in the manner set forth.

4. The combination with two plier members connected with a hinge, of jaws constructed with and forming a part of each plier member, said jaws being between said hinge and the extreme or handle end of said plier members, one of said jaws having a broad surface from which extend two angular surfaces, a complementary jaw having a broad biting-surface from which also extend two counterpart angular surfaces, said jaws when brought nearly together being adapted to bend a pin bayonet-shaped as and in the manner set forth.

5. The combination of two pivotally-connected jaws, one of said jaws having a broad grooved surface, from which extend two angular surfaces, a complementary jaw having a broad grooved biting-surface from which also extend two counterpart angular surfaces, said jaws when brought together being adapted to bend a pin bayonet-shaped as and in the manner set forth.

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

FRANK L. LEMON.

Witnesses:

W. E. BARKLEY, Jr.,

H. K. MILLS.