J. F. ZINN.

PUNCHING TOOL.

APPLICATION FILED NOV. 26, 1912.

1,185,570. Patented May 30, 1916.

Fig. 1.

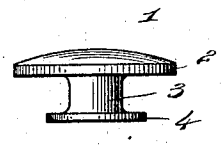


Fig. 5.

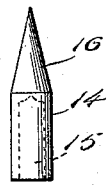


Fig. 3.

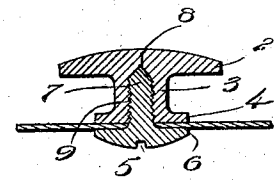


Fig. 2.

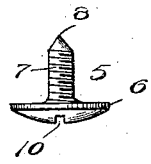
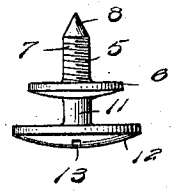


Fig. 4.



Inventor
Jacob F. Zinn.

Witnesses
C. E. Hughes.
D. W. Gould.

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JACOB F. ZINN, OF HARTFORD, CONNECTICUT.

PUNCHING-TOOL.

1,185,570. Specification of Letters Patent. Patented May 30, 1916.

Application filed November 26, 1912. Serial No. 733,634.

To all whom it may concern:

Be it known that I, JACOB F. ZINN, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented new and useful Improvements in Punching-Tools, of which the following is a specification.

This invention relates to improvements in punching tools, and has for its object to provide a device of this character which will be simple, efficient and inexpensive in operation.

It is specially designed for use in perforating garments upon which buttons are to be secured without sewing. There are a class of buttons which are made in two sections so as to engage opposite sides of the material of the garment; one section has a shank adapted to be threadedly engaged in a threaded socket formed in the other section. My punching tool is arranged to carry this shank along with it as it penetrates the material so that upon removing the tool the shank will project through an opening in the material this enabling the other section to engage it.

The invention in its preferred form of details will be described in the following specification, reference being had to the accompanying drawing, in which:—

Figure 1 is a view of the head of the button. Fig. 2 is a similar view of the shank of the button. Fig. 3 is a vertical sectional view showing the button applied. Fig. 4 is a view in elevation of a modified form of button shank. Fig. 5 is an elevation of a piercing point used with the button.

Referring particularly to Figs. 1, 2 and 3 of the accompanying drawings, my improved button comprises a head 1 having an outer or holding flange 2, a body or barrel 3 and a base flange 4, the holding flange being preferably arranged on its upper surface and of somewhat greater diameter than the base flange 4, the latter being preferably flat on its lower or bearing surface. The shank of the button 5 comprises a flange 6, which together with the flange 4 of the head, constitute clamping members, and a stem 7 exteriorly threaded and terminating at its upper end in a point 8. The button head 1 is centrally formed with an interiorly threaded opening 9 to receive and coöperate with the stem 7 and the flange 6 of the member 5 is preferably formed with a kerf 10 to receive an appropriate tool in fixing the button in place.

In Fig. 4 I have shown a modified form of button which in part is identical with the shank member 5 previously described except that in this instance the kerf 10 is omitted from the flange 6, and said flange is formed with its stem 11 projecting in alinement with the shank 5 and carrying at its outer free end a head 12 corresponding to the holding flange 2 of the head member 1. The head 12 may, if desired, be provided with a kerf 13 for the purpose similar to the kerf 10.

With the button I provide a piercing point 14 including a hollow sleeve-like member 15 of a size to receive the stem 7 of the shank member and an elongated point 16 adapted for use in the piercing operation.

In use, either form of shank member is adapted to be readily passed through the fabric of the garment by applying to the stem 7 thereof the piercing member 14, said member being removed after the shank has been passed through the material. The head member is then screwed in place, a suitable tool being used to tighten the connection if desired. In the use of the preferred form of shank member a single button is provided, while in the use of the modified form a double button is provided, that is, a button on each side of the material.

It is to be noted that the flange 6 of both preferred and modified forms of the shank member and the flange 4 of the head are of similar diameter so that when applied there is no projection of one of said members beyond the other and the otherwise incident tendency to a wearing of the material against the projecting edge is avoided. This is important in devices of this kind as otherwise in securing the parts together through the maximum of their clamping coöperation there is a tendency to exert a wearing pressure upon the fabric by forcing the latter into engagement with the projecting edge of either part, when larger.

The button may be constructed of any material though it is preferred that the shank members be of metal to insure a proper maintaining of the threaded formation.

What is claimed is:—

A device of the character described consisting of a threaded shank, a pyramidal

terminal formed on said threaded shank, a head of a relatively increased diameter formed upon said shank and having a horizontally disposed inner flange and a sleeve adapted to snugly receive said threaded shank and having an internal pyramidal passage for the reception of said pyramidal terminal, said sleeve having a pointed projection consisting of a portion gradually decreasing in diameter to form a sharp point.

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

JACOB F. ZINN.

Witnesses:
HERMAN C. MARQUARDT,
FRANK E. ZINN.

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