

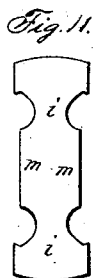
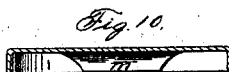
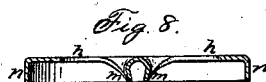
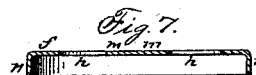
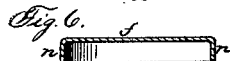
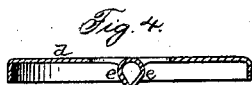
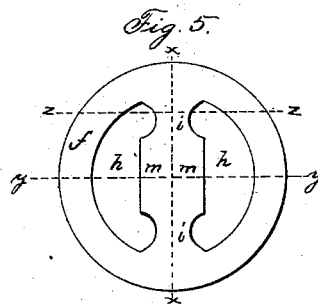
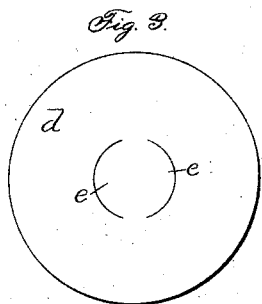
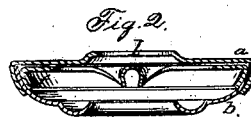
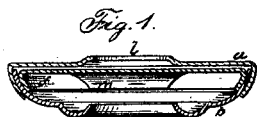
(No Model.)

J. H. WALKER.

BUTTON.

No. 305,362.

Patented Sept. 16, 1884.



Witnesses
J. C. Earle
L. O. Tucker

John H. Walker
Inventor
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UNITED STATES PATENT OFFICE.

JOHN H. WALKER, OF WATERBURY, CONNECTICUT.

BUTTON.

SPECIFICATION forming part of Letters Patent No. 305,362, dated September 16, 1884.

Application filed August 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WALKER, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Buttons; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a vertical section of the button, showing a side view of the bar; Fig. 2, a vertical section transversely across the bar; Figs. 3 and 4, illustrations of previous constructions; Fig. 5, the bar-piece or disk, as cut from sheet metal preparatory to bending; Fig. 6, a section of the bar-piece on line *x x*, showing the outer flange as turned down; Fig. 7, a section on line *y y*, the outer flange turned downward; Fig. 8, a section on same line, *y y*, with the tongues *m* turned downward to round the bar; Fig. 9, a section on line *z z* after the tongues have been turned down; Fig. 10, a section of the bar-piece, showing side view of the bar; Fig. 11, a modification of the bar-piece.

This invention relates to an improvement in that class of buttons commonly called "suspender-buttons," and to that particular division of this class in which a bar extends across the central opening in the button over which the stitches are taken to secure it to the garment, commonly called "bar-buttons." The button consists of a front, *a*, and a back, *b*, the two of cup shape and so as to set one within the other, the front closed over the edge of the back to secure the parts together. The bar in some cases is made of wire bent into S or other shape, and introduced between the front and back, so that wire will pass diametrically across the central opening in the button, and secured by closing the front and back together. In other cases the bar is made from sheet metal. This is done as seen in Fig. 3, the disk *d* being cut from sheet metal of substantially the internal diameter of the parts of the button. At the center two nearly semicircular cuts are made, in diameter corresponding substantially to the diameter of the opening through the button. The ends of these semicircles do not quite reach each other, but so as to leave a

central part connected, and forming a tongue, *e*, each side the center. These tongues are then bent down, as seen in Fig. 4, forming a bar across the center, which presents a rounded upper surface. In the manufacture of this bar a serious difficulty and considerable loss exists, from the fact that in cutting and bending the ears *e e* downward, the connected portion between them frequently breaks from the disk, and particularly is this the case unless the metal be of the finest quality. In common sheet-tin such breaking is of frequent occurrence. If it does not entirely break away, it cracks the metal so as to present a rough edge at the ends of the bar, against which the thread will wear and be quickly cut.

The object of my invention is to construct the bar from sheet metal, but avoid this difficulty of breaking; and it consists in the construction of the disk from which the bar is formed, as more fully hereinafter described, and particularly recited in the claims.

The disk *f* is cut from suitable sheet metal—common sheet-tin, for illustration—as seen in Fig. 5. Instead of simply cutting a slit to form the tongue each side the center, as in the previous construction, I cut a semicircular slot, *h*, each side the center, the ends of the slots leaving solid metal between them, as at *i*. The internal diameter of the semicircular slots is substantially that of the opening *l* through the front *a* of the button, and so as to leave a tongue, *m*, on the central portion projecting into each of the slots. The disk is made of larger diameter than the internal diameter of the button, and the outer edge of the disk is turned downward to form a flange, *n*, around the edge of the disk. The projecting parts *m m* are turned downward, as seen in Fig. 8, so as to round the upper edge of the bar between the connections *i i*, this rounding of the upper surface extending onto the connections *i i*, as seen in Figs. 9 and 10, the round dying out on those connections *i* before it arrives at their point of connection with the surrounding portion of the disk. By thus forming the bar the tearing strain upon the tongues at their intersection with the disk is avoided, the rounding operation being gradual from the flat disk onto the central portion of the bar. The connection between the bar and its disk is carried so far

in beneath the front that the thread cannot reach beyond the full rounded surface of the bar.

While I prefer to make a complete disk, as seen in Fig. 5, the side portions of the disk may be cut away, as seen in Fig. 11, leaving at each end sufficient support for the bar between the two parts of the button.

In making up the button the bar-piece is introduced into the back, as seen in Fig. 1, and then the back closed thereon, so as to firmly hold and grasp the bar-piece between the front and back.

While I prefer to construct the bar-piece with the flange *n* around its edge, that flange may be omitted.

I claim—

1. The combination of the front *a* and back *b* with the bar-piece *f*, arranged between the front and back, the said bar-piece constructed

with tongues *m m* in its central portion, with a narrow connection, *i*, at diametrically-opposite ends of said central portion, uniting said central portion with the outer portion of the bar-piece, the said tongues bent downward, substantially as described.

2. The combination of the front *a* and back *b*, intermediate disk, *f*, constructed with semi-circular concentric slots *h h*, to form central tongues, *m m*, and narrow connections *i i*, between said tongues and the surrounding portion of the disk, the said disk constructed with a flange, *n*, around its edge, and the tongues *m m* turned downward, substantially as described.

JOHN H. WALKER.

Witnesses:

EDWIN U. LATHROP,

JOHN E. JONES.