

(No Model.)

T. R. HYDE, Jr.
SWIVEL BUTTON.

No. 582,066.

Patented May 4, 1897.

Fig. 1

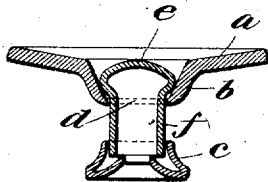


Fig. 2

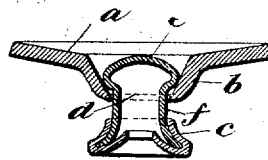


Fig. 3

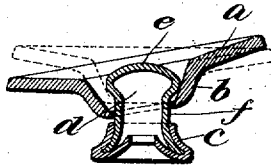


Fig. 4

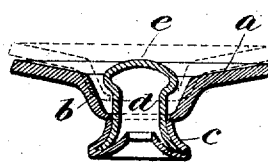


Fig. 5

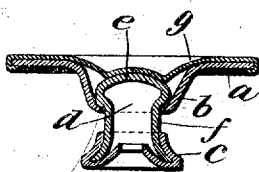


Fig. 6

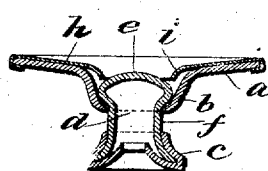
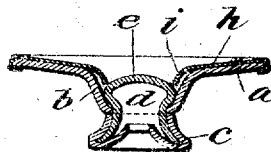


Fig. 7



Witnesses
J. H. Coleman
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Theophilus R. Hyde, Jr.
by W. H. Finckel
his atty.

UNITED STATES PATENT OFFICE.

THEOPHILUS R. HYDE, JR., OF WATERBURY, CONNECTICUT, ASSIGNOR TO
THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

SWIVEL-BUTTON.

SPECIFICATION forming part of Letters Patent No. 582,066, dated May 4, 1897.

Application filed December 3, 1896. Serial No. 614,282. (No model.)

To all whom it may concern:

Be it known that I, THEOPHILUS R. HYDE, Jr., a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Swivel-Buttons, of which the following is a full, clear, and exact description.

This invention relates to modifications of the kind of button forming the subject of the patent of A. J. Shipley, No. 548,143, granted October 15, 1895. In that patent the spacer and the button-head are rigidly connected. For some purposes it is desirable that the button-head have such a connection with the spacer as that said button-head may vibrate about the spacer in order to adapt itself to changes of position or directions of strains in use.

The object of the invention is to provide such a connection of the button-head with its spacer that the said head may have a swiveling motion or action.

A further object of the invention is to admit of the use of a tack-fastening in the form of buttons, now very largely used, in which the face or head is composed wholly or in part of hard steel. It has been found that where the hard-steel face is exposed in the setting-tool to the pressure and impact incident to setting the button it is liable to fracture or defacement. I desire to provide against this objection.

The invention consists of a tack-fastened button having a head and a spacer connected by a tubular rivet or other suitable connecting medium which is of such greater length than the greatest depth of the button-head as to admit of the button-head having a swiveling motion.

The invention also consists of a swivel-button whose head, especially when made of hard steel, is provided with a central opening in its face, combined with a spacer connected therewith by a suitable hollow rivet or like fastening, the head of which is exposed in and free of the opening in the face of the button, so as to receive the setting-tool wholly without contact of such setting-tool with the face of the button, thereby to relieve the face of the but-

ton of the pressure and impact of the setting-tool.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated and in all of which the parts are purposely exaggerated in order the more clearly to show the invention, Figure 1 is a cross-section showing the parts of the button in position to be assembled. Fig. 2 shows in cross-section said parts assembled. Fig. 3 is a view similar to Fig. 2, illustrating one feature of the swiveling capacity of the button. Fig. 4 is a similar view representing another feature of the swiveling capacity. Fig. 5 is a cross-section showing my invention applied to a closed-face button. Fig. 6 is a cross-section showing my invention applied to a button whose head is composed of a face-plate and a back-plate.

Referring now to Figs. 1 to 4, *a* is the button-head, which may be made of any suitable material, such as steel or brass and the like. This button-head is provided with a central depression which forms a shank or hub *b*.

c is a spacer constructed as an annular pocket-like device, substantially as in the Shipley patent, hereinbefore referred to.

d is the tubular rivet or connecting medium, and by the term "tubular rivet" I mean to include any suitable device having a solid head *e* to receive the setting-tool and to provide for the overturning, curling, or up-setting of the fastening-tack, (not shown,) and also having the essentially cylindrical tubular extension *f*, the lower end of which is spread out within the pocket-like spacer *c*, as shown in Fig. 2, in order to unite the button-head, rivet, and spacer and to constitute a complete button ready to be attached to a garment by the insertion of a tack and its up-setting within the tubular rivet.

As will be observed, the portion *f* of the rivet is of greater length than the hub of the button and the height of the spacer when the parts are assembled, and hence the button-head *a* has a capacity of lateral movement, as partly indicated by full and dotted lines in Fig. 3, and is capable of rotating about said rivet, and also is capable of movement in the direction of the length of said shank,

as also partly indicated by full and dotted lines in Fig. 4, and these movements I include within the term "swiveling." As already indicated, such capacity of movement on the part of the button-head is advantageous in permitting the button-head to adapt itself to the motions of the wearer of the garment to which the button is applied in order to accommodate itself to the strains, &c.

Another and important feature of this improvement is that the rivet-head, being exposed free of the button-head, is adapted to take upon itself the pressure and impact of the setting-tool and thereby relieve the button-head of such pressure and impact and save it from fracture and disfigurement.

The invention is applicable in part to button-heads having a covered face, as in Fig. 5, and where the covering *g* is of soft material, not liable to injury by the operation of the setting-tool, it may be continuous across the face of the button. However, in this form of button the swiveling feature is limited to rotary motion and a slight lateral tip.

Where the face of the button is of hard material, such as steel, as at *h*, Fig. 6, then the center of such covering will be cut away, as at *i*, in order to expose the head of the rivet for use in connection with the setting-tool, so as to avoid contact of the setting-tool with the hard-metal face and to preserve the covering from injury and defacement.

The tubular rivet or equivalent fastening may be made of soft steel or such other material as will suffice to upset the point of the tack and which will not fracture in the operation of setting the button.

In the case of the covered buttons shown in Figs. 5 and 6, while I have used the same reference-letters as in Figs. 1 to 4, I do not wish to be understood as thereby limiting such covered buttons to the details of construction and material described in connection with Figs. 1 to 4, since, as is obvious, the practice of button-makers is to use in covered buttons a back of tin, sheet-iron, and other material and a face of superior stock or of different stock. These and other modi-

fications of the several features of my invention are intended to be included within the 50 claims herein made.

What I claim is—

1. A button of the tack-fastened variety, having a central, perforated hub, a tubular rivet having a closed head arranged within the hub and a shank of greater length than the greatest depth of the button-head, and a pocket-like spacer within which the shank is spread, the spacer being arranged at a distance from the button-head sufficient to permit lateral and longitudinal movement of the button-head, whereby said button-head is capable of a swiveling action when fastened to a garment, substantially as described.

2. A button of the tack-fastened variety, having a central, perforated hub and a face-plate constructed with a central opening, a tubular rivet arranged in said hub and having its closed end exposed at the opening in the face-plate of the button and free of it, and a pocket-like spacer within which the other end of said rivet is spread, the said spacer being arranged at a distance from and free of contact with the hub of the button, the button-head being thus swiveled to said rivet, substantially as described.

3. A button, of the tack-fastened variety, comprising a hard-steel button-head, a tubular rivet of soft steel, having a head exposed at the face of the button and accessible to a setting-tool independently of the button-head, and a shank of greater length than the greatest depth of the button-head, and an annular pocket-like spacer within which the end of the shank is spread and confined, the said spacer being arranged distant from and independently of the button-head, whereby the latter obtains a swivel action, substantially as described.

In testimony whereof I have hereunto set my hand this 30th day of November, A. D. 1896.

THEOPHILUS R. HYDE, JR.

Witnesses:

HENRY FEHL,

M. J. WARNER.