A. C. ROVELLI.

PIN-ON BUTTON.

APPLICATION FILED MAY 10, 1917.

1,375,231. Patented Apr. 19, 1921.

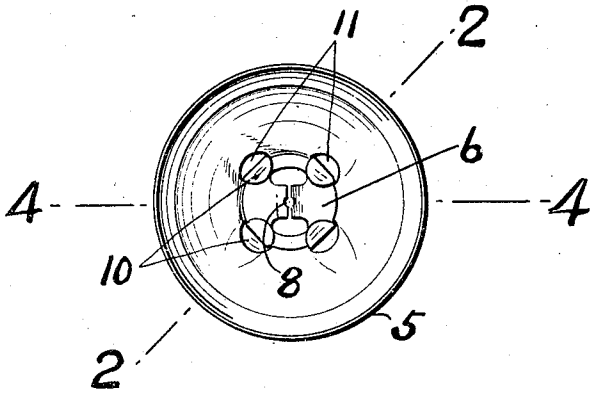


FIG. 1.

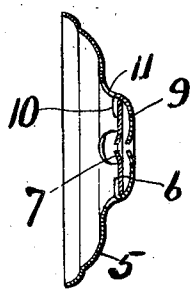


FIG. 2.

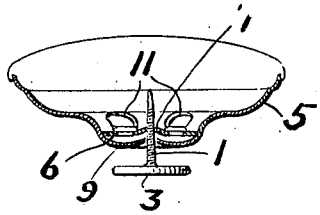


FIG. 3.

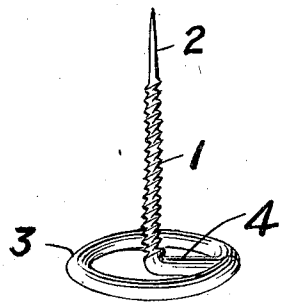


FIG. 4.

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UNITED STATES PATENT OFFICE.

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PIN-ON BUTTON.

1,375,231. Specification of Letters Patent. Patented Apr. 19, 1921.

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To all whom it may concern:

Be it known that I, ANGELO C. ROVELLI, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Pin-On Buttons, of which the following is a specification.

There are in use pin-on buttons consisting of buttons or button-bodies, and pointed studs or pins which are so small and needle-like that they can be repeatedly put through a fabric at different places to move the buttons without marring the fabric. The pins are attached to the buttons or button-bodies by clamping devices or provisions of the buttons or button-bodies which permit of detachment only by turning the studs to unscrew threads on them from disengagement with those devices. The pins or studs must, of course, have heads which appear on the back of the fabric, which must be large enough not to pull through, and which constitute the sole means for unscrewing the pins. To provide these needle-like pins with appropriate and satisfactory heads at the small cost permissible in the case of such articles presents difficulties. Heretofore the heads consisted of pressed metal disks through which the pins with very small heads were driven, until the head of the pin contacted with the metal disk. The resulting union depends upon a mere tight fit and unless great care is taken, objectionable burs are formed which tend to wear the fabric. Such stud heads are heavy, which in the case of a light fabric is a disadvantage where a row of buttons is employed, for their weight tends to pull the garment and produce an unsightly effect. Without the exercise of great care in manufacture, the heads or disks are apt to be or become loose and turnable on the pins and in that case the pins cannot be unscrewed from the buttons or button-bodies and the buttons become immovable on the fabric and one of the principal advantages of the pin-on buttons is sacrificed. Even if the stamped metal disks, constituting the heads, do not become loose on their pins, such heads are hard to get a hold of in order to unscrew the pins from the button-bodies or buttons, and such heads are thick and even when enameled, look like cheap buttons and detract from the appearance and finish of the inside of the garment. Sometimes when the stud and button-body have been separated to remove them from the garment, for example to press or wash it, the stud, being small and comparatively inconspicuous, is lost or mislaid, and as heretofore constructed and under such circumstances the button-body was useless, and much annoyance and discomfort resulted.

The principal objects of the present invention are, first, to avoid the defects and disadvantages to which reference has been made; second, to provide a stud for pin-on buttons which shall be light and comparatively inexpensive to make and of which the head shall be sightly and thin and well adapted to afford a good finger grip when detaching or unscrewing the parts of the button; third, to insure proper unscrewing action between the parts of the button when it is to be taken apart; fourth, to avoid the necessity for care in preventing objectionable burs and loose joints, such as are apt to be formed or left where pressed metal caps or disks and pins are united without solder, the cost of which is prohibitory; fifth, to provide a comparatively inexpensive button-body well adapted for coöperation with its stud and constructed in such a way that it can be sewed on in case the stud is lost or mislaid, and sixth, to provide a comparatively inexpensive, durable and attractive pin-on button possessed of the advantages herein set forth.

The invention will be claimed at the end hereof, but will be first described in connection with the embodiment of it chosen for illustration in the accompanying drawings forming part hereof, and in which—

Figure 1, is a view of the under side of the button-body.

Fig. 2, is a section on the line 2—2 of Fig. 1.

Fig. 3, is a section on the line 3—3 of Fig. 1, showing the stud, and

Fig. 4, is a perspective view of the stud.

The stud consists of a continuous wire of appropriate gage for providing the threaded cylindrical shank 1 having a pointed end 2 of reduced diameter. 3, is a coil of the same wire and it constitutes a flat head disposed at right angles to the shank and connected with it by a radial portion 4. The head consists of the coil 3 and part 4, is

generally flat for these parts lie in the same plane, and this head is light in weight and attractive in appearance, since it consists of wire of fine gage disposed in a generally ring-like form or coil which in no way resembles a button and hence does not detract from the interior appearance or finish of the garment. The ring or coil-like shape of the head along with the radial portion 4 affords a good finger hold for unscrewing the shank from the button-body or button proper. Since the shank and head consist of a continuous piece of wire they are rigidly connected and there is no possible chance for rotation of the head in respect to the shank and this, together with the good finger hold above referred to, makes certain the easy removal of the stud from the button. The described stud can be easily and cheaply made by automatic machinery and in its manufacture there is no tendency to form burs, so that no particular care has to be exercised. The coil constituting the head is somewhat springy, which is rather advantageous than otherwise in assembling and disconnecting the stud and button. Again the coil 3 lies in close contact with the fabric and no part of the stud tends to unduly enlarge the opening in the fabric through which it is arranged. The button-body consists of a shell 5 and a clamping device 6. The clamping device comprises a disk perforated to provide oppositely inclined inward fingers 7, each notched at its end, as at 8, to receive the end of the stud, and these fingers permit of the insertion of the stud, automatically grip its shank against withdrawal, and permit the stud to be screwed out of their grasp. The shell is provided with a projecting hollow shank 9, having a central hole formed in its counter-sunk portion and adapted for the passage of the stud. The clamping disk is arranged in the shank and is held in place by its inner wall and by tongues 10, punched out of the wall of the shank, leaving openings 11, through which thread may be passed in order to sew on the button.

In use the described parts coöperate as a pin-on button having the desirable features herein referred to. The button may be put on by passing the stud through the goods and inserting it into the button-body, and the button may be taken off by unscrewing the stud and body, or if the stud be lost or mislaid the button-body can be sewed on.

What I claim is:

1. A stud for pin-on buttons consisting of a continuous wire and comprising a threaded cylindrical shank having a pointed end, and a circular coil constituting a flat head and disposed at right angles to and concentric with the shank, substantially as and for the purposes described.

2. A pin-on button comprising the combination of a stud consisting of a continuous wire and comprising a threaded shank having a pointed end and a coil, and a button-body consisting of a tongued clamping disk and a shell having a neck in which the disk is arranged and which is provided with punched disk clamping tongues and with thread openings formed where the tongues are punched, substantially as described.

ANGELO C. ROVELLI.