Jan. 13, 1925.

1,523,009

M. FOLKMAN

SEPARABLE CUFF BUTTON

Filed May 15, 1924

Fig. 1.

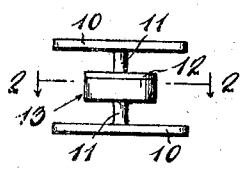


Fig. 2.

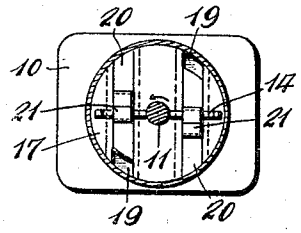


Fig. 3.

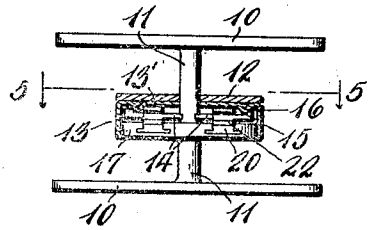


Fig. 4.

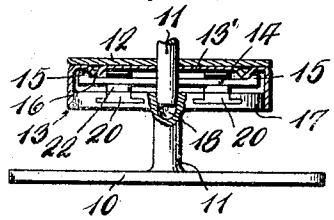


Fig. 5.

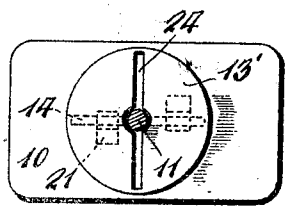


Fig. 6.

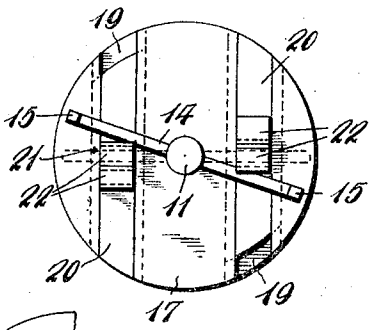


Fig. 8.

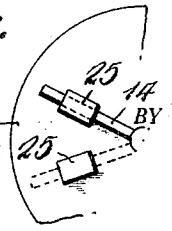
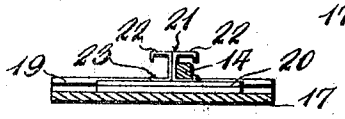


Fig. 7.



INVENTOR.

Morris Folkman

BY

John A. Bommhardt

ATTORNEY.

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UNITED STATES PATENT OFFICE.

MORRIS FOLKMAN, OF CLEVELAND, OHIO.

SEPARABLE CUFF BUTTON.

Application filed May 15, 1924. Serial No. 713,489.

To all whom it may concern:

Be it known that I, MORRIS FOLKMAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Separable Cuff Buttons, of which the following is a specification.

This invention relates to improvements in separable cuff buttons having for an object to provide a means for connecting and locking against accidental separation, a two part button.

Another object is to provide a two part cuff button in which the parts are locked together through interengaging the parts and partially rotating them in opposite directions.

It is likewise an object to provide a two part cuff button which may be easily applied to a cuff and connected through rotating either part in either direction with respect to the other part.

Other objects will be hereinafter apparent.

In order that this invention and its mode of functioning may be understood by others, I have in the accompanying drawing and the detailed description based thereon set out the preferred embodiment thereof.

In the drawings.

Figure 1 is a slide elevation of the cuff button;

Figure 2 is a view taken substantially on the line 2—2 of Figure 1;

Figure 3 is an enlarged side elevation with portions shown in section;

Figure 4 is an enlarged detail sectional view of the interengaging portions of the two parts;

Figure 5 is a view taken substantially on the line 5—5 of Figure 3;

Figure 6 is a plan view of the part carrying the slidable keepers;

Figure 7 is a sectional view showing the connection and structure of the keepers and the slidable carriers, and

Figure 8 is a view of a modified form of keeper.

Similar characters of reference designate similar parts throughout.

The improved separable cuff button comprises two inter-lockable parts, each including the usual head 10 which obviously may be of any preferred design and carry shanks 11, at the end portions of which is arranged the locking or connecting devices. One of these shanks 11 rigidly carries near its outer end a disc-shaped plate or supporting member 12 which snugly engages the outer end wall 13′ of the housing 13 carried by the other shank. Arranged between this plate 12 and the end of the shank and rigidly fixed to the shank is a pair of alined radial locking arms 14 which are preferably substantially square or rectangular in cross section whereby to provide reliable connection with keepers to be hereinafter set forth. The ends of these arms 14 are angularly turned or enlarged to form fingers 15—which take over an annular shoulder 16 formed upon the under face of the end wall 13′ of the housing carried by the other shank. This interconnection taken together with that hereinafter out-lined will positively prevent relative shifting or play in the structure.

This housing 13 as shown is rigidly fixed to the other shank and encloses a slidable keeper carrying block or base 17. This keeper carrier or block 17 is disc-shaped and has a central recess or socket 18 adapted to guide the other shank to its proper resting place and retain the same therein while the parts are inter-locked. Spaced from opposite sides of this central socket 18 is a pair of under-cut channels 19 arranged in parallel relation and opening at each end through the periphery of the keeper carrier 17. Arranged slidably in each of these channels 19 is a keeper carrier or block 20 which obviously is formed to snugly fit the under-cut channel. These keeper carriers are of slightly less length than the channels for reasons hereinafter apparent.

As shown in Figure 7 each carrier 20 mounts a double keeper 21 comprising a pair of substantially U-shaped members or jaws 22 oppositely disposed so as to interlockingly connect the cuff button parts irrespective of the direction of rotation of the parts. As illustrated each jaw or part 22 of the keeper 21 has a shoulder 23 over and behind which the arms 14 pass and are locked against accidental displacement.

In order that the locking arms and their supporting shank may be engaged within the housing 13, I provide a key slot 24 in the end wall 13′ of the housing thus permitting insertion of said portions. As stated this end wall 13′ also carries the annular shoulder 16 which serves to prevent looseness as between the cuff button parts.

By reference to Figures 6 and 7 it will be seen that rotation of one part in either direction relative to the other part will effect locking connection with a keeper jaw 22. Obviously, due to the parallel relation of the key slot 24 and the channels, 19, slight shifting to a predetermined point must be allowed. This is attained through forming the slides 20 of slightly less length than the channels 19, thereby allowing shifting of these slides in opposite directions during the locking operation. The shifting is limited by the peripheral wall of the housing 13 and when the slides have come in contact with the wall at opposite points, diagonally opposite keeper jaws are alined and lock the arms 14 carried by the other part of the button. It is obvious that a button constructed as set forth may be easily applied to the cuff and will have considerably longer life than the average on the present market.

In a modified form of keeper as shown in Figure 8, I arrange fixed keepers 25 relatively angled so as to lockingly receive the arms upon rotation of the parts as previously outlined.

Manifestly certain minor changes in the details of construction may be resorted to and such changes as fall within the scope of my claims, I consider within the spirit of my invention.

I claim:

1. In a two-part separable cuff button, a shank carried by each part, a housing carried by one shank, keepers arranged in the housing, locking arms mounted upon the other shank and engageable with the keepers upon opposite relative axial rotation of the shanks, and a stiffening disc spaced from the locking arms upon the arm carrying shank and snugly contacting with the housing to prevent relative movement of the parts.

2. In a two-part separable cuff button, a shank carried by each part, a housing carried by one shank, and having an opening in its outer end, a pair of diametrically opposed keepers arranged in the housing, arms carried by the other shank and engageable with said keepers, and a stiffening disc mounted upon the arm carrying shank and adapted to snugly contact with the housing end wall to maintain rigidity in the button.

3. In a separable two-part cuff button, a shank carried by each part, a housing carried by one shank and having an opening in its outer end wall, said housing having a pair of parallel undercut channels spaced from its axis, a pair of slides arranged in the channels, a pair of oppositely longitudinally opening jaws carried by each slide, a pair of locking arms carried by the other shank and engageable with certain of the jaws upon relative opposite axial rotation of the shanks in either direction.

4. In a separable two-part cuff button, a shank carried by each part, a disc head carried by one shank, said head having a pair of spaced parallel channels in its outer face, a slide in each channel, a pair of longitudinal oppositely opened jaws arranged upon each slide, a housing enclosing the channeled face and periphery of the head, and having a slot in its outer end wall, a pair of arms arranged upon and near the end of the other shank, said arms being locked within diagonally opposed pairs of said jaws upon relative opposite axial rotation of the shanks in either direction, said slides being moved in opposite directions to the ends of the channels to aline pairs of jaws.

5. In a separable two-part cuff button, a shank carried by each part, a disc head carried by one shank, said head having a pair of spaced parallel channels in its outer face, a slide in each channel, a pair of longitudinal oppositely opened jaws arranged upon each slide, a housing enclosing the channeled face and periphery of the head, and having a slot in its outer end wall, an annular inwardly directed shoulder formed upon the inner face of the housing end wall, a pair of arms carried by the other shank, fingers arranged at the ends of the arms to take over and snugly engage said shoulder, said arms inwardly from the fingers being locked within opposed pairs of the jaws upon opposite relative axial rotation of the shanks.

6. In a separable two-part cuff button, a shank carried by each part, a disc head carried by one shank, said head having a pair of spaced parallel channels in its outer face, a slide in each channel, a pair of longitudinal oppositely opened jaws arranged upon each slide, a housing enclosing the channeled face and periphery of the head, and having a slot in its outer end wall, an annular inwardly directed shoulder formed upon the inner face of the housing end wall, a pair of arms carried by the other shank, fingers arranged at the ends of the arms to take over and snugly engage said shoulder, said arms inwardly from the fingers being locked within opposed pairs of the jaws upon opposite relative axial rotation of the shanks, and a stiffening plate arranged upon the arm carrying shank inwardly from the arms, said plate being snugly engaged with the housing end wall to give rigidity to the button.

7. In a two-part separable cuff button, a shank carried by each part, locking arms carried by one shank, opposed yieldable and slidable keepers carried by the other shank, said arms and keepers being inter-engageable upon axial rotation of the parts in either direction.

In testimony whereof, I affix my signature.

MORRIS FOLKMAN.