

W. E. BUSER.
 CLENCHABLE BUTTON AND WASHER FOR TUFTING MACHINES.
 APPLICATION FILED MAY 12, 1911.

1,054,389.

Patented Feb. 25, 1913.

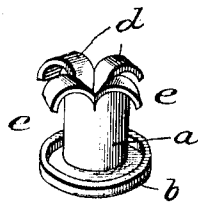
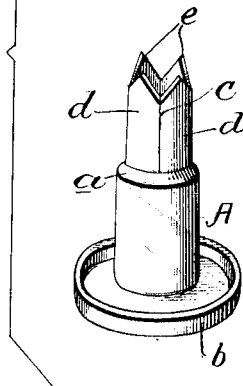
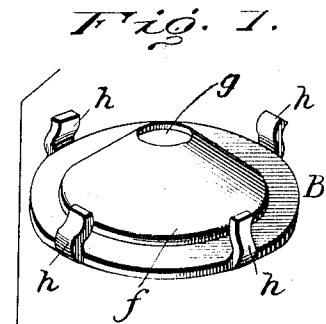
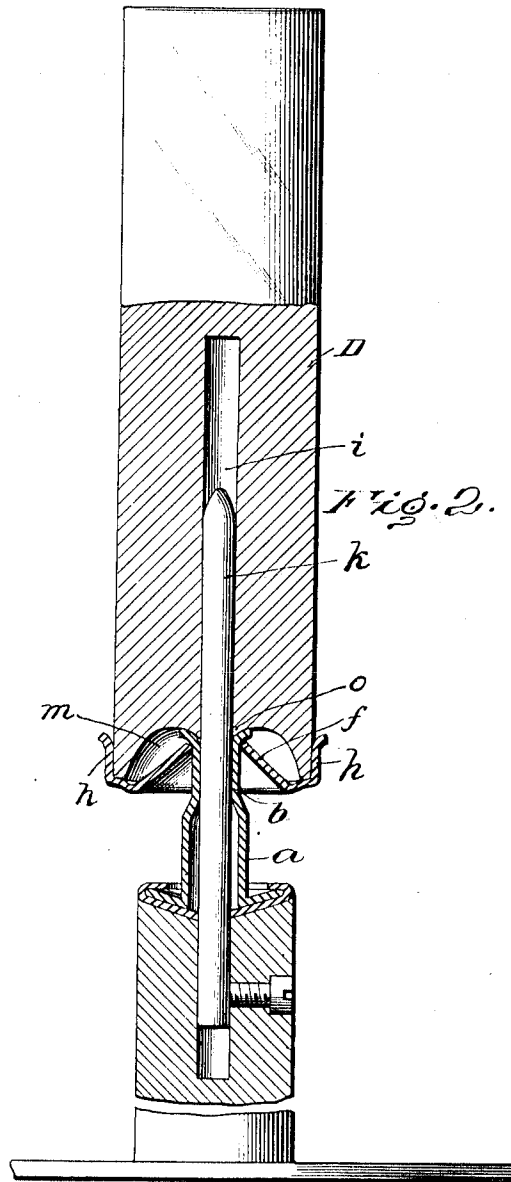


Fig. 3.



Witnesses

U. A. Williams

J. H. Patterson

Inventor

W. E. Buser

By

A. S. Patton

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM E. BUSER, OF CHILLICOTHE, OHIO.

CLENCHABLE BUTTON AND WASHER FOR TUFTING-MACHINES.

1,054,389.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Original application filed June 15, 1910, Serial No. 567,062. Divided and this application filed May 12, 1911. Serial No. 626,866.

To all whom it may concern:

Be it known that I, WILLIAM E. BUSER, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Clenchable Buttons and Washers for Tufting-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in clenchable buttons and washers for tufting machines, and is a division of my application filed June 15th, 1910, Serial No. 567,062, which matured into a Patent Number 1,034,766 on Aug. 6, 1912.

The object of my present invention is to provide a new hollow clenchable button and washer for use in tufting machines as fully disclosed in my said parent application.

In the accompanying drawing—Figure 1 is a perspective view of my improved hollow clenchable button and washer, the two parts shown in separated relation. Fig. 2 is a sectional view showing my hollow clenchable button and washer in the act of being clenched. Fig. 3 is a detached perspective view showing the button after its expandible end has been turned over into its clenching shape.

Referring now to the drawings, A is my improved clenchable button and B my improved washer to be used therewith. The button comprises a hollow stem *a* having at one end a head *b*, and at its opposite end a contracted expandible portion *c*. This contracted expandible portion of the hollow stem is formed of a plurality of arms *d* having outer pointed ends *e*.

My improved washer B has a truncated cone-shaped center *f* with a central opening *g* which receives the contracted portion of the button. The periphery of the washer is provided with a suitable number of interlocking arms *h*, which are adapted to temporarily interlock with a clenching device D. This clenching device may be of the hand-operated form, as here shown, or it may be carried by the follower-board, as shown in my said parent application. In the event that the clenching device is carried by the follower-board, there will be a clenching device for each button support, so that when the follower-board is depressed all of the buttons will be simultaneously

clenched. This clenching device is provided with an opening *i* to receive a combined button support guide and piercing rod *k*. This rod is removably supported by the button support 18 and receives the hollow button, as clearly shown. The end of the clenching device is concaved, as shown at *m* and has a cone-shaped portion *o* surrounding the opening therein, and this cone-shaped portion separates the arms of the contracted portion of the button and expands it around the washer.

In operation the guiding rod pierces the cloth of the fabric (not shown) in advance of the button, and the button passes through this opening in the cloth which is pierced by the rod, and the contracted end of the button is expanded around the washer, as above stated. The completed tufted fabric is thus held by this improved button washer and the hollow button forms an opening at the depressed portions of the tufted fabric through which dust and dirt may pass thus facilitating the cleaning and keeping clean the tufted fabric.

The contracted expandible portion *c* snugly fits the rod *k* to cause the button stem to enter through the opening formed by said rod, and the stem is enlarged at its inner end to loosely fit the rod, to prevent the stem wedging on the button when the contracted portion is expanded. Without this enlarged portion the stem will be wedged on the rod when the outer end thereof is expanded, and to such an extent that it is not practical to pull the tufted fabric away from the rods, and an effort sufficient to do so is liable to either tear the button away from the fabric, or injure the fabric at the button by the pull thereon.

This improved construction makes a very effective, durable and attractive button for tufted fabric having in addition the advantages hereinbefore stated.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A tufting button having a hollow stem provided with a head having an opening registering with the hollow stem to receive therethrough a button supporting rod of a tufting machine, the hollow stem having an enlarged inner portion to prevent wedging on said rod and a contracted expandible outer portion substantially as described.

2. A tufting button having a hollow stem provided with a head having an opening registering with the hollow stem to receive therethrough a button supporting rod of a tufting machine, the stem having an enlarged inner portion to prevent wedging on said rod and a contracted expansible outer portion comprising parallel arms, substantially as described.
3. The combination with an improved tufting button having a hollow stem provided with a head at one end and a contracted expansible outer end, of a washer fitting the contracted portion of the stem, the washer having peripheral projecting members to engage a stem clenching device, substantially as and for the purpose described.
4. The combination with a tufting button having a hollow stem provided with a head having an opening registering with the hollow stem, the stem provided with an enlarged inner portion and a contracted expansible outer portion, of a combined button supporting and cloth piercing rod passing loosely through said enlarged portion of the stem snugly fitting the contracted portion and having a pointed end projecting beyond said contracted portion.
5. A tufting button having a hollow stem portion provided with a head having an opening registering with the hollow stem, said stem having an enlarged inner portion and a contracted outer portion consisting of straight parallel arms provided with pointed outer ends, combined for the purpose described.
- In testimony whereof I hereunto affix my signature in the presence of two witnesses.
- WILLIAM E. BUSER.
- Witnesses:
E. A. TINKER,
CHAS. E. CAPPLE.