L. A. YOUNG.

TUFTING BUTTON FOR CUSHION SEATS.

APPLICATION FILED AUG. 29, 1907.

920,514.

Patented May 4, 1909.

Fig. 1.

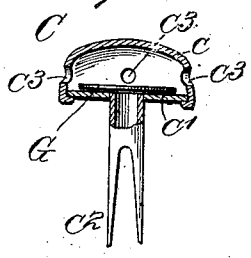


Fig. 2.

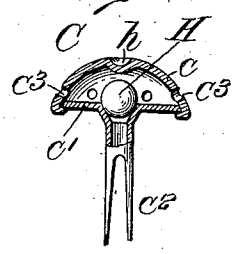


Fig. 3.

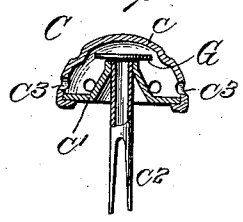


Fig. 4.

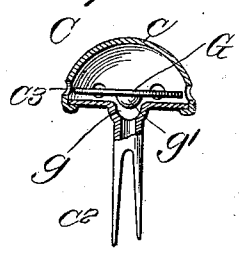


Fig. 5.

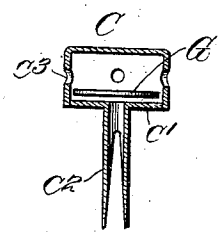


Fig. 6.

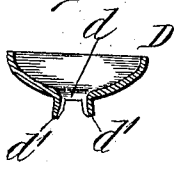
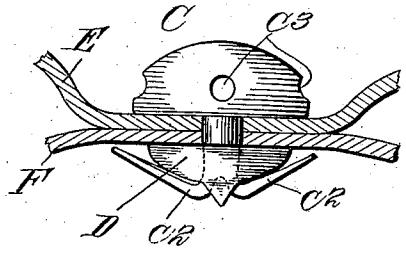


Fig. 7.



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TUFTING-BUTTON FOR CUSHION-SEATS.

No. 920,514. Specification of Letters Patent. Patented May 4, 1909.

Application filed August 29, 1907. Serial No, 390,675.

To all whom it may concern:

Be it known that I, LEONARD A. YOUNG, a citizen of the United States, residing in Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Tufting-Buttons for Cushion-Seats, of which the following is a specification.

My invention particularly relates to ventilating buttons for upholstered spring cushions of the kind that are used in the seats of automobiles and other vehicles and the object of my invention is to provide improved means for ventilating such cushions in such manner as to keep them cool while at the same time avoiding the entrance of dust, water or other foreign matter.

My improved buttons are intended to be employed in the depressions of the tufted top of the seat and serve the double purpose of connecting the upper and lower layers of the tufted work and provide means for the passage of air from the closed space beneath the seat cover. These buttons have openings in the sides of their heads so that air can pass freely through them when the seat is sat upon. In the heads of the buttons I arrange valves which serve to prevent the entrance of dirt and water by closing the openings when pressure is relieved from the seat, the normal position of the valves being closed and opening only while the seat is being depressed.

In the accompanying drawings, Figure 1 is a view partly in vertical section and partly in side elevation of a valved tufting button embodying my improvements. Fig. 2 is a similar view where a ball valve is used instead of a disk valve, as shown in Fig. 1. Fig. 3 is a similar view where a disk valve is used and the valve seat is raised above the side openings in the button head. Fig. 4 shows a construction in which the disk valve is provided with a boss on its lower side adapted to enter a corresponding recess in the bottom of the button. Fig. 5 shows a further modification in which the shape of the button head is slightly changed. Fig. 6 is a detail view in vertical section of one of the washers employed in connection with the buttons. Fig. 7 is a view partly in elevation and partly in section showing how the button and washer are attached to the fabric.

In Fig. 1 the button is shown as comprising a head, c, connected in any suitable way to a bottom c', to which is connected a bifurcated shank c^2. The shank is tubular and opens into the interior of the head c^2, which latter is provided with openings c^3 at the side, while the top portion of the head is closed. I preferably employ in connection with the button a cup-shaped washer D, such as illustrated in Fig. 6. This washer is centrally perforated at d, the parts punched out being turned down, as indicated at d', though these parts may be cut off if desired. In applying these buttons the shanks are passed through the upper and lower layers E, F, of the tufted top of the cushion in the depressions thereof. They are passed through the washers D and then the arms or legs of the shanks c^2 are bent outwardly as indicated in Fig. 7. In this way the buttons are firmly applied. They hold the tufted cushion cover in proper form and they permit the passage of air through them. The button head contains a valve G, in the form of a disk which is free to move to a limited extent vertically. This valve is normally closed. When the top of the cushion is depressed, the valve opens and when the top rises, the valve closes. Preferably the arrangement is such that air never enters through these buttons and therefore there is little chance of dust, water or other foreign matter entering the cushion through the top, which is more exposed than other parts of the cushion.

The button shown in Fig. 2 is the same in principle as that shown in Fig. 1. In this instance the bottom c' of the button and the shank c^2, are made in one piece. The top of the shank is flared or recessed to receive a ball valve H, and the top of the button is slightly depressed at h for the purpose of limiting the movement of the valve. The openings in the head are formed at c^3 at the side.

In Fig. 3, the bottom c', is formed with a conical, central portion extending into the head of the button and the valve G is seated on the upper end of this portion. The valve seat is thus arranged above the side openings c^3.

In Fig. 4 the construction of the button is similar to that shown in Fig. 1, except that the valve G is provided with a centrally arranged boss g on its lower face, which is adapted to enter a recess g' at the top of the shank c^2. This better serves to close the air passage and to hold the valve in a central position.

In Fig. 5 the construction is similar to that shown in Fig. 1, except that the top of the head is made flat instead of round or convex.

I claim as my invention:

1. A tufting button for spring cushions having a tubular bifurcated shank and a hollow top portion or head, the interior of which communicates with the shank, contains a valve and has an opening at the side for the passage of air through the head and shank, for the purpose specified.

2. A tufting button for spring cushions having a hollow head closed at the top and open at the side, a valve within the head and a tubular bifurcated shank connected with the head below the valve, for the purpose specified.

3. A tufting button for spring cushions comprising a tubular bifurcated shank and a hollow top portion or head communicating with the shank, containing a valve and having a side opening near its base and a valve seat raised above said side opening.

In testimony whereof, I have hereunto subscribed my name.

LEONARD A. YOUNG

Witnesses:
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K. A. HAGAN.