W. J. WILLIAMS & J. C. BOWMAN.

CUSHION.

APPLICATION FILED MAR. 20, 1914.

1,165,052. Patented Dec. 21, 1915.

Fig. 1.

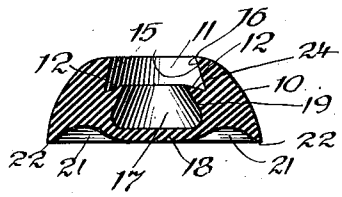


Fig. 2.

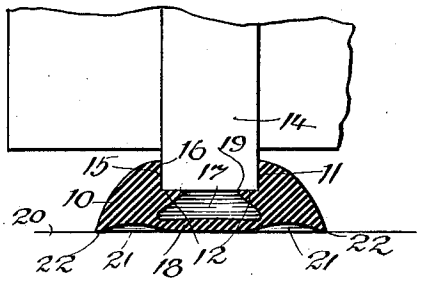
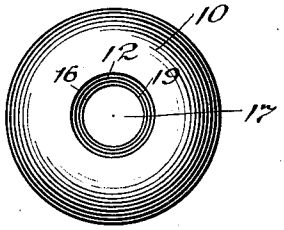


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CUSHION.

1,165,052. Specification of Letters Patent. Patented Dec. 21, 1915.

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To all whom it may concern:

Be it known that we, WILLIAM J. WILLIAMS and JAMES C. BOWMAN, residents of La Grange, in the county of Cook and State of Illinois, and Chicago, county of Cook and State of Illinois, respectively, have invented new and useful Improvements in Cushions, of which the following is a full, clear, and exact description.

The invention relates to cushions, and more particularly to that type which is adapted for use on legs of typewriters or other machines or articles mounted on legs or feet.

In cushions for typewriters, it is desirable to utilize, as far as possible, a confined body of air so as to form a pneumatic cushion by which the machine will be supported mainly by air contained in an elastic foot or cushion, to relieve the elastic material of the cushion, in a measure from the load. This is desirable because rubber is apt to lose its resiliency or become dried out, particularly if the rubber is under compression or the cushion is tightly clamped between the leg of the typewriter and the table or support.

One object of the invention is to provide an improved cushion in which a chamber adapted to contain air under pressure is formed between the leg of the cushion and the lower part of the cushion, so that the resiliency of the air will directly and effectively serve as a yielding supporting medium.

The invention further designs to provide an improved cushion which is adapted for use on typewriters and which is so formed that pressure upon the cushion will tend to cause the cushion to hug the leg of the typewriter more securely and thus form a seal against the escape of air from the air chamber in the cushion.

Lastly, the invention designs to provide an improved cushion for typewriters and the like.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Figure 1 is a section on an enlarged scale, showing the normal shape of the cushion. Fig. 2 is a section of one of the improved cushions, showing the position assumed when the cushion is in use. Fig. 3 is a plan.

The improved cushion is preferably formed of one piece of elastic material, such as rubber and comprises a body 10, the upper portion of which is formed with a pocket 11 which is adapted to receive the leg of a typewriter or article to be held on the cushion. This pocket is formed by an annular shoulder 12 upon which the edge or corner of the leg 14 of the typewriter is adapted to rest and an annular wall 15 above the shoulder, which has a normally, upwardly and inwardly inclined or tapered inner periphery 16. An air pocket 17 is formed below the shoulder 12 and beneath the leg 14, the bottom of this pocket being formed by a comparatively thin or flexible wall 18. The side of pocket 17 slopes or is tapered upwardly as at 19, so that there will be no solid wall of rubber below the edge of the leg resting upon the shoulder 12. The lower surface of wall 18 is curved, but owing to its flexibility and the presence of air in the pocket 17, it will be flattened and pressed into firm contact with the table or support 20, as pressure is applied to the cushion. An annular recess 21 is formed in the bottom of body 10, which is disposed outwardly of the air-pocket 17 and extends to the outer edge 22 of the cushion. Edge 22 and recess 21 form a suction chamber for causing the cushion to grip the support.

In operation, the leg of the typewriter is forced into the pocket 11 and on top of shoulder 12 which can be done by spreading the wall 15 around the pocket, the diameter of the pocket being sufficiently smaller than the leg to cause the leg to fit snugly in the pocket. By providing the tapered surface 16, the wall around the pocket will firmly hug the leg of the typewriter and form a substantially air-tight closure between the cushion and the leg, so that there will be a body of air effectively confined in the air-chamber 17, and furthermore, the recess is better adapted for legs of different diameters. As pressure or the weight of the machine is applied to the shoulder 12, the air in the chamber will be compressed in the lower portion of the cushion, and the wall 18 will be forced into firm contact over an extended area with the table or support and the outer edge 22 and chamber 21 will

serve to cause the cushion to grip the support. In some instances, the leg of the typewriter is insufficient in diameter to cause a snug fit between the wall above the shoulder 12 and the side of the leg. By inclining the upper surface of said shoulder upwardly and inwardly, as at 24, the corner formed between the shoulder and the side wall of the air pocket 17 will fit snugly against the bottom of the leg of the typewriter, and in this manner a closure will be formed even though the leg does not fit snugly in the pocket above the shoulder.

A peculiar characteristic of the construction set forth is that the weight of the machine or its pressure, when applied to the shoulder 12 and the pressure of air-chamber 17, will tend to force the edge 22 and the outer portion of body 10 upwardly and cause the wall 15 to be pressed inwardly against the leg of the machine, rendering the seal between the leg and the cushion more effective as the pressure is increased. The air-chamber 17, in which air is confined, is beneath the leg of the typewriter, and thus in itself, as the air therein becomes compressed, serves to resiliently support or cushion the machine.

The invention thus exemplifies an improved cushion in which the presence of compressed air is not dependent upon contact between the bottom of the cushion and the support on which the cushion rests, but the presence of the air-cushion is insured by a pocket in which the air is sealed between the leg of the typewriter and the cushion. The invention further exemplifies an improved cushion which is so formed that excessive pressure will tend to press the cushion against the leg of the typewriter, thus rendering the seal more effective as the pressure is increased. The peculiar form of pockets in the cushion results in effective cushioning of the machine.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent, is:

1. A cushion formed of elastic material and comprising a body having a flexible central bottom wall, a pocket in the body open at its top and extending downwardly to said wall, an integral annular shoulder projecting inwardly from the side of the walls and surrounding the pocket to underlie and support the corner of a leg fitting in said pocket and disposed above said wall, so that an air pocket having its top formed by the leg will be formed above said bottom wall, and an annular recess in the bottom of the body between said central bottom wall and the bottom margin of the body, both the central wall and said margin being disposed to engage and bear upon the support upon which the cushion rests.

2. A cushion formed of elastic material and comprising a body having a pocket therein extending downwardly to a point adjacent the bottom of the body, an integral flexible bottom wall forming the bottom of said pocket and an annular integral inwardly projecting lip in said pocket disposed below the top of the body and above said bottom wall, the wall of the pocket above the shoulder being formed to fit snugly around a leg, the shoulder extending under and fitting snugly beneath the margin of the lower end of the leg.

3. A cushion formed of elastic material and comprising a body having a pocket therein extending downwardly to a point adjacent the bottom of the body, an integral flexible bottom wall forming the bottom of said pocket and an annular integral inwardly projecting lip in said pocket disposed below the top of the body and above said bottom wall, the upper surface of said lip being inclined upwardly and inwardly and the wall of the body beneath said lip being also inclined upwardly and inwardly.

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