Dec. 20, 1960 T. H. HORNOR 2,964,771

CLEANER FOR TYPEWRITER TYPE AND THE LIKE

Filed Jan. 30, 1956

FIG.1.

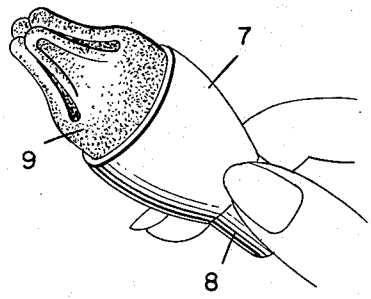


FIG.2.

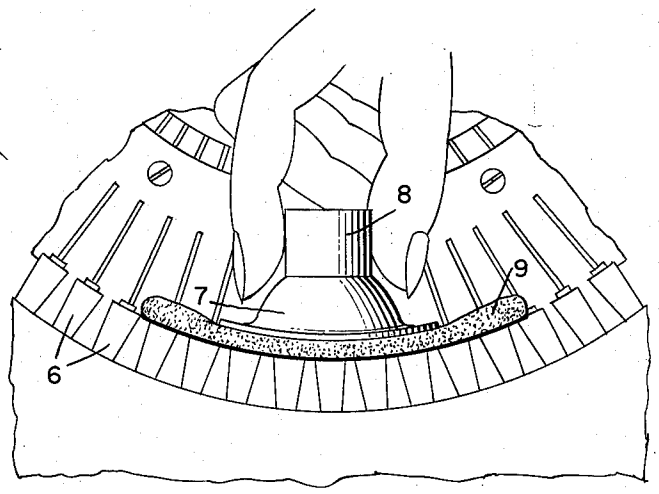


FIG.4.

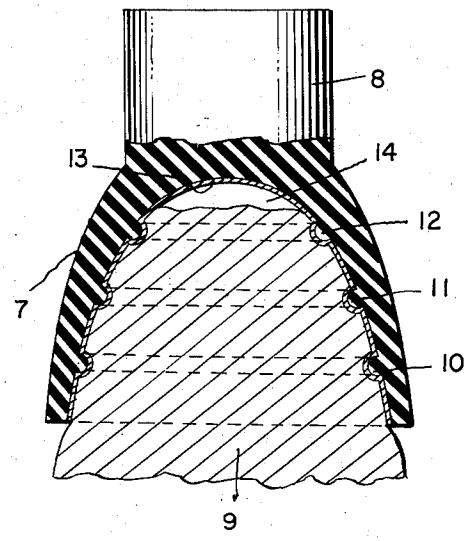
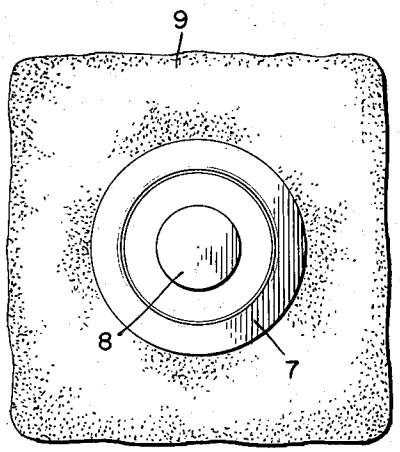


FIG.3.



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United States Patent Office 2,964,771 Patented Dec. 20, 1960

2,964,771

CLEANER FOR TYPEWRITER TYPE AND THE LIKE

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Filed Jan. 30, 1956, Ser. No. 562,177

3 Claims. (Cl. 15—210)

This invention relates to a cleaner for typewriter type and the like, and is an improvement on the device of the patent to Dodds, Patent Number 2,258,547, patented October 7, 1941.

The type cleaner of the Dodds patent has been successfully used for many years. It has been found, however, that, in time, the plastic mass becomes casually displaced from the cup, due primarily, to the repeated distortion of the cup shape when in use and the absence of means to hold the plastic mass in gripping engagement with the cup wall. After much experiment it has been found that this undesired displacement may be eliminated by reconstruction of the cup to include, inter alia, means along the interior cup wall for biting into and adhering to the mass, these means also serving to reinforce the cup structure and control the degree of cup distortion.

Other objects of this invention are to provide a typewriter type cleaner which includes an adhesive plastic mass mounted in an elastic cup, the interior wall of the cup being equipped with a plurality of strategically positioned gripping members to bite into the plastic mass; to provide an elastic cup preferably made of rubber, the wall of the cup tapering toward its base to permit controlled spreading of the cup wall under pressure to make available a maximum quantity of type cleaning mass for simultaneous engagement with multiple type keys or the like, the mass and cup being integrated in a manner to prevent casual displacement of the mass; and to provide a typewriter type cleaner consisting essentially of an elastic cup and a plastic mass, which latter is so mounted in the cup that the mass may be repeatedly used and the soiled surface repeatedly buried in the mass without the accidental removal of the mass from the cup.

Other objects of the invention will be manifest from the following description of the present preferred form of the invention, taken in connection with the accompanying drawings, wherein

Fig. 1 is a side elevational view of the device of the present invention, showing the shape of the plastic mass after the soiled area thereof has been buried;

Fig. 2 is an elevational view of the present cleaner illustrating its application on a bank of type indicia;

Fig. 3 is a top plan view of the present device illustrating the shape assumed by the cup and plastic mass when in use; and

Fig. 4 is a longitudinal sectional view showing to advantage the interior structure of the cup and means for holding the plastic in position.

In order to illustrate the application of this invention, I have, in Fig. 2, shown a conventional arcuate bank of typewriter keys **6**. The cleaner constituting the present invention consists of an elastic cup **7**, preferably made of rubber, the closed end of which issues into a handle **8** which is solid throughout. As shown to advantage in Fig. 4, the wall of cup **7** is tapered and is provided with a recess which is adapted to receive a plastic mass **9**. The inner wall of cup **7** is further provided with

three annular ribs designated **10**, **11** and **12**, strategically positioned in spaced parallel relationship and adapted to grip the plastic mass **9** to prevent displacement thereof from the cup. To further insure the adherence of the plastic mass **9** to the inner wall of cup **7**, the latter may be coated with a cementitious agent **13**. Referring again to Fig. 4, it will be seen that when plastic mass **9** is urged into the recess of cup **7**, it will extend into the cup only to a point in proximity to annular rib **12**, thereby leaving a void **14** between the innermost portion of the plastic mass and the bottom of the cup recess. It has been found that a partial vacuum is created in void **14** which exerts a force on plastic mass **9** which resists the displacement thereof from cup **7**.

It will be noted that, in addition to their function of gripping plastic mass **9**, ribs **10**, **11** and **12** also serve to reinforce the cup structure and control the degree of dilation or distortion thereof. By spacing the ribs, as shown in Fig. 4, the desired spreading of the cup near the open end thereof is achieved while, at the same time, the remainder of the cup retains substantially its normal shape. This eliminates casual displacement of the plastic mass, due to the pulling away of the mass from the inner wall of the cup which would otherwise occur by repeated dilation thereof in use. Rib **12** is further instrumental in limiting the penetration of plastic mass **9** into cup **7**, thereby producing void **14**.

In use, the cleaner is first pressed on a flat surface in order to flatten plastic mass **9** into the shape shown in Figs. 2 and 3. When this is done, that portion of cup **7** lying between rib **10** and the open end of the cup is flexed outwardly at approximately a 90° angle to handle **8** to form a supporting flange for the plastic mass. By virtue of the tapered walls of cup **7** and reinforcing ribs **10**, **11** and **12**, the remainder of the cup is distorted or dilated only slightly, thereby eliminating casual displacement of the plastic mass from the cup. The mass is next applied to a plurality of type indicia in the manner illustrated in Fig. 2 to pull from the latter, all foreign matter. The diametrically opposed corners of the mass are then folded inwardly towards each other as shown to advantage in Fig. 1 so that the soiled surface of the mass is interred and the cleaner is in condition for use again.

In practical use therefore, the truncated cone shape cup of this invention includes spaced annuli on the inner wall of the cup, the lowermost annulus being spaced from the bottom of the cup to provide a suction zone at the bottom of the cup for exerting a pull on the plastic type cleaning mass mounted in the cup.

Although a preferred form of the invention has been shown and described, it is nevertheless understood that various changes may be made therein, without departing from the scope of the claims hereto appended.

What I claim is:

1. A cleaner for typewriter type and the like including an elastic cup of substantially truncated cone shape, the wall thickness of which tapers from the base to the open end thereof, a plastic mass mounted in the cup, and annular ribs along the inner wall of said cup in spaced relationship to each other for grippingly engaging said plastic mass and controlling distortion of the cup shape, the outermost rib being spaced from the open end of the cup.

2. A cleaner for typewriter type and the like including an elastic cup of substantially truncated cone shape, the wall thickness of which tapers from the base to the open end thereof, a handle issuing from the base of said cup, a plastic mass mounted in the cup, and annular ribs along the inner wall of said cup in spaced parallel relationship to each other for grippingly engaging the plastic mass and controlling distortion of the cup shape, the

outermost rib being spaced from the open end of the cup.

3. A cleaner for typewriter type and the like including an elastic body consisting of a cup of substantially truncated cone shape, the wall thickness of which tapers from the base to the open end thereof, a handle issuing from the base of said cup, a plastic mass mounted in the cup, annular ribs on the inner wall of the cup in spaced parallel relation and lying in planes parallel to the plane of the outer terminal of the cup, the outermost rib being spaced from the open end of the cup, the innermost rib being spaced from the bottom of the cup to limit the penetration of said plastic mass into said cup, thereby producing a suction zone, and a cementitious agent coating the inner wall of the cup and annular ribs to insure adherence of the plastic mass to the inner wall of the cup.

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