

No. 641,635.

Patented Jan. 16, 1900.

F. C. BOYNTON.  
KEY FOR TYPE WRITERS.

(Application filed Apr. 21, 1899.)

(No Model.)

Fig. 1.

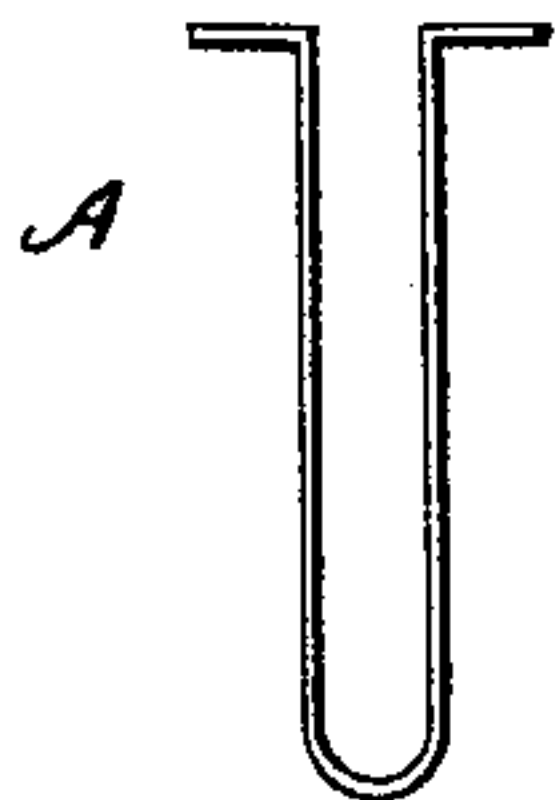


Fig. 2.

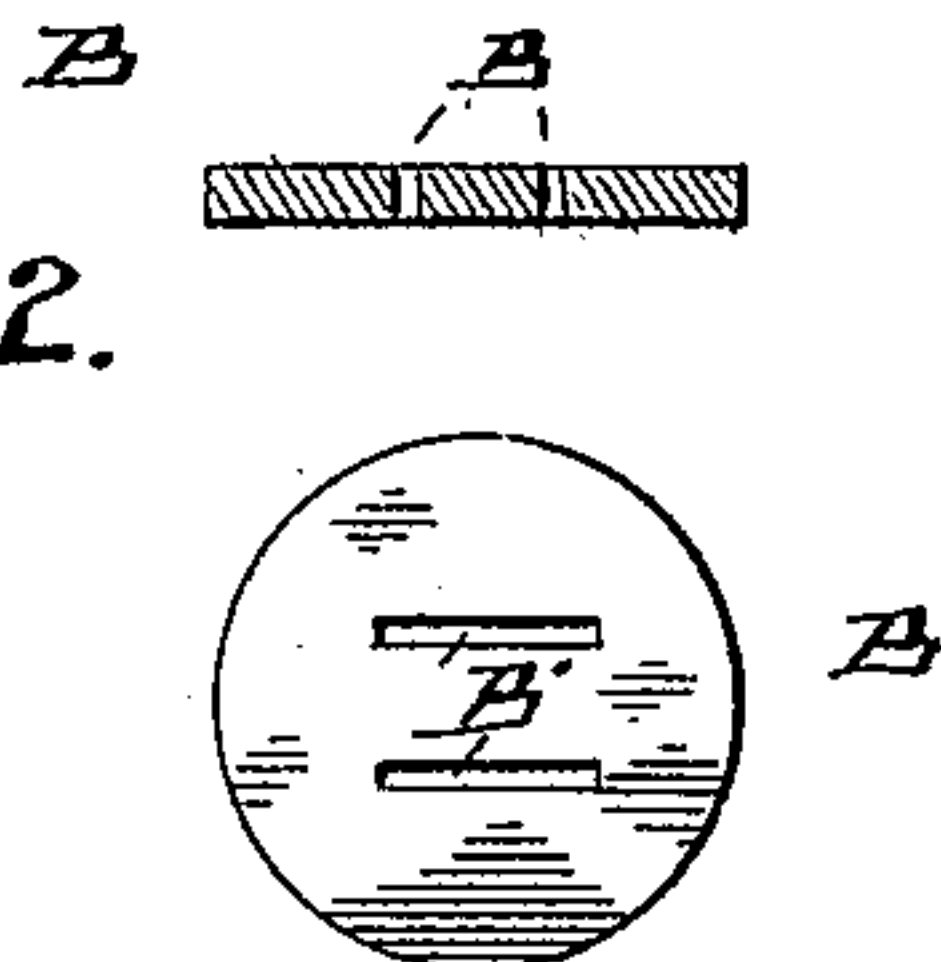


Fig. 3.

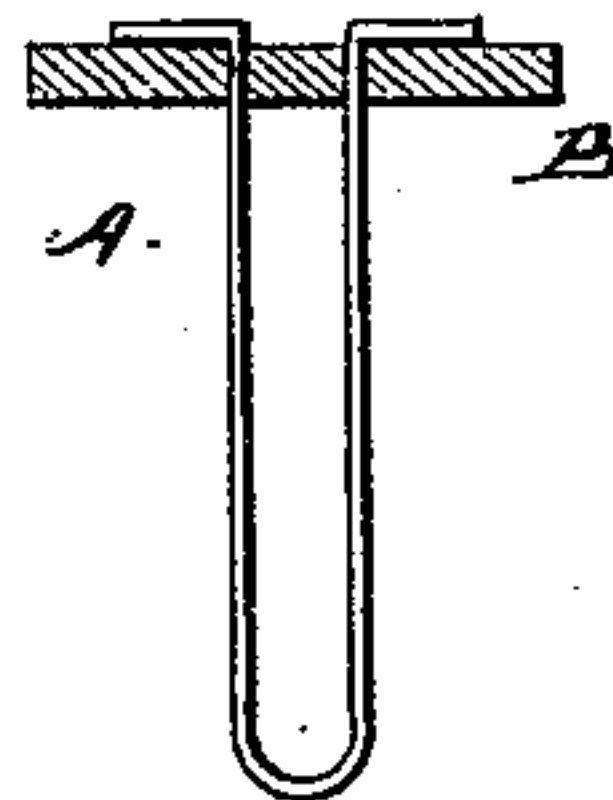


Fig. 4.

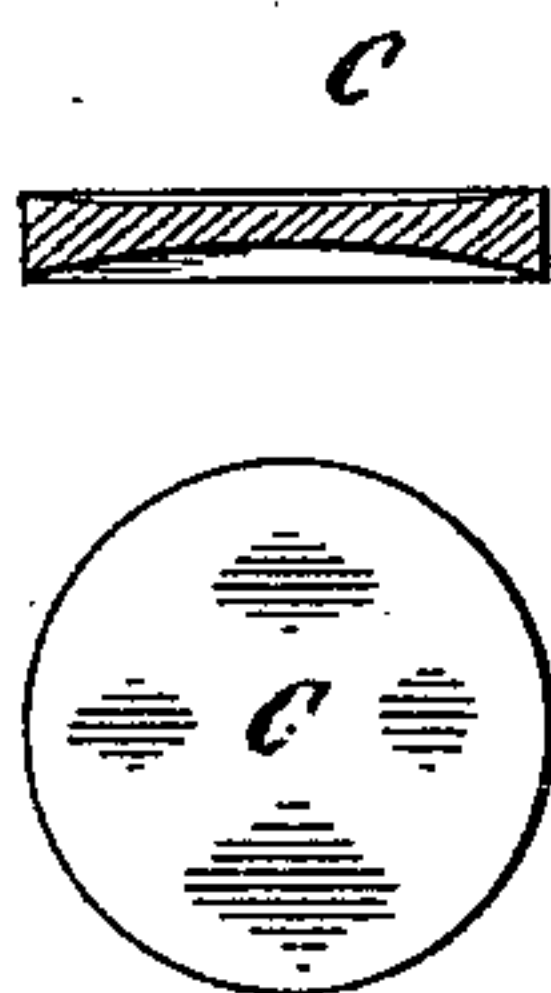


Fig. 5.

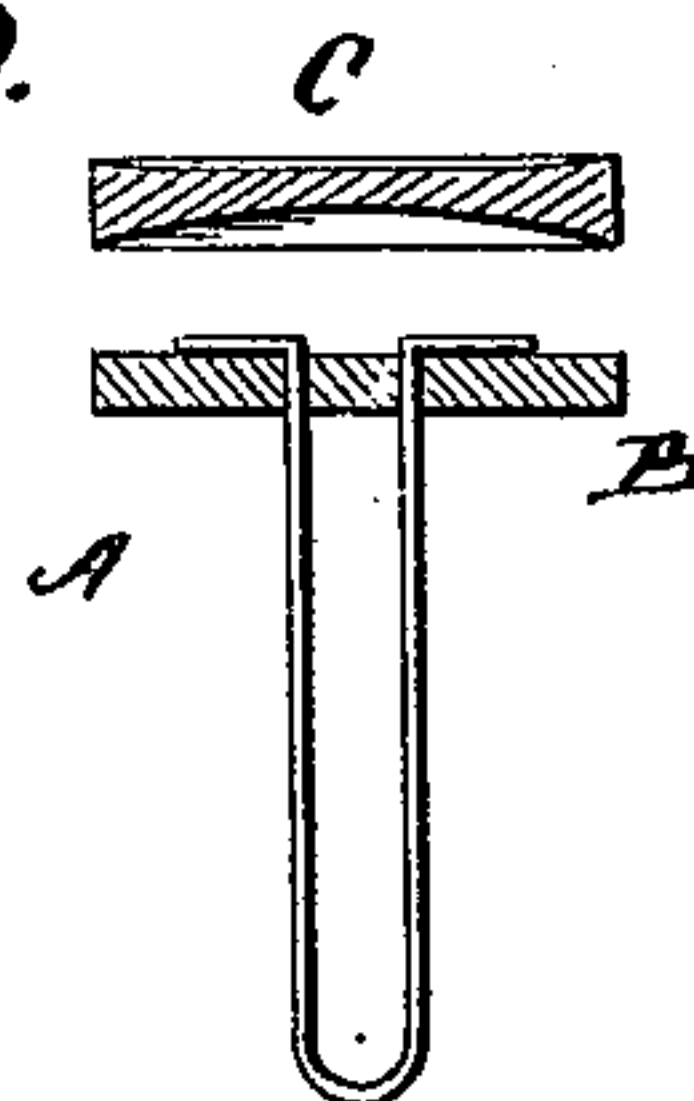


Fig. 6.

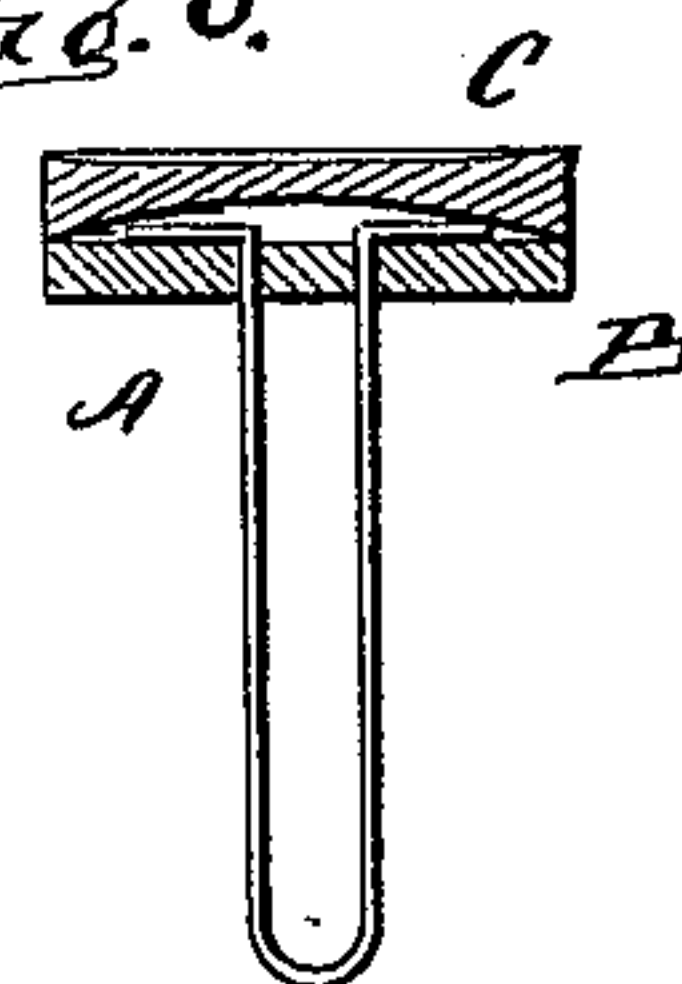


Fig. 7.

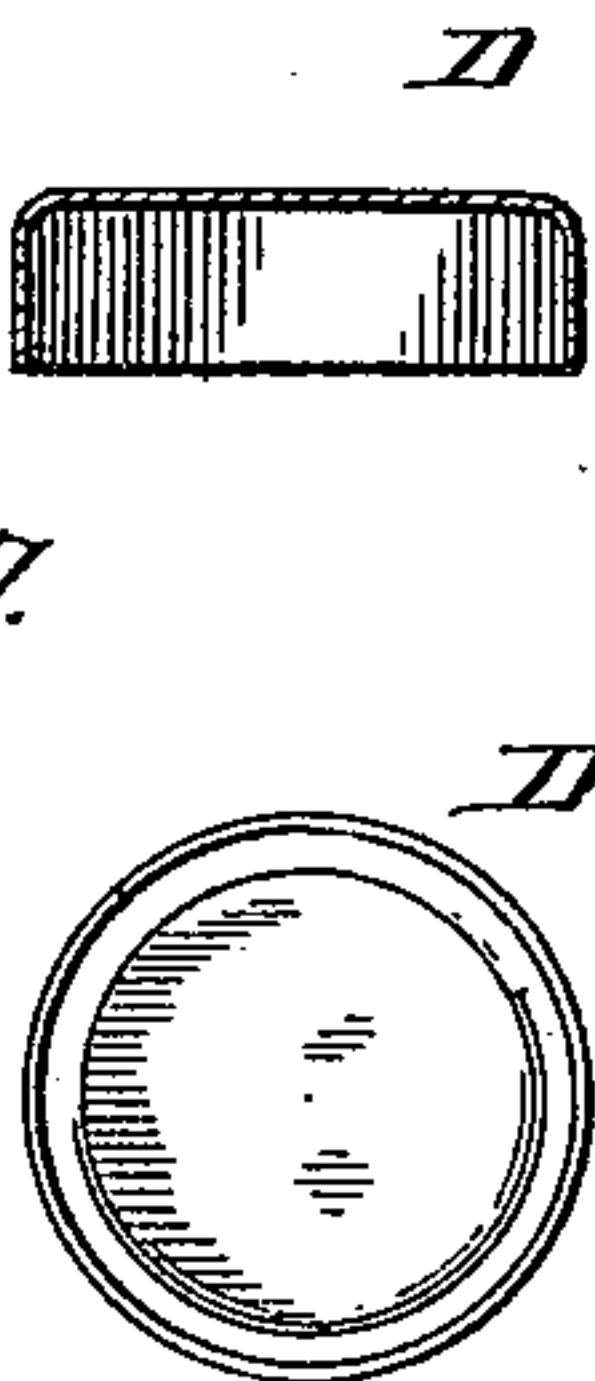


Fig. 8.

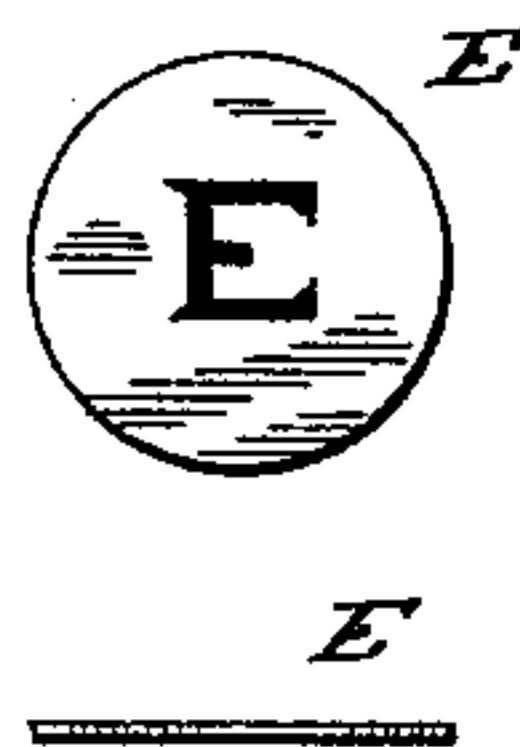


Fig. 9.

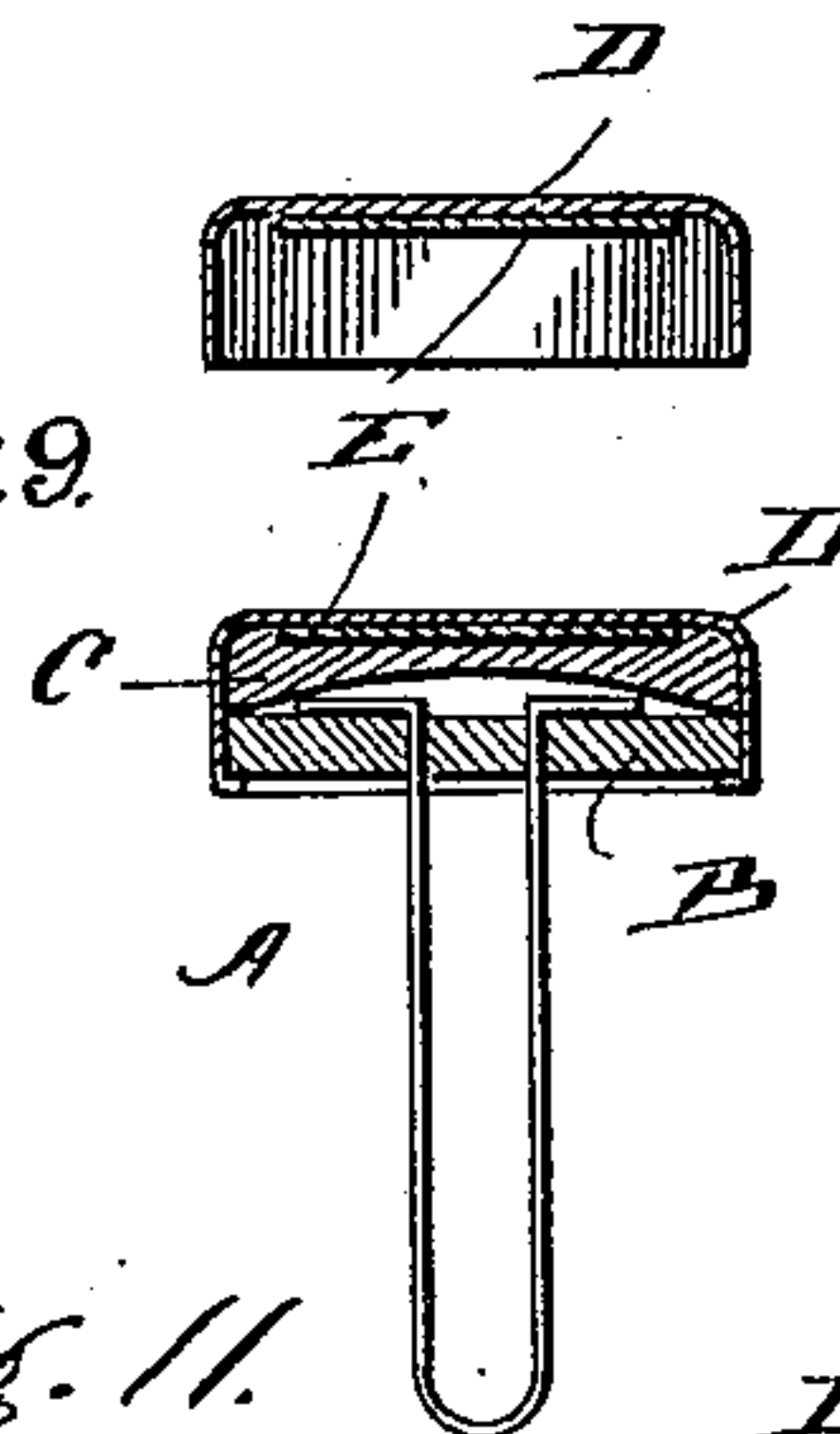


Fig. 10.

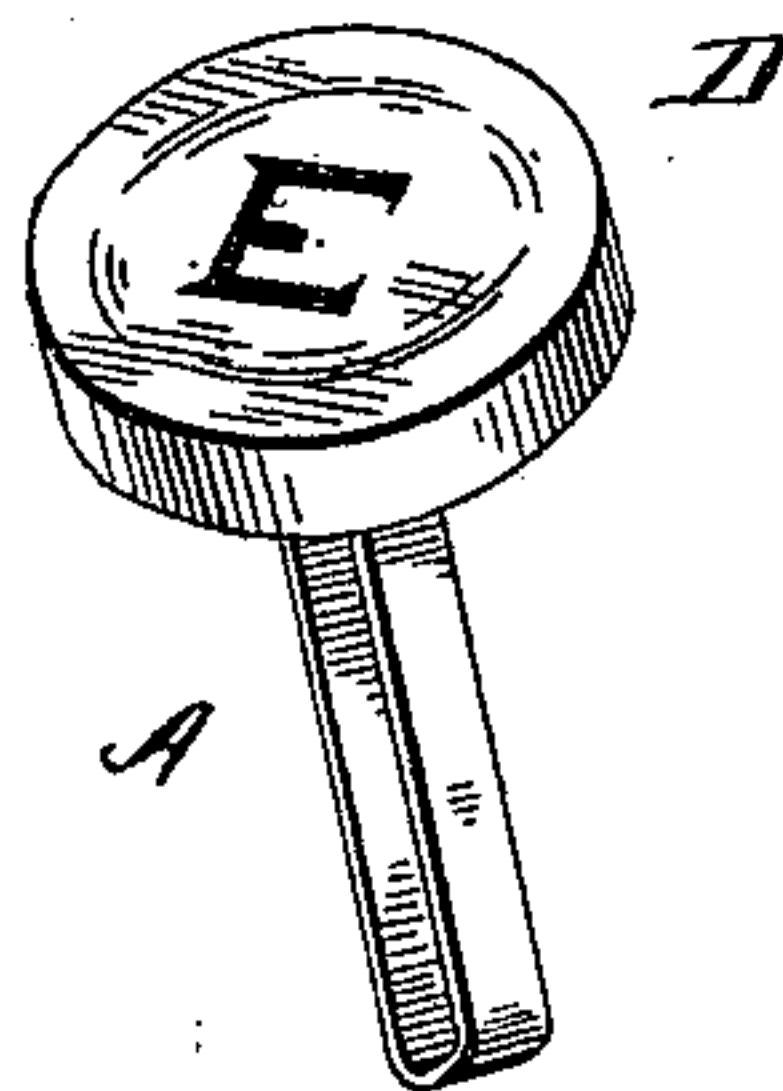
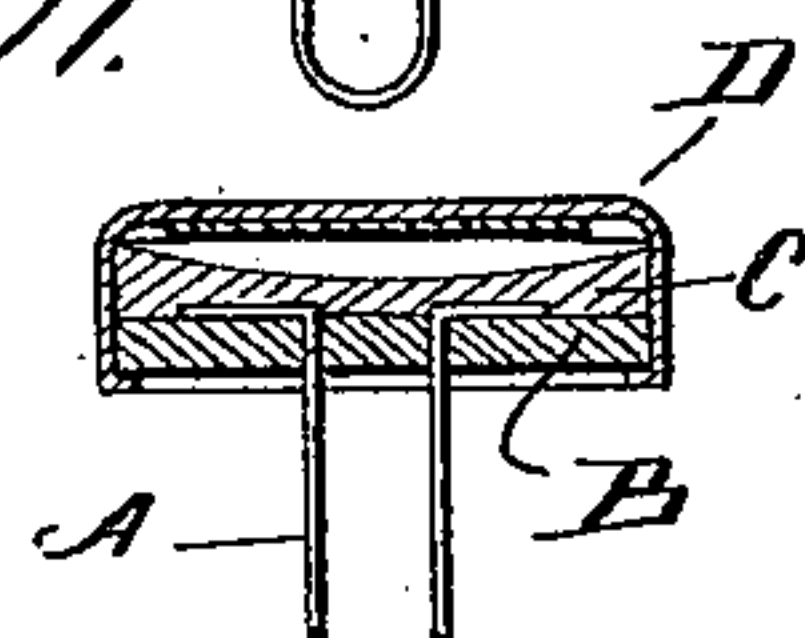


Fig. 11.



WITNESSES

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# UNITED STATES PATENT OFFICE.

FRANK C. BOYNTON, OF SPRINGFIELD, MASSACHUSETTS.

## KEY FOR TYPE-WRITERS.

SPECIFICATION forming part of Letters Patent No. 641,635, dated January 16, 1900.

Application filed April 21, 1899. Serial No. 713,910. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK C. BOYNTON, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Type-Writer Keys, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to type-writer keys or striker-heads for type-writers and similar machines.

The object of the invention is to produce a type-writer key or striker-head of light weight 15 which shall have a certain amount of elasticity and which can be washed, recovered, or replaced with facility. Such a key is of course applicable to cash-registers, push-buttons, &c.

20 Figure 1 is an elevation of the metallic loop or staple by which the striker-head is connected to the key lever or bar, the same being common. Fig. 2 shows a section and an elevation of the main disk of the head. Fig. 3 is 25 a section of the staple or loop applied to said disk. Fig. 4 shows a section and plan of the upper disk of the key-head. Fig. 5 is a section showing the disks about to be assembled. Fig. 6 shows the disks and loops or staple assembled. Fig. 7 shows a section and plan of 30 the elastic cover. Fig. 8 shows a plan and elevation of a letter slip or label. Fig. 9 shows a section of the label attached to the cap and a section of the key with the parts assembled. 35 Fig. 10 is a perspective view of the key complete. Fig. 11 is a section showing the inclosed air-space under the cap.

A indicates the metallic loop or staple by which the keys are attached to the key-levers 40 in several forms of known type-writers. In other forms other known attaching devices might be used.

45 B indicates a disk of celluloid, zylonite, or similar light plastic material having some little elasticity. The disk is formed in a mold or die, with slots B' therein, and the ends of loop A are passed through the same and turned down, as in Fig. 3.

50 C indicates a second disk, preferably of the same diameter as the first and concave on one or both faces. This disk is assembled with the disk B and loop A, as shown in Fig.

6, and the whole preferably compacted under heat and pressure; or the disks may be cemented together by partially dissolving the 55 surface of one or both by a solvent of the plastic material. The concave form of disk C gives space for the turned-over end of the loop or staple A. It also gives an air-chamber in which air may be imprisoned, and thus 60 by the elasticity of the air give an elastic or cushion effect to the key. The air may be above or below or on both sides of the disk C.

D indicates a shallow cup of transparent or very translucent plastic material, such as 65 celluloid. This cup, as shown, is an integral cup, the disk portion being substantially flat and rounding into the substantially cylindrical vertical walls. This cup is of such diameter as to neatly fit over the edges of the 70 disks B C and when so applied to slightly turn under the lower edge of the assembled disks B C.

The cup D being jointless, flexible, somewhat elastic, and capable of being made adhesive to many substances by a partial solution becomes a very important part of the invention by reason of its great range of adaptability to different styles of keys. Being 80 jointless, it can be washed with water when attached to the key without danger of the water penetrating to soil the inclosed parts of the key. Being transparent or very translucent, it allows the letter or character to show through, while being thoroughly protected. 85

Inside the cup D, I place a thin label E, on which the letter, figure, or character is printed. This label may be of tissue-paper or of any other material on which the characters 90 may be readily printed or otherwise produced.

The cup D is partly dissolved by the use of alcohol or other like solvent. Usually the label E may be wet with the solvent and then placed in cup D, and when dry the label will 95 be attached to the inside of the cup, leaving the outside smooth. The cup is attached to the disk B C in like manner or by heating and thus softening the cup or the disk, or both. These cups D, with labels E attached, 100 can be furnished at a small expense and can be used to cover old or new keys. The exterior of the cup is washable, and the letter or character is perfectly protected. The elas-



ticity of the material permits the inclosure of a stratum of air or other elastic substance, if desirable. The cup D may be closed down more or less onto the body of the key, so as  
5 to inclose more or less of an air-cushion, accordingly as the operator desires a hard or soft "touch" to the machine. The labels E may be printed in colors to give an attractive appearance to the finished article.

10 Of course it will be understood that where the key is desired to be octagonal or of other form the same general course of procedure may be adopted, changing only the form of the parts.

15 What I claim is—

1. A type-writer or similar machine key having its body composed of two disks of elastic material as described, a loop or staple having its ends extending through one of the  
20 disks and turned in under the other, and a covering-cup of plastic material inclosing the label, all substantially as described.

2. In a type-writer or similar key, a flat disk, a concave disk, and a covering-cup, and  
25 a label inclosed in the cup, the inclosed disk

in the cup having a concave face, to give an elastic surface, substantially as described.

3. A type-writer-key cap composed of flexible transparent material, said cap being in cup form having a disk which rounds into the  
30 hollow cylindrical extension, said extension capable of inclosing the sides of a type-writer key and turning under the same, substantially as described.

4. The type-writer-key cap consisting of an  
35 integral cup of translucent flexible material as described, said cup having a flexible label permanently attached to the inner surface of the disk portion.

5. The celluloid key-cap as described, being  
40 an integral celluloid cup with a label inside of and visible through the disk portion, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK C. BOYNTON.

Witnesses:

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S. M. GRIFFIN.