(No Model.)

R. H. SMITH.

CUSHION FOR HAND STAMPS.

No. 535,736. Patented Mar. 12, 1895.

Fig. 1

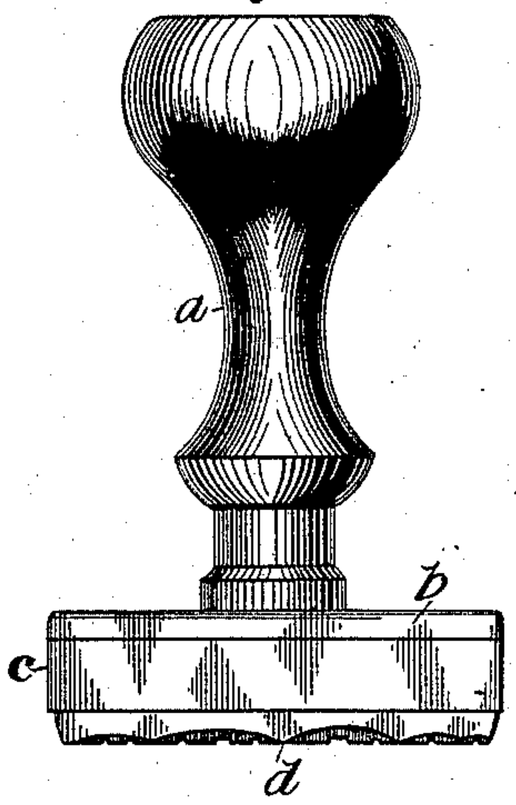


Fig. 2.

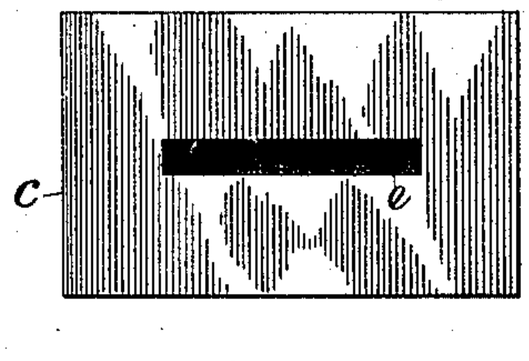


Fig. 3.

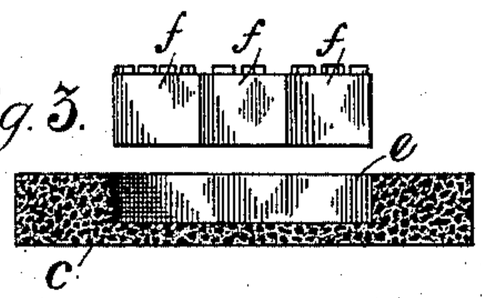


Fig. 4.

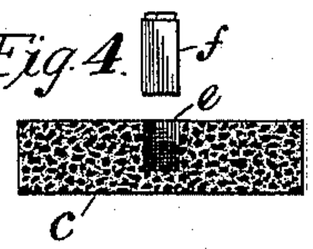


Fig. 5.

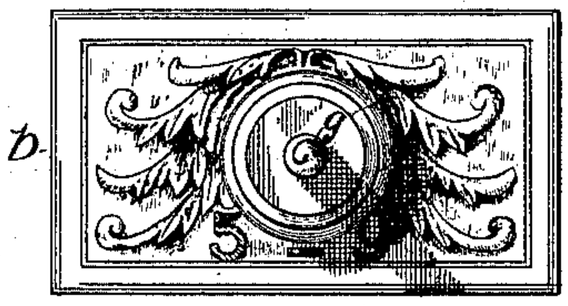


Fig. 6.

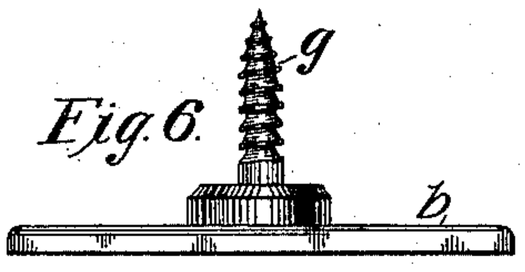


Fig. 7.

Fig. 8.

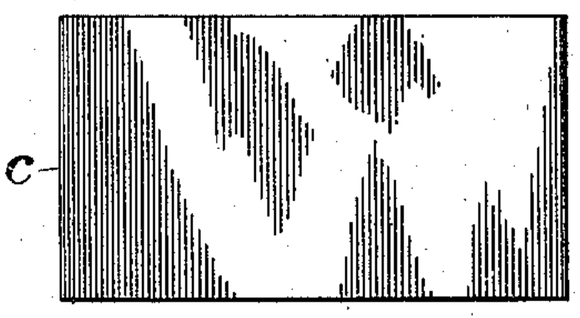
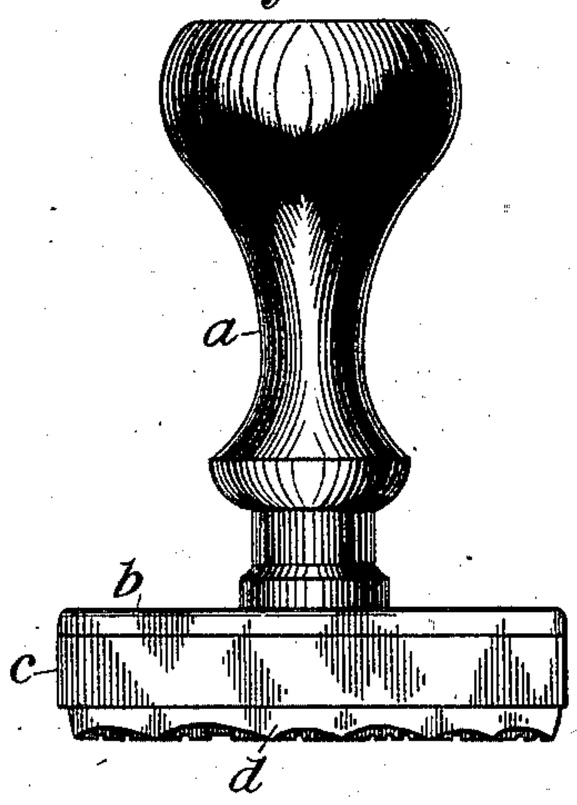


Fig. 9.



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UNITED STATES PATENT OFFICE.

RICHARD HALE SMITH, OF SPRINGFIELD, MASSACHUSETTS.

CUSHION FOR HAND-STAMPS.

SPECIFICATION forming part of Letters Patent No. 535,736, dated March 12, 1895.

Application filed April 19, 1894. Serial No. 508,103. (No model.)

To all whom it may concern:

Be it known that I, RICHARD HALE SMITH, a citizen of the United States of America, residing in Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Cushions for Hand-Stamps, of which the following is a specification, reference being had to the accompanying drawings and letters of reference marked thereon, in which drawings like letters of reference indicate like parts.

Figure 1 is a side elevation of one form of my improved stamp complete. Fig. 2 is a plan view of a cushion having a recess for holding interchangeable type. Fig. 3 is a sectional side view of the same with the type shown just above the type receiving recess. Fig. 4 is an end view in section of the same. Fig. 5 is a plan view of a metallic plate having a screw permanently mounted therein or made integral therewith. Fig. 6 is an edge view of the same. Fig. 7 is an edge view of a plain cushion. Fig. 8 is a plan view of the same, and Fig. 9 is a side view of a complete device.

In detail *a* indicates a handle; *b*, a metal mount plate to which the handle is secured. *c* indicates a cushion mounted on the plate *b*. *d* indicates a printing die mounted on the cushion *c*. *e* indicates a recess in the cushion adapted to receive the bodies of removable and interchangeable type. *f* indicates type bodies and *g* indicates a screw secured to the plate *b*.

In the construction of my device, I form a cushion of a compound of rubber with suitable comminuted substances which take a gaseous form when heated to the required degree, by inclosing a proper amount of said compound in a mold of the requisite size and subjecting it to heat which inflates the rubber while still in the soft and plastic state, forming a spongy structure, composed of a new-work of small bubble-like cells and expanding the mass until it strikes the confining walls of the mold, the contact with which flattens the outermost series of cells and forms an extremely thin smooth skin upon its entire interior, which structure becomes fixed and permanently flexible before the completion of the vulcanizing process confining the elastic gas, thus forming a highly flexible cushion with hermetically sealed walls, so that deterioration of the edges by reason of exposure to the atmosphere is avoided, and as the cells in the body of the cushion do not open into each other, the gas confined therein does not operate to cause one portion of the cushion to bulge outwardly when the pressure inwardly is unevenly distributed or confined to one location, but each portion of the cushion retains its own uniform elastic property, and while each minute portion of the area is independent of the remainder, the whole will so coact as to bring all portions of the printing faces of the type or printing die in contact with the surface to be printed upon without reference to the fact of such surface being a uniform and plain surface or not, thus enabling me to obtain a uniform print or impress upon an uneven, curved or irregular surface.

Another and very essential advantage in constructing a cushion with smooth air-tight edges, is that being non-absorbent, any surplus of ink with which they may come in contact, is easily removed, while the edges of a cushion cut from a sheet of rubber sponge would absorb and retain it to the annoyance of the user.

This cushion may be made in the form of a plain block and the rubber printing die cemented thereon. One or more recesses may be molded therein for the reception of removable and interchangeable type, which type are preferably slightly larger than the opening, so that the type will be held in position by the action of the elastic or cushion walls of the recess, and this recess is formed of less depth than the thickness of the cushion, so that the portion of the cushion between the bottom of the recess and the opposite or back thereof serves as a cushion for the removable type, and if the removable type bodies be made of elastic material, their printing faces will the more readily conform to an uneven surface.

The cushion *c* may be attached to a metallic mount plate *b* or to the ordinary wood mount. I consider greatly preferable however, the metal mount constructed as shown in Figs. 5 and 6, of cast metal, preferably iron with a screw cast into the enlargement in the back with the threaded portion projecting for

the reception of the handle, thus insuring the permanent and rigid connection of the parts, which arrangement admits of tasty ornamentation, and when the face and edges are ground and the whole well plated and supplied with a suitable handle with ferrule, makes an elegant and serviceable mount at a much lower cost than any mount heretofore offered. The cushions, however, may be manufactured in a full line of sizes and supplied as an independent article of manufacture to rubber stamp makers, at a small cost, and the purchaser may readily attach the same to such kind of mounting as he may desire, and they are specially adapted to be used in the various sizes and styles of lever, self inking, and other mechanical stamps now in common use in which their desirability is greatly increased by the fact that they may be made with one or more mortises to receive interchangeable type for dates, numbers or words to print in connection with a slotted die mounted upon its surface, and that these mortises can be located in any desired position in the die.

I am aware that for many years rubber hand stamps have been made wherein the printing characters were cushioned with a layer of soft rubber or of elastic gelatinous material known as roller composition, and in recent years a layer of soft-rubber-sponge has been used, but in all of these cases the layer was cut to size from a sheet of the material, leaving rough open edges, which becoming soiled with ink collect and hold dust and dirt.

I am also aware that stamps have been made having a flexible cushion formed by molding a parallel sheet of soft rubber with a series of ribs crossing each other upon one side which produce, when the ribs are cemented at their edges to the solid mountings, a series of closed air cells, for which Letters Patent were granted to T. S. Buck September 27, 1892, and I do not seek to claim anything common to these devices.

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

1. As an improved article of manufacture the combination with the mount plate of a printing stamp, of a cushion consisting of spongy interior or body, and having outer surface covered with a non-porous skin formed of the same material as the body, and integral therewith, substantially as shown.

2. As an improved article of manufacture, a cushion for printing stamps consisting of a spongy body having a type receiving recess when the outer walls of the body and of the type recess are covered with a closely fitting skin formed of the same material and integral therewith, substantially as shown.

3. As an improved article of manufacture, a cushion for printing stamps consisting of a spongy interior and having its outer surface covered by a non porous sheath formed of the same material and integral therewith, substantially as shown.

4. The combination in a printing stamp of a handle a plate a cushion having a spongy body and a non-porous skin or sheath covering the surfaces thereof, and integral therewith, and an elastic printing die mounted thereon, substantially as shown.

5. The combination with a mount plate of a printing stamp of a cushion having a spongy interior or body and a non-porous sheath formed on the exterior thereof and provided with a type receiving recess when the same is lined with a non-porous skin, substantially as shown.

6. The combination in a printing stamp of a suitable plate or base, a cushion mounted thereon having a spongy body and a non-porous skin or covering formed thereon, and a type receiving recess having its walls coated with a non-porous skin, and type whose bodies are normally larger than the recess in the cushion, substantially as shown.

7. The combination in a printing stamp of a suitable mount plate, a cushion mounted thereon having a recess extending partially through the body thereof, and having its interior including the walls of the recess covered with a non-porous skin integral therewith, removable type adapted to fit within said recess and a printing die adapted to print in connection with said type, substantially as shown.

RICHARD HALE SMITH.

Witnesses:
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