(No Model.)

J. W. HYATT.

Molds or Dies for Forming Buttons, &c.

No. 239,793. **Patented April 5, 1881.**

Fig. 1.

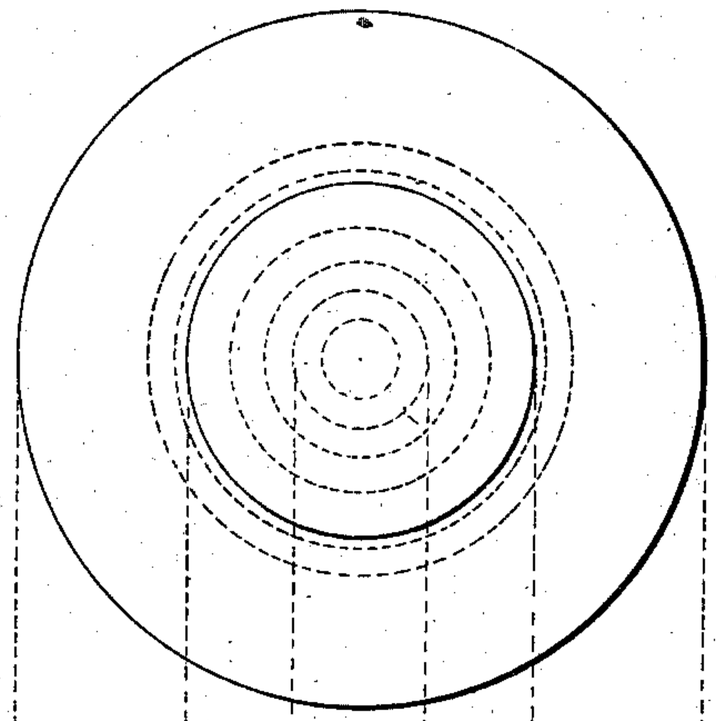


Fig. 2.

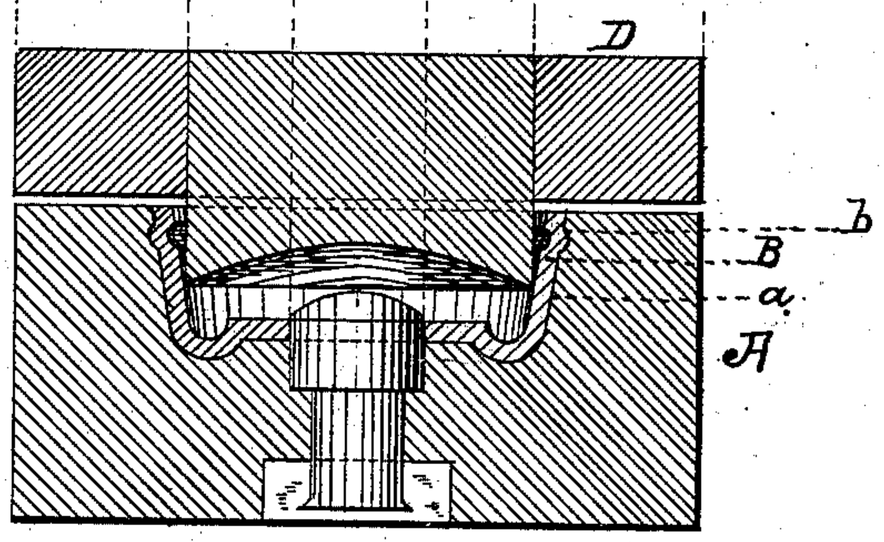
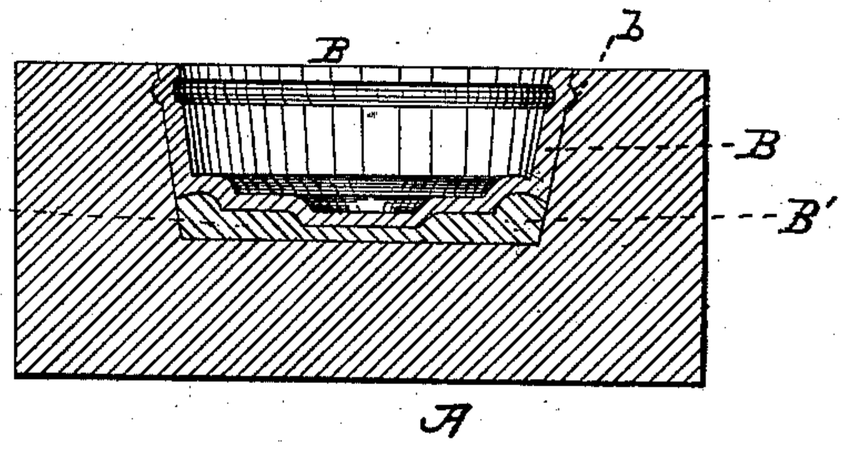


Fig. 3.



WITNESSES=

Chas. C. Gill

Paris Chalmers.

INVENTOR=

John W. Hyatt,

By his Attys,

Cox and Cox

UNITED STATES PATENT OFFICE.

JOHN W. HYATT, OF NEWARK, NEW JERSEY.

MOLD OR DIE FOR FORMING BUTTONS, &c.

SPECIFICATION forming part of Letters Patent No. 239,793, dated April 5, 1881.

Application filed July 14, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. HYATT, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Molds or Dies for Forming Buttons, &c., of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of the mold; Fig. 2, a central vertical longitudinal section of same; and Fig. 3 a similar section of the lower part of a mold employing the disk B′, hereinafter referred to.

The invention relates to improvements in molds or dies for forming buttons and analogous articles. It has heretofore been customary to construct molds of this class by turning or otherwise forming them in a block of steel or other hard metal and then polishing the interior surface of the mold, or by using a bushing made substantially like a die and having a polished interior surface. These methods have involved great labor, expense, and loss of time, and have been attended by many difficulties, to overcome which is the chief object of my invention. I have discovered that it is practicable to take a plated or polished sheet of brass or other suitable metal and strike it up so as to form a shell or mold having a plated or polished interior without injuring the plating or polished surface, and that by forming an appropriate seat or cavity for the shells thus constructed in iron or other metal that is easily worked a mold may be produced at very small expense and with little difficulty, which can be employed with satisfactory results in all instances where molds of the class to which the invention pertains are required.

By preference a supplemental block or top piece having apertures corresponding in size and shape to the shells will be provided and applied so as to secure the shells in place and protect their edges, as hereinafter more fully set forth. In cases where the shells are struck with uneven surfaces, as when a medallion or elaborate design is used, a corresponding medallion or design will be formed in soft metal in intaglio or relief, as the case may be, upon the face of a disk or piece of the same diameter as the seat or cavity, and the disk inserted to form the bottom or lower face of the seat. The disk will be found to afford a sufficient support for the shell under all ordinary conditions.

I contemplate using nickel-plated sheets exclusively, as I believe them to be especially desirable; but where the shells are struck from a sheet of metal which has been highly polished without being plated or coated in any way a fair result is effected, although it will be necessary to exercise caution and to change the shells very frequently.

In the accompanying drawings, A denotes the block of iron or other metal in which are turned or otherwise formed the mold seats or cavities *a*, the same being cut in the block and shaped to conform generally to the shells B, being sufficiently similar to them in size and configuration to receive and support them without injury during use.

It will not be necessary to finish the seats or cavities with any great degree of care, nor is it essential that any other than ordinary cast-iron be used.

The mold seats or cavities *a* will be adapted, as nearly as practicable, in size and configuration to the shells or molds they are intended to support, and will, by preference, be provided with the groove *b* near their upper edges, into which the upper part of the shell may be pressed to keep the shell securely in place, as shown in Fig. 2.

D indicates the top block, the purpose of which is to secure the shell firmly in place and to effectually protect its edges. It is provided with an orifice, which corresponds in size and shape with the interior edge of the shell, and which is secured upon the block A, so that it forms the mouth of the mold, as shown at Fig. 2. When a series of molds are cut in the block A the orifices will be arranged so as to occupy the position indicated, forming mouths for each shell, and effectually securing it in place and protecting it. The top block will be fastened by clamps or in any other suitable way, and will be, by preference, of iron or other metal.

B′ denotes the disk hereinbefore described, which may be made of copper, brass, or other metal, and fastened in the seats or cavities to form their lower surfaces in any convenient way. It will be of appropriate size, shape,

and configuration, and constructed with relation to the shell as well as the seat or cavity.

The disk or piece B′ may be conveniently formed by taking an impression in plaster from the stamp by means of which the shell is made, and producing therefrom a disk having the face of a die, either male or female, as the case may be, adapted to properly support the lower surface of the shell.

B indicates the shell or mold, the nature and construction of which have been hereinbefore sufficiently described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a die or mold, the shell B, having a plated or polished surface and cavity, *a*, in which the shell is placed, substantially as specified.

2. A mold or die consisting of the shell B, having a plated or polished interior surface, the cavity *a*, and the disk B′, bearing a design or impression conforming to that in the shell B, and placed immediately below it in the cavity *a*, substantially as specified.

3. A die or mold consisting of the block D, block A, and shell B, substantially as specified.

In testimony that I claim the foregoing improvement in molds or dies for forming buttons, &c., as above described, I have hereunto set my hand this 9th day of July, 1880.

JOHN W. HYATT.

Witnesses:
CHAS. C. GILL,
WM. BRO. SMITH.