(No Model.)

E. C. SMITH.

LOCK CASE.

No. 405,329. Patented June 18, 1889.

Fig: 1

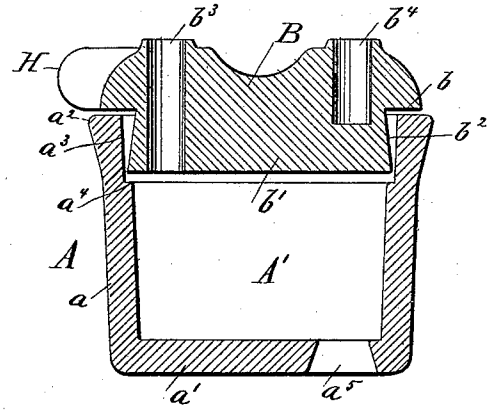


Fig: 2.

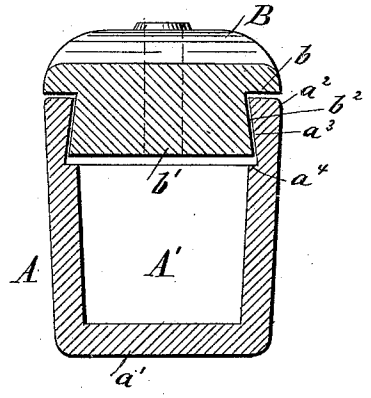


Fig: 3.

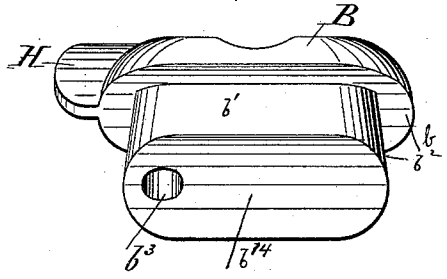
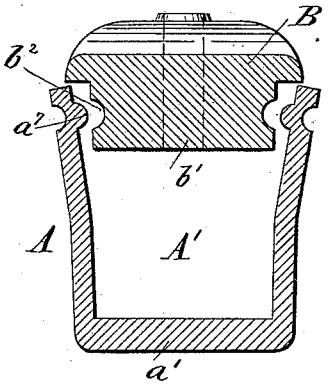


Fig: 4.



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EUGENE C. SMITH, OF NEW YORK, N. Y., ASSIGNOR TO THE UNIVERSAL LOCK COMPANY OF NEW YORK, OF SAME PLACE.

LOCK-CASE.

SPECIFICATION forming part of Letters Patent No. 405,329, dated June 18, 1889.

Application filed January 31, 1889. Serial No. 298,200. (No model.)

To all whom it may concern:

Be it known that I, EUGENE C. SMITH, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Cases for Locks, of which the following is a specification.

My invention relates to an improved article of manufacture—to wit, a case for locks, particularly of the kind known as "Scandinavian padlocks," the cases of which require to be of great strength; and the object of my improvement is the production of a lock-case readily admitting of the firm amalgamation of the lock-case body and top into one, the case also being so formed as to permit the delicate adjustment of the locking mechanism to be easily and cheaply effected.

Having in my application for a patent of the United States for an improvement in the art of manufacturing locks, for which a patent has issued, numbered 402,627, dated May 7, 1889, fully explained my process of manufacture, I shall confine myself herein to a description of the lock-case as an article of manufacture.

Referring to the drawings which accompany this specification, Figure 1 is a longitudinal vertical section of the body and the top before they are united. Fig. 2 is a vertical cross-section of the body and the top after they are united. Fig. 3 is a perspective view of the top. Fig. 4 is a modification of the body and the top adapted to drawn-metal cases. (The figure shows the case before the union of the body and the top.)

The body A is formed by casting, forging, or other process adapted to the various metals of which the case is formed, with the side walls a and bottom a' in one integral piece. Around the upper part of the body is an external outward and upward flare or bead a^2, and the inner walls opposite to the said bead a^2 are somewhat reduced in thickness, as at a^3, to facilitate uniting the body A to the top or base B. In the bottom a' of the body A is formed an opening a^5 to receive the end of the key-cylinder (not shown) and to admit the key. The interior space A′ of the body A is made larger than the space occupied by the locking mechanism when the same is inserted in the said body A, so that the walls a and bottom a' do not touch the said mechanism. The said mechanism is not here shown, being described in my application for an improvement in the art of manufacturing locks, hereinbefore referred to, and also in my application filed November 14, 1888, Serial No. 290,804, and now pending in the United States Patent Office.

An important feature of my case is the construction whereby it simplifies the adjustment of the locking mechanism and bolt to the bolt-socket in the shank of the shackle. (Not shown.) This end is attained as follows: The top B of the lock, which top I term the "base," is made by any suitable process in a piece separate from the body A and having a shoulder b surrounding a downward-projecting part b', as clearly shown in Figs. 1 and 3, the said downward-projecting part b' being of a size and shape to fit loosely the body A, and having its circumferential edge formed on a downwardly and outwardly inclining bevel b^2, as shown in Figs. 1, 2, and 3. The said shoulder b and bevel b^2 form in effect a shallow depression or groove around the edge of the downward-projecting part b'. Shackle-guiding openings b^3 b^4 are formed in the base B, and in the under surface b^{14} of the downward-projecting part b' are built up the bolt, locking mechanism, and key-cylinder. (Not shown.) By this construction the shackles, bolt, and mechanism are located and arranged on the same base, and the delicate adjustment of the mechanism to the bolt-socket in the shackle is thereby greatly simplified and cheapened, as has been fully explained in my application for an improvement in the art of manufacturing locks, hereinbefore referred to, and to which reference is made for explanation of the process of manufacture hereinbefore and hereinafter mentioned. The shackle having been inserted in the openings b^3 b^4 and the mechanism built up, as aforesaid, the base B is placed in the body A with the shoulder b resting on the top of the walls a, as shown in Fig. 1, and the said body A and base B are placed in a die and pressed

with a press, whereby the part a^3 of the walls a of the body A is forced inward upon or into the bevel or depression b^2 of the base B, thereby firmly uniting the said body and base into one. The shoulder b of the base B is of a width equal to the thickness of the walls a^3, so that after the process of compression or swaging, hereinbefore referred to, the body A and base B form one fair curved exterior, as in Fig. 2.

For cases formed of drawn metal the modification shown in Fig. 4 is used. The body A is formed with an inwardly-projecting circumferential ridge or bead a^7, and the base B has a groove b^2 about the edge of the downward-projecting part b' corresponding to the said bead a^7. To permit the ready insertion of the base B within the body A, the walls of said body may be flared upwardly and outwardly, as shown in Fig. 4. The base B, with its shackle and mechanism assembled as hereinbefore described, is placed in the body A and the whole compressed in a die-press, whereby the walls of the body A are forced inward and the ridge a^7 is driven into the groove b^2, thereby firmly uniting the body A and base B.

I claim—

1. A lock-case constructed of the following parts: a top adapted to support the locking mechanism and having a circumferential depression around its edge, and a hollow body formed with the bottom and sides in one piece separate from the top and united to the top by its metal entering the aforesaid depression in the top, as herein described.

2. A padlock-case constructed of the following parts: a top having shackle-guiding openings formed in it and a downward-projecting part adapted to enter the lock-case body and support the locking mechanism, the said downward-projecting part having a circumferential depression around its edge, a body formed with the bottom and sides in one piece separate from the top, and the body and top being united together by the metal of the body entering the depression in the edge of the downward-projecting part of the top, as herein described.

In witness whereof I have hereunto set my hand this 29th day of January, 1889.

EUGENE C. SMITH.

Witnesses:
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