

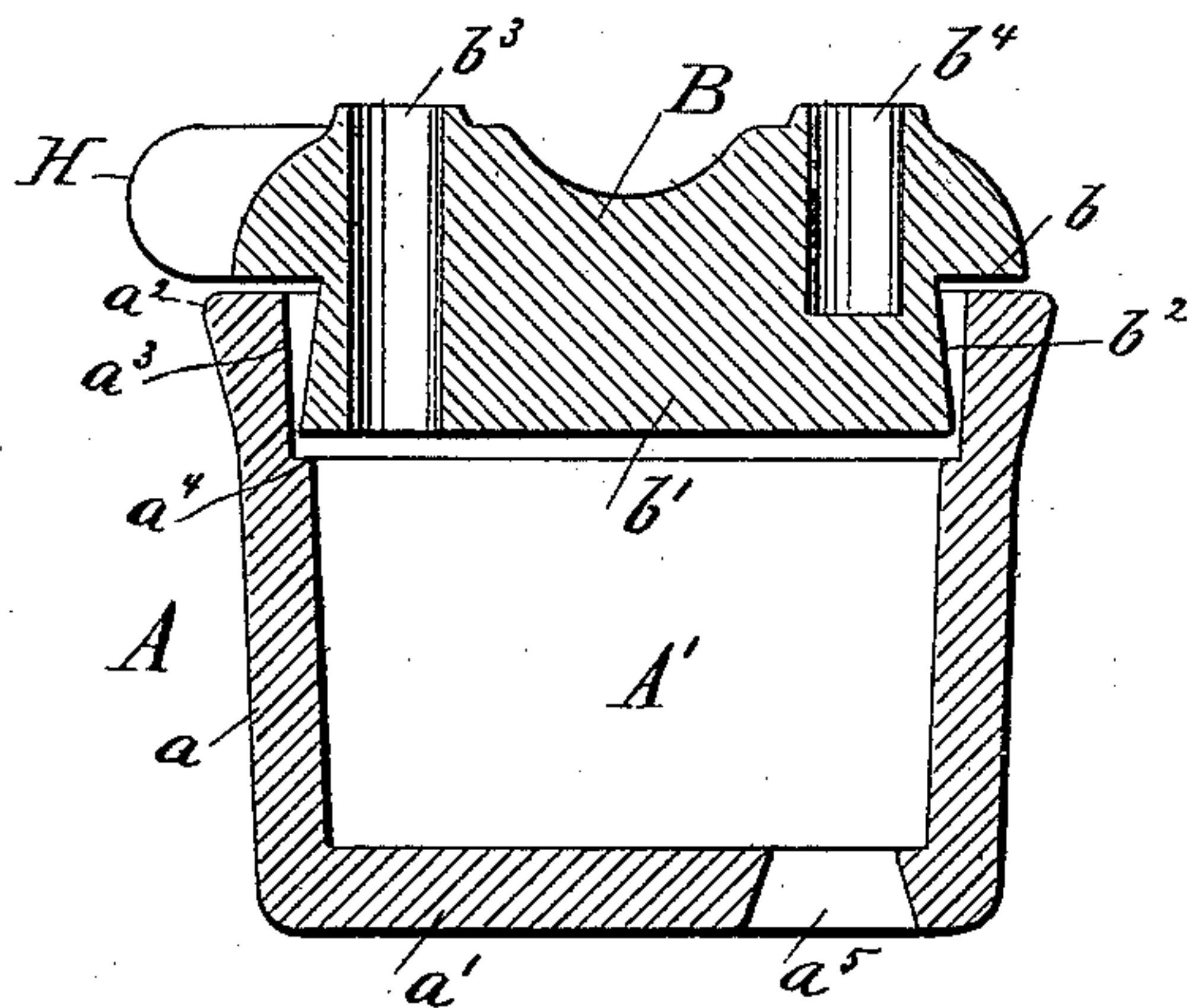
(No Model.)

E. C. SMITH.  
LOCK CASE.

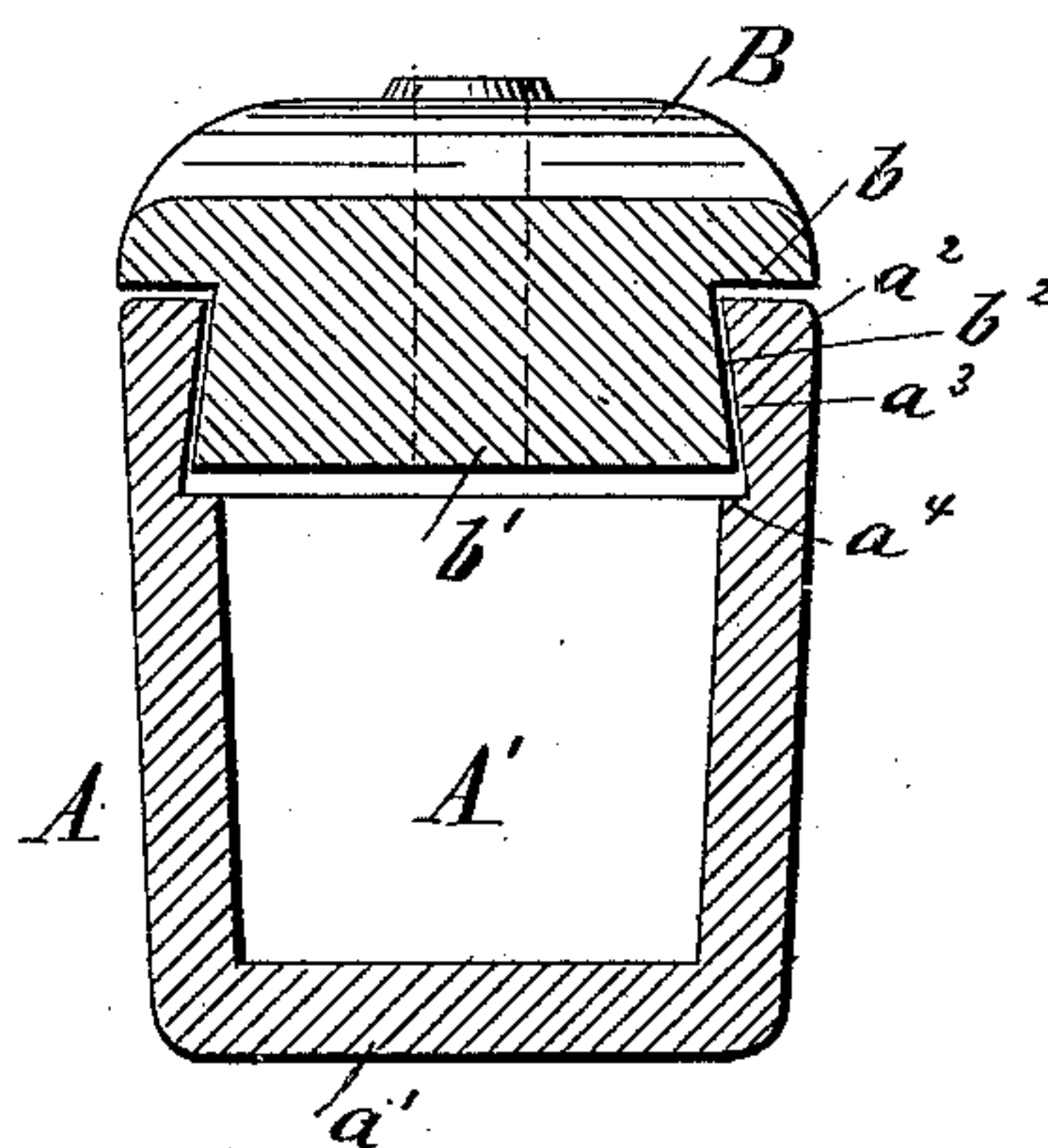
No. 405,329.

Patented June 18, 1889.

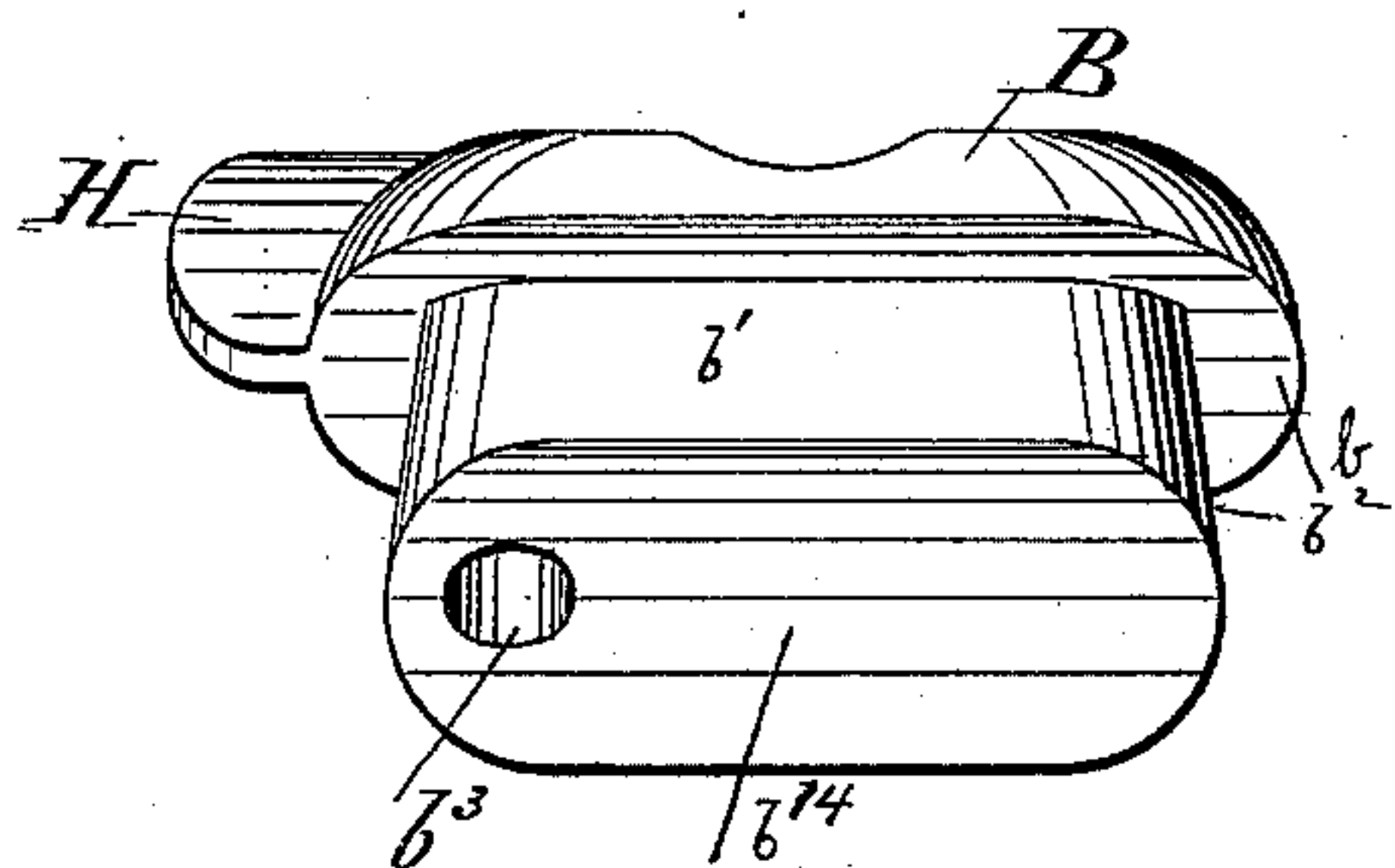
*Fig:1*



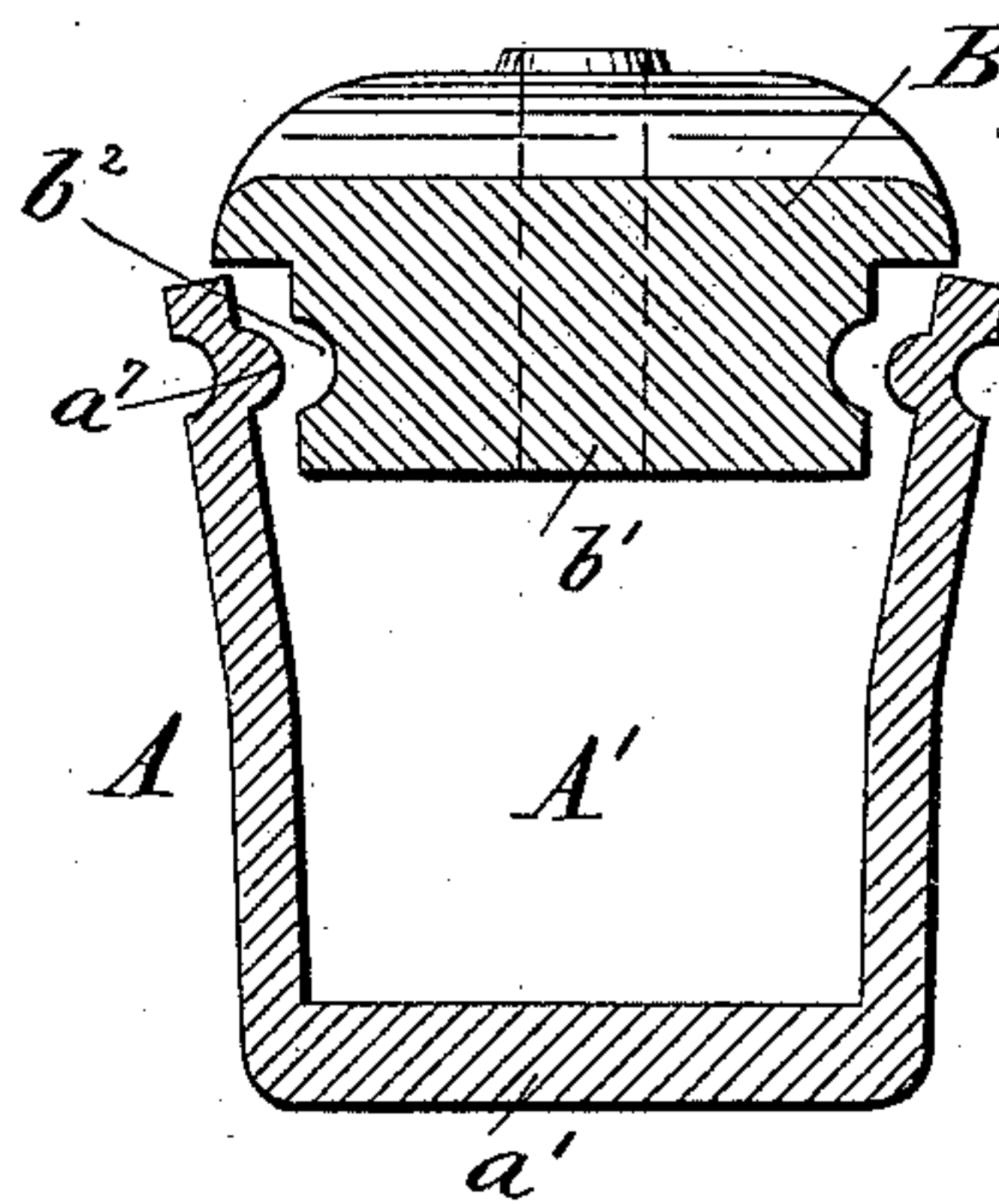
*Fig:2.*



*Fig:3.*



*Fig:4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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<sup>2</sup>*, and the inner walls opposite to the said bead *a<sup>2</sup>* are somewhat reduced in thickness, as at *a<sup>3</sup>*, 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<sup>5</sup>* 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<sup>2</sup>*, as shown in Figs. 1, 2, and 3. The said shoulder *b* and bevel *b<sup>2</sup>* form in effect a shallow depression or groove around the edge of the downward-projecting part *b'*. Shackle-guiding openings *b<sup>3</sup> b<sup>4</sup>* are formed in the base B, and in the under surface *b<sup>14</sup>* 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<sup>3</sup> b<sup>4</sup>* 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  
5 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  
10 in Fig. 2.

For cases formed of drawn metal the modi-  
fication shown in Fig. 4 is used. The body  
A is formed with an inwardly-projecting cir-  
cumferential ridge or bead  $a^7$ , and the base B  
15 has a groove  $b^2$  about the edge of the down-  
ward-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 out-  
20 wardly, as shown in Fig. 4. The base B, with  
its shackle and mechanism assembled as here-  
inbefore described, is placed in the body A  
and the whole compressed in a die-press,  
whereby the walls of the body A are forced  
25 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 30  
mechanism and having a circumferential de-  
pression 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 depres- 35  
sion in the top, as herein described.

2. A padlock-case constructed of the fol-  
lowing parts: a top having shackle-guiding  
openings formed in it and a downward-pro- 40  
jecting part adapted to enter the lock-case  
body and support the locking mechanism, the  
said downward-projecting part having a cir-  
cumferential depression around its edge, a  
body formed with the bottom and sides in  
one piece separate from the top, and the body 45  
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 50  
hand this 29th day of January, 1889.

EUGENE C. SMITH.

Witnesses:

G. A. SCHELLENGER,  
F. JACOBSON.