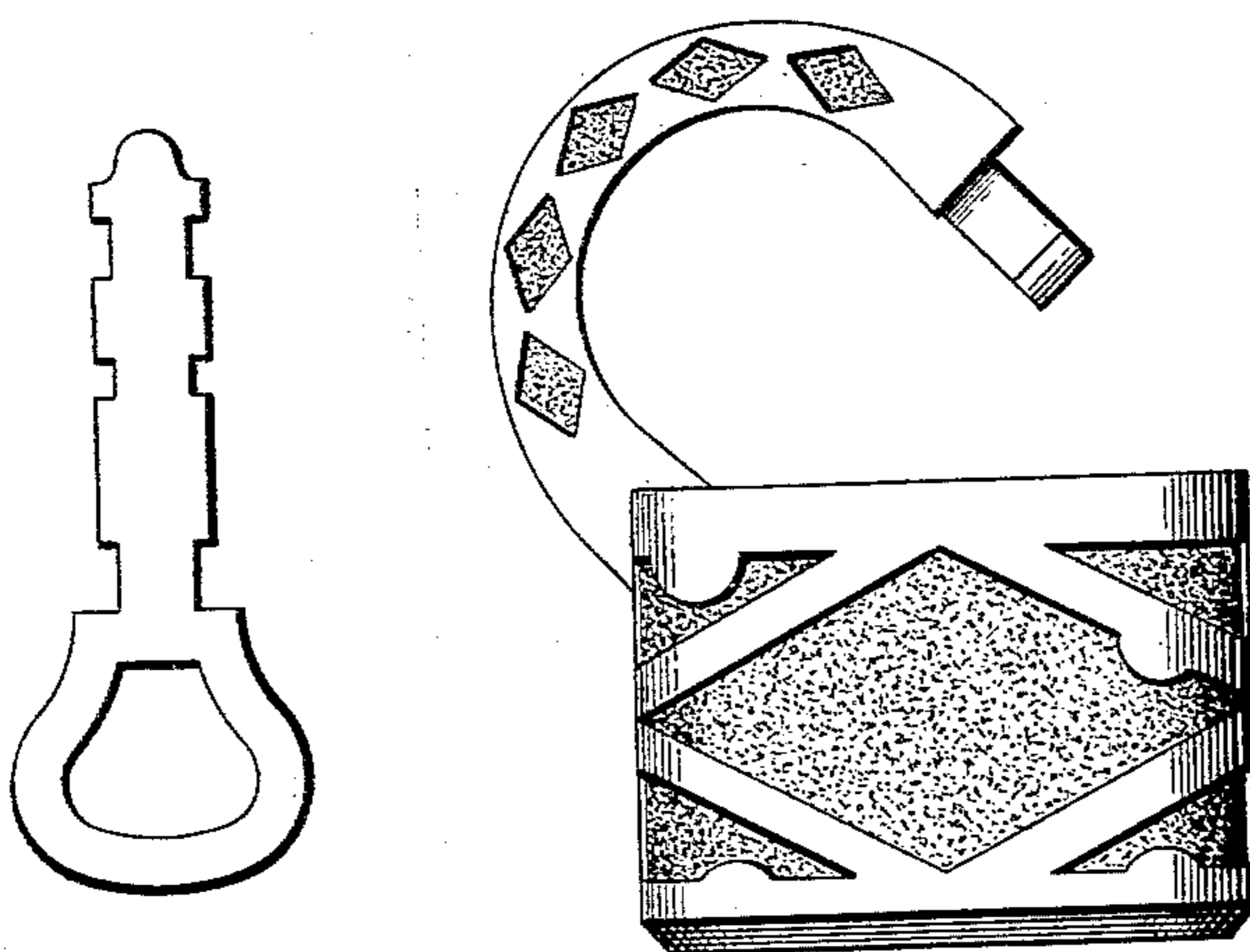


(Model.)

S. R. SLAYMAKER.
PADLOCK.

No. 476,495.

Patented June 7, 1892.



Witnesses:

C. C. Schiller.
Thomas M. Smith.

Inventor.

Samuel R. Slaymaker.
By J. Walter Douglas.

UNITED STATES PATENT OFFICE.

SAMUEL R. SLAYMAKER, OF LANCASTER, PENNSYLVANIA, ASSIGNOR
TO HIMSELF, JOHN F. BARRY, AND WILLIAM F. TROAST, OF SAME
PLACE.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 476,495, dated June 7, 1892.

Application filed April 4, 1892. Serial No. 426,425. (Model.)

To all whom it may concern:

Be it known that I, SAMUEL R. SLAYMAKER, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Padlocks, of which the following is a specification.

Hitherto the manufacture of the working parts as well as the casings of padlocks of brass, iron, steel, and other somewhat analogous metals has been attended with many objectionable features and inconveniences, and to effect the required polish being given to such locks has been an exceedingly expensive as well as a laborious operation, and, moreover, in use the polish soon became dull.

It is well known that the employment of padlocks of the above-mentioned metals has been prevented to a greater or less extent owing to their tendency to corrode by exposure to water, salt, and acids, which invariably rendered them useless in connection with cable chains and other parts of boats. Moreover, such locks did not retain oil or other lubricants for any length of time and through the absence of such they were caused thereby to become inoperative.

My invention consists of a padlock composed of aluminum or an alloy thereof, substantially as hereinafter described and claimed.

In the accompanying drawing are illustrated a padlock and a key adapted for use in connection therewith and both made according to my invention, as hereinafter described and claimed.

In my invention use is made of aluminum or alloys thereof containing forty (40%) per cent. (more or less) of copper, tin, zinc, iron, lead, antimony, or other analogous metal. It is, of course, obvious that a padlock constructed of such materials would be lighter than one of equal size of iron, steel, or brass as heretofore made, and would possess very great strength in proportion to its weight. However, the difficulties incident to casting, finishing, and polishing light and small articles of hardware—such as the parts of padlocks of aluminum or its alloys—have hitherto been insurmountable and have prevented the use of this metal and its alloys, especially

in locks. Such materials have, however, been stamped, folded, flanged, and otherwise forged in the production of match-boxes and like articles. By a series of experiments it has been discovered that a lock composed in whole or in part of aluminum or an alloy thereof made in the following manner will possess peculiar or defined distinguishing features and functions in use:

In casting the various parts of a padlock which are all comparatively light and thin, the molten aluminum or an alloy thereof is dropped from a height quickly into a comparatively large sprue or pour-hole in contradistinction to being gently poured into a small sprue or pour-hole, the object being to force the metal into all parts of the form molded in the sand. The pressure or impetus incident to this or an analogous mode of procedure is necessary by reason of the lightness of the molten metal.

In reaming off or reducing the cast lids of such padlocks to a perfect circle, in order to finish and make them of uniform or proper size, the posts which pass through holes in the lid would be torn off by the employment of ordinary hollow lathe-mills or similar tools—such as are used for reaming similar articles of brass, steel, and iron—because the aluminum or alloy would adhere to the sides of the tool. By reducing the speed of the reamer or other tool and using heavy oil or black-lead on the posts this difficulty experienced has been successfully overcome and a satisfactory result obtained.

After the parts of the padlock have been cast and the casings have been secured together by posts and properly reamed or finished in the manner hereinbefore explained the cases are polished by means of a mixture of tallow, beeswax, and powdered charcoal or other preferred material or materials applied liberally by means of a leather-covered wooden or other polishing-wheel. Subsequently this mixture is washed off and the metal rubbed with dry cloths, resulting in a beautiful polish being obtained.

By proceeding in the manner hereinbefore described the padlocks of aluminum, either pure or in the form of an alloy thereof, can

be produced more perfectly and rapidly and the same finished and polished more expeditiously and inexpensively than if made from the metals—such as brass—hitherto gradually employed for their production.

5 A padlock embodying the described features of my invention and composed in whole or in part of aluminum or an alloy thereof may be advantageously employed for uses
10 and under conditions in which ordinary padlocks are absolutely useless—for example, where the ordinary padlock rapidly rusts or corrodes by exposure to water, and more especially to water of a saline nature, in which
15 the use of such padlocks in damp or moist places, and in connection with the accessories or mechanism of boats, has hitherto been prohibited.

20 A padlock embodying the peculiar and distinguishing features and functions of my invention, as stated, is especially adapted for just such uses as have been mentioned, and such also retains oil or other lubricants longer than the ordinary padlocks constructed of the
25 metals and in the manner hereinbefore described. Moreover, in making ornamental padlocks of the materials heretofore employed,

as brass, it was impossible to have the same retain the required finish or polish, even when employed for the ordinary purposes, while a
30 lock embodying my invention retains its polish better than any other known padlock without any other polishing or finishing than has been hereinbefore mentioned.

It may be here remarked that by casting
35 the parts of the locks all seams or welts are obviated, whereby the appearance and security of the same are unimpaired and the strength appreciably enhanced and a far superior padlock in every way produced.
40

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, a padlock composed in whole or in part of aluminum or
45 an alloy thereof, substantially as described.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

SAMUEL R. SLAYMAKER.

Witnesses:

EDW. D. REILLY,
D. H. SENSENIG.