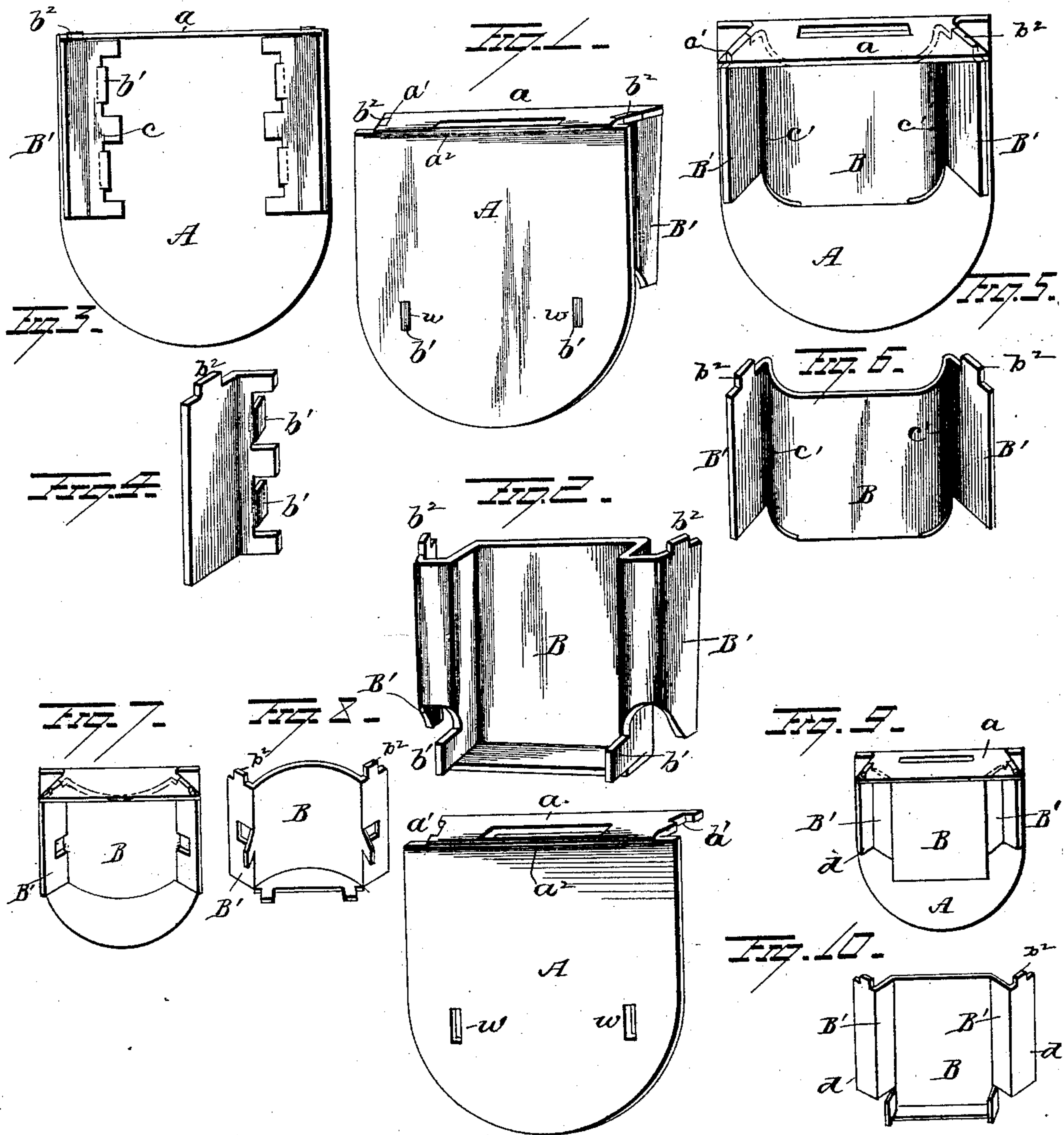


(No Model.)

F. W. MIX.
MORTISE LOCK.

No. 360,611.

Patented Apr. 5, 1887.



WITNESSES
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MORTISE-LOCK.

SPECIFICATION forming part of Letters Patent No. 360,611, dated April 5, 1887.

Application filed November 10, 1886. Serial No. 218,462. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. MIX, of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and
5 useful Improvements in Mortise-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My invention relates to an improvement in mortise-locks; and it consists in a lock of this type having its wings, which interlock with under-cut side walls of the mortise, rigidly connected with the selvage, to insure a strong and
15 reliable construction of parts.

In the accompanying drawings, Figure 1 is a view of one form of mortise-lock embodying my invention. Fig. 2 is a view of the parts illustrated in Fig. 1, showing the cap and front
20 plate detached. Figs. 3 and 4, 5 and 6, 7 and 8, and 9 and 10 represent top and perspective views of the modified forms of locks.

In Figs. 1 and 2, A represents the front plate of the lock-case, and consists of a flat
25 plate of suitable metal rounded on its lower end and having a portion of its upper end bent over at right angles to the body of the plate forming the selvage *a*. The ends of the selvage *a* are cut under, as shown, giving
30 said selvage a dovetail shape, and are provided with recesses *a'*, for the reception of corresponding lugs on the ends of the cap-wings, as will hereinafter appear. An oblong slot, *a''*, is also formed through the selvage for the
35 passage of the bolt, as is common.

B represents the body of the cap, which is struck up from a blank of sheet metal, and so formed that its sides can be bent at right angles to the cap until they come in contact with
40 the front plate, when they are bent outwardly slightly flaring, forming the wings B', which latter conform with the ends of the selvage, and are in a vertical plane with the dovetailed ends of the latter. The downwardly-bent free
45 end of the cap is provided with lugs *b'*, which pass through perforations *w*, formed in the front plate, and are riveted thereto.

The upper ends of the wings B', or ends in contact with the selvage, are provided with
50 lugs *b''*, adapted to register with and enter the recesses *a'*, formed in the ends of the selvage,

and thus insure a bearing of the wings at their upper ends in the ends of the selvage, and retain the wings from springing or becoming bent when the lock is forced into a mortise, 55 and also serve to lock the cap at its upper end and prevent its displacement. The wings are constructed so as to slightly taper, as shown in Figs. 1 and 2, the distance between their lower
60 ends, being slightly less than at their upper ends to cause them to bind in the mortise and prevent the lock from becoming loose in case the wood should shrink.

The support given the ends of the wings by the lugs formed thereon in engagement with 65 the recesses in the ends of the selvage is a very important feature, as it effectually prevents the lateral loosening of the casing, which has hitherto been possible to a greater or less extent by the inward spring of the wings, and
70 the said lugs at the same time afford an effectual means for holding the body of the cap in position, the wings being integral with the cap B.

In Figs. 3 and 4, the wings B' are made separate from the cap, and are secured to the front
75 plate by riveting-tongues *b'*, which are cut and bent at right angles to the bearing-plate *c* of the wings. These wings are provided with lugs cut in their ends, as at *b''*, which fit within
80 corresponding recesses formed in the ends of the selvage.

In Figs. 5 and 6, the top plate or cap, B, is slightly rounded on its sides *c'*, said rounding parts continuing gradually until coming in
85 contact with the front plate, A, when they are bent flaring outward, forming wings B', the ends of which are cut or shouldered, as at *b''*, adapted to register with and enter the recess *a'* in the end of the selvage *a*. 90

In Figs. 7 and 8, the cap B is arch-shaped, the ends of which, when coming in contact with the front plate, A, are bent flaringly outward, forming wings B', the ends of which are cut, as at *b''*, so as to engage recesses formed 95 in the ends of the selvage *a*. The cap is further provided with lugs, stamped therefrom at the point where the wings are formed, and adapted to engage slots in the front plate and be riveted thereto, thus securing the cap. 100

Figs. 9 and 10 represent the cap B, provided on each side with wings B', formed integral

therewith and bent flaringly inward toward the plate A a short distance, and then flaring outwardly a short distance, as at *d*, and having lugs or shouldered tongues *b*², formed on the ends thereof, adapted to be secured to the selvage *a*, by inserting said tongues in the recesses formed in the ends of the selvage.

It will be observed that in all of the figures above referred to the wings are secured to the selvage and connected to the front plate. In one instance, as shown in Fig. 3, the connection or attachment between the wings and front plate is direct, while in the construction shown in Figs. 1 and 2 the wings are connected indirectly to the front plate through the intervention of the cap; but in both instances the wings are connected to the front plate.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I wish it understood as not limiting myself strictly to the exact construction herein set forth; but,

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

1. In a mortise-lock case, the combination, with the selvage and front plate, of a cap and flaring wings connected to the front plate and provided with lugs on their ends adapted to engage recesses in the selvage, substantially as set forth.

2. In a mortise-lock case, the combination, with the selvage and front plate, of a cap having securing-wings formed integral therewith and gradually flaring from the front plate, said wings being secured to the selvage, substantially as set forth.

3. A lock-case consisting, essentially, of a front plate with its dovetail-shaped selvage having recesses therein and the cap with its gradually flaring wings formed integral therewith and cut away at their lower ends and provided with lugs adapted to enter the recesses in the selvage, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK W. MIX.

Witnesses:

S. N. CHAFFEE,
E. L. PRIOR.