

**POOR  
QUALITY**

## PATENT SPECIFICATION

**169,886**

Application Date : Aug. 21, 1920. No. 24,325 / 20.

Complete Left : May 13, 1921.

Complete Accepted : Oct. 13, 1921.



### PROVISIONAL SPECIFICATION.

#### Improvements in and relating to Locks.

We, SAM COOPER, Traveller, of 2, Cragg Hill Terrace, Horsforth, and JOHN VALENTINE KAYE, Lock Manufacturer, of Joseph Kaye & Sons, Limited, Lock Works, Hunslet, Leeds, in the County of York, both subjects of the King of Great Britain, do hereby declare the nature of this invention to be as follows:—

10 This invention relates to improvements in that class of locks which employ two keyholes and 2 keys, master and servants, and whilst the invention refers more particularly to padlocks it may be applied  
15 to other types of locks.

Generally it is known to construct locking mechanism with two keys either engaging with one common or with two individual key holes and sets of levers or  
20 tumblers have been arranged one to be operated by each key. These levers may have been arranged each set in conjunction with its own runner plate or they may have been arranged as in Specification of Letters Patent No. 100,985 where-  
25 in the key holes were one above the other and the master key levers actuated the servants key levers to free same from the gate and so actuate the lock.

30 This invention differs from that above referred to in that the keyholes are side by side and the action and arrangement of the master key and its levers coupled with a double gate in the servants levers  
35 is such that check-locking may take place which has not to our knowledge hitherto taken place in padlocks where the space occupied by the mechanism is somewhat restricted.

40 To carry our invention into effect we will describe same with reference to a padlock of the automatic or spring type,

[Price 1/-]

but we wish it to be understood that it may be applied to other types of locks.

The locking catch or staple of the lock  
45 is pivoted to or in the lock casing at one side and engages a spring bolt at the other side, and to force the bolt from the catch such bolt is withdrawn by a projection on a runner or tail piece by the correct  
50 operation of the mechanism by a suitable key or keys after the usual manner but not by the usual mechanism.

There is one tail or runner plate having the operating projection which in  
55 this case is arranged so that it may withdraw the bolt and also act as an obstruction to prevent the bolt being brought back. This runner plate is provided with  
60 a suitable number of notches for engagement by the bits of the keys which are two in number a servants and a master key and their keyholes are placed side by  
65 side, a suitable distance apart. The keys are preferably of such a construction that the servants key cannot be made into a master key and therefore cannot operate the master levers.

There are two sets of levers, one, having a suitable gate or gates therein or  
70 thereon which is spring actuated in any usual manner, this set being for the servant key and another of plain ungated levers working with minimum friction  
75 which do not require springs, for the master key. The master levers are so arranged that they are in contact with the servants levers in such a manner and  
80 position that their correct operation will lift the servants levers correctly and allow the bit of the master key to move the runner plate in the desired direction.

In a padlock, the duty of the servants key is to withdraw the bolt only and the

gating in the levers, and notch or notches in the runner plate are such that the servants key can only perform this operation, but the master key may not only withdraw the bolt but on operation in the other direction will cause the servants levers to be correctly operated and permit the runner plate to be moved forward to cause its projection to lock or obstruct the bolt in which condition the servants key is inoperative. The gate in the servants

levers is double and in the gate operates the usual stump or stud on the runner plate.

The pivots of the two sets of levers may be comparatively close together and in alignment or nearly so.

Dated this 20th day of August, 1920.

CLIVE WAUGH,  
Chartered Patent Agent,  
Sunbridge Chambers, Bradford, Yorks.

COMPLETE SPECIFICATION.

Improvements in and relating to Locks.

We, SAM COOPER, Traveller, of 2, Cragg Hill Terrace, Horsforth, and JOHN VALENTINE KAYE, Lock Manufacturer, of Joseph Kaye & Sons, Limited, Lock Works, Hunslet, Leeds, in the County of York, both subjects of the King of Great Britain, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in that class of locks which employ two keyholes and 2 keys, master and servants, and whilst the invention refers more particularly to padlocks it may be applied to other types of locks.

Generally it is known to construct locking mechanism with two keys either engaging with one common or with two individual key holes, and sets of levers or tumblers have been arranged one to be operated by each key. These levers may have been arranged each set in conjunction with its own runner plate or they may have been arranged as in the Specification of Letters Patent No. 100,985 wherein the key holes were one above the other and the master key levers actuated the servants key levers to free same from the gate and so actuate the lock.

This invention differs from that above referred to in that the key holes are side by side and the action and arrangement of the master key and its levers coupled with a double gate in the servants levers is such that check-locking may take place which has not to our knowledge hitherto taken place in padlocks, where the space occupied by the mechanism is somewhat restricted.

In describing our invention in detail reference is made to the accompanying

sheet of drawings, similar letters indicating similar parts in which:

Fig. 1 represents an elevation of a padlock constructed according to our invention, with the cover removed.

Fig. 2 shews the position of the runner plate when check locked, and

Fig. 3 shews suitable servants and master keys.

To carry our invention into effect we will describe same with reference to a padlock of the automatic or spring type, but we wish it to be understood that it may be applied to other types of locks.

The locking catch or staple S of the lock is pivoted to or in the lock casing at one side as at S<sup>1</sup> and engages a spring bolt B at the other side, and to force the bolt from the catch, such bolt is withdrawn by a projection R<sup>1</sup> on a runner or tail piece R by the correct operation of the mechanism by a suitable key or keys after the usual manner but not by the usual mechanism.

There is one tail or runner plate R having the operating projection R<sup>1</sup> which in this case is arranged so that it may withdraw the bolt by a moving contact with projection B<sup>1</sup> and also act as an obstruction to prevent the bolt being brought back. The projection R<sup>1</sup> in this case abutting against the projection B<sup>2</sup>. This runner plate is provided with a suitable number of notches R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> for engagement by the bits of the keys which are two in number a servants K and a master key K<sup>1</sup> and their keyholes are placed side by side, a suitable distance apart as shewn. The keys are preferably of such a construction that the servants key cannot be made into a master key and therefor cannot operate the master levers, a suitable form being shewn in Fig. 3.

There are two sets of levers L, M, one set L, having a suitable gate or gates L<sup>1</sup> therein or thereon, which set is spring actuated in any usual manner, this set being for the servants key, and another set of plain ungated levers M working with minimum friction which do not require springs, for the master key. The master levers M are so arranged that they are in contact with the servants levers L in such a manner and position that their correct operation will lift the servants levers correctly and allow the bit of the master key to move the runner plate R in the desired direction. Noses or projections such as L<sup>x</sup> capable of engagement by noses or the like such as M<sup>x</sup> give the desired co-operation between the parts.

In a padlock, the duty of the servants key is to withdraw the bolt only and the gating in the levers, and notch or notches in the runner plate are such that the servants key can only perform this operation, but the master key may not only withdraw the bolt but on operation in the other direction will cause the servants levers to be correctly operated and permit the runner plate R to be moved forward to cause its projection R<sup>1</sup> to lock or obstruct the bolt B in which condition the servants key is in-operative see Fig. 2. The gate in the servants levers is double and in the gate operates the usual stump or stud R<sup>5</sup> on the runner plate R.

The pivots of the two sets of levers may be comparatively close together and in alignment or nearly so.

Having now particularly described and

ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. In lock mechanism of that class which employs two keyholes, the combination with two key holes side by side of a set of spring pressed gated levers and a set of ungated levers arranged to operate the gated levers correctly and to permit of the operation of the gated levers independent of the ungated levers.

2. In lock mechanism of that class which employs two keyholes, the combination with two keyholes side by side with keys therefor, one key engaging and operating a set of gated levers and another key engaging and operating a set of ungated levers which in turn operate the gated levers and so actuate a runner plate, substantially as described.

3. In lock mechanism as claimed in Claims 1 or 2, the combination of two sets of levers one gated and one ungated each having its own key, of a runner plate carrying a projection or operating piece to withdraw the lock bolt, and check lock same by the action of the master key only, substantially as described.

4. The arrangement, construction and combination of parts constituting the padlock with keys therefor arranged and operated as described and illustrated.

Dated this 12th day of May, 1921.

CLIVE WAUGH,  
Chartered Patent Agent,  
Sunbridge Chambers, Bradford, Yorks.

[This Drawing is a reproduction of the Original on a reduced scale.]

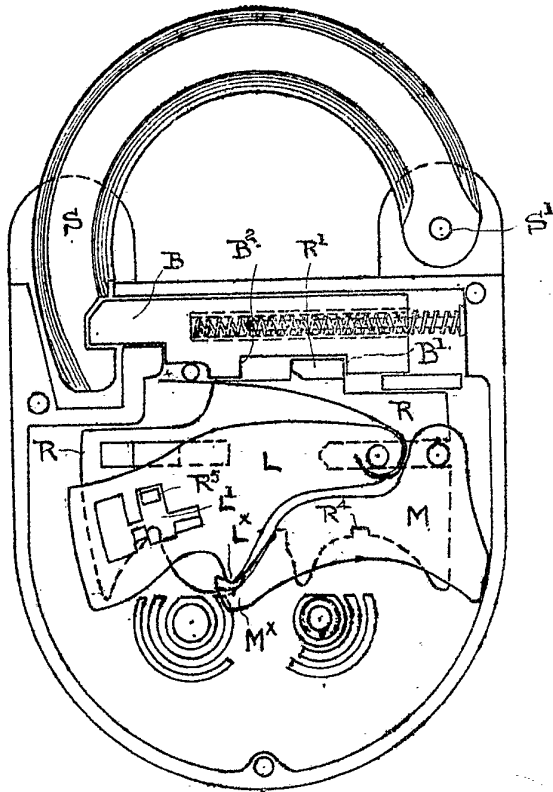


Fig. 1.

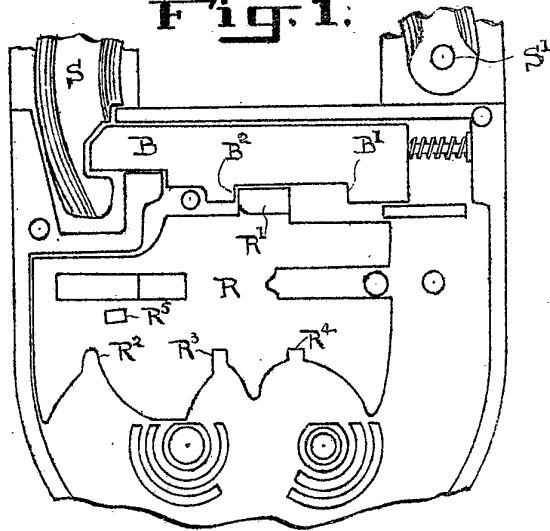


Fig. 2.

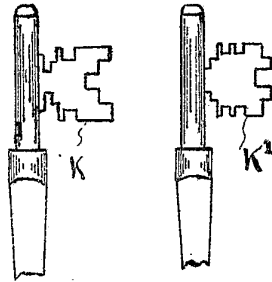


Fig. 3.