

[This drawing is a reproduction of the original on a reduced scale.]

Drawing pages of GB183386 A



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## Bibliographic data: GB183386 (A) — 1922-07-27

### Improvements in and relating to padlocks and like portable locks

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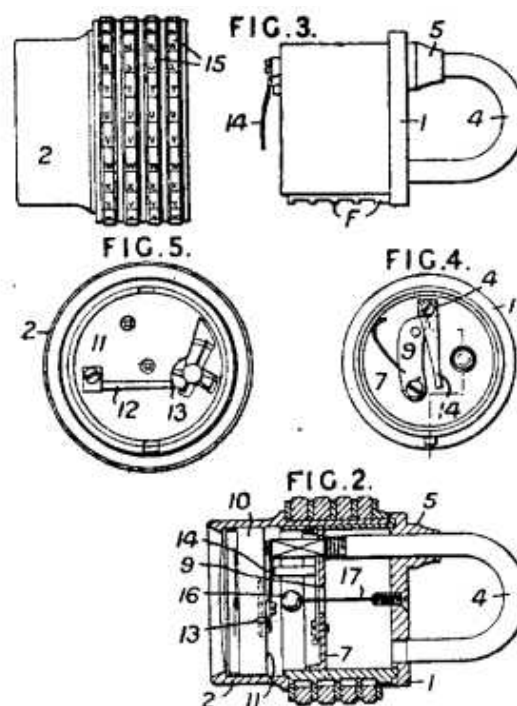
**Classification:** - international: **E05B37/02**  
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#### Abstract of GB183386 (A)

183,386. Donovan, A. Sept. 26, 1921. Padlocks; locks, cases for; locks, operating registering-apparatus.-A padlock is constructed to indicate the time at which it is secured. The casing is made in two cylindrical parts 1, 2 adapted to fit together, and secured by permutation rings 15 on the member 2 engaging with a notched feather F on the member 1. The shackle 4 slides in a bearing 5 on the member 1 and carries a blade spring 14 at its end, and is locked by a spring catch 9 pivoted to the base-plate 7 of the member 1. When the shackle is secured by the catch 9, and the member 2 fitted to the member 1 and locked thereto, the spring 14 depresses a second blade spring 12 mounted on the back 11 of a watch 10 fitted into the member 2, causing a finger 13 on the spring 12 to stop the watch, indicating the time of securing the padlock, the hands of the watch being visible at the outer end of the member 2. To release the padlock, the members 1, 2 are separated by setting the correct combination and the catch 9 released to free the shackle. The watch is made of non-magnetic material or guarded against retardation by means of a magnet. A ball 16 is held in the lock by a thin filament 17 so that any



attempt to retard the watch by shaking before the shackle is pressed home and locked, is detected when the lock is opened by the broken filament and free ball. One of the Provisional Specifications states that the rings 15 are duplex for changing the combination.



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## **Description: GB183386 (A) — 1922-07-27**

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### **Improvements in and relating to padlocks and like portable locks**

#### **Description of GB183386 (A)**

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PATENT SPECIFICATION -.d -% 6Application Date: Sept. 26,1921. No. 25,443/21. (5 j9ga E i d, f,, Nov. 23, 1921. No. 31,413127.

One Complete Left: Nov. 29, 1927.

Complete Accepted: July 27, 7922.

PROVISIONAL SPECIFICATION.

No. 25,443, A.D. 1921.

Improvements in and relating to Padlocks and like Portable Locks.

I, ALFRED DONQVAN, of 16, Cowper Avenue, East Ham, in the Administrative County of London, a British subject, do hereby declare the nature of this invention to be as follows: This invention relates to padlocks and like portable locks of the permutation type and has for its object a construction which will indicate the time at which the lock is secured. A further object is to enable the signs carried by the parts capable of transposition to be varied in relation to the locking element so that the group of signs necessary to release the lock can be easily and readily varied.

I attain these ends by incorporating in the body of the lock a watch having an exterior dial and provided with mechanism by means of which the watch is automatically stopped when the parts are operated to secure the lock, and by making the parts capable of transposition in two parts capable of relative adjustment so that the signs on said parts can be easily and readily varied in relation to the release device, by forming the body of the lock in two parts and arranging the permutation device to operate between said two parts and not between said body part and the hasp, and by securing the bow 'of the lock to one part of the body part in such a manner that it cannot be released without gaining access to the interior of said body part by separating the two

parts after operating the permutation device.

In a convenient embodiment of this invention the body of the lock is made of two cylindrical parts. In one of said parts is mounted a rod the outer end of which is shaped to form the bow of the lock, said rod being adapted to slide in [Price 1 i a suitable bearing within said part and on being completely pushed home-so as to close the bow-to be locked in said 45 bearing by means of any suitable spring controlled automatic catch capable of being easily released from within said cylindrical part.

In the one end of the other cylindrical 50 part is mounted a watch the dial of which forms the end of said part. This watch is provided with any suitable mechanism whereby its movement can be stopped by pressure exerted when the two parts of 56 the body are brought together, preferably by the contact of the end of the rod carrying the bow.

One part of the body has an extension of reduced diameter on which are 60 mounted a series of rings forming the parts capable of transposition and on the other part of the body is an extension adapted to engage the extension of the part carrying the transposition parts said 65 engaging parts being adapted to be locked together by the movement of the transposition parts in the well known manner.

Each of the rings forming the transposition parts is formed in two parts said parts being superposed. On the outer of said parts are the signs and in the inner of said parts are the slots of the locking device. Any suitable means is provided 75 for adjusting the position of said two parts relative to each other and for locking same together after adjustment.

Dated this 26th day of September, 1921.

PHILLIPSS, Chartered Patent Agents, 70, Chancery Lane, W.C. 2, Agents for the Applicant.

no 183,389 PROVISIONAL SPECIFICATION. -::---- A No. 31,413, A-D. 1921.

Improvements in and relating to -Padlocks and like Portable Locks.

I, ALFRED DoNovk4x, of- 16, - Cowper Avenue, East Ham, in the Addminist rative County of London, a British subject, do hereby declare the nature of this. inveriltion to be as follows:This invention relates to padlocks and like portable locks of the permutation type. and. ii consit.s of. certain improve:ments in the lock forming the subject matter of my Application for Letters Patent No. 25,443 of 1921.

- - The object of the present invention is to make it impossible to stop or retard the movement of the watch surreptitiously as the value of the lock depends entirely on its ability to show the exact time at which the article to which the lock is to be applied is fastened or secured.

In order to prevent the movement of the watch from being stopped or retarded by the action of a magnet, either a watch of the non-magnet type is employed, or the watch is enclosed or so mounted in a case of non-conducting material that its moving parts cannot be influenced by)5 magnetic action.

In order to prevent the movement of the watch being retarded by rocking or shaking it, a small weighted ball is mounted on one end of a fine strip or filament of fibre or other suitable material the other end of which is fixed to the interior of the body part of the lock, the construction and arrangements of said parts being such that the strip or filament will break and release the weighted ball if the lock is subjected to any such motion as will retard the action of the movement of the watch and thereby indicate when the lock is opened that it has been tampered with.

Dated this 23rd day of November, 1921.

PHILLIPS, Chartered Patent Agents, 70, Chancery Lane, W.C. 2, Agents for the Applicant.

#### COMPLETE SPECIFICATION.

Improvements in and relating to Padlocks and like Portable Locks.

I, ALFRED DOMXOVMS, of 16, Cowper Avenue, East Ham, in the Administrative County of London, a British subject, 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 padlocks and like portable locks of the permutation type, and has for its object a construction which will indicate the time at which the lock is secured. A further object is to prevent the surreptitious stopping or retarding of the movement of the watch otherwise than by the closing of the bow.

- I attain these ends by making the body in two parts adapted to be secured together by a suitable permutation device, by mounting a watch having an exterior dial in one of said parts, by mounting the bow of the lock in the other part of the body of the lock, by the provision of mechanism by means of which the watch is automatically stopped when the bow is moved into its closed or operative position, by the provision of means for locking the bow in its operative position within said part of the body so that it cannot be released without gaining access to the interior of said body part, by the use of a permutation device for securing the two parts of the body together, by constructing or arranging the watch in any of the well-known manners so that its moving parts cannot be influenced by magnetic action, and by mounting on a fine strip or filament of fibre or other suitable material fixed to the interior of the body part of the lock a small weight which if and when the lock (with the bow in the open position) is subjected to a rocking, shaking or other motion which will operate to retard the movement of the watch will break away and thereby indicate as soon as the lock is opened that the watch has been tampered with.

In the accompanying drawing which illustrates this invention: Fig. 1 is a view in side elevation of the complete lock.

Fig. 2 is a view in longitudinal section thereof.

Fig. 3 is a view in side elevation of the parts separated.

Fig. 4 is a view in end elevation of the part of the body carrying the bow showing a convenient device for fixing the bow in its closed or operative position, and Fig. 5 is a

view in end elevation of the other part of the body carrying the watch showing a convenient device for stopping the mechanism of the watch.

The body of the lock is made of two cylindrical parts 1 and 2. In the part 1 is mounted a rod 3 the outer end of which is shaped to form a bow 4, said rod being adapted to slide in a suitable bearing 5, carried by the closed end 6 of said part, on being pushed inwards to close the bow.

The free end of the rod 3 passes through a plate 7 mounted in the interior of the part 1 and a spring 8 is interposed between said plate and a shoulder 3.5 on said rod to press said rod outwards so as to open the bow 4. On the plate 7 is pivoted a spring controlled arm 9 which is adapted to engage a slot in the rod 3 so as to lock the bow 4 in its closed position.

In the outer end of the part 2 is mounted a watch 10 the dial of which closes this end of said part. On the back of the case 11 of the watch is mounted.

a spring arm 12 which carries a finger 13 adapted to stop the watch when said arm is depressed by the engagement of a spring arm 14 carried by the rod 3 when the bow is moved into its closed or operative position.

The permutation device which is of the rotary ring type consists of a series of rings 15 mounted on the body part 2 carrying the watch and co-acting with a series of slots cut in a longitudinal eather on the exterior of the other body part 1 in the well known manner.

If the watch used is not of the nonmagnetic type it is enclosed or embedded in a casing of any suitable insulating material before being inserted in a body of the lock.

In order to prevent the movement of the watch being retarded by rocking, haking for similarly treating it when the parts 1 and 2 are locked together by means of the permutation device but with the bow 4 in the open position, that is, before the arm 12 has been depressed by the arm 14, and to indicate if the lock 70 has been so tampered with, a fine strip of filament 17 of any suitable fragile material on the end of which is mounted a small weighted ball 16 is attached to the part 1 of the body preferably to the closed end 6 by means of a screw 18 or the like, so that said ball is free to oscillate and to break away from its attachment when the lock is rocked, oscillated, shaken or similarly treated. 80 Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what