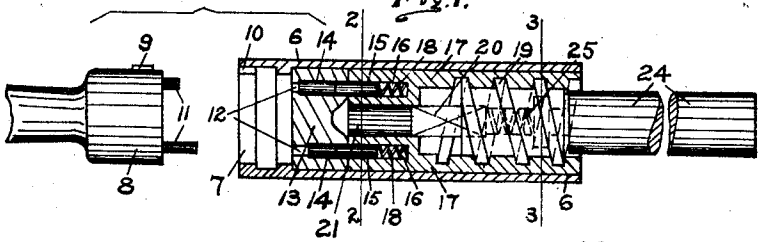
H. J. LEE.

LOCKING DEVICE.

APPLICATION FILED JUNE 9, 1920.

1,387,442. **Patented Aug. 9, 1921.**

Fig. 1.



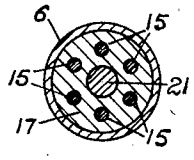


Fig. 2.

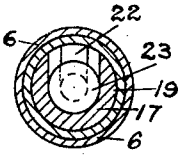


Fig. 3.

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LOCKING DEVICE.

1,387,442. Specification of Letters Patent. Patented Aug. 9, 1921.

Application filed June 9, 1920. Serial No. 387,752.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, HENRY JAMES LEE, a subject of the King of Great Britain, residing at 58 New Compton street, London, W. C., England, have invented a new and useful Improvement in Locking Devices, (for which I have filed applications in Great Britain, No. 14,274, dated June 5, 1919, and No. 23,175, dated Sept. 20, 1919, Patent No. 152,064, Feb. 23, 1921,) and do hereby declare the following to be a full, clear, and exact description of the same.

This invention has reference to a new or improved locking device and is particularly adapted for application to automobiles, motor cycles, or other vehicles with the object of preventing the unauthorized use or theft of the vehicle, but the application of the invention is not limited to such use as the locking device could be utilized on bags or trunks, doors or other purposes where locks are necessary.

The object of the invention is to produce a simple and effective locking device which can be generally applied to various purposes as aforesaid, the lock being controlled by a special design of key which is an additional preventive of unauthorized operation of the lock.

A lock constructed according to the present invention will now be described in conjunction with the accompanying drawings, in which:—

Figure 1 is a part sectional longitudinal elevation through the lock, and illustrates a key for operating same.

Fig. 2 is a cross sectional elevation on line 2—2 of Fig. 1.

Fig. 3 is a cross sectional elevation on line 3—3 of Fig. 1.

Referring to the drawings, the lock comprises a tubular sleeve 6 having at the one end a slotted recess 7 adapted to receive the barrel 8 of a key the barrel of the key being provided with a lug 9 on its periphery adapted to engage with a corresponding slot 10 formed in the sleeve 6 of the lock, to define the position at which the key can enter and leave the sleeve. The barrel of the key is also provided with a series (in this case six) of pins 11 adapted to engage within corresponding apertures 12 formed in a cylindrical member 13 which is adapted for rotation under the control of the key and will be hereinafter termed the rotatable member. Located in each of the slots 12 is a pin 14 slidably mounted within the slot and having its inner end in contact with another pin 15 located one within each slot 16 disposed in the cylindrical member 17 fixed to the outer sleeve 6. The pins 14 and 15 are under the control of the coil springs 18 which are located at the inner end of the slots 16 and serve to normally maintain the pins at the position seen in Fig. 1 of the drawings. Part of the inner periphery of the fixed member is formed with a screw thread which is adapted to be engaged by a screw threaded sleeve 19 the said sleeve being mounted centrally and slidably on a rectangular extension 20 of a spindle 21 which is axially secured to or formed integral with the rotatable member 13. Formed in the screwed sleeve 19 is a U-shaped slot 22 which is adapted to receive the cylindrical headed spindle 23 formed at one end of a tongue 24 which is adapted for longitudinal motion; the headed spindle 23 of the tongue 24 is maintained in the correct position within the screwed sleeve by means of a coil spring 25 which bears at one end against the said head 23 and at the other end against the end of the rectangular extension 20. The operation of this lock is as follows: When the lock is in the position seen in Fig. 1 the rotatable member 13 together with the fixed member 17 are interlocked by means of the pins 15. When it is desired to free the rotatable member from the fixed member the key is inserted in the lock and the pins 11 of the key are pressed against the outer ends of the pins 14 thereby forcing the pins 15 within the slots 16 in the fixed member 17; by this means the member 13 can be rotated by the key within the outer sleeve 6; such rotation through the spindle 21 and rectangular extension 20 rotates the screw threaded sleeve 19 within the fixed members 17 and 6, and longitudinally advances the tongue 24 into locking engagement with a recess or the like in any member which it is desired to lock. A reversal of the said operation and a withdrawal of the key again unlocks the members 13 and 17 and withdraws the tongue 24 to the unlocking position.

Claims:

1. A locking device having in combination a cylindrical casing, rotary and fixed members co-axially located within said casing, a plurality of spring controlled plun-

gers disposed parallel to and around the longitudinal axis of the said rotary and fixed members, a screw threaded member operable by said rotary member for imparting a longitudinal movement to the said screw threaded member.

2. A locking device having in combination a cylindrical casing, a rotary member coaxially located within said casing and provided with a spindle, a fixed member coaxially located within said casing, spring controlled plungers disposed parallel to and around the longitudinal axis of said rotary and fixed members, a screw threaded sleeve fixedly mounted in said casing, and a screw threaded member slidably mounted on the said spindle from which it receives its motion and rotatable within said screw threaded sleeve.

3. A locking device having in combination a cylindrical casing, a rotary member coaxially located within said casing and provided with a spindle, a fixed member coaxially located within said casing and abutting said rotary member, spring controlled plungers disposed parallel to and around the axis of said rotary and fixed members, a screw threaded sleeve fixedly mounted in said casing, a screw threaded member slidably mounted on the said spindle from which it receives its motion and rotatable within the said screw threaded sleeve, and a tongue connected to said screw threaded member adapted for reciprocal longitudinal motion on the lock axis.

4. A locking device having in combination a cylindrical casing, a locking bolt reciprocable in said casing, rotary and fixed members co-axially located within said casing, a plurality of spring controlled plungers disposed parallel to and around the longitudinal axis of the said rotary and fixed members, a screw threaded member operable by said rotary member for imparting a longitudinal movement to the said locking bolt.

In testimony whereof, I have signed my name to this specification.

HENRY JAMES LEE.