A. L. DAVENPORT AND A. J. JAMES.

DOOR LOCKING DEVICE.

APPLICATION FILED DEC. 13, 1919.

1,374,908. **Patented Apr. 19, 1921.**

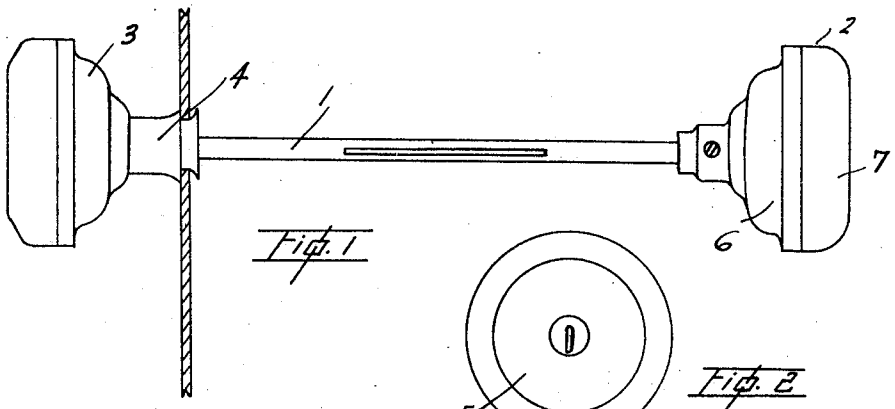


Fig. 1

Fig. 2

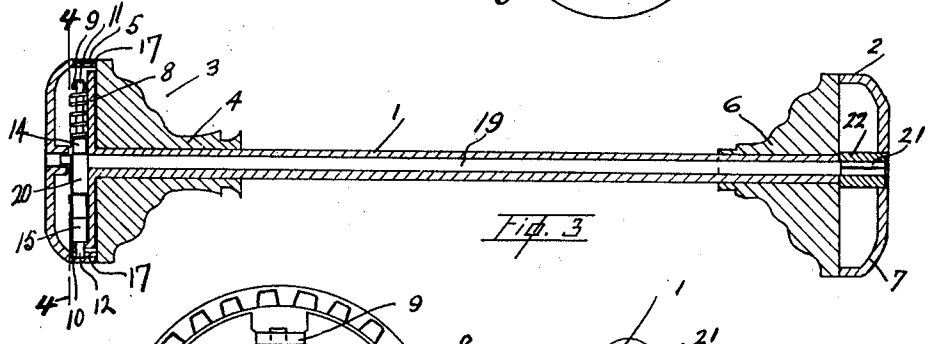


Fig. 3

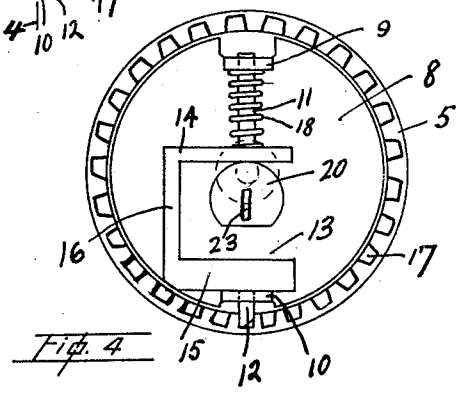


Fig. 4

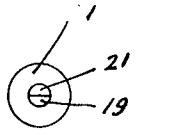


Fig. 5

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UNITED STATES PATENT OFFICE.

ALPHA LEON DAVENPORT AND ARTHUR JOHN JAMES, OF VANCOUVER, BRITISH COLUMBIA, CANADA.

DOOR-LOCKING DEVICE.

1,374,908. Specification of Letters Patent. Patented Apr. 19, 1921.

Application filed December 13, 1919. Serial No. 344,700.

To all whom it may concern:

Be it known that we, ALPHA LEON DAVENPORT and ARTHUR JOHN JAMES, both citizens of the United States, and residents of the city of Vancouver, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Door-Locking Devices, of which the following is a specification.

Our invention relates to improvements in door locking devices and the object of our invention is to provide a locking for doors which is so constructed that it may be rendered inoperative to prevent its being opened by any unauthorized person.

We attain this object by the construction illustrated in the accompanying drawings in which—

Figure 1 is an outside view showing the handle spindle and knobs mounted thereon.

Fig. 2 is an end view of a knob.

Fig. 3 is a longitudinal section taken through the center line of Fig. 1.

Fig. 4 is a sectional elevation taken through the line 4—4 of Fig. 3.

Fig. 5 is a view showing the end of the locking rod.

Similar figures of reference indicate similar parts throughout the several views.

The handle spindle consists of a sleeve 1 on each end of which are mounted the knobs 2 and 3. These knobs are each made in two portions 4—5 and 6—7, the portions 4 and 6 being solid, 4 being rotatably mounted on the sleeve 1 and 6 being secured to it. The portions 5 and 7 are formed as hollow caps and are secured to the respective portions 4 and 6 by suitable screws. The sleeve 1 at one end is provided with a disk 8 of slightly less diameter than cap 5, in which it is inclosed, which disk is provided with upper and lower lugs 9 and 10 having apertures in which are slidably mounted pins 11 and 12 forming part of a member 13 having horizontal arms 14 and 15 connected together at one end by a bar 16, the pin 12 being arranged to act as a pawl coacting with teeth 17 arranged circularly around the inner periphery of the cap 5 while mounted on pin 11 is a spring 18 for returning the pawl into engagement with the teeth after having been raised therefrom, as hereinafter described.

Extending longitudinally through the bore of the sleeve 1 is a rod 19 on one end of which is secured a cam or eccentric 20 on the upper edge of which the arm 14 rests when the pawl 12 is in engagement with the teeth 17, while the other end of the rod is halved for a short distance as at 21, the halved end extending into a boss 22 formed in the cap 7, which boss is provided with a suitable keyhole in which a suitable key may be inserted to engage the halved end 21 and turn the rod. A suitable keyhole is provided in the cap 5 in which a key may be inserted to engage a slot 23 in the cam 18 so that the rod may be turned from the cam end and the sleeve 1 is grooved longitudinally as at 24 to engage a key in the locking bolt so that the same may be operated.

The device is assembled as shown in Fig. 1, the sleeve passing through the lock and the door from side to side and engaged operatively with the tongue of the lock bolt, so that partial rotation of the sleeve retracts the bolt, which is usually returned to normal projected position by means of a spring.

To use the device for locking, the cam 20 is turned so that the pawl 12 is raised out of engagement with the teeth 17 and therefore when the knob 3 is gripped in an unauthorized attempt to open the door it simply revolves on the sleeve 1 without operating the bolt. When, however, it is desired to open the door the cam is turned down so that the pawl 12 engages the teeth 17, in which case rotation of the knob operates the sleeve and consequently the bolt, retracting the same to lock the door.

From the foregoing it will be seen that we have devised a simple means of preventing the opening of a door by an unauthorized person.

What we claim as our invention is:—

1. A door locking device comprising a hollow sleeve, a knob fixed to one end of the sleeve, a knob rotatably mounted on the other end of the sleeve, means carried by the spindle for locking the rotatable knob thereto and means for holding said locking means inoperative including a rotatable rod extending through the spindle.

2. A door locking device comprising a hollow sleeve forming a handle spindle, a knob secured to one end of said spindle, a hollow knob loosely mounted on the opposite end of the spindle, provided on its in-

ner periphery with notches, a disk secured to the end of the sleeve and rotatable in the hollow knob, a pawl mounted on said disk adapted for engagement with said teeth, and means for raising said pawl out of such engagement.

3. A door locking device comprising a hollow sleeve forming a handle spindle, a knob secured to one end of said spindle, a hollow knob loosely mounted on the opposite end of the spindle provided on its inner periphery with notches, a disk secured to the end of the sleeve and rotatable in the hollow knob, a pawl mounted on said disk adapted for engagement with said teeth, and a rod extending through said hollow sleeve provided with a cam positioned adjacent said pawl the partial rotation of which raises said pawl out of engagement with said teeth.

4. A door locking device comprising a hollow sleeve forming a handle spindle, a knob secured to one end of said spindle, a hollow knob loosely mounted on the opposite end of the spindle provided on its inner periphery with notches, a disk secured to the end of the sleeve and rotatable in the hollow knob, a pawl mounted on said disk adapted for engagement with said teeth, and a rod extending through said hollow sleeve provided with a cam positioned adjacent said pawl the partial rotation of which raises said pawl out of engagement with said teeth, and means for reëngaging the pawl and the teeth.

5. A door locking device comprising, a hollow sleeve forming a handle spindle, a knob secured to one end of said spindle, a hollow knob loosely mounted on the opposite end of the spindle provided on its inner periphery with notches, a disk secured to the end of the sleeve and rotatable in the hollow knob, a pawl mounted on said disk adapted for engagement with said teeth, and a rod extending through said sleeve into the hollow knob provided with a cam positioned adjacent said pawl the partial rotation of which raises said pawl out of engagement with said teeth, the opposite end of said rod extending into the secured knob and adapted for key operation through the knob.

Dated at Vancouver, B. C., this 1st day of December 1919.

ALPHA LEON DAVENPORT.
ARTHUR JOHN JAMES.