An auxiliary door lock is provided which can have an operative and an inoperative position, and when in an operative position, the main lock of a room or apartment door cannot be opened even by one having a key. The auxiliary lock is essentially composed of a plate having upstanding lugs and a link-like member mounted pivotally on a shaft in said lugs and held in a desired position by a spring one end of which is looped around said shaft and the other end of which is looped around a second shaft between bifurcations of the link-like member which has at its distal end a non-circular cavity for the reception of a non-circular manual actuator for a regular door lock.

The present invention relates to locks for apartment and room doors and more particularly to an auxiliary door lock which prevents unauthorized entrance into an apartment or room even by a person having a key or skeleton key. The unauthorized entry into apartments, rooms and the like, particularly in large cities, has presented a serious problem with regard to the safety of the occupants and while various prior proposals have been made to solve this problem as by the use of supplemental chains and protective devices there is no very satisfactory device available. It is, therefore, a major object of the present invention to provide a new type of auxiliary door lock which is fully effective to prevent unauthorized entry even by a person having a key or skeleton key and a further object of the invention is to provide a relatively simple and inexpensive auxiliary door lock which has a plate secured to the door and a pivotally mounted spring actuated or controlled link-like member having an enlarged end with a cavity into which the door knob of the door is received, it being noted that the device is primarily intended for use where the door knob is non-circular; i.e., oval or any shape other than circular.

In the accompanying drawings:

FIG. 1 is a fragmentary elevational view of a portion of a door and the adjacent door jamb showing the invention applied in operative position;

FIG. 2 is a sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a view largely similar to FIG. 1, but showing the invention in inoperative position;

FIG. 4 is a sectional view taken on line 4—4 of FIG. 1; and

FIG. 5 is a fragmentary elevational view showing the invention applied to the escutcheon of a different type of door and door lock.

FIG. 6 is a fragmentary view, similar to FIG. 2, of a modification.

Referring to FIGS. 1 to 4 of the drawing, the numeral 1 designates a portion of a door having an oval door knob 11 mounted on a stationary member 12 which forms a part of the normal lock of the door, which lock is actuated for locking and unlocking purposes in any suitable or desired manner and wherein the usual key is inserted into the door knob from the outside of the door, the illustration in the drawing being understood to be views from within the room or apartment. Numeral 13 designates a contiguous portion of the door jamb or adjacent structure of the building and this is provided with the other portion 14 of the regularly provided lock, it being understood that the details of the lock are not a part of the invention and can be of any known or desired type. According to the invention, a plate 15 is secured to the inner surface of door 10 or to the door jamb by means of screws 16 or other fastening instrumentalities. It will be observed that plate 15 is mounted somewhat removed and spaced from the door knob 11. Plate 15 is also provided with a pair of spaced upstanding lugs 17, each of which is provided with an aperture 18 and further that the plate 15 has a transversely extending pin 19 with a shallow central annular groove 20 which pin is mounted between lugs 17 close to, but slightly spaced from, the upper surface of the plate.

The other member of the auxiliary door lock of the present invention is a link-like member 21 which has an enlargement 22 at one end in which there is a cavity 23 and in the illustrated embodiment of the invention, the door knob 11 and the cavity 23 are oval and the cavity is only slightly larger than the door knob which thus cannot be turned to any appreciable extent while it is in the cavity. Link-like member 21 is bifurcated at its other end to provide a pair of spaced bifurcations 24 which fit between lugs 17 of plate 15 and near the end of each such bifurcation there is an opening 25 extending therethrough. Openings 25 are in registry with apertures 18 in lugs 17 and the lugs and bifurcations are secured together by suitable fastening means such as studs 26. Between the bifurcations, but somewhat inwardly from the ends thereof, there is a transverse pin 27 extending across the space between the bifurcations. A coil spring 28 has one of its ends looped around the annular groove 20 in pin 19 and the other end looped around pin 27. As will be seen from FIG. 2, the spring 28 is mounted and located that it tends to maintain the link-like member 21 in either of its operative and inoperative positions and when the member 21 is moved from its operative position as shown in FIGS. 1 and 2 to its inoperative position as shown in FIG. 3, the spring mounting causes the pin 27 to be passed. It is however, to be understood that the use of a spring is not absolutely essential to the invention which can be constructed for use without any spring at all, but the use of this spring represents the best known mode of carrying out the invention. It is further to be understood that the auxiliary door lock is made of any suitable metal or alloy, such as aluminum or stainless steel, but can optionally be made of some non-metallic material such as a synthetic plastic which is resistant to deformation, although the non-metallic form of the invention is presently deemed to be less desirable.

In FIG. 5 the auxiliary door lock of the invention is illustrated as being mounted on an escutcheon 29 on a door having a different type of lock, but the invention itself is the same as already described as evidenced by the use of the same numerals on the various parts.

FIG. 6 illustrates a modified form of the invention wherein the plate 15a is provided with a flat or leaf spring 30 one end of which is bent and attached to the plate and the upper end of the link-like member 21a, mounted on stud 26a, has a cam surface 28e for cooperative action with the spring 30. The other numerals show the relationship of the part of the form of the invention shown in FIG. 2.

It is believed that the manner of using the invention will be clear from the above description of its construction, but it is pointed out that the invention is considered to be especially useful where the occupant is in the apartment or room, the door of which is provided with the invention, so that an intruder or other unauthorized person cannot enter the apartment or room even if he has a
key which fits the normal lock on the door whether the key be a legitimate key such as might be possessed by a building employee or a burglar or other person whose entrance is not desired during the occupancy of the apartment or room. It will be appreciated that even with a key which fits the normal lock of the door, it is necessary to turn the door knob in order to gain entry, but when the auxiliary door lock of the present invention is in operative position as shown in FIGS. 1 and 2, it is impossible to turn the door knob or to rotate it appreciably so that the door cannot be opened from the outside. When the occupant of the apartment or room leaves or wishes the lock to be in an inoperative position, the link-like member 21 is swung from the locking position shown in FIGS. 1 and 2 to inoperative position as shown in FIG. 3, under which latter circumstances the door can be opened in the normal fashion from the outside by means of the key provided for that purpose. In large cities especially, there are rather numerous reports of unauthorized entry into apartments, rooms or the like, but by applying to the door the auxiliary lock of the present invention, such can be effectively prevented. The invention is of simple, inexpensive nature and can be utilized wherever the door knob is non-circular. It is to be understood that the foregoing is intended as illustrative and not as limitative and that any suitable motion restricting or controlling detent type of arrangement can be used in place of the specific constructions described and illustrated.

What is claimed is:

1. An auxiliary door lock comprising a plate member and a link-like member connected thereto, said plate member being securable to a door and being spaced from a non-circular manual actuator of a door lock of said door, said link-like member having an enlarged end with a cavity into which said door lock actuator is adapted to be received, and means for interconnecting said members to enable the link-like member to be swung between an operative position in which the door lock actuator is within the cavity and an inoperative position in which the door lock actuator and cavity are disassociated, the plate member being provided with spaced lugs and a pin mounted between the lugs spaced slightly above an upper surface of the plate member and another pin mounted between bifurcations on the link-like member inwardly of its ends, a helical spring having an end thereof looped around each one of said pins and mounted with its ends cooperating with said plate and link-like members to retain the link-like member in either of its operative and inoperative positions.

2. An auxiliary door lock comprising a plate member adapted to be secured to a side of a door having a door lock including a non-circular manual actuator, upstanding lugs of generally triangular shape on the upper surface of said plate, each lug having an aperture therethrough, a first pin mounted between the lugs adjacent an upper surface of the plate member, a link-like member having one end enlarged and provided with a cavity shaped and adapted to receive snuggly said actuator to prevent rotation of said actuator, the other end of said link-like member being bifurcated, each bifurcation having an opening therethrough adapted to be in registry with an adjacent lug aperture, means insertable into said apertures for pivotally securing together each lug with its adjacent bifurcation, a second pin mounted and extending between the bifurcations inwardly of distal ends of said bifurcations and a helical spring connecting said first and second pins to retain said link-like member in both an operative and an inoperative position, said spring having one end looped around said first pin and the other end of said spring being looped around said second pin.

References Cited

UNITED STATES PATENTS

1,700,135 5/1929 Lanes 70—416
1,961,456 9/1934 Rubner 70—455
2,096,568 10/1937 Snively 70—455
2,263,462 11/1941 Soroff et al. 70—416 X

FOREIGN PATENTS

463,579 10/1913 France.
917,095 9/1946 France.

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U.S. Cl. X.R.

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