J. H. STODDART.

LOCK MECHANISM.

APPLICATION FILED JUNE 18, 1917.

1,251,591.

Patented Jan. 1, 1918.

2 SHEETS—SHEET 1.

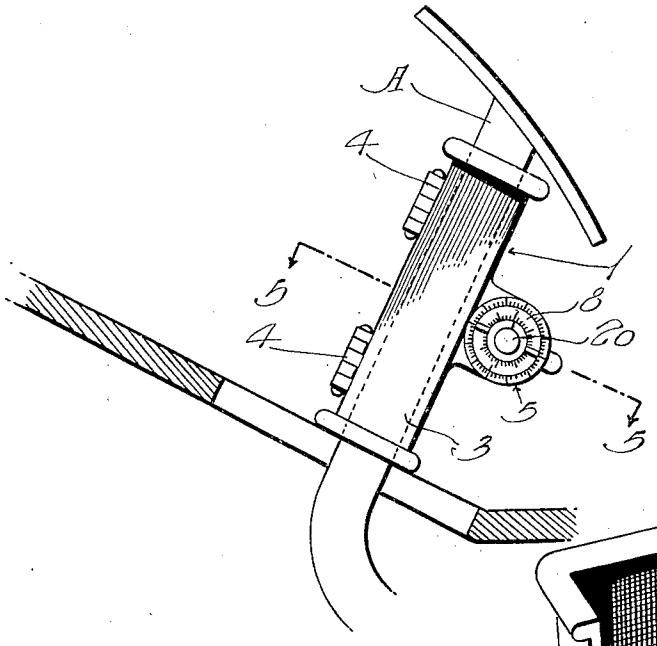


FIG. 1.

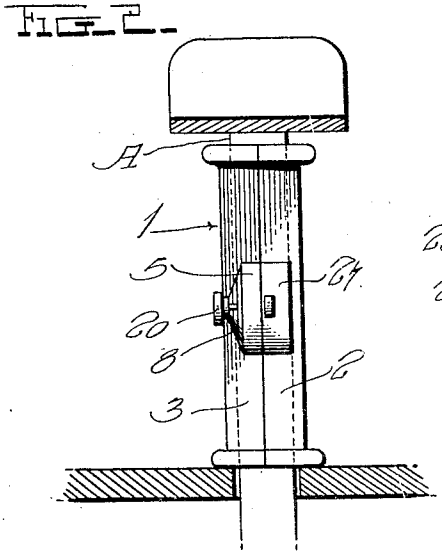


FIG. 2.

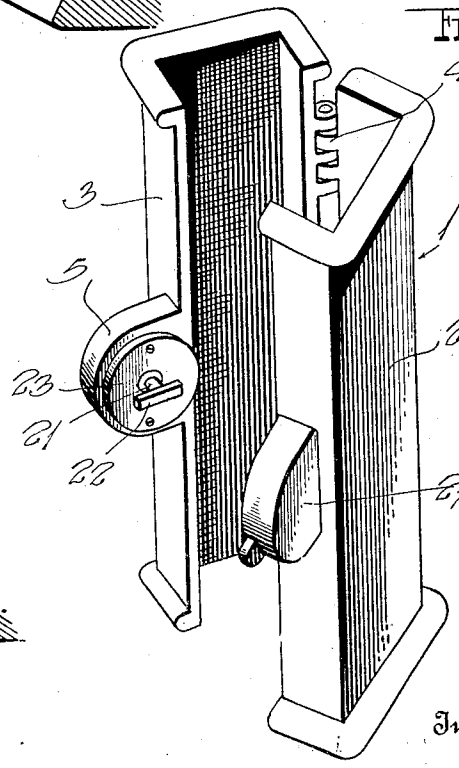


FIG. 3.

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2 SHEETS—SHEET 2.

FIG. 5.

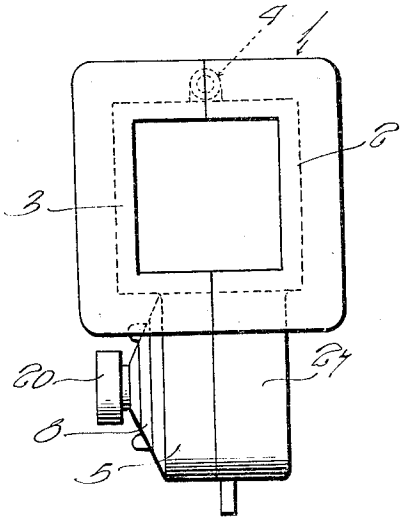
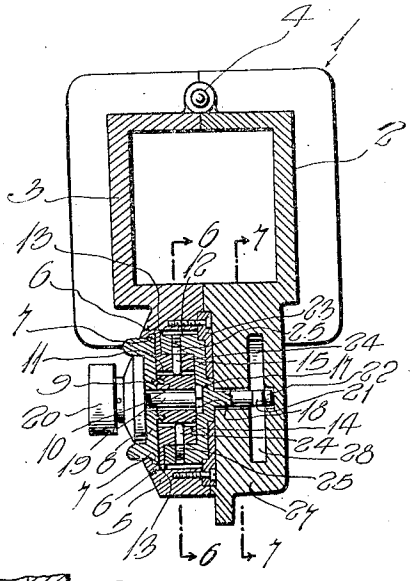


FIG. 5.



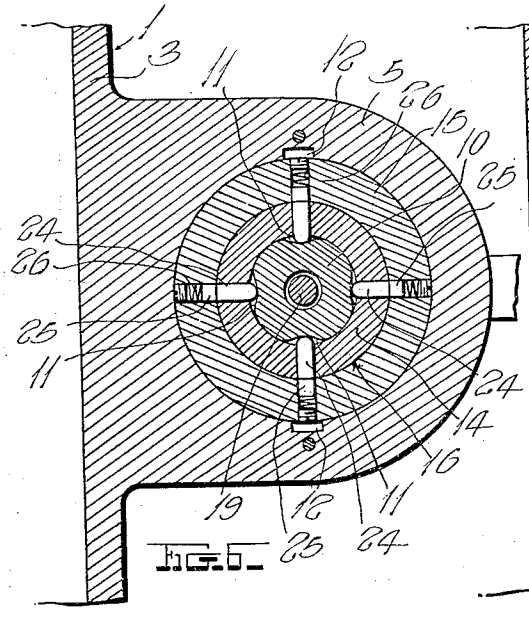


FIG. 6.

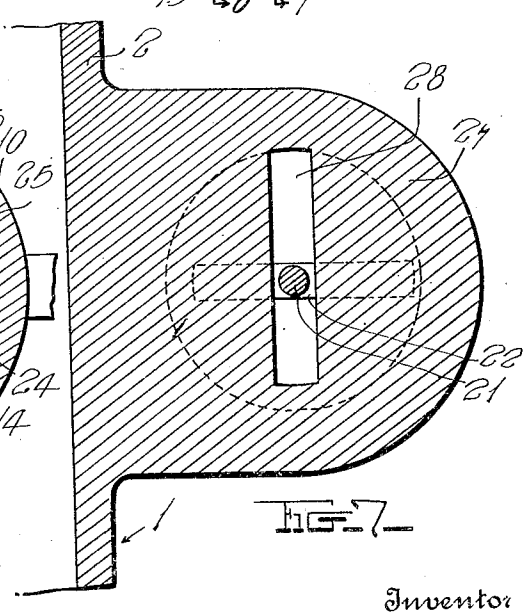


FIG. 7.

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UNITED STATES PATENT OFFICE.

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LOCK MECHANISM.

1,251,591. Specification of Letters Patent. Patented Jan. 1, 1918.

Application filed June 18, 1917. Serial No. 175,472.

To all whom it may concern:

Be it known that I, JOHN H. STODDART, a citizen of the United States, residing at Jamestown, in the county of Stutsman and State of North Dakota, have invented certain new and useful Improvements in Lock Mechanism; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in locks.

The primary object of the invention is to provide a locking mechanism which is particularly designed to be used in connection with a device to engage the clutch lever or pedal of an automobile when the latter is to be parked to prevent said lever or pedal from being moved out of its normal position.

A further object of the invention is to generally improve upon devices of this class by the provision of a comparatively simple, strong, durable and inexpensive construction, one which will be efficient and reliable in operation and well adapted to the purpose for which it is designed.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of the application and in which similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a side elevation of a device constructed in accordance with this invention, illustrating it in operative position upon the clutch lever of an automobile;

Fig. 2 is an elevation of another side of the device applied to the automobile;

Fig. 3 is a perspective view of the device detached;

Fig. 4 is an end view of the same;

Fig. 5 is a sectional view through the device taken on the plane indicated by the line 5—5 of Fig. 1; and,

Figs. 6 and 7 are sectional views taken on the planes of the lines 6—6 and 7—7 respectively of Fig. 5.

Referring more particularly to the drawings, the numeral 1 represents as a whole a sleeve consisting of two sections 2 and 3 which are hingedly connected at one of their sides as at 4 and provided with the improved locking mechanism, to be hereinafter more fully described, on their diametrically opposite sides. These members 2 and 3 are substantially U-shaped in transverse section so that when they are in their relative closed positions, a longitudinally extending opening is formed in the sleeve to receive the friction clutch lever A of an automobile, it being understood that the sleeve surrounds the same and is of such length that it will prevent the lever A from being moved out of its normal position.

The locking mechanism above referred to includes a casing 5 which extends laterally from one side of the section 3 adjacent one edge of the same. The body portion of this casing 5 is substantially annular shaped, both ends of the same being open. Formed on the interior side of the casing 5 adjacent the outer end thereof is a shoulder 6, against which the flange 7 of a dial member 8 rests to connect said dial member to the casing. Secured to the inner side of the dial member 8 by means of suitable pins 9 is a cam member 10 having a plurality of recesses 11 therein. One of these recesses 11, as clearly shown by Figs. 5 and 6 of the drawing, is of less depth than the others, which others are of equal depth. The purpose of this construction will be hereinafter more particularly described.

Arranged on the interior side of the casing 5 and extending longitudinally of the same are slots 12 which receive the lugs 13 which extend outwardly from the upper side of an annular stationary member 14. The stationary member 14 surrounds the cam member 10, contacts at its outer side with the inner side of the dial 8, and is held in relatively fixed relation with respect to the casing 5 by means of the lugs 13 in engagement with the slots 12.

The numeral 15 designates a rotatable member which is provided at one side with a circular recess 16 to receive the stationary member 14 and the cam member 10. The bottom of the member 15 is further provided with a square shaped recess 17 which receives the square shaped head 18 of a cylindrical stem 19. This stem 19 extends through the central openings in the cam member 10, the dial member 8, and a knob 20, said stem being secured to the knob in any suitable manner. Projecting centrally from the other

side of the bottom of the rotatable member 15 is a short stem 21 carrying a locking cross bar 22, the purpose of which will be hereinafter described.

The mechanism just described is maintained in the casing by the flange 7 of the dial 8 resting against the shoulder 6 of the casing and by means of a plate 23 which is secured in any suitable manner to the other end of said casing. As shown, this plate 23 is provided with a central opening to permit the stem 21 to pass therethrough and be disposed on the exterior of the casing. The stationary member 14 is provided with a plurality of radially extending openings, and in these openings are slidably mounted suitable detents or pins 24, the outer edges of which are adapted to be disposed flush with the outer surface or side of the member 14 when the cam member 10 is in such a position that the inner ends of the detents will be received in the recesses 11. One of the detents 24 is of less length than the others, and this detent is intended to fit in the shallow recess of the cam member. By this construction, it may be seen that in order that the ends of all of the detents be disposed flush with the outer side of the stationary member, the cam member will have to be in a certain definite position with respect to the stationary member.

The rotatable member 15 is provided with a plurality of radially extending apertures to correspond with the openings in the stationary member 14, and in these openings in the rotatable member are disposed comparatively short detents or pins 25 which are adapted to bear against the detents or pins 24 carried by the stationary member, suitable coil springs 26 holding the detents 25 in such position. It is to be understood that when the detents 24 are in their projected positions, their outer ends will be disposed beyond the outer side of the stationary member 14 and received in the apertures in the rotatable member 15. The rotatable member 15 will thus be locked against movement, and inasmuch as the cross bar 22 is integrally formed with the member 15, it will also be locked against movement. Cast integrally with section 2 of the sleeve 1 adjacent the casing 5 is a keeper 27. This keeper 27 is substantially hollow, having a recess 28 therein to receive the bar to be inserted in this recess.

In using a device constructed in accordance with this invention, the two portions of the locking mechanism are disengaged and the sections 2 and 3 are swung to their relatively open positions. When in this position, the sleeve is disposed and clamped around the lever A, and the parts locked.

To open the lock, the dial 8 is first moved to a certain position which is determined by suitable graduations upon the dial and the casing, so that the cam member 10 will be moved in order to allow the inner ends of the detents 24 to be received in the proper recesses 11. The knob 20 may then be operated to a certain definite position with relation to the other parts of the device which is determined by other graduations, so as to bring the bar 22 into registration with the opening 28 to allow said bar to be disengaged from the keeper.

From the foregoing description, taken in connection with the accompanying drawing, the construction, use and operation of the device will be readily understood without a more extended explanation.

As various changes in form, proportion, and in the minor details of construction, may be resorted to without departing from the spirit of this invention, I wish it to be understood that I do not limit myself to the precise construction herein shown and described.

I claim:

1. A device of the class described comprising a casing, a rotatable member mounted in said casing and provided with a locking bar, a stationary member mounted within said casing, a plurality of radially disposed detents movably mounted upon said stationary member and adapted to engage said rotatable member to lock the latter against movement, one of said detents being of a different length from the others, a rotatable cam member operated independently of said rotatable member for operating said detents and provided at its periphery with recesses for receiving said detents, one of said recesses being of a different depth from the others to receive the detent which is of different length from the other detents, and a keeper to receive said locking bar.

2. A device of the class described comprising a casing, a rotatable member mounted therein and having a locking bar and a knob attached thereto, said bar and said knob being disposed on the exterior of said casing, a stationary member mounted within said casing, a detent movably mounted on said stationary member and adapted to engage said movable member to lock the latter against movement, a cam member rotatably mounted within said casing for actuating said detent and having a dial attached thereto for operating it independently of said rotatable member, and a keeper to receive said locking bar.

3. A device of the class described comprising an annular casing, a circular rotatable member mounted within said casing and having a recess on one side and a stem projecting from the other side thereof, a cross bar on the free end of said stem, an annular stationary member disposed within said recess and having lugs extending laterally from the sides thereof, said lugs engag-

ing said casing to lock said stationary member against movement, a detent slidably mounted in one side of said stationary member and adapted to engage said rotatable member, a cam member rotatable within said recess for actuating said detent and having an opening extending centrally therethrough, a dial connected to said cam member for rotating the same and having an opening alined with the opening in the latter, a knob provided with a stem extending through said alined openings and attached to said rotatable member to operate the same independently of said cam member, and a keeper to receive said cross bar.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN H. STODDART.

Witnesses:
J. J. NIERLING,
D. J. MASON.