F. J. McFARLAND.

AUTOMOBILE LOCKING MEANS.

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1,251,987. Patented Jan. 1, 1918.

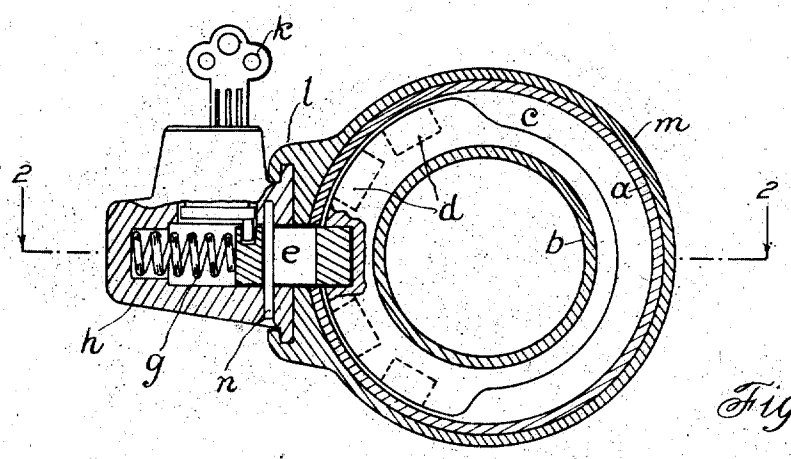


Fig. 1.

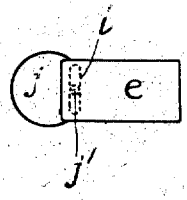


Fig. 3.

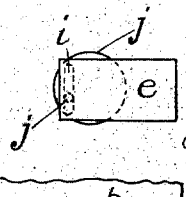


Fig. 4.

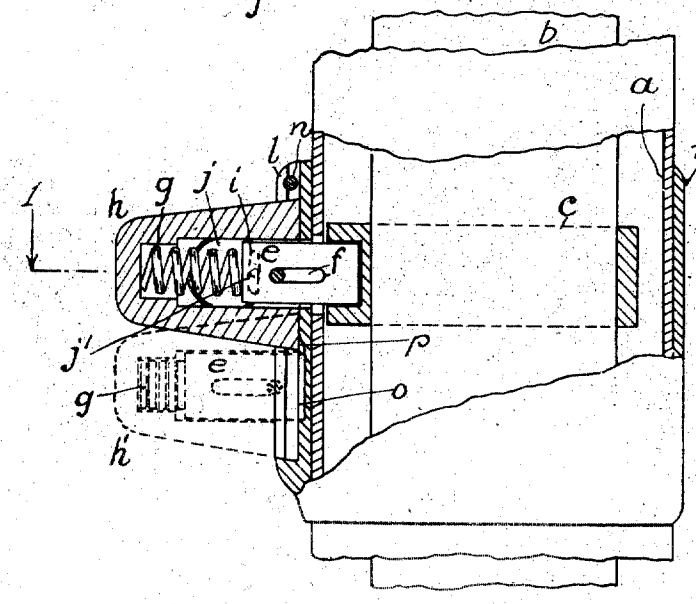


Fig. 2.

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AUTOMOBILE-LOCKING MEANS.

1,251,987. Specification of Letters Patent. Patented Jan. 1, 1918.

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To all whom it may concern:

Be it known that I, FRANK J. McFARLAND, a citizen of the United States, and a resident of Portland, county of Multnomah, State of Oregon, have invented a certain new and useful Improvement in Automobile-Locking Means, of which the following is a specification.

The object of my invention is to provide a simple and inexpensive mechanism to be combined with the steering column and post of an automobile, for so locking the steering gear as to render the machine inoperable, in the sense that it cannot be properly guided. For example, my means are so designed that the front wheels of an auto may be turned against a curb of the street and then the steering post is locked in that position. Even where the machine is not set against a curb, the locking of the steering post in a position not permitting the machine to be moved straight ahead, of course, renders it useless.

The means by which I attain my object are illustrated in the accompanying drawings, in which:

Figure 1 is a transverse section taken through the steering column and post on a line 1—1 of Fig. 2, and showing my means applied and adjusted to lock the steering post against rotation;

Fig. 2 is a longitudinal section taken on the line 2—2 of Fig. 1; and

Figs. 3 and 4 are diagrammatic views of the locking bolt included in my mechanism, and of the means for projecting and retracting the bolt; the bolt being shown as projected in Fig. 3 and as retracted in Fig. 4.

a represents the steering column, and *b* the steering post. On the steering column is shrunk a collar *c*, provided with a series of circumferentially disposed sockets *d* for receiving the bolt *e*; the latter is guided by a pin-and-slot arrangement as shown at *f*. The bolt, when unrestrained, is projected by a coil-spring *g*, the latter being contained in a housing *h*. The left-end of the bolt *e* is provided with a slot *i*. *j* is a disk rotated in the housing *h* by means of a key *k*. The disk is provided with a pin *j'* which slides in the slot *i* of the bolt *e*. By revolving the disk *j* by means of the key *k* the bolt *e* may be retracted against the spring *g*, or placed in condition to be operated by the latter. In the latter case the bolt *e* will be shot into the socket *d*, with which it is placed in registration; and the slot-and-pin arrangement *f* providing for such movement of the bolt.

The housing *h* is preferably slidably supported in a guide-way *l*, provided by the collar *m*, shrunk on the steering column *a*. A transverse pin *n* is placed in the upper part of the guide-way *l* to limit the forward movement of the housing *h*. In the lower part of the guide-way is provided a recess *o*, the upper part of which is made with an inclined plane, as at *p*. When the bolt has been retracted by means of the key, as described, the housing *h* may be moved to its lower position, as indicated by the dotted outlines *h'*; and by then turning the key so as to permit the spring *h* to act, the bolt is projected into the recess *o*. This arrangement is provided to prevent the serious accident of having the housing *h* thrown upward by the jar of the vehicle so as to place the bolt in registration with one of the sockets *d*, and thus render the steering gear of the vehicle inoperative. By the described arrangement the housing *h* is securely held in its lower position. Nevertheless it may be readily placed in its locked position by forcibly moving up so as to place the bolt in alinement with the sockets *d*. A plurality of the latter is provided on the collar *c* so that the steering post may be turned as convenient and as deemed best by the driver for rendering the machine temporarily non-usable by locking the steering post against rotation, as mentioned.

I claim:

1. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed, a collar affixed on the steering column, a housing mounted longitudinally slidable on said collar of the column, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, and means for holding the housing against movement when so arranged that its bolt is out of registration with its socket.

2. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed,

a collar affixed on the steering column and provided with a longitudinal guide-way, a housing mounted longitudinally slidable on said collar of the column, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, and means for holding the housing against movement when so arranged that its bolt is out of registration with its socket.

3. The combination with the steering column and its post, of a collar rigidly secured on the steering post and provided with one or more sockets, circumferentially disposed, a collar affixed on the steering column and provided with a longitudinal guide-way, a housing mounted longitudinally slidable in said guide-way, a spring-controlled bolt reciprocable in said housing, key-operated means for retracting said bolt, said housing having a movement permitting the same to be so arranged as to place said bolt in and also out of registration with the socket, a bar at the upper end of said guide-way, and a recess on the steering column for receiving the bolt and thereby hold the latter out of registration with its socket, such recess adapted to permit the bolt to be disengaged therefrom by the forcible movement of the housing.

FRANK J. McFARLAND.