Dec. 30, 1941. J. HICKEY 2,268,032

AUTOMOBILE KEY CASE

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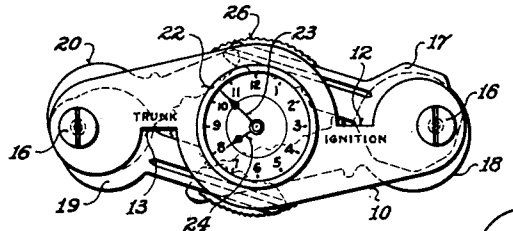


Fig. 1

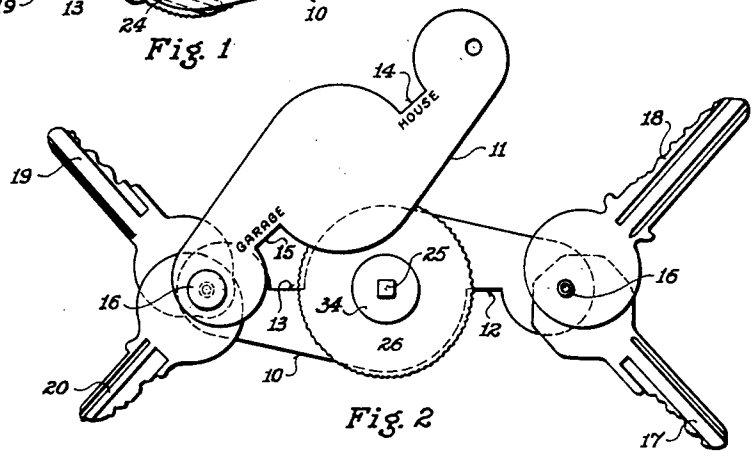


Fig. 2

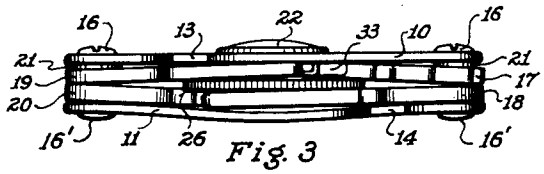


Fig. 3

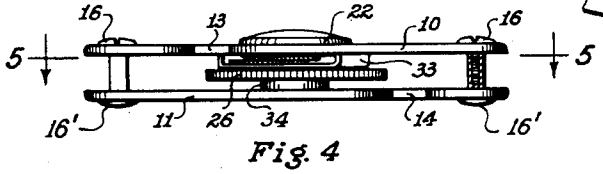


Fig. 4

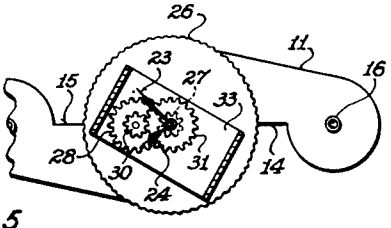


Fig. 5

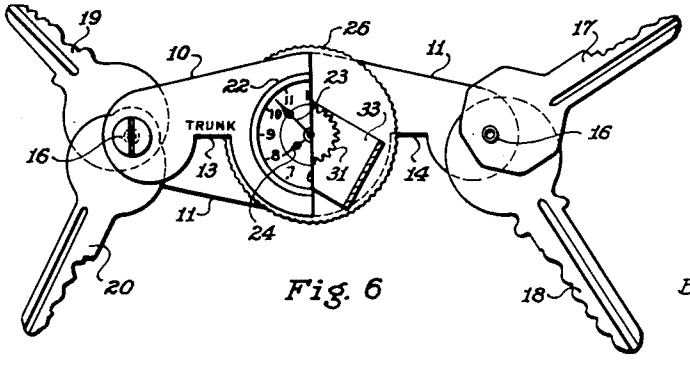


Fig. 6

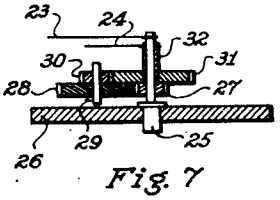


Fig. 7

Inventor
James Hickey
By T. J. Fenlon
and F. H. Fenlon
Attorneys

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AUTOMOBILE KEY CASE

James Hickey, Portland, Oreg.

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5 Claims. (Cl. 116—133)

This invention relates to pocket key cases or holders of the type frequently used for automobile keys.

An object of this invention is to provide an improved key case particularly adapted for automobile keys in which each key is separately accessible and may be exposed and moved into outward position for insertion into a lock without disturbing the remaining keys.

Another object of this invention is to provide an automobile key case which will also have an adjustable time indicating means so that the owner of the key case, when parking his automobile, can set the time indicator to correspond with the time of parking to aid him in remembering the parking time and in avoiding inadvertent overtime parking in localities where parking time limits are prescribed by traffic regulations.

A further object of this invention is to provide a combined key case and parking time indicator which may easily be taken apart for the entire removal of any of the keys and for the insertion of others in their places.

A still further object is to provide a practical automobile key container and parking time indicator which will be simple and inexpensive to manufacture and practical and convenient in use.

These and incidental objects I attain by making my combined key case and parking time reminder as hereinafter briefly described with reference to the accompanying drawing.

In the drawing:

Fig. 1 is a front-face view of my key case showing the parking time reminder and showing the keys in closed position in the case;

Fig. 2 is a rear-face view of the key case with the plates disconnected and swung apart at one end to reveal certain members attached to the case located inside and showing the keys all swung outwardly on their pivots;

Fig. 3 is a side elevation corresponding to Fig. 1;

Fig. 4 is a similar side elevation but with the keys all removed from the case and with one of the connecting members between the faces of the key case shown in vertical section.

Fig. 5 is a fragmentary sectional plan taken on the line 5—5 of Fig. 4 and showing the time indicating hands superimposed above the gear train controlling the positioning of the hands;

Fig. 6 is one-half plan view corresponding to Fig. 1 and one-half sectional plan view similar to Fig. 5, with the keys all shown in open position; and

Fig. 7 is an enlarged sectional view of the mechanism for setting the positions of the hands in the parking time reminder.

The case is formed of two identically-shaped pieces 10 and 11, made of sheet brass or other suitable material. Although the two pieces 10 and 11 are identical, as will be seen by comparing the front-face piece 10 of Fig. 1 with the rear-face piece 11 of Fig. 2, the two pieces are secured together in reverse position, that is to say, one of the pieces is inverted prior to being assembled in parallelism with the other, as will be apparent from Fig. 2. Each of these pieces is formed with rounded ends taperingly extended from a substantially circular central portion. The front-face piece 10 is provided with recesses 12 and 13 extending inwardly from opposite edges, and the rear-face piece 11 is likewise provided with the similar but oppositely-disposed recesses 14 and 15.

The two-face pieces 10 and 11 are spaced apart slightly more than the thickness of two keys and are detachably held in this relationship by screws 16, 16 threaded in the tubular stems of spacer posts 16', 16' which preferably are secured rigidly, by riveting or by other suitable manner to the rear-face piece 11 (see Fig. 4). The case when assembled is adapted to hold four keys, 17, 18, 19 and 20, two keys being carried on each post 16'. The posts 16' are of sufficiently small diameter to enable them to pass through the usual holes in the handles of the keys thus providing pivotal mountings for the keys. When the keys are to be attached to the case the screws 16 and front-face piece 10 are removed and the keys placed upon the posts 16'. Thereupon the front-face piece and screw 16 are replaced.

When placing the keys on the posts 16' each key is so arranged that, when swung into the closed position of Fig. 1, the plane edges of the keys will be outermost and the plane edge of each key will extend across the corresponding recess of the adjacent piece or member 10 or 11 so that each key will be separately accessible from one recess of the case. Thus, referring to Fig. 1, the slotted plane edge or stem of the keys 17 and 19 are accessible from the recesses 12 and 13 of the upper or face member 10 of the case, and, from the other side of the case (see Fig. 2), the keys 18 and 20 are accessible from the recesses 14 and 15, respectively of the other face member 11. To move the key 17, for example, in Fig. 1, into outward position for use it is necessary only to insert the thumb or forefinger in the recess 12 in order to contact the key and swing it out. In order to facilitate the selection of the keys

words designating the respective keys may be stamped on the key case members 10 and 11 adjacent the recesses in the manner shown in Figs. 1 and 2.

A piece of sheet metal 33, of the size approximately is illustrated in Fig. 5, with its ends bent substantially at right angles, is secured to the inner side of the front-face member 10 to serve as a partial housing and support for the gears of the parking time indicator. The ends of the piece 33 extend at right angles for a distance equal approximately to the thickness of an ordinary automobile key.

A circular dial 22 (Fig. 1), graduated like the face of a clock, is located on the outer side of the front-face member 20 concentric with the circular central portion of the member 10. A minute hand 23 and an hour hand 24 are adapted to be rotated on the outside of the dial 22 by the rotation of a central shaft 25 and sleeve 32 respectively. The manner in which these are rotated will be explained presently. The dial and hands are protected by a suitable transparent covering.

The central shaft 25 has one end extending through the front-face member 10 and the other end extending through the supporting housing 33. The latter end of the shaft 25 is square and a disc 27 and washer 34 are rigidly secured thereon (see Fig. 4 and 7). The minute hand 23 is attached to the opposite end of the shaft 25 outside the face member 10 and its dial. The disc 26 is slightly larger in diameter than the central portion of the case members 10 or 11 so that the peripheral edge of the disc 26 extends slightly beyond the edges of the members 10 and 11. The edge of the disc 26 may be serrated, as shown in Figs. 1 and 6, to afford a better grip for the fingers when manipulating the disc and the setting of the hands 23 and 24.

A pinion 27 (Fig. 7) is fixed on the shaft 25 on the inside of the supporting housing and meshes with a gear 28. The gear 28 and a pinion 30 secured thereto are carried on a shaft 29 supported in the housing and top-face member. Pinion 30 meshes with a gear 31 secured to the sleeve 32 rotatably-mounted on the central shaft 25. The hour hand 24 is secured to the other end of the sleeve 32 on the outside of the dial. Thus the turning of the disc 26 will cause the hands 23 and 24 to be rotated in the same manner and in the same relationship as with the hands of an ordinary clock. The friction of the gear train associated with the hands will prevent any inadvertent turning of the hands, but the setting of the hands to indicate the time of parking is easily done by turning the serrated disc 26.

The housing 33 (see Fig. 5) and the gear train contained therein are sufficiently small to permit space at both sides of the housing to accommodate the ends of two opposite keys respectively, and thus my entire key case can be made quite small and will still be large enough to accommodate four ordinary-sized automobile keys. The washer 34 (Figs. 2 and 4), secured to the outer face of the disc 26 and to the end of the shaft 25, is preferably of slightly less thickness than an ordinary key so that when the keys are inserted in position, as shown in Fig. 3, there will be a slight bowing of the rear-face piece 11 which, due to the resiliency of both face members 10 and 11 of the case, will cause sufficient frictional grip to be exerted to hold the keys in closed position while the key case is being carried in the pocket.

I claim:

1. A key case comprising a pair of plates, one of said plates formed with a substantially circular central portion, a pair of oppositely-arranged recesses, one on each side of said central portion, a dial on the outside face of said central portion, members holding said plates in spaced parallel relationship, said members provided with means at the end portions for pivotally attaching keys thereto with a portion of one key accessible through each recess, a housing attached to the inner face of said dial-carrying plate, a gear train in said housing, a pair of hands mounted on the outside of said dial and connected to said gear train, a disc connected to said gear train for moving said gear train and therewith said hands, said disc being of slightly larger diameter than the central portion of said dial-carrying plate.

2. A key case comprising a pair of identically-shaped plates, each plate formed with a substantially circular central portion and a pair of oppositely-arranged recesses, one on each side of said central portion, the recesses of one plate being disposed in reverse position with respect to the recesses of the other plate, members holding said plates in spaced parallel relationship, said members provided with means at the end portions for pivotally attaching keys thereto with a portion of one key accessible through each recess, a dial on the central portion of one of said plates, a housing attached to the other side of said dial-carrying plate, a gear train in said housing, a pair of hands mounted on the outside of said dial and connected to said gear train, a disc connected to said gear train for moving said gear train and therewith said hands, said disc being of slightly larger diameter than the central portion of said plates.

3. A device of the class described comprising a pair of plates, one of said plates formed with a substantially circular central portion, and a pair of oppositely-arranged recesses, one on each side of said central portion, a dial on the outside face of said central portion, members holding said plates in spaced parallel relationship, said members provided with means at the end portions for pivotally attaching keys thereto with a portion of one key accessible through each recess, a housing attached to the inner face of said dial-carrying plates, a gear train in said housing, a pair of hands mounted on the outside of said dial and connected to said gear train, a disc on the outside of said housing, connected to said gear train for moving said gear train and therewith said hands, said disc being of slightly larger diameter than the central portion of said dial-carrying plate, said housing being of smaller area than the central portion of said plate to permit the ends of a pair of keys to be inserted within the perimeter of said central portion at opposite sides of said housing.

4. A device of the class described comprising a pair of identically-shaped plates, each plate formed with a substantially circular central portion, narrower end portions, and a pair of oppositely-arranged recesses, one on each side of said central portion, the recesses of one plate being disposed in reverse position with respect to the recesses of the other plate, members holding said plates in spaced parallel relationship, said members provided with means at the end portions for pivotally attaching keys thereto with a por-

tion of one key accessible through each recess, a dial on the central portion of one of said plates, a housing attached to the other side of said dial-carrying plate, a gear train in said housing, a pair of hands mounted on the outside of said dial and connected to said gear train, a disc on the outside of said housing connected to said gear train for moving said gear train and therewith said hands and a washer on the other side of said disc, said disc being of slightly larger diameter than the central portion of said plates, said housing being of smaller area than the central portion of said plates to permit the ends of a pair of keys to be inserted within the perimeter of said central portion at opposite sides of said housing, said washer being of less thickness than an ordinary automobile key and said housing being of approximately the same thickness as an automobile key.

5. A key case comprising a pair of identically-shaped plates, each plate formed with a central portion and smaller, oppositely-extended, end portions, each plate having a pair of recesses, one on each side of said central portion, said recesses oppositely-arranged, members holding said plates in spaced parallel relationship, the plates arranged so that the recesses in one plate will be disposed in reverse position with respect to the recesses of the other plate, said members provided with means at the end portions for pivotally attaching keys thereto with a portion of one key accessible through each recess, whereby said case will have four separate recesses no two of which will be in registration with each other, one of said plates being removable from said members, a dial on the outer face of the central portion of one plate, hands mounted on the outside of said dial, and means, including gears, on the inside of said latter-mentioned plate for positioning said hands.

JAMES HICKEY.