June 25, 1968 YOSHIKO ISHIKAWA 3,389,710

COIN HOLDER

Filed Nov. 23, 1966

FIG. 1

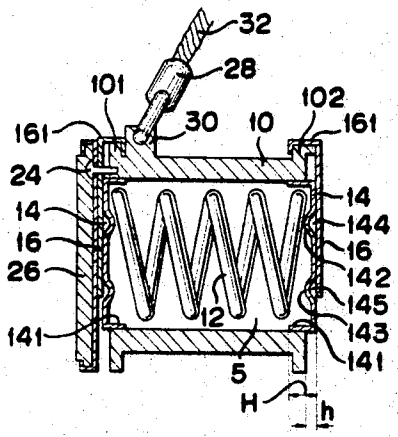


FIG. 3

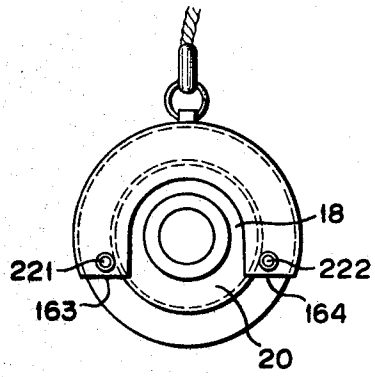


FIG. 2

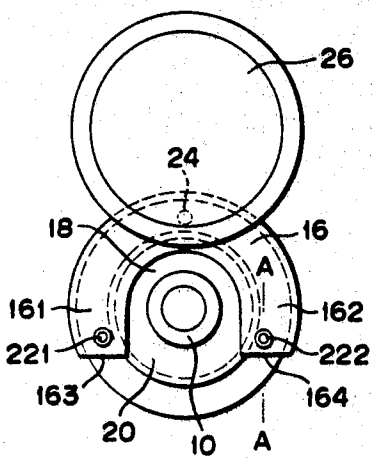


FIG. 4

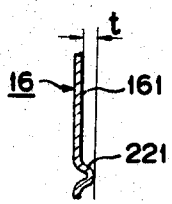
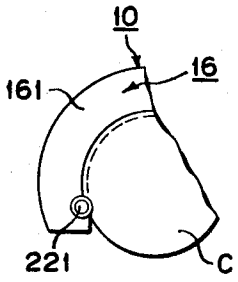


FIG. 5



United States Patent Office 3,389,710 Patented June 25, 1968

3,389,710

COIN HOLDER

Yoshiko Ishikawa, 26 Umayabashi 3-chome, Sumida-ku, Tokyo, Japan

Filed Nov. 23, 1966, Ser. No. 596,597
1 Claim. (Cl. 133—6)

ABSTRACT OF THE DISCLOSURE

A suspendible coin holder in the form of a tubular casing having a coin receiving plate slidable in each end and a coin guide element fixed on each end, a coil spring in the casing biasing each plate against its adjacent guide element, boss elements on the plate to align the coil spring on the guide element to prevent accidental coin removal, and a pivoted cover on one end of the casing to cover the adjacent guide element.

This invention is related to a coin holder, more particularly to an improved pendant type coin holder suspendible from a key holder and the like.

In everyday life, it is frequently necessary to make payment in small coins, and it is sometimes troublesome to take coins out of a coin holder kept in a pocket, especially when one makes payment while driving a car, for instance paying fees for the use of a toll road. To facilitate handling of coins in such cases, there have been used pendant type coin holders suspendible from a key holder and the like. In conventional coin holders, an outlet opening for coins is provided at the top end of the holder, and in order to take coins out of such holders, it is necessary to grasp the holder itself with one hand and to push coins upwards with the other hand. If one tries to do both the grasping and pushing with one hand, coins are apt to be slipped out of the hand. Thus, it is difficult for a driver to take out coins with one hand while holding a steering wheel with the other hand in the case of conventional coin holders.

Therefore, it is a principal object of the invention to obviate completely the aforementioned difficulties by providing an improved pendant type coin holder in which both insertion and removal of coins can be handled with only one hand.

Another object of the invention is to provide a pendant type coin holder having a decorative lid provided with a suitable design to make it a part of interior ornament of an automobile.

The foregoing and other objects and advantages will appear from the following description of the preferred embodiment of the present invention that is shown in the accompanying drawings, in which:

FIG. 1 is a side view of a coin holder according to the present invention, shown in longitudinal section except a spring thereof;

FIG. 2 is a front view of the coin holder of FIG. 1, shown with its decorative lid turned upwards;

FIG. 3 is a rear view of the same;

FIG. 4 is a partial sectional view taken along the line A—A of FIG. 2; and

FIG. 5 is a diagrammatic illustration of the relation between a coin and a coin guide plate, a portion thereof being broken away.

In FIG. 1, a tubular casing **10** is made of synthetic resins or metal, and each end thereof is flanged as shown by **101** and **102**. A coiled spring **12** is placed in the inside space of the casing **10**. A pair of coin receiving plates **14** having peripheral edges **141** slidably fitted into the inside surface of the tubular casing **10** are disposed at both ends of the coiled spring **12** so as to be biased towards the ends of the casing respectively.

The coin receiving plates **14** can be flat disks. In a preferred embodiment shown in the drawing, there are a plurality of small bosses **142** and **143** formed on the coin receiving plates **14** so as to project toward the inside of the casing while providing recesses **144** and **145** on the outer surface of each plate **14**. With such small bosses, the mechanical strength of the plates **14** is improved, and at the same time end portions of the spring **12** can be held by the projections of the bosses to prevent undesirable playing of the spring in the casing. Moreover, the recesses **144** and **145** act to give additional frictional resistance against movement of coins on the plates **14** to prevent slipping out of the same.

The height H (FIG. 1) of the peripheral edge **141** of the coin receiving plate **14** should be somewhat larger than a distance *h* between the end surface of the casing and a coin guide plate **16** to be described hereinafter.

The spring **12** is shown as a coiled spring having a uniform diameter in FIG. 1, but it is not restricted to such a coiled spring. For instance, the spring **12** can be formed in a conical shape with the following advantage. When a conical coil spring in the casing is contracted by inserting coins, each loop of the coil spring except the large end loop can be fitted in the adjacent loop having a larger diameter, thereby the space taken by the contracted spring is reduced and the available space for coins can be increased to receive a greater number of coins.

In order to keep coins urged against the coin receiving plate **14** by the elastic force of the spring **12**, each of a pair of coin guide plates **16** is secured to each end of the casing **10** with a spacing *h* between the end surface of the casing **10** and the guide plate **16**, as illustrated in FIG. 1. The spacing *h* should be large enough to allow passage of coins therethrough. The guide plates **16** can be made of resins or metals, and one of the two plates can be formed as an integral part of the casing **10** with the same material by a single process.

As shown in FIGS. 2 and 3, an opening **18** having a diameter smaller than that of the smallest coin to be held therein is formed at the central portion of each coin guide plate **16**. Each coin guide plate **16** is substantially horseshoe shaped and both side sleeve portions **161**, **162** are extended vertically downwards to form an open passageway **20** at the lower end thereof. Just above the lower edges **163** and **164** of the sleeve portions **161** and **162**, there are formed bosses **221** and **222** extending inwardly by a small height *t*, as best shown in FIG. 4.

A pivot pin **24** having a head thereof embedded in a lid **26**, projects through the coin guide plate **16** and is secured to the casing **10**. Thus, the lid **26** can be turned around the pivot pin **24**, and a suitable design (not shown) can be applied to the lid to make it decorative. In this particular embodiment shown in the drawing, only one lid is provided, but it is permissible to mount a pair of lids to the casing **10** to cover both ends thereof, if so desired.

A link connector **30** is formed as an integral part of the casing **10** to receive a link **28** secured to one end of a string or a chain **32**, whose opposite end is connected in turn to a supporting means, such as a key holder.

When the coin holder of the present invention is suspended by means of a string or chain **32** through a suspending means, such as a link **28**, the outlet opening of the coin holder is oriented vertically downwards, thereby coins can be removed out of the coin holder by only one hand while coin holder remains suspended from a suitable supporting means, such as a key holder. Thus, a driver can get coins from the coin holder of the present invention without interrupting his steering action.

The possibility of coins slipping out of the coin holder through the vertical downward opening thereof in the case of heavy vibration, such as vibration of an auto-

mobile, is eliminated completely according to the present invention. Referring to FIG. 5, when a coin C is held by the coin holder, the major part of the coin is positioned above the small bosses **221**, **222** or the coin is completely urged into the inside of the casing **10**. A coin held above the bosses **221**, **222** may be lowered by heavy vibrations until its lower end engages the bosses **221**, **222**, but due to the fact that the distance between the two bosses is selected to be smaller than the diameter of the smallest coin to be held by the coin holder, further lowering of the coin is effectively prevented by the above engagement of the coin and the bosses against any conceivable vibration.

Although the invention has been described with reference to a particular embodiment illustrated in the accompanying drawings, it is understood that the present disclosure has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be made by those skilled in the art without departing from the spirit and scope of the invention.

For instance, in the illustrated embodiment of the invention, only one spring is used, but it is permissible to use a pair of springs by dividing the inside of the casing into two compartments so as to receive a spring in each compartment.

Furthermore, in this particular embodiment, two openings are provided in the coin holder to allow coin passage therethrough, but it is apparently possible to form only one such opening and close one end of the casing completely.

What I claim is:

1. A suspendible coin holder comprising

a tubular casing having an exterior flange on each end,

a pair of horseshoe shaped coin guide elements, one for each end of said casing and being secured to the flange thereon,

a suspending link on said casing adjacent one end whereby the other end of said casing is oriented downwardly,

a pair of coin receiving plates, one in each end of said casing, each plate having peripheral flanges fitting inside said casing and being slidably disposed therein,

a plurality of bosses on each plate defining projections on one surface and recesses on an opposite surface,

the projections on each plate extending toward the projections on the other plate,

a coil spring mounted in compression between said plates and having end portions disposed between the projections and peripheral flange of the adjacent plate to maintain alignment of the coil spring, said coil spring biasing each plate toward its adjacent coin guide element,

the recesses on each plate being spaced from each other and adapted to enhance frictional resistance against coin movement,

a plurality of spaced boss members on end portions of each guide element whereby a coin inserted between one guide element and an adjacent plate is prevented from removal without first depressing it against the bias of said coil spring, and

a cover member pivotally mounted on said casing adjacent one end to overlie the guide element on such one end.

References Cited

UNITED STATES PATENTS

481,523	8/1892	Brown	133—6
862,984	8/1907	Marsh	133—6
1,021,407	3/1912	Harbough	133—6
2,539,648	1/1951	Wink	133—6
2,879,122	3/1959	Maves	133—6
2,960,259	11/1960	Aventi	133—5

FOREIGN PATENTS

3,558	2/1895	Great Britain.
25,337	11/1913	Great Britain.

WALTER SOBIN, *Primary Examiner.*