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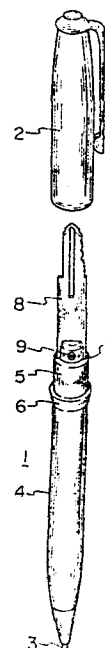
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⑤④ **Writing instrument with spare key.**

⑤⑦ A writing instrument such as a ball-point pen (1) has a barrell (4), a rotatable tube (5) coupled therewith, and a cap (2) detachably mounted on the rotatable tube. A spare key (8) has an end pivotally connected to the rotatable tube. The spare key is fully accommodated in the cap when the cap is mounted on the rotatable tube.



EP 0 170 762 A1

TITLE OF THE INVENTION

WRITING INSTRUMENT WITH SPARE KEY

BACKGROUND OF THE INVENTION

The present invention relates to a combination of a spare key and a writing instrument.

Many people feel concern about how a spare key should be carried and kept. It is quite likely that spare keys are called for suddenly on unexpected opportunities. For example, a driver may lock the doors of his or her car from outside while the ignition key is still in the ignition switch. The occupant of an apartment may leave the apartment and lock the door without taking the door key with him or her.

Although people are in need of spare keys in such occasions, they forget to carry the spare key more often than not. When they are locked out without a spare key, they feel quite embarrassed, putting themselves in trouble or sending for a key expert to unlock the door, which will cost them an unexpected amount of money.

Since the spare key is a spare, it is not required usually, and the user tends to forget its whereabouts. The spare key may be coupled with its original key, or may be kept in an inconvenient place. On the other hand, the user may carry the spare key at all times. However, since the spare key is made of metal, it will produce noise upon contact with other objects, and give the user a pain when it hits the user's body. The spare key is relatively large

in a user's pocket or pouch, and can easily be dropped out of the pocket or pouch. For the reasons set forth above, the spare key is quite awkward to handle.

SUMMARY OF THE INVENTION

The present invention has been achieved as a result of efforts to eliminate the above drawbacks experienced when a spare key is carried by a user at all times.

It is an object of the present invention to provide a writing instrument with a spare key coupled thereto, the spare key being normally contained fully within a cap of the writing instrument so that the spare key can be carried at all times.

According to the present invention, a writing instrument such as a ball-point pen has a barrel, a rotatable tube or support member coupled therewith, and a cap detachably mounted on the rotatable tube. A spare key has an end pivotally connected to the rotatable tube. The spare key is fully accommodated in the cap when the cap is mounted on the rotatable tube.

The above and other objects, features and advantages of the present invention will become more apparent from the following description when taken in conjunction with the accompanying drawings in which a preferred embodiment of the present invention is shown by way of illustrative example.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a writing instrument

combined with a spare key, with a cap removed;

FIG. 2 is a fragmentary longitudinal cross-sectional view of the writing instrument; and

FIG. 3 is a perspective view of the writing instrument with the spare key positioned for use.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIGS. 1 through 3 are illustrative of an embodiment of the present invention, the principles thereof being applied to a ball-point pen 1 of the type in which a point 3 can be projected from a tip end of a barrel 4 by turning a cap 2.

A rotatable tube or support member 5 has a central conical flange 6 projecting from a central portion thereof. The rotatable tube 5 has a portion extending from the flange 6 toward the tip end of the barrel 4 and having an outside diameter selected such that the proximal portion of the barrel 4 is securely fitted over that portion of the rotatable tube 5. The rotatable tube 5 has a portion extending from the flange 6 away from the tip end of the barrel 4 and having an outside diameter selected such that it can be securely fitted in an end of the cap 2.

As shown in FIG. 2, the rotatable tube 5 has a nontubular end remote from the flange 6 and having a central deep groove 7 in which a proximal end of a spare key 8 is pivotally fitted and detachably fastened by a screw 9.

The cap 2 has a cavity 10 defined therein when the

cap 2 is fitted over the rotatable tube 5 until the cap 2 abuts against the flange 6 on the tube 5. The spare key 8 projecting from the end of the tube 5 should have a length and a width such that the spare key 8 will not contact the bottom and inner peripheral surface of the cap 2.

The hole in the end of the tube 5 through which the screw 9 extends is countersunk so that the head of the screw 9 will not project into engagement with the inner peripheral surface of the cap 2. As illustrated in FIG. 3, one corner of the pivoted proximal end of the spare key 8 is beveled at 11, so that the spare key 8 can be tilted only in the direction in which the beveled corner 11 will clear the groove 7. With the spare key 8 thus angularly turned, as shown in FIG. 3, a large torque can be given to the spare key 8 when it is to be turned in a lock by gripping the barrel 4.

Designated at 12 in FIG. 2 is an inner barrel extending in the barrel 4.

With the arrangement of the invention, a writing instrument such as a ball-point pen, a refillable lead pencil, or a fountain pen, which people carry for ready use in clothes and bags, is combined with a spare key which has not been carried within ready reach and which is called for suddenly. Therefore, the spare key can function highly effectively as a spare.

Since the spare key is normally concealed fully within the cap of the writing instrument, the troubles and

shortcomings which the spare key has conventionally caused are eliminated.

It is important according to the present invention that the writing instrument be equipped with a cap. However, the cap may be of any construction provided it defines a required cavity therein at the time it is attached to the barrel of the writing instrument.

The spare key may be a spare of an ignition key to an automobile door, a spare of a key to an apartment door, an original key to a safe or locker which the user does not usually want somebody else to know its whereabouts, or a spare of such an original key. However, the overall shape of a key to be accommodated in the cap may be restricted by the shape and the type of the writing instrument with which the key is combined, and the shape of the cap of the writing instrument.

Although a certain preferred embodiment has been shown and described, it should be understood that many changes and modifications may be made therein without departing from the scope of the appended claims.

What is claimed is:

1. A writing instrument and spare key combination comprising:

(a) a writing instrument having a barrel, a support member coupled therewith, and a cap detachably mounted on said support member; and

(b) a spare key having an end pivotally connected to said support member, said spare key being fully accommodated in said cap when the cap is mounted on said support member.

2. A writing instrument and spare key combination according to claim 1, including a screw by which said end of the spare key is pivotally attached to said support member.

3. A writing instrument and spare key combination according to claim 1, wherein said support member has a groove defined therein, said end of the spare key being fitted in said groove.

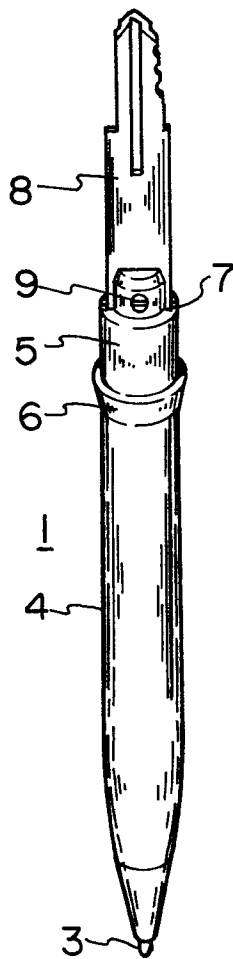
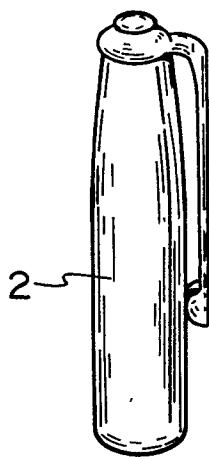


FIG. 1

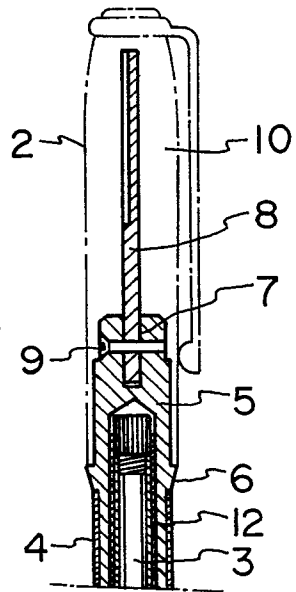


FIG. 2

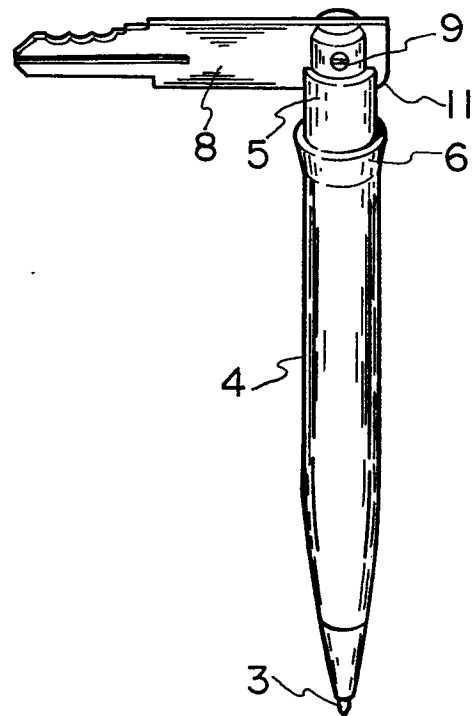


FIG. 3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
Y	US-A-3 618 518 (RIGONI) * Column 2, line 73 - column 3, line 59 *	1-3	B 43 K 29/00 E 05 B 19/00
Y	--- US-A-2 069 317 (LIPIC) * Page 1, column 1, line 51 - page 2, column 1, line 16 *	1-3	
A	--- CH-A- 258 239 (GUT) * Page 2, lines 34-41 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			B 43 K E 05 B A 44 B A 45 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29-10-1985	Examiner VAN OORSCHOT J.W.M.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	