Holding device for a cordless telephone

The invention relates to a holding device for a cordless telephone in accordance with the preamble of Claim 1. A holding device, where the telephone is provided with a hook-element projecting from its casing, which is quasi-insertable into a corresponding projection of a belt, is known. The hook-element is considered to be undesirable not merely for aesthetic reasons. It also impedes the handling of the telephone in respect of both handling by the user and in a charging-station compared with a cord-connected base-unit. Furthermore, hanging up the telephone necessitates a certain skill and without visual-contact can be effected only with difficulty.

It is the object of the invention to remove the disadvantages noted above and to declare a holding device which distinguishes itself with agreeable aesthetics and trouble-free handling.

The object is achieved in accordance with the invention by the characterising features of Claim 1. The telephone - portable phone or mobile-part of a conventional telephone - is only provided with an opening in the housing, which grips a hook, especially a belt-hook, and permits a secure attachment of the telephone. Projecting parts, which interfere with handling or a fixed installation, are not necessary. The casing-surface of the telephone is almost smooth and consequently also corresponds to the usual aesthetic ideas.

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In accordance with Claim 2, the hook, which projects negligibly into the inside of the telephone, additionally serves to switch the telephone on and off. For this, the hook can operate a switch-element directly or can act on the switch-element indirectly by way of further movable parts.

In order to signal the locking, by which the telephone is held securely to, for example, the belt, acoustic and/or mechanical indicators can be provided in accordance with Claim 3. For example, a type of latching mechanism can be provided, which signals the locking through an audible stop or a perceptible latching resistance.

The opening in the housing of the telephone is preferably formed as a slot with an enlarged end area in accordance with Claim 4. In this way the opening in the housing can be comfortably placed over the hook, so that even a "blind" suspension and latching is possible.

The opening in the housing can be closed from the inside by means of a spring closure in accordance with Claim 5. By this means, a secure protection against possible contamination of the internally located components of the telephone is achieved. The spring closure is pressed inwards when hanging on the hook and again effects a seal against the inner edges of the opening in the housing when the telephone is removed.

An especially good contamination-protection is produced through the features of Claim 6. The membrane guarantees that, even in the suspended condition, there is no opening-area into the interior of the telephone. For this, the membrane is attached in the latching area at a suitable distance from the edge of the opening. In this way, sufficient freedom of movement is given for the top of the hook to penetrate into the latching position.

In accordance with one advantage embodiment characterized in Claim 7, the spring closure is formed as a leaf-spring. The leaf-spring, that is depressed with its free end into the interior of the telephone when hanging

up the telephone, can simultaneously function with this free end as a switch for turning the telephone on and off in accordance with Claim 2.

In accordance with Claim 8, the spring closure is formed as a spring-operated mechanical shutter. The shutter can be formed as a flap or cover and be pressed into its closed position by a screw-spring or a leaf-spring.

The invention is explained in more detail below by means of an embodiment shown in the drawing. This shows:

Figure 1 a telephone and an associated belt-buckle and
Figure 2 a diagrammatic cross-section through the holding elements in the secured condition.

Figure 1 shows the invention-relevant components of a mobile phone 1 which is to be attached to a belt-buckle 2. The belt-buckle 2 is provided with first holding elements 3, which comprise a projecting hook 4. The first holding elements 3 of the belt-buckle 2 are assigned to second holding elements 5 of the portable phone 1. The second holding elements 5 are essentially formed as an opening in the housing 6 which can accommodate hook 4 with the portable phone 1 in the horizontal position. For this, the opening in the housing 6 is designed as a slot with a widened end area 7. After insertion, the portable phone 1 can be rotated into the vertical position to lock it. Removal of the portable phone 1 from the belt-buckle 2 takes place in the reverse sequence.

The bolted position is illustrated in Figure 2 in a cutaway diagram. It can be seen that the hook 4 presses a spring closure 8 into the interior of the portable phone 1. In the unlocked condition the spring closure 8 lies flat tightly against the inner edges of the opening in the housing 6, as a result of which these are protected against the effects of dirt and liquids. Besides the protective function, the spring closure 8 can also effect a switching function, with which a switch lever 9 is operated in the locked condition, which additionally turns off the portable phone 1. Switching on of the

portable phone 1 is effected with the unlocking, by means of which the spring closure 8 of the switch lever 9 is uncoupled.

The invention is not restricted to the foregoing exemplary embodiment. Rather a number of variations is possible, which also make use of the characteristics of the invention even with fundamentally different implementations of the application.

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Claims

1. Holding device for a cordless telephone with a first holding element (3) on a garment, especially a belt, and a second holding element (5) on the telephone, characterised in that the first holding element (3) comprises a projecting hook (4) and the second holding element (5) comprises an opening (6) in the housing for the lockable receipt of the hook (4).

2. Holding device in accordance with claim 1, characterised in that the first and the second holding elements (3 and 5) cooperate as an ON/OFF switch for the telephone, where the hook (4) operates a switch-element in the area of the opening (6) in the housing.

3. Holding device in accordance with one of the foregoing claims, characterised in that the first and/or the second holding element (3 and/or 5) comprise(s) means for the acoustic and/or mechanical signalling that locking has been effected.

4. Holding device in accordance with one of the foregoing claims, characterised in that the opening (6) in the housing is shaped as a slot with a widened end area (7).

5. Holding device in accordance with one of the foregoing claims, characterised in that the opening (6) in the housing is provided with a spring closure (8) supported on one of its inner edges.

6. Holding device in accordance with claim 5, characterised in that the spring closure (8) is formed as an elastic membrane.

7. Holding device in accordance with claim 5, characterised in that the spring closure (8) is formed as a leaf-spring.

8. Holding device in accordance with claim 5, characterised in that the spring closure (8) is in the form of a spring-operated mechanical closure.