

DOOR HANDLE DEVICE**FIELD OF INVENTION**

5 The present invention relates to a door handle assembly that is intended to be fitted onto a square-section bar that coacts with a lock mechanism, and more specifically to a door handle assembly of the kind defined in the preamble of Claim 1.

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DESCRIPTION OF THE BACKGROUND ART

Many different types of door handle assemblies that are intended for coaction with a lock mechanism in a lock housing through the medium of a square-section bar are known to the art. In many cases, it is not possible to interchange between commercially available door handles, among other things because of the orientation of the square-section bar in its initial, inactive position, i.e. when not subjected to a rotational force. Thus, the choice of handle assembly, or unit, is greatly limited when wishing to change the door handle of a lock mechanism accommodated in a door lock housing.

25 This constitutes a serious drawback, not least because the purposeful and aesthetic design of door handles has become increasingly more dominant. It places the consumer at a serious disadvantage when he/she is forced to replace a fully serviceable lock housing and lock mechanism simply in order to replace a door handle.

OBJECTS OF THE INVENTION

Accordingly, one object of the present invention is to provide a door handle assembly that can be adapted for use

be constructed in different ways. For instance, the lock washer may be provided with outwardly projecting tongues instead of notches, and the spring holder provided with notches that coact with said tongues.

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It is preferred in practice that the lock washer includes a larger number of coacting members than the spring holder. The lock washer - which includes a central opening for accommodating the square-section bar - can therewith be set to
10 several different positions in accordance with existing circumstances and coact correctly with the spring holder irrespective of its set position. The invention also includes the possibility of turning, or reversing, the lock washer and therewith increase the number of possible washer positions.

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In the case of an embodiment preferred in practice, the lock washer includes twelve notches disposed around the circumference of the washer at an angular spacing of 30°.

20 The spring holder may therewith include four axially projecting tongues, preferably disposed at an angular spacing of 90°.

This enables an inventive handle assembly to be adapted for
25 coaction with the majority of commercially available lock mechanisms, particularly in view of the possibility of turning around, or reversing, the lock washer.

In one preferred embodiment of the invention, the hole in the
30 lock washer for receiving the square-section bar is configured to enable the bar to be accommodated in at least five, preferably eight or more different positions of rotation.

is rotatably mounted in a rosette 4 that includes a stop 4a for one end-part 8a of a coil spring or torsion spring 8.

Although not shown, the rosette 4 includes holes 6 for receiving screws that are passed through a lock mechanism (not shown) and screwed into a similar rosette on the other side of a door (not shown) for which the handle assembly is intended.

10 The other end 8b of the spring 8 is adapted for coaction with an outwardly bent projection 9a on a spring holder 9, which also includes a number of tongues 9b that project out axially in a direction opposite to the direction of the projection 9a.

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The tongues 9b can be inserted selectively into corresponding notches 12a disposed circumferentially around a lock washer 12 that includes a central hole 13 whose profile or configuration corresponds to the square-section bar 14.

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When fitting the door handle assembly, the spring holder 9 and the lock washer 12 are rotated relative to one another and relative to other assembly components in a manner to guarantee satisfactory function of the door handle irrespective of the orientation of the square-section bar 14 and the holes 6.

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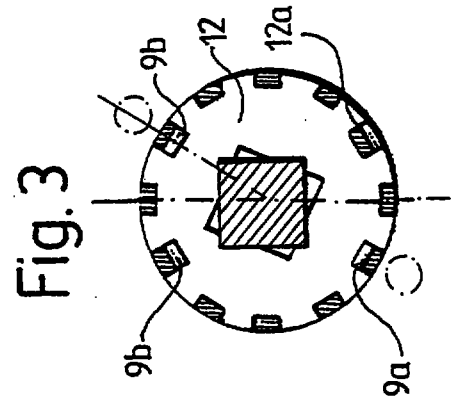
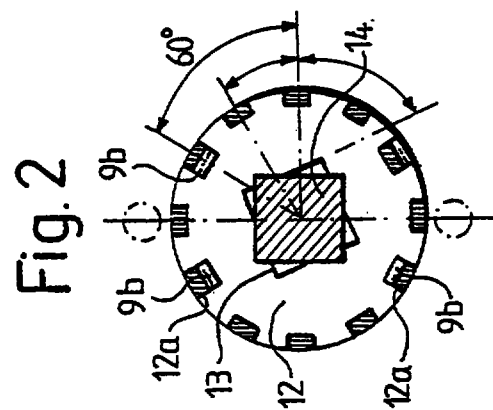
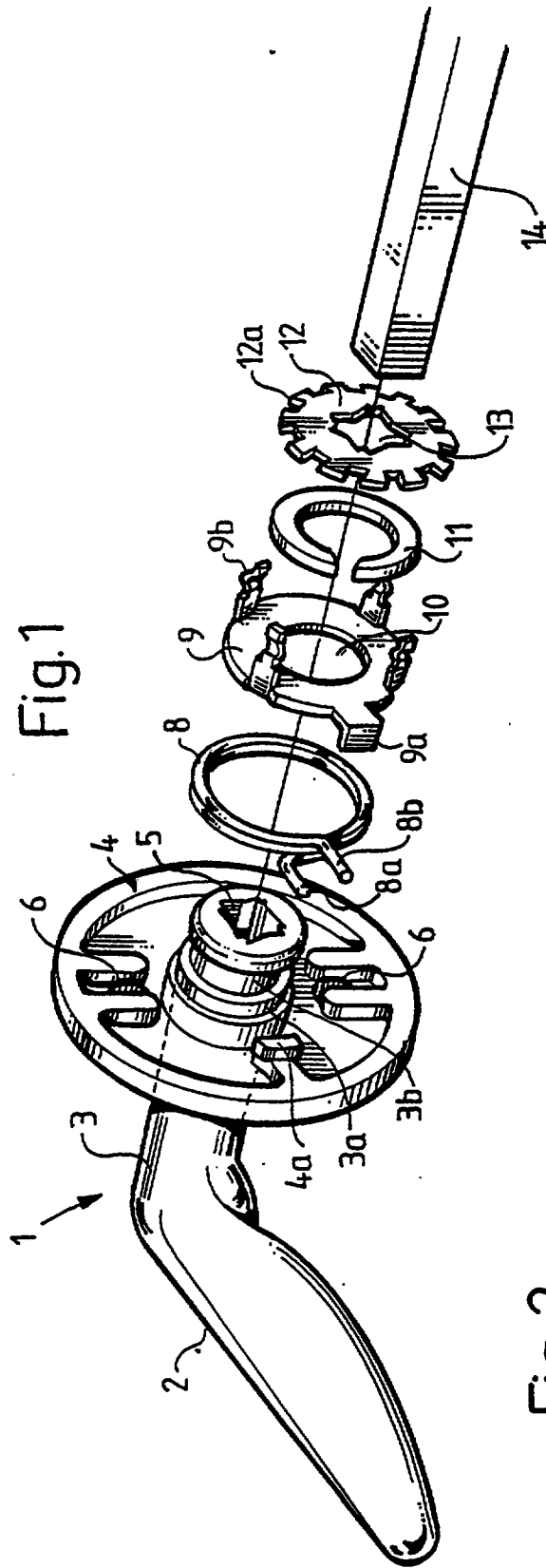
A door handle is changed by releasing the various components from the bar 14 and rotating the lock washer 12 and the spring holder 9 in an appropriate way for renewed engagement of the tongues 9b in the notches 12a and, at the same time, adapting the assembly to the stop element 4a and the spring 8 of the new rosette.

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CLAIMS

1. A door handle assembly that can be fitted to a square-section bar which coacts with a lock mechanisms, wherein the assembly includes
- 5 a) a door mountable rosette (4) in which a square-section bar (14) is rotatably mounted, said bar being received in a blind hole (5) provided in the shaft (3) of a door handle (1);
- b) a coil spring or torsion spring (8) which surrounds the shaft (3) and functions to return the handle to its starting position subsequent to turning the handle;
- 10 c) a spring holder (9) which is fitted on the shaft (3) and rotatable in relation to the rosette (4) together with said shaft;
- 15 d) first and second outwardly bent spring end-parts (8a, 8b) for coaction with stop elements (4a, 9a) on the rosette (4) and the spring holder (9) respectively; and
- e) a lock washer (12) having a central hole (13) adapted to receive the square-section bar;
- 20 said assembly being **characterized** in that the lock washer (12) includes a plurality of circumferentially disposed first members, e.g. notches (12a), which coact with a plurality of second members, e.g. outwardly projecting tongues (9b), around the circumference of the spring holder, for releasable
- 25 application of the spring holder in desired positions of rotation relative to the square-section bar (14).
2. An assembly according to Claim 1, **characterized** in that said number of members disposed on the lock washer (12) is
- 30 greater than the said number of members (12a) disposed on the spring holder.
3. An assembly according to Claim 2, **characterized** in that the lock washer (12) includes twelve notches (12a) disposed
- 35 mutually at an angle of 30° around said circumference.

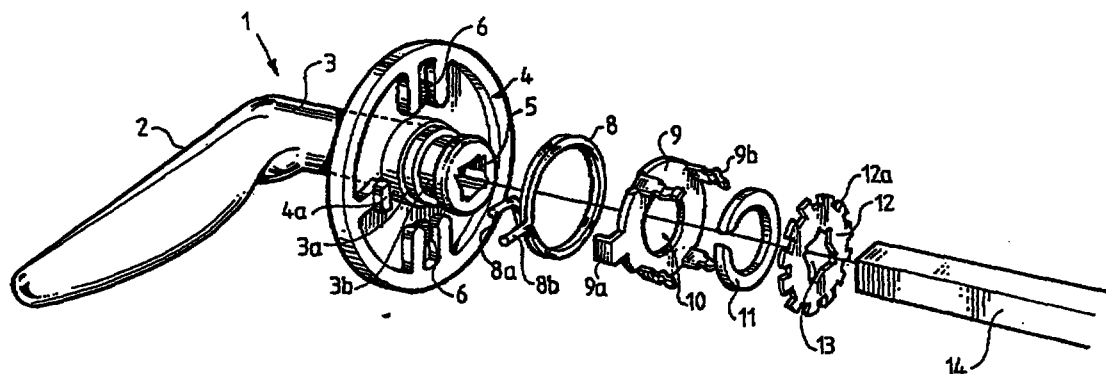






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(54) Title: **DOOR HANDLE DEVICE**

(57) Abstract

A door handle assembly (1) includes a handle (2), a shaft (3) and a rosette (4). The assembly is constructed in a manner which enables it to be fitted to a square-section bar (14) of different commercially available lock mechanisms. To this end, the assembly includes a coil spring (8), a spring holder (9), a lock washer (12) having first members, e.g. tongues (9b), which coact with second members, e.g. notches (12a), on the periphery of the spring holder, such as to enable the lock washer and the spring holder to be removably joined together in different positions of rotation. The hole (13) in the lock washer (12) and the blind hole (5) that receives the square-section bar (14) in the shaft (3) are configured so as to enable the square-section bar to be received in any one of at least eight different positions of rotation, therewith enhancing the possibility of using the door handle assembly effectively with different commercially available lock mechanisms.