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(54) **Device for unlocking a locking element.**

(57) Device for unlocking a bolt, in which this bolt is provided with a sliding bar or sliding pin (1), one end of which in the locked position has been introduced into a recess (2), and in which this device is provided with a holding magnet (3) by means of which an armature (4) may be held in a rest position, and which armature is connected to a striking element (5) that co-operates with a projection (6) mounted onto or connected to the sliding bar or sliding pin, and in which the striking element in the rest position is spaced from the projection, such, that when the excitation of the magnet ceases to exist, the striking element is moved by weight (7) or spring force with a blow against the projection (6), thereby knocking the sliding bar or sliding pin (1) out of the co-operating recess.

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DEVICE FOR UNLOCKING A BOLT.

The invention relates to a device for unlocking a bolt, more in particular of a door, whereby the bolt is provided with a sliding bar or sliding pin, of which one end in the locked position has been introduced into a recess, more in particular arranged in a door frame or door sill.

Such an unlocking device is known.

With this known device the unlocking of the bolt, more in particular of a door, takes place by manually operating a handle. With such an unlocking device it often happens that the end of the sliding bar or sliding pin becomes fixed or jammed in the locked position in the recess, more in particular the door frame or door sill, which may be caused by the unlocking device not being operated for a long period of time together with the formation of rust or dust in the recess.

This has the drawback, that the bolt may not be unlocked or only with much difficulty, which can lead to a dangerous situation, for instance in case of a panic situation, in which the bolt has to be unlocked quickly.

With the known unlocking device it is further considered a drawback, that in a panic situation the crowd will try to open the bolt while at the same time pushing against it, thus causing the sliding bar or sliding pin to become jammed in the recess.

It is an object of the invention to obviate these drawbacks.

The unlocking device according to the invention thereto is characterized, in that this device is provided with a holding magnet by means of which an armature is coupled to a striking element that co-operates with a projection mounted onto or connected to the sliding bar or sliding pin, and whereby the striking element in the rest position is spaced from the projection such, that when the excitation of the magnet ceases to exist, the striking element is moved under weight or spring force with a blow against the projection, thereby knocking the sliding bar or sliding pin out of its co-operating recess.

In this way a force is used for unlocking the bolt, which is sufficient to move a sliding bar or sliding pin from out of the recess, more in particular out of the door frame or door sill, wherein it has become fixed or jammed as a result of the formation of dust or rust together with non-use of the unlocking device during a long period of time, without it being necessary to use man power or much energy to achieve this unlocking.

Because the operation of the unlocking device for a bolt according to the invention requires little effort for loosening the sliding bar or sliding pin out of the recess, the invention provides a greater

safety for the public, that in a panic situation will have to be able to open quickly the closing element through which it wants to move.

According to a further feature of the device according to the invention it is characterized in that the armature and the striking element are mounted onto a hinged lever, whereby this hinged lever supports the armature on the one end and the striking element on the other end.

Further the unlocking device according to the invention is characterized in that a weight and/or a spring is mounted underneath the armature.

The invention will be illustrated with reference to the accompanying drawing of an example of an embodiment of the invention.

As is shown schematically in the drawing, the end of the sliding bar or sliding pin 1 finds itself in the locked position of the bolt within the recess 2.

The unlocking device is provided with a holding magnet 3.

During the excitation of this holding magnet the armature 4 and the weight 7 are held up.

When the excitation of the holding magnet 3 ceases to exist, the striking element 5 is moved under weight by way of the hinging movement around the hinge point 9 of the lever 8 with a blow against the projection 6, thereby knocking the sliding bar or sliding pin out of the co-operating recess.

Claims

1. Device for unlocking a bolt, more in particular of a door, in which this bolt is provided with a sliding bar or sliding pin, one end of which in the locked position has been introduced into a recess, more in particular in a door frame or sill, characterized in that this device is provided with a holding magnet by means of which an armature may be held in a rest position, and which armature is connected to a striking element that co-operates with a projection mounted onto or connected to the sliding bar or sliding pin, and in which the striking element in the rest position is spaced from the projection, such, that when the excitation of the magnet ceases to exist, the striking element is moved by weight or spring force with a blow against the projection, thereby knocking the sliding bar or sliding pin out of the co-operating recess.

2. Device according to claim 1, characterized in that the armature and the striking element are mounted onto a hinged lever.

3. Device according to claim 2, characterized in that the hinged lever supports the armature on the

one end and the striking element on the other end.

4. Device according to claim 2 or 3, characterized in that a weight and/or a spring is mounted underneath the armature.

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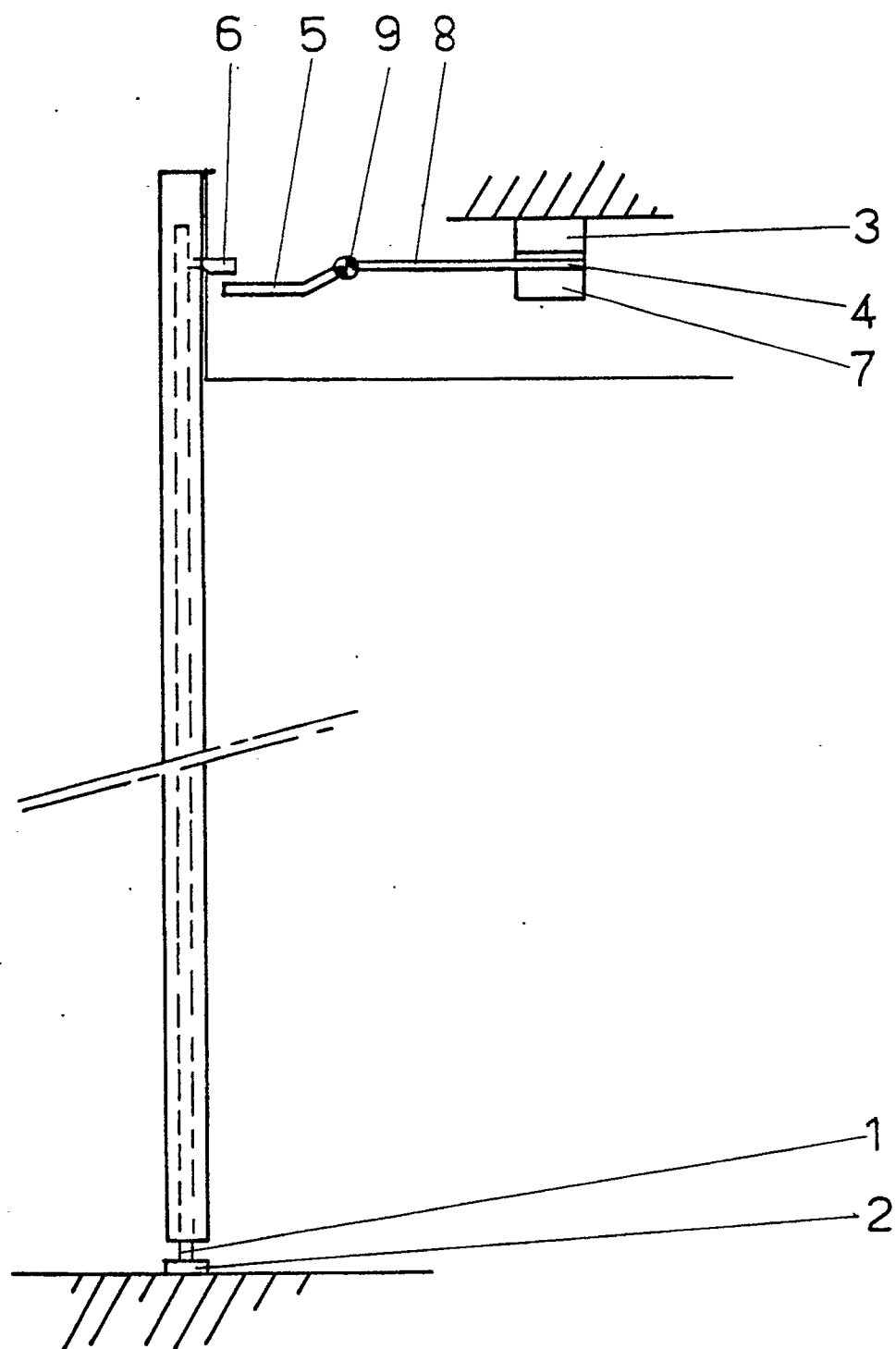
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EUROPEAN SEARCH REPORT

Application Number

EP 90 20 2680

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.5)
A	FR-A-2 294 302 (TELEKONTROLL) -- --		E 05 B 47/06
A	FR-A-2 126 809 (ZANUSSI) -- -- -- --		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			E 05 B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 15 January 91	Examiner VAN BOGAERT J.A.M.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			