

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 508 284 A1

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: **92105578.6**

(51) Int. Cl.⁵: **A47G 21/14**

(22) Date of filing: **01.04.92**

(30) Priority: **02.04.91 IT PN910009 U**

(43) Date of publication of application:
14.10.92 Bulletin 92/42

(84) Designated Contracting States:
AT CH DE GB LI SE

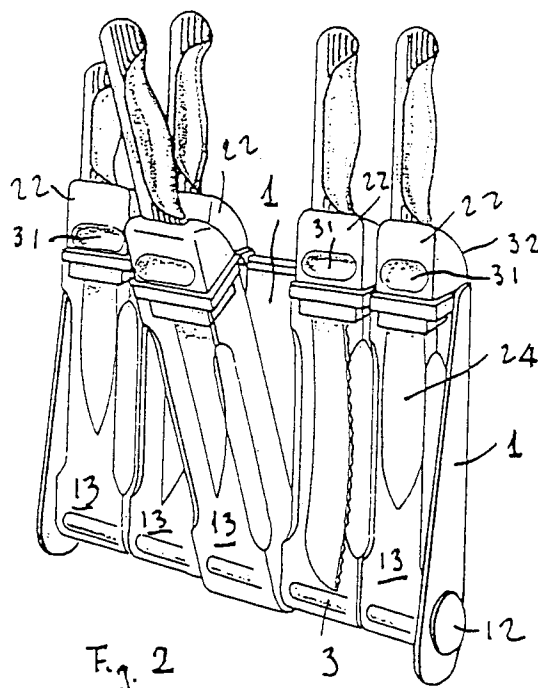
(71) Applicant: **OFFICINE DI ERNESTO BELTRAME S.p.A.**
Viale dell'Industria 3
I-33085 Maniago, Pordenone(IT)

(72) Inventor: **Beltrame, Giorgio**
Via Revedole n. 3/b
I-33170 Pordenone(IT)

(74) Representative: **Gustorf, Gerhard, Dipl.-Ing.**
Patentanwalt Dipl.-Ing. Gerhard Gustorf
Bachstrasse 6 A
W-8300 Landshut(DE)

(54) **Housing for knives or the like.**

(57) A housing for cover, particularly for knives, comprises a plurality of sheaths (13), which are able to assume a substantially vertical rest position, whereas, for a removal operation of a knife, they can be leant, in such a way that a knife can be removed, even if the housing is fixed underneath a hanging piece of furniture. Rotation of sheaths (13) is limited by a protuberance (17), which is formed on the lower part of each sheath, and which abuts against a stop (18) on said housing. Each sheath (13) is independent from the other sheaths and is made of transparent material, so that an operator can know exactly which type of knife he would remove from the housing.



EP 0 508 284 A1

The present invention relates to a housing for knives or the like comprising a plurality of sheaths (13), into each one of them a knife is adapted to be inserted, said housing being adapted to be fixed to a wall, in such a way that said knives could be available for being taken off and then re-inserted by an operator after using each one of them. The described devices are well known, which allow, on the one hand, the best use of a space in a kitchen by hanging said devices to a wall, and on the other hand, they allow not to crowd with the same knives, the inside of a piece of furniture. At last, they offer a wide reliability from danger to get a hand wounded, whenever a knife is taken from a drawer or from the inside of a furniture. If a more and more reliable use of a space in a kitchen is searched, said devices are not always adapted to be hung to a wall, particularly underneath a hanging piece of furniture, as the upper part of said devices requires a sufficient air-space for taking off operation and subsequent insertion of a knife. In addition, knives present different dimensions each from another whether for blade-length, blade-width, blade-thickness or blade-working operations. Indeed, some knives could operate for cutting vegetables, other knives for cutting bread or meat, etc. In any case a good rule is to put housewife in the condition to well recognize which kind of knife should be taken off, before taking a decision, avoiding waste of time, which is necessary for singling out the right knife to be taken off. Finally, the whole device should be easily disassembled into its component parts, in such a way that it could be easily cleaned, avoiding the operation of moving the whole device from the wall, but just limiting to an operation of a partial disassembly of the only sheaths, allowing, in such a way, the housing to remain fixed to the wall. A problem, which the device according to the invention intends to solve, is to get possible arranging the housing underneath a hanging piece of furniture, offering in such a way a solution, which allows a knife to be taken off and then re-inserted, by using limited space underneath a hanging piece of furniture, avoiding the necessity to use the space of a furnitureless wall. Said problem is solved by the housing according to the invention, which is characterized by that each sheath (13) is adapted to gain a rest position with respect to said housing, said rest position being adapted to develop according to a substantially vertical position of said knives, a taking off position being provided to said knives thanks a rotation of said sheaths with respect to said housing, stop means (17,18) of said rotating sheaths being provided in a rotated position, so that a taking-off operation and a subsequent re-insertion operation are allowed also in the case said housing is arranged beneath a piece of furniture or any else vertical obstacle. A further prob-

lem, which the device according to the invention intends to solve, is to allow a housewife to know, before taking off a knife from a housing, dimensional and characteristics of the knife to be used, getting each sheath quite independent from the other sheaths, into which other knives are inserted. Said problem is solved by the device according to the invention, which is characterized by that each sheath (13) is independent from the other sheaths, each sheath being adapted to rotate around common pivoting means (3), said pivoting means being mounted to said housing (1) in a detachable way, each one of said sheaths (13) being made of a substantially transparent plastic material, so that an operator is allowed to selectively rotate a sheath of the knife (14) to be taken off, whereas the other sheaths could remain in their rest position. These and other characteristics will be apparent from the following description and from the alleged drawings, wherein:

Fig.1 represents a frontal view of the housing according to the invention;

Fig.2 represents a perspective view of the same housing, showing a sheath in a taking off position of the blade therein contained;

Fig.3 represents an exploded view of the housing according to the invention.

The device according to the invention comprises a support plate 1, which can be hung to a wall, beneath a hanging piece of furniture in a way known per se. Plate 1 presents, in its lower part, two holes 2, through which a shaft 3, which represents common pivoting means according to the invention, can be inserted. Said shaft 3 is provided with a plug 4, which is integral with the same shaft. Plug 4 presents a hollow sector 6, which is adapted to co-operate with a corresponding seat 7. Said seat is obtained in the internal part of a recess 8, with which plug 4 is adapted to co-operate. On the other side of shaft 3, a hole 9 is obtained, into which a pin 11 of a plug 12 is adapted to be inserted. Plug 12 presents a hollow sector 6, too, which is adapted to co-operate with a corresponding seat, which is obtained in the internal part of a recess 8 of support plate 1. Plug 12 is adapted to co-operate with said recess 8. A plurality of sheaths 13, into which a corresponding plurality of knives 14 is adapted to be inserted, presents, in correspondence of its lower part, a hole 16 into which shaft 3 is adapted to be inserted, as it will be apparent forwards. Each sheath 13 presents, in correspondence of its lower part a swell 17, which is adapted to stop against a standstill 18 of housing 1, as it will be described forwards (Fig.3). Each sheath 13 presents, in correspondence of its upper part, a substantially rectangular seat 19, which is adapted to co-operate with a corresponding swell 21 of a plug 22. This one presents a slot 23, into which a blade 24 of knives 14 is adapted to be inserted.

Plug 22 presents a projection 25, which is provided rearwards of a groove 26. This one is adapted to co-operate with a ridge 27 of plate 1, along all width of said plate, as it will be described forwards. In any case, groove 26 and ridge 27 represent hooking means of housing according to the invention. Upon projection 25, plug 22 presents, in correspondence of its frontal part, a plane profile 29, on which a hole 31 is obtained, whereas, in correspondence of its rear part, it presents a curved profile 32. Swell 17 of sheat 13 and standstill 18 of plate 1 represent stop means of sheats 13, in taking off position, as it be described forwards. The housing according to the invention is applied and used according the following way. At first, plate 1 of housing is fixed to a wall, by means of two expansion bolts, not represented in the drawings, which are inserted into holes 33. Then, sheats 13 are assembled, which are represented in a number of five in Figg.1,2, in such a way that swell 17 is not close to stop 18 of plate 1 and in such a way that sheats 13 acquire a substantially vertical position, in adherence to plate 1. This one represents the rest position of sheats 13. Such a position is assured by fastening of ridge 27 within groove 26, after inserting shaft 3 into holes 2 of plate 1, so that sector 6 engages seat 7 of recess 8. At this moment, plug 12 is inserted with its pin 11 into hole 9 of shaft 3 and is turned as long as sector 6 engages seat 7 of recess 8 in plate 1. Groove 26 and ridge 27 represent hooking means of sheats, in their rest position. As soon as housewife wants to have a knife taken off from a sheat 13 a knife 14 having desired dimensional and functional characteristics, corresponding sheat 13 is rotated around shaft 3, by exerting a light pressure of fingers on the handle of the chosen knife. In such a way, sheat 13 can be rotated forwards, as long as swell 17 is stopped by standstill 18 of plate 1. Housewife can have a knife taken off from sheat 13. After using knife, it can be again re-inserted into its sheat, by inserting its blade 24 into slot 23 of plug 22. Whenever housing according to the invention is to be cleaned or washed, shaft 3 is disassembled from plate 1, by disconnecting pin 11 of plug 12 from hole 9 of shaft 3, and then by disassembling sheats 13 from plate 1 and disconnecting plug 22 from sheat 13. After cleaning the inside of sheats 13, all parts are re-assembled, as already described.

Rotation of sheats 13 from rest position, i.e. in adherence with plate 1, to taking off position, where knives can be taken off from sheat, is provided at most 90°, but it is usually provided for less than 90°, depending on housewife requirements and on possibility to take off knives from respective sheats, according to space allowed by hanging piece of furniture or other obstacles, under which housing

can be applied, Sheats 13 can be, as previously stated, made of transparent plastic material, but also of opaque material. In this latter case, a slot, which can develop lengthwise with respect to sheat, can show a partial view of blade inserted into sheat. In addition, two slots 23 may be provided instead of one, which can be offset each one with respect to the other on plug 22, so that two knives 14 can be inserted instead of one, whereas offset arrangement allows housewife to recognize which kind of knife should be used, before taking it off.

A further solution provides plug 22 integral or welded with respective sheat 13, so that they become an unique body. At last, number of sheats (which are five in Figg.1,2), can be limited just to one, in case of special knives, i.e. of knives characterized by a special design or by an especial functionality.

Claims

1. Housing for knives or the like, comprising a plurality of sheats (13), into each one of them a knife is adapted to be inserted, said housing being adapted to be fixed to a wall, in such a way that said knives (14) could be available for being taken off and then re-inserted, after using them, by an operator, characterized in that each sheat (13) is adapted to gain rest position with respect to said housing, said rest position being adapted to develop according a substantially vertical position of said knives (14), a taking off position being provided thanks to a rotation of said sheats (13) with respect to said housing, stop means (17,18) to rotation of said sheats being provided in such a rotated position of said said sheats, that a taking off operation as well as a re-insertion operation of said knives are allowed, also if said housing is arranged beneath a piece of furniture or beneath any else obstacle.
2. Housing according to claim 1, characterized in that each sheat (13) is independent from the other sheats, each sheat being adapted to rotate around common pivoting means (3), said pivoting means being mounted on said housing in a detachable way, each one of said sheats being made of a substantially transparent plastic material, so that an operator is allowed to selectively rotate a sheat of the knife to be taken off, whereas the other sheats could remain in their rest position.
3. Housing according to claim 1, characterized in that said taking off position of said knives (14) from said sheats (13) is rotated at most 90°

with respect to said rest position.

4. Housing according to Claim 1, characterized in that said stop means are made of a swell (17) of said sheats (13), said swell being adapted to stop against a standstill (18) of said housing. 5

5. Housing according to claims 1,2, characterized in that said pivoting means (3) are made of a shaft (3), said shaft being provided with, a plug (4), which is integral with said shaft and with a plug (12), which is adapted to be inserted, thanks to a pin (11) within a hole (9) of said shaft (3), each one of said plugs (4,12) being provided of a hollow sector (6), said sector (6) being adapted to co-operate with a corresponding seat (7), which is obtained in correspondence of the internal part of a hole (8) of said housing. 10
15
20

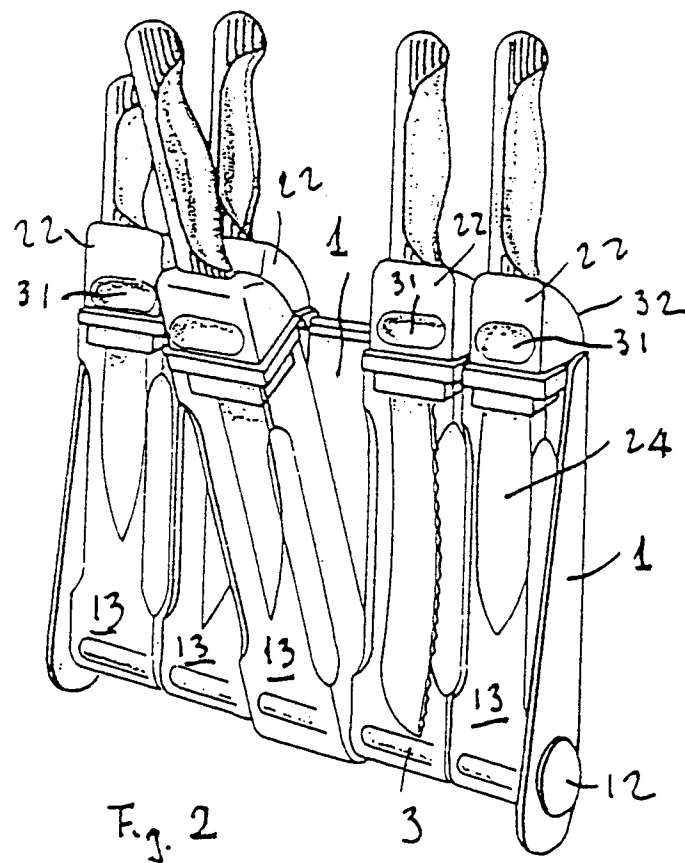
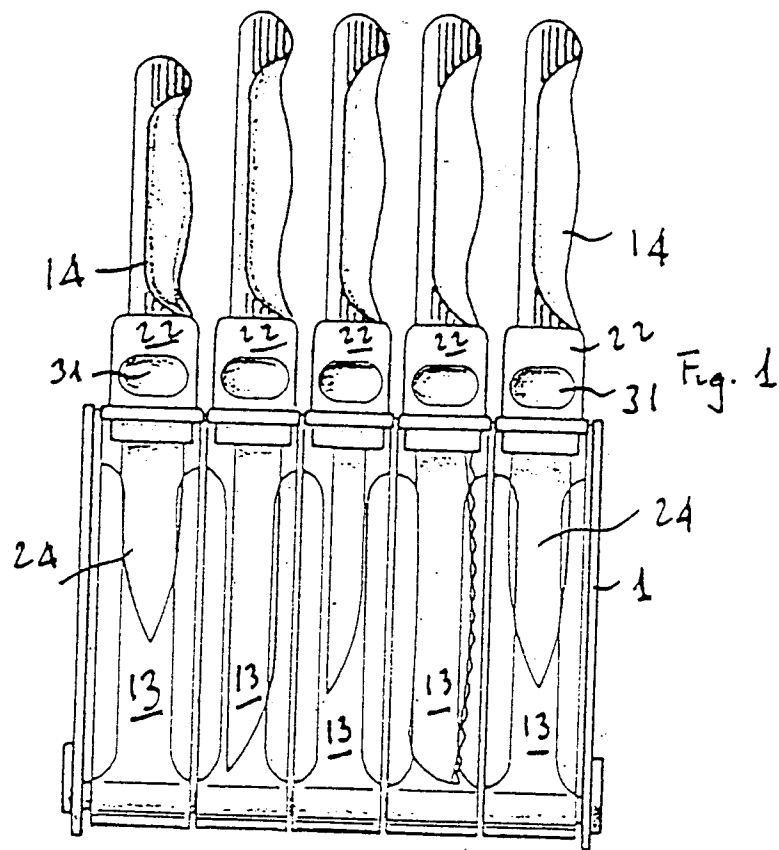
6. Housing according to Claims 1,2, characterized in that each one of said sheats (13) is provided, in correspondence of its lower part, of a hole (16), into which said shaft (3) is adapted to be inserted. 25

7. Housing according to claims 1,2, characterized by hooking means (26,27) in rest position of said sheats (13), said hooking means being made of a groove (26), which is obtained on a plug (22), and of a ridge (27), which is obtained on said plate (1), said plug (22) being provided of a slot (23), into which a blade (24) of said knives is adapted to be inserted. 30
35

8. Housing according to claim 1,7, characterized in that it comprises one or more sheats (13), said plug (22) being adapted to be inserted by pressure on corresponding sheat (13), or, alternatively, being integral with said sheat, at least one slot (23) being provided on said plug (22) for insertion of a blade (14), a further slot (23) being adapted to be offset with respect to said first slot, so that a sheat (13) can contain two blades (14), allowing an operator to recognize which kind of knife should be used. 40
45

50

55



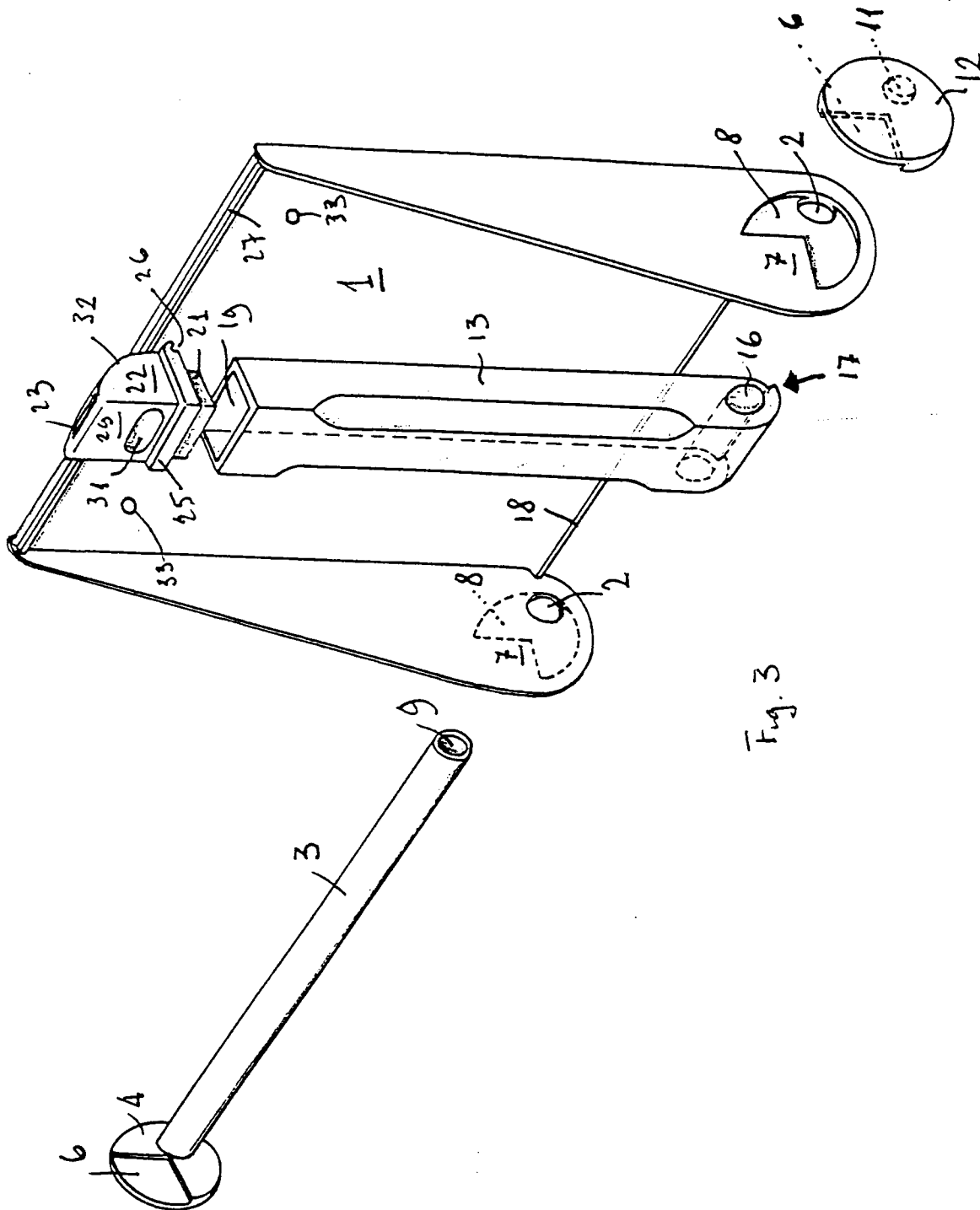


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 10 5578

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)
X	US-A-4 537 315 (M. E. GRIFFIN) * figures * * column 1, line 49 - column 5, line 20 *	1, 3, 4	A47G21/14
Y		2, 6	
A		5, 7, 8	
Y	US-A-4 492 028 (J. BOURGEIN) * column 2, line 15 - line 57; figures *	2, 6	
A		3, 4, 7	
A	US-A-3 337 058 (J. A. SANDRICK) * column 2, line 22 - line 33; figures *	1, 4, 7	
A	DE-C-214 224 (W. WALTHER) * the whole document *	7, 8	
A	DE-U-8 703 590 (A. SAGEMÜLLER) * claims; figures *	7	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B26B B25H A47G
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13 JULY 1992	Examiner RAVEN P.
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	