

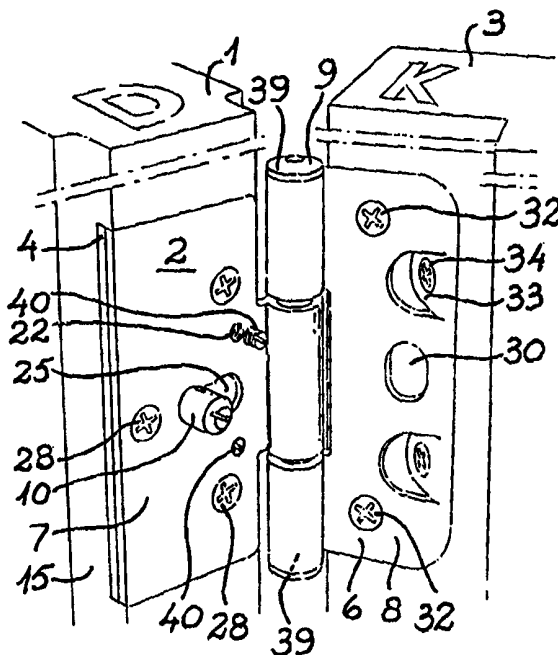
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : E05D 7/02, 7/04, 11/00		A1	(11) International Publication Number: WO 00/50718
			(43) International Publication Date: 31 August 2000 (31.08.00)
(21) International Application Number: PCT/SE00/00296 (22) International Filing Date: 15 February 2000 (15.02.00) (30) Priority Data: 9900529-0 15 February 1999 (15.02.99) SE (71)(72) Applicant and Inventor: SVENSSON, Hildemar [SE/SE]; Kungskulle, S-330 15 Bor (SE). (74) Agent: ENGSTRÖM, Christer; Box 2067, S-331 02 Värnamo (SE).			(81) Designated States: AT, AU, BG, BR, CA, CH, CZ, DE, DK, EE, ES, FI, GB, HU, IL, IS, JP, LU, MX, NO, NZ, PL, PT, RO, RU, SE, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. In English translation (filed in Swedish).</i>

(54) Title: DEVICE IN DOORS

(57) Abstract

Device in doors formed for arrangement of the door for either right-hand or left-hand hanging and openable outwards or in applicable cases inwards and comprising a door (1), two or more hinges (2), preferably safety hinges, and in applicable cases a frame and a doorstep adapted for the door. The hinge-side (13) of the door (1) shows a corresponding number of recesses (14) compared to the number of hinges (2), marginal recesses (15) extending in side-edges of the door on both the exterior and interior of the door and are formed uniform and extend in at least the edge adjacent the hinge-side (13) of the door (1). The hinge (2) is arranged reversible and preferably adjustable and shows a first part (4) intended to be arranged to the door (1) and a second part (6) intended to be arranged partly to the door (1) partly to the frame and consists of a hinge with a first leaf (7) and a second leaf (8) connected with each other by a hinge pin (9) or similar.



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DEVICE IN DOORS

The present invention relates to a device in doors, as in front-doors for houses and flats, formed to be able for arrangement of the door for either right-handed or left-handed hanging and openable outwards and in applicable cases inwards, comprising a hinge, preferably a safety hinge, and in applicable cases a door and adapted to the door a frame and a doorstep, at which one vertical end surface of the door or hinge-side of the door has a corresponding number of recesses compared to the intended number of hinges and that the hinge is arranged reversible and preferably adjustable and shows a first part intended to be arranged to the door and a second part intended to be arranged partly to the door partly to the frame and consists of a hinge with a first leaf and a second leaf connected with each other by a hinge member or similar.

The device according to the invention consists of a hinge with a first part intended to be arranged in the door and a second part for the hanging of the door into a frame and intended to extend between the door and the frame and consists of a hinge. The device according to the invention comprises in applicable cases preferably also the said door and the said frame and in that respect appropriate also a doorstep in the frame.

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There is a need to be able to arrange a door both for right-hand and left-hand hanging and also openable outwards and inwards, at which consideration must be taken to the shaping of the frame and doorstep. The inside and outside of the door must also be formed to be able to be turned towards the exterior of the building, i.e. be reversible. The assortment and the stock-keeping can by that i.a. be essentially reduced as one does not need to take into consideration whether the door is meant for right-hand hanging or left-hand hanging and in applicable cases if the door will be openable outwards or inwards. The choice of door for the customer would by that be simplified and in optimum shaping of the device could be reduced to the dimensions of the door, i.e. to the width and height of the door and its design. Further, there is a need of an improved security for doors to reduce the risk for burglary.

35 In prior known devices in front-doors and also in other kind of doors, the devices are arranged in such a way that a door is arranged either for right-hand hanging or left-hand hanging. Further, each variant of door is arranged so it is arranged either to be openable inwards or outwards. That involve a

multiplicity of different variants of one and the same device or door construction or parts in it. Safety devices exist also in doors but the inconveniences in known devices can be eliminated and the devices can be improved.

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The object of the present invention is to provide a device of the kind in question and comprising at least a hinge but in applicable cases also a door complete with frame and doorstep. The parts can after delivery be arranged as desired and need and after installation even be altered so that a right-hand hanging door is shifted to be a left-hand hanging door or vice versa. A prior door either right-hand or left-hand hanging door, which, for example, was openable inwards, can be shifted to be openable outwards or vice versa. Further, the device can be formed and/or equipped so that made demands upon safety are met or at least be prepared for such a safety for later supplementing. Thus, the hinge is formed burglary proof and equipped with a back edge locking device of preferably hardened steel. Further, a safety lock with a burglary proof striking plate is preferably used. The lock can also and also other parts of the device according to the invention be prepared for integration of burglar alarm. Another object of the device according to the invention is to form the hinge adjustable for adjusting both vertically and laterally. An additional object is in applicable cases to form the door not only reversible but also so it can manage weather conditions with either its outside or inside.

25 The device in accordance with the invention is thus characterized in that the said first part of the hinge is arranged for anchoring in the door, shaped as a plate-shaped body and intended to be arranged against the bottom of said recess in the frame. In this respect it can be said that the said first part of the hinge forms a basis for the first hinge flange or leaf of the hinge and in applicable cases also a basis for said adjusting means for adjustment of the door laterally.

Another characteristic of the device in accordance with the invention is that the door shows two panel surfaces in form of one outside and one inside which are arranged to be able to face either the exterior or the interior of the room or building and that the door at this shows marginal recesses extending in side-edges of the door both on the outside and inside of the door or on the said two panel surfaces.

According to an additional characteristic of the device in accordance with the invention the said marginal recesses on the outside and inside or both panel surfaces of the door are formed uniform and are arranged to extend at least in the edge adjacent the hinge-side of the door or preferably in the side-edges around the door.

Still another characteristic of the device in accordance with the invention is that the said first part of the hinge is intended to be fixed to the door and shows a doubled hole-picture for passing through of fastening means and/or assistant fastening means for security and doubled cavities for said adjusting means for adjustment of the door laterally.

Further characteristics of and advantages with the device in accordance with the invention will in the following description of the device be apparent by embodiment examples, whereby a simultaneous reference will be made to the accompanying schematic drawings, on which Fig. 1 shows a perspective view of a portion of the device according to the invention, Fig. 2 shows perspective views of additional portions of the device according to the invention in an embodiment and in accordance with the embodiment shown in Fig. 1, Fig. 3 shows a perspective view of a portion of a device according to the invention in a later phase of assemblage or mounting and the portion of the device according to some different shaping, Fig. 4 shows a perspective view of a portion of a device according to the invention in accordance with the first shown embodiment and in a further later phase of assemblage or mounting, Fig. 5 shows in cross-section and in some enlarged scale a part which is part of the device, Fig. 6 shows partly in cross-section and in enlarged and according to an embodiment a part which is part of the device, Fig. 7 shows from one side schematically and in separate parts a frame with door-step and joining devices in positions for joining, Fig. 8 shows in enlarged scale a cross-section of a portion of the lower part of a door and a door-arranged for a door openable outwards and in accordance with an embodiment of the device according to the invention and Fig. 9 shows in enlarged scale a cross-section of a portion of the lower part of a door and a doorstep arranged for a door openable inwards and in accordance with an embodiment of the device according to the invention.

With the reference designation 2 in Fig. 4 is shown a hinge according to an embodiment of the device in accordance with the invention. The hinge 2 is arranged between a door 1 and a frame 3 or a frame side 17, see also Fig. 7.

With further reference to also Fig. 2 it appears that the hinge 2 comprises a first part 4 and a second part 6, whereby the first part 4 is intended to be arranged in a recess 14 in the door 1, while the second part 6 is intended to be arranged with a first leaf 7 to the door 1 and with a second
5 leaf 8 to the frame 3. The first part 4 of the hinge 2 is in form of a plate-shaped body which is meant to lie against the bottom of the said recess 14 and be anchored by means of anchoring means 24, whereby the wood in the door 1 in the recess 14 is protected against wet and absorption of moisture. The first part 4 of the hinge 2 shows through holes 16 for the
10 anchoring means 24 and a threaded hole 20 for engagement and adjustment of a security device 10 or a so-called back edge locking device.

With further reference to Fig. 1 it appears that the first part 4 or the base plate of the hinge 2 shows a doubled hole-picture for through holes 23
15 and 26 for passing through of fastening means 28, whereby the holes 23 are used when the door 1 is anchored to the frame 3 by the fastening means 28, while one of the other holes 26 mentioned is used for an assistant fastening means 28 as an extra protection against burglary and are arranged close to side-edges of the base plate 4 so that the attachment will be located a long
20 way into the door 1 from the exterior of the door. Corresponding through holes 27 and 29 respectively for the fastening means 28 exist in the first leaf 7 of the second part 6 of the hinge 2 but in this case only in singel edition.

25 Further, in the base plate 4 exists cavities 21 also in doubled edition and used as a basis for adjusting means 40 which, according to the embodiment example, are in form of screws, whereby the cavities 21 preferably show a proportionately large diameter so the screws certainly will find their positions and besides be able to form a guide to assist in assemblage of the
30 door to the frame and in addition serve as a rough setting of the position of the door in the frame, see Fig. 5. Corresponding threaded holes 22 exist in the first leaf 7 in the second part 6 of the hinge but in this case only in singel edition.

35 In the first leaf 7 in the second part 6 of the hinge 2 exist in addition an aperture 25 through the leaf, the aperture has preferably an enlarged part 45, whereby the aperture 25, 45 is meant for passing through and position for the security device 10 in form of a threaded screw or bolt.

In the second leaf 8 in the second part 6 of the hinge 2 exist an aperture 30 through the leaf for passing through of the head of the security device 10 so it can be taken up into the frame 3 and furthermore through holes for fastening means 32 for fastening of the leaf 8 to the frame 3. For improved
5 anchoring of the second leaf 8 or the door 1 to the frame 3 inward-bent or angled tongues 33 can be formed, whereby the fastening means 34 can have anchoring in a part of the frame 3 which has more strength or is considerable dimensioned.

10 The said first and second leaves 7 and 8 respectively are united with each other by means of a hinge member 9 which, according to an embodiment of the device in accordance with the invention, can comprise an adjusting element 39 for adjustment of the door 1 vertically. According to the embodiment
15 example, the adjusting element 39 is arranged both in the upper and lower end of the hinge member 9, see also Fig. 6, and is in form of adjusting screws 41, which can influence the axis or pin 43 in the hinge member 9 via ball 42.

With the arrows 31 in Fig. 3 is shown the hanging of the door 1 in the frame
20 3 or to the second part 6 of the hinge 2, whereby the security device 10 is used to facilitate the hanging. Thus, the door 1 is hung by the fact that the security device 10 is brought through the wider part 45 of the aperture 25 and then the door 1 is displaced in the direction of the arrow 31 so that the security device is brought into the narrower part of the aperture 25. By
25 that the door 1 is hanging in the frame 3 and continued assemblage of the door 1 to the frame 3 can be done by adjustment of the location of the door in the frame both laterally and vertically and anchoring of the door to the second leaf 6.

30 The said base plate 4 in the recess 14 of the door 1 is fixed anchored in the door 1 and lie against the bottom of the recess 14. The base plate 4 forms a durable anchoring for i.a. the security device 10 in the back edge locking device and is covered by the first leaf 7 in the second part 6 of the hinge 2 and the gap between the parts is covered by the hinge member 9.

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The security device 10 is anchored in engagement with the base plate 4 and by that anchored better than what is usual.

Base plates 4 are arranged in recesses 14 in the edge 13 of the door 1 and with a security device 10 arranged in the base plate 4. With regard to the fact that the door 1 will be arranged for right-hand hanging or left-hand hanging, openable outwards or inwards the hinges 2 or a second part 6 of the hinges 2 are turned into right direction and are anchored in the frame 3 which with frame sides 17, 18 are arranged for a door for right-hand hanging, left-hand hanging, openable outwards and openable inwards respectively. The door 1 with the security devices 10 is brought into the hinges through the wider part in the aperture 25, whereby the door 1 is hanging in the hinges 2, 6 and in the frame 3. After that the door 1 is displaced so that the security device 10 is received by the minor part of the aperture 25, see the arrows 31 in Fig. 3, whereby a certain rough adjustment of the door 1 can be done by the adjusting means 40 which find position in the cavities 21. The security device 10 can be somewhat tighten, whereby the door 1 is hanging in the hinges 2, 6 and in the frame 3. After that the door 1 can be laterally position-adjusted in the frame 3 by the adjusting means 40 and vertically by the adjusting elements 36 in the hinge member 9 which is doubled in such a way that that it can be adjusted both in the lower part and/or upper part, see Fig. 6. Fine adjustment can be done by some relieve of the security device 10. In laterally adjustment adjustment is done between the first part 4 or the base plate of the hinge 2 and the second part 6 of the hinge 2 or its first leaf 7 and by means of adjustment of the adjusting means 40. When the door 1 has got the intended position in the frame 3 the position is secured by the fastening means 28 which anchor the door for the use in the frame 3. For improved burglary proof a fastening means 28 can also be arranged through the holes 26, 29 of the hinge parts 2, 6, 7, whereby the breaking will occur farther in towards the inside of the room. The base plate 4 and its anchoring by the anchoring means 24 are covered by the second part 6 of the hinge 2 and will be unassailable. Besides, the hinge member 9 covers any attacking places in the hinge 2. The hinge 2, the base plate 4 and the second part 6 of the hinge 2 are preferably made of steel from a security point of view.

The risk of rot or absorption of moisture between the base plate 4 and wood or moisture absorbing material is prevented by the fact that the base plate 4 is lying firmly against the door 1 (against the wood). Besides, in adjustment of door 1 laterally in the frame 3 displacement is done and by that appears eventually a gap 44 between door 1 and hinge but between metal and metal and not between moisture absorbing material in the door and hinge. The anchoring of the base plate 4 in the recesses 14 in the door-edge 13 is

important and involves also a considerable improvement of the security against burglary or undue trespass through the door.

The door 1 is formed uniform on the outside and the inside and with a
5 marginal recess which by that also also exists both on the outside and the inside and from, for example, aesthetical point of view and tightening, it is advantageous if the marginal recess 15 exists in the door-edge around the door 1, whereby the door can be turned for right-hand hanging or left-hand hanging but also the frame parts 5, 17, 18, 19 can be formed so they fit in
10 an intended way from tightening point of view, etc. They are uniform in parts connecting with the door 1. The door 1 is by that and regarding, for example, décor, surface treatment, the marginal recesses, etc. made to manage the more serious environment existing on the exterior of the door and for that reason the steps taken exist also in the forming of that panel
15 surface 11, 12 which is going to be turned towards the interior. The hinges are reversible. The base plate 4 shows a doubled hole-picture, see i.a. the figures or Fig. 1 showing the base plate with doubled cavities 21 to be suited for a installation of the door 1 in the frame 3 for right-hand hanging or left-hand hanging (and openable outwards or openable inwards). The
20 door 1 is thus formed reversible to be able to be right-hand hung or left-hand hung.

One does not need to thing about if the door is meant to be right-hand hung
25 or left-hand hung and be openable outwards or inwards. It depends on the shaping of the hinge 2 and the frame 3 and the reverible door panel. Further, the device in accordance with the invention results in reduced costs for stock-keeping at wholesalers, shops, construction firms and manufacturer as well and also shorter time of delivery. Besides, the device according to the
30 invention permit the possibility to regret. Up to and including an installed door can be altered for right-hand hanging instead of left-hand hanging or vice versa and/or from being openable outwards to be openable inwards or vice versa. One could say that one obtains four doors in one singel door. According to an embodiment the doorstep 5 can further be shaped with low
35 height a height principally for the impact of the door 1, as the doorstep 5 in its shaping for the rest shows or is replaced by a profile of metal which results in insignificant height of construction. A device for a door openable inwards can be supplemented in a door openable outwards by a profile or corresponding on the lower part of the door 1 serving as a draining edge for

rain-water striking against the door and the top side 35 of the doorstep 5 is supplemented by a profile for outflow of the rain-water from the device, see the said figures. The said supplementing is the only needed to be done, if desirable, for the arranging of a door openable outwards instead of open-
5 able inwards and/or for a door for right-hand hanging or left-hand hanging. The door frame 5 is formed symmetrical and in parts - two frame sides 17 and 18, a frame head 19 and a door sill or doorstep 5 - and the parts can be assembled according to the wish of the customer for a door 1 for right-hand hanging or left-hand hanging and/or openable inwards, whereby the frame
10 members 17 - 19 are directed towards the intended direction, as well as the doorstep 5 and also when reassembled in regret. For this it requires that the hinges or leaves in a first frame side 17 and in the door 1 are arranged at the same distance from the ends or end-edges of the frame side 17 and the door 1 respectively and that the lock/bolt of the door 1 is arranged in
15 between the end-edges of the door and the striker plate 44 arranged in the other frame side 18 is arranged in between the ends of the frame side, whereby the frame sides 17, 18 and the door 1 can be turned upside-down to be either right-hand hung or left-hand hung and/or openable outwards or inwards.

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As it is evident from further figures the device can, according to an embodiment of the device in accordance with the invention, be arranged or prepared for an integrated burglary alarm. Thus, it is arranged a groove or recess to take up a band under the striker plate in the other frame side 18
25 which band is arranged to start the alarm. There is a hole through the frame side in the bottom of the recess for the electric wiring for the alarm. The said recess for the alarm-band exists in that part of the frame which is meant to be turned nearest the exterior in a door openable outwards, whereby in interference with the striker plate in the frame with a burglary tool,
30 the tool will come into engagement and/or touch with the alarm-band and alarm occur even before the trespasser has entered the housing or room which is closed by means of the device or the door 1.

The frame 5 or the frame members are preferably provided with customary
35 adjustable frame screws. Assembling means 36, as shown in the figure over the frame 3, exist for joining the frame members 17 - 19 and the doorstep 5 to form the frame 3.

Thus, the assemblage of the device in a door opening can be done in the following manner. The frame 3 is joined with the assembling means, for example screws, to be used for right-design or left-design. There are pre-drilled holes in the ends of the frame sides 17, 18 when screws are used.

5 The frame 3, which can be assemblage on place, is considered to be new. The Then the frame 3 is placed against the wall-beams and the doorstep 5 is arranged in horizontal level. The frame sides are, after that, adjusted to extend vertically. Afterwards the frame 3 is measured diagonally so that the two dimensions at this become equal. The frame 3 is fixed to the wall of the
10 door opening. The door 1 or door panel is hung and inspection is done to see if the door fits in the frame. If not, adjustment is done by the adjustment devices for the frame or the frame screws and by the possibilities of adjustment of the hinge. The security device is used as support when the door or door panel is hung. The security device 10 is unscrewed, the door panel is
15 hung in the frame and the security device 10 is tightened. Finally, the door panel is fixed by the fastening means 28. The possibilities of adjustment by means of the hinge 2 is laterally by the adjusting means 40 and vertically by the adjusting element 36 with the adjusting screws 41 in the hinge member 9.

20

1. Door.
2. Hinge.
3. Frame.
4. First part of the hinge (2).
- 25 5. Doorstep.
6. Second part of the hinge (2).
7. First leaf.
8. Second leaf.
9. Hinge member of the hinge (2) connecting the two leaves (7 and 8) pivotally with each other. Comprises or refer to adjusting devices for adjustment of the door (1) vertically in the frame (3).
- 30 10. Security device in a so-called back edge looking device.
11. Panel surface of the door (1).
12. Panel surface of the door (1).
- 35 Both panel surfaces (11, 12) are formed uniform or in such a way that both can face the exterior and has for that reason suitable shaping, treatment, structure, etc.
13. End surface/hinge-side of the door.

14. Recesses in the end surface/hinge-side (13) of the door (1) for receiving hinges (2).
15. Marginal recess in the door (1) on both its sides and preferably running around the door.
- 5 16. Through hole in the base plate (4) for passing through of anchoring means (24).
17. Frame side.
18. Frame side.
19. Frame head in the frame (3, 17, 18).
- 10 20. Threaded hole in the first part (4) of the hinge (2) for engagement of security device (10).
21. Cavities in the base plate (4) for adjusting means (40).
22. Threaded hole in the first leaf (7) for adjusting means (40).
23. Through hole in the base plate (4) for passing through of fastening
15 means (28) when the door (1) is anchored to the second part (6) of the hinge (2) - final anchoring and securing of the door (1) in the frame (3) via hinges.
24. Anchoring means, for example screws, for anchoring of the base plate (4) to the door (1) or in its recesses (14).
- 20 25. Aperture through the first leaf (7) for the security device (10) and in the back edge looking device.
26. Through hole in the base plate (4) for additional fastening means (28) for assistant burglary proof.
27. Through hole in the first leaf (7) for fastening means (28).
- 25 28. Fastening means, for example screws, for the second part (6) of the hinge hinge (2) fastening in the door (1) or for the finally fastening of the door (1) in the hinge (2) or in the frame (3) via the hinge (2).
29. Through hole in the first leaf (7) for additional fastening means (28) - assistant burglary proof by means of the additional fastening means (28)
30 far into the room.
30. Aperture through the second leaf (8) for the security device (10) and in the back edge looking device.
31. Arrows showing the hanging of the door (1) into the frame (3) to the second part (6) of the hinge (2) - hanging in the security device (10)
35 and displacement laterally (of the door).
32. Fastening means, for example screws, for the second part (6) of the hinge (2) to the frame (3) or its frame side.
33. Tongues in the second leaf (8) for improved anchoring of the second part (6) of the hinge or the door (1) in the frame (3) - gives the opportunity

for fastening and anchoring of fastening means (34) in a bigger dimensioned part of the frame (3).

34. Fastening means, for example screws, for the second part (6) of the hinge (2) or the second leaf (8) to the frame (3).
- 5 35. Top side of the doorstep (5).
36. Assembling means for joining of frame head (19) and doorstep (5) to the frame sides (17, 18).
37. Lower end or end surface of the frame sides (17, 18) for connecting or lying against the top side (35) of the doorstep (5).
- 10 38. Upper part or end surface of the frame sides (17, 18) for connecting or lying against the bottom side of the frame head (19).
39. Adjusting devices in the hinge member (9) of the hinge (2) for vertical adjustment of the door in the frame (3) - exist in both ends of the hinge member (9) - in form of an adjustment screw.
- 15 40. Adjusting means for lateral adjustment of the door (1) in the frame (3) - in form of treaded pins which are in treaded engagement with the threaded holes (22) in the first leaf (7) for the purpose to be able to be screwed against the cavities (21) or the bottom of the cavities (21) in the first part (4) of the hinge (2) or the base plate (4), whereby
- 20 the door (1) with the base plate (4) can be brought to be displaced so that a distance (a slot) arise between the base plate (4) and the first leaf (7) in the second part (6) of the hinge (2) for lateral adjustment of the door (1) in the frame (3).
41. Adjustment screw (threaded pins).
- 25 42. Ball in the adjusting device (39) - exists in both ends of the hinge member (9).
43. Axis/pin in the hinge member (9).
44. Striker plate.
45. Wider aperture in the aperture (25).

Claims:

1. Device in doors, as in front-doors for houses and flats, formed to be able for arrangement of the door for either right-handed or left-handed hanging and openable outwards or in applicable cases inwards, comprising
5 a hinge (2), preferably a safety hinge, and in applicable cases a door (1) and adapted to the door a frame (3) and a doorstep (5), at which one vertical end surface (13) of the door (1) or hinge-side (13) of the door has a corresponding number of recesses (14) compared to the intended number of hinges (2) and that the hinge (2) is arranged reversible and preferably
10 adjustable and shows a first part (4) and a second part (6) intended to be arranged partly to the door (1) partly to the frame (3) and consists of a hinge with a first leaf (7) and a second leaf (8) connected with each other by a hinge member (9) or similar, characterized in that the said first part (4) of the hinge (2) is formed for anchoring in the door (1) and is in the
15 shape of a plate-shaped body and is intended to be arranged against the bottom of said recess (14) and forms a basis for the first leaf (7) of the hinge (2) and in applicable cases also for adjusting means (40).
2. Device in accordance with claim 1, characterized in that the door (1)
20 shows two panel surfaces (11, 12) in form of one outside and one inside which can face either exterior or interior and that the door (1) shows marginal recesses (15) extending in side-edges of the door both on the outside and inside of the door (1) or both panel surfaces (11, 12).
- 25 3. Device in accordance with claim 2, characterized in that the marginal recesses (15) in the outside and inside or both panel surfaces (11, 12) of the door (1) are formed uniform and extend at least in the edge adjacent the hinge-side (13) of the door (1) or preferably in the side-edges around the door (1) and on both its sides.
- 30 4. Device in accordance with claim 2 or 3, characterized in that the panel surfaces (11, 12) of the door are formed uniform and formed to be able to face the exterior, as well as existing glazing in the door (1).
- 35 5. Device in accordance with claim 1 or 4, characterized in that said recess (14) shows such a depth that the said first part (4) of the hinge (2) and the said first leaf (7) can be received in the recess (14) or that the said first part (4) of the hinge (2) and the the said first leaf (7) extend in a vertical plane within or somewhat within the vertical plane of said end
40 surface (13) of the door (1).

6. Device in accordance with claim 1, 2, 3 or 5, characterized in that the first part or the said first parts (4) of the hinge (2) are fixed to the door (1) and show a doubled hole-picture (23) for passing through of fastening means (28) to fasten the said second part (6) of the hinge to the door
5 (1) or for final anchoring or securing of the door (1) to the frame (3) via the hinge (2), a threaded hole (20) for engagement of a security device in a so-called back edge locking device and/or cavities (21) for adjusting means (40) including adjustment of the door (1) sideways, at which the said cavities (21) preferably also are doubled.
- 10 7. Device in accordance with claim 1, 2, 3, 5 or 6, characterized in that the said first leaf (6) is arranged for a so-called back edge locking device and/or adjustment of the door (1) in the frame (3), at which the said first part (4) of the hinge (2) in applicable cases is provided with a threaded
15 hole (20) for a security device (10), cavities (21) for receiving of adjusting means (40) and/or through holes (23) for passing through of fastening means (28), while the first leaf (7) in applicable cases shows an aperture (25) through the leaf for a security device (10), holding means (22), for example in form of threaded holes, to hold adjusting means (40) and holes
20 (27) respectively for fastening means (28) to fasten the second part (6) of the hinge to the door (1) or to fasten and anchor the door (1) to the second part (6) of the hinge and hanging in the frame (3).
8. Device in accordance with claim 7, characterized in that the adjusting
25 means (40) consist of threaded pins which are arranged to be tighten against the said cavities (21) in the said first part (4) of the hinge (2) for adjustment of the door (1) sideways in the frame (3).
9. Device in accordance with claim 1 or 7, characterized in that the said
30 second part (6) of the hinge (2) shows a hinge member (9) of such a kind that the door (1) can be adjusted in the frame (3) vertically by influence of adjusting elements (36) arranged in the hinge member (9).
10. Device in accordance with any of the preceding claims, characterized in
35 that the lower ends (37) or end surfaces of the frame sides (17, 18) are arranged to touch against an upper side (35) shown by the doorstep (5), i.e. that the doorstep (5) is arranged to be able to extend under the frame sides (17, 18) and the frame head (19) is preferably arranged to be able to extend over the upper ends (38) or end surfaces of the frame sides (17, 18).

Fig. 1

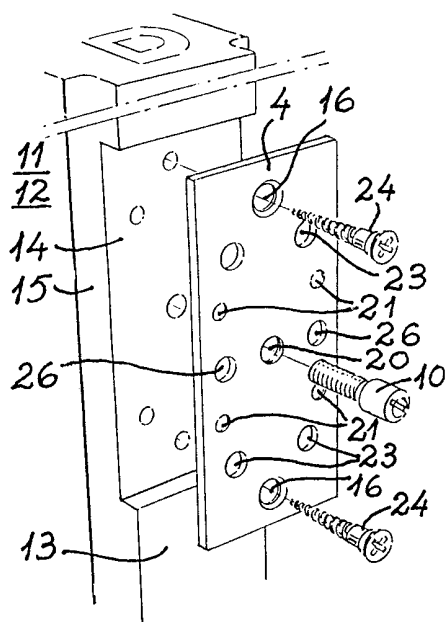


Fig. 2

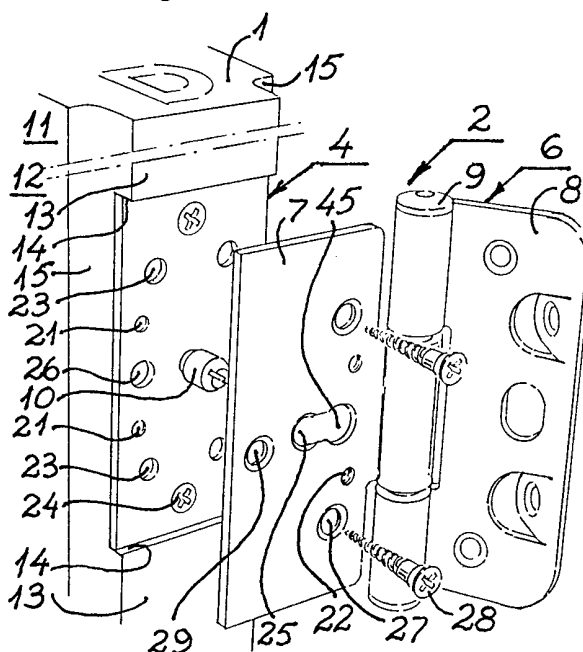


Fig. 3

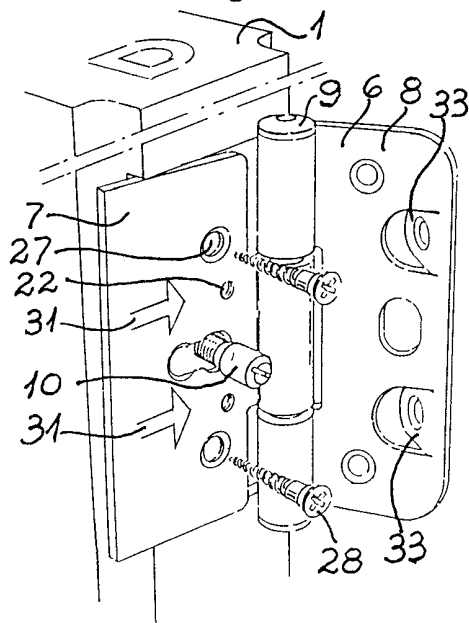
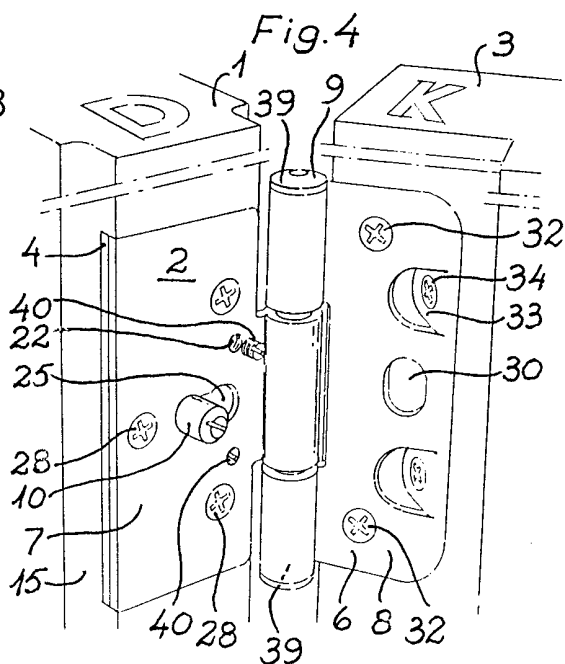


Fig. 4



2/3

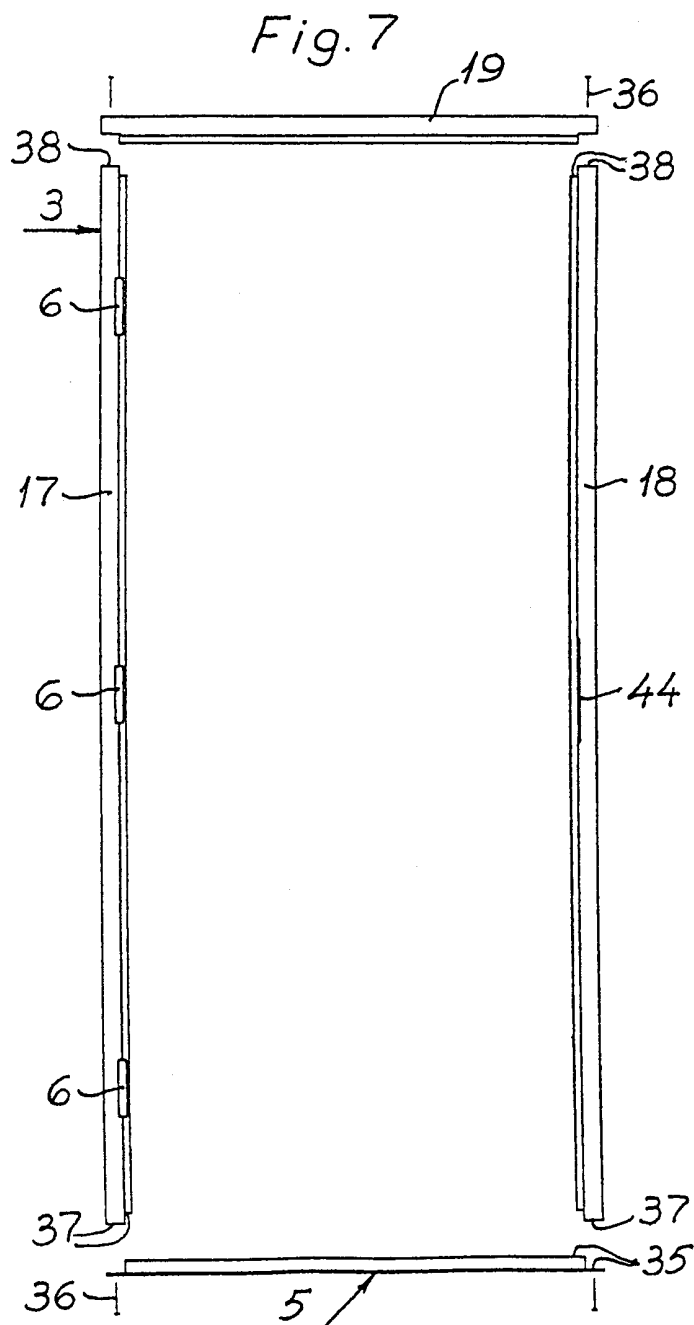
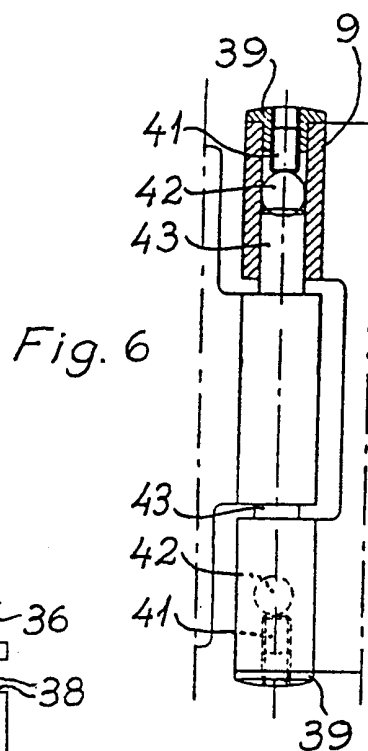
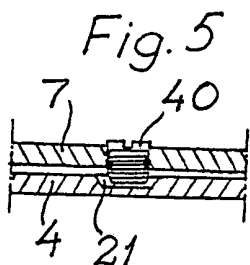


Fig. 8

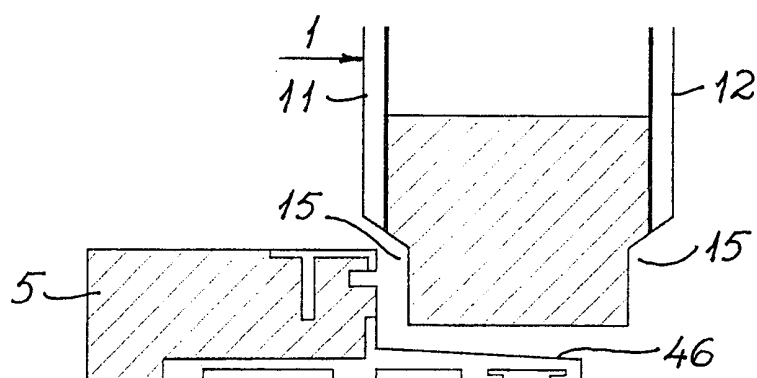
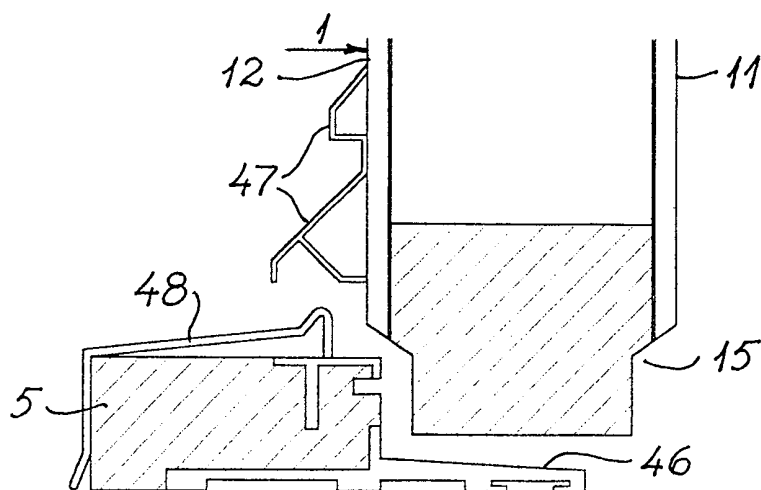


Fig. 9



INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 00/00296

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: E05D 7/02, E05D 7/04, E05D 11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: E05D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4489517 A (W.S. YOUNG), 25 December 1984 (25.12.84) --	1-10
Y	FR 2699588 A1 (BAUR, F. ET AL), 24 June 1994 (24.06.94) --	1-10
Y	US 1381072 A (J.H. KERSTETTER), 7 June 1921 (07.06.21) --	1,6-8
Y	US 4424607 A (G. LANGENHORST), 10 January 1984 (10.01.84) --	6

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

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Date of the actual completion of the international search

20 June 2000

Date of mailing of the international search report

22 -06- 2000

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 00/00296

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	US 1563869 A (A.G. LARSON), 1 December 1925 (01.12.25) --	9
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A	US 1893252 A (R.A. STABLER), 3 January 1933 (03.01.33) --	
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Information on patent family members

02/12/99

International application No.

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