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(54) **An accessory for a ladder, a ladder, and a method for mounting an accessory for a ladder on a ladder**

(57) An accessory for a ladder comprising a mounting element (1) and a wall distance element (2), wherein the mounting element (1) and the wall distance element (2) each comprises two longitudinal profiles (3, 11) having a first end (19, 21) and a second end (20, 22). The mounting member (1) further comprises at least two transverse profiles (4) interconnecting the two longitudinal profiles (3), and each of the longitudinal profiles (3) is provided with at least one rung holding bracket (8) and at least one rung locking bracket (9) and a first connecting means (5) and a second connecting means (6) for fastening the wall distance element (2) to the mounting element (1). The wall distance element (2) further comprises at least two transverse profiles (12) interconnecting the two longitudinal profiles (11), at least one transverse support structure (16) connected to the wall distance element (2) at the second end (22) of the longitudinal profiles (11) of the wall distance element (2), and each of the longitudinal profiles (11) is provided with a first connecting means (13) and a second connecting means (14) for fastening the wall distance element (2) to the mounting element (1).

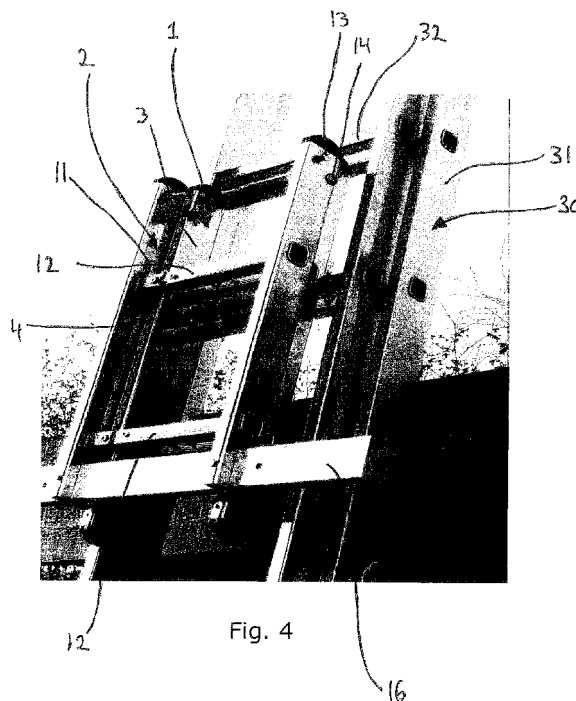


Fig. 4

Description

[0001] In a first aspect, the present invention relates to an accessory for a ladder, in a second aspect a ladder with an accessory for a ladder mounted thereon, and in a third aspect a method for mounting an accessory for a ladder on a ladder.

[0002] According to the first aspect of the present invention, the accessory for a ladder comprises a mounting element and a wall distance element, the mounting element comprising two longitudinal profiles having a first end and a second end, and the wall distance element comprising two longitudinal profiles having a first end and a second end.

[0003] Such an accessory for a ladder is known from, for example, DE 200 19 849 U1. Other examples are known from FR 2 716 491 A1 and US 2005/0139425 A1.

[0004] The purpose of these accessories for a ladder is to permit a better working position when performing work on a ladder, as the upper end of the ladder is kept at a distance from the wall. This is an advantage, for example, in connection with painting and, not least, the maintenance of gutters and eaves.

[0005] The accessory for a ladder which is known from FR 2 716 491 A1, however, suffers from the disadvantage that it does not comply with the requirements under European ladder standards as it is far too unstable to provide a safe working position on the ladder.

[0006] Similar problems apply to the accessory known from DE 200 19 849 U1, although to a lesser degree.

[0007] The publication US 2005/0139425 A1 describes a far more stable structure, but it suffers from the disadvantage that it is difficult to mount and dismantle, and that the ladder is difficult to use and handle when the accessory is mounted.

[0008] It is therefore the object of the present invention to provide an accessory for a ladder which ensures easy mounting and dismantling, preferably without the use of tools, and which does not substantially hinder ordinary use of the ladder.

[0009] This object is obtained with an accessory for a ladder of the type mentioned in the introduction, the accessory for a ladder being **characterized in that**

the mounting element further comprises at least two transverse profiles interconnecting the two longitudinal profiles,

and each of the longitudinal profiles is provided with at least one rung holding bracket and at least one rung locking bracket as well as a first connecting means and a second connecting means for fastening the wall distance element to the mounting element, and in that the wall distance element further comprises at least two transverse profiles interconnecting the two longitudinal profiles, at least one transverse support structure connected to the wall distance element at the second end of the longitudinal profiles of the wall distance element,

and each of the longitudinal profiles is provided with a first connecting means and a second connecting means for fastening the wall distance element to the mounting element,

the first and second connecting means of the mounting element and the wall distance element being mutually arranged so that the longitudinal profiles of the mounting element form an angle with the longitudinal profiles of the wall distance element.

[0010] Through the at least two transverse profiles, an accessory for a ladder is provided which is easier to use, not only in connection with mounting and dismantling, but also in connection with use of the ladder. Because the accessory for a ladder is mounted by means of rung holding and rung locking brackets, reliable mounting of the accessory for a ladder on a ladder as well as easy dismantling and mounting are ensured, as no kind of tool is required to loosen or fasten the accessory for a ladder by this kind of mounting. Examples of preferred types of rung holding brackets and rung locking brackets are described below.

[0011] The embodiment in which the accessory for a ladder has one rung locking bracket and one rung holding bracket on each longitudinal profile of the mounting element is the preferred embodiment, as the two rung locking brackets can be released and disengaged from the ladder in one operation, the user operating one rung locking bracket with each hand.

[0012] However, embodiments in which each longitudinal profile of the mounting element is provided with more than one rung locking bracket are also feasible. In that case, locking mechanisms which can be operated by means of a joint operating mechanism are recommended so that the accessory for a ladder can still be disengaged from the ladder in one operation.

[0013] The connecting means are preferably holes in which a fastening member, such as a bolt, can be placed. The mutual connection between the mounting element and the wall distance element is then obtained by means of placing the holes in the respective longitudinal profiles two by two opposite each other. However, there may also be projections on either the wall distance element or the mounting element which can be brought into engagement with holes, recesses or projections on the other element.

[0014] Preferably, two sets of holes are used, one set of which is used for a permanent connection, such as a bolt connection between the two elements, while the second set is only used when the accessory for a ladder is placed in an active or unfolded position in which the longitudinal profiles of the wall distance element form an angle relative to the longitudinal profiles of the mounting element.

[0015] If only the second connecting means of the respective longitudinal profiles is used to fasten the mounting element and the wall distance element to each other, the accessory for a ladder assumes an inactive position

in which the longitudinal profiles of the mounting element and the wall distance element, respectively, are substantially parallel. This ensures a very compact accessory for a ladder, which does not take up much more space in an inactive or folded condition than the ladder itself.

[0016] This feature of the invention concerning the active and inactive position and the foldability of the accessory for a ladder will be further described below.

[0017] In an embodiment of the accessory for a ladder, the distance between the two longitudinal profiles of the mounting element at their first end is smaller than an internal distance between the two longitudinal profiles of the wall distance element at their first end so that the two longitudinal profiles of the wall distance element can be fastened to an outer side of the two longitudinal profiles of the mounting element.

[0018] This structure results in a good stability of the accessory for a ladder and the ladder during use, as a relatively large distance is obtained between the two profiles of the wall distance element, which rests against the surface on which the ladder leans, through the support structure. The greater this distance is, the better and more stable the ladder will stand, in principle.

[0019] However, the inverse is naturally also feasible, viz., that the distance between the two longitudinal profiles of the wall distance element at their first end is smaller than an internal distance between the two longitudinal profiles of the mounting element at their first end so that the two longitudinal profiles of the mounting element can be fastened to an outer side of the two longitudinal profiles of the wall distance element.

[0020] Alternatively, the distance between the longitudinal profiles of both the mounting element and the wall distance element is the same so that the respective longitudinal profiles extend pairwise end to end. In such case, the foldability of the accessory for a ladder is ensured by means of a hinge connection between the respective longitudinal profiles.

[0021] In an embodiment of the accessory for a ladder, the support structure is provided with feet of a non-slip material. The material may be synthetic or natural rubber or any other material that provides sufficient friction against the base on which the feet rest during use, for example, woodwork, wall or the like. Not only does this provide safety during the use of a ladder with an accessory for a ladder mounted thereon, it may also contribute to preventing the ladder from slipping during transport or storage.

[0022] In an embodiment of the accessory for a ladder, the transverse support structure is provided with wheels. The wheels may be provided instead of or as a supplement to the feet of a non-slip material mentioned above. The wheels facilitate the erection of a ladder with an accessory for a ladder mounted thereon, as the ladder can then be wheeled up along the wall until it is in position.

[0023] To prevent unintended moving of the ladder during use, the wheels can preferably be blocked so that they are unable to rotate, and thus function as non-slip

feet in themselves. This makes for a more compact structure than the one mentioned above with both feet and wheels.

[0024] Both supporting feet and wheels may preferably be removable. This makes it possible not only to remove them during transport, they may also be replaced by new ones when worn, or if, for example, the ladder has to rest against a particularly delicate surface on which the colour of the standard feet may rub off.

[0025] In an embodiment, the support structure is connected to the wall distance element by means of a recess in each of the longitudinal profiles of the wall distance element. This is a space-saving structure and, supplemented with a pair of fastening bolts or screws, ensures sturdy mounting of the support structure on the wall distance element. A particular advantage of this embodiment is that a ladder with a folded accessory for a ladder mounted thereon will not be notably thicker than the actual ladder.

[0026] In a preferred embodiment of the accessory for a ladder, the rung locking brackets are of a spring-loaded type which automatically locks around the rungs of the ladder when the accessory for a ladder is mounted on a ladder, and where the spring force must be overcome to release the accessory for a ladder from the ladder again. An example of such spring-loaded bracket is a rung hook with a securing spring. This is an example of a rung locking bracket in which the spring load derives from a separate spring, but the rung locking bracket may also be of a type in which the spring load is produced by virtue of the geometry and material of the rung locking bracket. A large R-clip may be used as such a type of rung locking bracket. The advantages of these forms of rung locking brackets are that it is easy and quick to mount and dismantle the accessory for a ladder on a ladder, and that the use of tools is not required. In case of a particularly strong spring load or if the bracket is heavily loaded due to mounting on a ladder with particularly thick rungs, it may prove necessary in special cases to use an aid to counteract the spring force, but that would be for the purpose of protecting the user's hands and fingers and will not require special-purpose tools.

[0027] In an embodiment of the accessory for a ladder, the transverse profiles of the mounting element form an angle with the longitudinal profiles of substantially between 80° and 100°, preferably substantially 90°, and/or the at least two transverse profiles of the wall distance element form an angle with the longitudinal profiles of substantially between 80° and 100°, preferably substantially 90°. The structure obtained in this way is very stable and sturdy. Moreover, in this way the transverse profiles of the accessory for a ladder are made to substantially flush with the rungs of the ladder on which the accessory for a ladder is mounted. This prevents the user's feet from becoming caught by the transverse profiles during use of the ladder with the accessory for a ladder mounted thereon.

[0028] In an embodiment of the accessory for a ladder,

the fastening member for fastening the wall distance element to the mounting element comprises one or more of the following: Bolt, pin, preferably linchpin. Other forms of fastening members may be contemplated for use as long as they are capable of being mounted and dismantled substantially without the use of tools.

[0029] In a preferred embodiment, a form of fastening member ensuring a fixed connection is used at the second holes, such as a machine bolt and nut, while a form of fastening member which is easy to loosen without the use of tools is used at the first holes, such as a bolt and wing nut, a linchpin or the like. After using the accessory for a ladder, the user can in this way simply release the fastening members at the first holes and allow the wall distance element to rotate about the fastening members at the second holes into an inactive position of the accessory for a ladder without the use of tools. As mentioned above, this inactive position is preferably one in which the wall distance element is substantially parallel to the mounting element so that the accessory for a ladder takes up as little space as possible when not in use. This is an advantage, not only in connection with sales, storage and transport, it also means that in many cases the accessory for a ladder can be left on the ladder for later use as the ladder is simply turned round so that the accessory for a ladder faces away from the user and towards the surface on which the ladder leans.

[0030] In an embodiment of the accessory for a ladder, a protective cap has been provided at the first and/or the second end of each longitudinal profile of the mounting element and/or at the first end of each longitudinal profile of the wall distance element. In this way, the user is protected against scratching himself or herself on any sharp edges on the longitudinal profiles of the accessory for a ladder. The protective caps are preferably made of a plastics material.

[0031] In an embodiment of the accessory for a ladder, the first hole and/or the second hole of the mounting element and/or the first hole and/or the second hole of the distance element are provided with a pipe section as a lining. This increases the strength and stability of the connection and thus of the accessory for a ladder in general. Moreover, such a lining facilitates the insertion of a fastening member. Additionally, it has a conducive effect on the rotation of the mounting element relative to the wall distance element so that the folding of the accessory for a ladder goes more smoothly. Finally, the lining may have a noise-abating effect at the folding.

[0032] In an embodiment of the accessory for a ladder, the connecting means are arranged so that the longitudinal profiles of the mounting element form an angle of substantially between 45° and 135°, preferably of substantially between 60° and 120°, and most preferably of substantially 90° with the longitudinal profiles of the wall distance element in an active position of the accessory for a ladder. This makes for a good stability of the ladder and the accessory for a ladder as well as a sufficient distance to the wall in a typical situation of use.

[0033] In a second aspect, the present invention relates to a ladder with at least two longitudinal side pieces and a number of transverse rungs, the ladder having an accessory for a ladder according to any one of the above embodiments mounted thereon.

[0034] In a third aspect, the present invention relates to a method of mounting an accessory for a ladder on a ladder having at least two longitudinal side pieces and a number of transverse rungs, the accessory for a ladder being able to assume an active position and an inactive position, the angle between the longitudinal profiles of the mounting element and the longitudinal profiles of the wall distance element being substantially between 45° and 135°, preferably substantially between 60° and 120°, and most preferably substantially 90° in an active position of the accessory for a ladder, and the longitudinal profiles of the mounting element and the wall distance element, respectively, being substantially parallel in the inactive position.

[0035] This ensures a stable and strong structure when the accessory for a ladder is in use in the active position as described above, while the accessory for a ladder does not require much space in its inactive position as it can be folded into a very flat shape. Thus, the accessory for a ladder may even remain on the ladder after completed use without taking up much more space than the ladder itself in the direction at right angles to the longitudinal and transverse directions. It should be noted that the wall distance element and the mounting element may be either wholly or partially superposed or be in extension of each other in the inactive or folded condition.

[0036] In an embodiment of the method, each transverse profile of the mounting element of the accessory for a ladder is placed substantially on level with a transverse rung of the ladder in the mounted condition of the accessory for a ladder. This ensures that there is just as much space for the user's feet as is the case on a ladder without any accessory for a ladder mounted thereon. This increases the safety of the accessory for a ladder in use as the user's feet do not risk getting caught or getting squeezed. It also facilitates the use of the equipment on the ladder as the user can merely place his or her feet as she or he is used to from an ordinary ladder without any accessory for a ladder mounted thereon.

[0037] The distance between two transverse profiles of the accessory for a ladder may be identical to the distance between the rungs of the ladder or with a multiple of this distance with a positive integer which is preferably not higher than the number of rungs of the ladder.

[0038] In an embodiment, each transverse profile of the wall distance element is furthermore placed substantially on level with a transverse rung of the ladder in the mounted condition in the inactive position of the accessory for a ladder. This both confers strength and stability on the accessory for a ladder, and in the situation where the ladder is used with the accessory for a ladder in an inactive position it also confers the above advantages that the user's hands or feet do not risk getting caught in

the accessory for a ladder, as the transverse profiles coincide with the ladder rungs.

[0039] Both the above embodiments enjoy the advantage that, if for instance the accessory for a ladder is to be manufactured on the same production equipment as the ladder, it will not be necessary to alter the set-up of the machines in that respect. Should a longer accessory for a ladder be desirable for one reason or another, for example in view of increased stability or strength or desirable further increased distance to the wall, the transverse profiles may be placed on level with, for example, every second or, for example, every third rung of the ladder on which the accessory for a ladder is to be mounted.

[0040] In an embodiment of the method, the longitudinal profiles of the accessory for a ladder arranged with the greatest mutual distance are located between the inner sides of the two longitudinal side pieces of the ladder in a mounted condition of the accessory for a ladder. This results in a compact structure as the accessory for a ladder, if the support structure is disregarded, does not protrude beyond the ladder in the mounted condition in the transverse direction. This is an advantage, for example, in connection with both sales, transport and storage. It also results in increased comfort in the situation of use as the user can hold around and let his or her hands slide along the outer sides of the ladder side pieces on his or her way up and down the ladder without encountering any obstacles.

[0041] The following describes an example of an embodiment of the accessory for a ladder with reference to the accompanying figures, where:

Fig. 1a is a schematic front view of an embodiment of the mounting element of the accessory for a ladder;

Fig. 1b is a schematic side view of the embodiment of the mounting element of the accessory for a ladder shown in Fig. 1a;

Fig. 1c is a schematic side view from the other side of the embodiment of the mounting element of the accessory for a ladder shown in Figs. 1a and 1b;

Fig. 2a is a schematic front view of an embodiment of the wall distance element of the accessory for a ladder;

Fig. 2b is a schematic side view of the embodiment of the wall distance element of the accessory for a ladder shown in Fig. 2a;

Fig. 3 shows a ladder with an embodiment of the accessory for a ladder mounted thereon, the accessory being in an active position; and

Fig. 4 shows a ladder with an embodiment of the accessory for a ladder mounted thereon, the accessory being in an inactive position.

[0042] With reference first to Figs. 1a, 1b and 1c, the mounting element 1 comprises two longitudinal profiles 3 held together by two transverse profiles 4 mounted with the same distance as the rungs of the ladder (not shown).

[0043] Two rung locking brackets 9 and two rung holding brackets 8 are mounted on the longitudinal profiles 3 to prevent the accessory for a ladder from falling off the ladder.

[0044] In principle, the rung holding brackets 8 are merely hooks able to grip around a rung of ordinary ladders. In the embodiment shown, L-shaped brackets have been used and may be fastened to the longitudinal profile 3 of the mounting element by means of screws, rivets, welding or gluing, depending on the choice of materials, but U-shaped or T-shaped brackets may also be used.

[0045] The longitudinal profiles 3 have two sets of holes 5, 6, the second set of holes 6 being intended for mounting the distance element 2 on the mounting element 1. This may be effected, for example, with 8 to 10 mm machine bolts (18) with a locknut.

[0046] The first set of holes 5 is intended to retain the wall distance element 2 on the mounting element 1, preferably at an angle of approx. 90 degrees. For this purpose, for example, two 8 to 10 mm machine bolts 18 with wing nuts, linchpins or the like are used.

[0047] The mounting element 1 may be altered both horizontally and vertically by means of adjustment parts (not shown), if desired, so that the mounting element 1 can be adjusted to fit all types of ladders. It is advantageous if the transverse profiles 4 of the mounting element 1 are substantially aligned with rungs of the ladder, also in the longitudinally extended condition of the mounting element in a mounted condition of the accessory for a ladder on a ladder. This provides the above advantages in connection with use of the ladder.

[0048] With reference now to Figs. 2a and 2b, the wall distance element 2 comprises two longitudinal profiles 11, called distance profiles, which have the same dimension as the longitudinal profiles (not shown) of the ladder, the profiles 11 being held together by two transverse profiles 12 with the same distance as the rungs of the ladder.

[0049] In the embodiment shown, both the longitudinal profiles 3 and the transverse profiles 4 of both the mounting element and the wall distance element are of the same type as is used for side pieces and rungs, respectively, of ordinary aluminium ladders. This results in not only a clear visual connection between the ladder and the accessory for a ladder, but may also imply substantial production technical advantages as the ladder and the accessory for a ladder can then be manufactured at the same place on the basis of the same materials. However, advantages may also be involved in using profiles of another type, for example, longitudinal profiles with a smaller cross-sectional area than the ladder side pieces to save space and/or transverse profiles with a cross-section adapted in consideration of the mounting of the locking brackets. Similarly, the wall distance element 2 is shown in the drawing as being wider than the mounting element 1 so that it is mounted on the outside of the mounting element 1. Both are narrower than the distance between the side pieces on ordinary ladders, and are arranged so that both the wall distance element 2 and

the mounting element 1 are located between the side pieces when mounted on the ladder. This provides the largest possible distance between the longitudinal profiles 11 of the wall distance element 2 and thereby optimum stability, while at the same time the accessory for a ladder in its folded condition will be located partly in the space defined by the ladder side pieces and the normally somewhat narrower rungs. Moreover, with this embodiment, the side pieces of the ladder will be kept substantially free, which means that the user of the ladder can freely place his or her hands on the side pieces when climbing up or down or working on the ladder. Only the support structure 16, which is often wider than the actual ladder, will project beyond the side pieces when the accessory for a ladder is mounted in its folded condition.

[0050] However, it should be understood that other embodiments in which the wall distance element and the mounting element have, for example, the same width or where the wall distance element is wider than the ladder may also be applied.

[0051] Two sets of holes 13, 14 are bored in the distance profiles 11.

[0052] One set of holes 14 is intended for mounting on the mounting element 1, which may advantageously be effected with 8 to 10 mm machine bolts 18 with a locknut.

[0053] The second set of holes 13 is intended to retain the distance profiles 11 on the mounting element 1, preferably at an angle of approx. 90 degrees. For this purpose, for example, 8 to 10 mm machine bolts 18 with wing nuts may be used.

[0054] The longitudinal profiles 3, 11 of both the mounting element 1 and the wall distance element 2 may be provided with protective caps 7, 23 of a plastic material or the like at one or both ends.

[0055] In the case of the wall distance element 2, protective caps may advantageously be used at the end connected to the mounting element, while at the other end 22 a wide support structure 16 with rubber feet 17 is mounted to ensure that the ladder does not slip on the wall.

[0056] In the embodiment shown, the support structure 16 is mounted in recesses 24 cut in the middle of each of the distance profiles 11 and is retained by an 8 to 10 mm machine bolt 18 with a locknut. Other alternative mounting possibilities will be obvious to a person skilled in the art.

[0057] In the holes in the profiles 3, 11 through which the bolts 18 penetrate, a small section of pipe 10, 15 may be inserted to prevent the profiles 3, 11 from becoming weak. These pipe sections will serve at the same time for passing the bolt correctly through the profile, and if made of a suitable material they may also prevent friction-conditional sounds at the unfolding and folding of the accessory for a ladder.

[0058] The support structure 16 may be fitted with wheels (not shown) at each side, if necessary.

[0059] The wall distance element 2 may be made so that it can be extended with an adjustment part (not

shown) so that its length can be adjusted according to need. Embodiments may also be contemplated in which the distance between the longitudinal profiles of the wall distance element can be adjusted, possibly only at the outer end, to provide increased stability during use in the unfolded condition.

[0060] As also mentioned above in connection with the mounting element, it is advantageous if the transverse profiles of the wall distance element, also in the extended condition, coincide with the rungs of the ladder in the mounted, but inactive condition of the accessory for a ladder.

[0061] The above is based on ladders made of aluminium or silicon, which are the most common ones, and the accessory for a ladder may advantageously be made of the same material, but it should be understood that other materials, such as other light metals or alloys thereof, plastics, glass fibre or wood may of course also be applied.

Claims

1. An accessory for a ladder comprising a mounting element (1) and a wall distance element (2), the mounting element (1) comprising:

- two longitudinal profiles (3) having a first end (19) and a second end (20),

and the wall distance element (2) comprising:

- two longitudinal profiles (11) having a first end (21) and a second end (22),

characterized in that

the mounting element (1) further comprises:

- at least two transverse profiles (4) interconnecting the two longitudinal profiles (3), and each of the longitudinal profiles (3) is provided with:
- at least one rung holding bracket (8) and at least one rung locking bracket (9),
- a first connecting means (5) and a second connecting means (6) for fastening the wall distance element (2) to the mounting element (1),

and in that the wall distance element (2) further comprises:

- at least two transverse profiles (12) interconnecting the two longitudinal profiles (11),
- at least one transverse support structure (16), which is connected to the wall distance element (2) at the second end (22) of the longitudinal profiles (11) of the wall distance element (2),

and each of the longitudinal profiles (11) is provided with:

- a first connecting means (13) and a second connecting means (14) for fastening the wall distance element (2) to the mounting element (1),

the first and second connecting means (5, 6) of the mounting element (1) and the first and second connecting means (13, 14) of the wall distance element (2) being mutually arranged so that the longitudinal profiles (3) of the mounting element (1) form an angle with the longitudinal profiles (11) of the wall distance element (2).

2. An accessory for a ladder according to claim 1, wherein the connecting means are holes in which a fastening member (18) may be placed.
3. An accessory for a ladder according to claim 1 or 2, wherein a distance (a1) between the two longitudinal profiles (3) of the mounting element (1) at their first end (19) is smaller than an internal distance (a2) between the two longitudinal profiles (11) of the wall distance element (2) at their first end (21) so that the two longitudinal profiles (11) of the wall distance element (2) may be fastened on an outer side of the two longitudinal profiles (3) of the mounting element (1).
4. An accessory for a ladder according to any one of the preceding claims, wherein the support structure (16) is provided with feet (17) of a non-slip material.
5. An accessory for a ladder according to any one of the preceding claims, wherein the transverse support structure (16) is provided with wheels.
6. An accessory for a ladder according to any one of the preceding claims, wherein the support structure (16) is connected to the wall distance element (2) by means of a recess (24) in each of the longitudinal profiles (11) of the wall distance element (2).
7. An accessory for a ladder according to any one of the preceding claims, wherein the rung locking brackets (9) are of a spring-loaded type.
8. An accessory for a ladder according to any one of the preceding claims, wherein the at least two transverse profiles (4) of the mounting element (1) form an angle with the longitudinal profiles (3) of substantially between 80° and 100°, preferably substantially 90°, and/or wherein the at least two transverse profiles (12) of the wall distance element (2) form an angle with the longitudinal profiles (11) of substantially between 80° and 100°, preferably substantially 90°.

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9. An accessory for a ladder according to any one of the preceding claims, wherein the fastening member (18) comprises one or more of the following: Bolt, pin, preferably linchpin.
10. An accessory for a ladder according to any one of the preceding claims, wherein a protective cap (7, 23) is provided at the first and/or the second end (19, 20) of each longitudinal profile (3) of the mounting element (1) and/or at the first end (21) of each longitudinal profile (11) of the wall distance element (2).
11. An accessory for a ladder according to any one of the preceding claims, wherein the first hole (5) and/or the second hole (6) of the mounting element (1) and/or the first (13) and/or the second hole (14) of the wall distance element (2) is/are provided with a pipe section (10) as a lining.
12. An accessory for a ladder according to any one of the preceding claims, wherein the first and second connecting means (5, 6) of the mounting element (1) and the first and second connecting means (13, 14) of the wall distance element (2) are mutually arranged so that the longitudinal profiles (3) of the mounting element (1) form an angle of substantially between 45° and 135°, preferably of substantially between 60° and 120°, and most preferably of substantially 90° with the longitudinal profiles (11) of the wall distance element (2) in an active position of the accessory for a ladder.
13. A ladder (30) with at least two longitudinal side pieces (31) and a number of transverse rungs (32), an accessory for a ladder according to any one of claims 1-12 being mounted on the ladder (30).
14. A method for mounting an accessory for a ladder according to any one of claims 1-12 on a ladder (30) having at least two longitudinal side pieces (31) and a number of transverse rungs (32), wherein the accessory for a ladder is able to assume an active position and an inactive position, wherein the angle (v) between the longitudinal profiles (3) of the mounting element (1) and the longitudinal profiles (11) of the wall distance element (2) is substantially between 45° and 135°, preferably substantially between 60° and 120°, and most preferably substantially 90° in an active position of the accessory for a ladder, and wherein the longitudinal profiles (3, 11) of the mounting element (1) and the wall distance element (2), respectively, are substantially parallel in the inactive position of the accessory for a ladder.
15. A method for mounting an accessory for a ladder according to any one of claims 1-12 on a ladder (30) having at least two longitudinal side pieces (31) and a number of transverse rungs (32), wherein each

transverse profile (4) of the mounting element (1) of the accessory for a ladder is placed substantially on level with a transverse rung (32) of the ladder (30) in the mounted condition of the accessory for a ladder.

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16. A method according to claim 15, wherein each transverse profile (12) of the wall distance element (2) of the accessory for a ladder is placed substantially on level with a transverse rung (32) of the ladder (30) in the mounted condition of the accessory for a ladder in the inactive position of the accessory for a ladder.

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17. A method according to any one of claims 14 to 16, wherein those longitudinal profiles (3; 11) of the accessory for a ladder which are arranged at the greatest mutual distance are located between the inner sides (33) of the two longitudinal side piece profiles (31) of the ladder (30) in a mounted condition of the accessory for a ladder.

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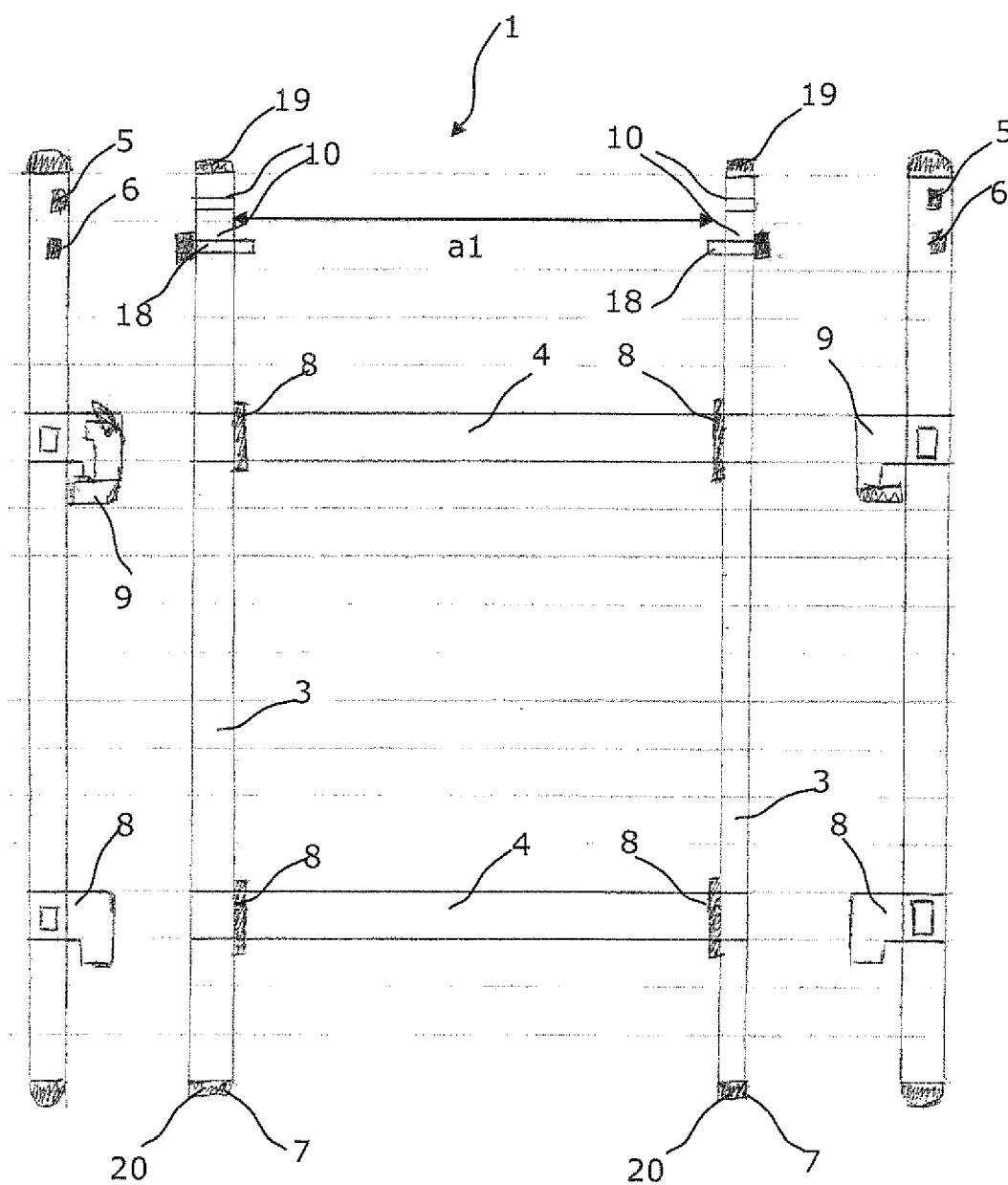


Fig. 1b

Fig. 1a

Fig. 1c

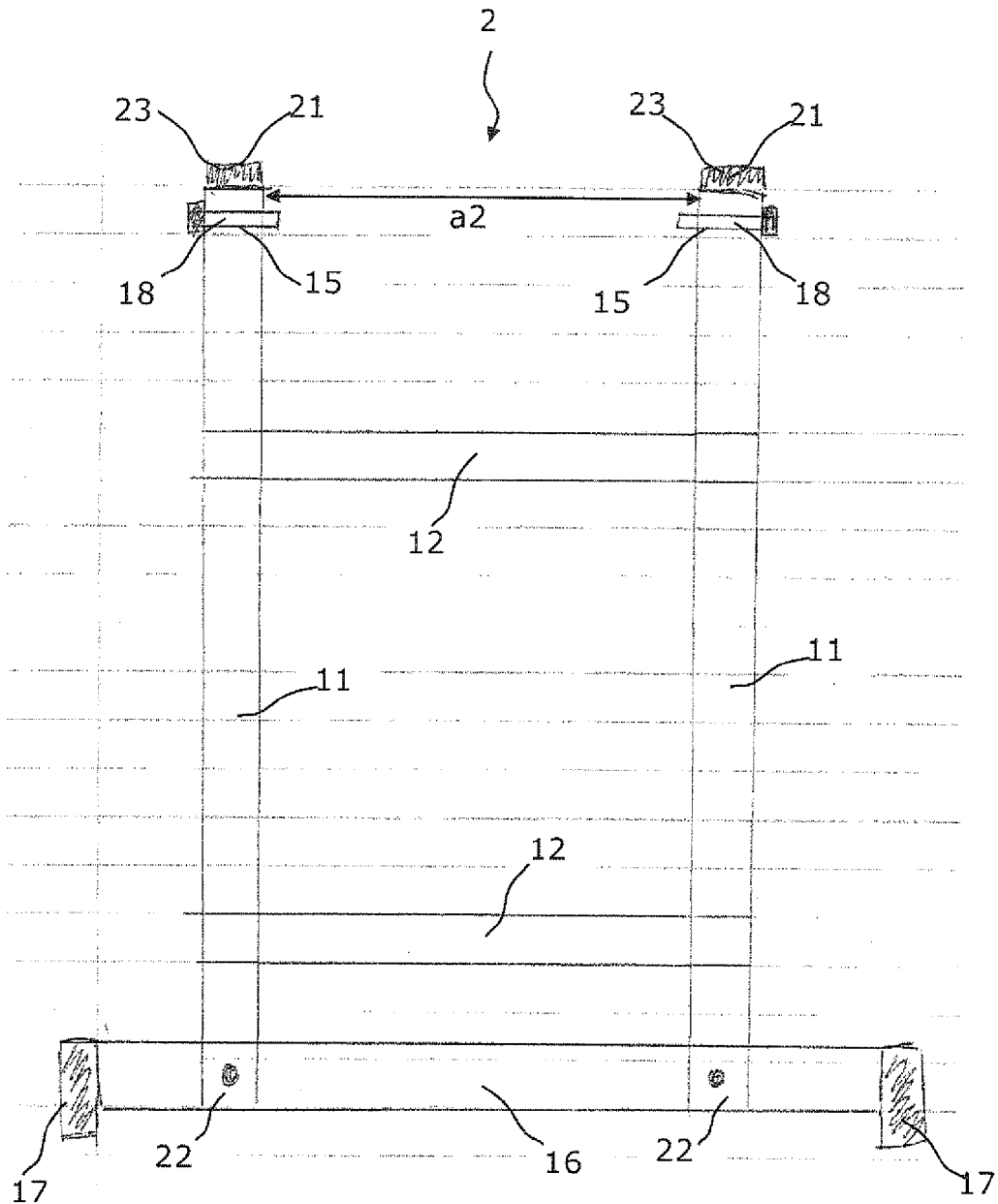


Fig. 2a

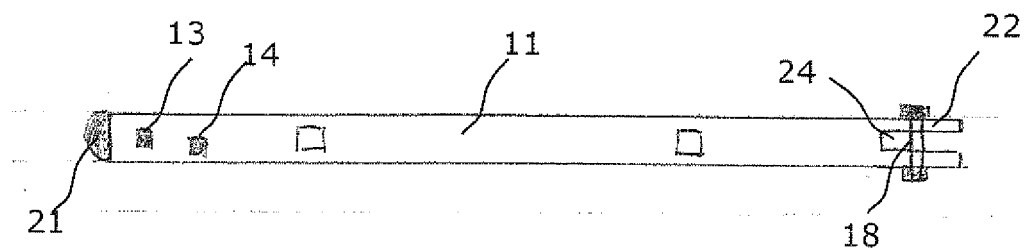
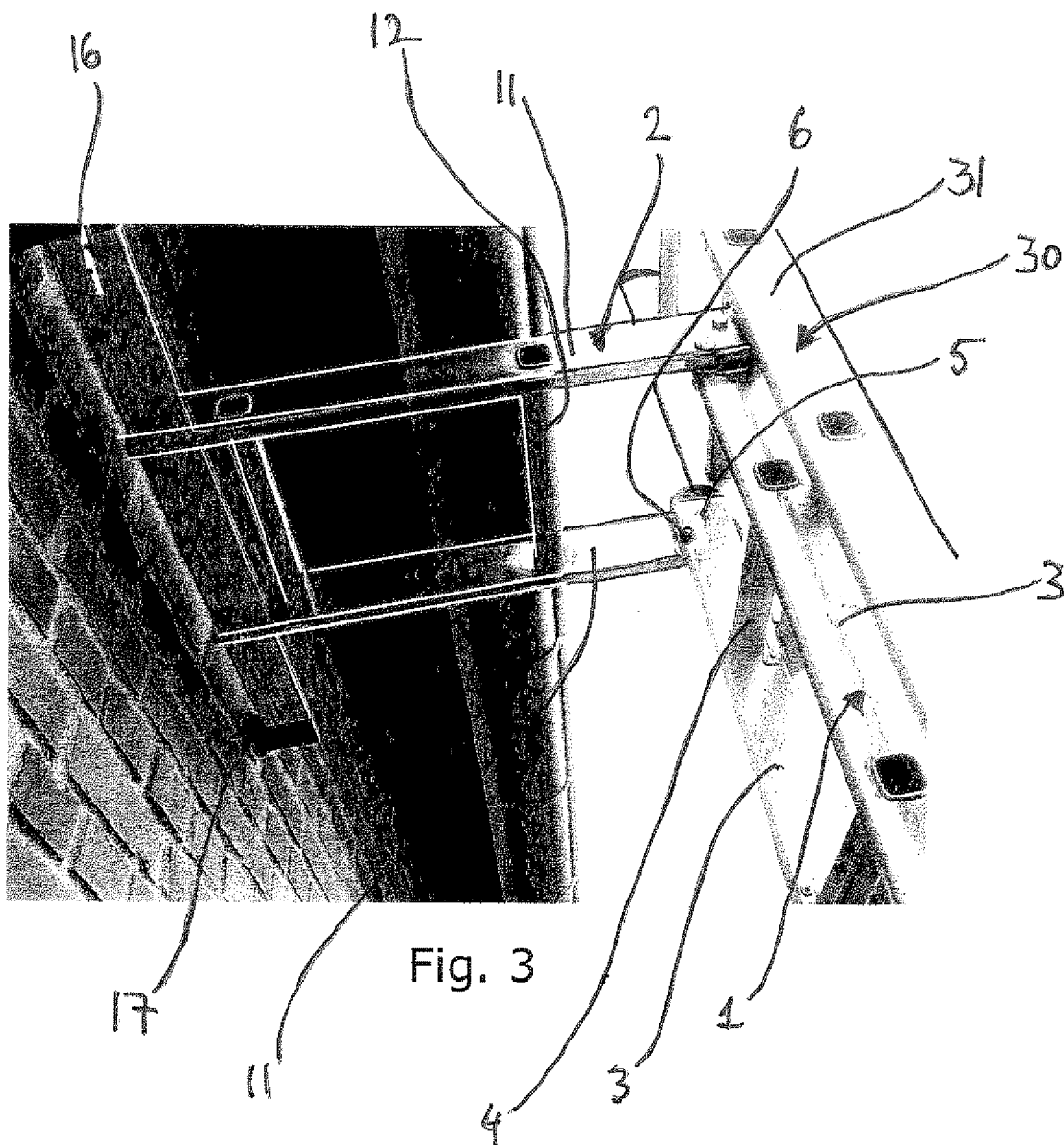
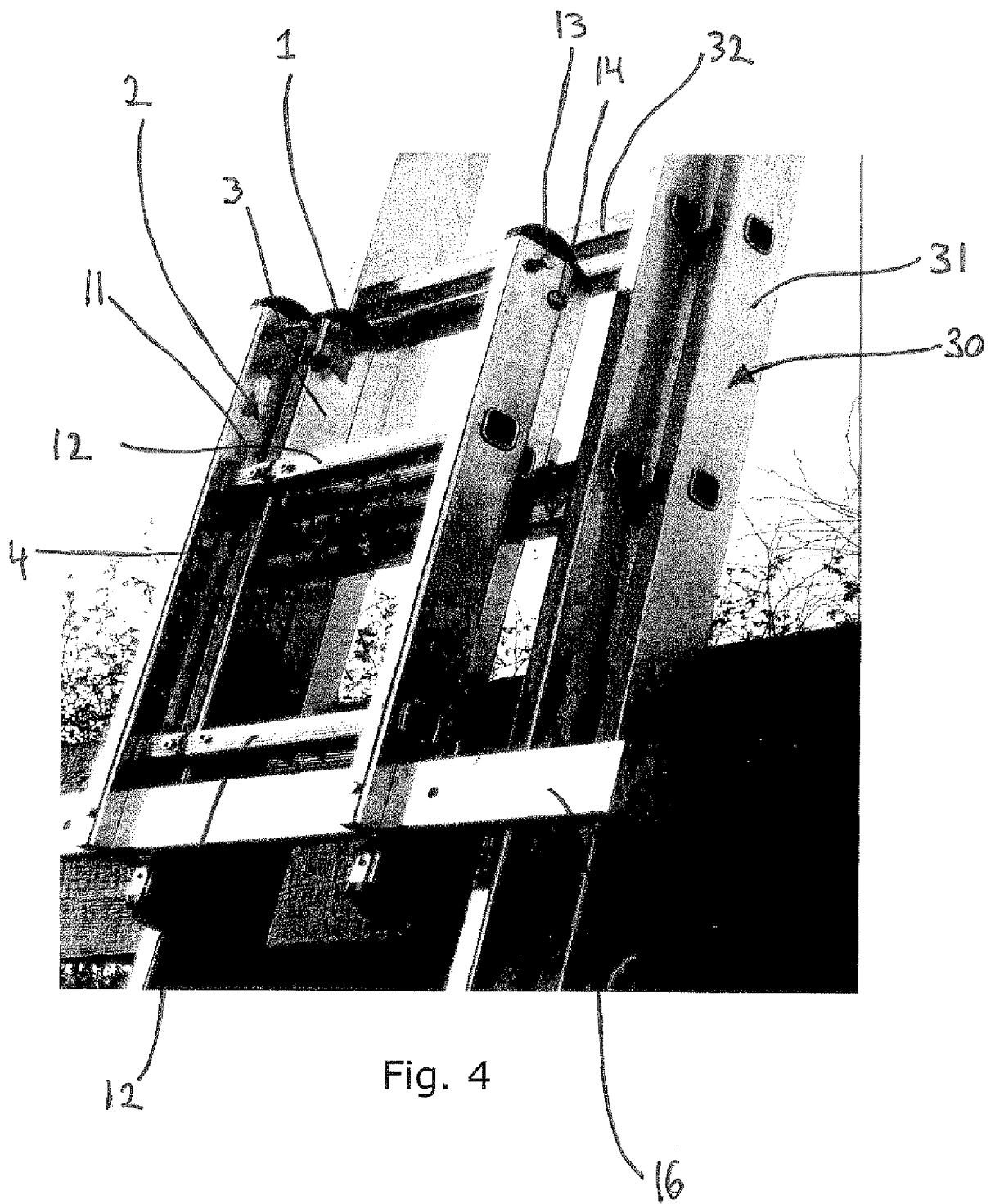


Fig. 2b







EUROPEAN SEARCH REPORT

Application Number
EP 09 17 2220

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			E06C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 January 2010	Examiner Bauer, Josef
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			

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15-01-2010

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DE 202004014832 U1	09-12-2004	NONE	
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