

**Arrangement comprising a sink and a tap, and comprising a specific clamping device,
and method**

One aspect of the invention relates to an arrangement having a sink and a tap that is arranged
5 on the sink. The arrangement also has a worktop in which a receiving opening is formed. The
sink is arranged in this receiving opening. The sink has a tap receiving region having a
feedthrough through which the tap extends and is arranged on both sides of the feedthrough.
A further aspect of the invention relates to a method for assembling a sink of an arrangement
on a worktop of the arrangement.

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Such arrangements are well known from the prior art. It is also known in this context that the
tap stands upward with an upper region above the tap receiving region and is arranged in an
exposed manner in this regard. A further part region of the tap extends below the sink. In this
regard, the tap is usually fastened to the sink. A tap can also be gripped and actuated by a
15 user, in particular in the first part region that extends in an exposed manner above the sink and
thus above the feedthrough. Corresponding lever forces may arise in this case. These lever
forces also affect the mechanical interface of the tap with the sink. In order to be able to
enable corresponding mechanical stability of the tap here, specific fastenings are known from
the prior art. For example, EP 1 770 224 A1 discloses a fastening apparatus for fixing a fitting
20 to a sink, which completely surrounds the second part region of the tap that extends below a
feedthrough in a tap receiving region of the sink. In addition, this fastening apparatus is
additionally connected to other components of the arrangement there. A fitting reinforcement
for a sink that completely surrounds the tap in this regard is also known from DE 10 2018 116
334 A1.

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In the known fastenings or holding arrangements for a tap, a corresponding space is required
around the tap in order to be able to install these fastening apparatuses. In addition, the
holding arrangement is limited, and it can only be used in each case to stabilize the position of
the tap.

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It is the object of the present invention to provide an arrangement and a method in which the
positional stabilization of a tap on a sink is improved.

This object is achieved by an arrangement or a method in accordance with the independent claims.

One aspect of the invention relates to an arrangement having a sink and a tap that is arranged
5 on the sink. The arrangement also has a worktop in which a receiving opening is formed. The sink is arranged in this receiving opening. The sink has a tap receiving region having a feedthrough through which the tap extends and is arranged on both sides of the feedthrough.

The arrangement has a clamping apparatus. With this clamping apparatus, the sink is arranged
10 in a clamped manner on the worktop. In addition, the clamping apparatus itself is also designed as a position securing unit for the tap, so that the tap is automatically supported in a direction perpendicular to its longitudinal axis by the clamping apparatus, which is separate from the tap, when the clamping apparatus is arranged in its end position that clamps the sink, which is also separate from the clamping apparatus. An arrangement is therefore provided in
15 which the clamping apparatus is configured to be multifunctional. The clamping apparatus is one and the same apparatus which, in its first function, attaches and holds the sink to the worktop in a specific positionally secured position by clamping. In the second functionality, this clamping apparatus, due to its design as a position securing unit, is also designed and used to secure the tap in a specific orientation, namely in a direction perpendicular to its
20 longitudinal axis. An arrangement having a reduced number of components is thereby created and the clamping apparatus that is provided is used in a multifunctional and intelligent manner. The position of the sink on the worktop is secured by a specific mechanical principle, namely by clamping, by virtue of the fact that the apparatus is also specified as a clamping apparatus in terms of its mechanical functionality. This also means that it is not necessary to
25 provide complex drilled holes and screw connections, but rather this securing of the position of the sink on the worktop is made possible merely by a simple clamping process or jamming. A simple mechanical principle is thereby made possible, which is nevertheless highly functional. Since such clamping can usually also be performed in an assembly-friendly and rapid manner, this is also a further advantage with regard to assembling the components. The
30 fact that the position of the tap is also secured automatically and independently as a result of this clamping is a further advantage. The reason for this is that the clamping apparatus does not then have to be actuated twice in this regard, namely on the one hand an assembling process for securing the position of the sink on the worktop and, independently of this, be

actuated and operated in another way in order to achieve the securing of the position of the tap in the specifically specified direction, but rather the second functionality, namely the securing of the position of the tap, is automatically performed and achieved at the same time by the one mechanical assembling process, namely the clamping of the sink on the worktop. This also
 5 renders possible a particularly functional assembly concept.

In one exemplary embodiment, the sink is clamped using the clamping apparatus at least in the height direction of the arrangement in the position on the worktop. The clamping apparatus therefore acts in a spatial direction specified here in a defined manner in relation to
 10 the clamping direction of the clamping apparatus. Due to this clamping concept, the sink is virtually pulled downward in this height direction when the clamping apparatus is actuated and is thus set in this height direction into the desired positionally secured end position in comparison to the worktop.

15 In one exemplary embodiment, the clamping apparatus is designed as a combination claw. In one exemplary embodiment, this combination claw has at least two separate clamping elements. The functionality of the clamping, on the one hand, and in particular the securing of the position of the tap in a direction perpendicular to its longitudinal axis, on the other hand, can be set and maintained in a particularly advantageous manner by such an at least dual and
 20 thus redundant design of the combination claw. Undesired tilting is thereby avoided. The assembly concept is achieved in a particularly advantageous manner by these two separate clamping elements in order, on the one hand, to clamp the sink on the worktop and, in particular, then at the same time and simultaneously also to secure the position of the tap. This is because a combination claw of this type can be used to support the tap in a particularly
 25 advantageous manner without the clamping apparatus being opened or displaced in the event of lever forces acting on the tap. A particularly precisely directed supporting force, which acts on the tap in the direction perpendicular to its longitudinal axis, can be achieved by such a combination claw. The movements and orientations that are required in each case and also the forces to be generated are rendered possible precisely by such an at least dual claw, which is
 30 the combination claw.

In one exemplary embodiment, the clamping apparatus for setting the clamped state of the sink is supported on an underside of the worktop. In this context, the worktop enables a

mechanically stable counterbearing. The underside in particular is advantageously used here as a corresponding counterbearing. This is because in this context the clamping elements can be supported in a mechanically particularly stable manner on this underside. On the other hand, the clamping apparatus can then also be installed in a hidden manner. In particular, the clamping force of the clamping apparatus acts vertically and thus in the height direction of the arrangement. In particular, it is thereby rendered possible in a particularly precise manner to set the position of the sink in the height direction relative to the worktop.

In one exemplary embodiment, the clamping apparatus has a single-piece coupling angle. In one exemplary embodiment, this coupling angle has two coupling angle sections. When viewed in the direction of the longitudinal axis of the coupling angle, these coupling angle sections are preferably arranged at the ends and spaced apart from one another. In one exemplary embodiment, the coupling angle sections are L-shaped when viewed in a cross-section perpendicular to the longitudinal axis of the coupling angle. In particular, precisely these two coupling angle sections of the coupling angle are connected directly to a sink wall of the sink that is separate from them. On the one hand, such a geometry of a coupling angle enables a mechanically particularly stable coupling angle. Undesired deformations can thereby be avoided. On the other hand, this specific shaping also renders possible a particularly simple and mechanically highly effective at least dual coupling to other components of the arrangement in a simple manner. In particular, the L shape of the coupling angle sections and their spaced-apart arrangement along the longitudinal axis of the single-piece coupling angle enable the above-mentioned advantages to a particular extent. In particular, the redundant and thus at least double design in this regard with the at least two coupling angle sections also enables improved mechanical contacting, in particular with the sink wall. Undesired twisting of the coupling angle can thereby be avoided in a particularly advantageous manner. In this context, it is then also particularly advantageously possible for the particularly directed and linear clamping force to be built up on the tap in the direction perpendicular to the longitudinal axis of the tap during the assembling process. Undesired twisting or tilting relative to the tap, in particular to a tubular second part region of the tap, can thereby be avoided. This is because the coupling angle makes contact with the outer side of the tap approximately in the middle of the length of the coupling angle and the coupling angle sections are arranged on both sides of this point and are each supported on the sink wall.

Since this coupling angle is straight and therefore has only a particularly small, in particular linear, contact with the second part region of the tap when the mechanical contacting takes place, undesired slipping or slipping past or slipping off of the coupling angle on the tubular second part region of the tap can be avoided owing to the different geometric designs and
 5 nevertheless this specific shape of the coupling angle.

In one exemplary embodiment, the coupling angle sections each have a mounting element. In accordance with the intended purpose, the coupling angle sections and thus the entire single-piece coupling angle are mounted in receiving arrangements on the sink wall by means of
 10 these mounting elements, in particular mounted directly thereon. The coupling angle is thus mounted in two separate receiving arrangements of the sink wall with two separate and thus spaced-apart mounting regions. In this manner, a mechanically stable fastening can also be supported. In addition, the above-mentioned advantages are thereby further improved. In particular, the mounting elements are formed in L limbs of the coupling angle sections, which
 15 project at an angle from a base limb of the coupling angle. In particular, this angle is between 80° and 100° , in particular between 85° and 95° . The vertical L-limbs of the coupling angle sections in this regard are therefore strips or tabs that are oriented in the height direction. The integral design of the mounting elements in these vertical L limbs is therefore particularly advantageous. This is because a simple mounting from above in the receiving arrangements of
 20 the sink wall is thereby made possible. In this regard, these vertical L-limbs of the coupling angle sections can then be oriented parallel to the sink wall and in this regard can also rest against the sink wall over as large an area as possible. In one exemplary embodiment, the mounting elements can be formed as a single piece with the coupling angle sections. The mounting elements can be, for example, bending tabs which are positioned obliquely out of
 25 the vertical L limbs or are bent out of the plane of these L limbs. In particular, the coupling angle can be formed from metal. It can then be designed as a punched/bent component. This renders possible a high degree of stability and shape precision.

In one exemplary embodiment, the coupling angle has an, in particular strip-shaped, base
 30 limb. This base limb is in particular a straight, plate-shaped strip. Clamping elements of the clamping apparatus, which are separate from the base limb, are arranged movably mounted on this base limb. This base limb is therefore also the carrier for these clamping elements which are separate from the base limbs. In particular, the clamping elements are mounted on the base

limb such that they can be moved in the height direction of the arrangement. As a result, the clamping elements can be brought into their clamping position in a purposeful manner and the entire clamping apparatus can then be arranged in a correspondingly clamped manner on the respective mentioned components or their clamping can be set relative to other components.

- 5 This embodiment is advantageous in that the base limb is a more elongated component in itself and can easily accommodate the separate clamping elements in this regard. On the other hand, the base limb is mechanically particularly stable in this regard in order, on the one hand, to be able to bear the clamping elements and, on the other hand, to be able to absorb forces which occur during clamping without undesired deformation. The further L limbs of the
- 10 coupling angle sections are integrated at the end of the base limb.

- In one exemplary embodiment, the base limb has at least one supporting part. This supporting part is in particular separate from and spaced apart from preferably existing coupling angle sections, in particular from vertical L limbs of these coupling angle sections. The supporting
- 15 part is intended to rest against an outer side of the tap in the assembled end position of the clamping apparatus and to generate a supporting force on the tap, which is directed perpendicular to the longitudinal axis of the tap. In one exemplary embodiment, this supporting part is a tab or a plate. This means that a supporting part renders possible an abutment against the outer side of the tap over a larger area. There is then not only a small and
- 20 linear contact with the outer side of the tap, as would be the case if the supporting part were not present and only a narrow edge of the base limb would be used as such a supporting edge. Such a supporting part can thus also be used to transmit force over a larger area to the outer side of the tap. Undesired damage to this outer side of the tap can thereby be avoided, on the one hand, and on the other hand this support of the tap with the clamping apparatus can be
- 25 improved by such a supporting part. In one exemplary embodiment, the supporting part can preferably be a bending tab which is connected as a single piece to the base limb and is arranged directly on a longitudinal edge of the base limb and is bent over in relation to the base limb. In one exemplary embodiment, the supporting part can be oriented standing downward in the height direction starting from the edge of the base limb. In particular, the
- 30 supporting part is then arranged opposite the orientations of the vertical L-limbs of the coupling angle sections, when viewed in the height direction. In comparison thereto, these preferably project upwards above the base limb in the height direction or are oriented upwards from the edge of the base limb.

In one exemplary embodiment, the supporting part is formed centrally between the coupling angle sections when viewed in the direction of the longitudinal axis of the base limb.

- 5 In one exemplary embodiment, the clamping apparatus has at least two separate clamping elements, which are designed as pin-shaped. In one exemplary embodiment, the clamping elements each have a clamping end, which is designed to rest against the worktop in a clamping manner. A clamping end is formed by a pin end and in particular a claw part that is arranged on the pin end. The actuation of the clamping element can be performed in a
- 10 particularly simple manner by means of such a pin-shaped configuration. It is also possible in this context for the base limb to have a hole in which, in particular, an inner thread is formed. An outer thread can be formed on the outer side of the pin of a clamping element. In one exemplary embodiment, this outer thread meshes with the inner thread of the feedthrough in the base limb. As a result, the clamping element can be adjusted relative to the base limb by
- 15 screwing movements. The front end of the pin end then contacts, in particular, the underside of the worktop, as a result of which the clamping apparatus is clamped. Due to the fact that this claw part is additionally preferably present, undesired slipping or bending of the pin-shaped clamping element can be avoided. An additional mechanical coupling to the underside of the worktop is set by this claw part and in this regard an additional claw engagement is
- 20 performed in this clamping process. The clamped position of the apparatus is thereby once again significantly improved and stabilized.

- In one exemplary embodiment, the claw part is a U-shaped part, which rests with its free limb edges on the worktop in a clawed manner. A U-shaped part of this type is inherently
- 25 mechanically stable and is particularly advantageously suitable for additional positional stabilization. In particular, this U-shaped part is designed perpendicular to the longitudinal axis of the pin at the same spacing, so that a symmetrical arrangement of the U-shaped part with respect to the pin of the clamping element is set here. This renders possible a particularly efficient claw engagement and a uniform buildup of the clamping force. A plurality of contact
- 30 sites of the clamping element with the underside of the worktop thus occur. These contact sites are, on the one hand, the central front pin surface of the pin end, on the other hand, the free edges of the U-limbs spaced apart and separate therefrom. This renders possible a

particularly stable arrangement of the clamping apparatus on the underside of the worktop, and said arrangement is particularly suitable with regard to the clamping force.

In one exemplary embodiment, it is provided that the clamping apparatus is not designed to completely encompass the tap. On the contrary, it is not merely also a proportional encompassing arrangement that is provided here. Only a relatively small line or strip contact is provided. Since the base limb on the one hand and the coupling angle as a whole on the other hand are configured in particular in a straight line, but the contact surface of the clamping apparatus on the outer side of the tap is curved, in particular is the outer side of a pipe, only a particularly small contact point arises here between the clamping apparatus and the outer side of the tap. This is also particularly advantageous, since on the one hand less assembling effort is required, and on the other hand less installation space is required around the tap. On the other hand, it is precisely this concept of transmitting the clamping force when clamping the clamping apparatus in a support force that is oriented in a different direction that is rendered possible only by such a concept. A partial or complete encompassing arrangement of the second partial region of the tap in this case is not provided and is not possible. This is because the respective movement of the clamping apparatus during assembling requires free mobility in this regard, which would no longer be possible due to the clamping apparatus encompassing at least partially or completely around the water tap.

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In the assembled end state, the clamping apparatus therefore has only one linear or strip-shaped contact surface with the outer side of the tap, which is oriented in the height direction in relation to the tap.

25 In particular, when viewed in the direction of its longitudinal axis, the coupling angle is longer than the outer diameter of the tap at the contact point of the coupling angle. In the assembled state, the coupling angle projects beyond the tap on both sides of the direction of the diameter.

30 In one exemplary embodiment, the tap is additionally fastened to the sink using a screw nut that is different from the clamping apparatus. This is a primary fastening element with which the tap can basically be fastened to the sink. Such a configuration enables the basic fastening

of the tap, as has also already been explained in a known manner in the introduction to the description.

A further aspect of the invention relates to a method for assembling a sink of an arrangement
5 on a worktop of the arrangement, having the following steps:

- inserting the sink into a receiving opening of the worktop;
- attaching a clamping apparatus to a sink wall of the sink;
- setting an end position of the sink in the receiving opening, wherein the clamping
10 apparatus is actuated for this purpose, and in so doing the clamping apparatus is
clamped on an underside of the worktop, so that the sink is clamped at least in the
height direction of the arrangement on the worktop;
- automatically setting a position securing arrangement of the tap by the clamping
15 apparatus, wherein for this purpose, when the clamping apparatus is clamped on the
underside of the worktop, the clamping apparatus is moved toward the tap, in
particular pivoted, and is positioned in contact with the tap in such a way that a
supporting force is generated perpendicular to a longitudinal axis of the tap on the tap
by the clamping apparatus in its function as a position securing unit.

20 Such a method improves the assembling process of the sink and, on the other hand, also
achieves an improved securing of the position of the tap on the sink in a particularly
advantageous manner.

The further advantages of the method have already been explained in the explanation of the
25 arrangement. These also apply *mutatis mutandis* for the method.

In one exemplary embodiment, the clamping apparatus is mounted with at least two spaced-
apart, in particular end-side L-shaped, coupling angle sections of a single-piece coupling
angle of the clamping apparatus directly on the sink wall of the sink that is separate from the
30 clamping apparatus, so that the sink is pulled downward and clamped in the height direction
by the clamping force of the clamping apparatus that acts in the height direction during
clamping.

During clamping, a clamping force is generated at at least two separate clamping points, and during clamping, the coupling angle is tilted about a horizontal axis, so that the tilting brings a supporting part of the coupling angle into abutment with an outer side of the tap, and the supporting force is thereby built up on the tap perpendicular to a longitudinal axis of the tap.

- 5 The horizontal axis is in particular parallel to the longitudinal axis of the coupling angle.

The information "top", "bottom", "front", "rear", "horizontal", "vertical", "depth direction", "width direction", "height direction" indicates the positions and orientations given during intended use and intended positioning of the device.

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Further features of the invention are evident in the claims, the figures and the description of the figures. The features and feature combinations that are mentioned above in the description and also the features and feature combinations that are mentioned below in the description of the figures and/or that are illustrated in the figures alone are not only usable in the

- 15 respectively disclosed combination but rather can also be used in other combinations or alone without departing the scope of the invention. There are consequently also embodiments of the invention that are to be regarded as included and disclosed, which are not explicitly illustrated and explained in the figures, however are disclosed and can be generated by separate feature combinations in the explained embodiments. There are also embodiments and feature
- 20 combinations that are to be regarded as disclosed, which consequently do not have all the features of an originally worded independent claim.

Exemplary embodiments of the invention are further explained below with reference to schematic drawings. In the drawings:

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Fig. 1 shows a perspective illustration of an exemplary embodiment of an arrangement in accordance with the invention;

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Fig. 2 shows a perspective illustration of an exemplary embodiment of a clamping apparatus of the arrangement;

Fig. 3 shows a perspective sectional illustration through a part region of the arrangement in accordance with Fig. 1; and

Fig. 4 shows a side view of the illustration in accordance with Fig. 3.

In the figures, identical or functionally identical elements are provided with the same
5 reference characters.

In Fig. 1, an arrangement 1 is illustrated in a schematic illustration. The arrangement 1 has a sink 2. In addition, the arrangement 1 has a tap 3. The tap 3 has a first part region 4. This first part region extends above the sink 2 and is in this regard freely accessible and operable or can
10 be gripped by a user. The tap 3 also has a second part region 5. The second part region extends below the sink 2 and is not freely accessible in this regard. The sink 2 has a tap receiving region 6. This tap receiving region can be, for example, an edge region. The tap receiving region 6 has a feedthrough 7. The tap 3 extends through this feedthrough, so that in the mounted state it is arranged on both sides of the tap receiving region 6. In particular, the
15 first part region 4 above the feedthrough 7 and the second part region 5 below the feedthrough 7. Both part regions 4 and 5 are in particular tubular.

The arrangement 1 furthermore has a worktop 8.

20 The worktop 8 has a receiving opening 9. The sink 2 is arranged recessed in this receiving opening 9.

In addition, the arrangement 1 has a separate clamping apparatus 10. Using the clamping apparatus 10, the sink 2 is arranged in a clamped manner on the worktop 8. The clamping
25 apparatus 10 is furthermore also designed as a position securing unit for the tap 3. As a result, the tap 3 is automatically supported in a direction perpendicular to a longitudinal axis A of the tap 3 by the clamping apparatus 10 when the clamping apparatus 10 is arranged in its end position that clamps the sink 3.

30 In the exemplary embodiment, the sink 3 is clamped using the clamping apparatus 10 at least in the height direction (y direction) of the arrangement 1 in the position on the worktop 8, in particular only clamped and not screwed in as a result, etc.

In one exemplary embodiment, the clamping apparatus 10 is designed as a combination claw. This is illustrated in particular in the perspective illustration of an exemplary embodiment of the clamping apparatus 10 in Fig. 2. The clamping apparatus 10 has a coupling angle 11. The coupling angle 11 is formed as a single piece. It is formed in particular from metal. In particular, it is a bending component. In one exemplary embodiment, the coupling angle 11 has a base limb 12. The base limb 12 is straight. It is in particular strip-shaped or plate-shaped. In this exemplary embodiment, the base limb 12 has two feedthroughs 13 and 14. These are provided as intended for feeding through clamping elements 15 and 16 of the clamping apparatus 10. The clamping elements 15 and 16 are components that are separate from the coupling angle 11.

Each of the inner edges of the feedthroughs 13 and 14 is preferably provided with an inner thread. Here, the clamping elements 15 and 16 are formed as pin-shaped. The outer sides of these pins can be provided at least in regions with an outer thread. This outer thread can mesh in each case with the inner threads in the feedthroughs 13 and 14. These pin-shaped clamping elements 15 and 16 have pin ends 17 and 18. In the exemplary embodiment, in each case one claw part 19 and 20 is arranged at these pin ends 17 and 18. Here, these claw parts 19 and 20 are formed as U-shaped. For clamping purposes, front surfaces 21 and 22 of the pin ends 17 and 18 are provided on an underside 23 (Fig. 3) of the worktop 8. As a result of the additionally preferably present U-shaped parts in the form of the claw parts 19 and 20, these are also provided for direct contact with this underside 23. In particular with the respective free edges of the U-limbs of these U-shaped parts.

In the exemplary embodiment, the clamping apparatus 10 furthermore has two coupling angle sections 24 and 25. These are part of the coupling angle 11. When viewed in the direction of a longitudinal axis B of the coupling angle 11, in particular of the base limb 12, the coupling angle sections 24 and 25 are formed at the ends. Here, the coupling angle sections 24 and 25 are formed as L-shaped. This can be seen in a plane perpendicular to the longitudinal axis B. The coupling angle sections 24 and 25 in each case have an L-limb that is a component of the base limb 12. Further L-limbs 26 and 27 are provided projecting therefrom, in particular projecting upwards in the height direction. In one exemplary embodiment, these upward-standing L-limbs each have mounting elements 28 and 29 formed integrally therewith. The entire clamping apparatus 10 is mounted on a sink wall 30 using these mounting elements 28

and 29, (Fig. 3). Here, the sink wall 30 is oriented vertically. In this context, the sink wall 30 has receiving arrangements, in particular through holes, in which these mounting elements 28 and 29 are mounted. In this regard, the mounted state of the clamping apparatus 10 on the sink wall 30 is illustrated in Fig. 3 in the perspective sectional illustration. For this purpose, the L-
 5 limbs 26 and 27 are then also in planar contact with an inner side of this sink wall 30.

In addition, in one exemplary embodiment, this coupling angle 11 has a supporting part 31. This supporting part is formed as a single piece with the coupling angle 11. In particular, the supporting part is formed on a longitudinal edge 32 of the base limb 12. The supporting part
 10 31 can be a bent part. As is apparent, the supporting part 31 is arranged between the L-limbs 26 and 27 when viewed in the direction of the longitudinal axis B, in particular, the supporting part is arranged centrally therebetween. When viewed in the height direction, the supporting part is oriented in the opposite direction to the L-limbs 26 and 27.

15 The supporting part 31 is intended to rest against an outer side 33 (Fig. 3) of the tap 3, in particular the second part region 5.

The clamping apparatus 10 for setting the clamped state of the sink 2 is supported on the underside 23 of the worktop 8. As is apparent in this regard in the perspective sectional
 20 illustration in Fig. 3, a clamping force 34 acts in the vertical direction and thus in the height direction. The clamping apparatus 10 is not designed to completely encompass the tap 3. In particular, only a particularly small, in particular linear contact is formed between the clamping apparatus 10, in particular only the supporting part 31 and the outer side 33.

25 As is apparent in Fig. 3, the arrangement 1 additionally has a screw nut 35. This screw nut is provided in addition to the clamping apparatus 10. The tap 3 is fastened to the sink 2, in particular to the tap receiving region 6, using the screw nut 35.

With regard to the assembly scenario, the sink 2 is inserted into the receiving opening 9. In
 30 this context, the clamping apparatus 10 can already be mounted on the sink wall 30 beforehand. It is also possible for the clamping apparatus 10 to be mounted in the corresponding receiving arrangements 36 of the sink wall 30 only after the sink 2 has been inserted into the receiving opening 9.

Starting from this intermediate assembled state, the clamping elements 15 and 16 are then clamped. In this case, the clamping elements are rotated in the height direction relative to the base limb 12. The pin ends 17 and 18 are in this case supported on the underside 23. As a
 5 result of the mounted state and the relative movement between the clamping elements 15 and 16 and the base limb 12, the sink 2 is pulled downward relative to the worktop 8 when viewed in the height direction.

The clamped state of the sink 2 is then formed in the worktop 8. During this clamping
 10 process, the position of the tap 3 is also automatically secured by the clamping apparatus 10. This clamping apparatus 10 is therefore also used in this context as a position securing unit for the tap 3. This is because in this clamping process, due to the configuration of the coupling angle 11, a tilting about an axis parallel to the longitudinal axis B is performed so that the coupling angle 11, in particular the supporting part 31, moves toward the outer side
 15 33. This takes place until the supporting part 31 has made contact with the outer side 33 and then a supporting force 37 acting in particular only on one side and in a linear direction is built up. This supporting force then acts perpendicular to the longitudinal axis A, as is illustrated in Fig. 3.

20 In Fig. 4, the illustration in accordance with Fig. 3 is illustrated in the sectional plane. The abutment of the supporting part 31 against the outer side 33 is illustrated.

List of reference characters

	1	Arrangement
	2	Sink
5	3	Tap
	4	Part region
	5	Part region
	6	Tap receiving region
	7	Feedthrough
10	8	Worktop
	9	Receiving opening
	10	Clamping apparatus
	11	Coupling angle
	12	Base limb
15	13	Feedthrough
	14	Feedthrough
	15	Clamping element
	16	Clamping element
	17	Pin end
20	18	Pin end
	19	Claw part
	20	Claw part
	21	Front surface
	22	Front surface
25	23	Underside
	24	Coupling angle section
	25	Coupling angle section
	26	L-limb
	27	L-limb
30	28	Mounting elements
	29	Mounting elements
	30	Sink wall
	31	Supporting part

	32	Longitudinal edge
	33	Outer side
	34	Clamping force
	35	Screw nut
5	36	Receiving arrangement
	37	Supporting force
	A	Longitudinal axis
	B	Longitudinal axis

Claims

1. An arrangement (1) having a sink (2), a tap (3) that is arranged on the sink (2) and a
worktop (8), in which a receiving opening (9) is formed, in which the sink (2) is
5 arranged, wherein the sink (2) has a tap receiving region (6) having a feedthrough (7),
through which the tap (3) extends and is arranged on both sides of the feedthrough (7),
characterized in that the arrangement (1) has a clamping apparatus (10), with which the
sink (2) is clamped on the worktop (8), wherein the clamping apparatus (10) is also
10 designed as a position securing unit for the tap (3), so that the tap (3) is automatically
supported in a direction perpendicular to its longitudinal axis (A) by the clamping
apparatus (10) when the clamping apparatus (10) is arranged in its end position that
clamps the sink (2).
2. The arrangement (1) as claimed in claim 1, characterized in that the sink (2) is clamped
15 using the clamping apparatus (10) at least in the height direction (y) of the arrangement
(1) in the position on the worktop (8).
3. The arrangement (1) as claimed in claim 1 or 2, characterized in that the clamping
apparatus (10) is designed as a combination claw, which has at least two separate
20 clamping elements (15, 16).
4. The arrangement (1) as claimed in one of the preceding claims, characterized in that the
clamping apparatus (10) for setting the clamped state of the sink (2) is supported, in
particular directly, on an underside (23) of the worktop (8).
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5. The arrangement (1) as claimed in one of the preceding claims, characterized in that the
clamping apparatus (10) has a single-piece coupling angle (11), which has two, in
particular end-side and L-shaped, coupling angle sections (24, 25), which are connected
directly to a sink wall (30) that is separate from them.
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6. The arrangement (1) as claimed in claim 5, characterized in that the coupling angle
sections (24, 25) each have a mounting element (28, 29), by means of which the

coupling angle sections (24, 25) are mounted in receiving arrangements (36) on the sink wall (30).

7. The arrangement (1) as claimed in claim 5 or 6, characterized in that the coupling angle (11) has an, in particular strip-shaped, base limb (12), on which clamping elements (15, 16) of the clamping apparatus (10) are movably mounted, in particular at least in the height direction (y) of the arrangement (1).
8. The arrangement (1) as claimed in claim 7, characterized in that the base limb (12) has a supporting part (31) that is intended to rest against an outer side (33) of the tap (3) in the assembled end position of the clamping apparatus (10) and to generate a supporting force (37) on the tap (3), which is directed perpendicular to the longitudinal axis (A) of the tap (3).
9. The arrangement (1) as claimed in one of the preceding claims, characterized in that the clamping apparatus (10) has at least two separate clamping elements (15, 16), which are designed as pin-shaped, wherein the clamping elements (15, 16) each have a clamping end (17, 18), which is designed to rest against the worktop (8) in a clamping manner, wherein a clamping end (17, 18) is formed by a pin end and a claw part (19, 20) that is arranged on the pin end.
10. The arrangement (1) as claimed in claim 9, characterized in that the claw part (19, 20) is a U-shaped part, which rests with its free limb edges on the worktop (8) in a clawed manner.
11. The arrangement (1) as claimed in one of the preceding claims, characterized in that the clamping apparatus (10) rests against the outer side (33) of the tap (3) only in a linear contact.
12. The arrangement (1) as claimed in one of the preceding claims, characterized in that the tap (3) is additionally fastened to the sink (2) using a screw nut (35) that is different from the clamping apparatus (10).

13. A method for mounting a sink (2) of an arrangement (1) on a worktop (8) of the arrangement (1), having the following steps:
- inserting the sink (2) into a receiving opening (9) of the worktop (8);
 - attaching a clamping apparatus (10) to a sink wall (30) of the sink (2);
 - 5 – setting an end position of the sink (2) in the receiving opening (9), wherein the clamping apparatus (10) is actuated for this purpose, and the clamping apparatus (10) is clamped on an underside (23) of the worktop (8), so that the sink (2) is clamped at least in the height direction (y) of the arrangement (1) on the worktop (8);
 - 10 – automatically setting a position securing arrangement of the tap (3) by the clamping apparatus (10), wherein for this purpose, when the clamping apparatus (10) is clamped on the underside (23) of the worktop (8), the clamping apparatus (10) is moved toward the tap (3), in particular pivoted, and is positioned in contact with the tap (3) in such a way that a supporting force (37) is generated perpendicular to a
 - 15 longitudinal axis (A) of the tap (3) on the tap (3) by the clamping apparatus (10) in its function as a position securing unit.
14. The method as claimed in claim 13, wherein the clamping apparatus (10) is mounted with at least two spaced-apart, in particular end-side and L-shaped, coupling angle
- 20 sections (24, 25) of a single-piece coupling angle (11) of the clamping apparatus (10) directly on the sink wall (30) that is separate from the clamping apparatus, so that the sink (2) is pulled downward and clamped in the height direction (y) by the clamping force (34) of the clamping apparatus (10) that acts in the height direction (y) during clamping.
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15. The method as claimed in claim 14, wherein a clamping force (34) is generated at at least two separate clamping points during the clamping, and the coupling angle (11) is tilted about a horizontal axis during the clamping, so that the tilting brings a supporting part (31) of the coupling angle (11) into abutment with an outer side (33) of the tap (3),
- 30 and the supporting force (37) is thereby built up on the tap (3).