

SUPPORTING ARRANGEMENT ADAPTED TO VARIOUS USERS SITTING POSITIONS

Field of the invention

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The present invention relates to a supporting arrangement adapted to various sitting positions of a user, comprising supporting means giving support for the legs of the user at various sitting positions, said supporting means being substantially stationary mounted underneath a table top.

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Prior art

15 Prior art supporting arrangement of the type according to the preamble, are known from for example the applicant's own Norwegian patent publication no. 174.372, as well as corresponding German utility model G 9102694.6.

20 From this there is known an arrangement which is adapted to be located below or at the table and comprises supports comprising one or more stairs or steps onto which the user can rest one or both legs depending on the standing, forwardly leaning, or rearwardly leaning position which the user may take in relation to the prior art arrangement.

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Such a prior art supporting arrangement has been developed primarily in connection with a high working table or a dispatch counter, involving that the arrangement itself cannot straight forwardly be used in connection with for example conference table, lounge table, dining table and other table tops wherein primarily there is only a token about various sitting positions.

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Summary of the invention

The present invention has been developed especially in connection with tables and furnitures for sitting, where-
5 in the user or the users are sitting at a table, and wherein there is primarily a token about taking various sitting positions and at the same time achieving a comfortable, varying and effective support for the legs.

10 An object of the present invention is also in a simple and space saving manner to provide a supporting arrangement giving large flexibility as regards the positioning of the chairs in question in relation to the table top in question, respectively the table legs in question, i.e.
15 that the arrangement should render ample space for the chair in question but nevertheless utilize surplus space for the supporting means themselves.

20 According to the invention the objects are achieved in a supporting arrangement as stated in the preamble, which according to the invention is characterized in that the means comprise elements projecting from one or more table legs.

25 According to the prior art disclosed in NO patent specification 174.372 there is here not a token about table tops being carried by table legs, but rather a working bench which is positioned so high in relation to the floor that the user will not reach the floor in an ordinary sitting position on an associated chair. Table legs
30 which are connected to a working bench as disclosed in NO patent publication 174.372 will involve a complication, specifically if such table legs were positioned in the room in which the associated working chair of the type as
35 disclosed in the same publication, should be used.

A further specific feature of the arrangement according

to the invention is to the fact that the projecting elements comprise two or more studs which at the same level project out from the single or each table leg.

5 Provided as studs at a certain level above the floor the studs will serve as effective foot supports when the user is sitting at the table, at the same time as the studs between themselves give rise to introducing various parts of the chair, such that the chair can be pulled close
10 underneath the table top without being in conflict with the projecting elements.

It is to be understood that the projecting elements can be provided in different numbers and with different
15 length, and an appropriate embodiment may involve that the projecting elements have the same angular spacing around the associated table leg.

A variant of the arrangement according to the invention
20 may reside in the fact that between the projecting elements there are provided straight or arched pieces, preferably at some distance from the associated table leg itself. Such intermediate pieces can specifically be realised as an outer ring, or an intermediate ring.

25 Further, it is to be understood that the means can be located at various levels on the associated single or several table legs, and in a various number and with varying or equal extension of length.

30 A further variant is to the fact that said means are provided on a table leg having one or more lower supporting means, for example one or more crossing foot pieces, said foot pieces at their free ends being provided with
35 expanded/upwardly extending end portions which may also serve as foot supports.

It is also to be understood that the elements can be provided in an appropriate material which is comfortable when being used, that the elements in certain cases can extend between two or more table legs, and that the elements may be completely or partly upholstered.

Further advantages and features of the present invention will appear from the following description taken in connection with the appending drawings, as well as from the attached patent claims.

Brief disclosure of the drawings

Fig. 1 is a perspective view of a table provided with a first embodiment of the arrangement according to the invention.

Fig. 2 illustrates perspectively the table according to Fig. 1, with the first embodiment of the arrangement according to the invention at a reduced scale, there being depicted two users illustrating how the arrangement can be utilized in practice.

Fig. 3 is a perspective view as seen obliquely from above of a second table provided with the first embodiment of the arrangement according to the invention.

Fig. 4 illustrates perspectively a table similar to Fig. 1, wherein has been depicted a second and a third embodiment of the arrangement according to the invention.

Fig. 5 illustrates perspectively a table similar to Fig. 4, wherein is illustrated the variant of the embodiment of the arrangement according to the invention.

Fig. 6A and 6B illustrate schematically further fields of utilization of the arrangement according to the invent-

ion.

Fig. 7 illustrates perspectively a table including still another embodiment of a supporting arrangement according to the invention.

Description of embodiments

In Figures 1 and 2 there is illustrated a first embodiment of a supporting arrangement according to the present invention, there here being used two such supporting arrangement, here designated by reference numeral 1. Each arrangement is substantially stationary mounted below a table top 2, namely on each table leg, 3a and 3b, respectively. In the embodiment illustrated in Figures 1 and 2 each supporting arrangement 1 takes the form of a plurality of projecting elements 4a-4d projecting by way of a cross on each table leg, 3a and 3b, respectively.

In the embodiment illustrated in Figures 1 and 2 there are provided four elements in each supporting arrangement, but it is of course to be understood that two or more studs can be used, said studs being located with different mutual spacing and possibly at different levels.

In Fig. 1 it is illustrated a divided table top 2, which involves that the table top can be expanded by intermediate inserts which can be carried by table legs similarly to what has been previously discussed.

In Fig. 2 it is illustrated how a first person 5 and a second person 6 can utilize the supporting arrangement according to the present invention, said first person 5 who is sitting on a tiltable or rockable chair 10, when taking a rearwardly leaning position, being allowed to position his one foot 5a on one of the projecting

elements 4a of the supporting arrangement, whereas the second foot 5b can rest for example on the floor.

5 The second person 6 can have the one foot 6a positioned on one of the projecting elements 4c of the arrangement 1 on the table leg 3b, whereas the second foot 6b can be located on a lower crossing foot piece 7 which at its free ends is provided with expanded/upwardly extending end portions 8a, 8b.

10 Since the arrangement 1 is provided with elements 4a-4d projecting from the table legs 3a, 3b the arrangement will per se require a small space, but render numerous possibilities for variation as regards supporting positions of the persons 5, 6 being gathered around the table top 2, at the same time as the projecting elements 4a-4d do not constitute unnecessary obstacles for the positioning of the chairs 10 and 11 in question.

20 In Fig. 3 there is illustrated a corresponding embodiment of a supporting arrangement as depicted in Figures 1 and 2, apart from the fact that the arrangement 101 is here mounted in the form of four projecting elements 4a-4d positioned on a single cable leg 103 which at its upper portion carries a table top 102, and which at its lower portion is provided with two crossing foot pieces 107a and 107b, respectively, which appropriately at their outer free ends are provided with expanding/upwardly extending end portions 108a-108d.

30 In Fig. 4 there is illustrated two further embodiments of the supporting arrangement according to the present invention, there being underneath a table top 202 on a first table leg 203a being provided a supporting arrangement 201 comprising four projecting elements 204a-204d which merge into or are terminated by an outer ring 212, which ring 112 together with the projecting elements

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204a-204d may render variations in which manner a user sitting on a chair in proximity of the table, can put his feet thereonto, in order to take various sitting positions. The arrangement 201 is positioned some distance up the table leg 203a which at the bottom is provided with a transversely extending foot piece 207 which at its free ends is provided with end portions 208a, 208b which possibly also can be used as foot supports.

10 In Fig. 4 there is on the second table leg 203b provided a variant of a supporting arrangement 301, comprising four relatively long projecting elements 304a, 304d, there being between the projecting elements provided generally arched pieces, which in the illustrated embodiment can define a ring 312, but which of course can comprise other types of straight, bent or rounded pieces. It is to be understood that the supporting arrangement 301 renders support for the leg of a user both on the ring 312 and on the projecting elements 304a-304d both at the portions of the elements being inside of the ring 312, and on those projecting freely from the ring 312. Also here the arrangement 301 is located a distance up the associated table leg 203b, the table leg 303b at its lower portion being provided with a foot piece 207 having specific end portions 208a, 208b.

30 In Fig. 5 there is illustrated variants of the embodiments according to Fig. 4, the arrangement 401 here being identically designed on each of the chair legs 403a and 403b, namely each having four projecting elements 404a-404d having an intermediate ring 412. Besides, the same references as in Fig. 4 have been included in Fig. 5, but in the series 400.

35 In Fig. 6A it is illustrated how the two persons 505-506 sitting in a respective chair 510, 511 around a table 502 can make use of the supporting arrangement 501 according

to the present invention, which has been adapted to various sitting positions of a user and comprise supporting means rendering support for the legs of the users when taking various sitting positions, said supporting arrangement being provide according to the previously discussed principles, and then generally comprising means having elements protruding from one or more table legs.

In Fig. 6B there are similarly to Fig. 6A illustrated two persons 605 and 606 seated in a first sofa 610, as well as three persons 607-609 seated in a second sofa 611, and all persons 605-609 can make use of an arrangement 601 arranged below a table top 602.

It is to be understood that the elements protruding from the table legs can also have such an extension that they will mutually support the table legs, respectively be included as supporting structures for the table itself.

In Fig. 7 there is illustrated a further variant of a table top 702 which is carried by four table legs 703 which in turn carries protruding elements 704a-704d at a first level, and further projecting elements 704aa-704dd provided at a higher level, said latter elements also being provided with an upholster 713 rendering a favourable support for the legs of the users being gathered around the table and seeking relaxed sitting positions.

P a t e n t c l a i m s



1. Supporting arrangement (1) adapted to various sitting positions of a user (5, 6), comprising supporting means giving support for the legs (5a, 5b) of the user at various sitting positions, said supporting arrangement being substantially stationary mounted underneath a table top (2),
c h a r a c t e r i z e d i n t h a t t h e s u p p o r t i n g
means comprise elements (4a-4c) projecting out from one or more table legs (3a, 3b).
2. Arrangement as claimed in claim 1,
c h a r a c t e r i z e d i n t h a t t h e p r o j e c t i n g
elements comprise two or more studs (4a-4d) which at the same level project from a single (3a) or each table leg (3a, 3b).
3. Arrangement as claimed in claim 1 or 2,
c h a r a c t e r i z e d i n t h a t t h e p r o j e c t i n g
elements comprise three, four or more elements protruding from one or each table leg, substantially having a uniform angular spacing.
4. Arrangement as claimed in any of the claims 1-3,
c h a r a c t e r i z e d i n t h a t t h e p r o j e c t i n g
elements (304a-304d) are provided with intermediately extending straight or arched pieces (312), preferably at some spacing from the associated table leg (203b) itself.
5. Arrangement as claimed in claim 4,
c h a r a c t e r i z e d i n t h a t t h e s t r a i g h t o r
arched pieces are provided as an outer ring (112) or an intermediate ring (312).
6. Arrangement as claimed in any of the preceding claims,

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c h a r a c t e r i z e d i n that the elements are located at different levels on the one table leg or the several table legs in question, in various numbers and with varying or equal extension of length.

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7. Arrangement as claimed in any of the preceding claims,

10 c h a r a c t e r i z e d i n that the elements (4a-4d) are provided on a table leg (3a) having one or more lower supporting means, for example one or more crossing foot pieces (7), and that the foot pieces at their free ends are provided with expanded/upwardly extending end portions (8a, 8b) which also serve as foot supports.

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8. Arrangement as claimed in any of the preceding claims,

20 c h a r a c t e r i z e d i n that the elements (704a-704d) can have such an extension that they extend between two or more table legs (703), and that the elements are made of a softer material, respectively are provided with an upholster (713).



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