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Sauna

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The invention relates to a sauna, comprising in its service position a ceiling (16), a rear wall (14), a first side wall (18), a second side wall (18'), a front wall (26), and at least one door (24), which sauna (10) has a service position (100) and a storage position (200), of which the storage position (200) is substantially smaller than the said service position (100), which sauna (10) includes

- a body part (12), comprising at least a fixed rear wall (14) and a fixed part (19) belonging to the first side wall (18),
- a retractable part (20), which includes at least a continuation (22) belonging to the first side wall (18), pivoted to the fixed part (19) of the first side wall (18), and in which sauna (10) the retractable part (20) is arranged to be at least partially retracted inside the body part (12) when the sauna is in the storage position (200). The retractable part (20) includes in addition part of the front wall (26) permanently attached to the continuation (22) of the first side wall (18), thus forming a unified rotating corner piece (28).

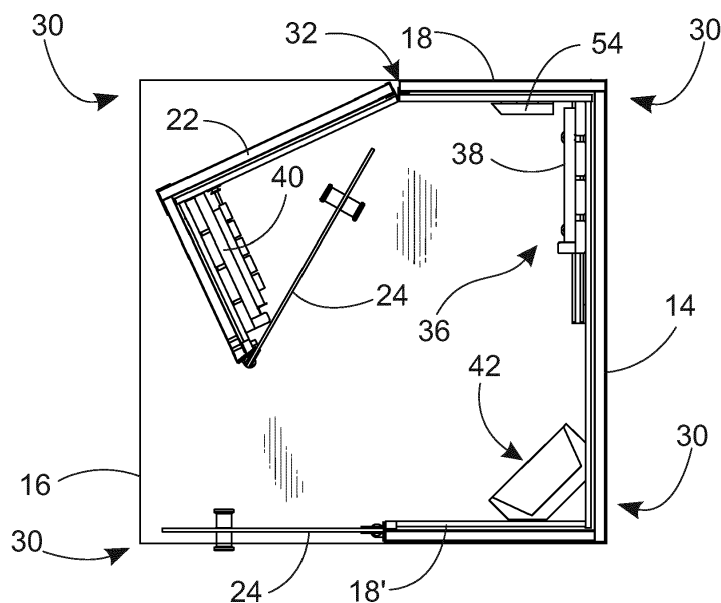


Fig.3a

Description

[0001] The present invention relates to a sauna, comprising in its service position a ceiling, a rear wall, a first side wall, a second side wall, a front wall, and at least one door, which sauna has a service position and a storage position, of which the storage position is substantially smaller than the service position, which sauna includes

- a body part, comprising at least a fixed rear wall and a fixed part belonging to the first side wall,
- a retractable part, which includes at least a continuation belonging to the first side wall pivoted to the fixed part of the first side wall, and

in which sauna the retractable part is arranged to be at least partially retracted inside the body part when the sauna is in the storage position.

[0002] Nowadays, as housing is increasingly concentrated in cities, the available living space is reduced and often there is no space for a sauna in the floor space of new building. However, the residents often want their own sauna in their apartment, but building one in an already finished apartment is extremely expensive and labourious. The insufficient space in a finished apartment can also be an obstacle to building a sauna. In addition, there should be sufficient space in a bathroom for a wheelchair user, more specifically at least the amount of space required by the turning circle of a wheelchair.

[0003] Various collapsible saunas are known from the prior art, with the aid of which the space required for a sauna can be reduced. Publication KR 20100084008 A discloses a collapsible sauna, which includes a fixed body part and a collapsible part. The collapsible part consists of several pieces hinged to each other. With the aid of the hinges, part of the total structure of the sauna can be folded in parallel in front of the fixed body part, so that the sauna takes up considerably less space in its storage position than in its service position. A drawback of such a construction is, however, the complicated construction of the collapsible part, which makes changing the sauna into its service position remarkably labourious and complicated. In addition, in such a construction there are several joints between the parts, which also act as thermal leak points, because they are difficult, or indeed impossible to insulate.

[0004] The invention is intended to create a simpler sauna than the saunas of the prior art, which can be retracted into a storage position, and which is cheaper to operate than the collapsible saunas of the prior art. The invention is also intended to release more space in the bathroom with the aid of the retractable sauna. The characteristic features of the present invention are stated in the accompanying Claim 1.

[0005] This intention can be achieved by means of a sauna comprising, in its service position, a ceiling, a rear wall, a first side wall, a second side wall, and at least one door, which sauna has an service position and a storage

position, of which the storage position is substantially smaller than the service position. The sauna includes a body part, comprising at least a fixed rear wall and a first side wall including a fixed part and a retractable part, which includes at least a continuation belonging to the first side wall pivoted to the fixed part of the first side wall. In the sauna, the retractable part is arranged to be at least partly foldable inside the body part when the sauna is in the storage position. In addition, the retractable part includes part of the front wall permanently attached to the continuation of the first side wall, forming a unified rotating angle piece. By means of such a sauna construction, a simpler construction than that of saunas according to the prior art is achieved, which requires only one pivot between the wall structures.

[0006] Preferably the rear wall, the ceiling, the fixed part and continuation of the first side wall, the second side wall, and the front wall are independent solid structures, i.e. they are not made of fabric or other essentially flexible materials. In terms of thermal insulation, solid structures are considerably more economical than, for example, fabric or other elastic or rollable materials.

[0007] The fixed part of the first side wall and the second side wall are preferably at least slightly longer than the part of the front wall of the retractable part. Thus, at least most of the retractable part can rotate inside the body part. In this connection, the definition slightly longer refers more specifically to the fact that the fixed part of the first side wall and the second side wall are at least one centimetre longer than the part of the front wall of the retractable part.

[0008] The continuation is preferably shorter in length than the rear wall. Due to this, the retractable part can rotate inside the body part, without contact between the corner piece and the heater.

[0009] According to one embodiment, the sauna includes two doors hinged to a common corner piece and the second side wall, thus forming one of the corners of the sauna. The corner formed with the aid of two doors also permits the use of a wheelchair when using the sauna according to the invention.

[0010] The fixed part of the first side wall is shorter than the second side wall by the size of the hinges. Thus the door attached to the second side wall can rotate by 90° to become in line with the continuation of the first side wall when the sauna is in the storage position.

[0011] Preferably, the retractable part includes at least one support wheel situated in its lower edge, to facilitate its rotation. With the aid of the support wheel the corner piece can be easily rotated inside the body part, without scratching the floor.

[0012] According to a second embodiment, the retractable part includes a sliding surface situated in its lower edge, to facilitate its rotation. The sliding surface can also be used as an alternative to the support wheel to facilitate the rotation of the corner piece.

[0013] The ceiling can be fixed and, in the service position, cover the sauna delimited by the body part and

the retractable part. The ceiling is, in any event, located close to the ceiling of the room, so that it can be fixed, without disturbing the use of the room when the sauna is in the storage position.

[0014] The ceiling is preferably flat. The upper edge of the corner piece can then easily seal against the under-surface of the ceiling.

[0015] The sauna can further include a collapsible bench structure integrated with the sauna. Thus, the sauna's benches do not require a separate storage space.

[0016] The bench structure can be fitted between the rear wall and the front wall. Space will then remain on the rear wall for an electric sauna heater, in addition to the bench structure.

[0017] According to one embodiment, the bench structure includes a lower bench pivoted to the rear wall and an upper bench pivoted to the front wall. With the aid of the pivoting, the lower and upper benches can be lifted to a vertical position when the sauna is in the storage position. This boosts the drying of the benches, as the water on the benches runs off the top of the benches.

[0018] The sauna ceiling is preferably a fixed structure. It will then be tight and effectively keep water vapour and heat inside the sauna.

[0019] In the storage position, the floor area of the sauna is preferably at least 30 % smaller than in the service position. Thus the storage position will release a considerable amount of floor area for other use when the sauna is not being used.

[0020] According to one embodiment, the retractable part of the sauna includes locking means for locking the retractable part in place when the sauna is in use. This will ensure that the retractable part will not move when the sauna is in use.

[0021] The locking means can include a frame permanently attached to the corner piece, a closing handle pivoted to the frame with the aid of a first transverse pivot, and a vertical rod pivoted to a continuation of the closing handle with the aid of a second transverse pivot, which vertical rod is arranged to act as a locking foot. Such a construction is cheap to implement and easy to use.

[0022] The sauna preferably includes an electric sauna heater, the vertical projection of which is essentially triangular. The electric heater gives the sauna the atmosphere of a traditional sauna, compared to infrared or evaporation equipment, and the electric heater can be implemented without a separate flue, which a wood stove would require.

[0023] The electric sauna heater is preferably situated in the corner between the rear wall and the second side wall and is dimensioned to permit the rotation of the corner piece. The electric heater situated in the corner permits the corner piece of the retractable part to be rotated as close as possible to the sauna heater, so that the width of the benches can be maximized relative to the width of the rear wall.

[0024] According to one embodiment, the electric sauna heater can be fitted to the retractable part of the sauna,

so that in the service position the benches can be parallel to the rear wall.

[0025] According to one embodiment, the sauna includes a ventilation connection for guiding steam out of the sauna. This boosts the drying of the sauna and in thus prevents the panels from darkening.

[0026] The sauna preferably includes an electric sauna heater and means for limit-switching off the power supply to the electric heater when the sauna is in the storage position. This prevents the electric heater from being on when the sauna is in the storage position.

[0027] According to one embodiment, particularly in new building the fixed walls and ceiling can be built in. Only the unified rotating corner piece and possibly the sealing edges can be brought as finished elements, in addition to the doors.

[0028] The sauna is intended to offer a possibility for an apartment-specific sauna in apartments, in which the size of the bathroom is insufficient for the construction of a traditional sauna. By means of the sauna according to the invention, a small sauna, which takes up considerably less space when not in use than traditional saunas, can be created in even a small space. The sauna according to the invention permits a reduction in the size of bathrooms, without this interfering with the turning circle essential to the use of a wheelchair. In other words, with the aid of the sauna according to the invention, square metres are released in the bathroom for the use of the sauna and the rest of the apartment. Unlike previously, the sauna and bathroom use joint space as required at the moment, for example, for using the sauna or WC, or for drying clothes.

[0029] In this connection, the term sauna should be understood with a wide significance, so that it also comprises saunas equipped with infrared and steam sources.

[0030] In the following, the invention is described in detail with reference to the accompanying drawings depicting some embodiments of the invention, in which

Figure 1a shows an axonometric view of the sauna according to the invention, in the service position,

Figure 1b shows an axonometric view of the sauna according to the invention, in the storage position,

Figure 2a shows a schematic top view of the sauna according to the invention in the storage position, when the sauna is shown in such a way that only the outer lines of the ceiling are shown,

Figure 2b shows an axonometric schematic view of the sauna according to the invention in the storage position, when the sauna is shown without its ceiling,

Figure 3a shows a schematic top view of the sauna according to the invention, in such a way that the ceiling is shown only by its outer lines, when the retractable part is being re-

- tracted inside the body part,
- Figure 3 shows an axonometric schematic view of the sauna according to the invention without the ceiling, when the retractable part is being retracted inside the body part,
- Figure 4a shows a schematic top view of the sauna according to the invention in the service position, when the sauna is shown without the ceiling,
- Figure 4 shows an axonometric schematic view of the sauna according to the invention, in such a way that only the outer lines of the ceiling are shown,
- Figure 5a shows a side view of the locking means of the corner piece according to one embodiment, in the locked position,
- Figure 5b shows a side view of the locking means of the corner piece according to one embodiment, in the open position,
- Figure 6a shows a front view of the locking means of the corner piece according to one embodiment, in the locked position,
- Figure 6b shows a front view of the locking means of the corner piece according to one embodiment, in the open position.

[0031] Figure 1a shows an axonometric view of the sauna 10 according to the invention in the service position 100 and Figure 1b, for its part, an axonometric view in the storage position 200. According to the figures, the storage position 200 is smaller than the service position 100, so that space is released for other uses. The sauna 10 according to the invention includes as simplified a body part 12, a retractable part 20, and at least one door 24 between them. More specifically, the body part 12 comprises at least a rear wall 14, a ceiling 16, a fixed part 19 of the first side wall 18, and a second side wall 18'. The first side wall 18 consists of a fixed part 19 belonging to the body part 12, and a continuation 22 of the first side wall 18 belonging to the retractable part 20. The retractable part 20 is hinged to the fixed part 19 of the first side wall 18 of the body part 12. The continuation 22 of the first side wall 18 belonging to the retractable part 20 and part of the front wall 26 form a unified corner piece 28. At least one door 24 is hinged to the body part 12 or the retractable part 20. In the sauna 10 according to the invention, the rear wall 14, the ceiling 16, the fixed part 19 and continuation 22 of the first side wall 18, the second side wall 18', and the front wall 26 are each solid structures, i.e. rigid pieces. The retractable part 20 is arranged to be retractable at least partly inside the body part 12, with the aid of a pivot 32 between the retractable part 20 and the body part 12, when the sauna 10 is in the storage position 200.

[0032] According to Figures 1a and 1b, the ceiling 16 is permanently attached to the body part 12, which includes, in addition, the rear wall 14, the fixed part 19 of the first side wall 18, and the second side wall 18'. The

body part 12 forms a structure that is open on one side and the floor, which the retractable part 20 and at least one door 24 supplement to form a complete sauna 10. In the embodiment according to Figures 1a - 4b, two doors are used, which permit a large entry to the sauna. The large entry can be utilized when using a wheelchair, as the door opening is then sufficiently large for a wheelchair. The sauna can be erected, for example, with the aid of feet of adjustable height on the existing floor of a bathroom, so that water coming from the sauna can flow under the walls to the floor drain of the bathroom. In addition, the sauna can be installed directly even on a sloping floor. However, the sauna is preferably made already in the construction stage of new building.

[0033] The ceiling 16 is preferably also permanent, so that it remains unaltered in both the storage and service positions, covering the space delimited by the walls of the sauna 10. Generally, the ceiling does not limit the use of the free floor space, as the height of the walls is nearly the total height of the room, and thus it is not an obstacle to people's movement in the room when the sauna is in the storage position. The rear wall 14 of the body part 12 and the fixed part 19 of the first side wall 18 and the second side wall 18' are preferably permanently attached to the ceiling 16 and sealed in such a way that heat does not escape through the joints between them. Because the corner piece 28 moves parallel to the ceiling 16 when being moved, the corner piece 28 is preferably at a distance from the ceiling 16 vertically, i.e. there is a narrow gap between the corner piece 28 and the ceiling 16. A seal is preferably attached to the upper edge of the corner piece 28 between the corner piece 28 and the ceiling 16, with the aid of which the escape of hot steam from the gap between those parts is prevented entirely, or at least mostly. The ceiling is preferably smooth on its undersurface, so that the seal that preferably belongs to the upper edge of the retractable part will slide smoothly against the undersurface of the ceiling. In this connection, the term smooth refers to the fact that the undersurface of the ceiling is even, in order to facilitate the sealing of the corner piece.

[0034] The components used in the sauna according to the invention, i.e. the ceiling, the walls, and the doors are preferably made of a solid material, which insulates heat considerably better than, for example, various fabrics and other covers, which are used in the solutions of the prior art. Preferably the walls used in the sauna, that is the rear wall, the fixed part and continuation of the first side wall, the second side wall, and the front wall can be insulating boards, which are covered with a surfacing suitable for the purpose, for example, wood panels. Also one of the doors can be insulated. In the sauna according to the invention, there is only one hinge structure, in addition to the door or doors hinging, with the aid of which the structures of the sauna walls can be retracted to the storage position. Thanks to this, the manufacture and use of the sauna is simple and the number of hinge structures that are problematic in terms of insulation is mini-

mized.

[0035] In the sauna according to the invention, traditionally hinged doors can be used, according to the figures. Alternatively, a sliding door or doors can also be used in the sauna, if this is permitted by the dimensioning of the wall parts of the sauna. The sauna's ceiling can include drop-down sealing edges, so that the corner piece need not extend completely to the sauna ceiling in the height direction. The sealing edges seal the corner piece and the doors.

[0036] According to Figures 2a, 3a, and 4a, the sauna according to the invention includes, according to one embodiment, an integrated bench structure 36, which includes an upper bench 40 and a lower bench 38. Thanks to the integrated bench structure, the benches can be folded into a small space, without them having to be stored outside the sauna.

[0037] Figures 2a - 4a show the various stages of changing one embodiment of the sauna according to the invention from the storage position to the service position, when the sauna is shown without a ceiling, for illustrative purposes. Figures 2a and 2b show the sauna 10 in the storage position 200, in which the retractable part 20 is retracted at least substantially inside the body part 12. In the storage position 200, the bench structure 36 is also changed to a storage position, in which both the upper bench 40 and the lower bench 38 are mainly parallel to the walls. The bench structure 36 is preferably implemented in such a way that both the upper bench 40 and the lower bench 38 are attached to the walls with the aid of a pivot. More specifically, the upper bench 40 is pivoted with the aid of a pivot to the front wall 26 and the lower bench 38 is, for its part, pivoted with the aid of a pivot to the rear wall 14. According to one embodiment, the sauna can include locking means for locking the benches in the storage position. The bench structure 36 between the front wall 26 and the rear wall 14 permits an electric sauna heater 42 to be installed in the corner 30 between the rear wall 14 and the second side wall 18', so that the electric heater 42, which is a heavy structure, is always permanently in position and at a safe distance from the bench structure 36.

[0038] According to Figure 2a, in the storage position 200 the retractable part 20 is mainly or entirely inside the vertical projection of the body part 12, so that the floor surface area taken up by the retractable part 20 in the service position will be released for other use. The corner piece 28 rotates around a pivot 32, until the continuation 22 of the first side wall 18 is parallel to the rear wall 14. According to Figure 2a, the door 24 folds towards the area used by the bench structure 36 in the service position, where it fits into the storage position 200 of the sauna 10. The length of the continuation 22 of the retractable part 20 is preferably such that the corner piece 28 can rotate inside the body part 12, without the corner piece 28 striking the electric sauna heater 42. The second door 24 is preferably folded parallel to the continuation 22, when the door 24 and the continuation 22 form the facade

of the sauna 10 in the storage position 200.

[0039] According to Figures 3a and 3b, changing the sauna 10 from the storage position 200 of Figures 2a and 2b to the service position 100 according to Figures 4a and 4b starts by opening the second door 24. After this, the retractable part 20 can be rotated around the pivot 32 until the fixed part 19 and the continuation 22 of the first side wall 18 are in line with each other, according to Figure 4a. The retractable part 20 is preferably supported from its lower edge 34 against the floor of the bathroom with the aid of at least one support wheel 35, so that the rotation of the retractable part 20 around the pivot 32 is easy, light, and can be performed without scratching the bathroom floor. Alternatively, instead of a support wheel, a separate sliding surface or similar can be used, with the aid of which the collapsible part is rotated against the floor. The pivot 32 can be a traditional hinge or similar equipped with a vertical pin, which withstands the forces acting on it in the application of the sauna according to the invention.

[0040] After this, the user can rotate the lower bench 38 of the bench structure 36 around its pivot to become horizontal, which it is supported on the counter-piece (not shown in the figures) in the front wall. Finally, the user can rotate the upper bench 40 of the bench structure 36 around its pivot to become horizontal according to Figure 4a, when the upper bench is supported on the counter-piece in the rear wall. In the service position, the bench structure stiffens the structure of the sauna and prevents the retractable part from moving during use. There can also be a stop between the retractable part and the body part, which prevents the retractable part from rotating excessively around the pivot, when the distance between the rear wall and the front wall would become excessively large.

[0041] According to Figures 4a and 4b, the two doors 24 used in this embodiment of the sauna 10 form one of the corners 30 in the service position. The front wall of the sauna is formed by part of the front wall 26 and the door 24. The corner structure 28 of the retractable part 20 forms a second corner 30 and the rear wall 14 of the body part 12 and the fixed part 19 of the first side wall 18 and the second side wall 18' the two other corners. According to a second embodiment, the two doors shown in the figures can be replaced with a single wider door, which is set at a slanting angle to the front wall and second side wall like a bay window. The single door can be preferably attached to the front wall. Alternatively, the single door can also be attached to the second side wall, but in that case the front wall should be continued, if it is wished for the plan of the sauna to be a square when the sauna is in the service position. Further alternatively, the two doors of Figures 1a - 4b can be replaced with two narrower doors, which lie, like the single wider door, at a slanting angle relative to the front wall and the second side wall between them, like a bay window.

[0042] According to Figures 2a - 4a, in the sauna according to the invention the sauna heater used is prefer-

ably a so-called corner heater. This permits better access to the benches in the corner of the sauna on the side of the body part in the service position, as the heater is then not an obstacle to access. In addition, such a heater permits the use of a longer continuation of the first side wall, as the heater is then not an obstacle to the rotation of the corner piece, as the front wall moves over an arc of a circle.

[0043] Figures 5a - 6b show the locking means 60 of the corner piece 28 from different angles in both the open and the locked positions, when the frame structures of the corner piece are not shown. According to Figures 1a, 2b, 3b, and 4b, the end of the corner piece 28 on the side next to the door can include various locking means 60 for locking the corner piece 28 in place in the service position of the sauna. With the aid of the locking means 60, the corner piece 28, which is preferably supported on the floor with the aid of a support wheel 35, is immobilized.

[0044] Figures 5a - 6b show the construction of the locking means 60 in greater detail. According to Figures 5a - 6b, the locking means 60 can include a frame 70, permanently attached to the corner piece 28 of Figure 4b with the aid of a lock beam 63, to which a closing handle 62 is pivoted with the aid of a first transverse pivot 74. A vertical rod 80, which acts at the same time at its lower end 84 as a locking foot 64, is, in turn, pivoted to a continuation 82 of the closing handle 62, with the aid of a second transverse pivot 72. By using the closing handle 62, the locking foot 64 can be lowered onto the floor to lock the corner piece in place and, on the other hand, lifted off the floor to permit the rotation of the corner piece. When the closing handle 62 is turned, the continuation 82 of the closing handle 62 also rotates around the first transverse pivot 74 and at the same time the vertical rod pivoted to the end of the continuation 82 moves vertically. The operation of the locking foot 64 preferably transfers the weight of the corner piece from the support wheel 35 mainly to the locking foot 64. The upper end 86 of the vertical rod 80 for its part includes a locking catch 68 pivoted with the aid of a third transverse pivot 76. A closing surface 66 attached to the ceiling of the sauna preferably acts as a counter-surface for the locking catch 68. In the locking position, the locking catch 68, together with the closing surface 66, forms a construction preventing the rotation of the corner piece. In their basic construction, the locking means can also be similar to those used to lock the usually locked halves of double doors.

[0045] The vertical rod can be formed of two or more parts. According to Figures 5a - 6b, the vertical rod 80 consists of two parts, i.e. an upper part 88 and a lower part 90, which can be partly slanting, in order to save space. According to Figures 5a and 5b, the vertical rod 80 can include a tolerance arrangement 92, with the aid of which the movement of the closing handle 62 is changed to movements of different lengths of the locking catch 68 and the locking foot 64. With the aid of the tol-

erance arrangement 92, the upper part 88 and the lower part 90 of the vertical rod 80 can move by the necessary amount vertically relative to each other.

[0046] In terms of the functionality of the sauna, the lengths of the various part are also important. The fixed part of the first side wall and the second side wall are preferably at least slightly longer in length than the part of the front wall of the collapsible part. This permits the continuation of the first side wall and through it the corner piece to rotate around the pivot, in such a way that the continuation becomes essentially parallel to the rear wall, as the edge of the front wall does not limit the rotation of the retractable part. The continuation is preferably shorter in length than the rear wall. More specifically, the length of the continuation is preferably equal to the width of the rear wall reduced by the width of the heater. Thus, the corner piece can rotate inside the body part for the storage position of the sauna. In some embodiments, the continuation of the first side wall can also be longer than the rear wall, but in that case the corner piece cannot retract inside the body part.

[0047] Preferably also the fixed part of the first side wall and the second side wall are mutually nearly equal in length. According to one embodiment, the width of the rear wall is 120 cm and the fixed part of the first side wall and the second side wall are about 60 cm in width, the second side wall being longer than the fixed part of the first side wall by about the thickness of the continuation of the first side wall. The continuation can be 80-cm wide. Thus, the floor surface area required by the sauna as a totality is, in the service position, about 1.7 m² and, in the storage position, about 0.7 m². However, it should be understood that the idea according to the invention can also be applied with completely different dimensioning, as is shown in Figures 1a - 4b, as long as the retractable part includes a unified corner piece hinged to the body part.

[0048] According to one embodiment, the sauna includes a ventilation connection for guiding steam out of the sauna. With the aid of this, the drying of the sauna after bathing can be accelerated, which in turn will prevent the darkening of the sauna panels. According to one embodiment, in the second side wall a mirror, for example, can be used, which will give the bathroom aesthetically a wider effect when the sauna is in the storage position. In addition, a collapsible clothes drying rack, for example, can be attached to the outside of the sauna on the front wall of the collapsible part of the sauna, which in the storage position will look like a decoration of the outer wall of the sauna, but in the service position can be used for drying clothes. Alternatively, the clothes drying rack can be attached to the continuation of the first side wall. The clothes drying rack preferably includes a drying part comprising drying surfaces, which is pivoted at one end to the outer surface of the sauna and at the other end has pivoted feet. In the storage position, all of the parts lie parallel to the outer wall of the sauna, forming a decorative surface.

[0049] According to one embodiment, the sauna can include means for limit switching the sauna heater, which releases the power supply of the electric heater. When, for example, the retractable part is retracted inside the body part, the retractable part presses the limit switch down, releasing the power supply to the heater when the sauna is in the storage position. In other words, the means prevent the electric heater from heating up when the sauna is in the storage position. At the same time, the limit switch can also switch off the lights integrated with the sauna. The limit switch can be mechanical in construction, but it can also be implemented with the aid of a photo cell, induction, or a laser.

[0050] The sauna is preferably intended to be retracted into the storage position manually, but it is also possible to implement the sauna completely automatically, when the folding of the benches and the retraction of the retractable part can be implemented with the aid of operating devices and automation, for example with the aid of cylinders.

[0051] The sauna according to the invention can be used, for example, retrofitted to existing wet spaces, in which there is a floor drain and sufficient ventilation. In addition, a power socket is required for the electric heater. The sauna according to the invention can be manufactured on site, or it can also be made from separate elements, which are delivered to the site as ready-made elements. Preferably, at least the corner piece is a unified element.

[0052] According to one embodiment, the sauna's ceiling, rear wall and first side wall and second side wall can also be formed from the building's own walls and ceiling, if these are designed to withstand such use. The corner piece of the retractable part of the sauna is then pivoted directly to the wall of the building.

Claims

1. Sauna, comprising in its service position a ceiling (16), a rear wall (14), a first side wall (18), a second side wall (18'), a front wall (26), and at least one door (24), which sauna (10) has the said service position (100) and a storage position (200), of which the storage position (200) is substantially smaller than the service position (100), which sauna (10) includes
 - a body part (12), comprising at least a fixed rear wall (14) and a fixed part (19) belonging to the first side wall (18),
 - a retractable part (20), which includes at least a continuation (22) belonging to the first side wall (18), pivoted to the fixed part (19) of the first side wall (18), and
 - in which sauna (10) the retractable part (20) is arranged to be at least partially retracted inside the said body part (12) when the sauna (10) is in the storage position (200),

characterized in that the said retractable part (20) includes in addition a part of the front wall (26) permanently attached to the continuation (22) of the first side wall (18), thus forming a unified rotating corner piece (28).

2. Sauna according to Claim 1, **characterized in that** the said ceiling (16) is a solid structure.
3. Sauna according to Claim 1 or 2, **characterized in that** the said fixed part (19) of the first side wall (18) and the second side wall (18') are in length at least slightly longer than the part of the front wall (26) of the retractable part (20).
4. Sauna according to any of Claims 1 - 3, **characterized in that** the said continuation (22) is shorter in length than the said rear wall (14).
5. Sauna according to any of Claims 1 - 4, **characterized in that** the sauna includes two doors (24) hinged to the said corner piece (28) and the second side wall (18'), forming one of the corners (30) of the sauna (10).
6. Sauna according to any of Claims 1 - 5, **characterized in that** the retractable part (20) includes at least one support wheel (35) situated at its lower edge (34), in order to facilitate the rotation of the retractable part (20).
7. Sauna according to any of Claims 1 - 6, **characterized in that** the said ceiling (16) is fixed and covers, in the service position, the sauna (10) delimited by the body part (12) and the retractable part (20).
8. Sauna according to any of Claims 1 - 7, **characterized in that** the sauna (10) further includes a retractable bench structure (36) integrated in the sauna (10).
9. Sauna according to Claim 8, **characterized in that** the said bench structure (36) includes a lower bench (38) pivoted to the rear wall (14) and an upper bench (40) pivoted to the front wall (26), which bench structure (36) is arranged to stiffen the structure of the sauna (10) in the service position.
10. Sauna according to any of Claims 1 - 9, **characterized in that** the sauna (10) includes an electric sauna heater (42) and means for limit switching the power supply to the electric heater (42) when the sauna (10) is in the storage position (200).
11. Sauna according to any of Claims 1 - 10, **characterized in that** the storage position (200) of the sauna (10) is at least 30 % smaller in floor surface area than the service position (100).

12. Sauna according to any of Claims 1 - 11, **characterized in that** the said rear wall (14), fixed part (19) and continuation (22) of the first side wall (18), second side wall (18'), and front wall (26) are solid structures. 5
13. Sauna according to any of Claims 1 - 12, **characterized in that** the retractable part (20) of the sauna (10) includes locking means (60) for locking the retractable part (20) in place while the sauna (10) is being used. 10
14. Sauna according to Claim 13, **characterized in that** the locking means (60) include a frame (70) permanently attached to the corner piece (28), a closing handle (62) pivoted to the frame (70) with the aid of a first transverse pivot (74), and a vertical rod (80) pivoted to the continuation (82) of the closing handle (62) with the aid of a second transverse pivot (72), which vertical rod (80) is arranged to act as a locking foot (64). 15 20 25 30 35 40 45 50 55

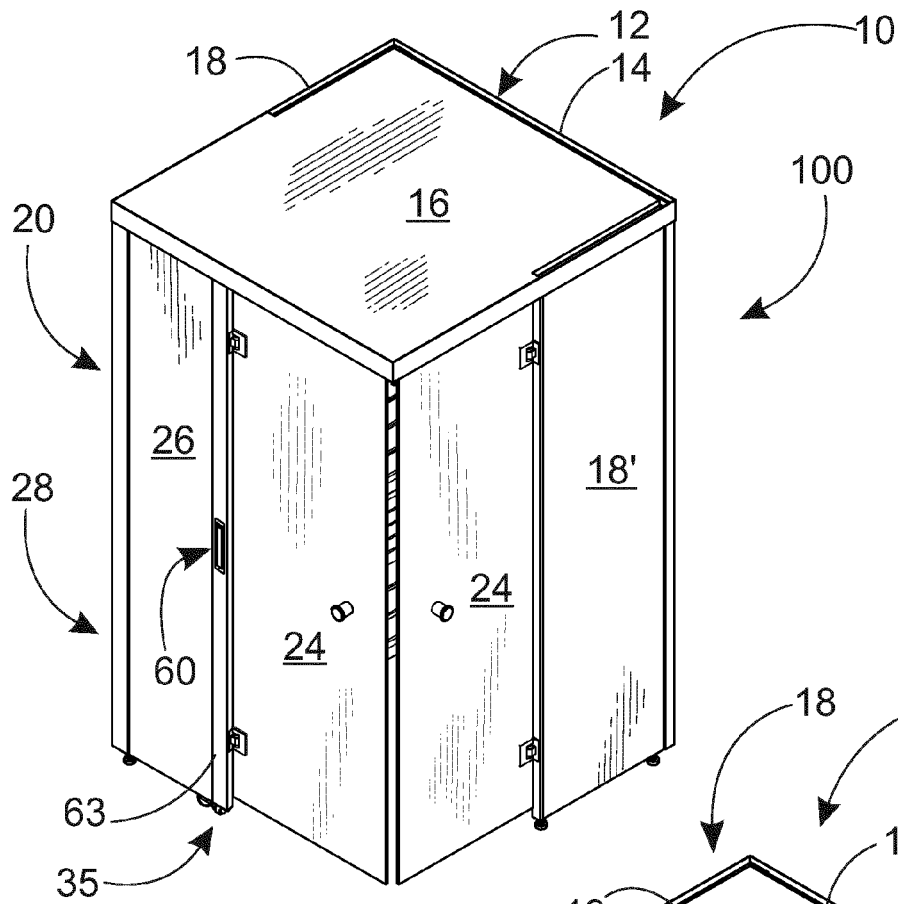


Fig. 1a

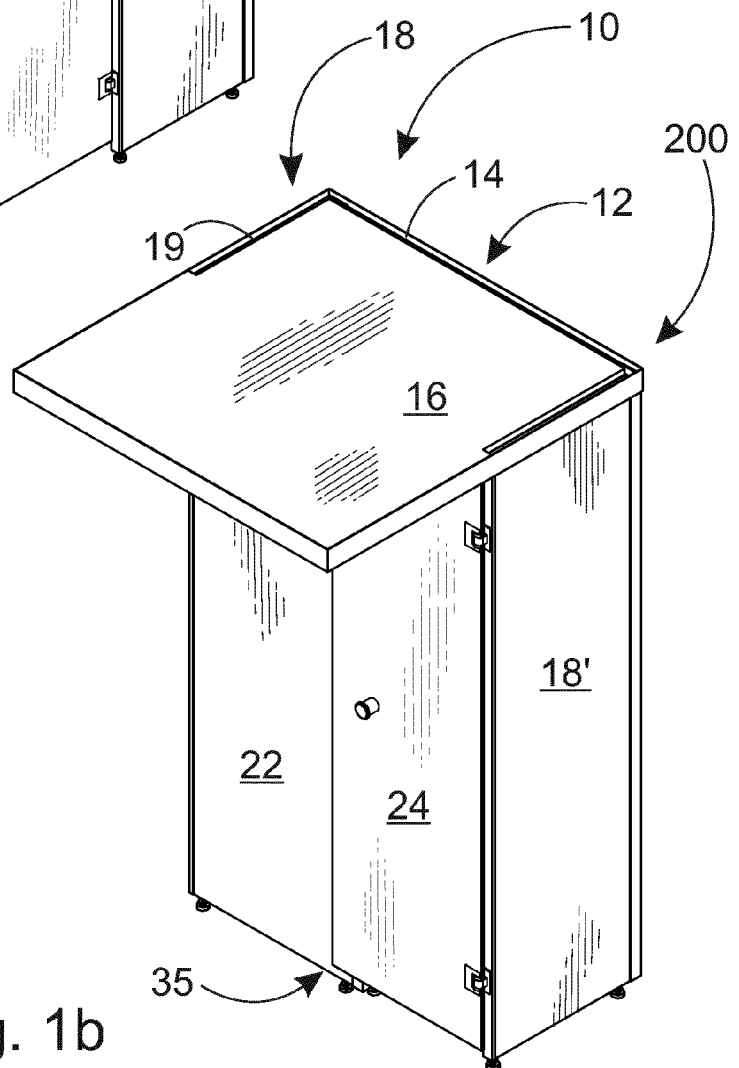


Fig. 1b

Fig. 2a

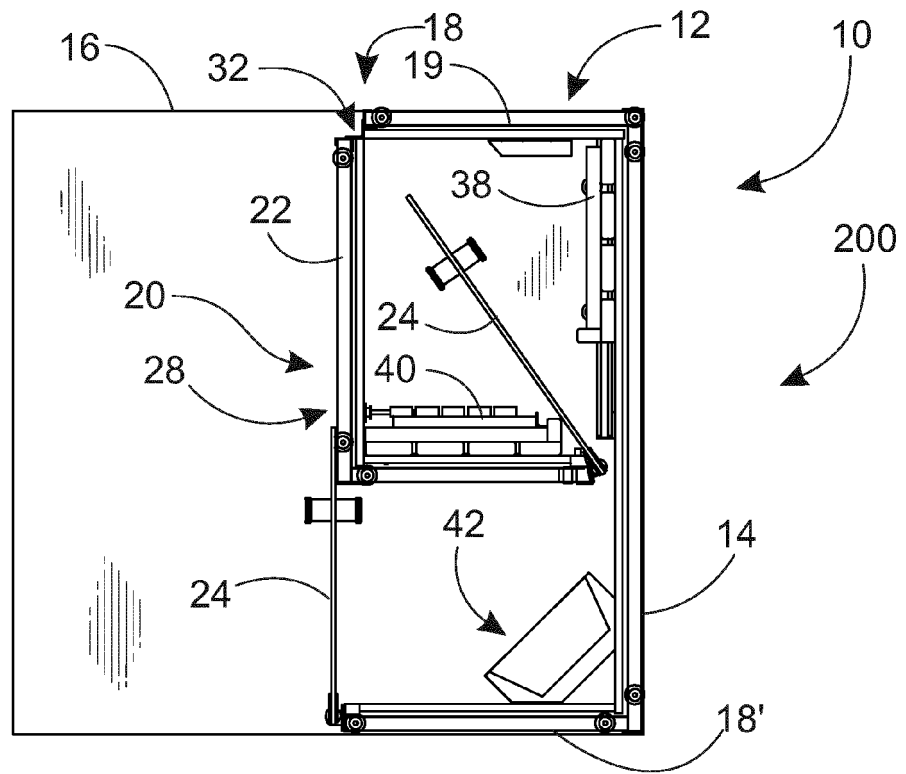
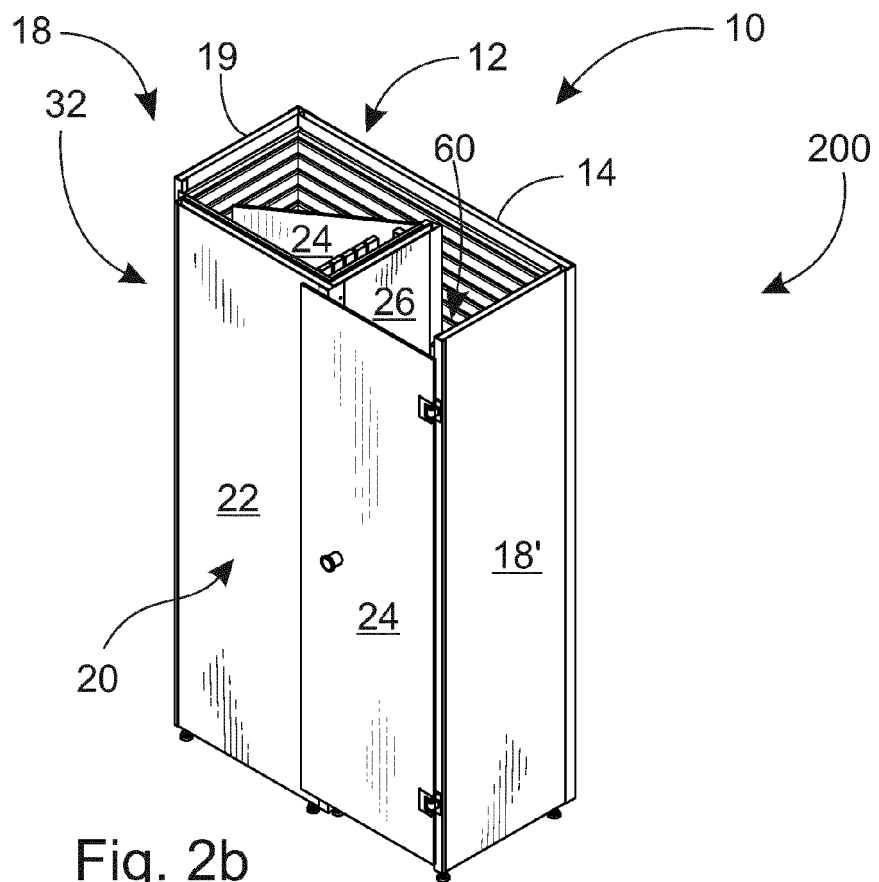
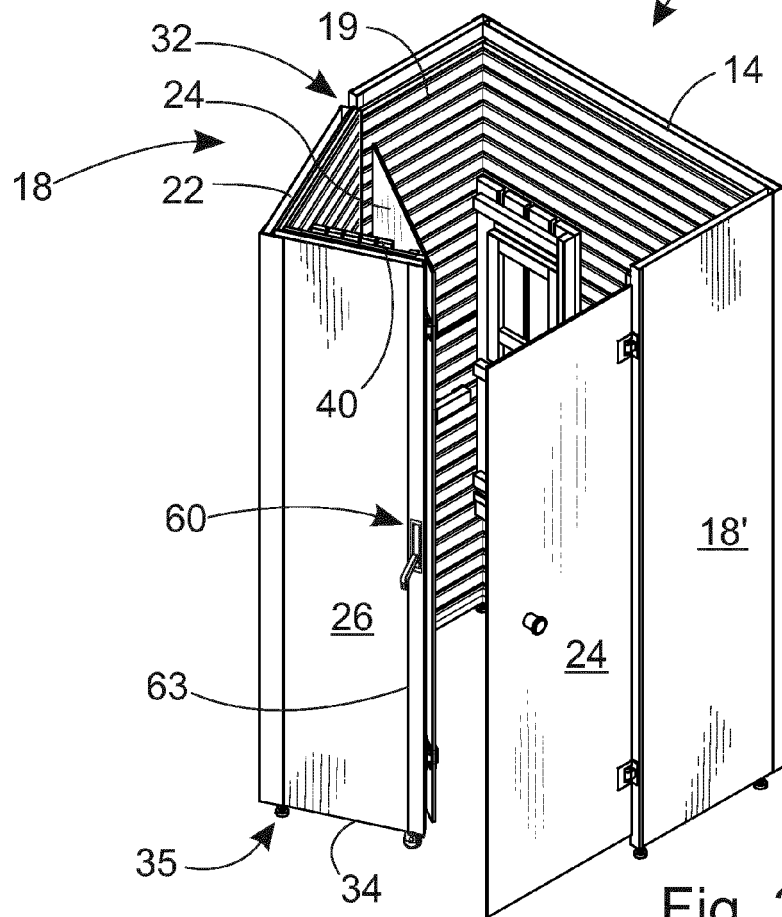
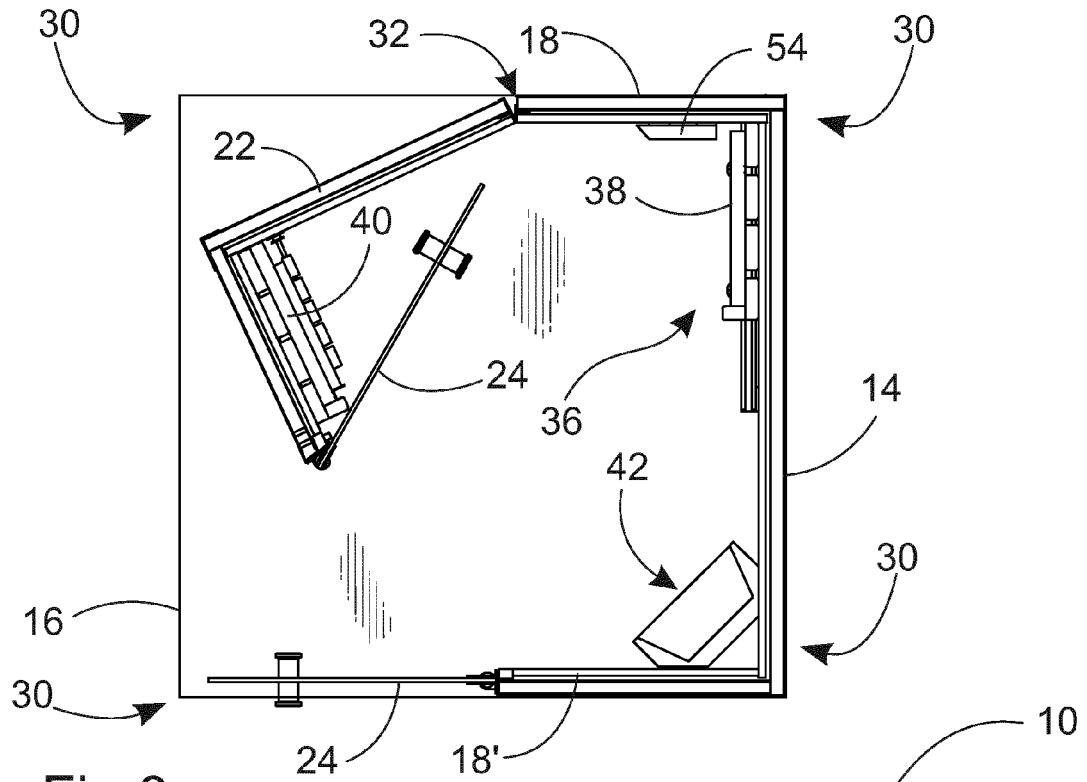
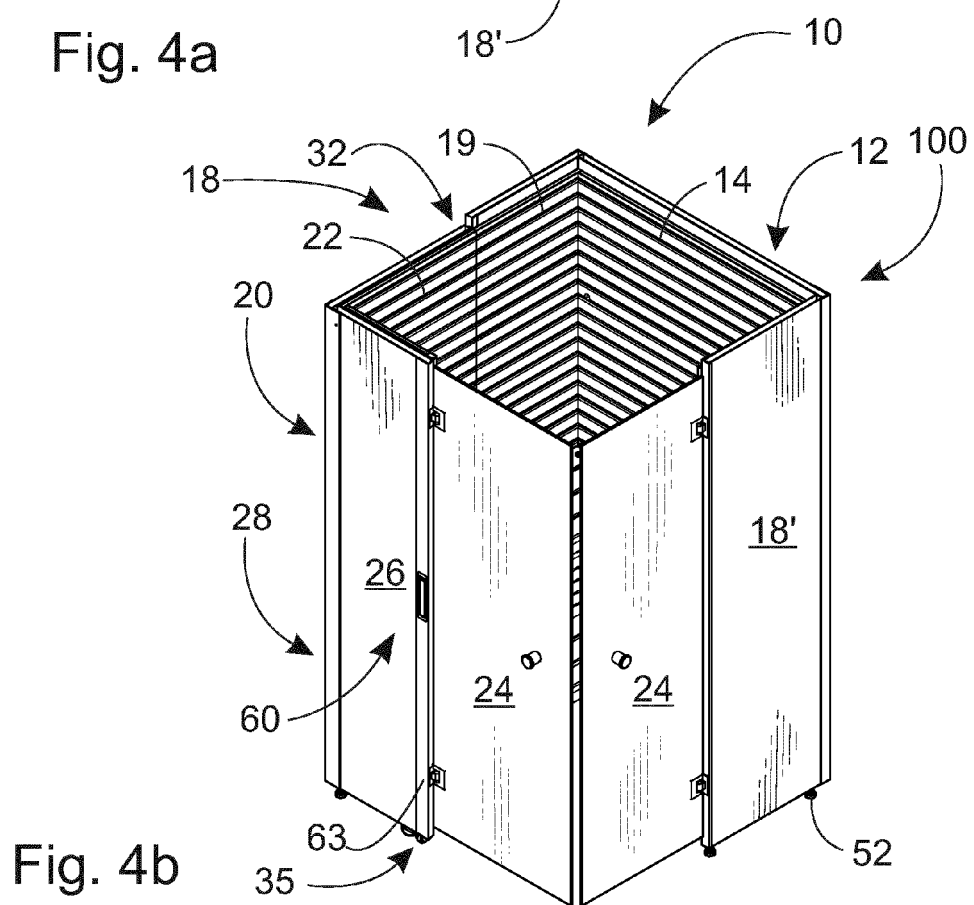
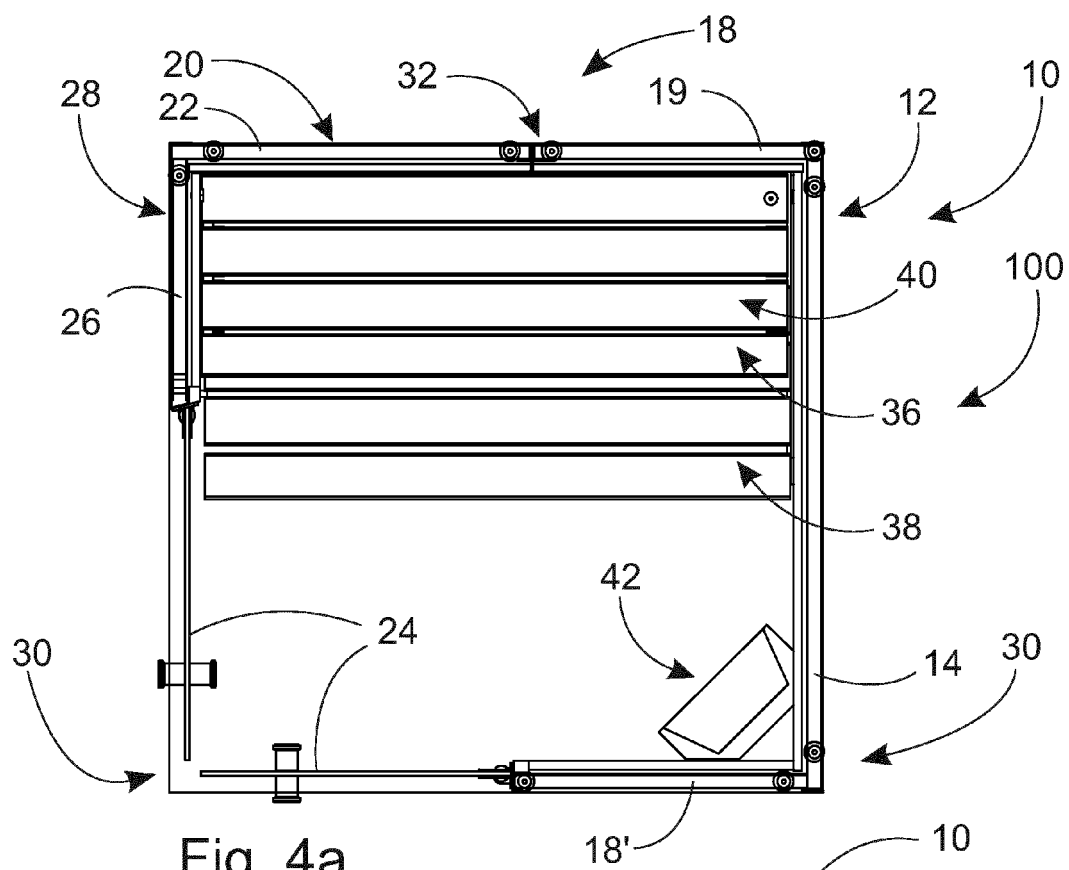


Fig. 2b







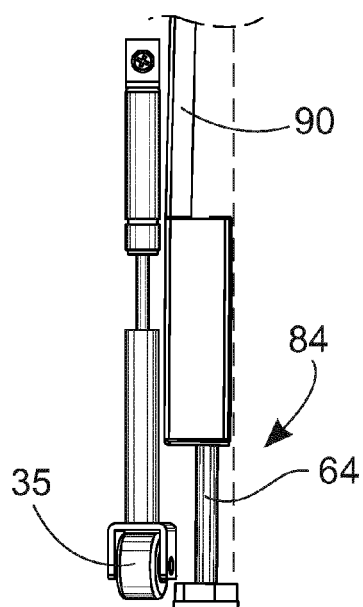
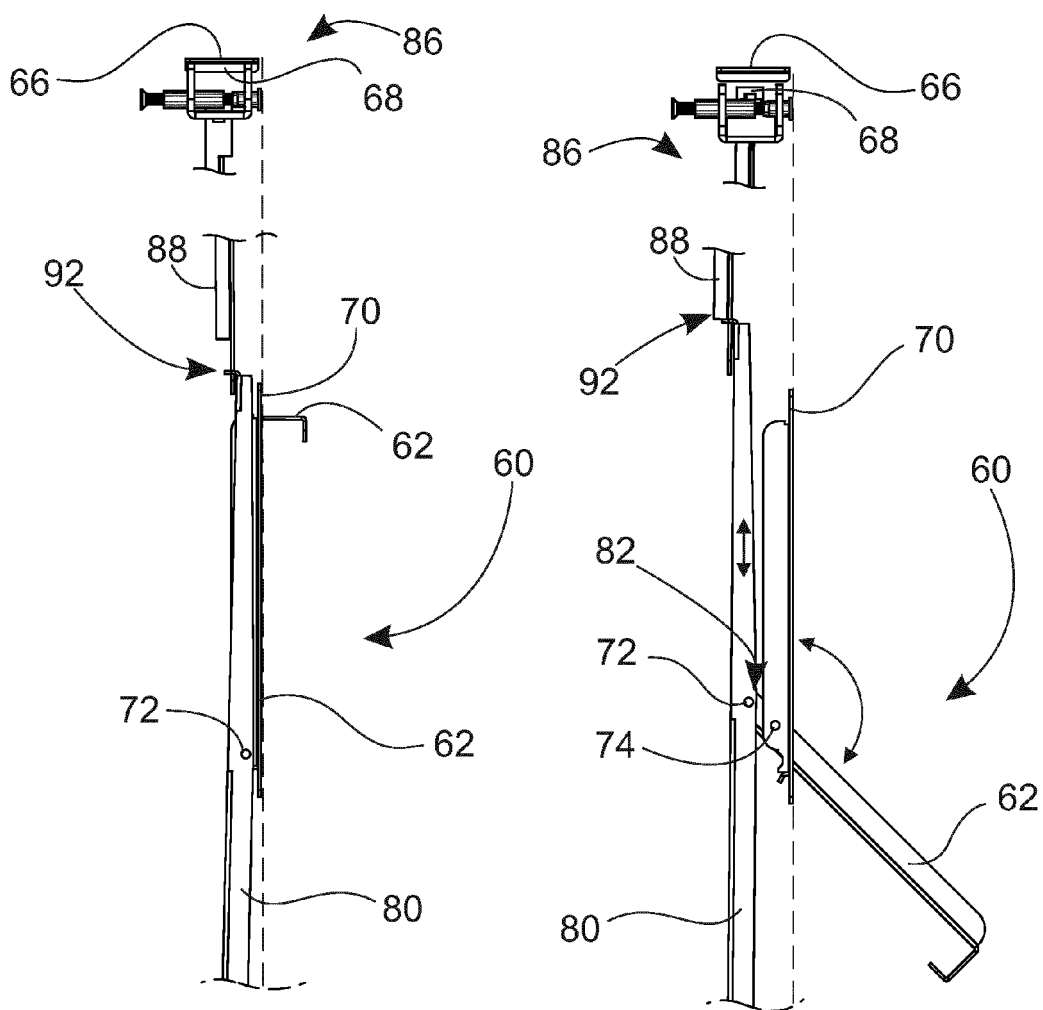


Fig. 5a

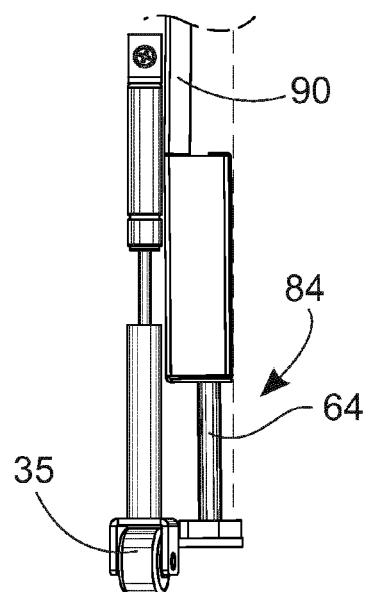


Fig. 5b

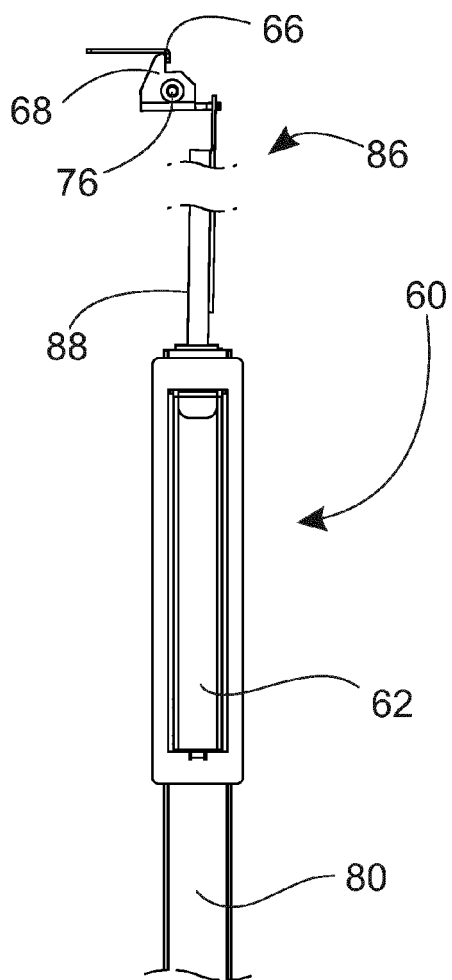


Fig. 6a

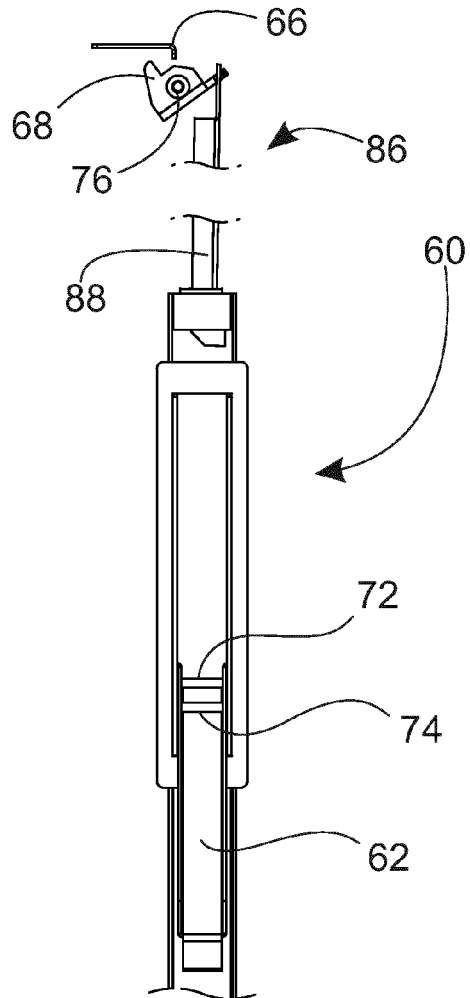
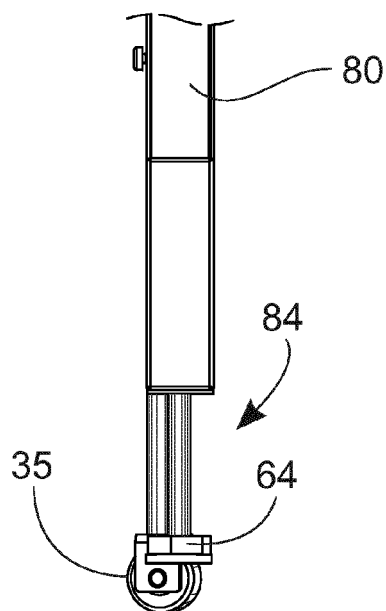
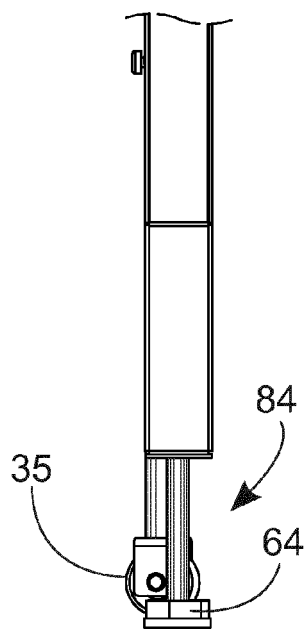


Fig. 6b





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X	DE 44 16 997 A1 (KAINZ JOHANN [AT]) 17 November 1994 (1994-11-17) * column 1, lines 14-29; figures *	1-14	
X	DE 297 03 038 U1 (HOJKA MARIO [DE]) 10 April 1997 (1997-04-10) * figure 4 *	1-14	
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			TECHNICAL FIELDS SEARCHED (IPC)
			A61H E04H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 February 2015	Examiner Fischer, Elmar
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