

⑫ **EUROPEAN PATENT SPECIFICATION**

④⑤ Date of publication of patent specification: **09.01.85**

⑤① Int. Cl.: **F 24 C 15/02**

②① Application number: **81302289.4**

②② Date of filing: **22.05.81**

⑤④ **Gasket arrangement.**

③⑥ Priority: **23.05.80 GB 8017113**
11.07.80 GB 8022706

④③ Date of publication of application:
02.12.81 Bulletin 81/48

④⑤ Publication of the grant of the patent:
09.01.85 Bulletin 85/02

⑥④ Designated Contracting States:
AT BE CH DE FR IT LI NL SE

⑤⑥ References cited:
GB-A- 804 461
GB-A-1 197 531
US-A-2 665 458
US-A-3 219 026
US-A-3 765 400

⑦⑥ Proprietor: **COMPAGNIE FRANCAISE DES**
ISOLANTS
B.P. 16 1, Rue du Bois de Tillet
F-60800 Crepy-en-Valois (FR)

⑦⑦ Inventor: **Van Wassenhove, Denis**
1, Rue du Bois de Tillet
F-60800 Crepy-en-Valois (FR)
Inventor: **Ferrand, Jean**
1, Rue Hector Berlioz Appartement No. 154
F-60800 Crepy en Valois (FR)

⑦⑧ Representative: **Jones, David Colin et al**
Raychem Limited Intellectual Property Law
Department Swan House 37-39 High Holborn
London WC1 (GB)

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European patent convention).

Description

This invention relates to a gasket arrangement, and particularly though not exclusively to a heat-resistant gasket arrangement for a door or an oven, for example a domestic oven.

It is known to provide a door of an oven with a gasket to provide a heat-resistant seal between the door and the body of the oven, and also to prevent escape of cooking smells from the oven into the kitchen. Difficulty can be experienced in securing the gasket to the door by adhesive for example because although high temperature adhesives are available they tend to emit undesirable fumes, at least when initially heated. Oven doors may be made of glass and difficulty can be experienced in securing a gasket to a surface thereof.

US—A—2665458 describes a single tubular gasket that surrounds the front opening in an oven liner and that is adapted to be compressed by the closed door. The gasket is held in position by spring clips US—A—3219026 describes a seal ring that provides a seal between the interior of an oven and an inner glass panel. The seal ring is clamped between the glass panel (10) and the frame member of the oven. The seal ring has a U-shaped portion and a trim ring is inserted between the legs of the U.

One aspect of the present invention provides a gasket arrangement comprising at least two generally elongate gaskets in the form of closed loops, the gaskets being of substantially the same length and arranged to lie side-by-side and substantially parallel to each other, and a plurality of connecting members that secure the gaskets together at intervals spaced apart along each gasket, each connecting member having a first portion secured to one of the gaskets, and a second portion secured to another of the gaskets, the gasket arrangement being arranged so that the gaskets can be positioned on a substrate so that the substrate is located between the gaskets and so that the connecting members pass over a peripheral edge of the substrate to bridge the gaskets.

A second aspect of the present invention provides a gasket arrangement comprising at least two generally elongate gaskets in the form of closed loops, the gaskets being of substantially the same length and arranged to lie side-by-side and substantially parallel to each other, and a single continuous connecting member that secures the gaskets together at intervals spaced apart along each gasket, the gasket arrangement being arranged so that the gaskets can be positioned on a substrate (2) so that the substrate is located between the gaskets and so that the connecting member passes back and forth over a peripheral edge of the substrate to bridge the gaskets.

The connecting members securing the gaskets together in the gasket arrangement according to the first mentioned aspect of the

present invention may be, for example, staples.

In one preferred embodiment of the gasket arrangement according to the second aspect of the present invention, where a single continuous connecting member is used, the gaskets are loosely sewn together by non-woven stitching of a single length of yarn or thread that passes back and forth between the gaskets in an elongate zig-zag pattern, thus securely interconnecting the gaskets whilst providing a high degree of longitudinal and transverse movement therebetween. In such an arrangement, each portion of the yarn or thread that extends between the gaskets is spaced apart from the next by the zig-zag.

The gaskets may be sewn together by yarn of, for example, glass, metal, PTFE, or polyester.

The gaskets may be braided or knitted from glass-ceramic or other fibre material, and in a preferred embodiment are of substantially circular section. The gaskets may be internally reinforced with a stiffening rod, shaped into a closed rectangular loop, and then elastically secured together by the connecting member.

In embodiments of gasket arrangements in which two, or more, gaskets are loosely secured together by having a single length of thread or yarn sewn therebetween, the maximum separation of the gaskets and also the number of stitches, or lengths of the connecting member, per inch may conveniently be controlled by the sewing machine.

The gasket arrangement of the present invention allows gaskets to be conveniently secured to a substrate without employing adhesive and without the need for any special preparation of, for example drilling of apertures in, the substrate.

Several embodiments of gasket arrangement, each in accordance with the present invention, will now be described, by way of example, with reference to the accompanying schematic drawings, in which:

Figures 1a,b,c are perspective views showing respectively a substrate, an arrangement of two gaskets connected together by a plurality of connecting members, and the arrangement mounted on the substrate;

Figure 2 shows part of the two gaskets and a connecting member of the gasket arrangement of Figure 1;

Figures 3a,b,c show the connecting member of Figure 1 and two modifications thereof respectively;

Figure 4 shows another gasket arrangement;

Figure 5 is a perspective view showing an arrangement of two gaskets connected together by a length of yarn;

Figure 6 is an enlargement of the portion A of Figure 5;

Figure 7 is a perspective view of the gasket arrangement of Figure 5 mounted on an oven door;

Figure 8 is an enlargement of a portion of a further gasket arrangement; and

Figure 9 is a section through a gasket reinforced with a metal rod.

Referring to the drawings, Figure 1a shows a rectangular glass panel 2 of the door of an oven that is to be fitted with two glass-ceramic fibre gaskets 4 and 6 interconnected by a plurality of connecting members or staples 8 as shown in Figure 1b, to provide the assembled arrangement of Figure 1c. As may be seen more clearly from Figures 2 and 3, the gaskets 4 and 6 are of circular cross-section and are interconnected by the staples 8 by penetration therinto of respective staple legs 10. Each leg 10 is terminated by a hook or barb 12 that opposes upward withdrawal of the staple 8 from the gasket. The staple 8 is looped at a portion intermediate the legs 10 so as resiliently to urge the gaskets 4 and 6 towards each other.

Figure 3b shows a modified form of staple having two loops in its intermediate portion to provide increased inward pressure on the gaskets 4 and 6. The staple of Figure 3c, has its legs 14 angled towards each other, so that after being forced apart to receive the oven door panel 2 therebetween, the gaskets engaged by respective legs 14 are urged inwardly by the resilience of the staple into contact with the panel 2.

When using the gasket and staple arrangement on a rectilinear substrate such as the panel 2, it is found convenient, as shown in Figure 1c for example, to provide the staples 8 in pairs adjacent corners of the panel 2 with the staple legs penetrably secured into respective gasket on opposing major faces of the panel with the intermediate staple portions abutting the interconnecting edge of the panel 2.

The gasket arrangement is preferably supplied in assembled forms, such as shown in Figure 1b for example, being dimensioned in accordance with the particular substrate, the glass panel 2 of Figure 1a for example. The gasket arrangement is then flexed, taking advantage of its natural elasticity, so that it can be slipped over the substrate, as shown in Figure 1c for example.

Figure 4 shows a modified gasket arrangement in which two panels 2 have the gasket 6 forming a peripheral seal therebetween the gasket 4 abutting an opposing surface of one of the panels, and a further gasket 15 abutting an opposing surface of the other panel 2. The arrangement is shown prior to the staples 8 being urged downwardly into contact with the panels 2.

Figures 5 to 7 show a further gasket arrangement 22 comprising two braided or knitted gaskets 24 of glass-ceramic fibres that are connected together by a length, or possibly two or more lengths, of yarn or thread 28 of, for example, glass, metal, PTFE or polyester fibre. The yarn 28 is sewn through the two gaskets 24 in loose fashion, both in the transverse and

longitudinal directions, so that the stitches are of the form of discrete non-woven portions 30 extending between the gaskets 24 as an elongated Z. Thus, the gaskets 24 are interconnected by the portions 30 at discrete locations longitudinally thereof. The gasket arrangement 22 thereby produced is very flexible and allows for easy mounting on to a substrate such as the oven glass door 26 with the gaskets 24 on opposing faces thereof with the lengths 30 extending over the edges of the door.

It will be appreciated from Figure 6 that the longitudinal spacing apart of the stitch lengths 30 and the transverse separation of the gaskets 24 may very conveniently be controlled during the sewing operation. By this means, the gasket arrangement 22 can be tailored to suit the required thickness of the substrate and also the required curvature of the gaskets 4 adjacent corners of a rectilinear substrate.

Referring to Figure 8, three gaskets 24 are shown interconnected by a single length of yarn in a manner analogous to that hereinbefore described. It will be appreciated, however, that each adjacent pair of gaskets may be interconnected by a separate thread.

Any of the gaskets shown in Figures 1 to 8 may be internally reinforced with, for example, a metal rod 32, as shown in Figure 9. The reinforced gasket may be fabricated by forming the braided or knitted gasket, of circular cross-section, in an elongate length, threading a metal rod 32 through the braid or knitt and then shaping the gasket into a closed rectangular loop, the ends of the loop being secured together by stapling or sewing.

Material other than glass-ceramic fibre may be employed in the construction of the gaskets, and may comprise glass, ceramic, silica or asbestos fibre material for example, or a combination thereof. Furthermore, the gasket may be formed by weaving, or other suitable means. In general, the gasket may be provided by any suitably-constructed elongate member.

Preferably, as shown in Figure 1c for example, the gasket is of elongate form and is located adjacent and substantially entirely around the periphery of the substrate. It will be appreciated that the precise positioning of the gaskets on the substrate surface can be arranged by a suitable choice of length of the staple legs in the embodiment shown in Figures 1 to 4, or by suitable choice of stitch lengths 30 in the embodiment shown in Figures 5 to 8. It will also be appreciated that the gasket may extend over a greater or lesser area of the surface of the substrate than shown.

The gasket arrangements of the present invention thus provide convenient ways of securing elongate lengths of gasket together and securing the gaskets over a substrate by inserting clips in the gaskets or by having lengths of a connecting member such as yarn or thread extending between the gaskets at spaced-apart, ie, discrete, locations.

5

10

15

20

25

30

35

40

45

50

55

60

65

Claims

1. A gasket arrangement comprising at least two generally elongate gaskets (4, 6,) in the form of closed loops, the gaskets being of substantially the same length and arranged to lie side-by-side and substantially parallel to each other, and a plurality of connecting members (8) that secure the gaskets (4, 6) together at intervals spaced apart along each gasket, each connecting member (8) having a first portion secured to one of the gaskets (4), and a second portion secured to another of the gaskets (6), the gasket arrangement being arranged so that the gaskets (4, 6) can be positioned on a substrate (2) so that the substrate (2) is located between the gaskets (4, 6) and so that the connecting members (8) pass over a peripheral edge of the substrate (2) to bridge the gaskets (4, 6).

2. An arrangement according to claim 1, wherein the connecting members (8) are resilient and urge each gasket (4, 6) against the substrate.

3. An arrangement according to claim 1 or 2, wherein each connecting member (8) comprises a metallic material.

4. An arrangement according to any preceding claim wherein the connecting members are penetrably secured in each gasket (4, 6).

5. An arrangement according to claim 4, wherein each connecting member portion penetrably secured in a gasket comprises a hook directed generally in opposition to the direction of insertion of the connecting member (8) into the gasket to assist retention of the connecting member (8) in the gasket (4, 6).

6. An arrangement according to any preceding claim, wherein each connecting member comprises a staple.

7. A gasket arrangement comprising at least two generally elongate gaskets (24) in the form of closed loops, the gaskets being of substantially the same length and arranged to lie side-by-side and substantially parallel to each other, and a single continuous connecting member (28) that secures the gaskets (24) together at intervals spaced apart along each gasket, the gasket arrangement being arranged so that the gaskets (24) can be positioned on a substrate (2) so that the substrate (2) is located between the gaskets (24) and so that the connecting member (28) passes back and forth over a peripheral edge of the substrate (2) to bridge the gaskets.

8. An arrangement according to claim 7, wherein the single continuous connecting member comprises yarn.

9. An arrangement according to claim 7 or 8, wherein the single continuous connecting member (28) is arranged to pass back and forth in a generally zig-zag pattern between the gaskets (24) in such a way as to allow relative longitudinal and transverse movement between the gaskets (24).

10. An arrangement according to any one of claims 7 to 9, wherein the single continuous connecting member (28) comprises glass, metal, polytetrafluoroethylene or polyester.

11. An arrangement according to any preceding claim, wherein each gasket (4, 6, 24) is of braided, knitted or woven construction.

12. An arrangement according to any preceding claim, wherein each gasket (4, 6, 24) comprises a heat-insulative material.

13. An arrangement according to any preceding claim, wherein each gasket (4, 6, 24) comprises ceramic, glass, asbestos or silica fibres, or a combination thereof.

14. An arrangement according to any preceding claim, wherein each gasket (4, 6, 24) is internally reinforced.

15. An arrangement according to any preceding claim, comprising the substrate (2), which is a substantially planar member.

16. An arrangement according to any one of claims 1 to 6, or according to any one of claims 11 to 15 when dependant on any one of claims 1 to 6, wherein the substrate is a substantially planar, rectilinear, member, and wherein each gasket (4, 6) is secured to the substrate by pairs of said connecting members disposed over the said edge of the substrate on either side of the corners thereof.

17. An arrangement according to claim 15 or 16, wherein the or each gasket (4, 6, 24) extends adjacent the entire periphery of a respective one of the major surfaces of the substrate (2).

18. An arrangement according to any one of claims 15 to 17 wherein the planar member (2) comprises a glass panel.

19. An arrangement according to claim 16 or 18, wherein the substrate (2) comprises at least part of the door of an oven.

20. An oven including a gasket arrangement according to any preceding claim.

Revendications

1. Un dispositif d'étanchéité comprenant au moins deux organes d'étanchéité (4, 6) dans l'ensemble allongés ayant la forme de cadres fermés, les organes d'étanchéité ayant sensiblement la même longueur et étant disposés de façon à s'étendre côte et sensiblement parallèlement les uns aux autres, et une série d'organes de liaison (8) qui fixent entre eux les organes d'étanchéité (4, 6) à des intervalles espacés les uns des autres le long de chaque organe d'étanchéité, chaque organe de liaison (8) comportant une première partie fixée à l'un (4) des organes d'étanchéité en une seconde partie fixée à un autre (6) des organes d'étanchéité, le dispositif d'étanchéité étant agencé de telle sorte que les organes d'étanchéité (4, 6) peuvent être positionnés sur un substrat (2) de façon que le substrat (2) soit disposé entre les organes d'étanchéité et de façon que les organes de liaison (8) passent par

dessus un bord périphérique du substrat (2) pour relier entre eux les organes d'étanchéité (4, 6).

2. Un dispositif selon la revendication 1 dans lequel les organes de liaison (8) sont élastiques et sollicitent chaque organe d'étanchéité (4, 6) en appui contre le substrat.

3. Un dispositif selon la revendication 1 ou 2, dans lequel chaque organe de liaison (8) est en une matière métallique.

4. Un dispositif selon une quelconque revendication précédente dans lequel les organes de liaison sont fixés à chaque organe d'étanchéité (4, 6) par pénétration dans ces derniers.

5. Un dispositif selon la revendication 4, dans lequel chaque partie d'organe de liaison fixée à un organe d'étanchéité par pénétration dans ce dernier comporte un crochet dirigé, dans l'ensemble, dans une direction opposée à la direction d'introduction de l'organe de liaison (8) dans l'organe d'étanchéité pour contribuer à retenir l'organe de liaison (8) dans l'organe d'étanchéité (4, 6).

6. Un dispositif selon une quelconque revendication précédente dans lequel chaque organe de liaison est constitué par une agrafe.

7. Un dispositif d'étanchéité comprenant au moins deux organes d'étanchéité (24) dans l'ensemble allongés ayant la forme de cadres fermés, les organes d'étanchéité ayant sensiblement la même longueur et étant disposés de façon à s'étendre côte et sensiblement parallèlement les uns aux autres, et un unique organe de liaison continu (28) qui fixe entre eux les organes d'étanchéité (24) à des intervalles espacés les uns des autres le long de chaque organe d'étanchéité, le dispositif d'étanchéité étant agencé de façon que les organes d'étanchéité (24) puissent être positionnés sur un substrat (2) de façon que le substrat (2) soit disposé entre les organes d'étanchéité et de façon que l'organe de liaison (28) passe en va-et-vient par dessus un bord périphérique du substrat (2) pour relier entre eux les organes d'étanchéité.

8. Un dispositif selon la revendication 7, dans lequel l'unique organe de liaison continu est constitué par un fil.

9. Un dispositif selon la revendication 7 ou 8, dans lequel l'unique organe de liaison continu (28) est agencé de façon à s'étendre en va-et-vient entre les organes d'étanchéité (24) suivant une configuration approximativement en zig-zag de manière à permettre un mouvement longitudinal et transversal relatif entre les organes d'étanchéité (24).

10. Un dispositif selon l'une quelconque des revendications 7 à 9, dans lequel l'unique organe de liaison continu (28) est en verre, en métal, en polyester, en polytétrafluoroéthylène ou en polyester.

11. Un dispositif selon une quelconque revendication précédente dans lequel chaque organe d'étanchéité (4, 6, 24) est d'une con-

struction tressée, tricotée ou tissée.

12. Un dispositif selon une quelconque revendication précédente dans lequel chaque organe d'étanchéité (4, 6, 24) est en une matière thermiquement isolante.

13. Un dispositif selon une quelconque revendication précédente, dans lequel chaque organe d'étanchéité (4, 6, 24) est en fibres de céramique, de verre, d'amiante ou de silice ou en une combinaison de telles fibres.

14. Un dispositif selon une quelconque revendication précédente, dans lequel chaque organe d'étanchéité (4, 6, 24) est intérieurement renforcé.

15. Un dispositif selon une quelconque revendication précédente, comprenant le substrat (2) qui est un organe sensiblement plat.

16. Un dispositif selon l'une quelconque des revendications 1 à 6 ou selon l'une quelconque des revendications 11 à 15, lorsqu'elles sont dépendantes de l'une quelconque des revendications 1 à 6, dans lequel le substrat est un organe rectiligne sensiblement plat et dans lequel chaque organe d'étanchéité (4, 6) est fixé au substrat par des paires desdits organes de liaison disposées par dessus ledit bord du substrat de part et d'autre des angles de ce dernier.

17. Un dispositif selon la revendication 15 ou 16, dans lequel l'organe d'étanchéité ou chaque organe d'étanchéité (4, 6, 24) s'étend adjacent à la totalité de la périphérie d'une des grandes surfaces de substrat (2) respectivement correspondantes.

18. Un dispositif selon l'une quelconque des revendications 15 à 17, dans lequel l'organe plat (2) est un panneau de verre.

19. Un dispositif selon la revendication 16 ou 18, dans lequel le substrat constitue au moins une partie de la porte d'un four.

20. Un four comprenant un dispositif d'étanchéité selon une quelconque revendication précédente.

Patentansprüche

1. Dichtungseinrichtung, umfassend mindestens zwei in Form von geschlossenen Schleifen verlaufende, insgesamt langgestreckte Dichtungen (4, 6), die praktisch gleiche Länge haben und Seite an Seite und praktisch parallel zueinander angeordnet sind, und eine Mehrzahl von Verbindungselementen (8), die die Dichtungen (4, 6) in Abständen längs jeder Dichtung miteinander verbinden, wobei jedes Verbindungselement (8) mit einem ersten Teil an der einen Dichtung (4) und mit einem zweiten Teil an der anderen Dichtung (6) befestigt ist und die Dichtungseinrichtung so aufgebaut ist, daß die Dichtungen (4, 6) an einem Substrat (2) in der Weise anbringbar sind, daß sich das Substrat (2) zwischen den Dichtungen (4, 6) befindet und die Verbindungselemente (8) über eine Umrandung des Substrats (2) hinweggreifen und

eine Brücke zwischen den Dichtungen (4, 6) herstellen.

2. Dichtungseinrichtung nach Anspruch 2, worin die Verbindungselemente (8) federnd sind und die jeweilige Dichtung (4, 6) gegen das Substrat drücken.

3. Dichtungseinrichtung nach Anspruch 1 oder 2, worin jedes Verbindungselement (8) aus einem Metall besteht.

4. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin die Verbindungselemente in jeder Dichtung (4, 6) durch Eindringen befestigt sind.

5. Dichtungseinrichtung nach Anspruch 4, worin jeder in einer Dichtung durch Eindringen befestigte Teil des Verbindungselements mit einem Haken versehen ist, der insgesamt entgegengesetzt zu der Eindringrichtung des Verbindungselements (8) in der Dichtung verläuft, damit das Verbindungselement (8) in der Dichtung (4, 6) besser zurückgehalten wird.

6. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin jedes Verbindungselement als Klammer ausgebildet ist.

7. Dichtungseinrichtung, umfassend mindestens zwei in Form von geschlossenen Schleifen verlaufende insgesamt langgestreckte Dichtungen (24), die praktisch gleiche Länge haben und Seite an Seite und praktisch parallel zueinander angeordnet sind, und ein einzelnes, zusammenhängendes Verbindungselement (28), das die Dichtungen (24) in Abständen längs jeder Dichtung miteinander verbindet, wobei die Dichtungseinrichtung so aufgebaut ist, daß die Dichtungen (24) an einem Substrat (2) in der Weise anbringbar sind, daß sich das Substrat (2) zwischen den Dichtungen (24) befindet und das Verbindungselement (28) hin und her über eine Umrandung des Substrats (2) hinweggreift, und eine Brücke zwischen den Dichtungen herstellt.

8. Dichtungseinrichtung nach Anspruch 7, worin das einzelne zusammenhängende Verbindungselement aus Garn besteht.

9. Dichtungseinrichtung nach Anspruch 7 oder 8, worin das einzelne, zusammenhängende Verbindungselement (28) hin und zurück in Zickzackform zwischen den Dichtungen (24) in der Weise angeordnet ist, daß zwischen den Dichtungen (24) eine gegenseitige Längs- und

Querbewegung möglich ist.

10. Dichtungseinrichtung nach einem der Ansprüche 7 bis 9, worin das einzelne, zusammenhängende Verbindungselement (28) aus Glas, Metall, Polytetrafluorethylen oder Polyester besteht.

11. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin jede Dichtung (4, 6, 24) geflochten, gestrickt oder gewebt ist.

12. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin jede Dichtung (4, 6, 24) ein wärmeisolierendes Material enthält.

13. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin jede Dichtung (4, 6, 24) aus keramischer Faser, Asbestfaser oder Silikafaser oder einer Kombination dieser Fasern besteht.

14. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, worin jede Dichtung (4, 6, 24) eine Innenverstärkung aufweist.

15. Dichtungseinrichtung nach einem der vorhergehenden Ansprüche, umfassend das Substrat (2), das als praktisch ebenes Bauteil ausgeführt ist.

16. Dichtungseinrichtung nach einem der Ansprüche 1 bis 6, oder nach einem der Ansprüche 11 bis 15 unter Rückbeziehung auf einen der Ansprüche 1 bis 6, worin es sich bei dem Substrat um ein praktisch ebenes, geradliniges Bauteil handelt und worin jede Dichtung (4, 6) an dem Substrat durch Paare der Verbindungselemente befestigt ist, die beiderseits der Ecken des Substrats über die Umrandung des Substrats geführt sind.

17. Dichtungseinrichtung nach Anspruch 15 oder 16, worin die oder jede Dichtung (4, 6, 24) sich an der gesamten Umfangslinie der jeweiligen größeren Fläche des Substrats (2) entlang erstreckt.

18. Dichtungseinrichtung nach einem der Ansprüche 16 bis 18, worin das ebene Bauteil (2) aus einer Glasscheibe besteht.

19. Dichtungseinrichtung nach Anspruch 18 oder 19, worin das Substrat (20) mindestens Teil einer Backofentür ist.

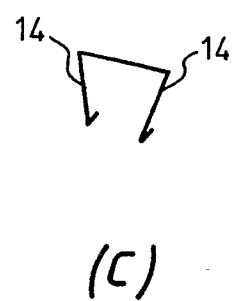
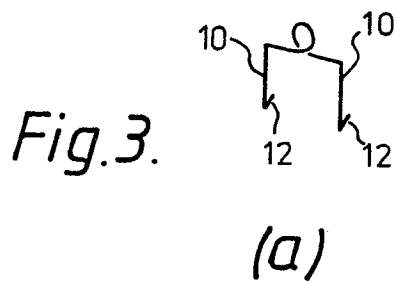
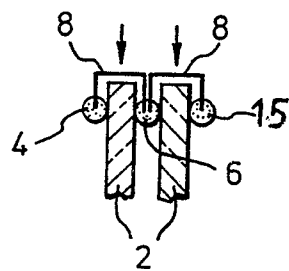
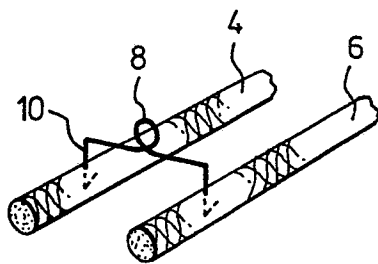
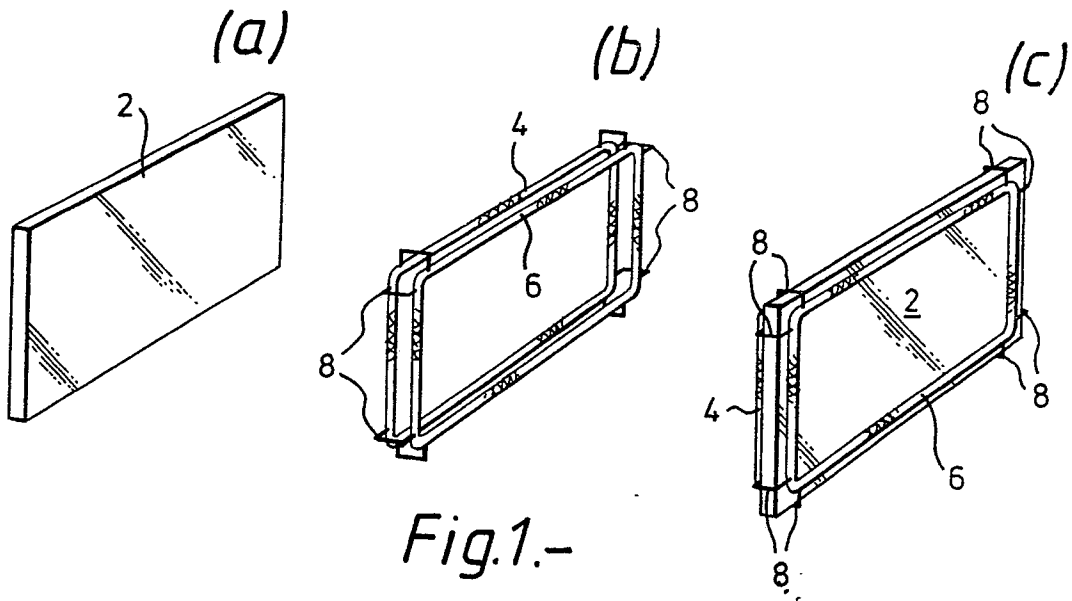
20. Ofen mit einer Dichtungseinrichtung nach einem der vorhergehenden Ansprüche.

55

60

65

6



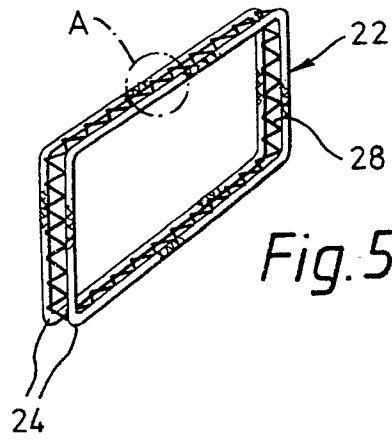


Fig. 5.

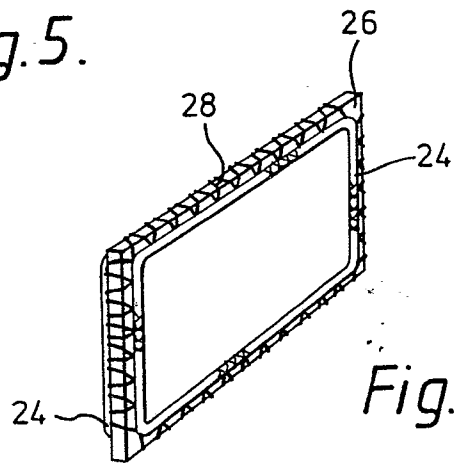


Fig. 7.

Fig. 6.

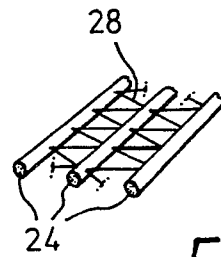
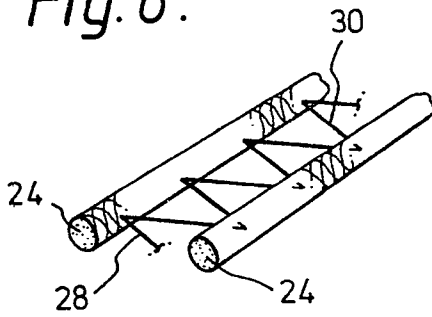


Fig. 8.

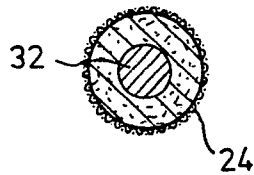


Fig. 9.