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(54) **Skimmer for swimming pools or swimming ponds**

Skimmer für Swimmingpools oder Schwimmbecken

Écumoir pour piscines ou bassins de natation

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Description

[0001] The present invention concerns a skimmer for swimming pools or swimming ponds, in particular for removing leaves or other dirt which may be situated on the surface of the water.

[0002] From US 3.765.534 a skimmer is known with a pressure chamber connected to a pump return whereby water is discharged from the pressure chamber through a nozzle located immediately below the intake for the water. This particular skimmer is used in combination with a feeder for purifying chemicals, such as chlorine in tablet form, for the purpose of feeding the purifying chemicals in solution to the swimming pool water.

[0003] A skimmer for swimming pools or swimming ponds according to the present invention mainly consists of a housing in which can be provided a strainer or a filter that is pervious to water, and which housing is provided with an intake via which the water to be purified can be supplied, a discharge orifice through which the purified water can be carried back to the swimming pool or the swimming pond, an opening via which the strainer or the filter that is pervious to water can be cleaned and can possibly be removed to that end, whereby the skimmer is also provided with at least one tubular element which is provided with a first open end and which is connected to the above-mentioned intake, such that the second open end of the tubular element can serve as a point of inflow for the skimmer, which is then provided at a distance from the housing of the skimmer, and whereby the tubular element is provided, on at least its second open end, with a U-haped flange, said U-shape consisting of three legs, one of which is provided along a bottom side of said tubular element and two of which are provided along side edges of said tubular element.

[0004] One of the advantages which is thus obtained is that the skimmer, thanks to the presence of the tubular element, can be provided at a distance from the swimming pool, such that the border tile must not be interrupted.

[0005] Indeed, the opening via which the strainer or the filter that is pervious to water can be cleaned must be accessible and is usually covered with a lid which is incorporated in the border tile, in which has been provided an opening to that end or which is interrupted at the skimmer to that end.

[0006] Thanks to the tubular element, the housing can be provided at a larger distance from the swimming pool edge, such that the lid can be provided next to the border tile.

[0007] Another advantage consists in that the tubular element can be made such that it can be placed exactly under the border tile, such that the water level can reach up to exactly under the border tile.

[0008] According to a preferred embodiment, the tubular element is provided with connecting means such as for example flanges on one or on both far ends.

[0009] This makes it possible to fix the tubular element in a simple manner to the housing of the skimmer, or to extend the tubular element with one or several extension pieces and/or to provide the tubular element with an ornamental cover edge at the point of inflow of the skimmer.

[0010] Such an extension piece preferably mainly coincides with the tubular element in order to restrict the costs for the mould and the stock costs.

[0011] In order to better explain the characteristics of the invention, the following preferred embodiments of a skimmer for swimming pools according to the invention are described as an example only without being limitative in any way, with reference to the accompanying drawings, in which:

figure 1 shows a swimming pool in perspective which is provided with a skimmer according to the invention;
figure 2 represents the skimmer to a larger scale in perspective, as indicated by F2 in figure 1;
figure 3 is an exploded view of the skimmer according to figure 2;
figure 4 is an exploded view of a skimmer variant according to the invention.

[0012] Figure 1 represents a fitted skimmer 1 for a swimming pool 2 that is in use.

[0013] Figures 2 and 3 represent the skimmer 1 according to the invention in more detail, which mainly consists of a predominantly cylindrical housing 3 in which is provided a removable basket 4.

[0014] The housing 3 is provided with a removable lid 5 on its top to that end.

[0015] At the bottom, the predominantly cylindrical housing 3 is provided with a discharge orifice 6 onto which can be connected a non-represented return line and an appropriate pump.

[0016] In the casing 7 of the predominantly cylindrical housing 3 is provided a recess 8 which serves as an intake of the housing 3, around which is provided a standing edge 9 directed to the outside of the housing 3 onto which is provided a first flange 11 at the free end 10.

[0017] The first flange 11 has a rectangular shape in this embodiment and is provided with screw holes 12.

[0018] On the first flange 11 is provided a reduction plate 13 in this embodiment, in particular by means of screws which work in conjunction with the above-mentioned screw holes 12, and between the first flange 11 and the reduction plate 13 is provided a first packing 14.

[0019] The reduction plate 13 mainly has outside dimensions in this case which correspond to the first flange 11, and it is provided with a predominantly rectangular opening 15 in this case.

[0020] On the reduction plate 13 is provided a tubular element 16 which is provided with a second flange 18 at its first free end 17 and over its entire perimeter, and a second packing 19 is provided between the reduction plate 13 and said second flange 18.

[0021] In this embodiment, the tubular element 16 has

a predominantly rectangular cross section which corresponds to the predominantly rectangular opening in the reduction plate.

[0022] At its second free end 20 forming the point of inflow of the skimmer, in particular along the bottom side and along the two side edges, the tubular element 16 is provided with a third U-shaped flange 21, provided with screw holes 22 onto which can be provided a U-shaped decorative cover edge 23 by means of screws 24.

[0023] Between the third U-shaped flange 21 and the U-shaped decorative cover edge 23 is provided a third packing 25.

[0024] At the third U-shaped flange 21 is provided a non-return valve 26, hinge-mounted at the bottom to the tubular element 16 in this embodiment and provided with an inner space at the top which is not visible and which provides a driving power to the non-return valve 26.

[0025] The working of the skimmer for swimming pools as described above is simple and as follows.

[0026] A pump, provided for example in the return line between the skimmer 1 and the connection of the return line and the swimming pool 2, makes sure that the surface water of the swimming pool 2 as well as the leaves and other dirt lying on the water is led through the skimmer via the point of inflow.

[0027] The leaves and other dirt are retained in the skimmer 1, in particular in the basket 4, whereas the purified water is carried back to the swimming pool via the return line.

[0028] It is clear that the basket 4 can just as well be replaced by another type of strainer or filter that is pervious to water.

[0029] Thanks to the presence of the tubular element, the distance between the inlet point and the housing 3 in which the basket 4 is provided becomes larger, such that the lid can be placed past the border tile of the swimming pool 2.

[0030] Thus, the border tile must not be interrupted, which offers an enormous advantage.

[0031] The reduction plate 13 makes it possible to preserve the existing housing 3 of a known skimmer and, as far as the overall height is concerned, to neatly line up the lid 5 with the height of the sods on the one hand, and to provide the intake point exactly under the border tile on the other hand.

[0032] The packings provide for a good sealing and prevent leaks.

[0033] According to a variant of the embodiment, as represented in figure 4, a second tubular element 27 is provided between the reduction plate 13 and the tubular element 16. Between the first tubular element 16 and the second tubular element 27 is in this case provided a fourth packing 28.

[0034] Such a second tubular element 27 makes it possible to provide the housing of the skimmer at an even larger distance from the inlet point.

[0035] It is clear that the skimmer according to the invention can also be applied to swimming ponds.

[0036] The invention is by no means restricted to the embodiments described above and represented in the accompanying drawings; on the contrary, such a skimmer for swimming pools can be made in different variants while still remaining within the scope of the invention as defined by the wording of the hereby appended claims.

Claims

1. Skimmer for swimming pools or swimming ponds which mainly consists of a housing (3) in which can be provided a strainer or a filter (4) that is pervious to water, and which housing (3) is provided with an intake (8) via which the water to be purified can be supplied, a discharge orifice (6) through which the purified water can be carried back to the swimming pool (2) or the swimming pond, an opening via which the strainer or the filter (4) that is pervious to water can be cleaned and can possibly be removed to that end, whereby the skimmer (1) is also provided with at least one tubular element (16) which is provided with a first open end (17) and which is connected to the above-mentioned intake (8), such that the second open end (20) of the tubular element (16) can serve as a point of inflow for the skimmer (1), which is then provided at a distance from the housing (3) of the skimmer (1), **characterised in that** the tubular element (16) is provided, as at least its second open end (20), with a U-shaped flange (21), said U-shaped consisting of three legs, one of which is provided along a bottom side of said tubular element (16). and two of which are provided along side edges of said tubular element (16).

2. Skimmer according to claim 1, **characterised in that** the tubular element (16) is provided with connecting means on one or on both far ends.

3. Skimmer according to claim 2, **characterised in that** the connecting means are flanges.

4. Skimmer according to claim 1, **characterised in that** a reduction plate(13) is provided between the housing (3) and the tubular element (16).

5. Skimmer according to claim 4, **characterised in that** between the reduction plate (13) and the tubular element (16) are provided one or several additional tubular elements (27).

6. Skimmer according to claim 1, **characterised in that** the tubular element (16) is extendible.

Patentansprüche

1. Skimmer für Schwimmbäder oder Schwimmteiche,

welcher im Wesentlichen aus einem Gehäuse (3) besteht, worin ein Sieb oder wasserdurchlässiger Filter (4) vorgesehen werden kann, und welches Gehäuse (3) mit einer Zufuhröffnung (8) versehen ist, durch die das zu reinigende Wasser zugeführt werden kann, einer Abfuhröffnung (6), durch die das gereinigte Wasser zurück zu dem Schwimmbad (2) oder dem Schwimmteich befördert werden kann, einer Öffnung, durch die das Sieb oder der wasserdurchlässige Filter (4) gereinigt werden kann und eventuell zu diesem Zweck entfernt werden kann, wobei der Skimmer (1) auch mit mindestens einem röhrenförmigen Element (16) versehen ist, das mit einem ersten offenen Ende (17) versehen ist und das mit der vorgenannten Zufuhröffnung (8) verbunden ist, sodass das zweite offene Ende (20) des röhrenförmigen Elements (16) als Einströmpunkt für den Skimmer (1) dienen kann, der dann in einem Abstand von dem Gehäuse (3) des Skimmers (1) vorgesehen ist, **dadurch gekennzeichnet, dass** das röhrenförmige Element (16), an mindestens seinem zweiten offenen Ende (20), mit einem U-förmigen Flansch (21) versehen ist, wobei die U-Form aus drei Schenkeln besteht, wovon einer entlang einer Unterseite des röhrenförmigen Elements (16) vorgesehen ist und wovon zwei entlang Seitenkanten des röhrenförmigen Elements (16) vorgesehen sind.

2. Skimmer nach Anspruch 1, **dadurch gekennzeichnet, dass** das röhrenförmige Element (16) an einem oder an beiden Enden mit Verbindungsmitteln versehen ist.

3. Skimmer nach Anspruch 2, **dadurch gekennzeichnet, dass** die Verbindungsmittel Flansche sind.

4. Skimmer nach Anspruch 1, **dadurch gekennzeichnet, dass** eine Reduktionsplatte (13) zwischen dem Gehäuse (3) und dem röhrenförmigen Element (16) vorgesehen ist.

5. Skimmer nach Anspruch 4, **dadurch gekennzeichnet, dass** zwischen der Reduktionsplatte (13) und dem röhrenförmigen Element (16) ein oder mehrere zusätzliche röhrenförmige Elemente (27) vorgesehen sind.

6. Skimmer nach Anspruch 1, **dadurch gekennzeichnet, dass** das röhrenförmige Element (16) ausziehbar ist.

Revendications

1. Ecumeur de surface pour des piscines ou des bassins de natation qui est constitué principalement par un boîtier (3) dans lequel on peut prévoir une crépine ou un filtre (4) qui est perméable à l'eau, ledit boîtier (3) étant muni d'une entrée (8) par laquelle l'eau qui doit être purifiée peut être acheminée, par un orifice d'évacuation (6) à travers lequel l'eau purifiée peut être renvoyée à la piscine (2) ou au bassin de natation, par une ouverture par laquelle la crépine ou le filtre (4) qui est perméable à l'eau peut être nettoyé et peut être éventuellement retiré à cet effet, l'écumeur de surface (1) étant également équipé d'au moins un élément tubulaire (16) qui est muni d'une première extrémité ouverte (17) et qui est raccordé à l'entrée (8) susmentionnée, de telle sorte que la deuxième extrémité ouverte (20) de l'élément tubulaire (16) peut faire office de point de captage pour l'écumeur de surface (1), qui est alors prévu à une certaine distance du boîtier (3) de l'écumeur de surface (1), **caractérisé en ce que** l'élément tubulaire (16), au moins à sa deuxième extrémité ouverte (20), est muni d'une bride en U (21), ladite bride en U étant constituée par trois branches dont l'une est prévue le long du côté inférieur dudit élément tubulaire (16), les deux autres étant prévues le long d'un des bords latérales dudit élément tubulaire (16).

2. Écumeur de surface selon la revendication 1, **caractérisé en ce que** l'élément tubulaire (16) est muni d'un moyen de raccord à une de ses extrémités éloignées ou à ses deux extrémités éloignées.

3. Écumeur de surface selon la revendication 2, **caractérisé en ce que** les moyens de raccord sont des brides.

4. Écumeur de surface selon la revendication 1, **caractérisé en ce qu'**on prévoit une plaque de réduction (13) entre le boîtier (3) et l'élément tubulaire (16).

5. Écumeur de surface selon la revendication 4, **caractérisé en ce qu'**on prévoit, entre la plaque de réduction (13) et l'élément tubulaire (16), un ou plusieurs éléments tubulaires supplémentaires (27).

6. Écumeur de surface selon la revendication 1, **caractérisé en ce que** l'élément tubulaire (16) est extensible.

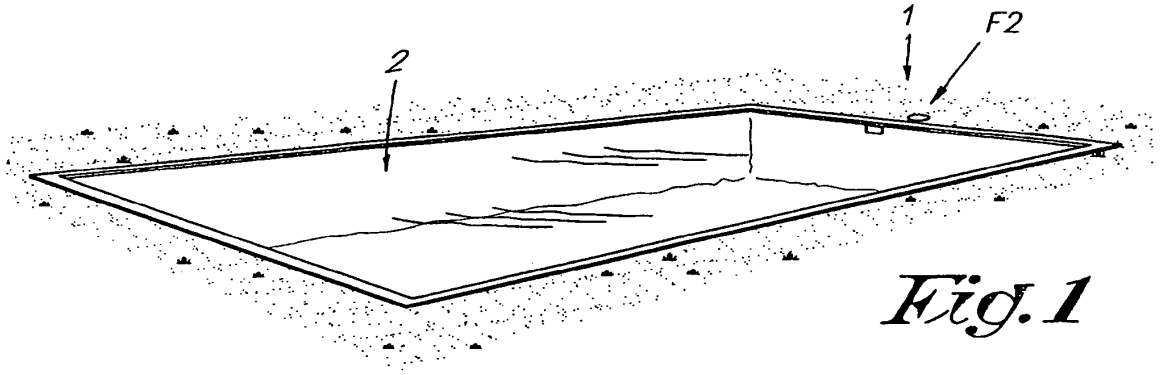

Fig. 1

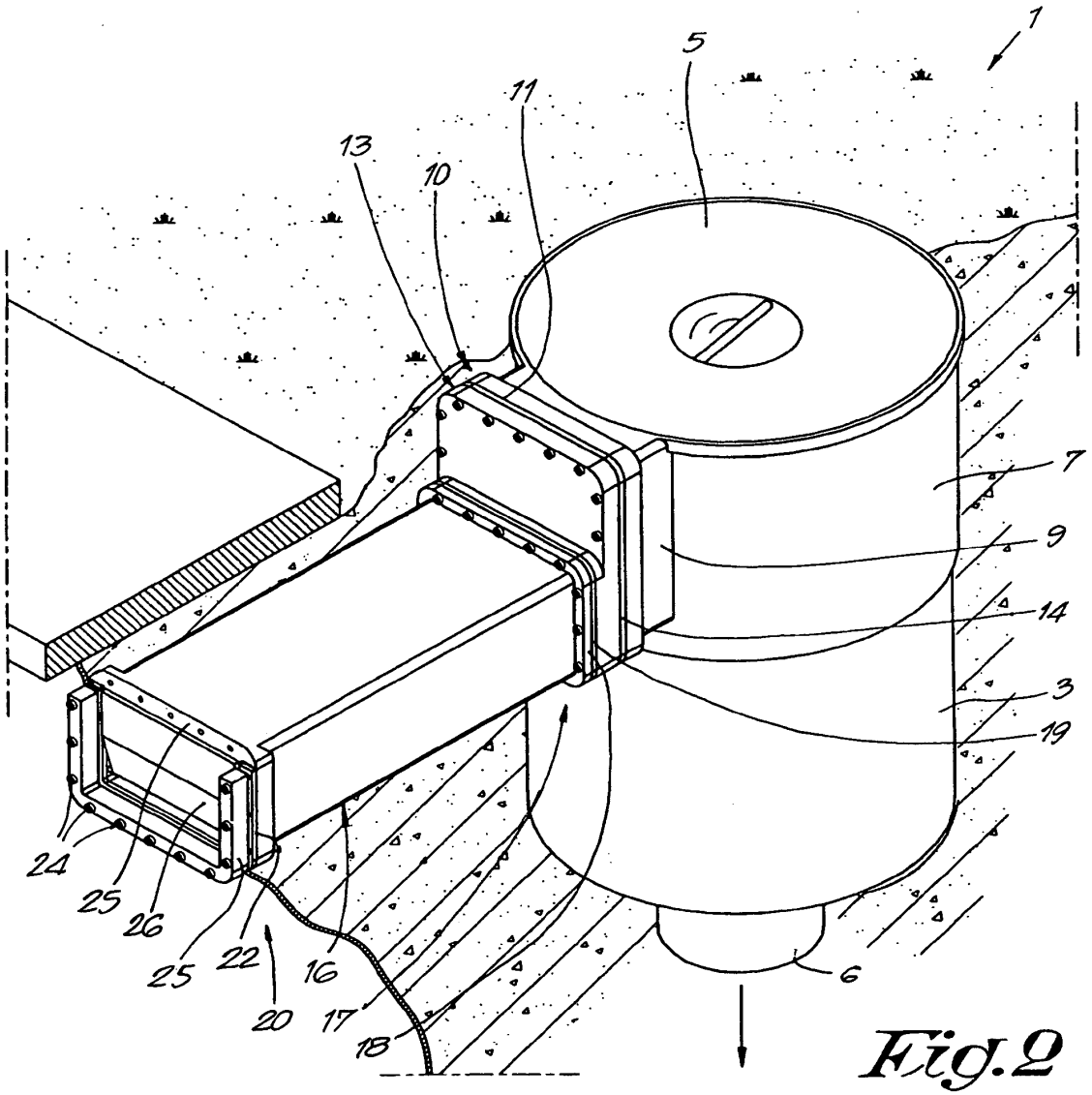

Fig. 2

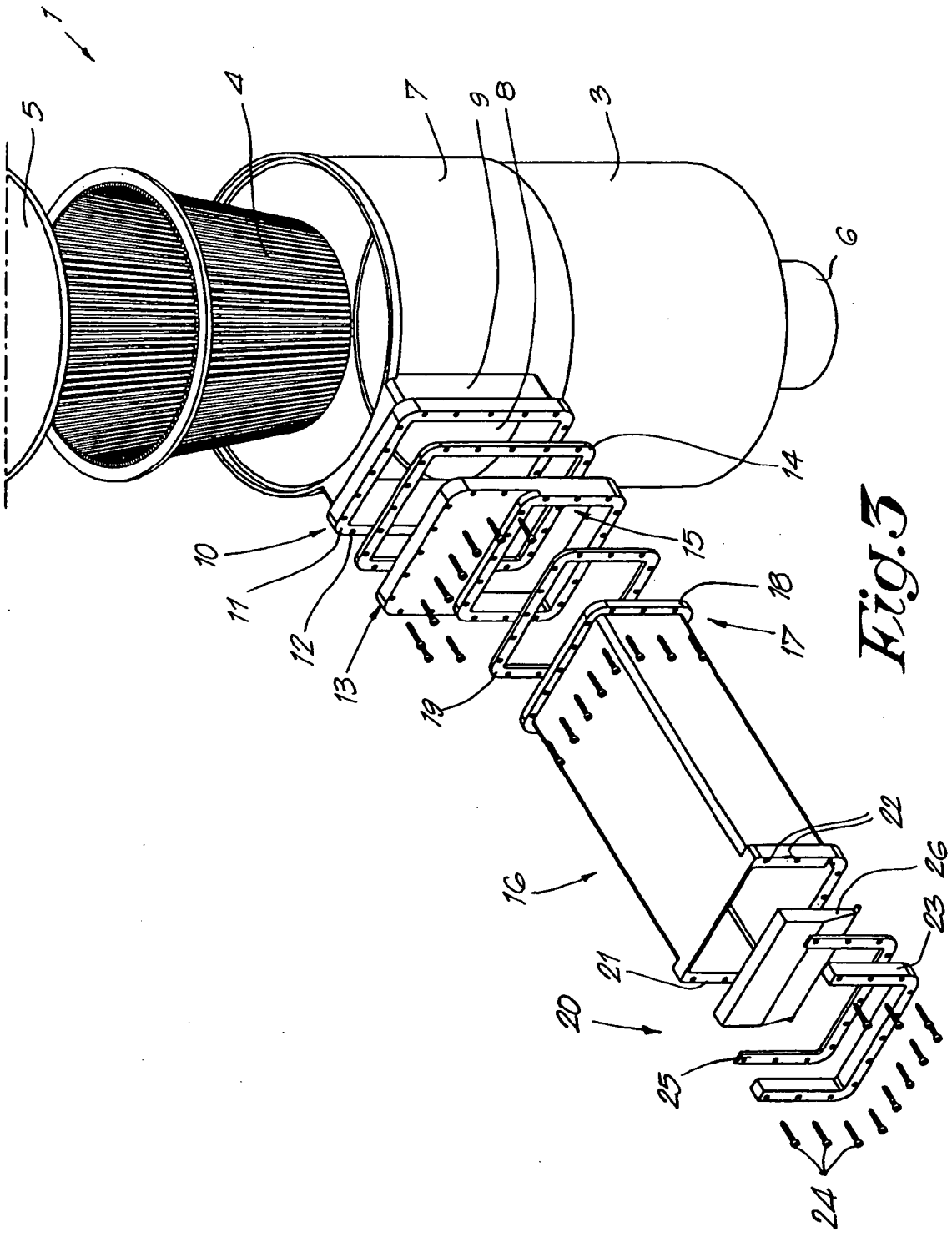

Fig.3

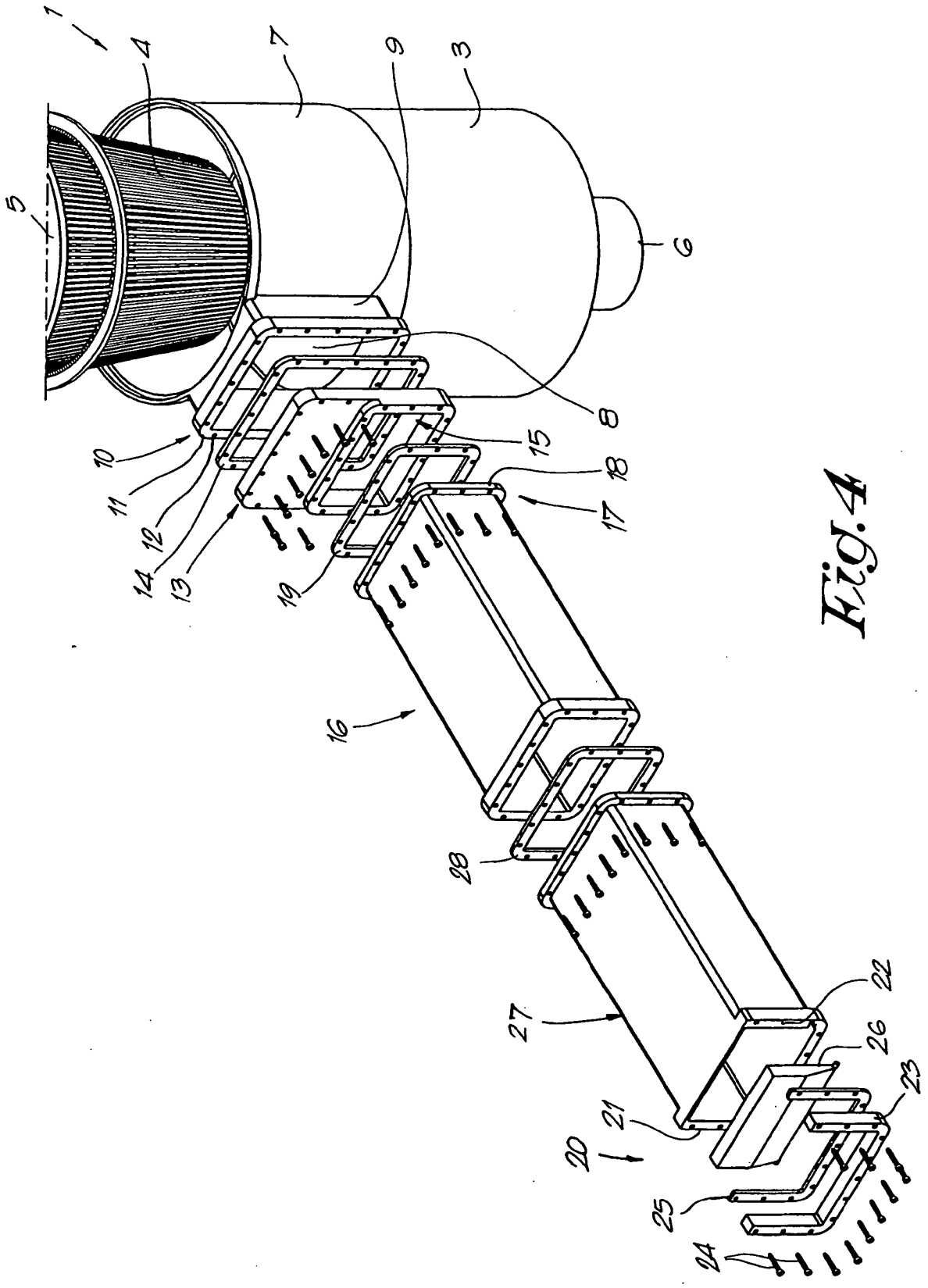

Fig.4

REFERENCES CITED IN THE DESCRIPTION

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