WHAT IS CLAIMED IS:

1. A filter assembly for a fluid filter comprising:

a plurality of filter units assembled in series, and each of the filter units comprising:

a connecting member;

an input member disposed on a bottom surface of the connecting member and including a plurality of input pipes which are each provided with an input passage, and a separating portion which is disposed in each of the input pipes to divide the input passage into an upper input chamber and a lower input chamber, each of the separating portions including an input hole in communication with the upper and lower input chambers; and

an output member fixed on a top surface of the input member and including a plurality of output protrusions to seal the upper input chambers, each of the output protrusions including an output hole in communication with the upper input chamber, each of the output holes and a corresponding one of the input holes being staggered at 180 degrees to each other.

2. A filter assembly for a fluid filter comprising:

a plurality of filter units assembled in series, and each of the filter units comprising:

a connecting member including a connecting disc, a connecting pipe which protrudes from a top surface of the connecting disc and is provided with a guiding passage penetrating through the connecting disc, and an connecting ring which protrudes from a bottom surface of the connecting disc;

an input member including an input plate, an input ring which protrudes from a top surface of the input plate and fixed to the connecting ring, an extending pipe which penetrates through the input plate and is provided for insertion of a connecting pipe of another filter unit, a plurality of input pipes which protrude from a bottom surface of the input plate and are each provided with an input passage penetrating through the input plate, and a separating portion which is disposed in each of the input pipes to divide the input passage into an upper input chamber and a lower input chamber, each of the separating portions including an input hole in communication with the upper and lower input chambers; and

an output member being fixed on the top surface of the input plate, and including an inserting hole for insertion of the extending pipe, and a plurality of output protrusions to seal the upper input chambers, and each of the output protrusions including an output hole in communication with a corresponding one of the upper input chambers.

3. The filter assembly for the fluid filter as claimed in claim 2, wherein the input ring is fixed on an inner surface of the connecting ring.

4. The filter assembly for the fluid filter as claimed in claim 2, wherein the extending pipe includes an extending section which protrudes from the top surface of the input plate and is inserted in the inserting hole of the output member.

5. The filter assembly for the fluid filter as claimed in claim 2, wherein the output member further comprises an output ring which is fixed on an inner surface of the input ring of the input member, and an airtightness is maintained between an end surface of the output ring and the bottom surface of the connecting disc.

6. The filter assembly for the fluid filter as claimed in claim 2, wherein each of the output holes of the output member and a corresponding one of the input holes of the input member are staggered at 180 degrees to each other.

7. The filter assembly for the fluid filter as claimed in claim 2, wherein the connecting pipe of the connecting member of a first one of the filter units is disposed in an output pipe of a filter cover.

8. The filter assembly for the fluid filter as claimed in claim 2, wherein the extending pipe of the input member of a last one of the filter units is sealed with a plug.

9. The filter assembly for the fluid filter as claimed in claim 8, wherein the plug includes a plug portion which is inserted in the extending pipe to produce a sealing effect, a cover portion which covers the input pipes of the input member, and a recess formed in the cover portion.

10. The filter assembly for the fluid filter as claimed in claim 2, wherein an inner pipe is sleeved onto the connecting ring of the connecting member of a first one of the filter units.

11. The filter assembly for the fluid filter as claimed in claim 10, wherein a connecting disc of a connecting member of the first one of the filter units has a diameter larger than an outer diameter of the inner pipe.

CLAIMS

1. A filter assembly for a fluid filter comprising:

a plurality of filter units assembled in series, and each of the filter units comprising:

characterized in that:

a connecting member 10;

an input member 20 disposed on a bottom surface 112 of the connecting member 10 and including a plurality of input pipes 24 which are each provided with an input passage 241, and a separating portion 25 which is disposed in each of the input pipes 24 to divide the input passage 241 into an upper input chamber 2411 and a lower input chamber 2412, each of the separating portions 25 including an input hole 251 in communication with the upper and lower input chambers 2411, 2412; and

an output member 30 fixed on a top surface 211 of the input member 20 and including a plurality of output protrusions 32 to seal the upper input chambers 2411, each of the output protrusions 32 including an output hole 321 in communication with the upper input chamber 2411, each of the output holes 321 and a corresponding one of the input holes 251 being staggered at 180 degrees to each other.

2. A filter assembly for a fluid filter being disposed in a space defined by a filter cylinder 90 and a filter cover 91, and comprising:

a plurality of filter units assembled in series, and each of the

filter units comprising:

characterized in that:

a connecting member 10 including a connecting disc 11, a connecting pipe 12 which protrudes from a top surface 111 of the connecting disc 11 and is provided with a guiding passage 121 penetrating through the connecting disc 11, and an connecting ring 13 which protrudes from a bottom surface 112 of the connecting disc 11;

an input member 20 including an input plate 21, an input ring 22 which protrudes from a top surface of the input plate 21 and fixed to the connecting ring 13, an extending pipe 23 which penetrates through the input plate 21 and is provided for insertion of a connecting pipe 12 of another filter unit, a plurality of input pipes 24 which protrude from a bottom surface 212 of the input plate 21 and are each provided with an input passage 241 penetrating through the input plate 21, and a separating portion 25 which is disposed in each of the input pipes 24 to divide the input passage 241 into an upper input chamber 2411 and a lower input chamber 2412, each of the separating portions 25 including an input hole 251 in communication with the upper and lower input chambers 2411, 2412; and

an output member 30 being fixed on the top surface of the input plate 21, and including an inserting hole 31 for insertion of the extending pipe 23, and a plurality of output protrusions 32 to seal the upper input chambers 2411, and each of the output protrusions 32 including an output

hole in communication with a corresponding one of the upper input chambers 2411;

the connecting pipe 12 of the connecting member 10 of a first one of the filter units is disposed in an output pipe 911 of a filter cover, an inner pipe 92 is sleeved onto the connecting ring 13 of the connecting member 10 of a first one 100A of the filter units, there is an interval between the connecting disc 11 of the connecting member 10 and an inner surface 901 of the filter cylinder 90, and a connecting disc 11 of a connecting member 10 of the first one 110A of the filter units has a diameter 113 larger than an outer diameter 921 of the inner pipe 92.

3. The filter assembly for the fluid filter as claimed in claim 2, wherein the input ring 22 is fixed on an inner surface of the connecting ring 13.

4. The filter assembly for the fluid filter as claimed in claim 2, wherein the extending pipe 23 includes an extending section 231 which protrudes from the top surface 211 of the input plate 21 and is inserted in the inserting hole 31 of the output member 30.

5. The filter assembly for the fluid filter as claimed in claim 2, wherein the output member 30 further comprises an output ring 33 which is fixed on an inner surface of the input ring 22 of the input member 20,

and an airtightness is maintained between an end surface 331 of the output ring 33 and the bottom surface 112 of the connecting disc 11.

6. The filter assembly for the fluid filter as claimed in claim 2, wherein each of the output holes 321 of the output member 30 and a corresponding one of the input holes 251 of the input member 20 are staggered at 180 degrees to each other.

7. The filter assembly for the fluid filter as claimed in claim 2, wherein the extending pipe 23c of the input member 20 of a last one of the filter units is sealed with a plug 96.

8. The filter assembly for the fluid filter as claimed in claim 7, wherein the plug 96 includes a plug portion 961 which is inserted in the extending pipe 23c to produce a sealing effect, a cover portion 962 which covers the input pipes 24c of the input member 20c, and a recess 963 formed in the cover portion 962.