

①⑫

EUROPEAN PATENT APPLICATION

②① Application number: 83200835.3

⑤① Int. Cl.³: **E 03 F 5/04**

②② Date of filing: 07.06.83

③⑩ Priority: 07.06.82 NL 8202299

④③ Date of publication of application:
04.01.84 Bulletin 84/1

⑧④ Designated Contracting States:
AT BE CH DE FR GB IT LI LU NL SE

⑦① Applicant: WAVIN B.V.
Händellaan 251
NL-8031 EM Zwolle(NL)

⑦② Inventor: Offringa, Oege René
19 Singelberg
NL-7772 DA Hardenberg(NL)

⑦② Inventor: Ploeg, Frederik van der
77 Henri Dunantstraat
NL-7721 HR Dalfsen(NL)

⑦④ Representative: van der Veken, Johannes
Adriaan et al,
EXTERPATENT Willem Witsenplein 4
NL-2596 BK 's-Gravenhage(NL)

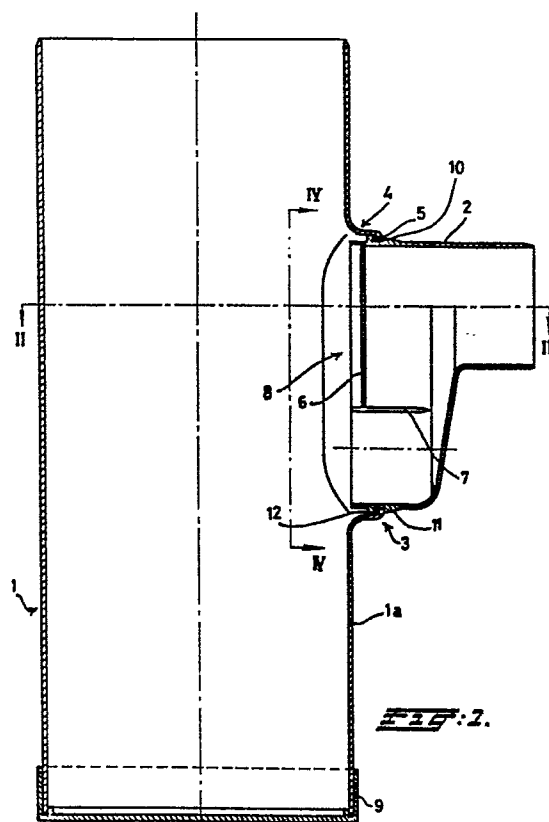
⑤④ A plastic gully and an outlet portion and a plastic gully portion for use in such a plastic gully.

⑤⑦ Plastic gully 1 provided with an integral connecting branch position 4 and a discharge portion 2 being fixed in the branch portion 4.

A sealing ring 5 is accommodated in a recess bound by an annular edge 12 on the discharge portion 2 and on the inner surface of the branch portion 4.

A stench screen 6 is accommodated in the discharge portion 4.

The connection branch portion 4 comprises as seen in cross-section curved connecting branch portion side walls 15a, 15b adjoining cylindrically shaped connecting branch end wall portions 16a, 16b and the discharge portion 2 comprises adapted curved side walls 13a, 13b adjoining cylindrically curved end wall portions 14a, 14b.



-1-

A plastic gully and an outlet portion and a plastic gully portion
for use in such a plastic gully.

The invention relates to a plastic gully provided with an integral connecting branch portion in which a discharge portion is fixed.

5 A plastic gully of this type is known in the art. The wall of this known plastic gully is provided with an opening which has been obtained by deformation of the wall of the plastic gully in which a discharge portion is fixed.

10 Narrow tolerances should be maintained to obtain an optimum adhesive connection whereas an instalment of the said discharge portion is very time-consuming.

The use of an adhesive is the more cumbersome because the evil
15 smell and evaporation of harmful volatile agents in the adhesive.

The quality of an adhesive connection in addition being extremely dependent upon the person, who applies the same, great differences in quality of said adhesive connection may occur and it there-
20 fore frequently happens that the adhesive connections of discharge portions adhered to plastic gullies will get lost during their conveyance.

As plastic gullies of this type accommodated beneath traffic
25 roads are subjected to various different loads, the rigid adhesive connection will be easily damaged after instalment of the gullies in a conduit system.

-2-

The present invention aims to provide a plastic gully of the
aforementioned type allowing an extremely rapid fixing of the
discharge portion without the use of any adhesive.

- 5 This object is achieved in accordance with the invention in that
the discharge portion snappingly engages the connecting branch
portion.

Obviously a discharge portion may thus be received in a connecting
10 branch portion in an extremely rapid and convenient manner, there-
by forming an optimum connection between the said connecting branch
portion and the plastic gully.

- Very advantageously the discharge portion is held in a snapping
15 engagement with the connecting branch portion by pressing the
discharge portion adequately from inside the plastic gully through
the opening bounded by the connecting branch portion.

- This provides the advantage that an extremely good engagement may
20 be rapidly obtained.

Very conveniently a sealing ring is provided between the
discharge portion and the connecting branch portion, said sealing
ring being advantageously accommodated in the snap connection. In
25 this manner a very flexible connection between the discharge portion
and the plastic gully is obtained so that damages and leakages of
the connection during conveyance of the plastic gullies are, after
mounting the discharge portion, almost excluded, whilst moreover,
no narrow tolerances need to be maintained.

30

- Very advantageously the connecting branch portion comprises cross-
sectionally curved connecting branch portion side walls, adjoining
the curved connecting branch portion and wall parts, so that a
discharge portion can be used comprising spherical side walls,
35 which discharge portions provide a great lateral stability to the
discharge portion. More particularly leakage at the sides of the

-3-

discharge portion is avoided in this manner.

It is to be recommended in particular that the discharge portion is connected with a removable stench screen to easier clean plastic gullies which are being used as inspection gullies
5 or as sewage gullies.

To obtain a removable stench screen said stench screen is clampingly retained which preferably is attained by means of two ribs provided on the inner wall of the discharge portion clampingly engaging the stench screen between the top of the connecting
10 branch portion.

The invention will be illustrated with respect to an embodiment in the drawings, wherein
15

Fig. 1 is a lateral section of a plastic gully according to the invention;

Fig. 2 is a section according to line II-II;

Fig. 3 is a side view of a plastic gully according to
20 the invention and

Fig. 4 illustrates a view according to line IV-IV.

Fig. 1 illustrates a plastic gully 1 conveniently consisting of polyvinylchloride. The plastic gully 1 comprises a shaft connected
25 to a bottom 9.

The used plastic gully consists in many cases of two components, the component as illustrated in the figures functioning as lower part of the plastic gully upon which lower part the upper component is mounted.
30

A pipe part or shaft 1a is provided with a connecting branch portion 4 by heating the area to be widened in the wall of the gully, by means of electric elements and by subsequently providing a widened portion by means of an inner and outer mould,
35 said portion forming a connecting branch portion 4 after removal

of the wall.

The connecting branch portion 4 is provided with an inwardly directed wall portion forming an inwardly directed edge 10.

5

The plastic gully according to the invention also comprises a plastic discharge portion 2, provided with a ledge-shaped elevation 11 and a second annular edge 12 located at distance from the ledge shaped elevation 11.

10

On outwardly pressing discharge portion 2 through opening 8 from the inner side of the plastic shaft 1a, the inwardly directed edge 10 will be slightly deformed and will subsequently be set behind the ledge-shaped elevation 11.

15

In this manner an optimum snapping engagement 3 is obtained.

A sealing ring 5 provided in the space between ledge-shaped elevation 11 and annular edge 12 simultaneously ensures an optimum seal, since said sealing ring 5 seals the inner side of shaft 1 and the outer side of discharge portion 2.

20

A plastic gully in accordance with the invention has to be provided with a stench screen 6 being clampingly retained between the upper wall of discharge portion 2 and ledges 7, provided on the inner side of discharge portion 2.

25

An easy removal of stench screen 6 enables an appropriate cleaning of the plastic gully, thus creating a good open connection between discharge portion 2 and gully shaft portion 1a.

30

The connecting branch portion advantageously comprises, as seen in cross section, curved connecting branch portion side walls 15a and 15b adjoining the cylindrically shaped connecting branch end wall portions 16a and 16b.

35

-5-

The use of such a connecting branch portion 4 results in an easy instalment of a discharge portion 2 comprising, as seen in cross-section, the same curved side walls 13a and 13b adjoining the cylindrically curved end wall portions 14a and 14b of the discharge portion.

In the above manner an optimum seal and flexible connection are obtained as well as a very high natural stability of the discharge portion respectively, in comparison with a discharge portion comprising flat side walls.

It is observed that the reference numerals in the claims are not intended to restrict the scope thereof, but are only denoted for clarification.

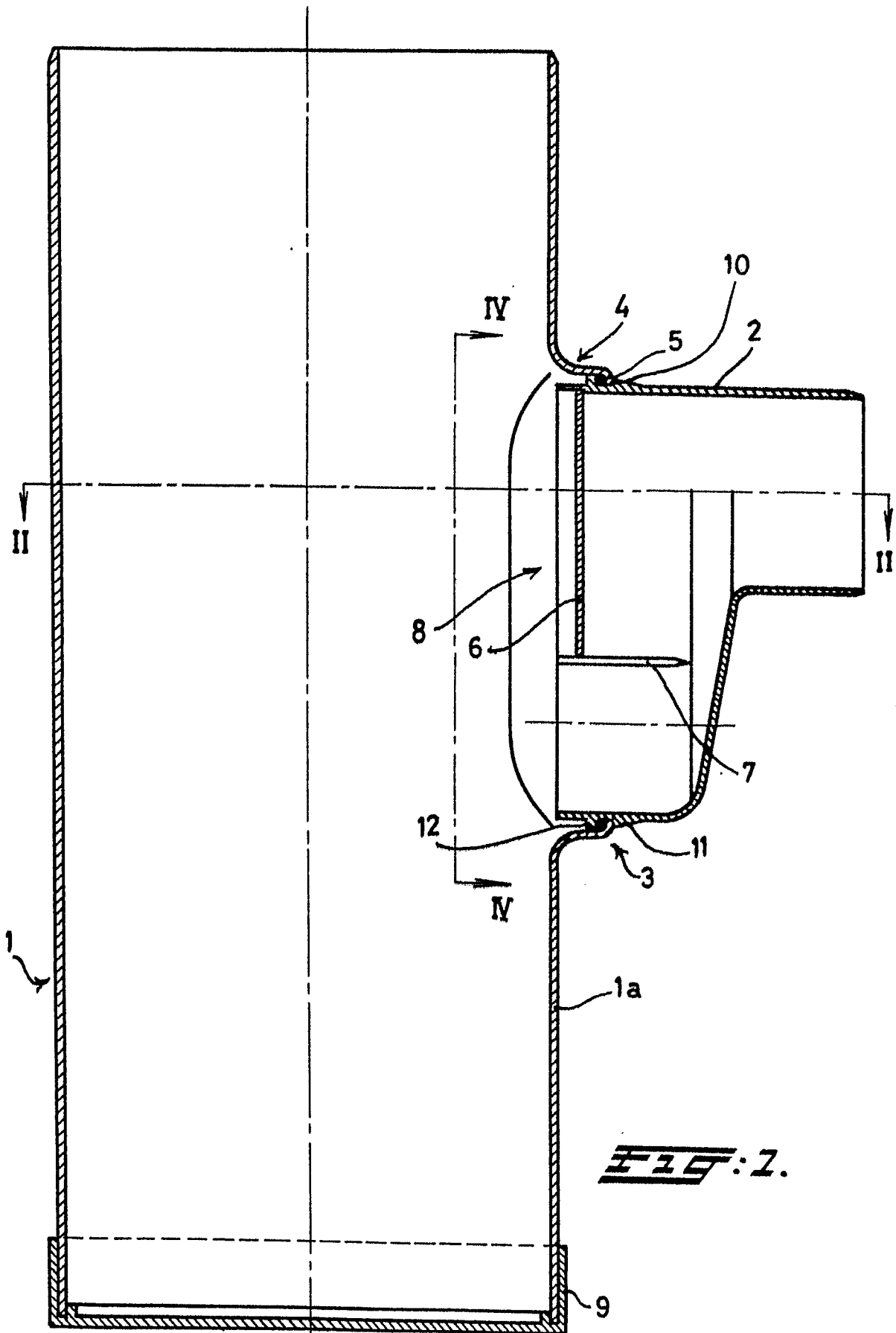
-1-

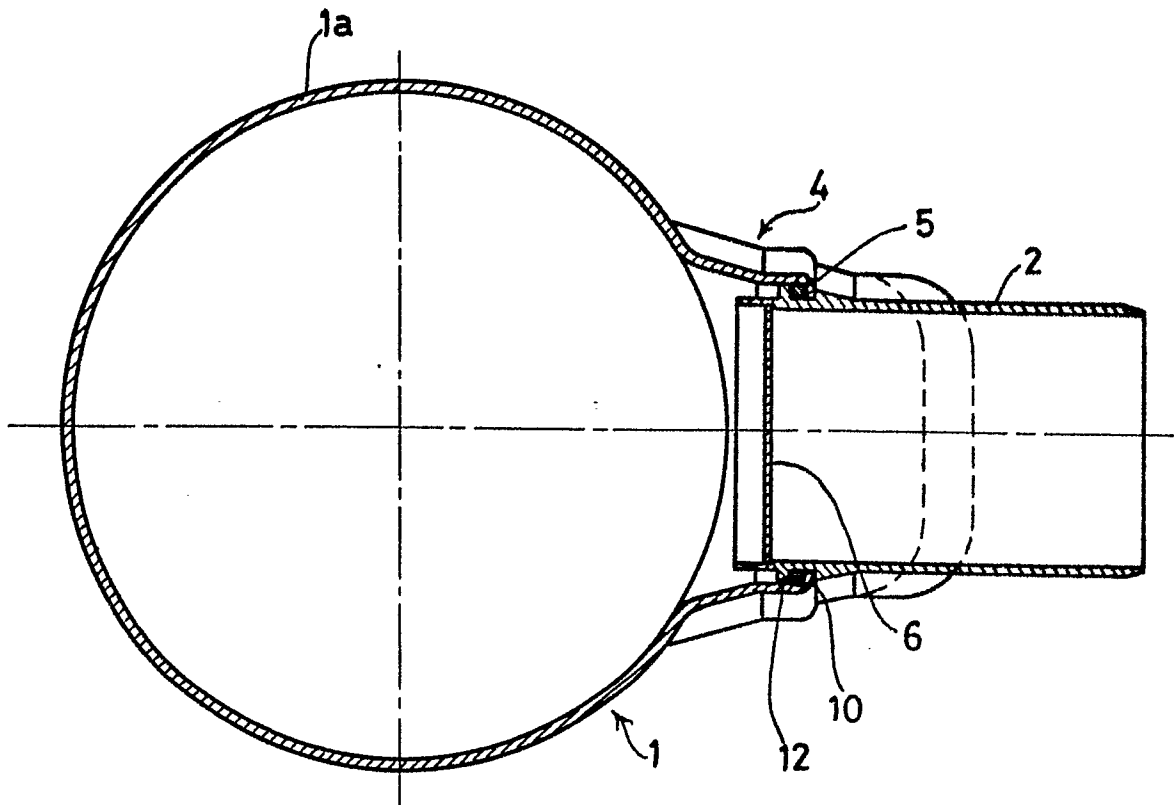
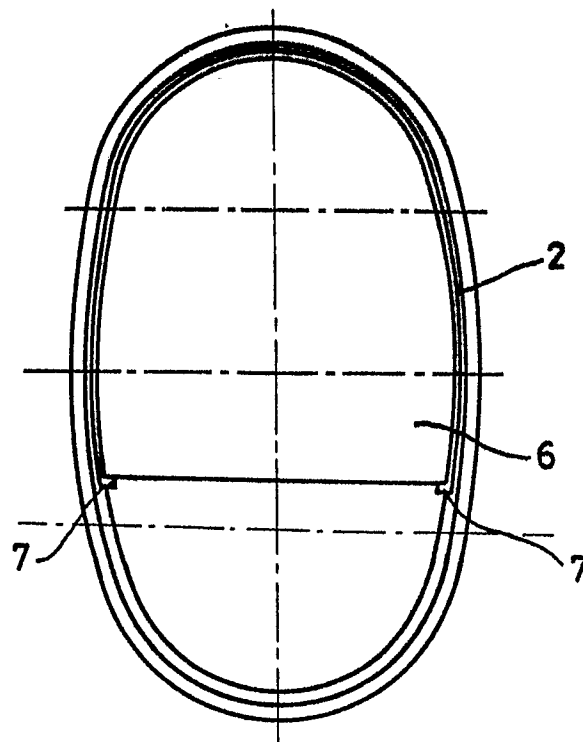
CLAIMS

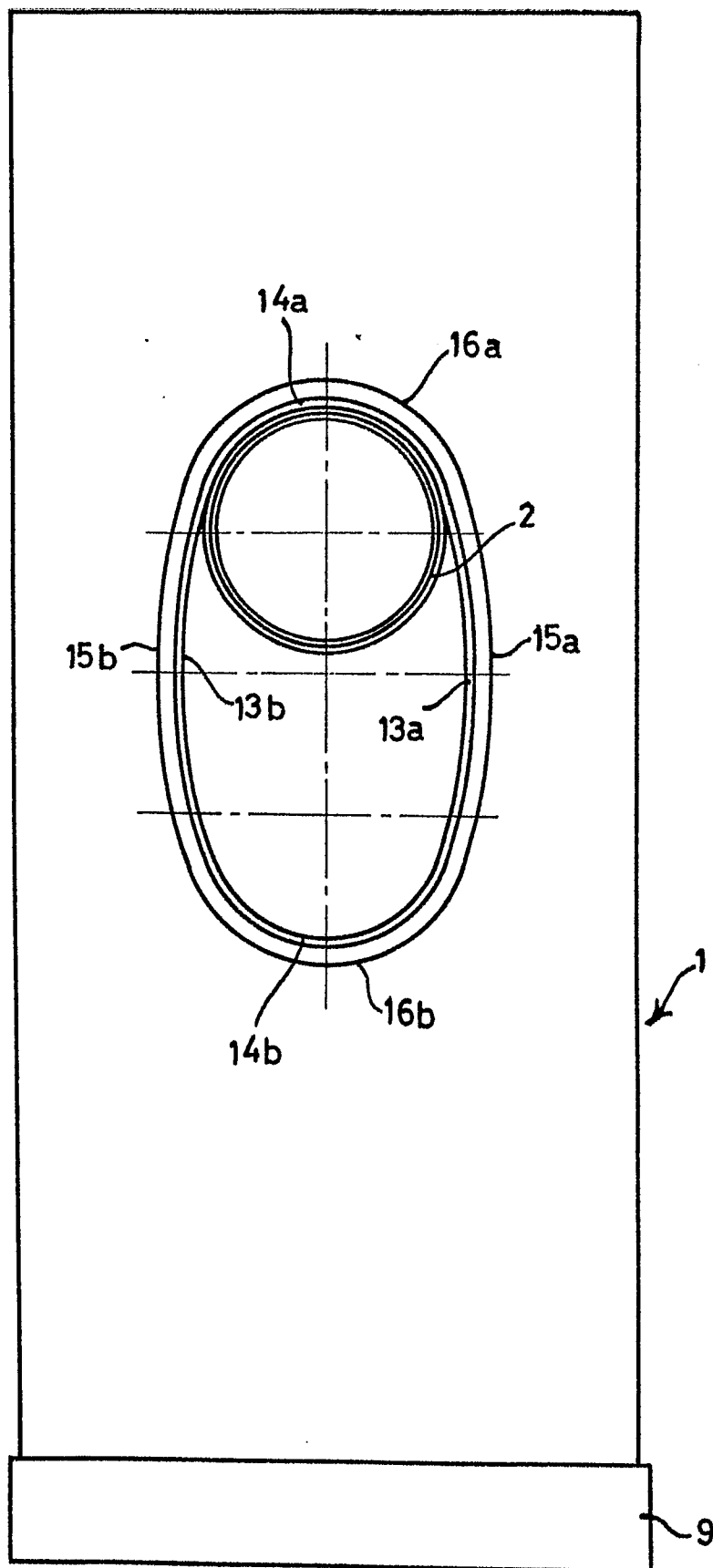
1. A plastic gully provided with an integral portion 4 in which a discharge portion 2 is fixed, characterized in that the discharge portion (2) snappingly engages the connecting branch portion (4).
- 5 2. A plastic gully as claimed in claim 1, characterized in that a sealing ring (5) is provided between the discharge portion (2) and the connecting branch portion (4).
- 10 3. A plastic gully as claimed in claim 1 or 2, characterized in that the sealing ring (5) is accommodated within the snap connection (3).
- 15 4. A plastic gully as claimed in claim 1 to 3, characterized in that the discharge portion (2) is connected to a removable stretch screen (6) which is preferably clampingly retained on the inner wall of the outlet portion (2), preferably by means of two ribs (7).
- 20 5. A plastic gully as claimed in claims 1 to 4, characterized in that the connecting branch portion (4) comprises cross sectionally curved outlet branch portion side walls (15a, 15b) adjoining curved connecting branch portion end wall parts (16a, 16b).
- 25 6. A plastic gully as claimed in claim 5, characterized in that the curved connecting branch portion end wall parts (16a, 16b) are curved cylindrically.
- 30 7. A plastic gully as claimed in claims 1 to 6, characterized in that, near the engaging point of connecting branch portion (4) and discharge portion (2) cross-sectionally curved side walls (13a, 13b) are provided adjoining the curved side end wall portions (14a, 14b) of the discharge portion.

-2-

8. A plastic gully as claimed in claim 7, characterized in that, curved end side wall portions are cylindrically curved discharge end wall portions (14a, 14b).
- 5 9. A plastic gully as claimed in claims 1 to 8, characterized in that the discharge portion (2) engages the gully shaft (1a) from the inside of the gully.
- 10 10. An outlet portion 2 and/or a plastic gully portion suitable for use in a plastic gully as claimed in any one or more of the preceding claims.

**FIG. 2.**

**FIG. 2.****FIG. 4.**

**FIG. 3.**