QUESTION PAPER REFERENCE: FD2

PERCENTAGE MARK AWARDED: 58%

	Examiner's use only
<u>A bag for an umbrella</u> 🗸	
Technical Field	
Aspects of the invention relate to a bag for an umbrella, particularly for a wet umbrella. ✓	
Background	
Wet umbrellas can cause a nuisance when taken indoors as they have a tendency to drip on the floors and wet items or persons that come into contact with them.	
Previous solutions have comprised separating the wet umbrella from its surroundings via an impermeable membrane, often in the form of a bag.	
Multiple bags may be used, a first to provide a draining function and a second to provide a collecting function. The first being placed wholly within the second.	
However these do not prevent the umbrella becoming re-wettened upon carrying the bag or removal.	
It is an aim of the present invention to at least solve the aforementioned problems associated with the prior art.	
Summary of Invention	
Claim 1	
Has the advantage of the reduction of water running back to or splashing back on the umbrella when compared to the prior art. Water is also prevented from getting out of the bag as a whole and this prevents the wetting of the immediate environs and/or the bag user. ✓	
Claim 2	
Has the advantage that the bag can be carried horizontally or in any other orientation whilst still preventing the return of water to the umbrella. 🗸	

Claim 3

Has the advantage that no assembly is required by a user of the bag and therefore facilitates of use. It further requires that only one supply one unclear word is required thus taking up less space in a provider's building.

Claim 4

Has the advantage that it improves case of construction and makes use of the ergonomic construction in that a user will likely insert an umbrella in a vertical orientation. \checkmark

The separation means may be formed according to any one of claims 5 to 7 or even a combination of them

Claim 5

Has the advantages of a simple, low cost construction facilitating the use of a unitary construction.

The fusing may be performed by heat or adhesive means, dependent on material and manufacturing requirements. \checkmark

Claim 6

has the advantage that it is of robust construction and does not require any apertures so improves water retention in the second chamber even further. \checkmark

Claim 7

has the advantage that water can only pass from the first chamber to the second chamber and prevents the return of water to the first chamber all together. \checkmark

Claim 8

has the advantage water must pass through multiple layers, impeding its return to the first chamber the more layers there are.

The apertures are preferably offset thereby providing a more tortuous path for the water to follow. \checkmark

use only Claim 9 has the advantage that once water has collected in the second chamber a further restriction can be put in place to prevent its return. This is particularly advantageous in simpler constructions which are more likely to allow some return of water to the first chamber. Claim 10 has the advantage that it helps funnel the water downwards towards the second chamber. 🗸 Claim 11 has the advantage that it helps the water be retained in the second chamber. 🗸 Claims 12 & 13 has the advantage that a large amount of water can be absorbed for a relatively small volume. Claims 14 & 15 has the advantage that the bag can then be emptied and re-used. \checkmark Claim 16 has the advantage that it makes carrying the bag easier. This is particularly for longer and therefore more unwieldly umbrellas. Claim 17 has the advantage that a user can check how full the second chamber is. \checkmark Claim 18 has the advantage that it provides a more structural and therefore reusable bag. As well as having a more premium appearance. \checkmark Claim 19 has the advantage that the ridges keep the umbrella away from the inner surface of the first chamber, thereby preventing sticking and improving drying. 🗸

Examiner's

	Examiner's use only
Brief Description of the drawings	
Embodiments of the invention will now be described by way of example only, with reference to the accompanying drawings. ✓	1
Figure 1a	
Shows a perspective view of a draining bag of an umbrella containing apparatus of the prior art;	
Figure 1b	
Shows a perspective view of a collecting bag of an umbrella containing apparatus of the prior art; \checkmark	
Figure 2	
Shows a perspective, see – through view of an umbrella containing apparatus of the prior art in use; \checkmark	
Figure 3	
Shows a perspective view of a bag for an umbrella according to an embodiment of the invention;	
Figure 4	
Shows a perspective view of a bag for an umbrella according to a further embodiment of the invention;	
Figure 5	
Shows a cross-sectional view of a bag for an umbrella according to a further embodiment of the invention; \checkmark	
Figure 6	
Shows a cross-sectional view of a bag for an umbrella according to a further embodiment of the invention;	
Figure 7	
Shows a simplified, sectional view of separation means for use in a bag for an umbrella according to embodiments of the invention; and	
Figure 8	
Shows a sectional view of the separation means of Figure 7 in use. \checkmark	

Detailed Description

Figures 1a, 1b & 2 together show an umbrella carrying apparatus, and its constituent parts, of the prior art. The apparatus is formed from a pair of bags, the first, a draining bag 201, is shown in fig 1a and the second, a collecting bag 102, is shown in fig1b. The bags 101, 102 are required to be 🗸 assembled together by a user to form the apparatus 103. The assembly requiring the insertion of the draining bag 101 into the collecting bag 102. The apparatus 103 can then receive an umbrella 200. The collecting bag 102 is impermeable (to water) and can be closed with the use of a drawstring 1021. The wet umbrella 200 is situated within the draining bag 101 which is in turn situated within the collecting bag 102. Water from the wet umbrella 200 drains from draining bag 101 via a plurality of draining holes 1011 and collects in the collecting bag 102 which, when closed prevents the egress of water into the surrounding environs. The draining holes 1012 however do not prevent water returning from the collecting bag 102 and back onto the umbrella 200. Therefore if the apparatus 103 is carried in any manner other than vertically (that is with a point 202 of the umbrella 200 inserted into the apparatus 103 first and the point 201 orientated towards the floor) then the water can return to the umbrella 200. Furthermore, careful removal of the umbrella 200 from the apparatus 103 is required in order to prevent the egress of collected water into the environs.

Figure 3 provides an umbrella containing apparatus in the form of a bag 300. The bag comprises a first chamber 301 and a second chamber 302. The first chamber is for putting an umbrella 200 into. The first chamber 301 is configured to receive an umbrella 200, having an aperture at one end by which the umbrella 200 is inserted there through. The bag 300 may include a drawstring 303 to close the bag 300 after insertion of the umbrella 200. It will be appreciated that other closing means as well as or instead of the drawstring 303 may be applicable.

The bag comprises a handle 304. The handle 304 is attached by conventional attachment means such as gluing, stitching or welding. The second chamber 302 is attached to the first chamber and is smaller in size. Both the first and second chamber are made from a water impermeable material. The material may be a plastic but any waterproof material may be suitable.

The first and second chambers 301, 302 are, together of unitary construction. By this it is meant that the first and second chambers are formed from a single piece of material. However, it will be appreciated by the person skilled in the art that the chambers 301, 302 may be formed from multiple parts themselves without departing from the spirit of the invention. What is important is that the end user can collect a single, assembled bag 300, rather than the disassembled apparatus of the prior art 103.

The separating means 400 is formed by a fusing of the material forming the bag 300. The fusing may be done by way of heat, in a crimping or welding manner, or through the use of adhesive. Other fusing means may be appropriate. The fusing does not completely separate the first chamber 302 from the second chamber 302 but rather leaves an aperture 401 there between.

The separating means 400 may comprise a further drawstring 402 by which the separating means 400 can be further restricted

In some examples an absorbing means 500 is contained within the second chamber 302, as shown in figure 5. The absorbing means is formed from an absorbent polymer. A suitable polymer is the super-absorbent polymer found in disposable nappies. Alternatively, or as well as, a sponge material, either natural or synthetic can be used.

The separation means 400 comprise different forms. In some examples the separation may comprise multiple construction or types.

One such type is shown in Figure 6 in which the separation means 400 comprises a valve 403 inserted therein. The valve 403 is a one-way valve, orientated to allow water to pass from the first chamber 301 to the second chamber 302, but prevent its return.

Figure 6 also shows an water draining arrangement by way of a resealable outlet 600, in the form of an aperture 601 in the bottom of the second chamber 302, closure by a bung.

Figure 7 & 8 show a one way valve 400, 402 structure comprising waterproof membrane 700 with staggered apertures 702 therein. These act to impede water flow providing a tortuous path.

The second chamber 302 and/or the whole bag can be formed from a transparent material so as to permit viewing of the water level.

In a further example the bag is of a rigid cylindrical construction. Ridges are situated within the first chamber 302 so as to prevent the adherence of an inserted umbrella 200 to its internal walls.

In use an umbrella 200 is inserted into the bag 300. Water runs off the umbrella 200 drains from the first chamber 301, through the separation means 400, and into the second chamber 302 The water is then contained within the second chamber 302 and its passage back into the first chamber 301, wherein the umbrella 200 is contained, is restricted by the separation means 400. The various examples of the construction of the separation means 400 act to allow water to pass from the first chamber 301 to the second chamber 302 whilst restricting its return. Other examples of construction of the separation means 400 may be appropriate without departing from the spirit of the invention.

Provided that it is easier for water to flow from the first chamber 301 to the second chamber 302 than it is for water to flow from the second chamber 302 to the first chamber 301.

MARKS AWARDED 29.5/46

<u>Claims</u>

 A bag ✓ for an umbrella, ✓ the bag configured to impede the transference of water from a wet umbrella to a surrounding environment, the bag comprising:

a first chamber, configured 🗸 to receive the wet umbrella; 🗸

a second chamber, ✓ attached to the first chamber and configured to receive ✓ and store water therefrom; and

a separation means, ✓ between ✓ the first and second chambers configured to allow the passage ✓ of water from the first ✓ chamber to the second chamber ✓ and restrict the ✓ passage of water from the second chamber ✓ to the first chamber. ✓

 A bag according to claim 1 wherein the separation means restricts the passage of water from the second chamber to the first chamber for any orientation of the bag. ✓

		Examiner's use only
3.	A bag according to claim 1 or claim 2 wherein the first and second chambers are together of unitary construction. 🗸	1.5
4.	A bag according to any preceding claim wherein the first chamber is positioned above the second chamber, in-use upon first insertion of the umbrella, such that the passage of water from the first chamber to the second chamber is facilitated by gravity.	
5.	A bag according to any preceding claim wherein the separation means comprises a fused portion, having an aperture therein.	
6.	A bag according to any preceding claim wherein the separation means comprises a water-permeable membrane. 🗸	
7.	A bag according to any preceding claim wherein the separation means comprises a one-way valve. ✓	
8.	A bag according to claim 7 wherein the one-way valve comprises a plurality or layers of waterproof material each layer having an aperture therein. ✓	
9.	A bag according to any preceding claim. wherein the separation means is adjustable so as to further restrict the passage of water from the second chamber to the first chamber. \checkmark	
10.	A bag according to any preceding claim wherein the first chamber is of a flared construction. ✓	
11.	A bag according to any preceding claim wherein the second chamber contains an absorbing means. 🗸	
12.	A bag according to claim 11 wherein the absorbing means comprises an absorbent polymer. 🗸	
13.	A bag according to claim 11 or claim 12 wherein the absorbing means comprises a sponge material. 🗸	
14.	A bag according to any preceding claim wherein the second chamber has a resealable outlet. \checkmark	
15.	A bag according to claim 14 wherein the resealable outlet comprises an aperture in the second chamber and a removable bung for insertion into the aperture. ✓	
16.	A bag according to any preceding claim, further comprising a handle. \checkmark	

- A bag according to any preceding claim wherein the second chamber is at least partially transparent. ✓
- 18. A bag of any preceding claim having a rigid construction. \checkmark
- 19. A bag according to claim 18 wherein the first chamber comprises a plurality of radially extending, longitudinal ridges on an ✓ internal surface. ✓

MARKS AWARDED 26.5/50







Page **12** of **15**





Abstract

<u>A bag for an umbrella</u> ✓

Aspects of the invention relate to a bag for an ✓ umbrella particularly a wet umbrella and works to retain water collected from the umbrella and separate said water from both said umbrella and the environment. The bag 300 ✓ comprises a first chamber 301 for receiving an umbrella 200 and a second chamber 302 separated from the first by a separation means 400. The separation means acts to allow water ✓ to pass from the first chamber to the second chamber but prevents its return from the second chamber to the first chamber.

<Fig.4> ✓

MARKS AWARDED 4/4

Examiner's use only