

CLOSURE FOR A CONTAINER

In vertically integrating his packaging business Steven Wolfowitz, a chemical engineer, developed a plastic container and closure manufacturing facility producing about 2 million containers a month in 1984. Some bottles had handles and he noticed that the currently available flip open push-on caps were randomly applied to bottles. Sometimes when the caps were opened the top section which was hinged to the locating bottom section would obstruct the liquid being poured out which would be poured onto the open hinged top part.

He realized that most closures were usually completely removed without any retaining ring or lower section. But pilfer-proof caps were becoming important so he embarked upon designing and patenting a new pilfer-proof cap where the top section could be completely removed and relocated securely after use. This patented closure became the most widely used closure worldwide and became the de facto standard for all water, milk, medicine, fruit juices and carbonated PET drinks containers.

The novel and inventive claim involved the closure he made of two initially joined parts - the cover section and a retaining locating ring below separated by a thin perforated membrane which could be broken completely when upward pressure was applied to the to cover section. This upward pressure could be applied by either pushing up a small protruding lip connected to the top cover while the lower ring remained connected to a locating complementary ring on the bottle neck.

Obviously the patented upward pressure would also be exerted on a screw cap version when unscrewing the top cover section from the threads moulded above the retaining ring of the bottle neck.

To ensure there were no leaks the sealing of the bottle was achieved by an inner plug moulded into the top cover part of the closure. In the 'push-up' version a second locating peripheral protuberance at the lower end of the top part clipped onto a second higher retaining ring on the bottle neck to hold it closed after opening and use.

Unfortunately, due to circumstances beyond Steven's control, and without his knowledge, His patent maintenance renewals were not processed and Steven lost the patent and his rights.

Use of these closures is in the billions today.

His actual filed specification is displayed:

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SPOOR AND FISHER FORM P.1.

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978
APPLICATION FOR A PATENT
AND ACKNOWLEDGEMENT OF RECEIPT
(Section 20 (1) - Regulation 22)



The grant of a patent is hereby requested by the undermentioned applicant on the basis of the present application filed in duplicate

OFFICIAL APPLICATION No. 845588 PRIORITY REFERENCE
196711 S

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TITLE OF INVENTION
CLOSURE FOR A CONTAINER

THIS APPLICATION IS FOR A PATENT IN TERMS OF SECTION 20 AND REGULATION 22 OF THE PATENTS ACT, 1978.

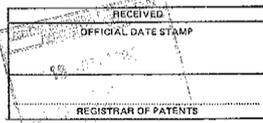
THIS APPLICATION IS FOR A PATENT IN TERMS OF SECTION 20 AND REGULATION 22 OF THE PATENTS ACT, 1978.

THIS APPLICATION IS ACCOMPANIED BY:

- 1. A single copy of a provisional specification and two copies of a complete specification of 8 pages.
- 2. Drawings of 1 sheets
- 3. Publication particulars and abstract (Form P.8, in duplicate)
- 4. A copy of Figure 2 of the drawings (if any) for the abstract
- 5. Assignment of invention
- 6. Certified priority document(s) (State number)
- 7. Translation of the priority document(s)
- 8. An assignment of priority rights
- 9. A copy of the Form P.2, and the specification of S.A. Patent Application No. 21 01
- 10. A declaration and power of attorney on Form P.3.
- 11. Request for anti-dumping on Form P.4.
- 12. Request for classification on Form P.6.
- 13.

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Dated this 8 day of JULY, 1984



REGISTRAR OF PATENTS

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APPLICANT: PATENT ATTORNEYS