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- (54) Benævnelse: **CONTAINER FOR MEDICINES**
- (56) Fremdragne publikationer:
EP-A2- 2 647 584
WO-A1-99/44901
CN-A- 106 742 667
DE-T2- 69 515 885

DESCRIPTION

[0001] The object of the invention is a container, in particular intended for medicines made of two substances, separated from each other, and which require combining just before their use.

[0002] There is a known container, in particular for medicines, presented in document

[0003] EP/PL 2704962. The object of that invention is the closure of a container comprising:

- a reservoir, which in turn comprises a rupturable bottom part, said reservoir being applicable to a mouth of a container destined to contain a first product;
- a cutter, at least partially positionable inside the reservoir and positionable in the front part of the rupturable bottom part for opening said rupturable bottom part; said closure taking on at least a first and a second configuration; in the first configuration, the rupturable bottom part being intact, and at least the reservoir and the cutter identifying, in combination, a first chamber, suitable for containing a second product; in the second configuration said rupturable bottom part being open such as to enable the mixing of the first and the second product;
- moisture absorbing means, which in the first configuration of the closure are in contact with the inside of the first chamber;
- the cutter comprises a hollow body, which in turn comprises a cutting edge and a pin; said cutting edge being machined at the end of the pin, and in the first configuration being placed before said rupturable bottom part; said closure being characterised in that the moisture absorbing means at least partially define an inner recess inside the hollow body and the pin and an at least partially covered inner surface of said hollow body, the recess in the first configuration constituting a part of the first chamber and said absorbing means being shaped:

as a hollow bushing; or

as a hollow beaker in proximity of the cutting edge and lining the inner bottom part and the inner wall of the hollow body.

[0004] CN patent application No106742667A discloses a solid liquid dispensing container bottle comprising a bottle body and a cap adapted to said bottle. Said cap comprises a threaded connection to said bottle, the sleeve is longitudinally passed through the cover, and the top end of the sleeve is provided with a cover is inserted into the sleeve from one end of the cover. The cannula is connected with a cannula away from the one end of the cover, and the cannula is provided with a cutter at one end of the mouthpiece. Said sleeve being in communication with the bottom of said cannula to form a closed solid receiving chamber. The sleeve extending above the height of the cover is equal to the height of the cover. The sleeve is located above the cover, the bottom edge of said cover being provided with a stopper ring

projecting inwardly, said positioning ring being located above said limit ring . The outer diameter of said positioning ring is greater than the inner diameter of said retaining ring. Said sleeve is provided between said positioning ring and said cover, the distance between the cutter and the sealing film is smaller than the height of the pusher.

[0005] Document DE69515885T2 discloses a container for pharmaceutical substances with:

1. (a) a lower container for receiving a first product, the lower container being closed at the lower end and open at the upper end opposite the lower end, the upper end being terminated by a tubular neck having a first outer peripheral edge is formed,
 2. (b) a top container for receiving a second product, the top container being open at the top and closed at the bottom end opposite the top end by a frangible bottom, the top container being arranged so that it can be inserted inside the tubular neck of the lower container,
 3. (c) a downwardly extending flap extending radially from the outside of the upper container such that the flap surrounds the tubular neck of the lower container when the upper container is placed in the interior of the tubular neck, the flap internally having a first annular peripheral rib which engages with the outer edge of the tubular neck of the lower container when the upper container is inserted into the inside the tubular neck,
 4. (d) a tubular sleeve having a lower end and an upper end, the lower end being formed by an oblique edge and the upper end being closed by a truncated cone, the lower end of the tubular sleeve is sized and shaped to be received in the open end of the upper container, the tubular sleeve being movable axially within the upper container so that the beveled edge covers the frangible bottom of the upper tank ruptures, the tubular neck of the lower container has a second outer peripheral edge in addition to the first outer peripheral edge, as a result of that inside the flap of the upper container, in addition to the first annular peripheral rib, there is at least one second annular peripheral rib, and by that the outer edges and the annular ribs have vertical grooves, the grooves of the outer edges being arranged to mesh with the grooves of the annular ribs when the upper container is in the interior of the tubular neck of the lower container is inserted
- WO99/44901 A1 and EP2647584A2 disclose further containers.

[0006] It is provided a container according to claim 1.

[0007] The container, in particular for medicines, according to the invention, provides the ability to combine both medicines when it is necessary to use them jointly. This ability is very easy to achieve, since all it takes is to press the top wall of the cylindrical container, due to which the punch destroys the film and the contents of the cylindrical container are moved to the a bottle. At the same time, the position of the cylindrical container is stable, since it is clamped on the cover of the cap, which is placed between two flanges of the cylindrical container, while its bottom flange is pressed against the neck of the container. As a result of such a structure, the cylindrical container is fixedly attached to the container and it is insensitive to any shocks, due to which the combination of both medicines is only possible as a result of a user's actions.

[0008] The container, in particular for medicines, according to the invention, is described in more detail in an embodiment and in the drawing, in which fig. 1 presents a cross-section of the container in a state filled with both medicines, fig. 2 presents a cross-section of the container in a state of combining both medicines, and fig. 3 presents a cross-section of the cap along with the cylindrical container.

[0009] As presented in fig. 1 to fig. 3, the container for medicines according to the invention has the form of a bottle 1, whose threaded neck 2 is closed with a threaded cap 3. The cap 3 is made of an internally threaded cylinder 4 closed with a cover 5. The cover 5 has a circular cut-out, in which another cylindrical container 6 is placed, closed from the bottom with a film 7. On its outer surface, the cylindrical container 6 has two rings 8 and 9, between which the cover 5 of the cap 3 is placed. The punch 11 is attached to the top wall 10 of the cylindrical container 6 from the inside. The top ring 8 of the cylindrical container 6 has a conical surface, due to which it is easier to insert the cylindrical container 6 into the circular cut-out formed in the cover 5. The top wall 10 of the cylindrical container 6 is flexible, due to which it is possible to bend it, and therefore to move the punch 11 in a direction towards the film 7. The punch 11 has the form of a cylinder, whose bottom part is obliquely cut, forming a sharp edge, which punches through the film 7 in order to move medicine B contained in the cylindrical container 6 to medicine A contained in the bottle 1.

REFERENCES CITED IN THE DESCRIPTION

Cited references

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Patent documents cited in the description

- [PL2704962 \[0003\]](#)
- [CN106742667A \[0004\]](#)
- [DE69515885T2 \[0005\]](#)
- [WO9944901A1 \[0005\]](#)
- [EP2647584A2 \[0005\]](#)

PATENTKRAV

1. Beholder, især til medicin, fortrinsvis i form af en flaske, hvis gevindhals er lukket med et gevindlåg fremstillet af en cylinder med indvendigt gevind lukket med en afdækning, hvor afdækningen (5) har en cirkulær udskæring, hvori en anden cylindrisk beholder (6) er placeret og omsluttet fra bunden med en film (7), mens en stanse (11) er fastgjort indvendig til en topvæg (10) af den anden cylindriske beholder (6), og hvor stansen (11) har form som en cylinder, hvis bunddel er skråt afskåret, kendetegnet ved, at den anden cylindriske beholder (6) på en ydre overflade har to ringe (8, 9), mellem hvilke ringe afdækningen (5) på låget (3) er placeret, hvor en topring (8) af den anden cylindriske beholder (6) har en konisk overflade, mens topvæggen (10) af den anden cylindriske beholder (6) er fleksibel.

DRAWINGS

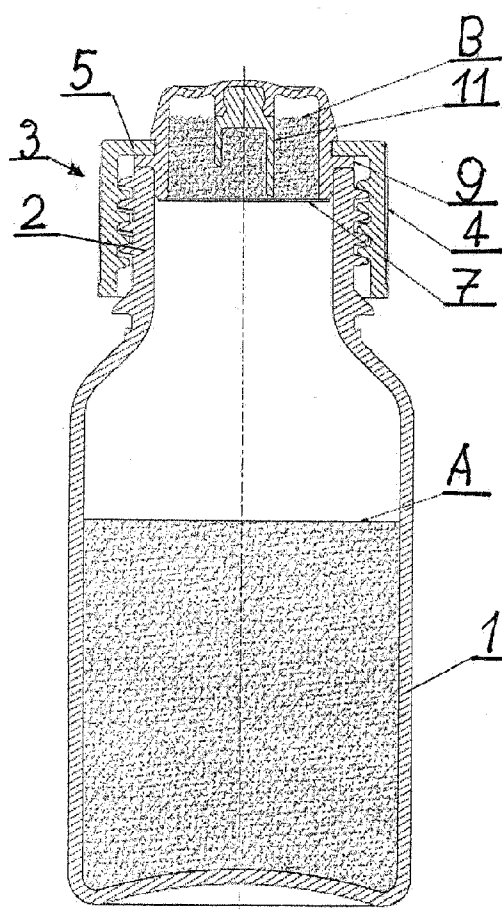


Fig 1

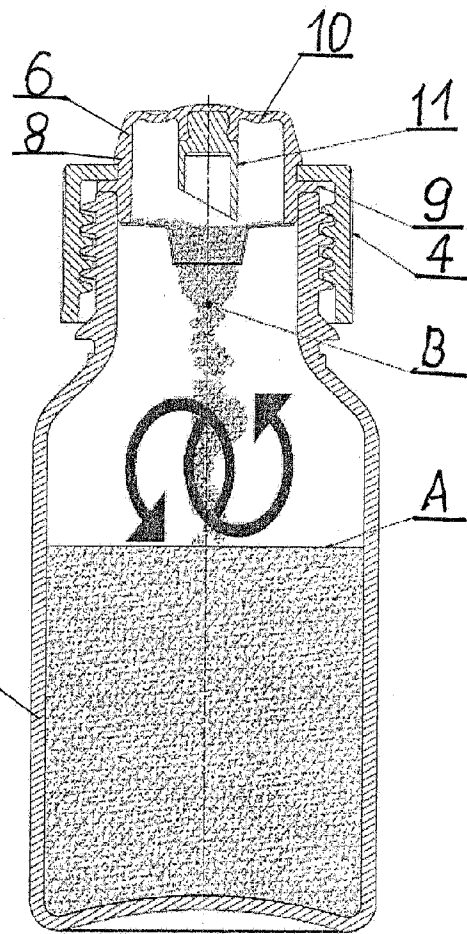


Fig 2

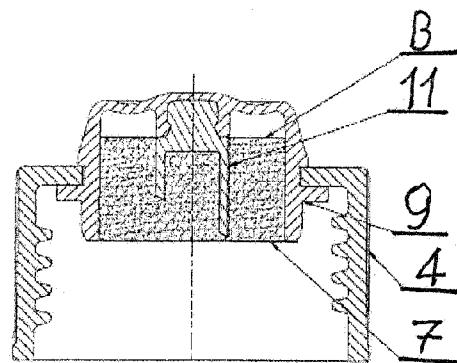


Fig 3