Title (en)
Soft bag and expander.

Title (de)
Weiche Tasche und Expander.

Title (fr)
Poche souple et extenseur.

Publication
EP 0404448 A2 19901227 (EN)

Application
EP 90306524 A 19900614

Priority
- US 36775989 A 19890619
- US 38386389 A 19890721
- US 52373490 A 19900515

Abstract (en)
An expander for insertion into and expansion of a soft bag (20, 40, 302) comprising a device (10, 11, 13, 15, 136, 137, 200, 250, 300, 350) which is folded or collapsed to a flat state or spread apart to an expanded state. The soft bag is collapsed to a compact form in the flat state for shipment. In the expanded position, the bag is expanded to give the appearance that it is filled. Some embodiments use a resilient member (18, 38, 146, 230, 280, 281, 330, 380) to automatically urge the device from a flat position to its expanded position when compressive forces are removed from the bag. Other forms use a cord (72, 98, 150) for manually moving the expander device into its bag-expanding position. To provide for a greater extent of expansion in relation to the length of the device in the flat position, an expanding device (200, 250, 300, 350) having four sequentially arranged sections (2II-214, 261-264, 311-314, 361-364), each of which is articulatable with respect to each adjacent section is provided in some embodiments. Expansion of a cylindrical bag (302) is facilitated by a generally rigid insert (333, 334, 382) in certain embodiments that is articulatable to better conform to the curved shape of the side portions.

IPC 1-7
A45C 7/00

IPC 8 full level
A45C 15/00 (2006.01); A45C 13/00 (2006.01)

CPC (source: EP)
A45C 13/004 (2013.01)

Cited by
FR2780252A1; WO0000054A1; FR3141043A1; US7631376B2; US7243875B2

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 0404448 A2 19901227; EP 0404448 A3 19910206; EP 0404448 B1 19940525; AU 4003393 A 19930819; AU 5759990 A 19901220; AU 641660 B2 19930930; CA 2018782 A1 19901219; CA 2018782 C 20000718; DE 69009106 D1 19940630; DE 69009106 T2 19941110; JP H03103202 A 19910430

DOCDB simple family (application)
EP 90306524 A 19900614; AU 4003393 A 19930603; AU 5759990 A 19900618; CA 2018782 A 19900612; DE 69009106 T 19900614; JP 16116290 A 19900619