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54 **Stationery case with magnetic take-up disc wheel director.**

57 A stationery case with magnetic take-up disc wheel director(4), which includes a magnetic disc wheel director revolvably mounted in an inner container(2) of a casing(1) to carry paper clips or other writing materials out of the casing through an elongated slot(31) of a cover(3) so that the paper clips or writing materials can be separated from the magnetic disc wheel director by a guide bracket-(330) to fall to a curved bearing surface(33) on such a cover for ready use.

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BACKGROUND OF THE INVENTION:

Paper clips, thumb tacks, pins and some other writing materials are commonly used in office for the arrangement of paper documents. Regularly, one may prepare a case to receive a variety of writing materials for convenient use. While picking up a pin or thumb tack or any other materials from a stationery case, one's fingers may be easily pricked by the materials. Further, there is a kind of writing material container which includes a ring-shaped magnet mounted on the opening thereof to attract the materials therein (such as paper clips, thumb tacks, etc.) to the side edge of the opening for use. When in use, one shall have to frequently hold the container with the palm covering over the opening of the container and then turn the container upside-down to let the inner materials be attracted by the ring-shaped magnet for use. In case of any careless, the materials may drop from the container to fall here and there.

It is therefore, the main object of the present invention to provide such a stationery case with magnetic take-up roller which is convenient to operate and can easily take up a small amount of materials from the case by means of the operation of a disc wheel director.

BRIEF DESCRIPTION OF THE DRAWINGS:

Fig. 1 is a perspective exploded view of the present invention;

Fig. 2 is a perspective assembly view of a stationery case with magnetic take-up disc wheel director embodying the present invention;

Fig. 3 is a sectional view taken on line 3-3 of Fig. 2;

Fig. 4 is a schematic view illustrating the direction operation of the accessory take-up disc wheel director;

Fig. 5 is a fragmentary perspective view of an alternate form of the present invention;

Fig. 6 is a fragmentary perspective view of still another alternate form of the present invention; and

Fig. 7 is a sectional view of the embodiment of Fig. 6.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS:

Turning now to the annexed drawings in greater detail and referring first to Fig. 1, therein illustrated is a stationery case with magnetic take-up disc wheel director in accordance with the present invention and generally comprised of a casing (1), a container (2) received in the casing (1), a cover (3) mounted on the casing (1) covering over the

container (2), and a disc wheel director (4) mounted on the cover (3) and revolvably connected to the container (2).

The casing (1) has therein a receiving space for receiving the container (2).

The container (2) has a rectangular, case-like body received in the casing (1) and comprises a concave bottom surface (21) inclining from the three sides thereof toward the other side, i.e. the left limit of the concave bottom surface (21) is defined as the lowest area (see Fig. 3), such that paper clips (6) or any other writing materials and accessories which are received therein are constantly gathered in the lowest area for being carried out of the container (2) by the disc wheel director (4). The side wall (22) which is adjacent to the lowest area of the concave bottom surface (21) comprises an unitary semi-circular recess (221) incorporated with a circular projecting portion (23) which has an axial hole (231) having an inner thread (232).

The disc wheel director (4) which comprises a center hole (42) at the center and a plurality of magnets on its face is revolvably mounted on the semi-circular recess (221) and connected to the circular projecting portion (23) of the container (2) by means of a screw bolt (41) which is inserted through the center hole (42) into the axial hole (231) with its outer thread (42) engaged with the inner thread (233) of the axial hole (231). According to the present invention, the disc wheel director (4) has a diameter slightly smaller than the semi-circular recess (221) for convenient mounting, and a radius equal to 2/3 of the length of regular paper clip to facilitate directing paper clips or other writing materials out of the container (20).

The cover (3) comprises an elongated slot (31) to match with the circular projecting portion (23) for the insertion therethrough of the disc wheel director (4) when the disc wheel director (4) is mounted on the semi-circular recess (221), and a curved bearing surface (33) transversely disposed at the front. The elongated slot (31) includes a wider opening (311) on its back half part to permit the passing therethrough of paper clips (6) or other writing materials when they directed by the disc wheel director (4) to move out of the casing (1). A guide bracket (330) is fixedly set in the elongated slot (31) at the front to separate paper clips (6) from the disc wheel director (4) when they are carried out of the container (2), and to guide such paper clips (6) to fall down into the curved bearing surface (33) for ready use.

When a stationery case is set up, it is as illustrated in Figs. 2 and 3. Operation of the present invention is extremely simple and outlined hereinafter with reference to Fig. 4. When the disc wheel director (4) is driven with fingers to rotate

toward the guide bracket (330), the magnets (42) attract small quantity of paper clips (6) while passing through the lowest area of the concave bottom surface (21) of the container (2). When the disc wheel director (4) is continuously driven to rotate, the paper clips (6) which are attracted by the magnets (42) are carried to pass out of the container (2) through the wider opening (311) of the elongated slot (31) to further be separated from the disc wheel director (4) by the guide bracket (330) to fall to the transversely disposed curved bearing surface (33) for ready use. Because the radius of the disc wheel director (4) is approximately equal to 2/3 of the length of a regular paper clip, if paper clips (6) are disorderly carried by the magnets (42), they will be automatically adjusted, by means of the screw bolt (41) or the end edge of the wider opening (311), to smoothly pass through the wider opening (311) of the elongated slot (31) during the rotation of the disc wheel director (4).

Fig. 5 illustrates an alternate form of the present invention. In this embodiment, the casing (1') has a cylindrical body comprising a top flange (11') in relatively smaller outer diameter and having a circularly recessed inner receiving space for receiving writing materials. An U-shaped supporting frame (12') which comprise two binding holes (13') and (14') aligned together extends from the top flange (11') of the casing (1') for holding a magnetic take-up wheel director (2'). The magnetic take-up wheel director (2') comprises a central shaft (22') and a plurality of magnets (21') on its both sides. During assembly, the magnetic take-up wheel director (2') is vertically set in the supporting frame (12') with the both ends of its central shaft (22') respectively inserted in the two binding holes (13') and (14') of the supporting frame (12'). An upper cover (3') which has a circularly recessed, sloping top surface is mounted on the casing (1') permitting the magnetic take-up wheel director (2') to partly protrude beyond its elongated opening (31'). The elongated opening (31') includes a wider rectangular portion (311') through which paper clips or other writing materials can be carried out of the casing (1') by the magnetic take-up wheel director (2') and separated from the magnetic take-up wheel director (2') by stopper strips (312') (313') which are made on the side edge of the opening (31') to fall to the circularly recessed, slopping top surface of the upper cover (3') for ready use.

Figs. 6 and 7 illustrate still another alternate form of the present invention. In this embodiment, the casing (4') has a cylindrical body comprising a top flange (41') in relatively smaller outer diameter and a circularly recessed inner receiving space for receiving writing materials, in which the top flange (41') has two opposite, curved notches (42') and (43') made thereon for holding a magnetic take-up

wheel director (5'). The magnetic take-up wheel director (5') has a central shaft (52') through its central axis, and a plurality of magnets (51') on its both sides. During assembly, the magnetic take-up wheel director (5') is vertically received in the casing (4') with the both ends of its central shaft mounted in the two notches (42') and (43') of the top flange (41'). An upper cover (6') which has a circularly recessed, sloping top surface is mounted on the casing (4') permitting the magnetic take-up wheel director (5') to partly protrude beyond its elongated opening (61'). The elongated opening (61') includes a wider rectangular portion (611') through which paper clips or other writing materials can be carried out of the casing (4') by the magnetic take-up wheel director (5') and separated from the magnetic take-up wheel director (5') by stopper strips (612') (613') which are made on the side edge of the opening (61') to fall to the circularly recessed, slopping top surface of the upper cover (6') for ready use.

Claims

1. A stationery case with magnetic take-up disc wheel director, including:
 - a casing in rectangular shape, having therein a receiving space;
 - a container in rectangular shape, received in said receiving space, comprising a concave bottom surface inclining from the three sides thereof toward the other side to define a lowest area, a side wall adjacent to said lowest area of said concave bottom surface and comprising a recess incorporated with a circular projecting portion;
 - a cover mounted on said casing covering over said container and comprising an elongated slot having a wider opening on its back half part, a curved bearing surface transversely disposed at the front, and a guide bracket fixedly mounted in said elongated slot on its front half part; and
 - a disc wheel director revolvably mounted on said semi-circular recess and connected to said circular projecting portion, comprising a plurality of magnets on its disc surface.
2. A stationery case as claimed in claim 1, wherein said disc wheel director has a diameter slightly smaller than said semi-circular recess so that it can be revolvably mounted thereon.
3. A stationery case as claimed in claim 1, wherein said disc wheel director has a radius

approximately equal to $\frac{2}{3}$ of the length of a regular paper clip.

4. A stationery case as claimed in claim 1, wherein said elongated slot has a guide bracket set therein on its front part to separate any paper clips or other writing materials from said disc wheel director permitting the detached paper clips or writing materials to fall to said curved bearing surface of said cover.
5. A stationery case as claimed in claim 1, wherein said casing has a cylindrical body comprising a top flange in relatively smaller outer diameter and a circularly recessed receiving space for receiving writing materials; and wherein said upper cover has a cylindrical body comprising a circularly recessed, sloping top surface having thereon an elongated opening incorporated with a wider rectangular slot for the passing therethrough of said magnetic take-up disc wheel director to carry writing materials out of said casing for use.
6. A stationery case as claimed in claim 5, wherein said top flange of said casing comprises an unitary U-shaped supporting frame extending inward for holding said magnetic take-up wheel director, and said magnetic take-up wheel director comprises a central shaft with its both ends inserted through said U-shaped supporting frame to revolvably internally secured to said casing.
7. A stationery case as claimed in claim 5, wherein said top flange of said casing comprises two opposite, curve notches for holding the central shaft of said magnetic take-up wheel director.

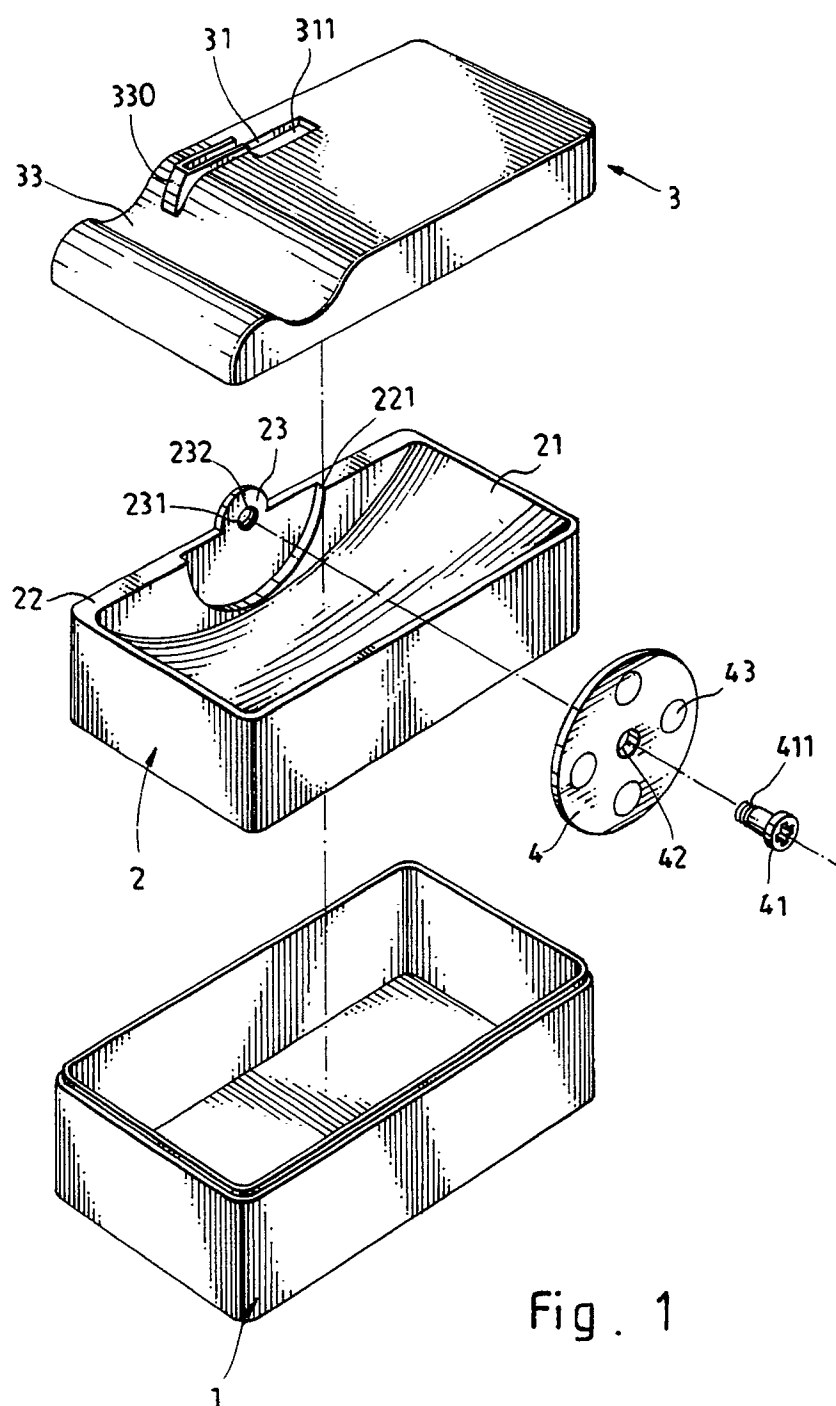


Fig . 1

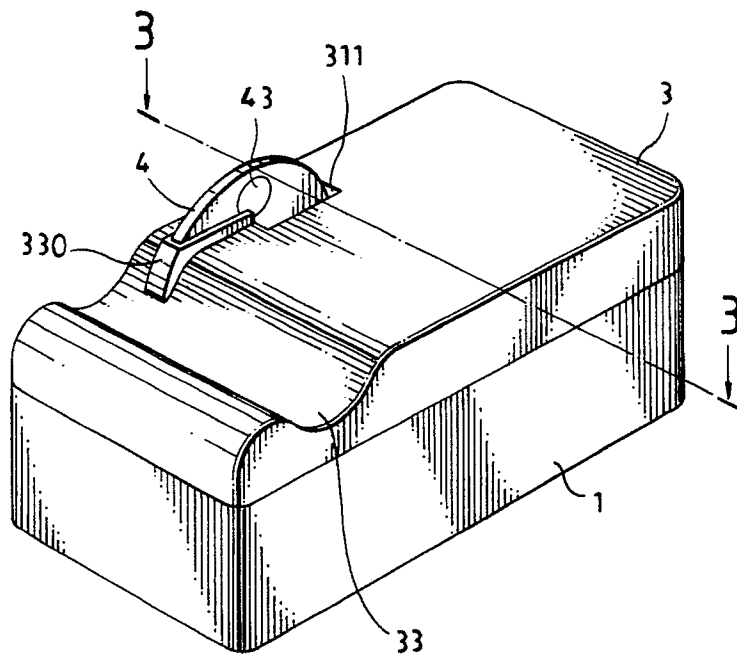


Fig. 2

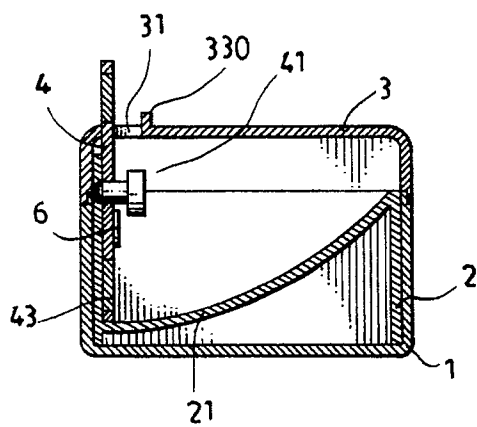


Fig. 3

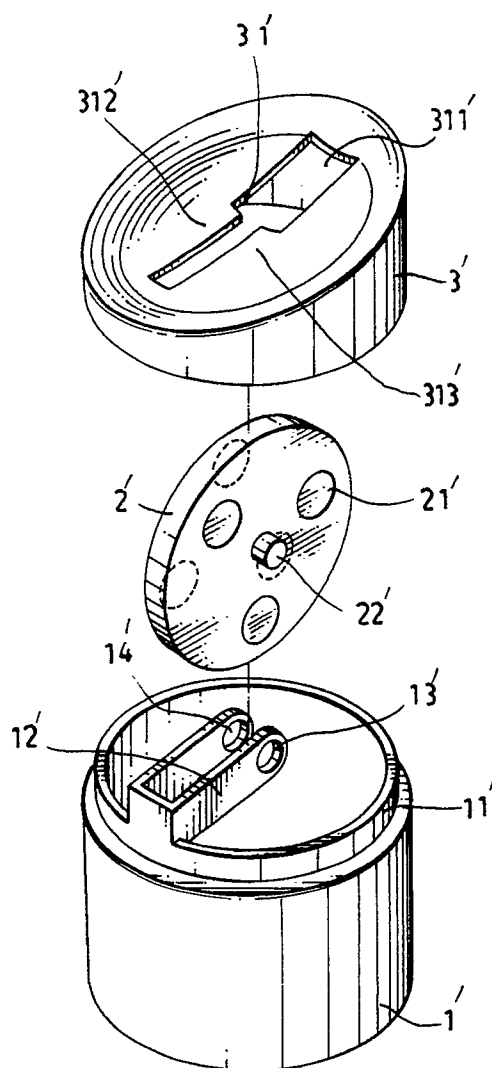


Fig. 5

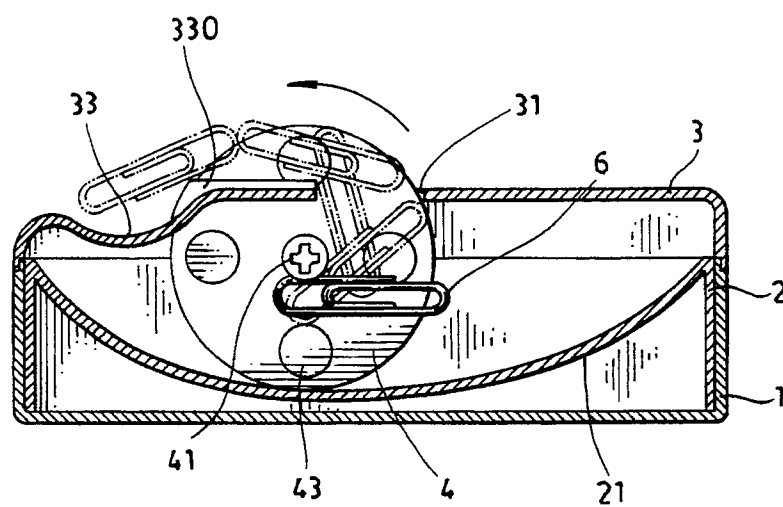


Fig. 4

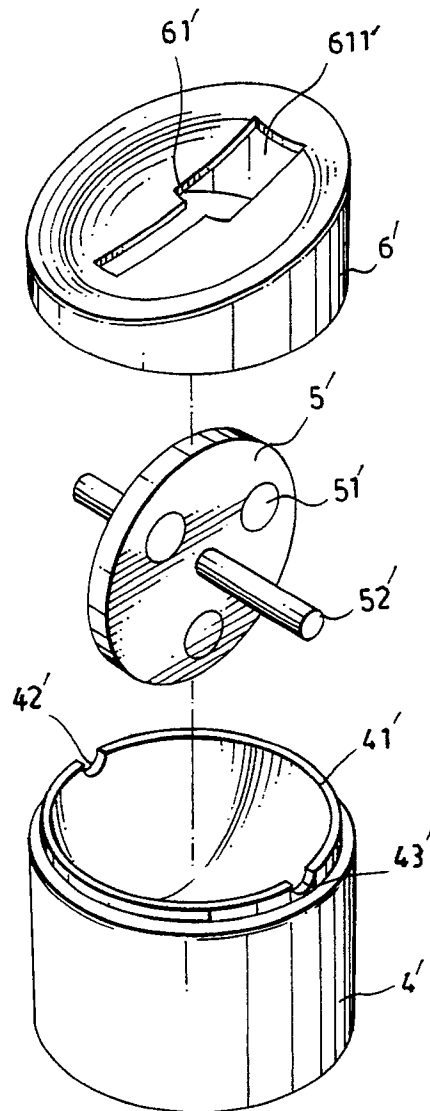


Fig. 6

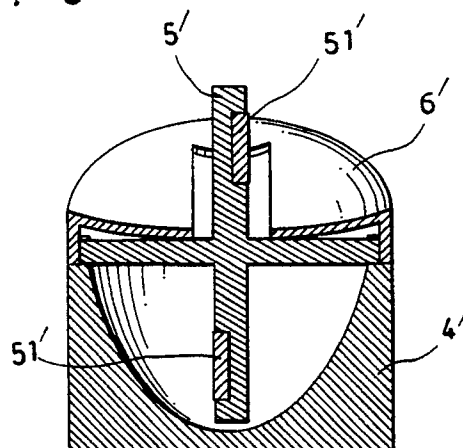


Fig. 7



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EUROPEAN SEARCH REPORT

Application Number

EP 90 10 7297

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X,Y	DE-U-8 911 070 (HSU) * page 4, line 3 - page 5, line 16; claims 1-3 * - - -	1-4,5,7	B 43 M 17/00
Y	GB-A-1 409 537 (HOLT) * page 2, lines 18 - 54 * - - -	5,7	
A	GB-A-1 011 85 (MACLAURIN) * page 1, line 36 - page 2, line 4 * - - - - -	6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 43 M
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of search 05 December 90	Examiner LAMMINEUR P.C.G.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			