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54 Stationery case with magnetic take-up roller.

57 A stationery case with magnetic take-up roller, which includes a casing (1) covered with a lift cover (34) with a cylindrical magnetic roller set (2) revolvably set therein. A small quantity of writing materials (5) are carried out of the casing for use, by the cylindrical magnetic roller set through the effect of magnetic force, each time when the cylindrical magnetic roller set is turned to rotate.

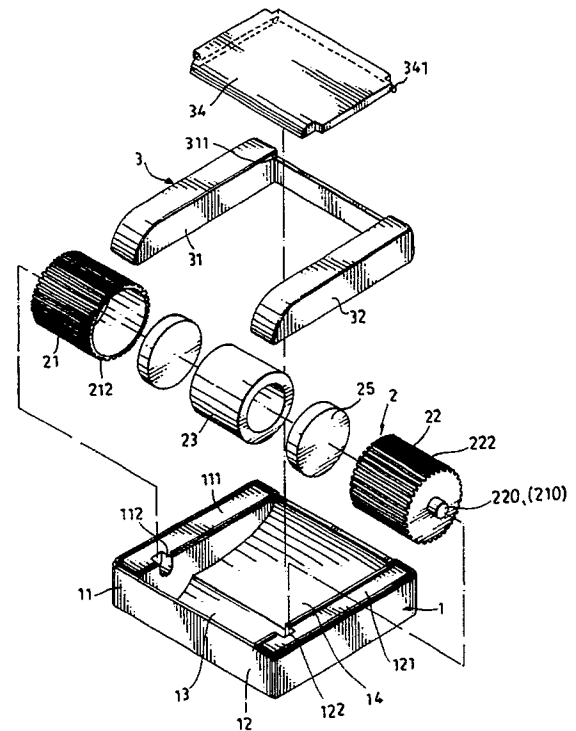


Fig. 1

EP 0 452 523 A1

## 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 a cylindrical magnetic roller set.

## 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 roller embodying the present invention;

Fig. 3 is a schematic sectional view illustrating the operation of the present invention;

Fig. 4 is a perspective view of an alternate form of the present invention; and

Fig. 5 is a sectional elevation of the embodiment of Fig. 4.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS:

Referring to Fig. 1, a stationery case with magnetic take-up roller in accordance with the present invention is generally comprised of a casing (1) having mounted thereon a cylindrical roller set (2) and an upper cover (3). The casing (1) comprises two side-walls (11) and (12) to form two top surface portions (111) and (121) onto which the upper cover (3) is connected, and to define therebetween a curved roller receiving space (13) at the front, and a writing material receiving space (14) at the back. According to the present invention, the writing material receiving space (14) is curvilinearly inclining forward with the lowest portion disposed

adjacent to the cylindrical magnetic roller set (2). Two U-shaped notches (112) and (122) are respectively made on the two side-walls (11) and (12) for supporting the axles (210) and (220) of the cylindrical roller set (2) when the cylindrical roller set (2) is revolvably received in the curved roller receiving space (13). The cylindrical roller set (2) includes two hollow cylinders (21) and (22) respectively connected with each other in a line, an inner sleeve (23) set inside the two hollow cylinders (21) and (22) serving as an internal coupling, and two circular magnets (25) connected to the inner sleeve (23) at both ends and received in the two hollow cylinders (21) and (22) respectively. As illustrated, the two hollow cylinders (21) and (22) have two axles (210) and (220) made on the outer ends thereof for mounting in the U-shaped notches (112) and (122) respectively, and two outer threads (212) and (222) respectively made on the outer wall surface to produce friction force against touch of fingers so as to make the operation more easy. The upper cover (3) includes an U-shaped frame which is comprised of two lateral arm portions (31) and (32) respectively mounted on the two top surface portions (111) and (121) of the casing (1) defining therebetween a space matching with the curved roller receiving space (13) and the writing material receiving space (14), and a lift cover plate (34) which has protecting stubs (341) integrally made at its both ends at the back side and respectively pivotally set in the two pivot holes (311) of the two lateral arm portions (31) and (32). According to the present invention, a gap will be remained between the lift cover plate (34) and the cylindrical roller set (2) when the upper cover (3) and the cylindrical roller set (2) are respectively mounted on the casing (1), such that the lift cover plate (34) can be lifted for replenishing the writing material receiving space (14) with writing materials.

After all the aforesaid parts are well set up to form a stationery case, the outer appearance of the whole assembly is as illustrated in Fig. 2. Operation of the stationery case is extremely simple and outlined hereinafter. As illustrated in Fig. 3, the cylindrical roller set (2) is pushed with fingers to rotate downward, and a small amount of writing materials (paper clips, tacks, etc.,) are carried out of the casing (1) for service, by the cylindrical roller set (2) through the effect of the magnetic force produced by the circular magnets (25).

Figs. 4 and 5 illustrate an alternate form of the present invention, in which the upper cover (3') has a rectangular shape in a size equal to the casing (1'), comprising a rectangular recess (31') at its left side and formed through shape molding process, and an elongated stopper strip portion (32') formed between the cylindrical roller set (2) and its rectangular recess (31'). When a small quantity of writing

materials are carried by the cylindrical roller set (2) during the operation, the writing materials will be stopped by the elongated stopper strip portion (32') to fall from the cylindrical roller set (2) into the rectangular recess (31') for use.

### Claims

1. A stationery case with magnetic take-up roller, including:
  - a casing comprising two side-walls defining two surface portions at the top thereof and defining therebetween a curved roller receiving space at the front and a writing material receiving space at the back, said two side-walls having two U-shaped notches on its inner side;
  - a cylindrical magnetic roller set comprising two axles at its both ends revolvably mounted on said two U-shaped notches; and
  - an upper cover having an U-shaped frame being comprised of two lateral arm portions respectively mounted on said two top surface portions of said casing, said U-shaped frame comprising two pivot holes at the back side on its two inner side-walls, and a lift cover plate having projecting stubs integrally made at both ends at the back side respectively and pivotally set in said two pivot holes of said two lateral arm portions; said lift cover plate can be lifted for placing writing materials into said writing material receiving space, and said cylindrical magnetic roller set can be turned round to take up writing materials out of said casing for service by means of magnetic force.
2. A stationery case with magnetic take-up roller as claimed in claim 1, wherein said cylindrical magnetic roller set includes two hollow cylinders respectively connected with each other in a line, said hollow cylinders having each a thinner wall surface with an outer thread made thereon, an inner sleeve set inside said two hollow cylinders to serve as an internal coupling, and two circular magnets respectively connected to said inner sleeve at both ends and received inside said two hollow cylinders to produce magnetic force so as to attract writing materials through said two hollow cylinders.
3. A stationery case with magnetic take-up roller as claimed in claim 1, wherein said writing material receiving space inclines curvilinearly forward, with its lowest portion disposed adjacent to said cylindrical magnetic roller set.
4. A stationery case with magnetic take-up roller as claimed in claim 1, wherein said upper cover has a rectangular shape in a size equal

to said casing, comprising a rectangular recess at its left side and formed through shape molding process, and an elongated stopper strip portion formed between said cylindrical roller set and its rectangular recess to force any writing materials carried by said cylindrical magnetic roller set to fall into said rectangular recess for use.

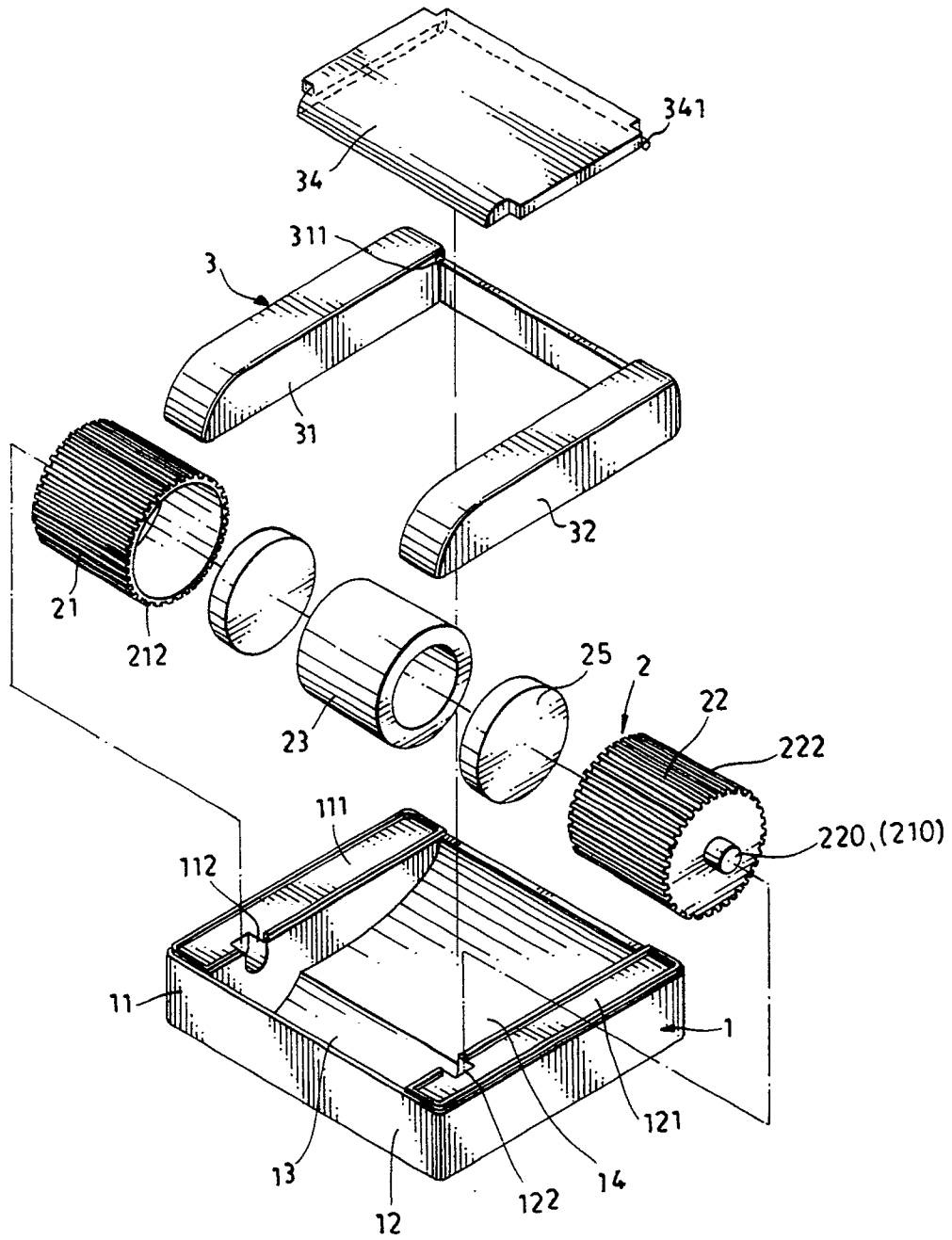


Fig. 1

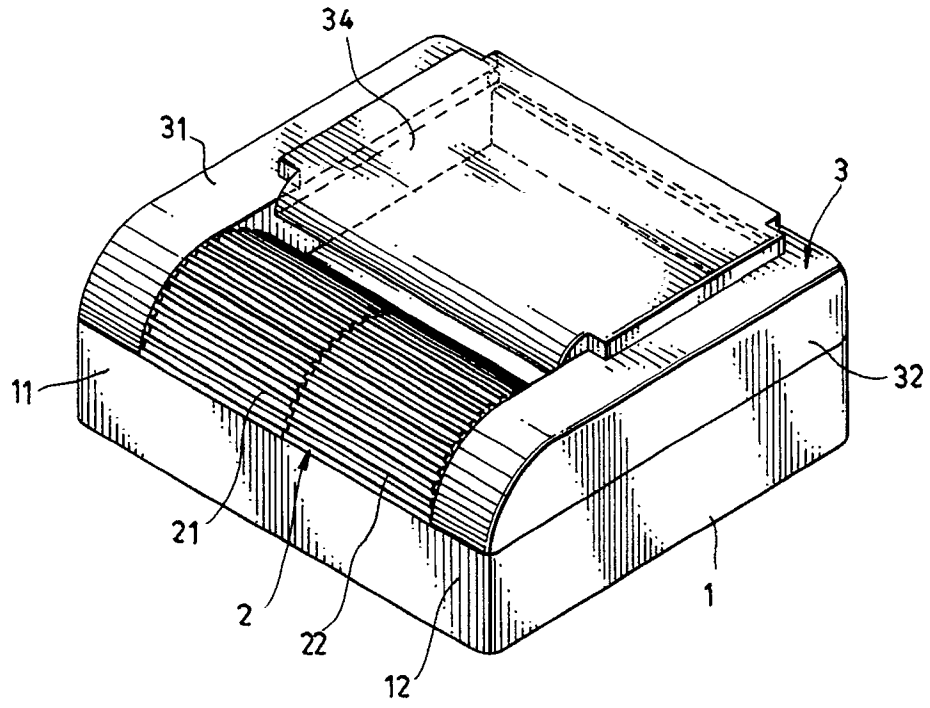


Fig. 2

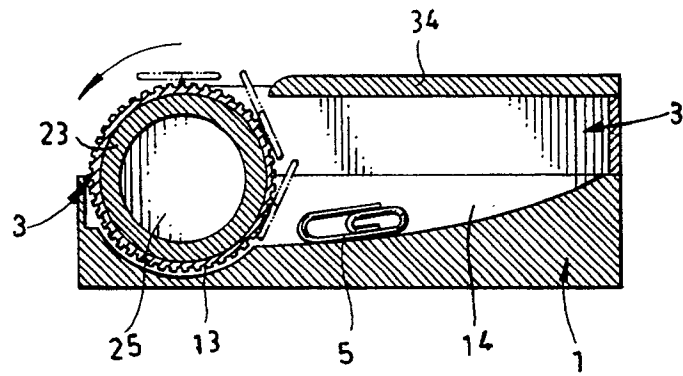


Fig. 3

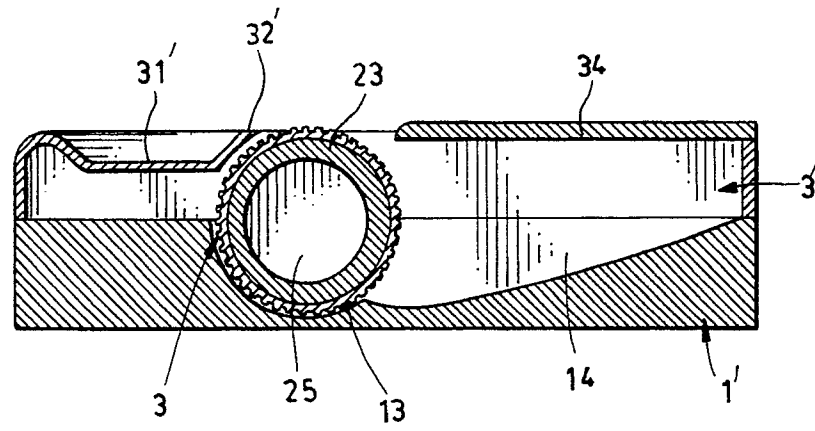


Fig . 5

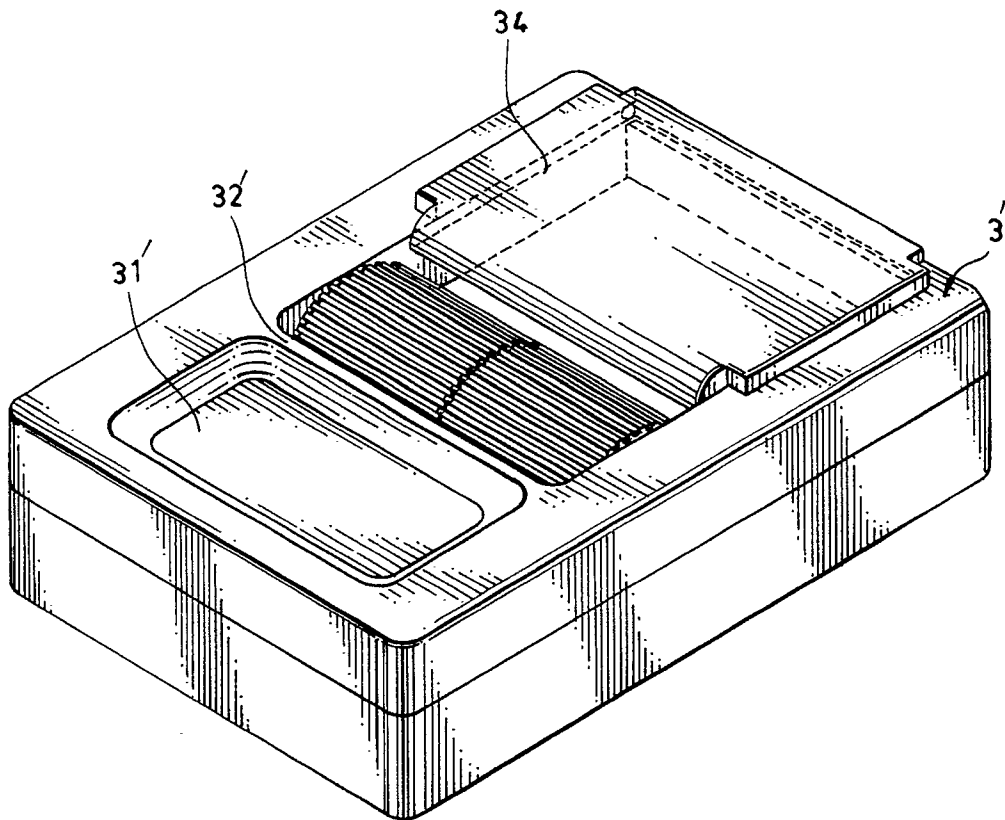


Fig . 4



**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-8 911 062 (HSU) * claims 1-3 *	1-3,4	B 43 M 17/00
Y	US-A-4 489 831 (LAHNEMAN) * column 3, lines 42 - 45 *	4	
A	US-A-4 047 637 (GRUNSTAD) * abstract *	1,4	
A	US-A-4 796 780 (HUANG)		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 43 M
Place of search	Date of completion of search	Examiner	
The Hague	03 December 90	LAMMINEUR P.C.G.	
<b>CATEGORY OF CITED DOCUMENTS</b> 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	