(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 089 933**
A1

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **83830061.4**

(51) Int. Cl.³: **A 47 K 10/38**

(22) Date of filing: **21.03.83**

(30) Priority: **23.03.82 IT 2127382 U**

(43) Date of publication of application:
28.09.83 Bulletin 83/39

(84) Designated Contracting States:
AT BE CH DE FR GB LI LU NL SE

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(54) **Rolled paper dispenser.**

(57) A dispenser for dispensing paper from a roll, formed from two hinged half casings (1, 2), one of which is provided with a sawtoothed portion (8) for tearing the paper (4). The sheet (4) emerges from a slot defined by the longitudinal edge (7) of the lower half casing (1) and a longitudinal rib (16) on the upper half casing (2), which clamps the sheet during tearing.

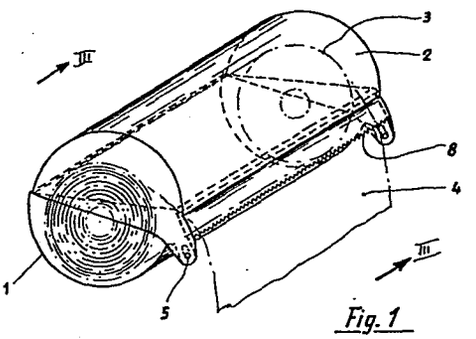

Fig. 1

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ROLLED PAPER DISPENSER

This invention relates to an improved container for paper material wound in rolls which allows the extraction of any required length of the paper material, and its separation from the roll by tearing.

Various types of container-dispensers for paper rolls are known, both for domestic use and for use in public places, communities etc., in which a strip of paper extracted in this manner is used as a hand towel or the like, of the disposable type. Such apparatus have been constructed in various forms and structures, substantially comprising two half casings in which the paper roll is housed, and of which the edge emerges from a suitable slot in proximity to which there is provided a knurled blade for its tearing.

Although the present tendency is to construct dispensers of extremely simple form utilising plastics materials, the problem of obtaining an extremely simplified structure (i.e. formed from only two moulded pieces) which is however effective at the moment of tearing has not yet been satisfactorily solved. In this respect, whereas the paper must be able to freely pass through the dispensing slot during its unwinding, it must be clamped at the moment of tearing in order to prevent the traction which is exerted on it producing any further undesirable unwinding of paper during tearing. This unwinding causes either blockage of the dispenser, or the emergence of a strip of paper, this being undesirable for hygiene reasons, or a diagonal tear which leads to wastage of the dispensed material. The type of paper used can also aggravate these problems. Paper of modest consistency can be torn fairly easily, whereas paper of better quality such as that of the "unwoven texture" type can create considerable problems at the moment of tearing. The paper could also be previously perforated and the roll be of the type comprising a cardboard core or be coreless. All these different types of material create problems of adaptation where it is required to construct a dispenser of a single type which can be fed with any type of paper used for these purposes at the

present time. Consequently, even the most simple and carefully designed dispensers of the known art always comprise at least one knurled blade portion which is elastically mobile relative to the container casing, which requires fixing means, pressure means, and general constructional complications which cannot be ignored in mass-produced products of fairly low cost.

One object of the present invention is therefore to provide an improved rolled paper dispenser which is formed from only two parts, and which allows the paper to be simultaneously clamped during tearing.

A further object of the invention is to provide a dispenser of the aforesaid type in which the component parts are of moulded plastics material and have a certain degree of relative mobility which is utilised in order to clamp the paper during tearing.

The invention is described hereinafter with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of the dispenser according to the invention;

Figure 2 is a side view of the dispenser;

Figure 3 is a section on the line III-III of Figure 1, with an enlarged detail to the side; and

Figure 4 is a detail of the hinging system.

With reference to the figures, the container-dispenser according to the invention comprises two half casings 1, 2 of substantially semi-cylindrical form preferably constructed of plastics material. The two half casings are hinged at appendices 12 and 11 respectively, and the lower half casing 1 is also provided with protuberances 9 which

enable it to be fixed to a vertical wall. Specifically, these protuberances 9 terminate with a smooth surface in which flared holes 23 can be formed for the passage of fixing screws as shown in Figure 3. Alternatively, the dispenser could be fixed to the wall by double adhesive strips 25 fitted to the surfaces 9 which also comprise the holes 23. In the illustrated model, means for securing the two half casings together are not provided, however it is apparent that suitable securing and locking devices of known type can be fitted to the dispenser according to the invention if this is desired.

A paper roll 3, either with or without an inner cardboard core, is housed inside the dispenser formed in this manner, and an already unwound paper edge 4 emerges from the dispenser in proximity to the lateral edges opposite the wall to which the dispenser is fixed. The upper half casing 2 terminates lowerly with a knurled or saw-toothed portion 8 which forms the blade for tearing the sheet of paper. With reference specifically to Figures 2 and 3, it can be seen that the edge of the container 1 terminates with an arcuate portion 7 on which the paper edge 4 rests, and the upper half casing 2 is provided with a rib 16 which becomes situated in proximity to the edge 7 when the two half casings are assembled to form the dispenser. The two half casings are assembled by means of pins 14 rigid with the appendices 11 of the half casing 1 and elongated bores or slots 15 provided in the appendices 12 of the lower half casing 1. The hinging allows limited mobility of the pin 14 in the slot 15, so that under normal conditions the parts are positioned as shown in the sectional view of Figure 3, in which the longitudinal rib 16 extends below the curved edge 7 to leave a passage or slot through which the sheet 4 of paper can slide. The configuration assumed in this manner is determined by the force of gravity which acts on the side portion of the upper half casing 2. Under these conditions, the user can unwind the required quantity of paper, which passes through the slot formed in this manner without encountering appreciable obstacles. At the moment of tearing the extracted portion of paper, the user lifts the emerged portion of

paper upwards in the general direction indicated by the arrow F, by which the half casing 2 is raised to move the rib 16 into contact against the curved edge 7 of the lower half casing. Under these conditions, the strip of paper becomes gripped and clamped (detail to the side of Figure 3) over its entire length, and the tearing stresses are thus not transmitted to the roll container in the dispenser, so preventing it from unwinding. When the tear is complete and the upward pull has ceased, the weight of the half casing 2 returns this latter into its rest position, to allow further unwinding of the paper, which can be gripped by virtue of the portion which lies between the slot and the cutting blade 8.

Figure 4 shows a detail of a pin which can be used for forming the mobile hinge. The pin 20 terminates with a lug 21 having a shape substantially equal to that of the aperture 15 in the half casing 1, so that it can be inserted into this latter on assembly, which takes place with the dispenser open. When the half casing 2 is rotated into its closed position, the lug 21 rests against the walls of the appendix 11, to prevent the escape of the pin, which can however move freely in the slot 15 during operation.

Preferably, at least the upper half casing 2 is constructed by moulding transparent plastics material, so as to enable the contained roll to be seen, however the two half casings can also be of a non-transparent material, which would generally be impact-resistant, and they could also be of different shapes than that shown, provided they are able to define a generally cylindrical or prismatic container. These and further modifications which are able to permit the same operation covered by the principle of allowing limited mobility between the two half casings which form the container in order to clamp the unwound sheet of paper when this is to be torn, also fall within the scope of protection.

PATENT CLAIMS

1. A dispenser for dispensing paper from a roll, provided with means for manually separating an unwound portion of paper from the roll by tearing, characterised by being formed from two hinged half casings (1, 2), the upper half casing (2) being provided with a blade or saw-toothed portion, and in that the sheet of paper to be dispensed emerges from a slot defined by the longitudinal edge of the lower half casing (1) and by a longitudinal rib of the upper half casing (2), said slot being able to be closed manually, to clamp the sheet of paper in a fixed position during tearing.

2. A dispenser as claimed in claim 1, characterised in that the two half casings (1, 2) are of substantially semicylindrical shape, and are provided with appendices (12, 11) for their connection by means of pins (14) rigid with the upper half casing (2), which engage in elongated holes or slots (15) in the appendices (11) of the lower half casing (1), to thus allow limited mobility of the upper half casing relative to the lower half casing at the end in proximity to the appendices, and in that the said slot of variable width through which the sheet of paper (4) passes is opened by gravity during the unwinding of the paper, and is closed when the unwound portion (4) is lifted for tearing.

3. A dispenser as claimed in claim 2, characterised in that said pins (15) are constituted by a cylindrical portion (20) rigid with the appendices (12) of the upper half casing (2), and terminate with a flat portion (21) of elongated shape substantially corresponding to that of the holes or slots (15) in the appendices (11).

4. A dispenser as claimed in claim 3, characterised in that the lower half casing (1) comprises a plurality of structures or protuberances (9) which project beyond the semicircular form of the half casing, to define flat surfaces for fixing the dispenser to a wall.

5. A dispenser as claimed in claim 4, characterised in that said flat surfaces are provided with flared holes for the passage of screws.

6. A dispenser as claimed in claim 4, characterised by being fixed to a wall by means of double adhesive strips (25) applied to said surfaces.

7. A dispenser as claimed in any one of the preceding claims, characterised by being formed from two half casings moulded from impact-resistant plastics material.

8. A dispenser as claimed in any one of the preceding claims, characterised in that at least the upper half casing (2) is transparent.

9. A dispenser for dispensing paper from a roll for use as disposable hand towels or serviettes, substantially as described and illustrated.

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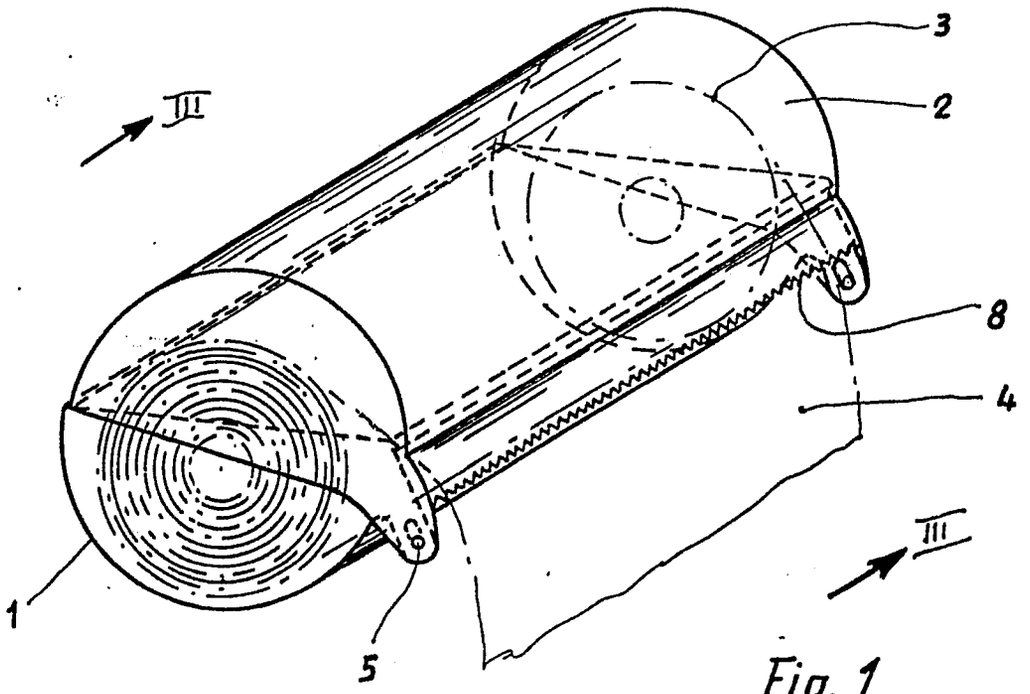
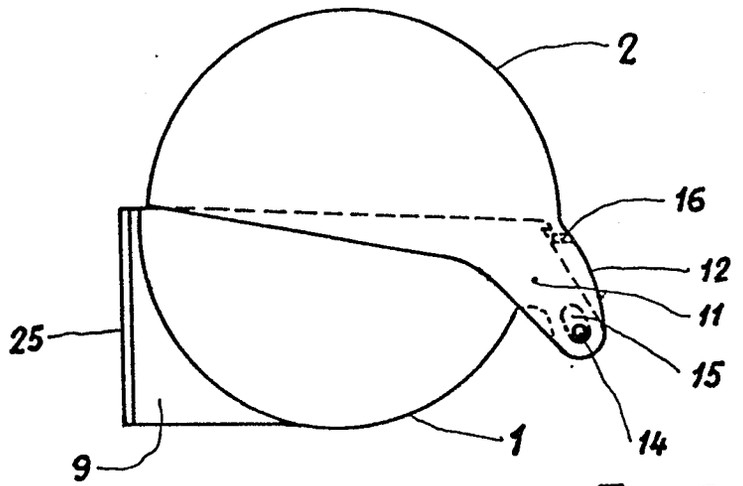


Fig. 1



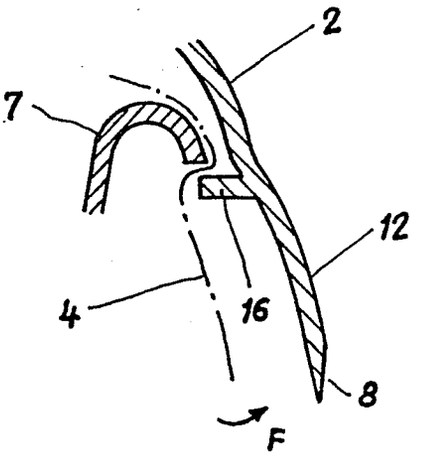


Fig. 2

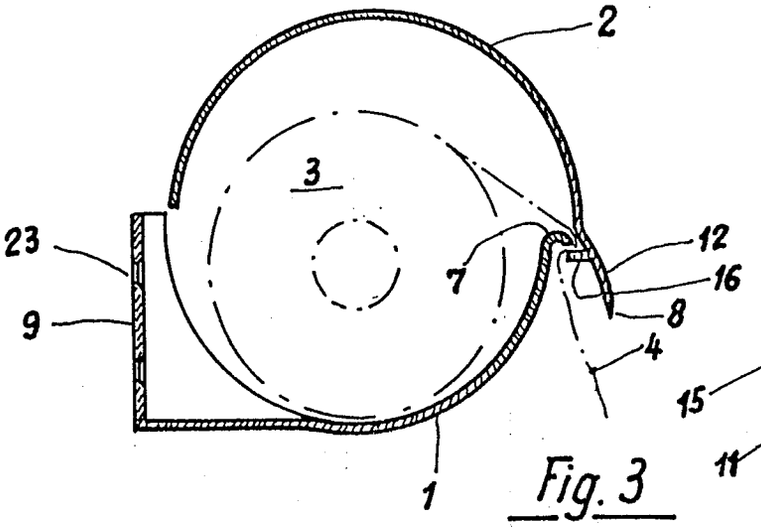


Fig. 3

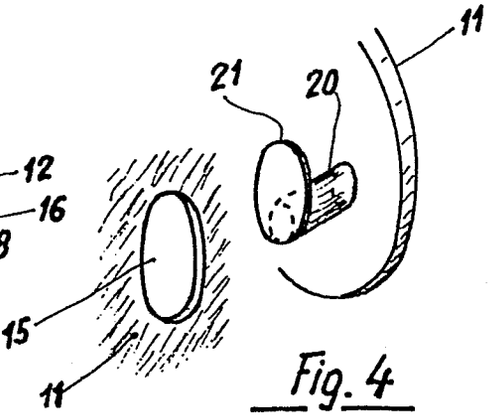


Fig. 4

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EUROPEAN SEARCH REPORT

0089933
Application number

EP 83 83 0061

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. ³)
A	FR-A-2 167 239 (ETABLISSEMENTS ALBERT PONTAROLI) * Whole document *	1,2,5	A 47 K 10/38
A	FR-A-1 318 953 (PAPIERFABRIK ALBERT FRIEDRICH) * Whole document *	1,2,3, 5	

TECHNICAL FIELDS SEARCHED (Int. Cl. ³)

A 47 K

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	30-06-1983	CAVALERI S.P.

CATEGORY OF CITED DOCUMENTS

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