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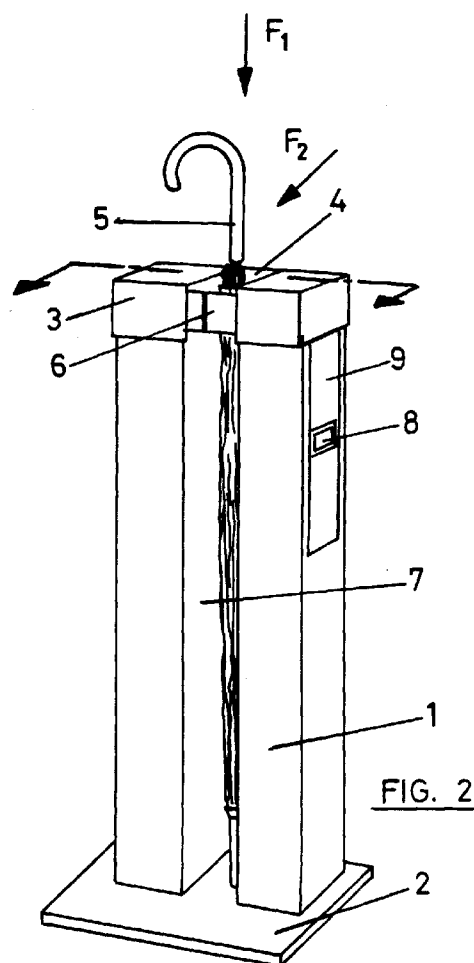
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(54) Device for putting an umbrella in a bag

(57) Umbrella bagger composed of a vertical case (1) with an opening (4) on the top to allow the umbrella (5) to be introduced vertically and a frontal opening (7) to allow its extraction, also having an internal store of bags (10) on one side and opposite this a device (14) which can open the first bag as the umbrella is introduced.



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Description

[0001] The object of the present invention, as its title indicates, is an UMBRELLA BAGGER, according to the detailed description given of the same. This concept is to be always understood in its broadest sense and never in a limiting one.

[0002] At this time no method is known by which, using a device designed solely with the object of bagging umbrellas, it is possible by a simple manual procedure, by introducing the umbrella at the top and later removing it from the front, an umbrella of any size may be introduced and bagged, keeping it folded and wrapped in a plastic cover so that floors or carpets are not wetted and permitting easy manoeuvring of the same without having to leave it behind anywhere and misplace it.

[0003] This device is composed of an external part which is made of an appropriate stainless material, with two openings, a round one at the top central part, preferably made of plastic, although adaptable at a later time to any material. Stainless steel and plastic have been chosen since these are resistant to water, granting ease of use, safety, hygiene and longevity to the materials. This external part can be divided into another three parts:

[0004] 1.- Top: Part at which the umbrella is introduced, made of stainless steel and plastic as described above. Its front is hinged and loaded with a spring so that it may be opened and the umbrella removed.

[0005] 2.- Central: Part which may be separated from the previous one. It is the largest part, and has a vertical opening so that the umbrella may be manually extracted. This part has a movable door on one side which allows loading the bags in which the umbrellas are to be placed, on a horizontal hook, as well as a spring which constantly pushes the bags towards a central bar which acts as a stop. On the opposite side there is a pantograph like device ending in a cup, with a tab on its open end intended for opening the first stored bag, for which reason the bags are shorter on their anterior end than on their posterior end by which they are hung.

[0006] When the umbrella is introduced its end comes in contact with the cup, making the latter descend until upper projections of the mechanism go past a stop, after which the cup moves backwards while it opens the bag, allowing the umbrella to enter the bag.

[0007] When the umbrella reaches the bottom it moves forward horizontally against the push of the spring on the hinged side, and breaking off the bag. At this time the pantograph recovers its original position pushed by a spring, leaving the cup ready for another umbrella.

[0008] 3.- Lower: This consists of a pedestal which supports the invention on the floor, either resting on the floor so that it remains movable or attached to it by screws.

[0009] Bagging umbrellas prevents the water from rainfall wetting floors, rugs, etc.

[0010] The bags are placed vertically hanging from a hook from their top, for which they have an orifice where the hook is attached. Up to 1000 bags may be placed in this lower part.

[0011] For a full understanding of the object of the invention, attached to the present memory are descriptive drawings which represent an example of each an every part of the invention and their arrangement with respect to each other.

[0012] In the drawings:

[0013] Figure 1 shows a side view of an umbrella once the plastic layer is placed over the cloth.

[0014] Figure 2 shows a perspective view of an umbrella bagger according to the principles of the invention.

[0015] Figures 3 to 5 show cross sections which allow a view of the bag opening device in its different stages as the umbrella is introduced.

[0016] As may be seen in the figures the umbrella bagger basically consists of a vertical body 1 mounted on a base 2 having a top part 3.

[0017] Top part 3 has an opening 4 which allows vertical introduction of umbrellas 5. Opening 4 has in its front end one or two movable parts 6, loaded with their respective springs to keep them closed until they are pushed out by the umbrella.

[0018] Said movable parts 6 are even with an opening 7 which lies along the full length of vertical body 1.

[0019] Vertical body 1 has handles 8 to facilitate moving it and a door 9 for bag refills.

[0020] Bag refills 10 are carried out by introducing the posterior part 10a of bags 10, longer than the frontal part 10b, on hook 11 which is attached to crossbar 12 mounted between the forward and posterior parts of the umbrella bagger. The set of bags 10 is constantly pushed towards bar 12 by a spring 13.

[0021] Opposite this crossbar 12 is a pantograph like mechanism, referred to generally by reference 14.

[0022] Mechanism 14 is composed of a fixed base 15 on which element 16 is mounted so that it may turn, and on the free end element 17 is mounted also so that it may turn. Fixed base 15 and element 17 are joined by a pair of parallel levers 18 which are mounted on element 17 so that they may turn and to base 15 so that they may partially turn and move by respective oblong orifices 19.

[0023] Levers 18 extend through the top part 20 beyond element 17 and act as a stop against fixed part 21.

[0024] Mechanism 14 is constantly loaded by spring 22 which keeps it in a raised position. This position is fixed by stops 20 and a third fixed stop 25 which limits the path of element 16 by colliding with projection 26.

[0025] The free end of element 17 is attached to a cup 23 with a tab 24 on its end which pulls the anterior side 10b of the bag 10 as it moves down, thus opening bag 10 and allowing the umbrella to be introduced.

[0026] The working of the umbrella bagger is the following:

[0027] Umbrella 5 is introduced vertically through the upper part of the bagger as in arrow F1, so that its end contacts cup 23, making it and element 17 move downwards through the oblong orifice 19. During this motion tab 24 is introduced between faces 10a and 10b of bag 10. After this stops 20 have passed fixed part 21 and allow the pantograph 14 to move towards the rear side, moving cup 23 away from the path of the umbrella and leaving in its place the open end of bag 10.

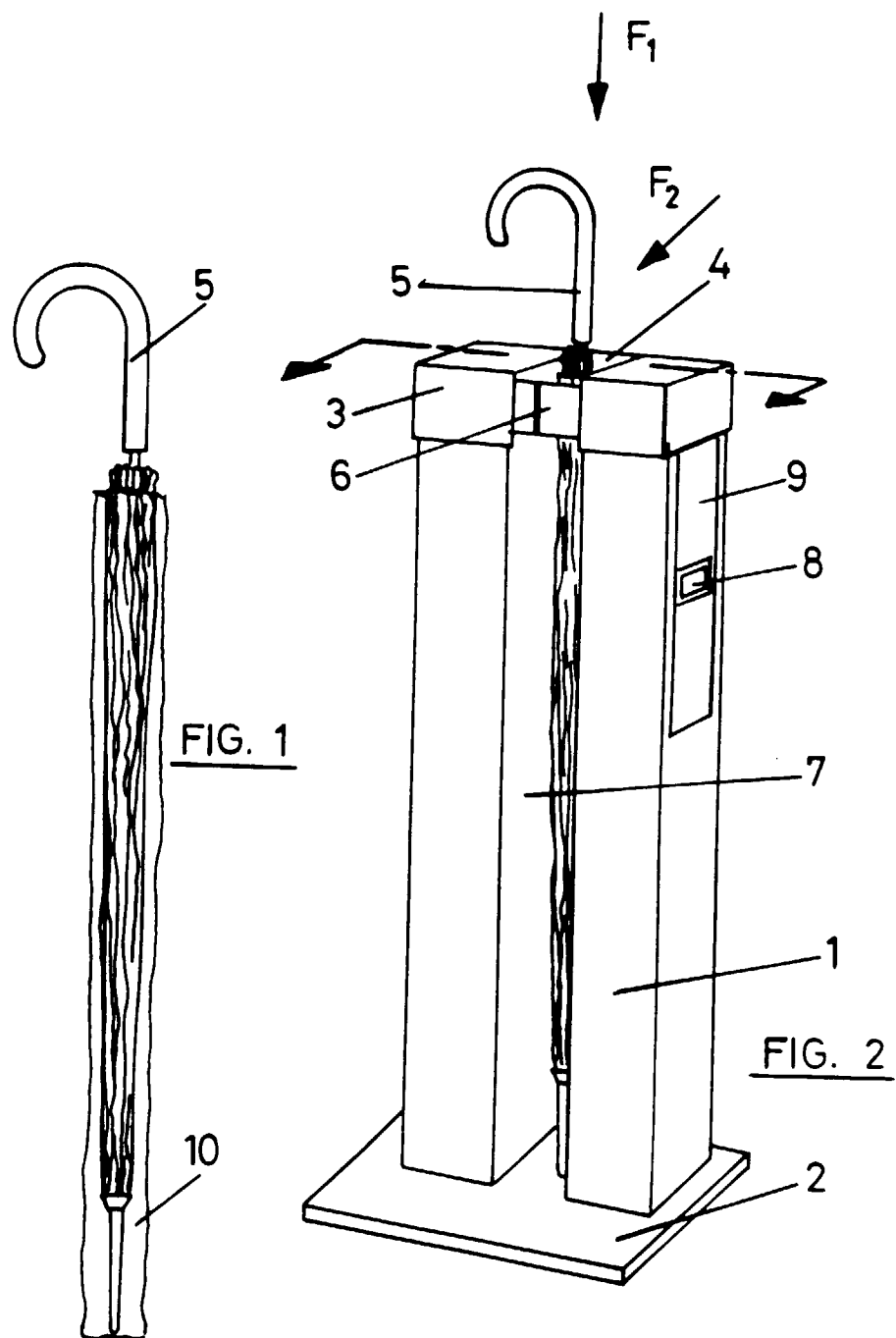
[0028] When the umbrella reaches the lower part it is pulled out horizontally as shown by arrow F2. Parts 6 will give as the pull of the springs is overcome and the bagged umbrella is removed from the central part of the bagger.

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Claims

1. Umbrella bagger characterised in that it is composed of a vertical body (1) mounted on a base (2) and having a top part (3) with an opening (4) and at least one movable part (6) after overcoming the resistance of a spring, and with a stock of bags (10) inside on one side which are constantly pushed towards a fixed crossbar (12) by a spring (13), and on the other side is a pantograph mechanism (14) pushed by a spring (22) and having a cup (23) upper element (17) which crosses the path of the umbrella (5) as it moves down (F1). This cup (23) has a tab (24) which is meant to open the bag (10).
2. Bagger as in claim 1, characterised in that the stock of bags has a hook (11) on which are hooked the posterior faces (10a) of bags (10), which are longer than the anterior faces (10b).
3. Bagger as in claim 1, characterised in that the pantograph like mechanism is composed of a fixed base (15) on which is mounted element (16) so that it may turn, on the end of which is mounted element (17) so that it may turn and loaded with a spring (22), element which supports the cup (23). The base plate (15) and element (17) are joined by two levers (18) which end in their respective stops (20). The levers are mounted on element (17) so that they may turn and on the base plate (15) so that they may turn and move by the oblong orifice (19).
4. Bagger as in claim 3, characterised in that the initial position of cup (23) is ensured by the stops (20) which are in contact with the fixed part (21) and the projection (26) which touches stop (25).

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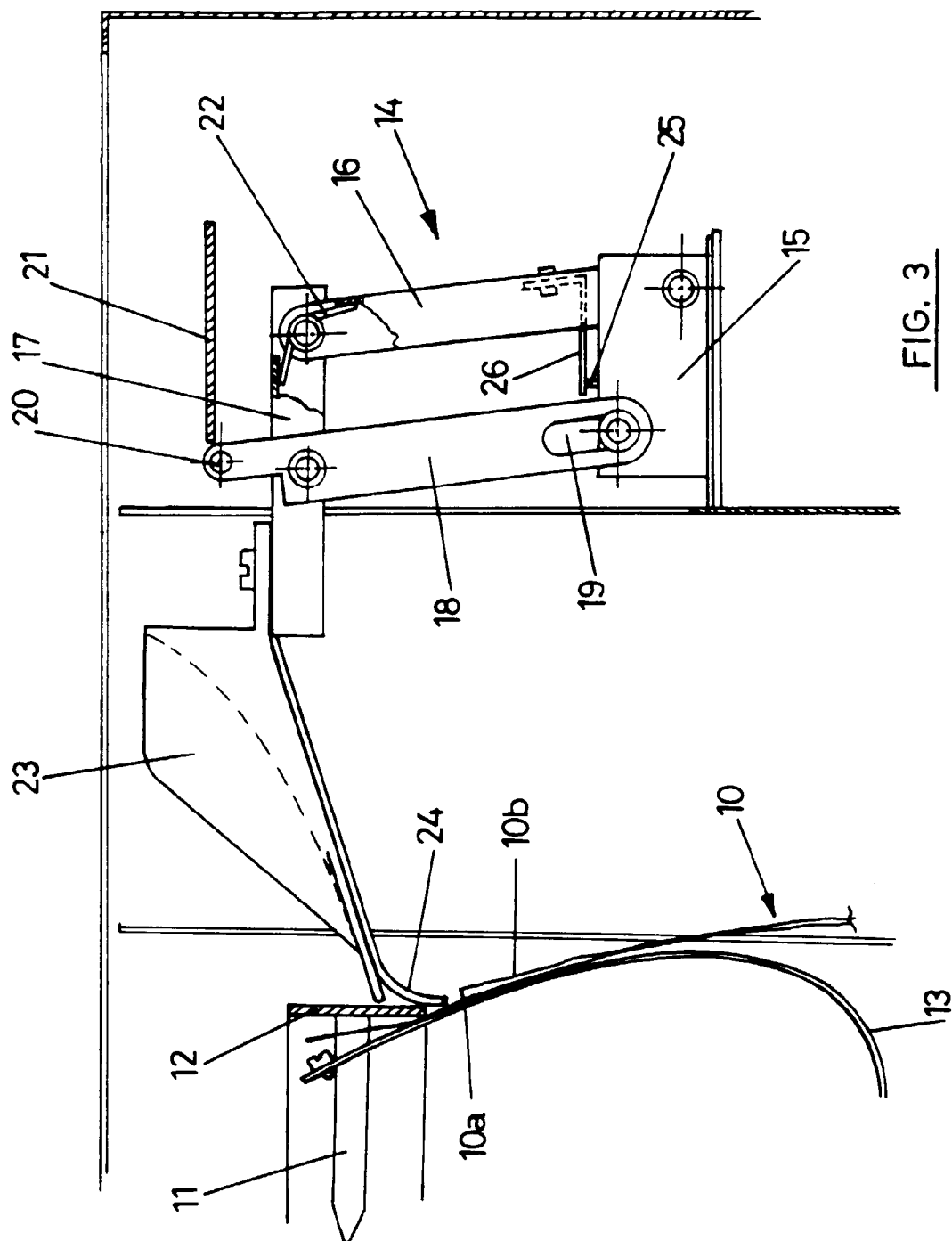


FIG. 3

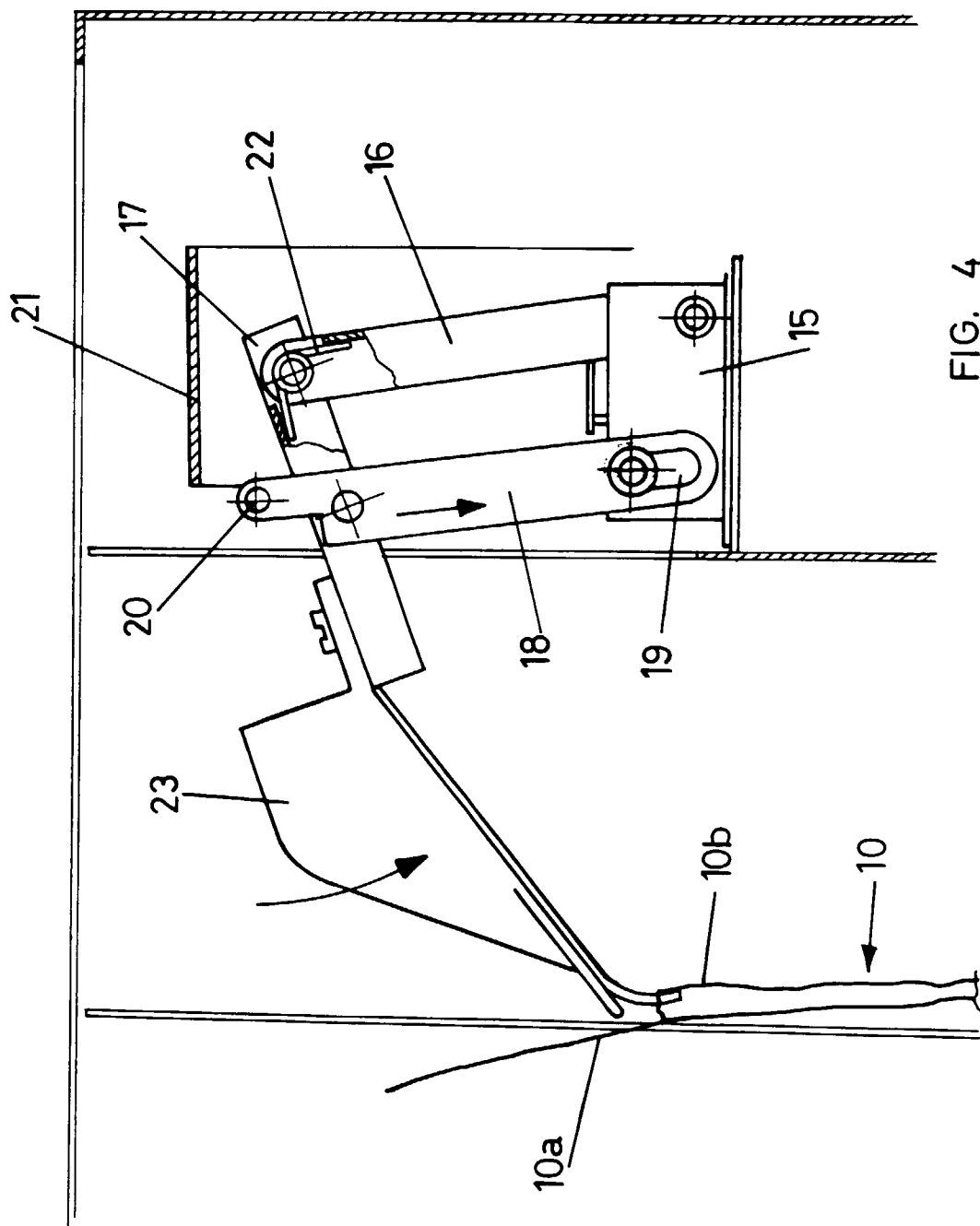


FIG. 4

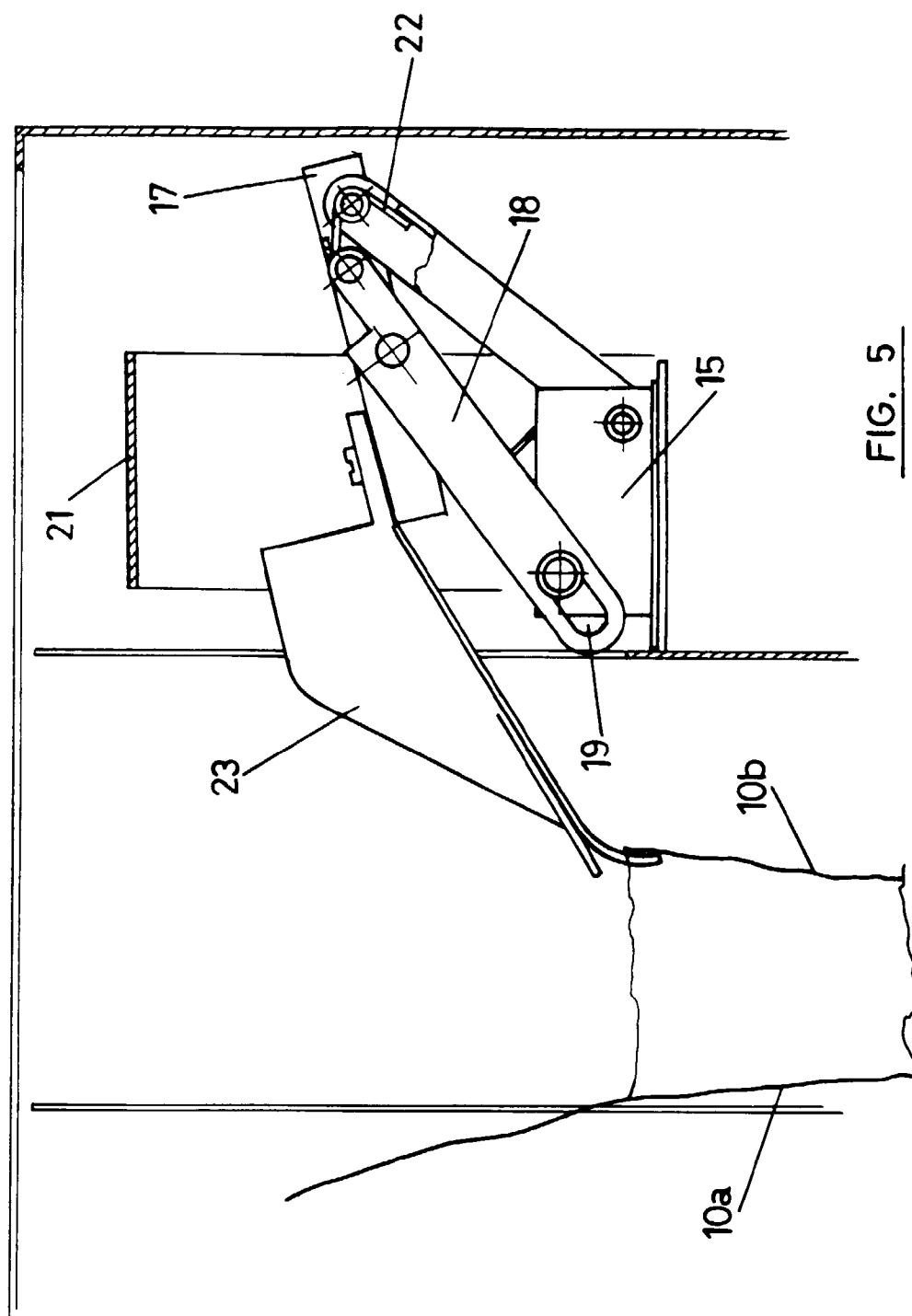


FIG. 5



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EUROPEAN SEARCH REPORT

Application Number
EP 99 50 0027

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 1 June 1999	Examiner Grentzius, W
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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