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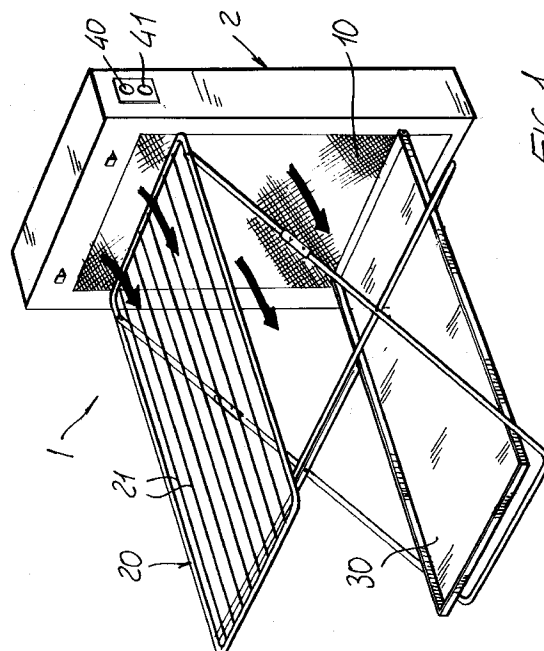
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(54) **Household apparatus for drying linen.**

(57) The present invention relates to a household apparatus (1) for drying linen, characterized in that said apparatus comprises a flat body (2) including therein at least a fan (3,4) providing an air flow through a vertical grid (10).

In front of the grid there is arranged a linen spreading panel (20) including a plurality of linen supporting wires or rods (21) which extend with a parallel relationship with respect to the air flow.



## BACKGROUND OF THE INVENTION

The present invention relates to a household apparatus for drying linen.

As known, a very important problem in a household environment, mainly in cold months, is that of easily and quickly drying linen which operation, in winter time, usually requires a comparatively long time.

In the industrial field, this problem has been already solved by using apparatus involving a very high power consume, for providing a high heat amount for drying in a short time the linen; however, such an apparatus can not be used in a household environment, since it involves, as stated, a very high power consume.

## SUMMARY OF THE INVENTION

Accordingly, the aim of the present invention is to solve the above mentioned problem, by providing a household apparatus for drying linen which is specifically designed for drying linen in a very short time without requiring a high power consume.

Within the scope of the above mentioned aim, a main object of the present invention is to provide such a household linen drying apparatus which has a very reduced size, so as to be easily put against a wall without projecting substantially therefrom.

Another object of the present invention is to provide such a linen drying apparatus which can be easily used jointly with conventional domestic linen spreading devices and which is adapted to provide a forced air circulation for drastically reducing the linen drying time and which, moreover, is very reliable and safe in operation as well as very competitive from a mere economic standpoint.

According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a household apparatus for drying linen, characterized in that said apparatus comprises a flat body including at least a fan for providing an air flow through a vertical grid assembly, in front of which can be arranged a linen spreading device including a plurality of linen supporting wires or rods arranged with a parallel relationship with respect to the air flow.

## BRIEF DESCRIPTION OF THE DRAWINGS

Further characteristics and advantages of the invention will become more apparent hereinafter from the following detailed disclosure of a household linen drying apparatus, which is illustrated, by way of an indicative, but not limitative, example, in the accompanying drawings, where:

Figure 1 is a schematic perspective view of the

apparatus shown in its use condition;

Figure 2 illustrates another perspective view of the subject apparatus, shown in its closed or not use condition;

Figure 3 is a front elevation view of the apparatus, said apparatus including fans for generating an air flow;

Figure 4 is a vertical cross sectioned view of the subject apparatus;

and

Figure 5 is a side elevation view of the subject apparatus, and in which there is specifically shown the location of the dripping panel.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to the number references of the figures of the accompanying drawings, the household apparatus for drying linen, according to the present invention, which has been generally indicated at the reference number 1, comprises a flat body 2 which mainly vertically extends so as to be easily applied to a wall.

Inside the body 2 there are provided a top fan 3 and a bottom fan 4 driven by respective electric motors 5 and 6, which have advantageously an elongated cylindric shape, with radially extending blades.

Between the fans 3 and 4 there are arranged, as clearly shown in Figure 4, flow baffles 7, providing parallel air flows which are directed in a perpendicular direction with respect to the body 2.

Said air flows, deflected by the baffles 7, are ejected through a front grid assembly 10, in front of which there is arranged a linen spreading device 20, which can be directly coupled to the body 2, or can be constituted by a separated element or device.

More specifically, the linen spreading device 20 comprises a plurality of linen supporting wires or rods, indicated at the reference number 21, which extend in a parallel relationship with respect to the air flow direction.

Moreover, there is provided a dripping panel 30, arranged at the bottom portion, which constitutes an integrating part of the body 2, or comprise an element coupled to the linen spreading device.

In the case in which the mentioned dripping panel is an element coupled to the body 2, it will be pivotably connected so as to be folded against the body 2 as the latter is not used.

At one end portion of the dripping panel there is provided on the body 2, a collecting drawer 31 provided for collecting therein the drained water.

Finally, it should be also pointed out that the subject apparatus can also be provided with a timer 40 and an adjusting device 41 for adjusting or controlling the air flow rate.

With the disclosed arrangement, accordingly, it is

possible to provide a not heated forced air circulation which will affect the linen so as to quickly dry said linen with a very small power consume.

Another important aspect of the invention is that the subject apparatus has a very reduced size, since it comprises a flat body which can be caused to abut against a wall, and which, moreover, can be directly integrated in the linen spreading panel, or in front of which it is possible to locate a conventional domestic use linen spreading device.

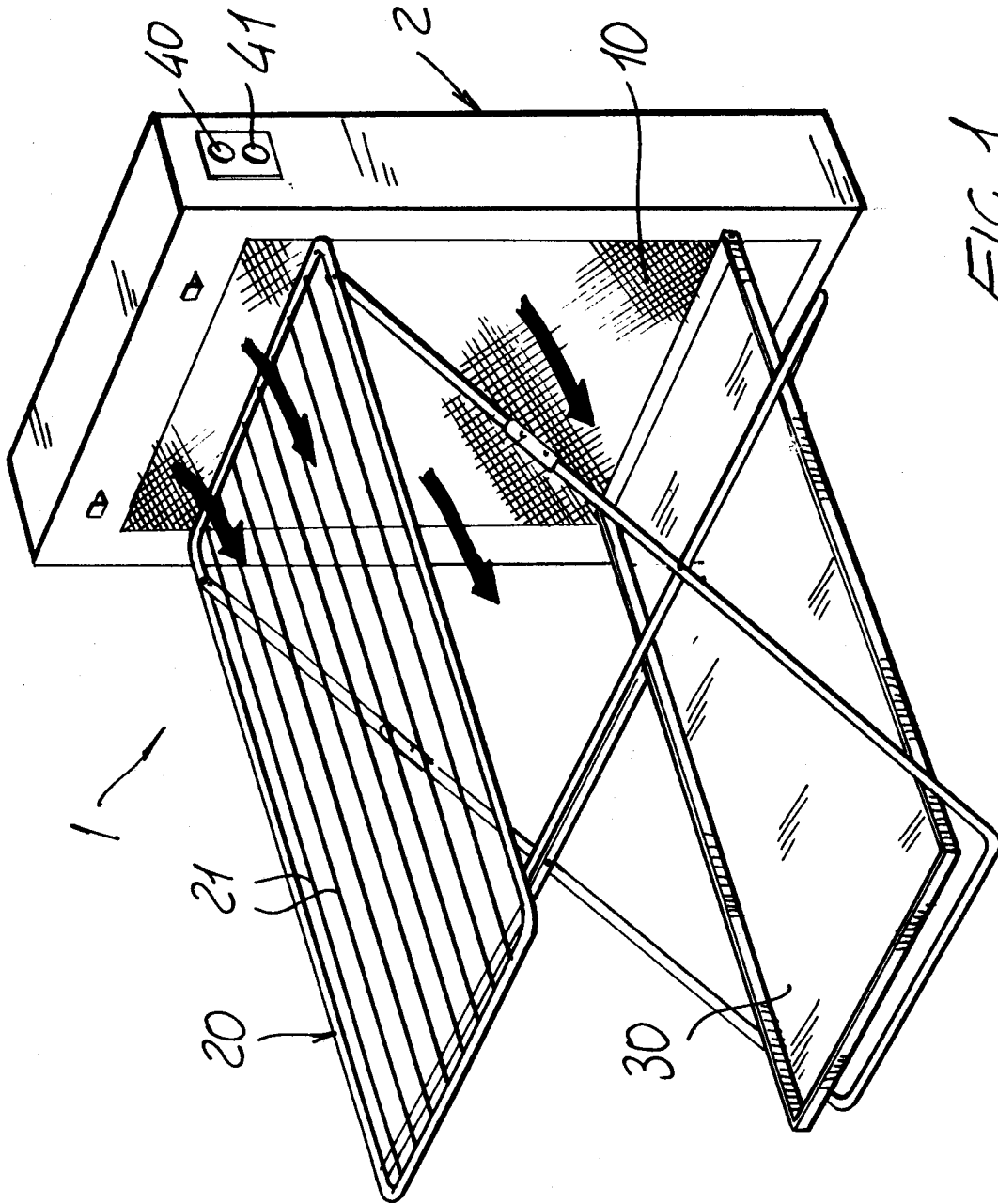
In practicing the invention, the used materials, provided that they are compatible to the intended use, as well as the contingent size and shapes, can be any, depending on requirements.

### Claims

1. A household apparatus for drying linen, characterized in that said apparatus comprises a flat body including at least a fan for providing an air flow through a vertical grid assembly, in front of which can be arranged a linen spreading device including a plurality of linen supporting wires or rods arranged with a parallel relationship with respect to the air flow.
2. An apparatus, according to the preceding claim, characterized in that said apparatus comprises a top fan and a bottom fan housed inside said body.
3. An apparatus, according to the preceding claims, characterized in that said fans have a substantially elongated cylindric configuration, with radially extending blades.
4. An apparatus, according to one or more of the preceding claims, characterized in that said apparatus further comprises, inside said body, air baffle means adapted to deflect the air flow of said fans along a direction which is substantially horizontal and perpendicular to said grid assembly.
5. An apparatus, according to one or more of the preceding claims, characterized in that said apparatus further comprises a dripping panel which can be connected under said linen spreading device or panel.
6. An apparatus, according to one or more of the preceding claims, characterized in that said linen spreading device is associated with said body.
7. An apparatus, according to one or more of the preceding claims, characterized in that said dripping panel is articulated to said body and can be folded against said front grid assembly, in a not

use condition thereof.

8. An apparatus, according to one or more of the preceding claims, characterized in that said apparatus further comprises, on said body, at an end portion of said dripping panel, a drawer for collecting draining water therein.



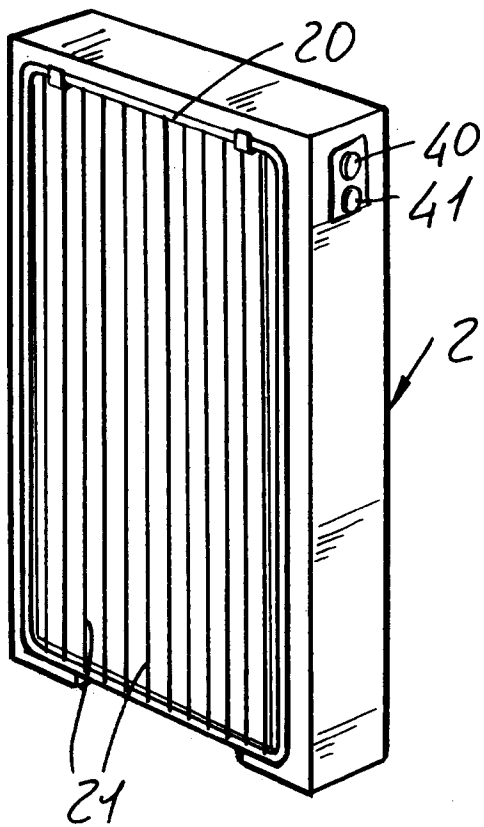


FIG. 2

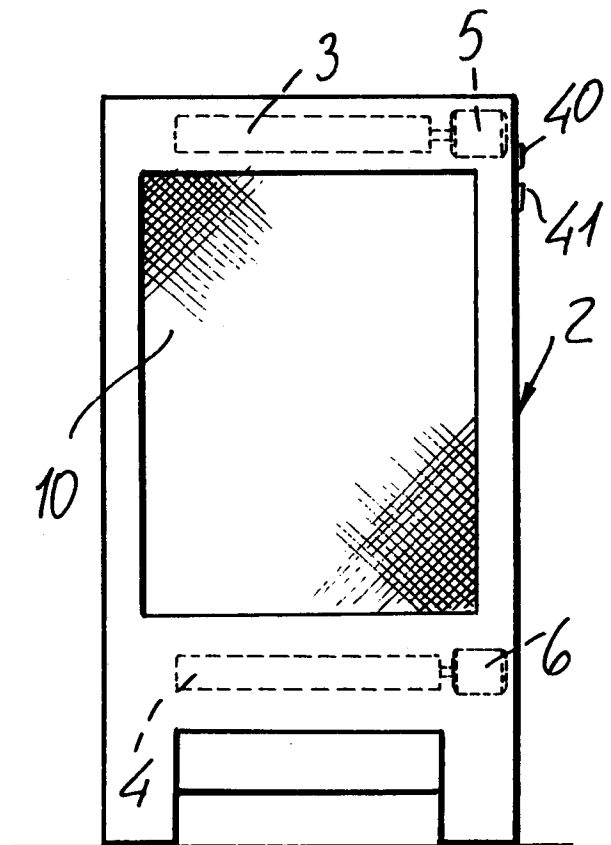


FIG. 3

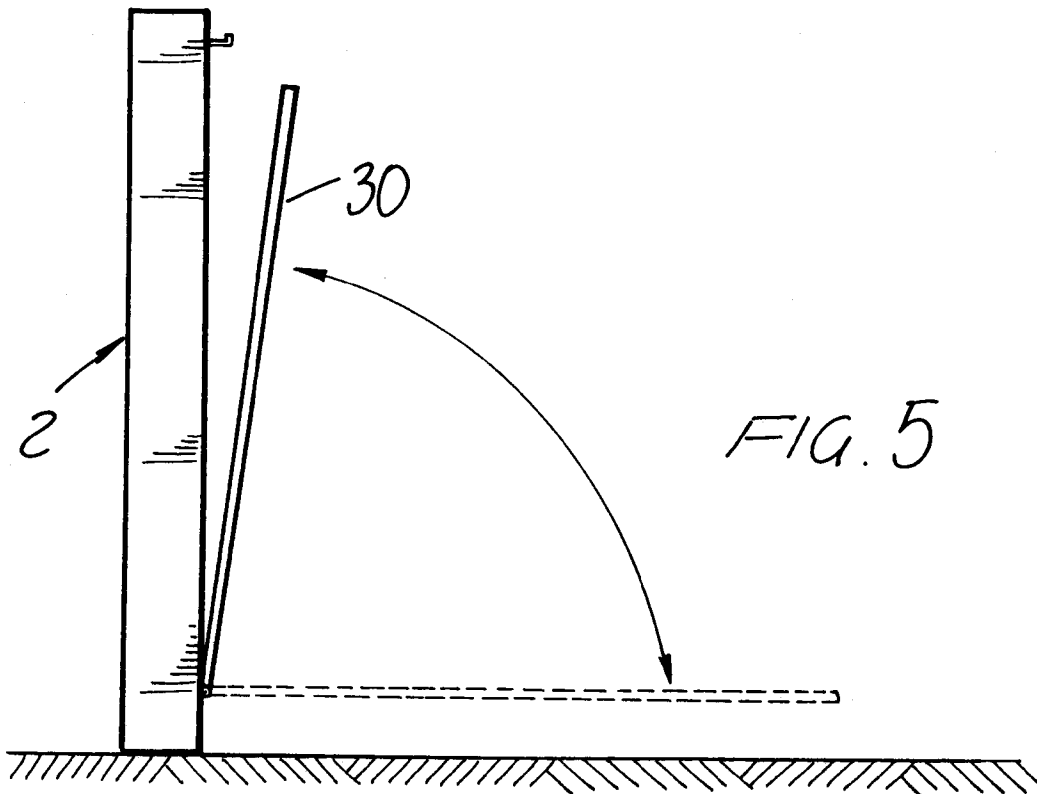
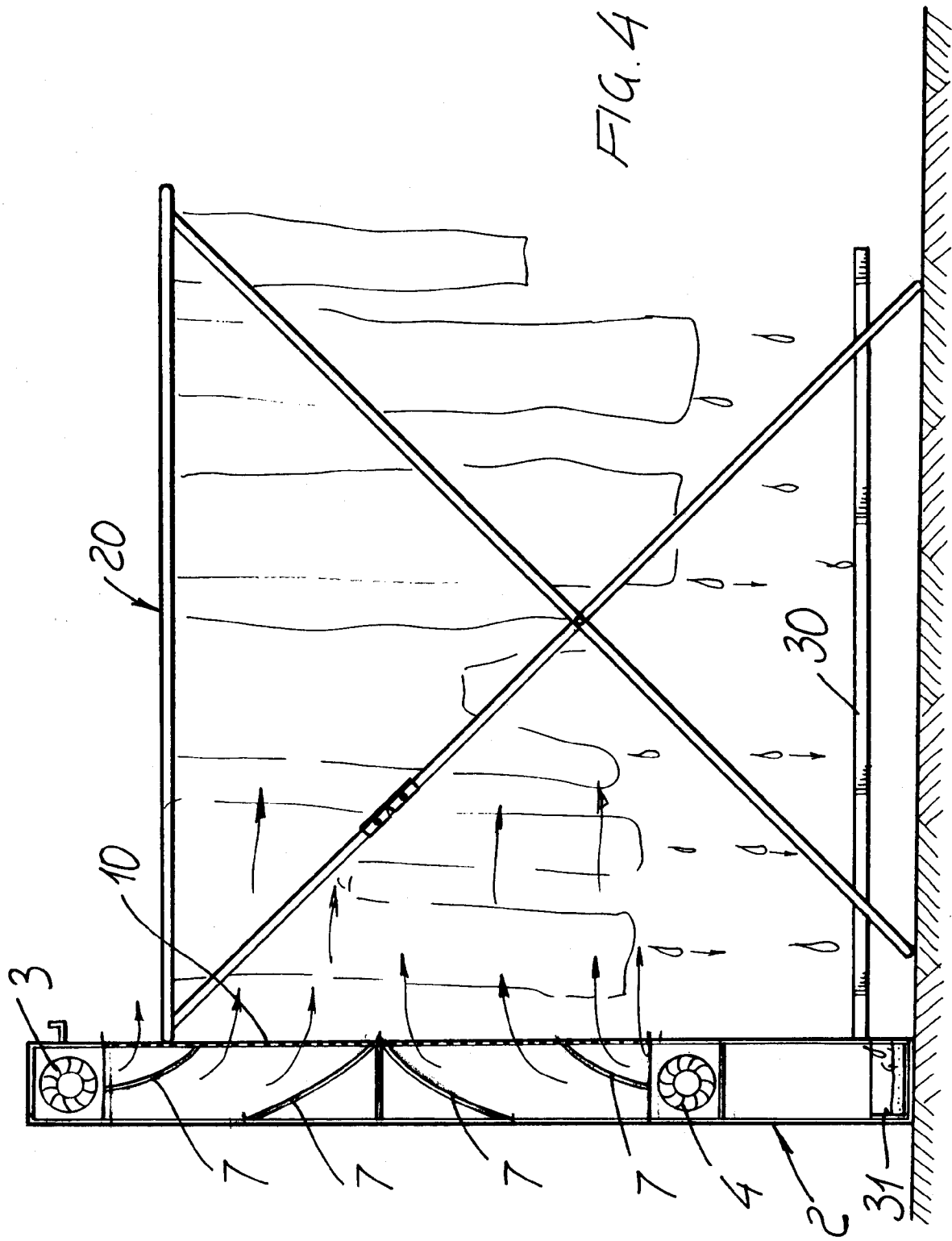


FIG. 5





European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 94 83 0377

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.6)
X	FR-A-1 256 028 (P-F-G JANVIER) * the whole document * ---	1,6	D06F58/14
X	FR-A-1 586 814 (P. CONTESSE) * the whole document * ---	1,4,6	
A	FR-A-1 335 613 (R.P. NICOD & R. GENIN) * the whole document * ---	1,4-8	
A	FR-A-1 465 023 (G. DAVID) * the whole document * ---	1,3-8	
A	FR-A-2 228 883 (LES FILS DE PAUL ANTOINE ET CIE.) * claims; figures * -----	1,3,4,6	
The present search report has been drawn up for all claims			<b>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</b> D06F
Place of search THE HAGUE		Date of completion of the search 20 January 1995	Examiner Courrier, 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			

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