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(54) **Pivoting gauze screen door.**

(57) A device to keep out insects which consists of a pivotable gauze door screen (5) to be opened and shut by means of a spring-mounted roll-up shaft (1) and frame parts.

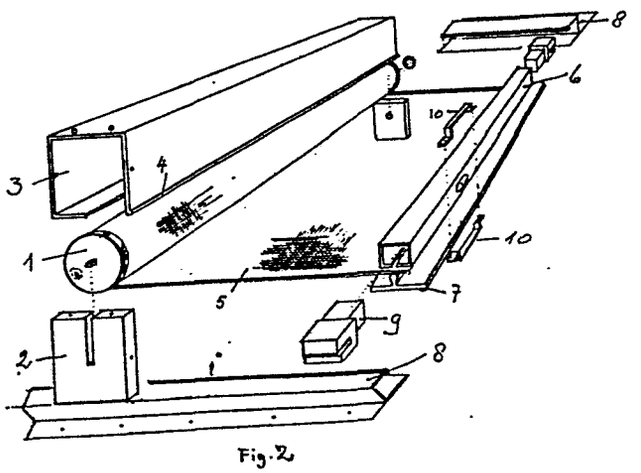

Fig. 2

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Pivoting Gauze Screen Door.

Applicant: Cornelis Maria van Wesenbeeck, of Heerle (Netherlands).

The invention relates to a pivoting gauze screen door, i.e. a device for shutting a doorway by means of wire gauze, to keep out any insects, said device to be opened and shut by means of a spring-mounted roll-up shaft.

Gauze screens to keep out insects are known of old; they have been attached either with bars in front of the window or in the form of blinds attached by means of a bar at the upper threshold of the window-frame, to be shut from the upper to the lower end and to be opened from the lower to the upper end.

Similar constructions in the form of rising and descending roll up blind curtains have several disadvantages.
They are appropriate only for window-frames and not for doorways and they are not shutting off completely such that nevertheless insects might penetrate.
With such a construction at the doorway of the kitchen or of a shed the passage would be impeded too much.
Therefore a construction has been sought which does not have such disadvantages.

The gauze roll-up door as referred to in the introductory part is characterized according to the present invention in that it consists mainly of a pivoting roll-up shaft affixed in the vertical position against one of the door-frame bars, said shaft having at one end a torsion spring fixed at the shaft circumferentially, which can be held in any desired position by means of a cog-wheel and rack with a locking lobe pitching into the dents, said shaft being enclosed by a longitudinal box, also being affixed in the vertical position against the said door-frame bar and having a U-shaped profile in cross-section, the side face of same at the doorway side being shorter than the opposite side, and the first-mentioned side face having a smoothly beaded edge, said profile being kept by cradles affixed upon the door-frame, while the roll-up shaft is provided with a

bearing in bushes at its ends protruding through a ring bolt, and the insects-stopping gauze being higher and wider than the doorway, being affixed with one end at the roll-up shaft and winding and unwinding around it, with the other end clamped or glued between a hollow beam having a rectangular cross-section, and a flat strip with a bent brim, said bent brim grasping into an opposite bent strip if unwound, said hollow beam being kept by rubber brackets at each end.

The longitudinal box, its roll-up shaft, the U-shaped frame, the hollow beam and the strips with bent brims may be made of a metal, like steel or aluminium, or wood, or a plastic appropriate for constructions. The gauze may consist of a ventilating but insects-stopping windable material such as woven or extruded gauze with small mesh width, for example consisting of a metal, expanded metal, nylon or other plastic screen cloth or of a textile fabric.

The side face of the U-shaped frame against the unwinding part of the gauze is lower than the opposite one and it is provided with a beaded edge such that the gauze screen can be unwound in a perfectly shutting manner and that in the closed position tightly towards the door-frame the penetration of insects will be prevented in a reliable manner.

Almost in the middle of the hollow beam being affixed at one end of the gauze screen two handles are positioned, one at either side, so that the gauze door can be handled easily.

The device as described can be fit up at any doorways, such as mentioned and described in I.W. Nortier, "General Constructions for Architects and Engineers", Stam Publishers, (Culemborg-Cologne), 2. edition, pages 106-107, provided that the gauze length will be larger than the maximum width of the doorway and the width of the gauze will be larger than the maximum height of the doorway, such dimensions as reproduced in said literature and in standard specifications.

It will be understood that the motion of the gauze takes place in a horizontal direction along the vertical level of the doorway and along the door-frame.

Furthermore the possibility exists to apply top and bottom rails in which the upper and lower rim of the gauze screen respectively will slide as a

windable sliding door presenting utmost locking. 0086023

The invention is further elucidated with the enclosed drawings 1- 2.

The drawing 1 depicts an isometric elevation of the device according to the present invention dismounted in parts, wherein the following parts are reproduced:(1) is the roll-up shaft with a spindle and ring, which can be held in any desired position by means of a cogwheel and rack with a locking lobe pitching into the dents, (2) are cradles, (3) is the U-shaped profile frame placed against the unwinding part of the gauze with this side face lower than the opposite one and being provided with a beaded edge (4), (5) is the rectangular gauze screen, (6) is a square hollow beam, (7) is a flat strip with bent brim at one side, (8) is a strip with bent brim affixed at the door-frame, (9) are rubber brackets and (10) are the handles.

The drawing 2 depicts an isometric elevation view of a similar embodiment of the invention, with top and bottom rails (8),in which the rims of the screen will slide.
The device according to the invention is not restricted to any dimension or to a typical finishing, and the drawings shown are examples of embodiments only to elucidate the present invention.

The use of unwindable gauze screen doors according to the present invention is simple, and it does not impede the passage through the doorway, while an effective shutting off against insects at the same time with an improved ventilation is obtained.

The device can be manufactured at a low price and in large standardized series.
Thus it will be a deliverance in particular for climatological circumstances which favour the appearance of insects like gnats.

It is possible to assemble the device on different types of doorways, on sliding doors as well as on swinging doors, and in existing dwellings as well as in new buildings.

(Claims).

Claims:

1. A device for shutting a doorway by means of wire gauze, to keep out any insects, to be opened and shut by means of a spring-mounted roll-up shaft, characterized in that a door mainly consists of a pivoting roll-up shaft affixed in the vertical position against one of the door-frame bars, said shaft having at one end a torsion spring fixed at the shaft circumferentially, which can be held in any desired position by means of a cogwheel and rack with a locking lobe pitching into the dents, said shaft being enclosed by a longitudinal box, also being affixed in the vertical position against the said door-frame bar and having a U-shaped profile in cross-section, the side face of same at the doorway side being shorter than the opposite side, and the first-mentioned side face having a smoothly beaded edge, said profile being kept by cradles affixed upon the door-frame, while the roll-up shaft is provided with a bearing in bushes at its ends protruding through a ring bolt, and the insects-stopping gauze being higher and wider than the doorway, being affixed with one end at the roll-up shaft and winding and unwinding around it, with the other end clamped or glued between a hollow beam having a rectangular cross section, and a flat strip with a bent brim, said bent brim grasping into an opposite bent strip if unwound, said hollow beam being kept by rubber brackets at each end.

2. A device according to claim 1, characterized in that the side face of the U-shaped profile, which is against the unwinding part of the gauze, is lower than the opposite side face and that it is provided with a beaded rim.

3. A device according to claim 1, as depicted in drawings 1 and 2, characterized in that it is composed of a roll-up shaft (1), cradles (2), a U-shaped profile frame (3) with a beaded edge (4), a rectangular piece of gauze screen (5), a square hollow beam (6), a flat strip (7) with bent brim at one side, a second strip with bent brim, or rails (8), rubber brackets (9) and handles (10).

4. A method for manufacturing and erecting a pivotable gauze screen in doorways, characterized in that the parts according to claim 3 are manufactured and composed as a device according to claim 1.

5. Wire gauze screen door, substantially as described.

(Drawings).

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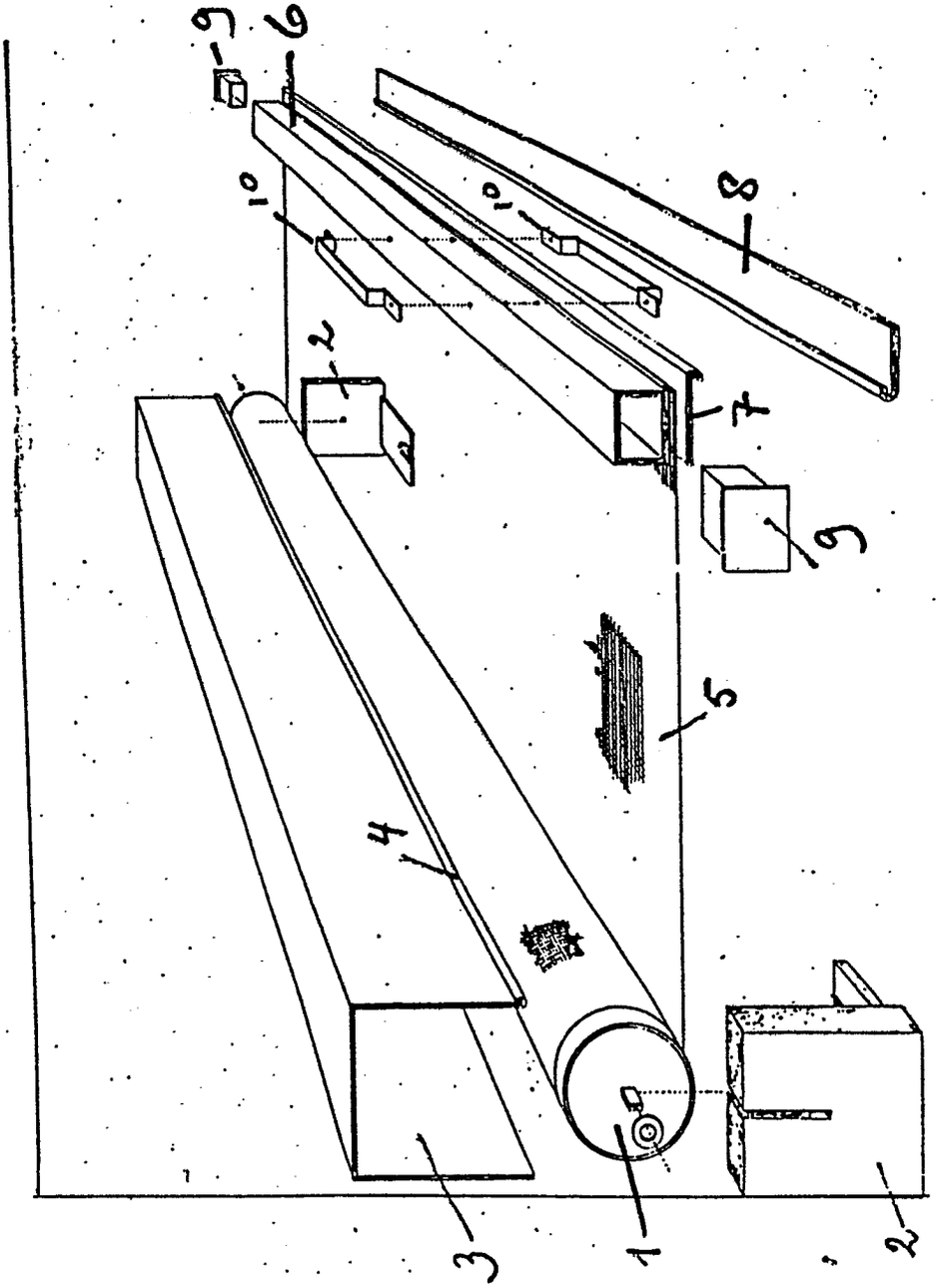

Fig. 1

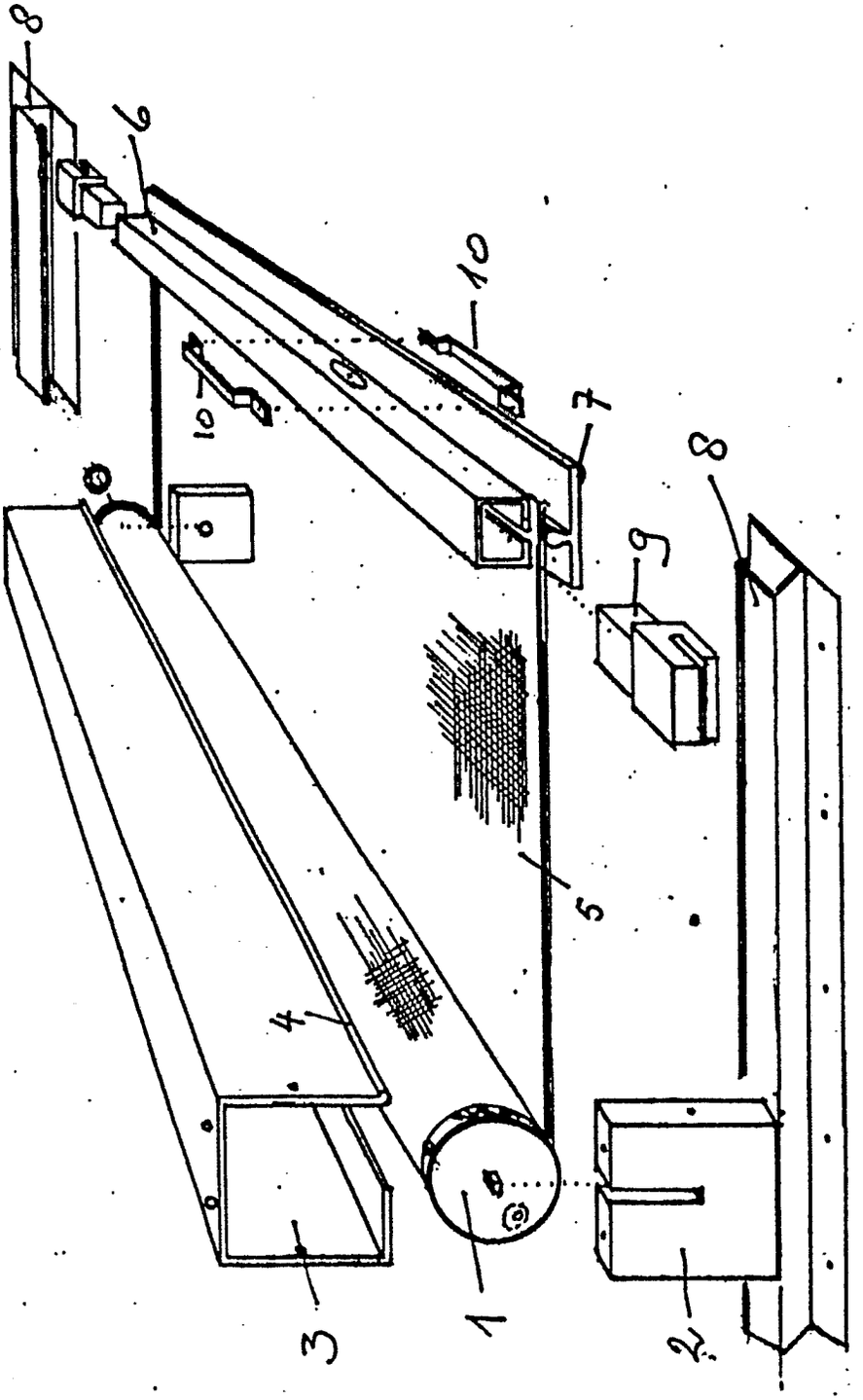

Fig. 2

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EUROPEAN SEARCH REPORT

0086023
Application number

EP 83 20 0171

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)
X	NL-A-7 614 313 (BEHROUZ HADJI-DJAWADI) * Page 2, paragraphs 3,4; page 3, lines 1-22; figure *	1,4	E 06 B 9/54
X	US-A-2 540 270 (LUBER) * Column 4, lines 46-75; column 5, lines 1-64; figures 9-13 *	1,2,3, 4	
A	GB-A- 388 138 (JOHNSTON) * Pages 2,3; figures 1-12 *	1	

TECHNICAL FIELDS SEARCHED (Int. Cl. ³)

E 06 B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	09-05-1983	VIJVERMAN W.C.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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