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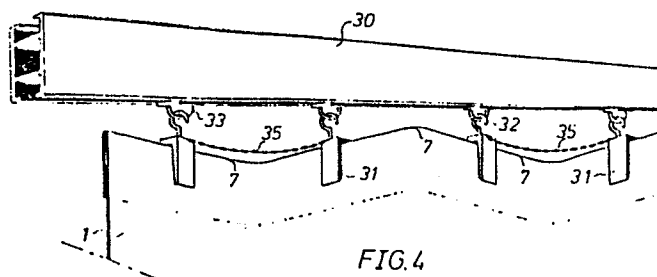
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(54) Curtain for decorating and/or separating rooms and accessories to be used thereby for suspending or mounting the curtain.

(57) A curtain for decorating and/or separating rooms, made of paper or a papery material which has been prepared to be flame-resistant, in which a hem is provided at the upper side, with plate-shaped (15) reinforcements at regular distances from one another in order to obtain regular folds.



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Curtain for decorating and/or separating rooms and accessories
to be used thereby for suspending or mounting the curtain.

The invention relates to a curtain for decorating and/or separating rooms, made of paper or a papery material which has been prepared to be flame-resistant. The invention furthermore relates to the accessories for suspending or mounting said curtain.

From the British patent specification 524,842 (1940) there is known a curtain or venetian blind which is made of paper and is of such a construction that it can be provided quickly for blinding windows. However, this is not a beautiful supple curtain but rather a technical, cheap construction for darkening windows.

The aim is now to obtain a decorative, comparatively cheap curtain for substituting the textile curtains used up to now, especially in residences or buildings where curtains are often changed. Also the replacement of textile curtains in hospitals and nursing homes and the like, where the curtains are used for separating beds, is being considered.

One of the most important demands that must be made of such curtains is that they are made fire-proof. Making paper fire-proof is a technique well-known by itself and is described i.a. in the Dutch patent application 7411951, in the European patent application 59,850 and in the German "Offenlegungsschrift" 2,157,904.

Also the textile curtains mostly used at present are preferably fire-proof, but these textile curtains are comparatively expensive, because of the materials used, the processing cost and the mounting method.

In living-rooms the comparatively high cost of curtains can be regarded as a relative factor as these curtains can often be used for a longer period. In case of a temporary accommodation, however, it may be desirable to use a cheap material which can easily be replaced and adapted to the wishes of the new, temporary residents. This problem with regard to the comparatively expensive curtains plays an even larger role in business accommodations such as exhibitions of a temporary nature where rooms are created by hanging curtains. In such rooms it is certainly desirable that the separation of rooms is carried out in the cheapest possible manner. This is even more true of hospitals, nursing homes and the like where rooms are created around beds, which rooms are partitioned off by means of curtains which need to be washed and decontaminated comparatively often, which are expensive operations, especially because of the cost of labour. It has been tried to find a material for substituting the comparatively expensive curtains, which material can be suspended in a simple manner.

According to the invention a solution has now been found for this problem and it is characterized in that with the curtains mentioned in the preamble a hem is provided at the upper side having plate-shaped reinforcements which are provided regularly spaced from each other in order to obtain regular folding.

The invention, therefore, does not only relate to the substitution of the material for the curtains which haven been used so far, but also to the mounting means and/or systems preferably to be used for suspending these "paper curtains".

The invention will now be further explained in the following description, whereby reference is made to the accompanying drawing, in which:

fig 1 illustrates a mounting of a curtain according to the invention which is to be suspended,

fig 2 illustrates a detail of the top side of a mounting system preferably to be used,

fig 3 illustrates a further detail construction of the hem of the curtain used in figs 1 and 2,

fig 4 is an alternative for a suspension system as illustrated in figs 1 and 2,

fig 5 is a detail of a top view of the suspension system

according to fig 4,

fig 6 is a front and side view of the clamping means as illustrated in fig 4,

fig 7 is a part of a mounting means for suspending curtains,

fig 8 illustrates an other possibility for providing curtains and

fig 9 illustrates an example of the use of curtains according to the invention.

A material preferably to be used for producing such curtains is a papery material such as non-woven consisting of several layers. An example of such a non-woven is a material which is marketed by Kimberly-Clark (England) under the brand name "Evolution" and which consists of three layers of polypropylene.

In fig 1 reference number 1 indicates the curtain (in the further description the word "curtain" will be used to indicate the curtain according to the invention, made of paper or a papery material). Said curtain 1 is mounted by means of cord 2, which is threaded through holes 3 at the upper side. The cord 2 may be provided in the outer ends of two vertically adjustable tubes 4 which are clamped between bottom 5 and ceiling 6 by means of the clamping plates 8 and 9 as illustrated in fig 7. The folds 7 in curtain 1 are obtained by providing reinforcements 15 in the hem at the upper side, as illustrated in fig 3. By providing said plate-shaped reinforcements at regularly spaced distances, the folds 7 are formed at regular distances in the curtain 1, so that the curtain 1 according to the invention hangs like a conventional curtain.

Figs 2 and 3 illustrate a detail construction of the upper hem, from which it appears that in fig 3 the plate-shaped reinforcements 15 are provided at regularly spaced distances in the hem 11. In the plate-shaped reinforcements 15 there have been provided holes 3, which correspond with the holes 3 illustrated in figs 1 and 2. The plate-shaped reinforcements 15 are preferably made of cardboard or of a plastic material and said plates 15 are initially intended to produce the folds 7 and to reinforce the hem around hole 3, to prevent it from tearing.

Fig 4 illustrates an other embodiment for suspending the curtains according to the invention, whereby in the curtain, and so in the hem, there are provided plate-shaped reinforcements in order to

obtain the regular folds, but these plate-shaped reinforcements are not provided with holes as illustrated in figs 2 and 3. The curtain according to figs 4 and 5 is simply suspended in existing rails 30 by means of a hook mechanism 32 provided on a clamping means 31. Said clamping means with hook 32 is illustrated in more detail in fig 6, whereby the side view shows that the clamping means consists of two legs 36 which at their inner sides are provided with toothed recesses 37 so that the hem of the curtain can be clamped therein. The hook 32 is provided, preferably rotatably, in the clamping means 31 so that there is a reasonable amount of freedom for the curtain 1 to fall supply in folds 7. According to figs 7 and 5 the folds in the curtains are furthermore arranged by a cord 35 determining the fold. The shorter the distance between the clamping means 31, as illustrated in fig 5 with cord 35, the more folds there will be in a certain length of the curtain.

The curtains can be mounted in several manners against the wall or in a room with mounting means as illustrated in the figs 7 and 8, or as appears from fig 9. Fig 7 illustrates a vertically adjustable tube 4 which consists of telescopic tubular parts 20 and 21 which can be fixed by means of fixing means 17. It is also possible to adjust the lower tubular means 20 vertically via thread 22 which can be set by means of the rod 19 which co-operates with opening 18. The tubular construction as illustrated in fig 7 can be successfully used at a random spot in a room for providing curtains there without a wall being needed. A modification with regard to the construction in fig 7 is that when there is no ceiling present in the room or a ceiling which is too high, the construction 4 is made sufficiently sturdy, at least stable enough for the curtain to remain suspended from the cord 2, which is led through opening 16 of the construction, without the clamping plate 9 being used. For mounting the curtains against a wall the hook-shaped construction as illustrated in fig 8 may be used, said hook 25 being mounted against the wall by means of bolts 27, which fix the hook against the wall via the openings 26. The cord 2 is fixed in opening 29 by means of a suitable nipple.

Fig 9 illustrates an example of an application for screening off beds in hospitals, nursing homes and the like. In hospitals and the like many curtains are used in this manner and they have to be washed

regularly. This is a labour intensive process and the curtains are comparatively expensive. Now it will be possible to use relatively cheap curtains for this purpose and the curtains may be provided with printing which may be specific for that particular hospital or nursing home. After some time said paper curtain may be substituted for an other curtain, whereby the used curtain may be destroyed in a manner usual in hospitals, possibly by burning. In hospitals the curtains may be suspended from the rail systems present there, by means of a suspension according to fig 4 or by leaving out the rope 2 in fig 2 and hooking up existing hooks into the holes 3.

The curtains according to the invention may also be used for specific purposes such as curtains which are hung during the Christmas season, because they are provided with a certain pattern or certain figures, or for other holidays. Another advantage of the curtains according to the invention is that apart from being cheap and easily mountable and dismountable, they offer more possibilities for the interior designer to adapt the curtains to the surroundings, or to the purposes aimed at, because these curtains can be provided with the desired printing more easily and cheaper than is the case with the existing curtains made of a textile material.

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C L A I M S

1. A curtain for decorating and/or separating rooms, made of paper or a papery material which has been prepared to be flame-resistant, characterized in that a hem is provided at the upper side, with plate-shaped reinforcements at regular distances from one another in order to obtain regular folds.

2. A curtain according to claim 1, characterized in that clamping means 31 can be provided on the plate-shaped reinforcements, said clamping means being suspendable in rails via a hook mechanism (32).

3. A curtain according to claim 2, characterized in that the clamping means are interconnected by means of a string (35) which determines the fold.

4. A curtain according to claims 2-3, characterized in that the hook mechanism is rotatable in the clamping means.

5. A curtain according to claim 1, characterized in that in the plate-shaped reinforcements there are provided holes (3) through which a cord (2) can be threaded or which can be suspended via a hook in the runner (33) of the rail.

6. A curtain according to claims 1-5, characterized in that the papery material is a non-woven such as Evolution (brand name).

7. A mounting means for the curtain according to claims 1-6, characterized in that said means consists of vertically adjustable tubes (4) which are provided at their upper sides with an opening (16) for providing the cord (2), said tubes (4) being provided at both sides with clamping plates (8, 9), so that the tube (4) can be clamped between the

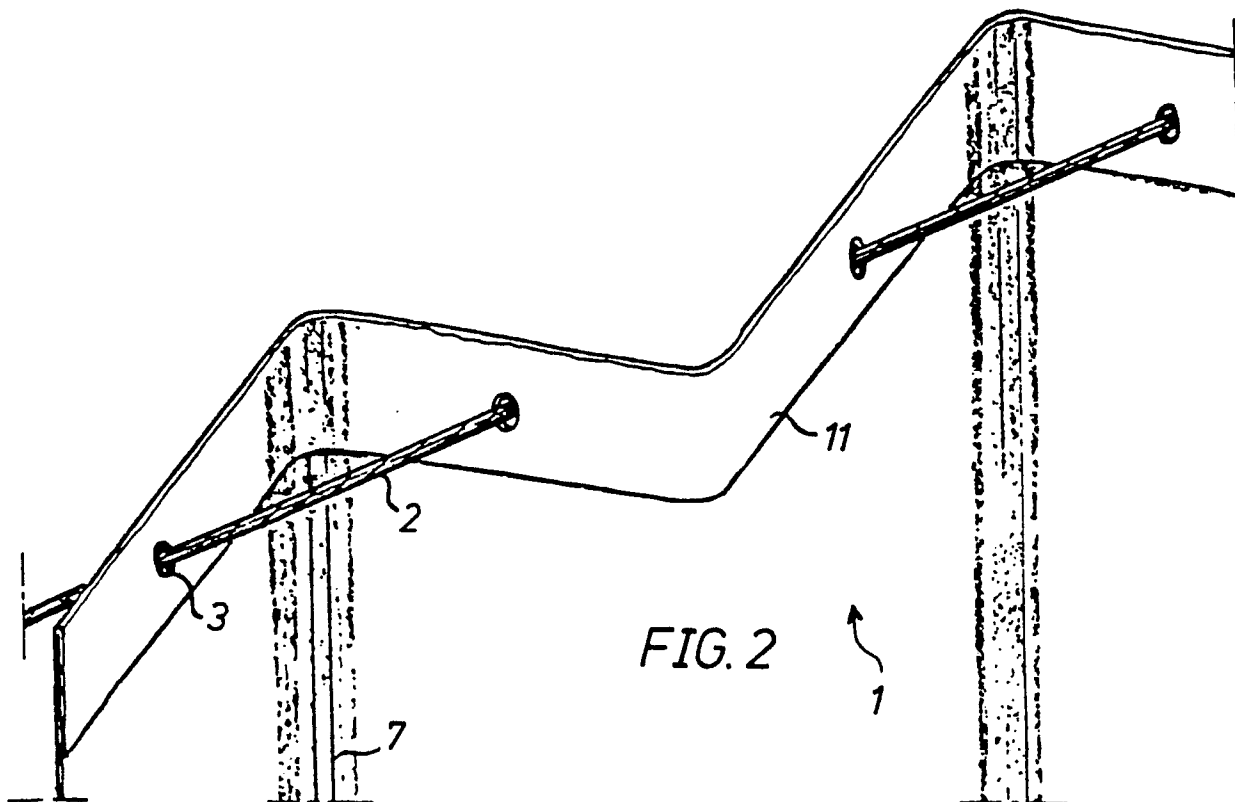
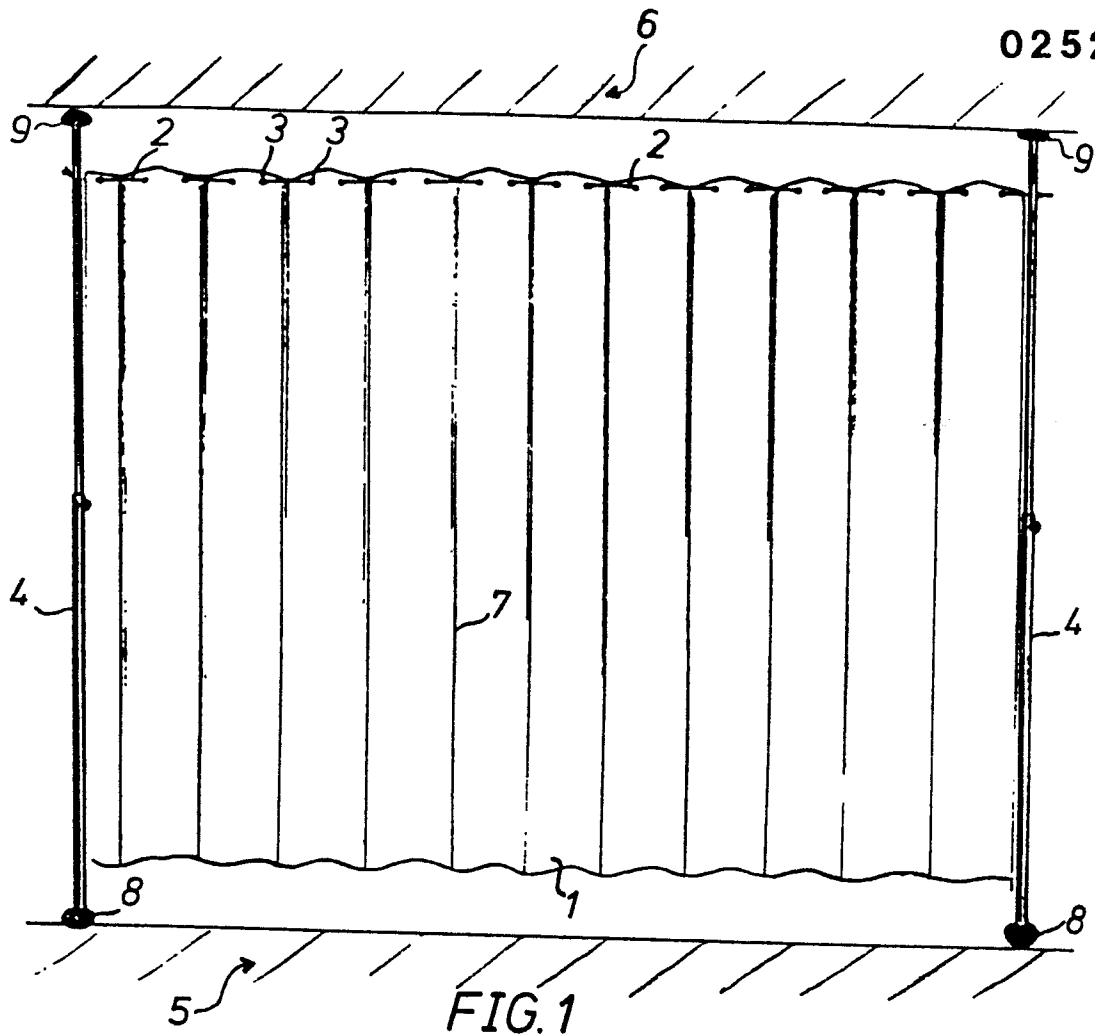
ceiling and the floor.

8. A mounting means for the curtain according to claims 1-6, characterized in that it consists of a hook (25) which can be fixed against the wall with one leg and which other leg is provided with an opening (29) for passing through and clamping the cord (2).

9. A system for providing curtains in a rail by means of runners, characterized in that the curtain is fixed to the runners (33) via clamping means (31) and hook mechanisms (32) as mentioned in claims 2-4.

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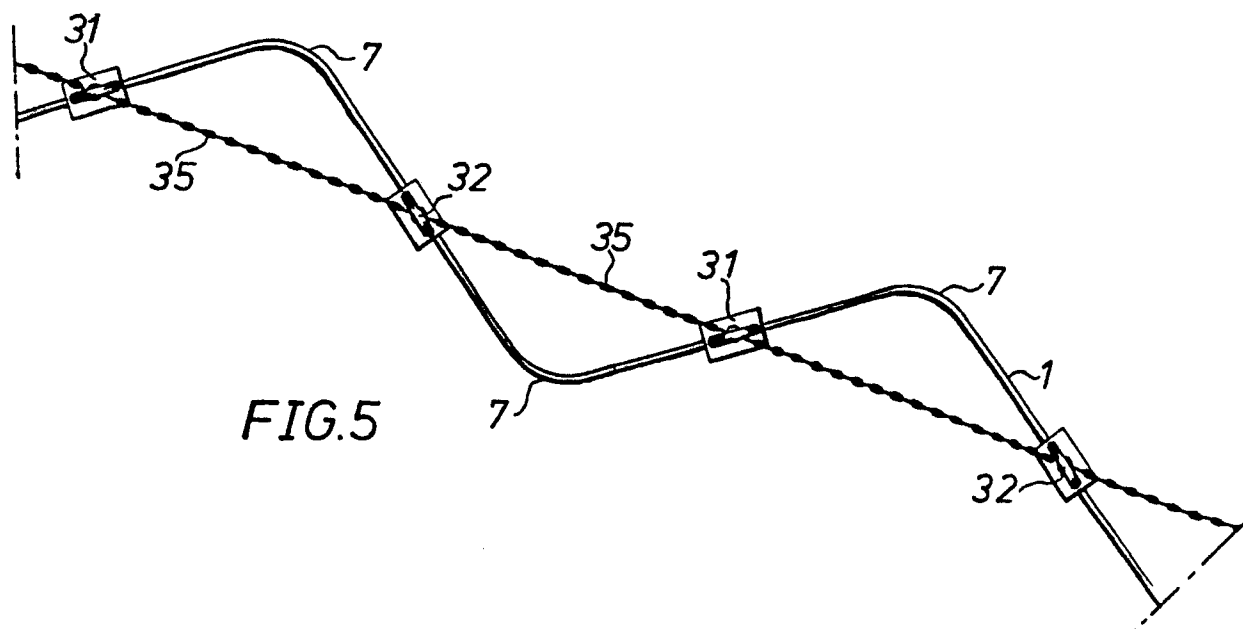
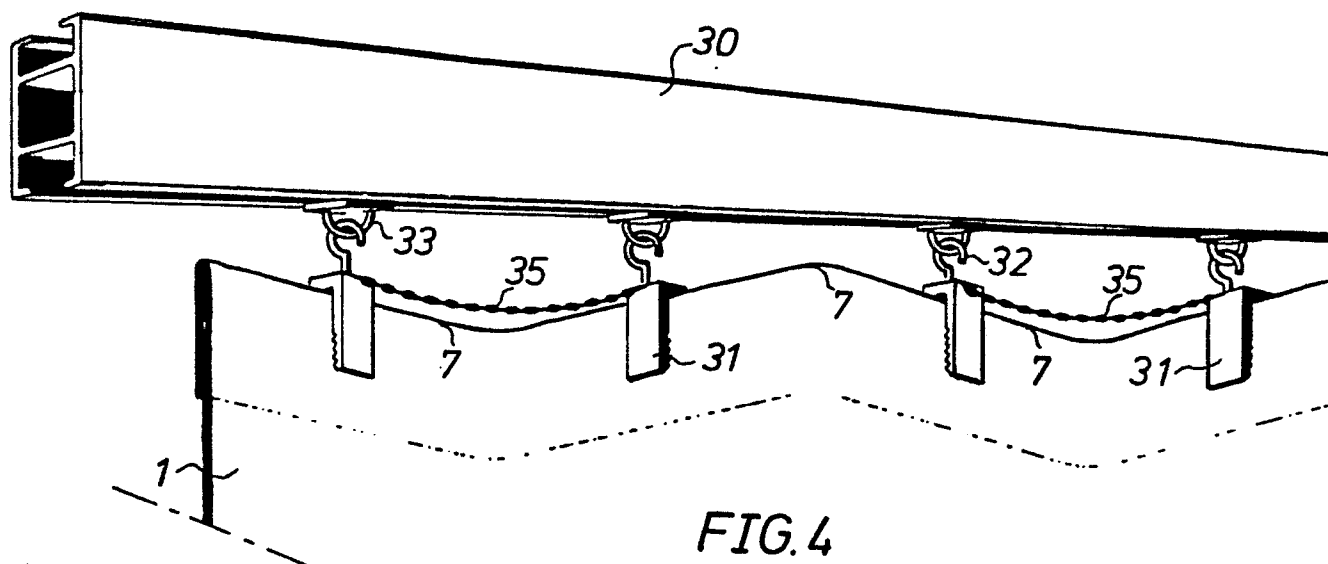
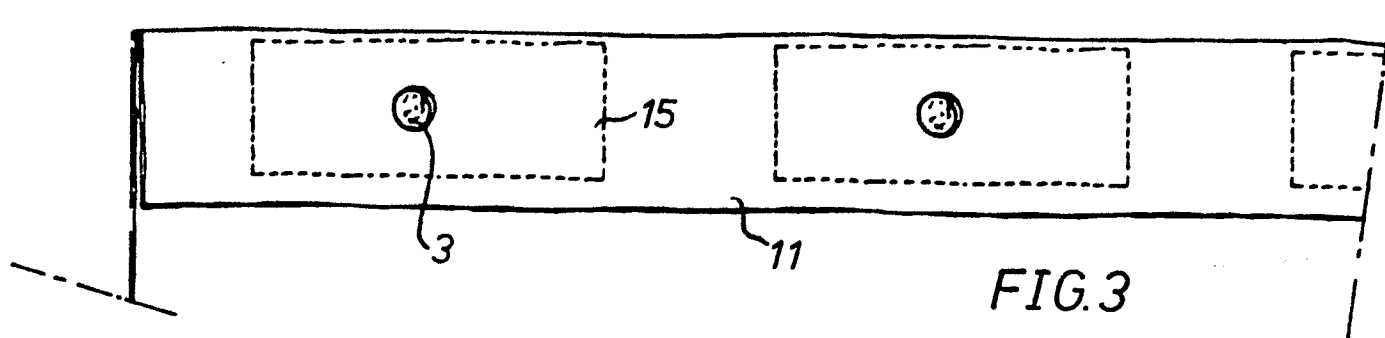


FIG. 7

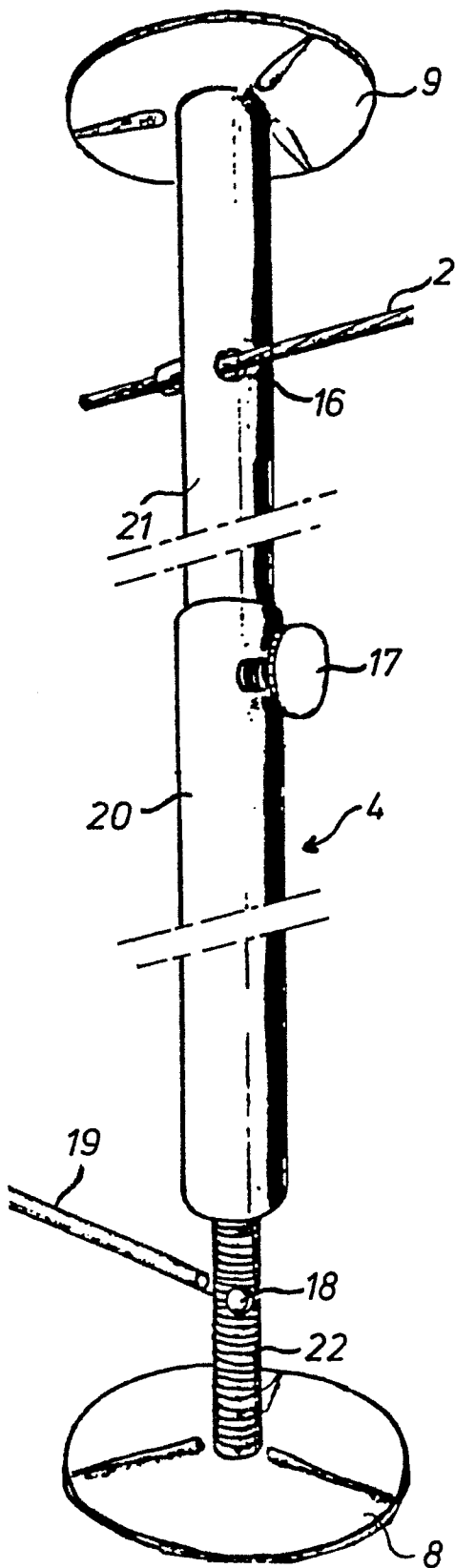


FIG. 6

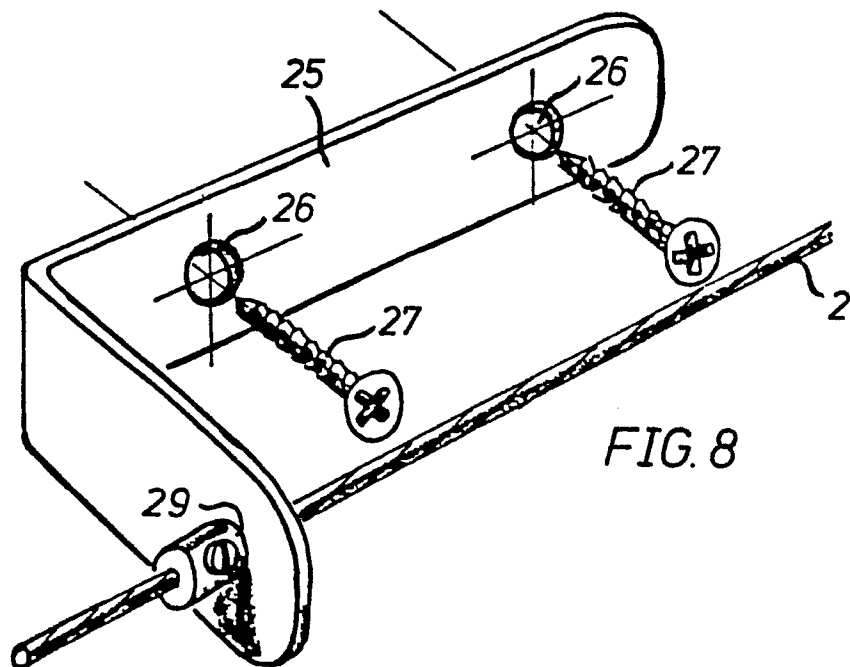
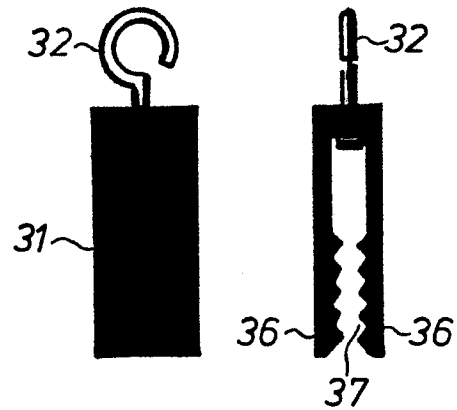


FIG. 8

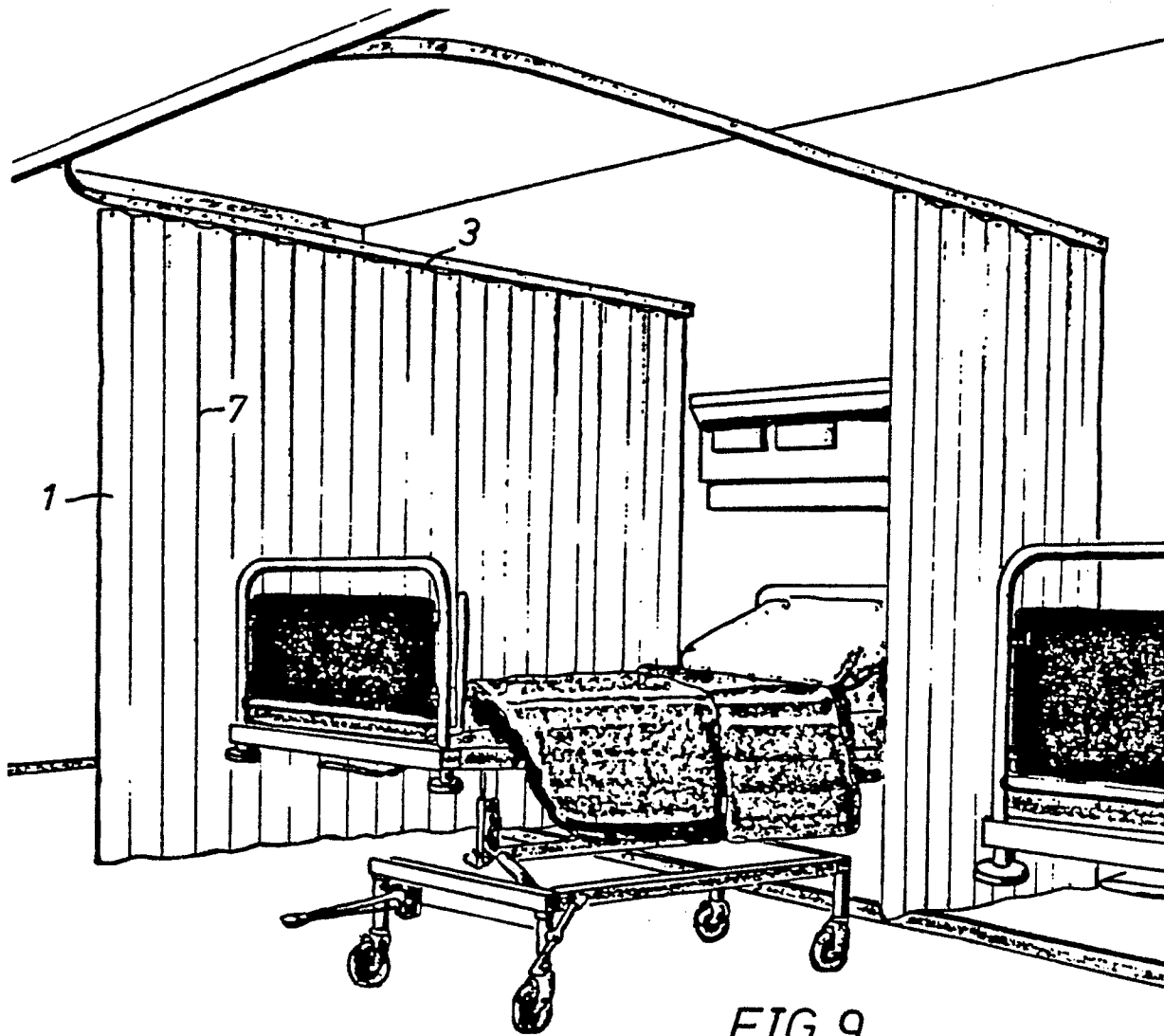


FIG. 9



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EUROPEAN SEARCH REPORT

0252571

Application number

EP 87 20 1310

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. 4)
Y,D	GB-A- 524 842 (ROTHSCHILD) * Page 1, line 96 - page 2, line 42; figures 1-3 *	1-5,7,9	A 47 H 23/12 A 47 H 21/00
Y,D	DE-A-2 157 904 (WASSER-SAND-FORSCHUNGS-UND VERTRIEBSGESELLSCHAFT) * Claim *	1	
A,D		6	
Y	DE-A-2 126 002 (KREMP & HÜTTEMEISTER) * Page 3, line 20 - page 4, line 34; figures 1-3 *	2-5,9	
Y	US-A-3 487 842 (LARKIN) * Column 1, line 60 - column 2, line 50; figures 1-3 *	7	TECHNICAL FIELDS SEARCHED (Int. Cl. 4) A 47 H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13-10-1987	Examiner CLASING M.F.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			