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(54) **Perforated sheet for a file**

(57) The object of the present invention is an opening (1) provided at the side perforation of any bound

piece of paper for the interchangeability in fixed-ring binders as illustrated in the accompanying drawings.

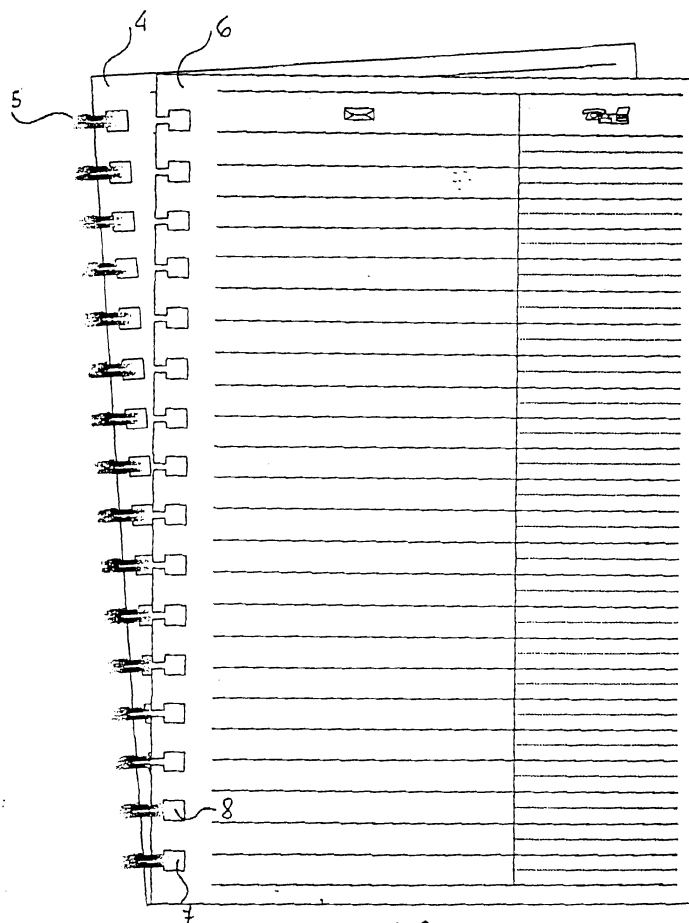


Fig. 3

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Description

[0001] The present invention relates to an opening at the side perforation of the sheets forming any loose-sheet notebook of paper or plastic material such as diary, address book, telephone book, record book, etc., in the form of a fixed-ring binder so that the sheets can be easily taken out of and put back in the rings of the binder.

[0002] The side perforation of the sheets allows the same to be bound in the fixed-ring binders, i.e. those binders that do not allow the sheets to be arranged differently. There are several types of perforations regarding both the geometric shape of the hole section which is generally square, circular or rectangular, in any case always closed, and the arrangement of the holes corresponding to the arrangement of the binding rings.

[0003] The fixed-ring binders are widespread in the loose-sheet notebooks of common use both at work and in the school. This is due to the fact that the rings allow the sheets to be turned so that there is always a first-side sheet on which one can write or read. Moreover such type of binding provides a piece of paper with very reduced size over other differently bound pieces of paper that do not allow the sheets to be turned by 360 degrees as mentioned above. However, if the latter is to be included among the advantages, a limitative aspect consists of the impossibility for the user to take out a sheet and to put it back in the same position or after any number of sheets. In other words, the sheets are not interchangeable.

[0004] A piece of paper like that mentioned above is also to be included among the cheapest pieces of paper for both the industrial production and retailing.

[0005] In order that the sheets are interchangeable, it is necessary to have a binding with rings that can be opened and generally provided with a central snapping shut. This system is widespread, however, relates to product which is different from that mentioned above because both it is much more expensive and above all it makes the pieces of paper heavier due to the weight of the snap shut mechanism that also needs a rigid cover, while the fixed-ring binder needs only a piece of paper as cover having a substance or relative weight of paper slightly greater than that of the inside sheets.

[0006] Because of such opening at the side perforation of the pieces of paper it is possible to give the fixed-ring binders another advantageous aspect since spare sheets can also be added. In fact spare sheets can be added to increase the loose-sheet notebook with supplementary sheets or vice versa some sheet which is become useless can be taken out of the same notebook so that the functionality of the latter is increased. In addition, the spare sheets can give the chance of providing a new loose-sheet notebook by inserting the sheets in any binder with fixed or not fixed rings or hooks.

[0007] As far as the industrial production is concerned the opening allows the automatic manufacturing steps to be carried out like the standard production.

[0008] According to a preferred embodiment of the invention the relative weight of the paper used for manufacturing the sheets should be slightly greater than that of the sheets generally used for the common pieces of paper in order to give a greater strength to the area of the perforations and then the sheet itself.

[0009] Another preferred embodiment of the invention could provide a sheet with a reinforcement only along a stripe covering the perforation, for example of plasticized material, in order to give more strength to the opening of the perforation and the sheet itself.

[0010] What disclosed above will now be described in detail with reference to three sheets of drawings each providing a drawing showing a preferred embodiment of the invention only by way of an illustrative, not limiting example:

[0011] Fig. 1 is a schematic view of a sheet carrying a preferred embodiment of the present invention. The drawing shows the front face of a fully blank sheet provided with a perforation with square section. Opening 1 is provided at the left side of the sheet and has a depth equal to the space between the hole and the edge of the left side of the sheet, while the width of the opening 2 is such that taking sheets out of the rings and putting them back is made easier and elastic.

[0012] Fig. 2 is a schematic view like Fig. 1 showing the drawing of an embodiment of the front face of the sheet of a telephone book with the perforation 3 in negative form.

[0013] Fig. 3 is a schematic view like the preceding figures. The drawing shows the practical application of the object of the present invention as essentially hitherto disclosed. The embodiment relates to a telephone book in which sheet 4 is bound to the fixed rings 5 and sheet 6 is bound to the fixed rings only at holes 7 and 8, wherein the other holes are being taken out of the other rings if the sheet is considered as being taken out of the notebook, and vice versa the other holes are being put around the rings if the sheet is considered as being put back in the notebook, this being the essential peculiarity of the present invention.

[0014] The examples illustrated in the figures set forth above are only exemplificative as already mentioned. In fact the perforation can have a section other than a square section and number and distribution of the holes may be varying.

[0015] These and other like variations or modifications are within the scope of the protected invention.

Claims

1. An opening at the side perforation of any bound piece of paper for the interchangeability in fixed-ring binders, characterized in that it makes the sheets interchangeable so that each piece of paper can be taken out of and put back in the fixed rings of a binder.

- 2. The opening of claim 1, characterized in that the perforated sheets can also be spare sheets to be put in addition to or replacement of one or more sheets of a paper notebook, or they can provide a new loose-sheet notebook by inserting the sheets in any binder with fixed or not fixed rings or hooks. 5
- 3. The opening of claim 1 and 2 characterized in that the opening may be made in perforations having any geometric shape, and the number and the distribution thereof may be varying. 10
- 4. The opening of claims 1 to 3, characterized in that the relative weight of the paper used for manufacturing the sheets can be slightly greater than that of the sheets generally used for the common pieces of paper, or the sheets can be provided with a reinforcement only along a stripe covering the perforation, for example of plasticized material, in order to give more strength to the opening of the perforation and the sheet itself. 15 20
- 5. The opening of claims 1 to 4, characterized in that the sheets may also be of different material other than paper and essentially provided with the disclosed feature. 25
- 6. An opening at the side perforation of any bound piece of paper for the interchangeability in fixed-ring binders according to claims 1 to 5 as essentially described and illustrated for the disclosed purposes. 30

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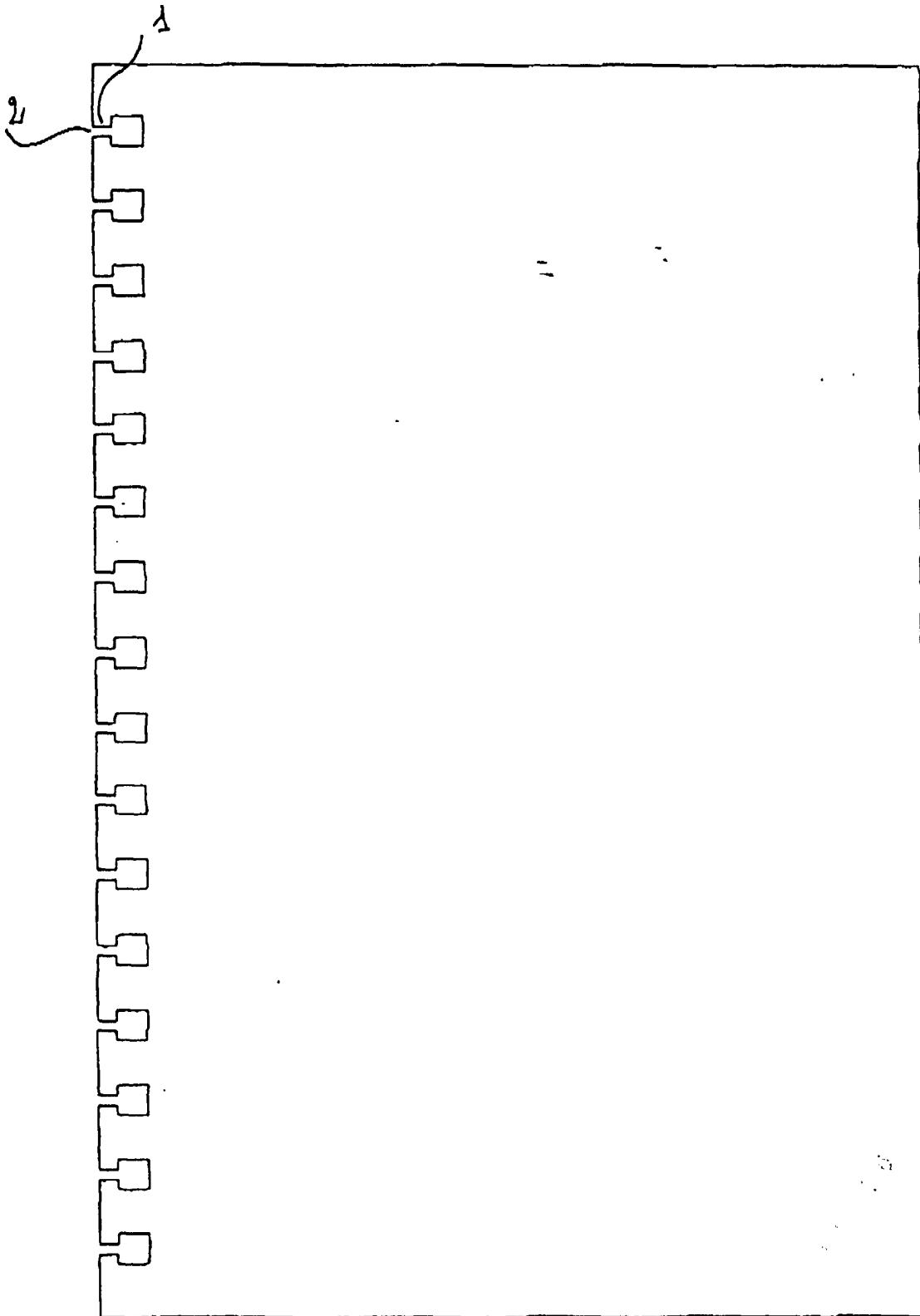


Fig. 1

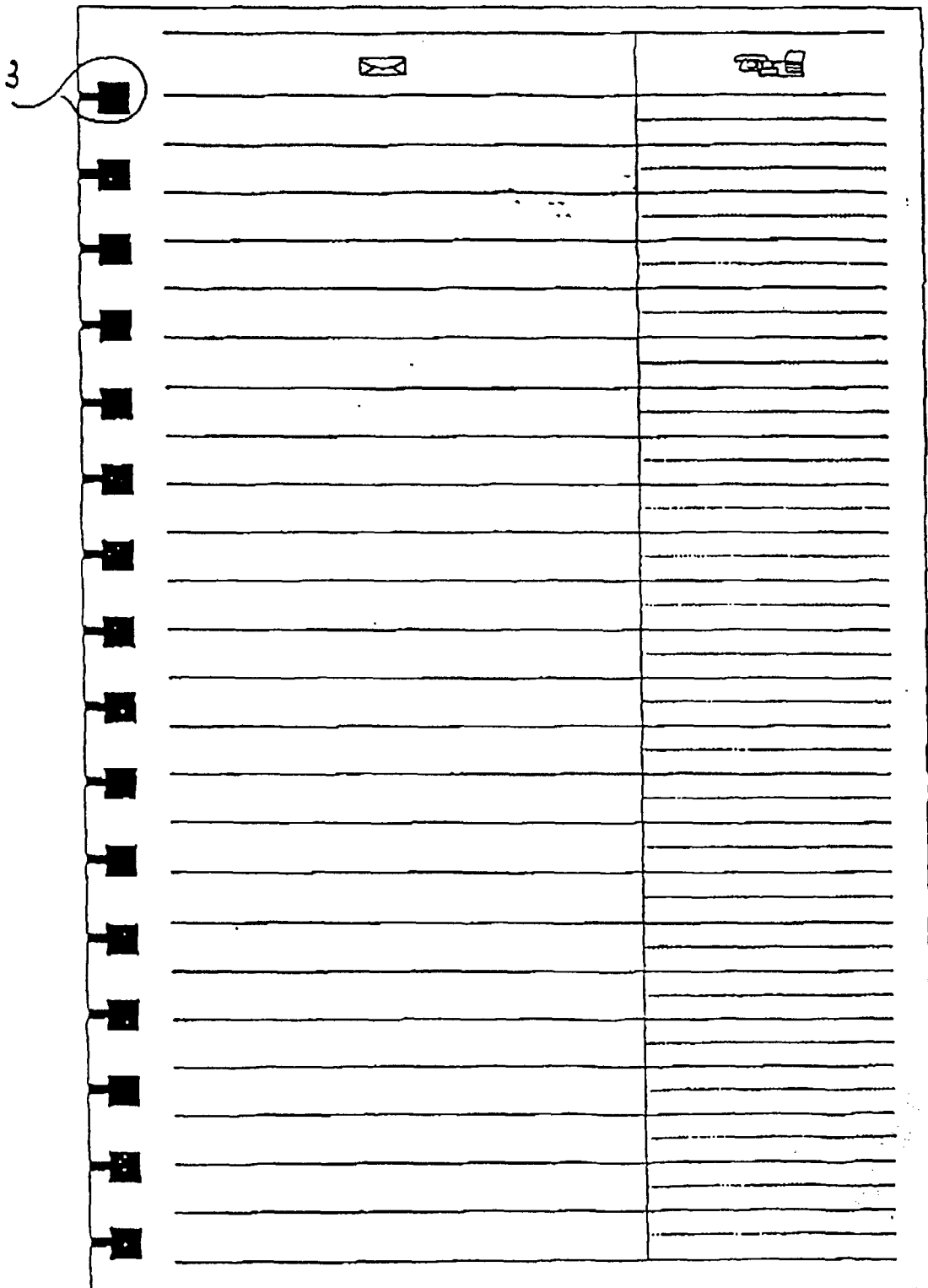


Fig. 2

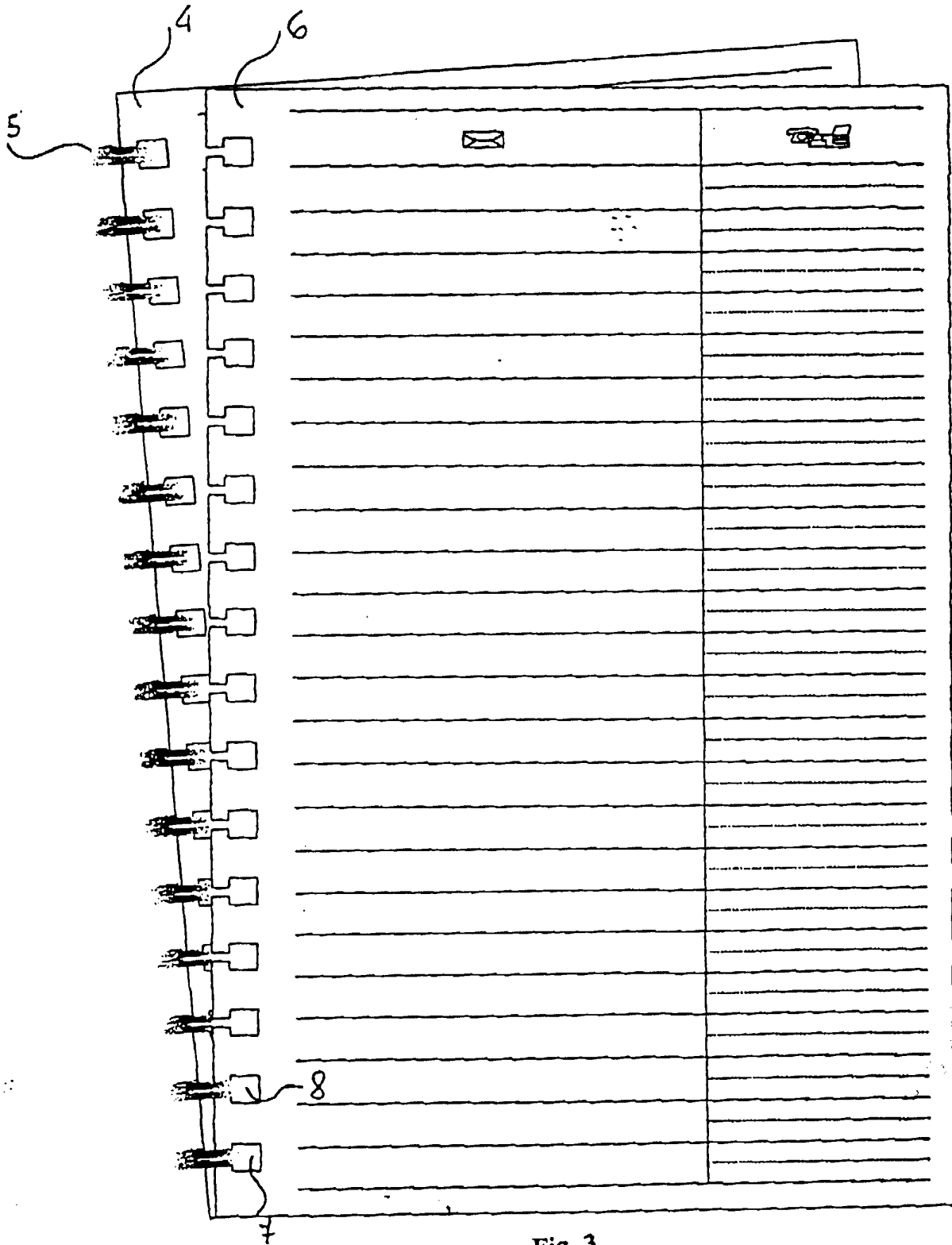


Fig. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 00 83 0280

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.7)
X	DE 912 565 C (GEORG VOGTMANN) * the whole document * ---	1-6	B42F3/00
X	GB 485 477 A (TRUSSELL MANUFACTURING) * page 3, line 72 - line 112; figures 1-5 * ---	1-6	
X	GB 1 280 156 A (COLIN DOUGLAS GROSS) 5 July 1972 (1972-07-05) * the whole document * ---	1-6	
X	GB 2 247 433 A (INTERACT ASSOCIATES) 4 March 1992 (1992-03-04) * page 3, line 26 - page 5, line 19; figures 1,2 * -----	1-6	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B42F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14 November 2000	Examiner Loncke, J
CATEGORY OF CITED DOCUMENTS		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
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 83 0280

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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14-11-2000

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82