(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 462 818 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **91305544.8**

(22) Date of filing: **19.06.91**

(51) Int. Cl.[5]: **E01F 13/00**, E04H 17/02, E01F 9/04

(30) Priority: **21.06.90 GB 9013816**

(43) Date of publication of application: **27.12.91 Bulletin 91/52**

(84) Designated Contracting States: **AT BE CH DE DK ES FR GB GR IT LI LU NL SE**

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(54) Improvements relating to safety barriers.

(57) A safety barrier comprises a plurality of base members (6),each flat and rectangular, each being provided in an upper surface thereof with a downwardly-entrant rectangular aperture (8). The assembly also comprises a plurality of posts (10), each being provided on a stem thereof with a generally rectangular formation (12) allowing the post to be inter-fitted into the aperture (8), in a manner such as to prevent rotation of the post relative to the base. A length of netting (14), is fixed at opposite ends to two posts referred to as primary posts, 10a, and is secured to intermediate or secondary posts by clips (15) when not in use, the netting and posts represent a sub-assemly which may be rolled into a bundle, and when desired for use the bases (6) may be placed around around a road working, and the bundle unrolled and the posts inter-fitted with the base members.

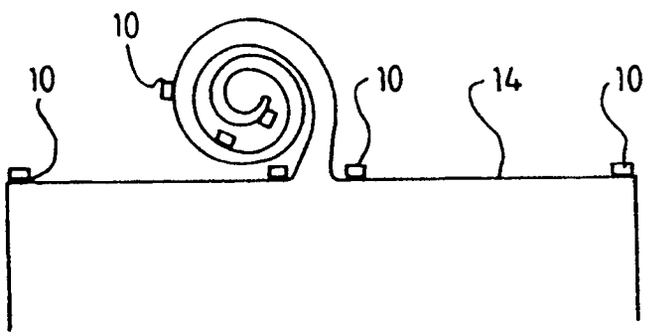

FIG 5

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Description of Invention

This invention is concerned with improvements relating to safety barriers, particularly of the kind as are conventionally erected around workings in the pavement, to prevent inadvertent entry by members of the public.

According to this invention there is provided a safety barrier comprising (a) at least one base member which may be placed on the ground; (b) a post releasably mounted on the base member so as to extend upwardly therefrom; and (c) a roll of netting wound around the post.

Thus the netting may be secured at one (free) end to a primary post, conveniently by clamping means permanently secured to said end, and the netting unrolled from the said post and around the other posts, and the primary post being mounted in the base to retain it in a desired position. In this manner surplus netting may be accommodated on the primary post.

Thus an envisaged use of the safety barrier would involve the fixing of conventional posts at spaced intervals around a road working, securing the end of the netting to one of said posts, and unrolling the netting from the primary post and taking the netting around the fixed posts to the base which is set in the desired position.

Preferably the primary post is capable of being interfitted with a base in a manner such that rotation of the post relative to the base member is prevented, e.g. by the provision of non-cylindrical interfitting formations.

Preferably the barrier comprises a plurality of posts, each being releasably mountable on a base member so as to extend upwardly therefrom. In this manner the base members may be placed on the ground in desired positions around a roadworking, and the posts mounted on the base members, and the netting on the primary post passed around the additional posts.

Advantageously the posts are provided with mounting formations to enable barrier rails to be mounted between adjacent pairs of posts. If desired, the barrier rails may be telescopic, enabling them to be conveniently mounted between an adjacent pair of posts irrespective if the precise distance therebetween.

On conclusion of use the primary post may be lifted from its base and the netting rolled around the primary post for convenient storage. Alternatively or in addition, the free posts may be laid against the primary post, and the netting rolled around all the posts to provide a bundle.

If desired the posts may to some extent at least be flexible, so that on accidental impact with a post, the post may flex to a certain extent, reducing tendency for the base to move.

Preferably securing means is provided releasably to secure the netting to the secondary posts.

According to this invention there is also provided a safety barrier comprising a plurality of base members, a plurality of posts, and a length of netting, the netting being secured at each opposite end thereof to a primary post and being secured to intermediate posts at spaced intervals therebetween, the posts each being releasably inter-fittable with a base.

Thus by detaching the posts from the bases, the post and netting may be rolled up together in a bundle for storage, and the bases (which are preferably generally flat) may be stacked.

If desired signs may be secured to the netting, conveniently being flexible so as to permit being included in the netting as is rolled into a bundle without difficulty, such signs being those conventionally utilised such as "Danger", "Walk This Way", or "British Telecom Apologises for any Inconvenience Caused".

According to this invention there is also provided a method of erecting a safety barrier involving the use of a plurality of base members which may be placed on the ground, a plurality of posts releasably mounted on the base members so as to extend upwardly therefrom and a roll of netting wound around a primary one of the posts, in which for erection of the safety barrier the netting is unrolled from the said primary post and extended around the other posts, and on conclusion of use the primary post is lifted from its base and the netting rolled around the primary post for convenient storage.

There will now be given a detailed description, to be read with reference to the accompanying drawings, of a safety barrier which has been selected for the purposes of illustrating the present invention by way of example.

In the accompanying drawings:

FIGURE 1 is a general view showing the safety barrier assembly which is the preferred embodiment of this invention;

FIGURE 2 is a view showing the safety barrier erected;

FIGURE 3 is a schematic view showing part of the safety barrier;

FIGURE 4 is a schematic perspective view showing the incorporation of barrier rails; and

FIGURE 5 is a view illustrating the securement of surplus netting.

The safety barrier which is the preferred embodiment of this invention comprises a plurality of base members 6, generally flat and rectangular, each being provided in an upper surface thereof with a downwardly-entrant rectangular aperture 8. The assembly also comprises a plurality of posts 10, each being provided on a stem thereof with a generally rectangular formation 12 allowing the post to be inter-fitted into an aperture 8, in a manner such as to prevent rotation of the post relative to the base.

The assembly thirdly comprises a length of net-

ting 14, of generally conventional manufacture, the netting being fixed at opposite ends to two posts (hereinafter referred to as the primary posts) 10a. Secured by securing means conveniently afforded by clips 15, the netting 14 at spaced intervals between the ends are other posts (hereinafter referred to as the secondary posts) 10b.

When not in use, the netting and posts represent a sub-assembly of the preferred embodiment, may be rolled into a bundle, as shown in Figure 1, and when desired for use the bases 6 may be placed around a road working, and the bundle unrolled and the posts inter-fitted with the base members, as is shown in Figure 2.

As is shown in Figure 4, if desired the posts 10 may be provided with mounting formations 20, conveniently in the form of key hole slots, to enable barrier rails 22, conveniently provided at their end portions with corresponding keys 24, to be mounted between pairs of adjacent posts 10. In this manner, a barrier rail may be provided between adjacent pairs of posts, around or along side a road working, and may constitute a hand rail.

If desired the barrier rails 22 may be telescopic, allowing them to accommodate small differences in the spacing of the posts 10.

It will be appreciated that the preferred embodiment permits the retention on one of the primary posts 10a, of surplus netting, retaining none the less the netting extending around the secondary post under some tension.

It will further be appreciated that the invention may be practiced without the securing of the netting to the secondary posts 10b, and it is envisaged that such posts may be located in position on complimentary base members, and the netting unrolled from one primary post 10a around the secondary posts, and the other primary post being located in an appropriate position to enclose (at least to a desired extent) the working, with surplus netting remaining wound around the second primary post.

Figure 5 illustrates an alternative arrangement for gathering in surplus netting, involving the rolling of the surplus netting into a bundle.

If desired the posts may be flexible to some extent at least, so as to reduce damage on accidental impact, and to reduce tendency for the bases to be moved in consequence of such impact.

If desired signs may be secured to the netting and/or the posts, which may be directional arrows, additional barriers, apology signs, or the like, such signs (if secured to the netting) conveniently being flexible to allow them to be rolled up with the netting.

The features disclosed in the foregoing description, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, or a class or group of substances or compositions, as appropriate, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

Claims

1. A safety barrier comprising (a) at least one base member (6) which may be placed on the ground; (b) a post (10) releasably mounted on the base member so as to extend upwardly therefrom; and (c) a roll of netting (14) wound around the post.

A safety barrier according to Claim 1 wherein the netting is secured at one free end to a primary post (10a),and the netting is unrolled from said post and around the other posts (10b), the primary post being mounted on the base to retain it in a desired position.

3. A safety barrier according to Claim 2 wherein the primary post (10a) is capable of being interfitted with a base (6) in a manner such that rotation of the post relative to the base is prevented, e.g. by the provision of non-cylindrical interfitting formations (8, 12).

4. A safety barrier according to any one of the preceding claims comprising a plurality of posts (10) each being releasably mounted on a base member (6) so as to extend upwardly therefrom.

5. A safety barrier according to any one of the preceding claims wherein the posts (10) are provided with mounting formations (20) so as to enable barrier rails (22) to be mounted between adjacent pairs of posts.

6. A safety barrier according to Claim 5 wherein the barrier rails are telescopic.

7. A safety barrier according to any one of the preceding claims wherein the posts (10) are to some extent at least flexible.

8. A safety barrier according to any one of the preceding claims comprising securing means (15) to releasably secure the netting (14) to the posts (10b).

9. A safety barrier comprising a plurality of base members (6), a plurality of posts (10), and a length of netting (14), the netting being secured at each opposite end thereof to a primary post (10a) and being secured to intermediate posts (10b) at spaced intervals therebetween, the posts (10a, 10b) each being releasably interfittable with the base.

10. A method of erection of a safety barrier involving the use of a plurality of base member which may be placed on the ground, a plurality of posts (10) releasably mounted on the base members so as to extend upwardly therefrom and a roll of netting (14) wound around a primary post (10a) of the posts, in which for erection of the safety barrier the netting (14) is unrolled from the said primary post (10a) and extended around the other posts, and on conclusion of use the primary post (10a) is lifted from its base (6) and the netting rolled around the primary post for convenient storage.

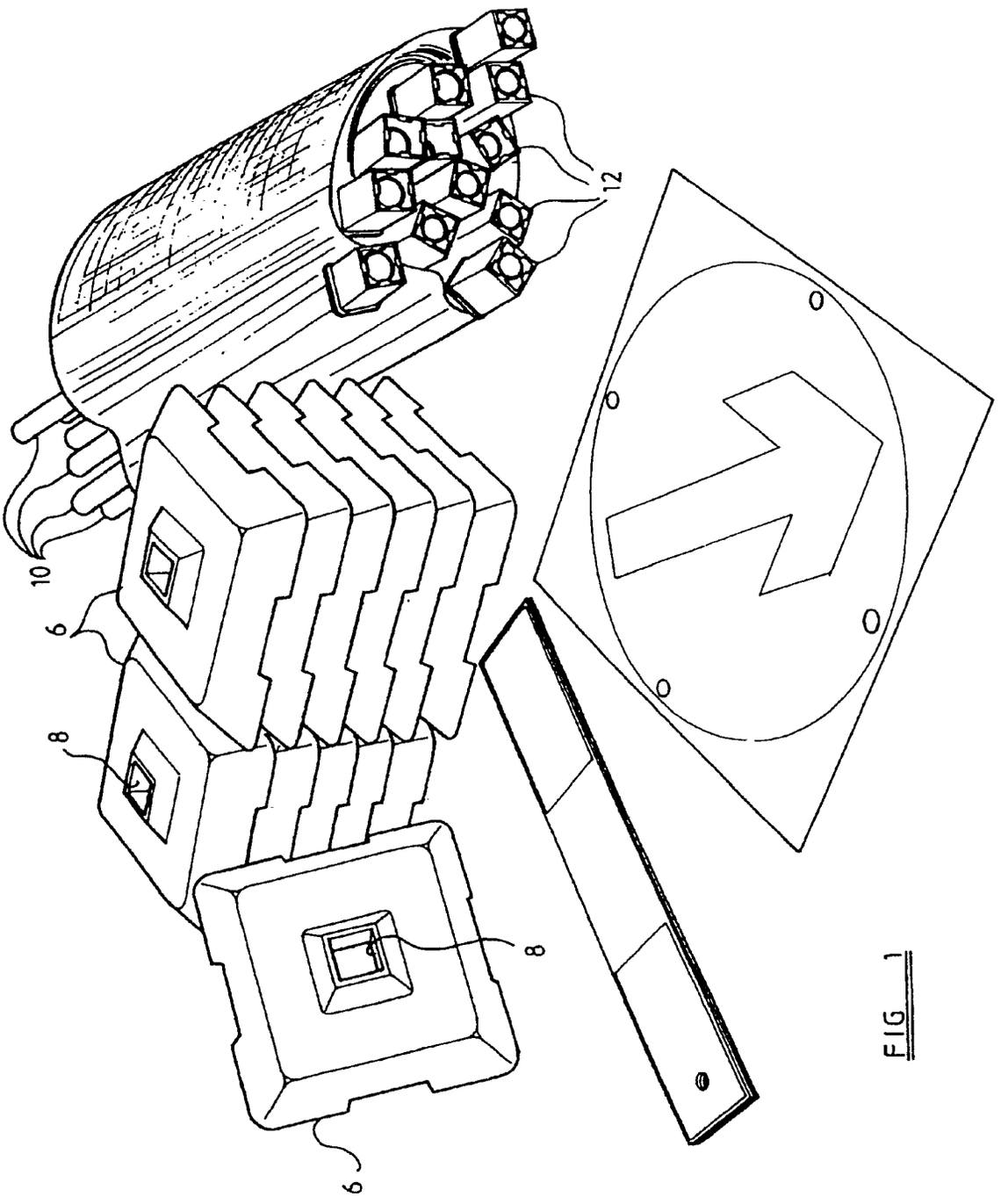


FIG 1

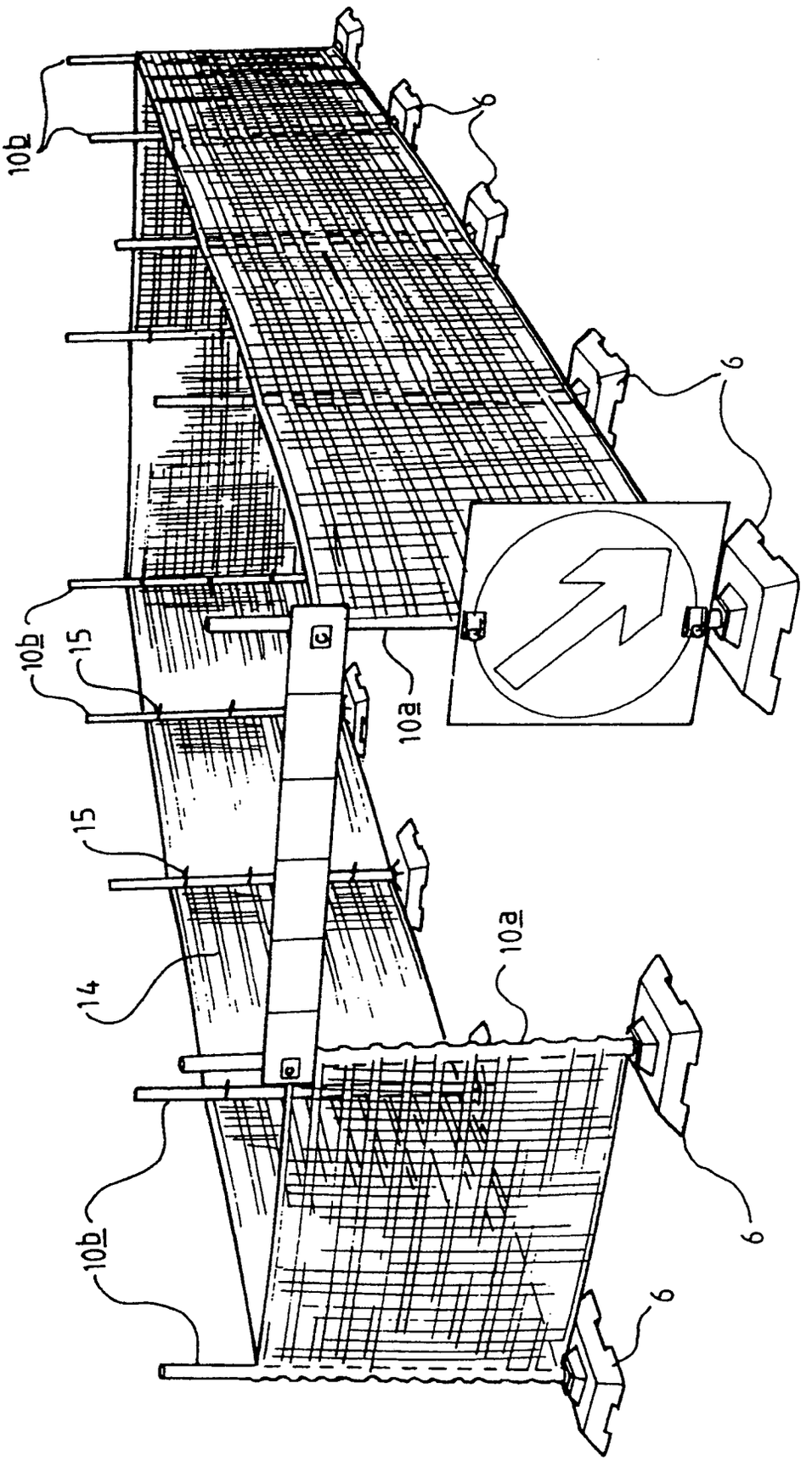


FIG 2

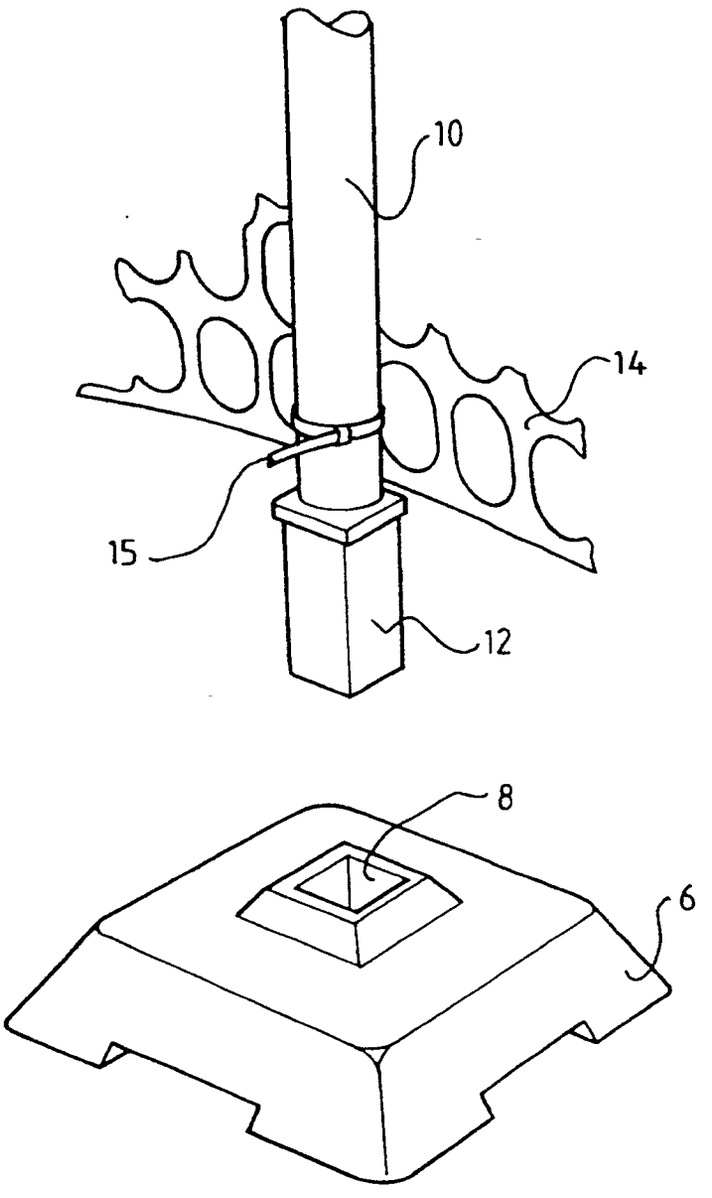
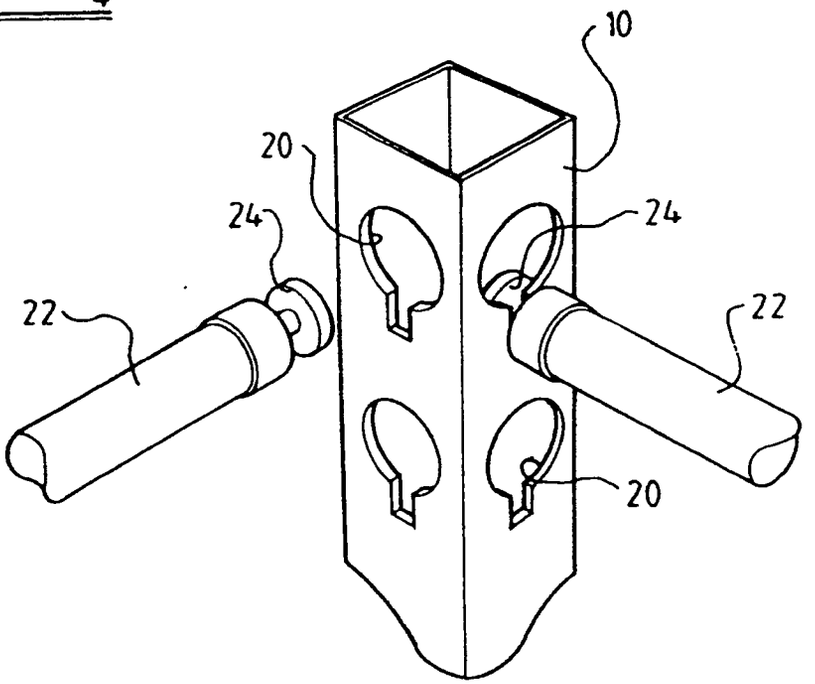


FIG 3

FIG 4



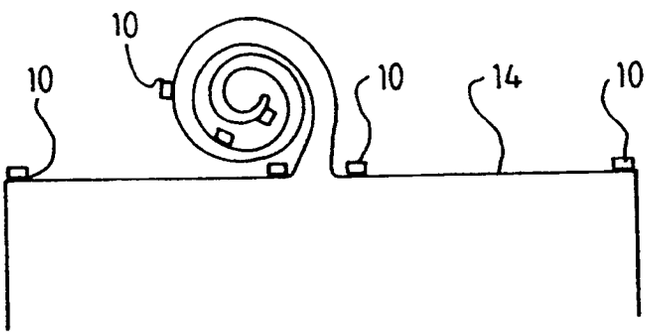


FIG 5

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 5544

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.5)
X	WO-A-8 804 715 (P. KANE)	1,2,4,8	E01F13/00
Y	* page 2, line 15 - page 3, line 12; figures 1,2AB *	3,5-7	E04H17/02
			E01F9/04
X	US-A-3 940 113 (W.J. HIRSCH)	1,2,9,10	
A	* column 4, line 25 - line 62 *	4	
	* column 7, line 35 - line 45; figures *		
Y	DE-U-8 903 092 (W. JUNKER)	3,5	
A	* page 8, line 28 - page 9, line 35; figures 1-3 *	1	
Y	FR-A-2 631 048 (GAZ DE FRANCE)	6	
A	* page 4, line 9 - line 19; figure 2 *	1	
Y	FR-A-2 406 695 (H.G.D. NICOLAS)	7	
A	* page 2, line 31 - page 3, line 15; figures *	1	
A	DE-A-2 142 162 (W.H. SIBBE)	1,10	
	* figures *		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	US-A-4 124 196 (M.M. HIPSKIND)		
A	GB-A-2 101 180 (BRITISCH GAS CORP.)		E01F
			E04H
A	GB-A-2 179 384 (BRITISCH GAS CORP.)		

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	20 SEPTEMBER 1991	VERVEER D.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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