

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 174 052 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
08.12.2004 Bulletin 2004/50

(51) Int Cl.7: **A45F 5/10**

(21) Application number: **01108342.5**

(22) Date of filing: **03.04.2001**

(54) **Flexible hose-carrying handle**

Tragegriff für einen biegsamen Schlauch

Poignée de transport pour un tuyau flexible

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**

(30) Priority: **20.07.2000 IT PN000028 U**

(43) Date of publication of application:
23.01.2002 Bulletin 2002/04

(73) Proprietor: **UNIFLEX UTILTIME S.p.A.
I-33086 Montereale Valcellina (Pordenone) (IT)**

(72) Inventors:
• **Borghese, Alladino
33086 Montereale Valcellina, Pordenone (IT)**

• **Ferrer, Horacio
33080 Porcia, Pordenone (IT)**

(74) Representative: **Giugni, Valter et al
PROPRIA S.r.l.,
Via Mazzini 13
33170 Pordenone (IT)**

(56) References cited:
**WO-A-90/11945 US-A- 4 558 896
US-A- 4 890 873 US-A- 5 348 362**

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 1 174 052 B1

Description

[0001] The present invention refers to a flexible handle that is adapted to hold together, both to transport and storage purposes, elongated elements wound into coils, such as flexible hoses for watering applications.

[0002] Handles of the above mentioned kind are known since a long time now in the art. They are constituted by a strip of plastic material, which is moulded as a single-piece construction with a grip, provided at an end portion of such a strip, and a gudgeon pin, which is provided at the other end portion of said strip. The strip itself is wound in a loop-like manner around the coils of the hose to be held compactly tight together, whereas the loop is closed by inserting the pin in the aperture of the handle.

[0003] Such handles are described in US 5 348 362, US 4 558 896 or WO 90/11945.

[0004] These prior-art handles are sufficiently functional in general terms. However, they have a number of limitations when used in connection with certain applications. So, for example, in the case that the hose to be transported and stored is a watering hose, the need arises for the use of accessory items and auxiliary devices, such as connectors, fittings, nozzles, spray jets and the like, to be taken into account. These items and devices are normally kept separated from the hose and must be selectively, and individually, connected to the end portions of the same hose exactly when a need arises for any one of them to be used in accordance with particular requirements. The problems and the inconvenience deriving from such a situation can be readily appreciated. In addition, further difficulties and related costs are connected to the packaging of both the hose and the various accessory items thereof, owing to the fact that such accessory items generally require a particular packaging to be associated to the packaging of the hose roll.

[0005] The purpose of the present invention is to provide a flexible hose-carrying handle that is provided with means which are capable of keeping attached to the wound hose also the various accessory items intended for use in connection with the same hose. In this manner, all problems connected with packaging, transporting, handling and storing the entire complex composed of the hose and the various accessory items thereof are solved.

[0006] According to the present invention, this aim is reached in a flexible hose-carrying handle formed by a strip of plastic material provided with a grip and a gudgeon pin adapted to engage said grip, wherein moulded integrally, ie. in a single-piece construction with said strip there are a flexible serrated band and a slot-like hole, in which the free end of said band is adapted to be inserted so as to form a loop for the attachment of the accessory items that have to be kept together with, ie. joined to the hose.

[0007] The features and advantages of the present in-

vention will anyway be more readily and clearly understood from the description that is given below by way of non-limiting example with reference to the accompanying drawings, in which:

- Fig. 1 is a view of a hose-carrying handle according to the present invention, as shown in its fully extended, non-working condition;
- Fig. 2 is a cross-sectional view of the hose-carrying handle illustrated in Fig. 1, as shown in its folded condition to form the attachment loop;
- Fig. 3 is a front view of the hose-carrying handle illustrated in Figs. 1 and 2, as shown in a first condition of use thereof;
- Fig. 4 is a front view of the hose-carrying handle illustrated in Figs. 1 and 2, as shown in a second condition of use thereof; and
- Fig. 5 is a front view of the hose-carrying handle illustrated in Figs. 1 and 2, as shown in a third condition of use thereof.

[0008] The hose-carrying handle illustrated in Figures 1 and 2 is constituted essentially by a strip 11 of plastic material having a reduced thickness, so as to assure a considerable flexibility of the same strip.

[0009] According to a known feature, the strip 11 is moulded to integrally include a grip 12, which is provided at an end portion thereof and has a ring-like aperture 13, and a gudgeon pin 14, which is provided transversally at the other end portion of the strip. Said grip 12 preferably has a H-shaped cross-section and is provided with a receptacle 15 provided with retaining teeth 16.

[0010] When the strip 11 is folded into a loop (Figure 2), the gudgeon pin 14 is caused to pass through the aperture 13 of the grip 12 and to snap-fit into the receptacle 15 by taking advantage of the elasticity of the retaining teeth 16. In this manner, a handle is created that is able to support and carry flexible items 17 wound into a roll, such as watering hoses, as shown in the Figures 3 to 5.

[0011] According to the main feature of the present invention, moulded integrally, ie. in a single-piece construction (see Figures 1 and 2) with said strip 11 there are a flexible band 21, which is provided with a serrated surface, and an appendix provided with a slot-like hole 23. In a preferred manner, the band 21 and the slot-like hole 23 are provided on mutually opposed sides with respect to the strip 11, and the band 21 extends parallelly with respect to the body of the strip 11.

[0012] The strip 11 can be folded and the free end portion thereof is inserted in the slot-like hole 23 until the serrated surface 22 thereof gets eventually engaged in said hole. In this manner, a further attachment loop is created, which may be used to keep together with, ie. joined to the hose various accessory items intended for use in conjunction with the same hose. A connector 24 and a spray nozzle 25 are shown in Figures 3 and 4 by mere way of example. In Figure 3, the accessory items

24 and 25 are held by the band 21 in a non-use condition thereof, duly attached to the hose-carrying handle, whereas in Figure 4 they are shown as fitted on to the respective end portions of the hose 17, in a ready-for-use condition thereof.

[0013] The band 21, which is integral with the strip 12 of the hose-carrying handle, is useful also in a further condition of use, which is illustrated with reference to Figure 5. In fact, an end portion of the hose 17 (eg. the one carrying the connector 24, in Figure 5) may anyway be kept attached to the strip 11 of the hose-carrying handle by means of the band 21. When the hose is unwound in view of being used, the band stays connected to the same hose without any problem, but with the advantage of having it ready in position when the hose must then be rewound after use.

[0014] As this can be readily noticed, the band 21 is adjustable, in the sense that it can be inserted in the slot-like hole 23 to different lengths, thereby forming variable-diameter attachment loops capable of accommodating one or more accessory items, according to the needs.

[0015] Furthermore, in order to facilitate releasing the band from the slot-like hole, an elastic tooth (not shown in the Figures) may be provided inside the slot-like hole 23 so that it is engaged automatically when inserting the band 21 therein, and is capable of being bent with a finger when the same band has to be released therefrom.

Claims

1. Flexible handle, adapted to keep together and carry elongated elements wound into coils, such as flexible hoses for watering applications, formed by a strip (11) of plastic material moulded integrally with a grip (12), provided at an end portion of the strip, and a gudgeon pin (14), provided at the other end portion of the strip, **characterized in that** moulded integrally, ie. in a single-piece construction with said strip (11) there are a flexible serrated band (21-22) and a slot-like hole (23), in which the free end of said band is adapted to be inserted so as to form a loop for the attachment of accessory items (24-25) that have to be kept together with, ie. joined to the hose (17).
2. Flexible handle according to claim 1, **characterized in that** the serrated band (21-22) keeps an end portion of the hose (17) attached to said strip, so as to anyway enable the same hose to be unwound, while staying in a ready condition for the hose to be rewound after use.
3. Flexible handle according to claim 1 or 2, **characterized in that** the serrated band (21-22) and the slot-like hole (23) are provided on mutually opposed sides of the strip (11), and the slot-like hole (23) is

provided with an elastic tooth adapted to engage the band.

4. Flexible handle according to any of the preceding claims 1 to 3, **characterized in that** the grip (12) has a H-shaped cross-section and is provided with a receptacle (15), provided with elastic teeth (16), for accommodating and retaining the gudgeon pin (14).

Patentansprüche

1. Flexibler Griff, der so angepasst ist, um langgestreckte Elemente, die zu Rollen aufgewickelt sind, wie beispielsweise flexible Schläuche für Bewässerungsanwendungen, zusammenzuhalten und zu tragen, gebildet aus einem Band (11) aus Kunststoffmaterial, geformt integral mit einem Griff (12), vorgesehen an einem Endbereich des Bands, und einem Zapfenstift (14), vorgesehen an dem anderen Endbereich des Bands, **dadurch gekennzeichnet, dass**, geformt integral, d.h. in einem einteiligen Aufbau mit dem Band (11), ein flexibles, gezahntes Band (21-22) und ein schlitzähnliches Loch (23), in das das freie Ende des Bands eingesetzt werden kann, um so eine Schlaufe für die Befestigung der Geräteteile (24-25) zu bilden, die mit dem Schlauch (17) zusammengehalten, d.h. verbunden, werden sollen, vorhanden sind.
2. Flexibler Griff nach Anspruch 1, **dadurch gekennzeichnet, dass** das gezahnte Band (21-22) einen Endbereich des Schlauchs (17), befestigt an dem Band so hält, um in jedem Fall zu ermöglichen, dass dieser Schlauch abgewickelt werden kann, während er in einem Bereitschaftszustand verbleibt, damit der Schlauch nach der Benutzung wieder aufgewickelt zu werden.
3. Flexibler Griff nach Anspruch 1 oder 2, **dadurch gekennzeichnet, dass** das gezahnte Band (21-22) und das schlitzähnliche Loch (23) auf zueinander gegenüberliegenden Seiten des Bands (11) vorgesehen sind und dass das schlitzähnliche Loch (23) mit einem elastischen Zahn, angepasst so, um in das Band einzugreifen, versehen ist.
4. Flexibler Griff nach einem der vorhergehenden Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** der Griff (12) einen H-förmigen Querschnitt besitzt und mit einer Aufnahme (15) versehen ist, ausgestattet mit einem elastischen Zahn (16), um den Zapfenstift (14) aufzunehmen und zu halten.

Revendications

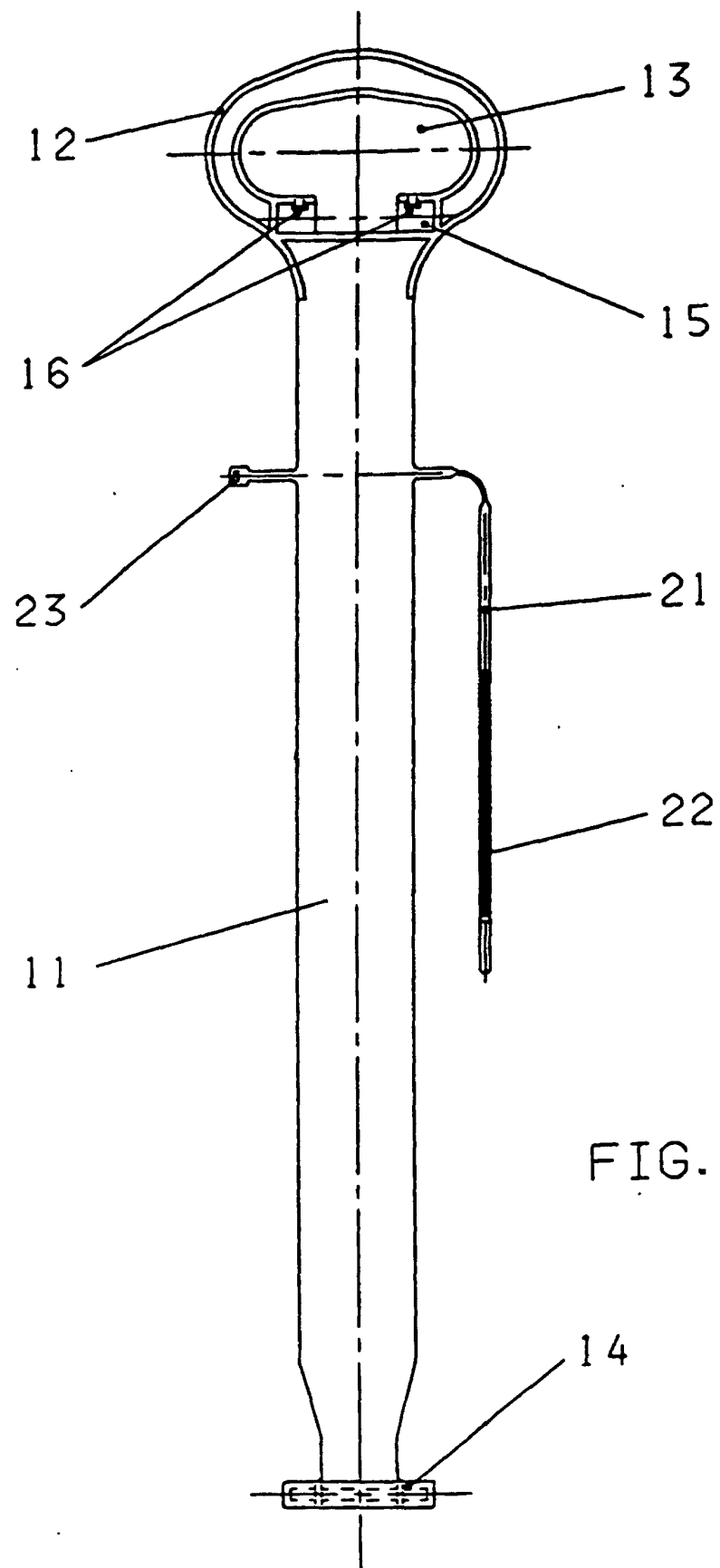
1. Manche flexible, conçu pour maintenir ensemble et transporter des éléments allongés enroulés en spirales, s'agissant par exemple de tuyaux flexibles pour des applications d'arrosage, formé par une bande (11) de matière plastique moulée d'un seul tenant avec une poignée (12), disposée à une partie d'extrémité de la bande, et une broche d'assemblage (14), disposé à l'autre partie d'extrémité de la bande, **caractérisé en ce que** sont moulés d'un seul tenant, c'est-à-dire en une structure unique avec ladite bande (11), une courroie dentelée flexible (21-22) et un orifice en forme de fente (23), dans lequel l'extrémité libre de ladite courroie est conçue pour être insérée de façon à former une boucle pour attacher des pièces accessoires (24-25) qui doivent être maintenus ensemble avec le tuyau (17), c'est-à-dire réunis à celui-ci.

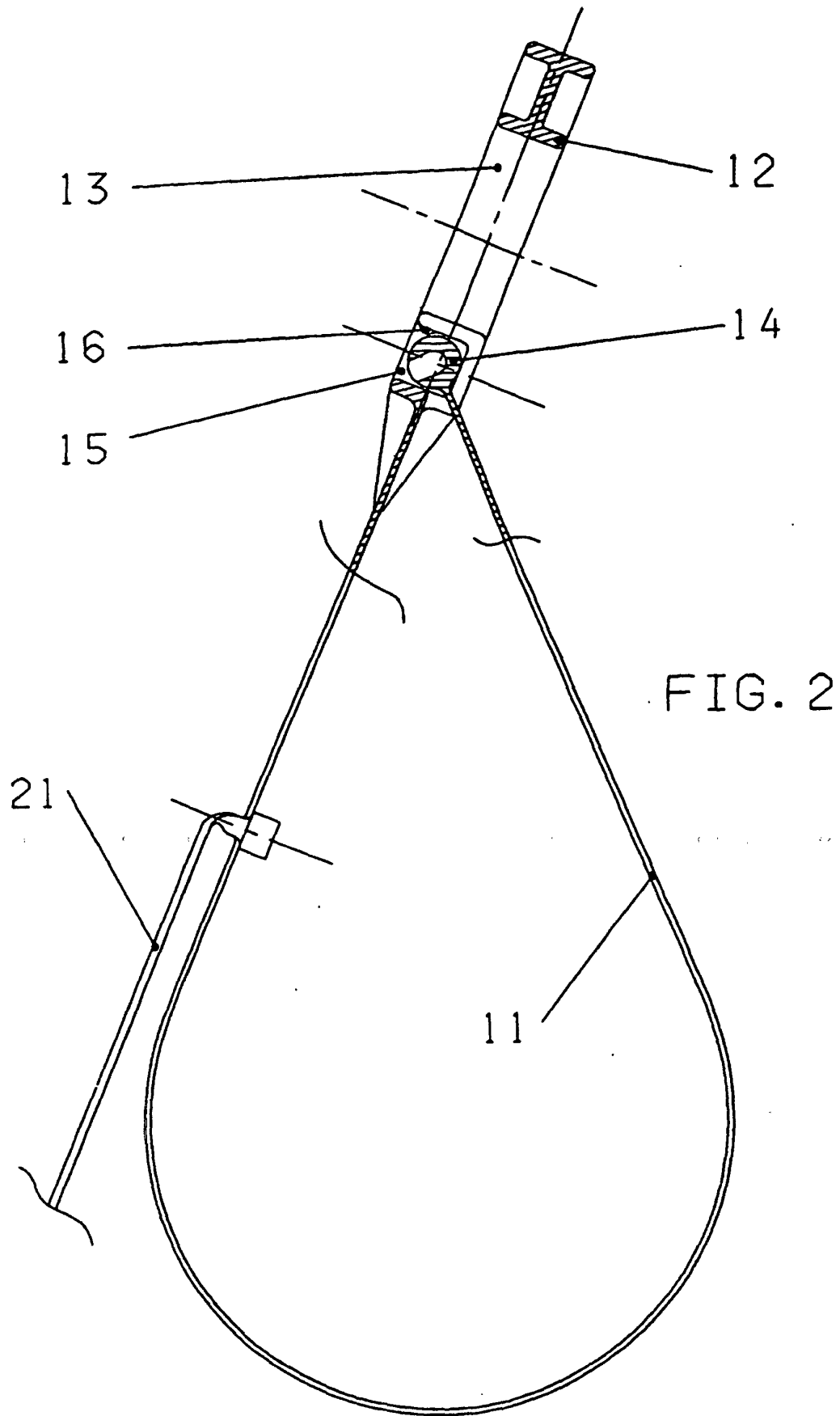
5
10
15
20
2. Manche flexible selon la revendication 1, **caractérisé en ce que** la courroie dentelée (21-22) maintient une partie d'extrémité du tuyau (17) attachée à ladite bande, de façon à permettre, de manière quelconque, le déroulement de ce même tuyau, tout en demeurant dans une condition prête à l'emploi pour que le tuyau puisse être réenroulé après usage.

25
3. Manche flexible selon la revendication 1 ou 2, **caractérisé en ce que** la courroie dentelée (21-22) et l'orifice en forme de fente (23) sont disposés sur des côtés mutuellement opposés de la bande (11), l'orifice en forme de fente (23) comportant une dent élastique conçue pour mettre en prise la courroie.

30
35
4. Manche flexible selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** la poignée (12) présente une section droite en forme de H et comporte un réceptacle (15) pourvu de dents élastiques (16), pour loger et retenir la broche d'assemblage (14).

40
45
50
55





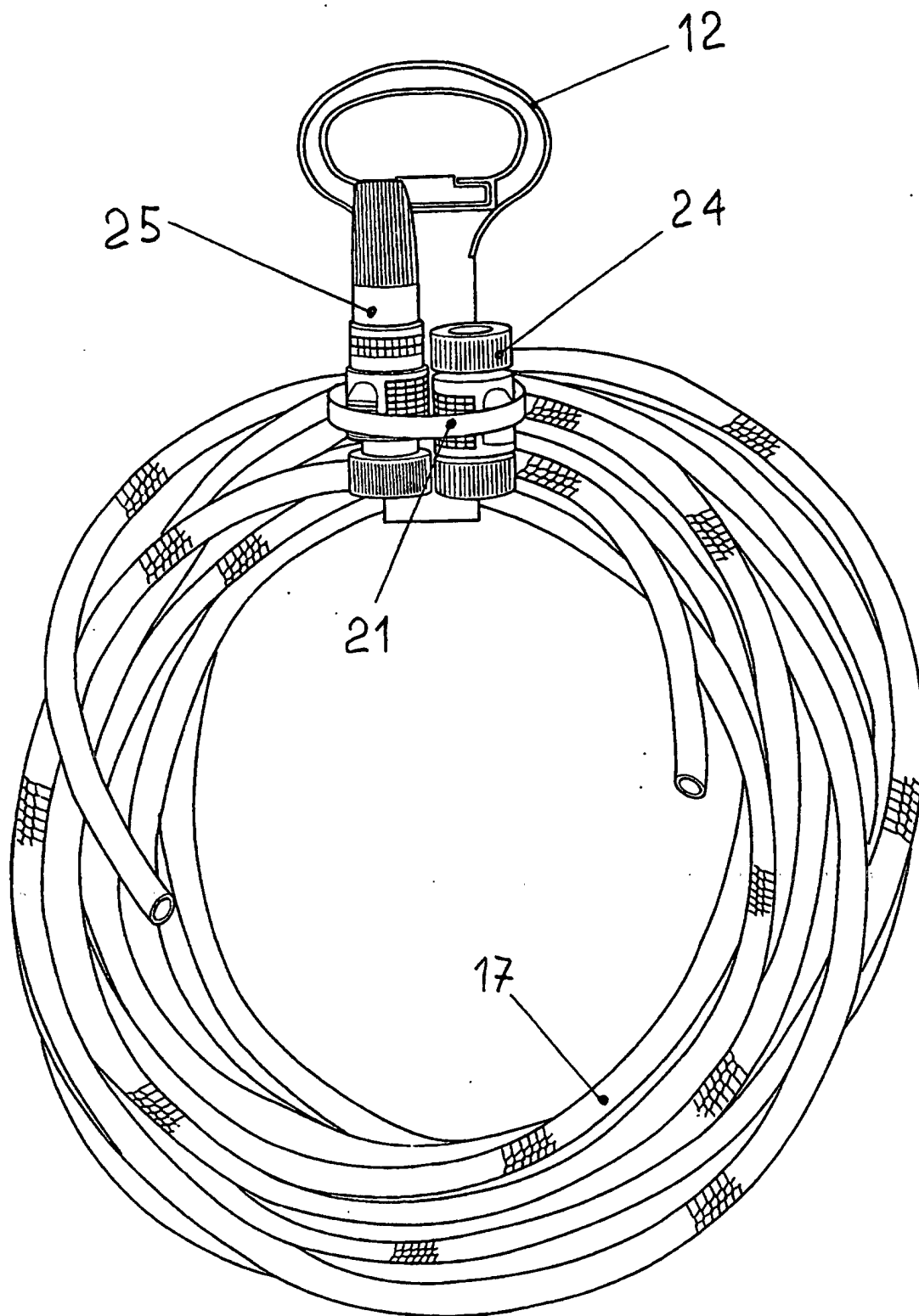


FIG. 3

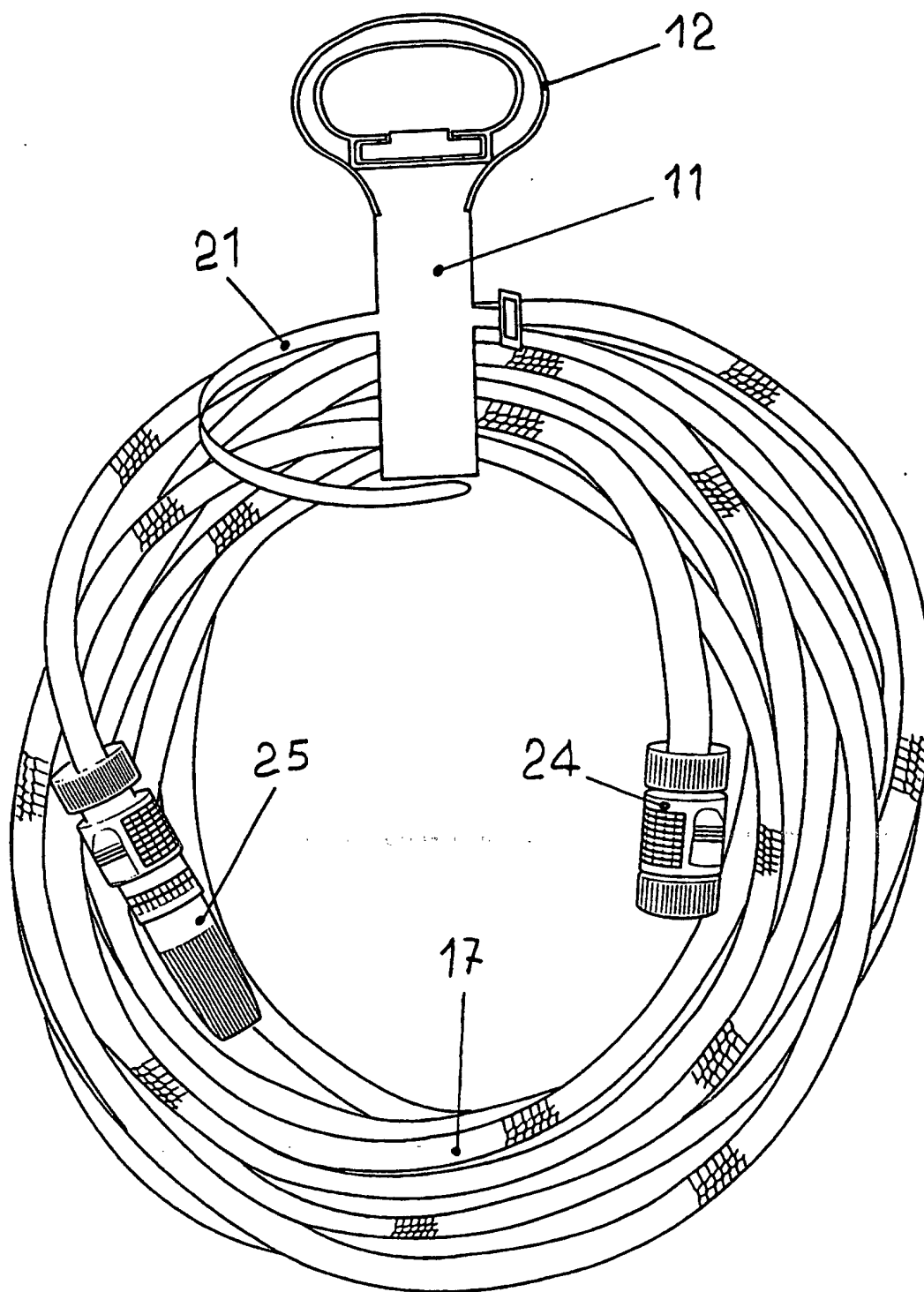


FIG. 4

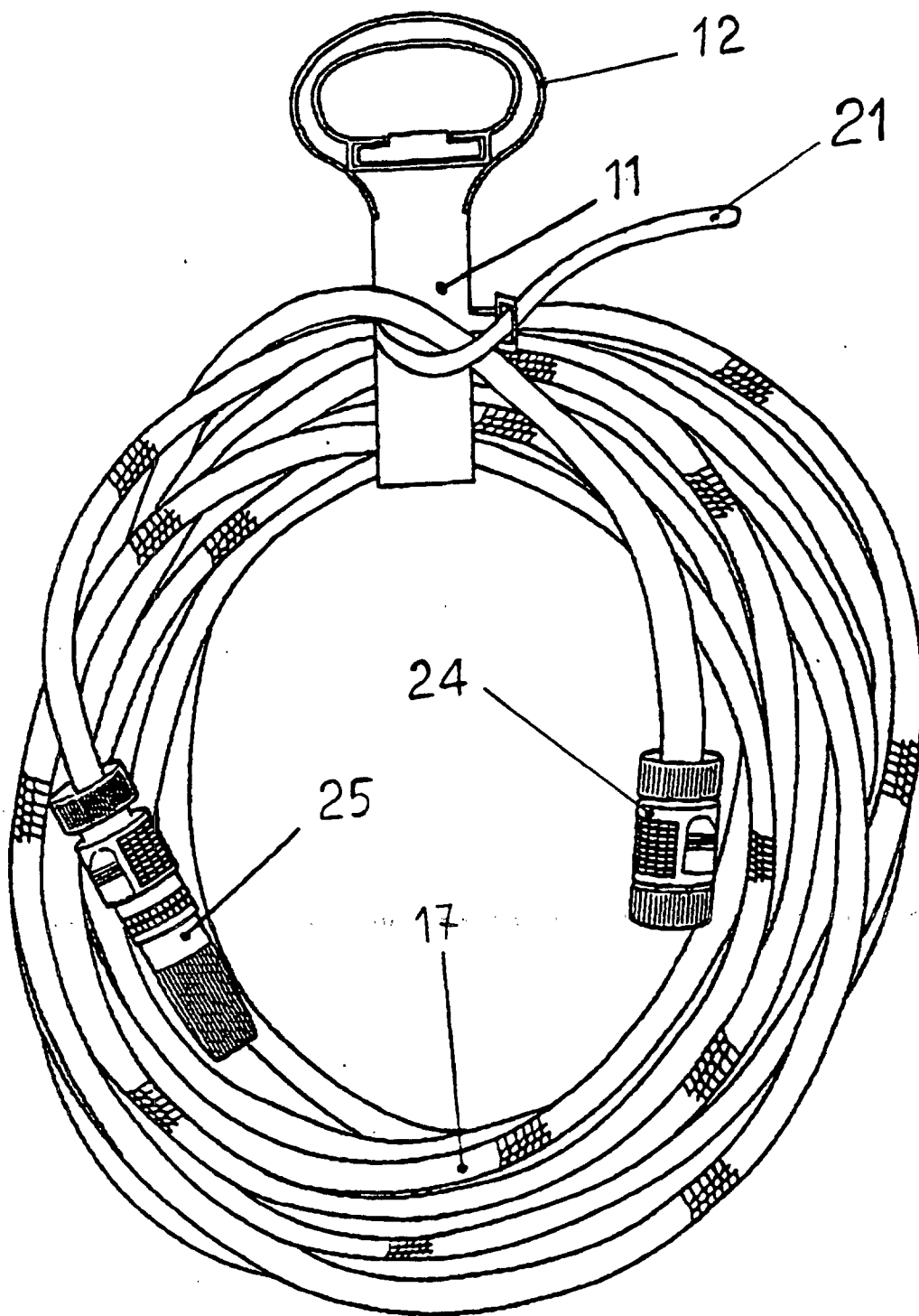


FIG. 5