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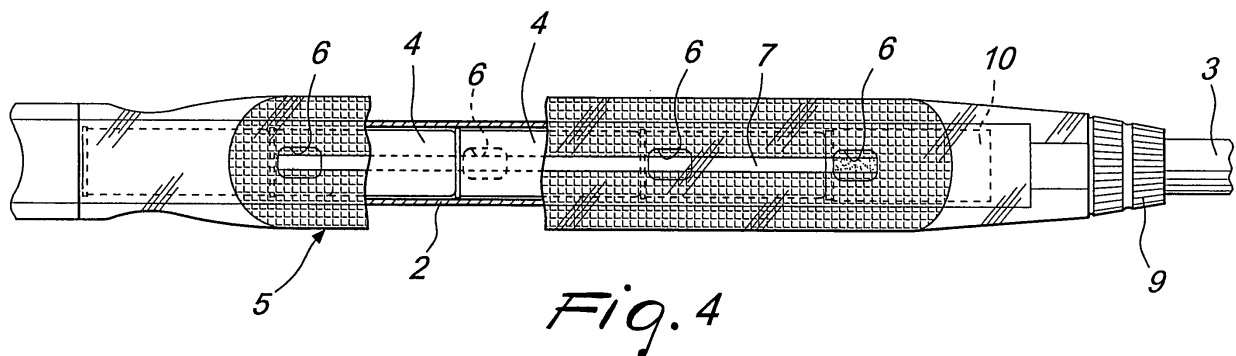
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(54) **Device for indicating the content of a magazine of a portable weapon, particularly a tubular magazine for shotguns**

(57) A device for indicating the content of a magazine of a portable weapon, particularly of a tubular magazine (2) for shotguns (1), which includes at least one opening

(6), provided in the magazine, which allows visual inspection of the content of the magazine. A cartridge pusher (10) has such a length that it is always visible through one of the openings (6).



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Description

[0001] The present invention relates to a device for indicating the content of a magazine of a portable weapon, particularly of a tubular magazine for shotguns.

[0002] Automatic, semiautomatic or so-called pump-action smoothbore shotguns are generally provided with a tubular magazine, which is arranged below the barrel and contains a plurality of cartridges.

[0003] The magazine is constituted by a tube into which the cartridges are inserted and are arranged one behind the other so that the forward part, the rim or bullet, faces forward.

[0004] A spring provided with a pusher biases the cartridges in the opposite direction with respect to the insertion direction.

[0005] When the breech-block is opened, a cartridge normally exits from the magazine to be collected by a paddle follower, which has an oscillating motion by means of which the cartridge, in the subsequent step for closure of the breech-block, is lifted and positioned so that the bottom faces the head of the breech-block, which pushes it forward and introduces it into the barrel.

[0006] The cycle is repeated every time a shot is fired: a new cartridge, pushed by the spring, exits from the tubular magazine to be picked up by the follower and subsequently inserted in the barrel until all the cartridges contained in the magazine are used up.

[0007] In the normal cycle of operation of the weapon, there are means suitable to prevent more than one cartridge at a time from leaving the tubular magazine and being positioned on the paddle follower.

[0008] Since the tube that constitutes the magazine is opaque, and is also covered by the grip, it is not possible to check its contents, i.e., one cannot know how many cartridges are present in the magazine unless, of course, the shooter has loaded the magazine with a known number of cartridges and has counted the shots fired.

[0009] FR-428739 discloses a shotgun having an indicator of the contents of the magazine constituted by a piston provided with numbers showing through a window.

[0010] US-3758978 and US-5206444 disclose pistols provided with handgrips having a window showing the content of the magazine.

[0011] US-4109401 discloses a magazine with a translucent casing.

[0012] In real life situations the indication to the shooter should be straightforward and quick.

[0013] Small numbers and fine lines may not be readable in low light conditions or may not be immediately understood.

[0014] The aim of the present invention is to provide an improved device for indicating the content of the magazine.

[0015] An object of the invention is to provide a device which allows the user to rapidly and easily check the content of the magazine even in low light conditions.

[0016] Another object of the invention is to provide a

device which is structurally simple and reliable and does not alter in any way the operation and inherent structure of the weapon.

[0017] This aim and these and other objects, which will become better apparent hereinafter, are achieved by a device for indicating the content of a magazine of a portable weapon, particularly of a tubular magazine for shotguns, comprising at least one opening, provided in a tubular magazine, said magazine being parallel to the barrel of said weapon, a spring arranged within said magazine and biasing said cartridges present in said magazine, by means of a cartridge pusher, characterized in that said magazine comprises a plurality of slots, each of said slots being arranged at the position of a cartridge or bullet of a plurality of cartridges or bullets contained within said magazine, said cartridge pusher being constituted by an elongated cylindrical body having such a length that it is always visible through one of said slots, regardless of the length of the cartridges that are present in the magazine, said tubular magazine being arranged inside a grip member, said slots being arranged longitudinally at one or more cutouts provided in said grip member.

[0018] Further characteristics and advantages of the invention will become better apparent from the description of preferred but not exclusive embodiments thereof, illustrated by way of non-limiting example in the accompanying drawings, wherein:

Figure 1 is a side view of a shotgun provided with a magazine for the cartridges;

Figure 2 is an exploded partial bottom view of the shotgun provided with the device according to the invention;

Figure 3 is a partial bottom view of the shotgun provided with the device according to the invention;

Figure 4 is a partially sectioned and cutout bottom view of the shotgun according to the invention, shown in the condition in which the magazine is full; Figure 5 is a view, similar to Figure 4, of the magazine only partially filled with cartridges;

Figure 6 is an exploded view showing the magazine, the spring and the cartridge pusher, according to the invention.

[0019] With reference to the cited figures, a device according to the invention is shown in its application to a shotgun, generally designated by the reference numeral 1, which includes, in a per se known manner, a tubular magazine 2, which is arranged below a barrel 3 and is suitable to contain a plurality of cartridges 4.

[0020] The tubular magazine 2 lies inside a grip 5, which is closed at the front by a cap 9.

[0021] A spring 8 is provided inside the magazine 2 and acts, by means of a cartridge pusher 10, on the cartridges 4 that are present inside the magazine.

[0022] According to the invention, the tubular magazine 2 has one or more slots 6, which are arranged lon-

gitudinally at one or more cutouts 7 provided in the grip 5.

[0023] Preferably, the tubular magazine 2 has a discrete number of equidistant slots 6, which correspond to the number of cartridges 4 that the magazine can contain.

[0024] According to the invention, the cartridge pusher 10 is constituted by a cylindrical body which is elongated with respect to traditional cartridge pushers and has a surface which is coated or otherwise treated so as to be of a conspicuous color.

[0025] The increased length of the cartridge pusher 10 allows the pusher to be always visible through one of the slots 6, regardless of the length of the cartridges, which, as is known, can have different lengths depending on their type.

[0026] Preferably, the grip 5 has a single cutout 7, which is constituted by an elongated portion made of transparent material of the body of the rod.

[0027] The operation of the device according to the invention is simple and straightforward.

[0028] In order to check the content of the magazine it is sufficient to look at the bottom of the grip 5 and observe, through the cutout 7, the presence of the cartridge pusher 10 and therefore of a cartridge, at each slot 6.

[0029] The presence of the enlarged cartridge pusher 10 is advantageous, because the cartridges can be of a color that is not sufficiently conspicuous to be visible through the slots 6 and the cutout 7.

[0030] The presence of a slot 6 at the position of each cartridge allows not only to check the level of the filling of the magazine but also to establish immediately the number of cartridges present.

[0031] In practice, the conspicuous color of the cartridge pusher 10 allows to identify immediately the position of the last cartridge, i.e., whether it is located at the first, second, third or fourth slot, in the specific case, and therefore allows to establish immediately whether there are one, two, three or four cartridges in the magazine.

[0032] In practice it has been found that the invention achieves the intended aim and objects, by providing a device which allows to check the content of the magazine of a shotgun rapidly and intuitively.

[0033] The device according to the invention does not alter in any way, from a constructive and functional standpoint, the characteristics of the weapon and can be applied to any kind of firearm provided with a magazine.

[0034] This application claims the priority of Italian Patent Application No. MI2006A000767, the subject matter of which is incorporated herein by reference.

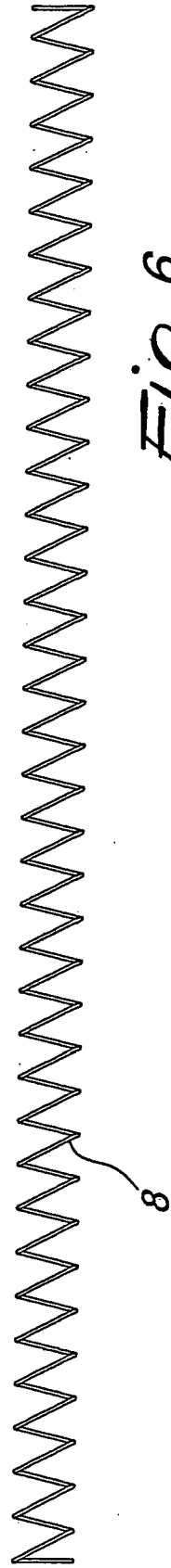
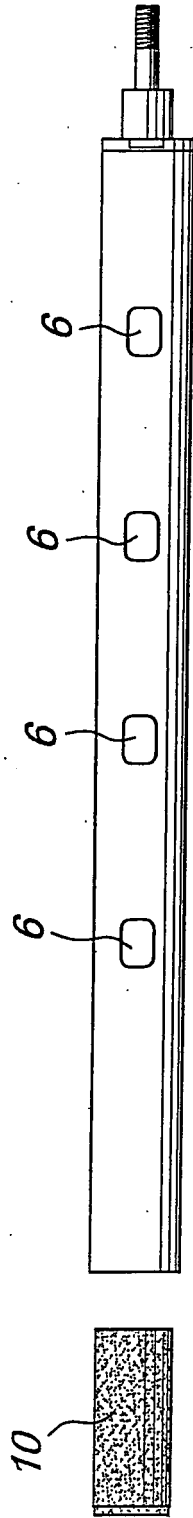
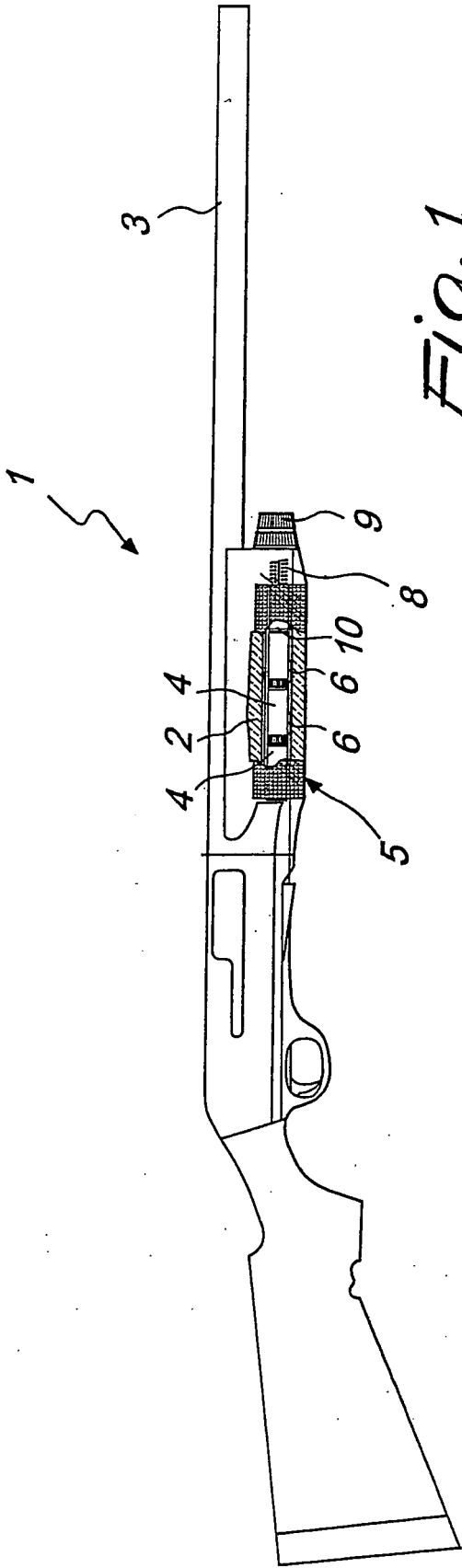
tridges present in said magazine, by means of a cartridge pusher, **characterized in that** said magazine comprises a plurality of slots, each of said slots being arranged at the position of a cartridge or bullet of a plurality of cartridges or bullets contained within said magazine, said cartridge pusher being constituted by an elongated cylindrical body having such a length that it is always visible through one of said slots, regardless of the length of the cartridges that are present in the magazine, said tubular magazine being arranged inside a grip member, said slots being arranged longitudinally at one or more cutouts provided in said grip member.

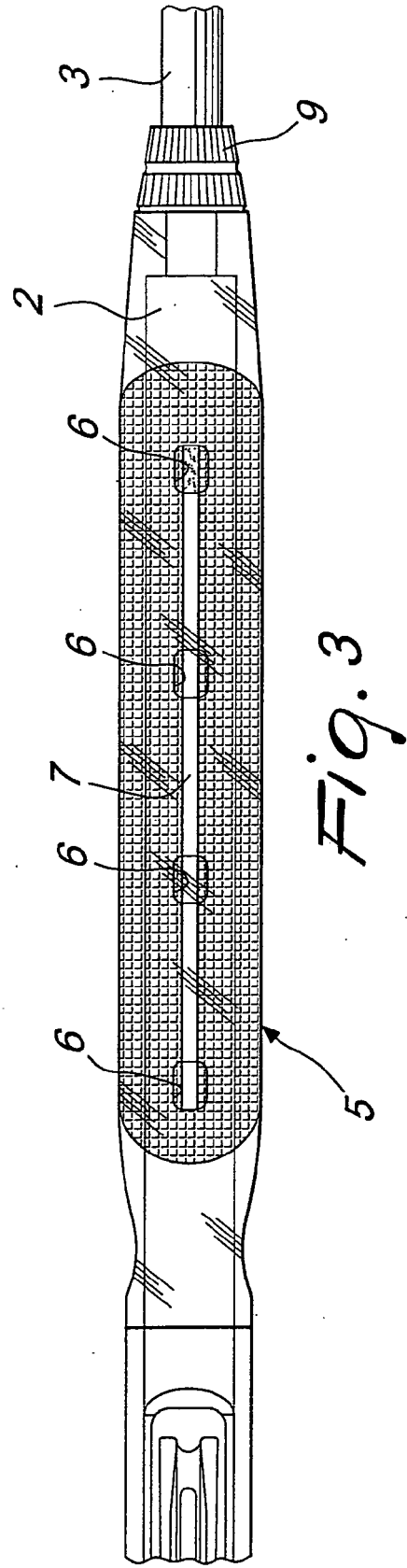
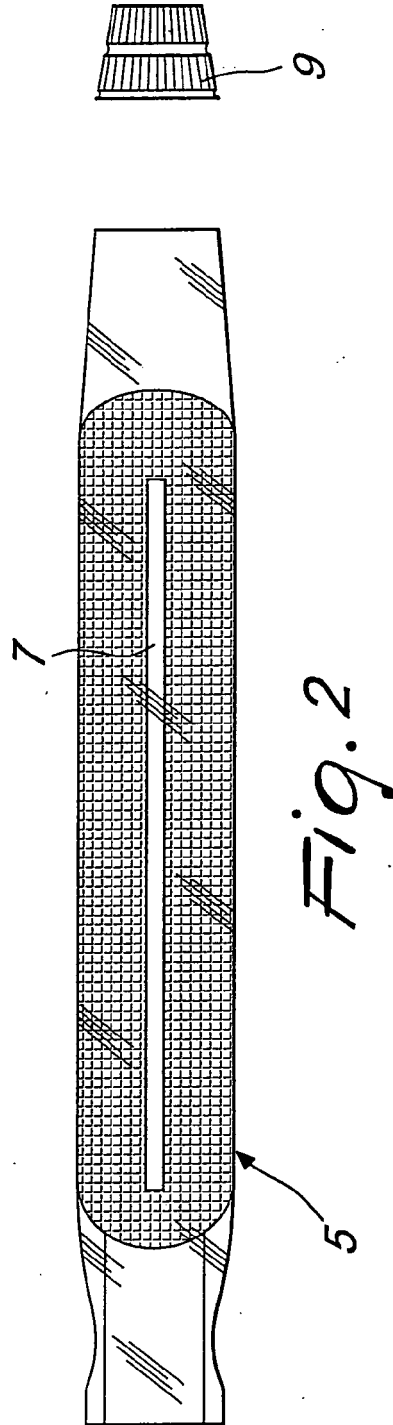
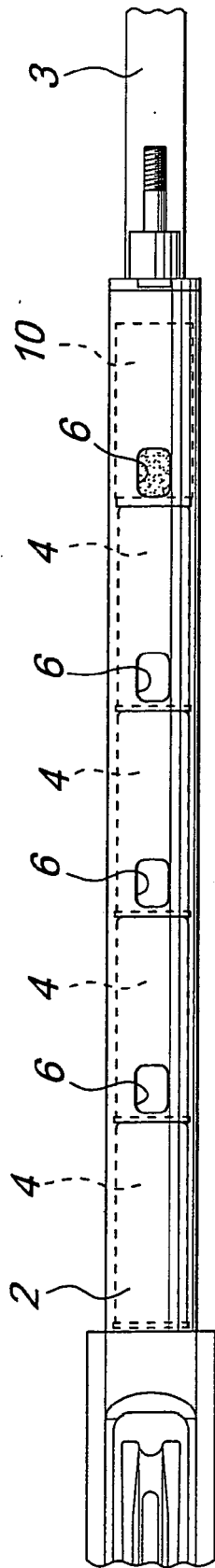
2. The device according to claim 1, **characterized in that** said grip member has a single cutout, which is constituted by an elongated portion made of transparent material of the body of said grip member.

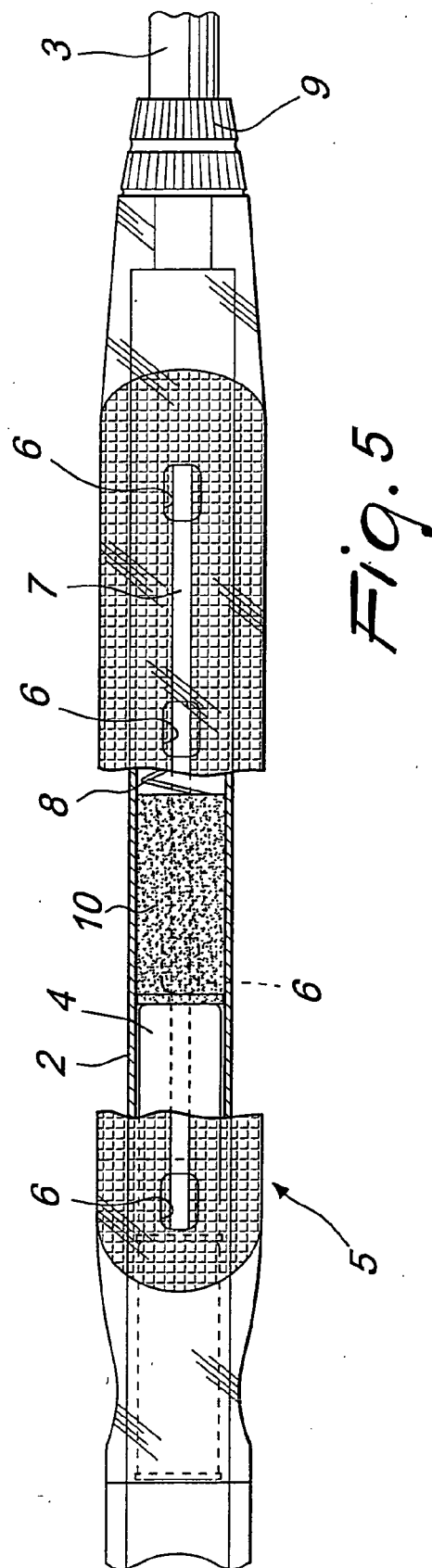
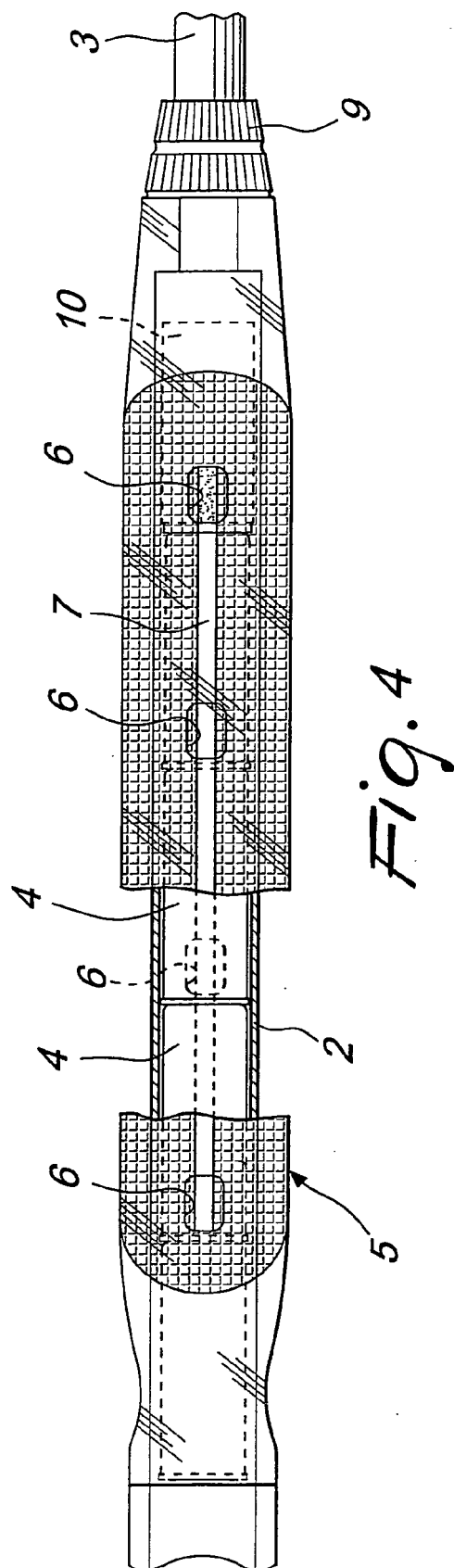
3. The device according to claim 1 or 2, **characterized in that** said cartridge pusher has a surface made of a conspicuous color.

Claims

1. A device for indicating the content of a magazine of a portable weapon, particularly of a tubular magazine for shotguns, comprising at least one opening, provided in a tubular magazine, said magazine being parallel to the barrel of said weapon, a spring arranged within said magazine and biasing said car-







REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- FR 428739 [0009]
- US 3758978 A [0010]
- US 5206444 A [0010]
- US 4109401 A [0011]
- IT MI20060767 A [0034]