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(54) **Anticutting bar**

(57) The bar consists of a first metal tube (1), realized in 100CR6, steel or similar, on the outside wall (2) of which is made a temper for superficial hardening. Into said tube is coaxially put a second tube (4) with hole or

cavity (5) for all its length in which is put a cable (6). Inside said tube (4), spaced to a space (7), is put a full tungsten carbide cylinder (8).

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Description

[0001] It is known that to obtain an armour action of any containers, gate, door or window are used bars of adequate thickness. Said bars or tubes have the aim to avoid intrusions from outside, escapes from inside or, however, to render inaccessible and impenetrable a room or a container. The mechanical action determined to the strength of said bars to render practically impossible the accessibility to the containers or to the room, both from inside than to outside, remains of fundamental importance as for sole solution able to guarantee an inviolability no obtainable with other means. Moreover it is important the hardness of the bar so to avoid its cutting or at least, in case of use of diamond tools, to render it not easy and to have reaction devices. The invention refers to a bar to be used in any situation, both fixed than mobile, such as lattices or bolts for doors and/or windows, for latches or sliding-bars in general and for bolts and so to be anticutting. The invented bar consists of a first metal tube 1, realized in 100CR6 steel or similar with high resistance to the cutting, on the outside wall 2 of which is made a temper for superficial hardening of at least two centimetres of thickness. In coaxial manner and in contact with the inside face 3 of said tube 1 a second metallic tube 4 is put having a hole or cavity 5 for all the length of the tube into which a cable 6 is put. The hole or the cavity 5 with the cable 6 are to be put in any points inside of the tube 4. Inside the tube 4, spaced to a space 7 so to not have the bodies assembled each other, a full tungsten carbide cylinder 8 is put or in similar materials. In similar way and with equivalent technical system said full cylinder 8 is to be replaced with balls 8A, inserted inside the tube 4. These balls keeps in file and compresses by closings at the ends of the tube. The cable 6 is then connected to any antitheft that, in case of cutting or violation, sends the alarm. In the cutting, made with any serrate tools, in the case that the first tube 1 and the second tube 2 were cut, the tool comes to find the inside part formed to the full tungsten carbide cylinder 8 or to the balls 8A in tungsten carbide or similar materials. These bodies 8 and 8A for the hardness of their material and for the space 7, that permits a play given to wide tolerances, rotate on themselves so not to allow the steady taking of the cutting tool. The tangent contact of the tool so rotates the bodies 8 and 8A making the cutting extremely difficult. Moreover, the cable 6 puts inside the tube and connected to any antitheft signals all the cutting proves or of violation starting all the necessary actions. Then, it is to be considered that the disposition of the cable 6 inside the tube, connected to the antitheft, makes impossible fault alarms also deliberately created and starting only with the cutting or the violation of the bar or tube. In an embodiment more easy and to be used for big quantities, where a particular hardness is not requested, the invented bar consists of two coaxial tubes 1A and 2A with a cavity or hole 3A for all the length of the tube where the cable 4A is put, con-

nected with any antitheft device, without the presence of the inside part with tungsten carbide full cylinder or balls. An other embodiment consists of a tube 1 with inside pressed balls and with the presence or not of the alarm cable. The invented bar is illustrated in a merely indicative way not limiting and in the different embodiments in the sheets 1, 2 and 3. In sheet 1 figure 1 is section perspective view of the invented bar with the inside part consists of the full cylinder 8 in tungsten carbide or equivalent material and with the inside space 7 so to permit the rotation on itself of said cylinder when the tangent contact of the cutting tool comes to touch onto its face. In sheet 2 figure 2 is perspective view of the invented bar in the embodiment with balls 8A in tungsten carbide or similar material put in the inside space. Also in the embodiment are present plays given to the inside space 7 that permit the rotation of the balls 8A during the cutting whereas said balls are kept in compression by closings at the ends of the bar or tube. In sheet 3 figure 3 is section perspective view of the more easy embodiment with only coaxial cylindrical tubes 1A and 2A and with cable 4A.

Claims

1. Anticutting bar **characterised** to consist of a first metal tube (1), realized in 100CR6 steel or similar and on the outside wall (2) of which is made a temper for superficial hardening, into which coaxially is put a second tube (4) with hole or cavity (5) for all its length in which is put a cable (6); and where inside said tube (4), spaced to a space (7), is put a full tungsten carbide cylinder (8).
2. Anticutting bar, as per claim 1, **characterised in that** instead of the full cylinder (8) balls (8A) are used, kept in file and compressed by closings to the ends.
3. Anticutting bar, as to claim 1, **characterised in that** the cable (6) is connected to any antitheft.
4. Anticutting bar, as to previous claims, **characterised in that** in the cutting, in the case that the first tube (1) and the second tube (2) are cut, the tool comes to find the inside part formed to the full tungsten carbide cylinder (8) or to the balls (8A) where said bodies, for their hardness and for the space (7), rotate on themselves so no to allow the steady taking of the cutting tool.
5. Anticutting bar, **characterised in that** an embodiment consists of two coaxial tubes (1A and 2A) with a cavity or hole (3A) for all the length of the tube where the cable (4A) is put.
6. Anticutting bar, **characterised in that** an embodi-

ment consists of a tube (1) with inside compressed balls and with the presence or not of the alarm cable.

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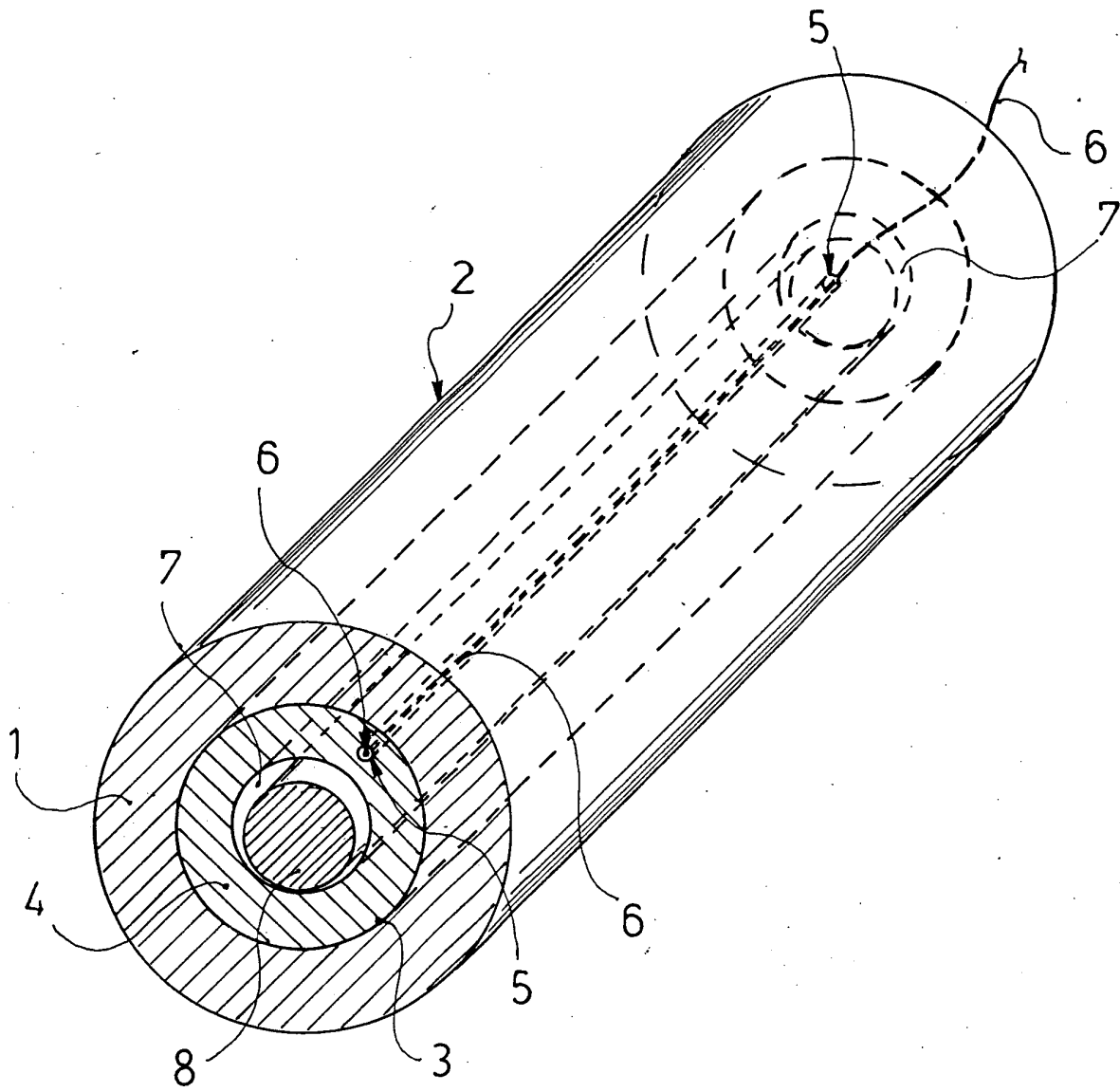


FIG. 1

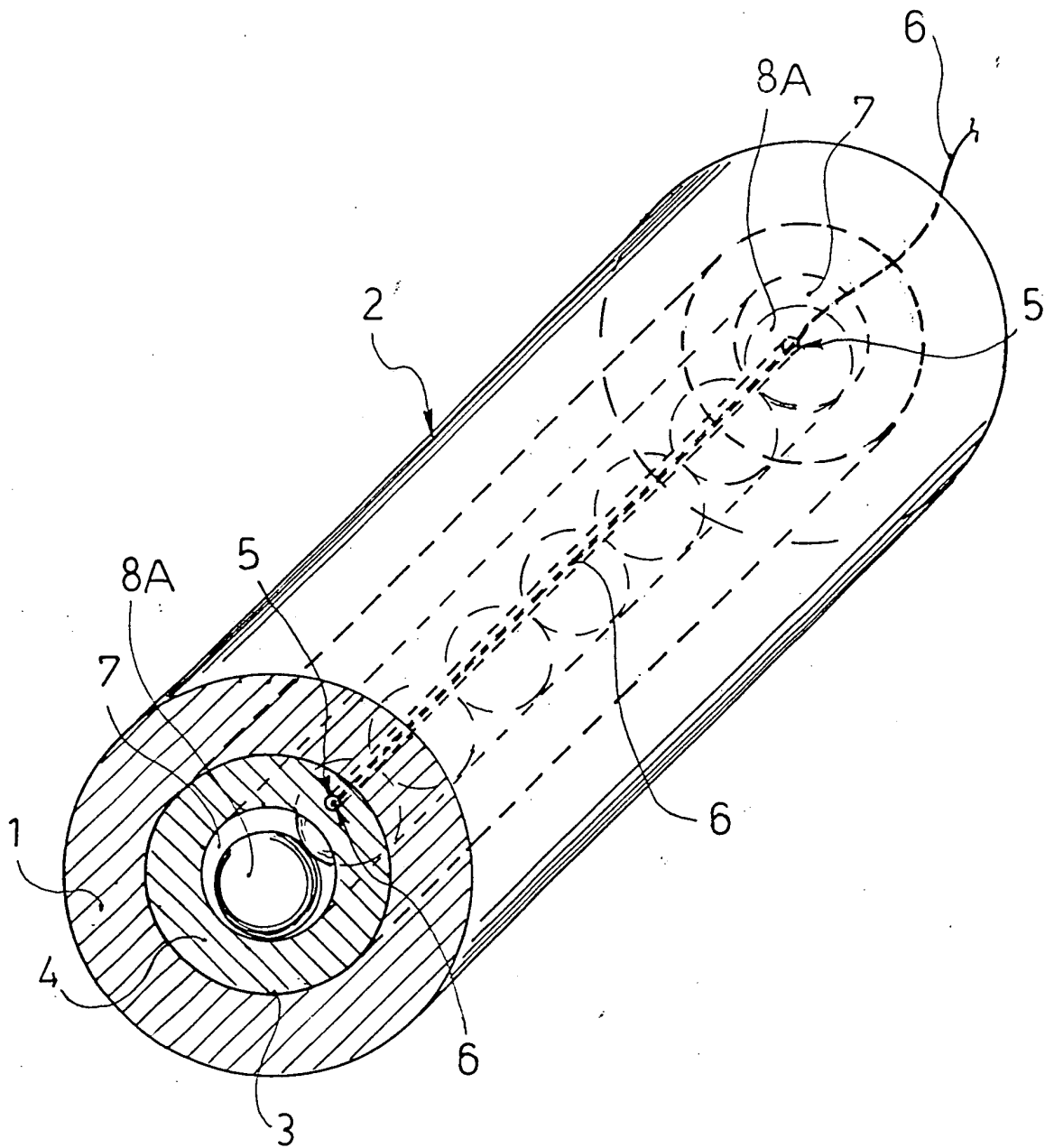


FIG. 2

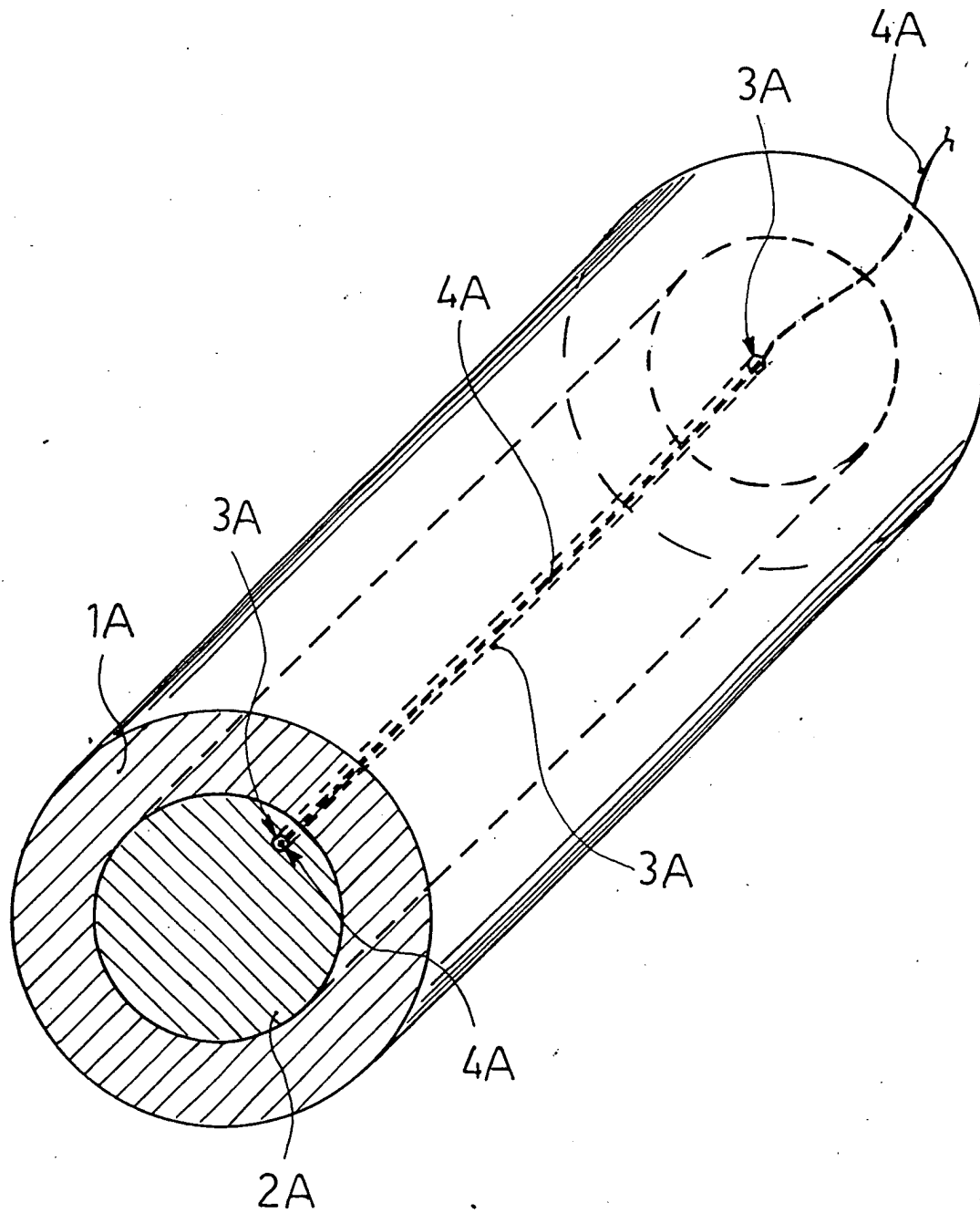


FIG. 3