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(54) **ACCESSORY FOR INSTALLING, POSITIONING AND FIXING A TELESCOPIC SIGHT ON A SPORTING RIFLE**

(57) Accessory for the installation, positioning and clamping of a scope in an air rifle.

It is formed by a longitudinal support, with means for fixing a scope (8) in its upper part, comprising likewise

the referred rifle (2), a series of longitudinal slots (4), faced with said accessory (1), and is **characterized in that** the mentioned accessory (1) incorporates some longitudinal guides (3), in its lower part, adapted for their fitting in the slots (4) of the same air rifle (2)

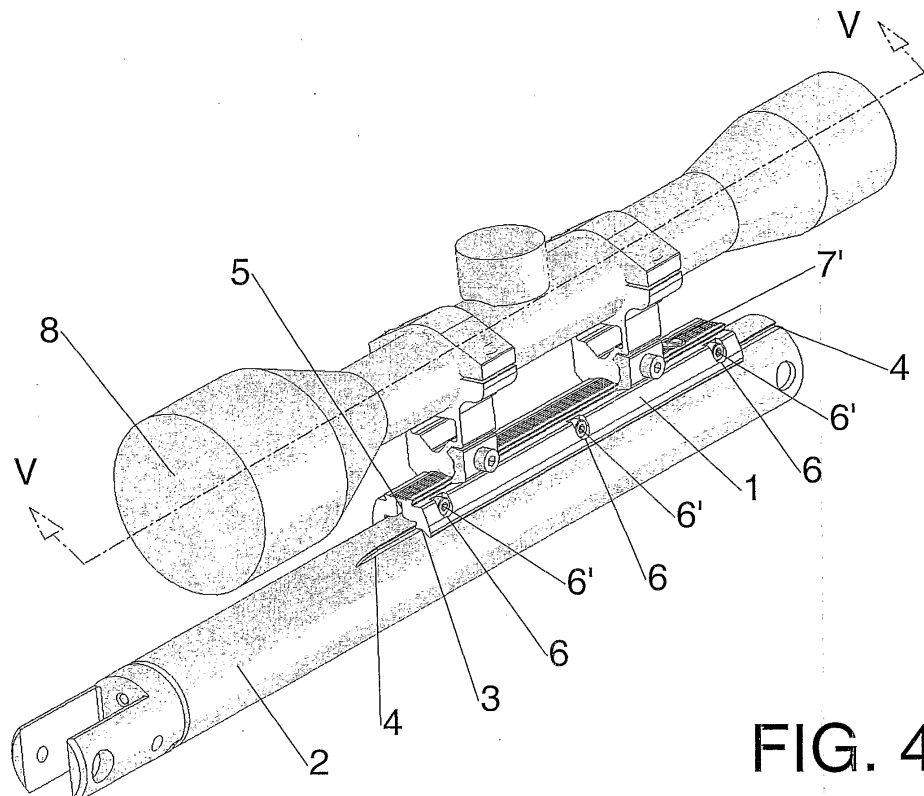


FIG. 4

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Description

[0001] Accessory for the installation, positioning and clamping of a scope in an air rifle, of the type formed by a longitudinal support, with means for fixing a scope in its upper part, comprising likewise the referred rifle, a series of longitudinal slots, faced with said accessory characterized in that the mentioned accessory incorporates some longitudinal guides, in its lower part, adapted for their fitting in the slots of the same air rifle.

BACKGROUND OF THE INVENTION

[0002] It is known in the state of the art the existence of the scopes installed and fitted on the air rifles that allow to the user to be able to use and to make use of the optical features of the scope, in order to improve the conditions of laying in the use of the rifle.

[0003] Answering to such possibility, the air rifles are on many occasions adapted for the incorporation and installation of the mentioned scopes.

[0004] Thus, in some cases the rifles have some longitudinal slots in its upper part, so that the guides of the scope fit in them, allowing the movement and positioning of the scope and its fitting in the body of the rifle by the same user.

[0005] In other cases, the rifles have some orifices with threads, made in order that an accessory, where the scope remains fixed, is screwed directly to the body of the rifle.

[0006] In the first case, as well as in the second case, the vibrations and shakes caused by the successive shots and the consequent recoils of the rifle, mean that the scope loses its corresponding adjustment that supposes a lost in the features of the scope for the improvement of the laying of the rifle.

[0007] Another of the problems that are known are referred to the fact that it is necessary to manufacture two models of rifles, a model with the before indicated longitudinal slots and the other one with some orifices for the screwed of the accessory to the body of the rifle.

BRIEF DESCRIPTION OF THE PATENT OF INVENTION

[0008] The present invention is a considerable advance in the installation and fixing of the scopes on the air rifles.

[0009] Thus, it allows by the user the adjustment and exact positioning of the scope for its correct adjustment in the rifle, and thus to make use of the optical features of the scope, using for that purpose the slots placed on the upper part of the rifle and the same accessory, in an easy and effective way.

[0010] At the same time, it allows a perfect clamping, fixation and lock together of the scope and of the accessory in the body of the rifle, without no danger of mismatching in its adjustment caused by the vibrations and

shakes caused by the shots, what it means that there is no lost in the features that the scope offers for the improvement of the laying.

[0011] Besides this type of accessory allows the manufacture of a single model of rifle, as for those that prefer fixing the scope directly on the rifle, as for those that prefer fixing it on an accessory (as it is the object of the present invention). That is so since as the accessory uses the slots in the rifle, it is eliminated the version of manufacture in which, in order to fix the scope to the rifle, the rifle was perforated to fix this scope in the rifle through screws.

[0012] It is an object of the present invention an accessory for the installation, positioning and clamping of a scope in an air rifle, of the type formed by a longitudinal support, with means for fixing a scope in its upper part, comprising likewise the referred rifle, a series of longitudinal slots, faced with said accessory characterized in that the mentioned accessory incorporates some longitudinal guides, in its lower part, adapted for their fitting in the slots of the same air rifle.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] With the purpose to facilitate the explanation five sheets of drawings are attached to the present description, in which a practical case of an embodiment has been reproduced, which is mentioned only for exemplificative, non limitative of the scope of the present invention:

- Figure 1 is a view of the support constitutive of the accessory of the invention.
- Figure 2 is a view of the support constitutive of the accessory of the invention, fitted and positioned on the upper part of an air rifle.
- Figure 3 is a section cut of the figure 2 by the line III-III.
- Figure 4 is a final sight of the scope installed on the air rifle through the accessory of the invention.
- Figure 5 is an increased section cut of the figure 4, by the line V-V.

PREFERRED EMBODIEMENT OF THE PATENT

[0014] Thus, it is shown in figure 1 the accessory 1 and its longitudinal axis 1', the guides 3 of the accessory 1, the longitudinal cavity 5 of the accessory 1, and the opening passages 6 and orifices 7 of the accessory 1.

[0015] In the figure 2 it is illustrated the accessory 1 and its longitudinal axis 1', the upper part of the rifle 2, the guides 3 of the accessory 1, the slots 4 of the rifle 2, the longitudinal cavity 5 of the accessory 1, and the opening passages 6 and orifices 7 of the accessory 1 with its respective screws 6' and 7' or similar.

[0016] In the figure 3 it is represented the accessory 1, the upper part of the rifle 2, the guides 3 of the accessory 1, the slots 4 of the rifle 2, the longitudinal cavity 5 of the accessory 1, the opening passage 6 of the acces-

sory 1 with its respective screw 6', and the scope 8.

[0017] In the figure 4 it has been drawn the accessory 1, the upper part of the rifle 2, the guides 3 of the accessory 1, the slots 4 of the rifle 2, the longitudinal cavity 5 of the accessory 1, the opening passages 6 and the screws 6' and 7' of the accessory 1, and the scope 8.

[0018] In the figure 5 it is shown the accessory 1, the upper part of the rifle 2 with its hole 2', the longitudinal cavity 5 of the accessory 1, the screws 6', the orifice 7 of the accessory 1 with its respective screw 7', and the scope 8.

[0019] The accessory of the present invention allows, for one side, to carry the scope, and for another side, and simultaneously, to be incorporated, positioned and clamped in the same air rifle, being therefore the scope installed in the rifle.

[0020] In a preferred embodiment, and as it can be appreciated in the figure 1, the accessory for the installation and clamping of a scope in an air rifle is formed by an accessory 1 of long and flat constitutive typology, and formed to adapt to the upper part of the body of the air rifle 2.

[0021] To allow its coupling and installation in the air rifle 2, the accessory 1 includes some guides 3 throughout its longitudinal dimension, and in the side that it gets in contact with the same air rifle 2.

[0022] The mentioned guides 3 are adapted to the slots 4 of the air rifle 2, configured to such effect, allowing the accessory 1 to be able to be placed on the air rifle 2 and to be able to slide longitudinally over the air rifle by the action of the user until its desired position, as it can be seen in the figure 2.

[0023] The accessory 1 has a longitudinal cavity 5 and some transversal opening passages 6, which appear in more in detail in the figure 3. The opening passages 6 cross perpendicularly to its longitudinal axis 1' the accessory 1 from one side to the other side, and crossing the cavity 5. Said opening passages 6 have also a threaded interior surface, so that some screws can be introduced in them 6', as it can be seen in detail in the figure 3.

[0024] When the screws 6' are screwed in the opening passages 6, they cross also the cavity 5, crossing transversally, therefore, the accessory 1.

[0025] When keeping tightening them, the accessory 1 compresses and bends in respect to its own longitudinal axis 1' and the cavity 5, according to the arrows of the figure 3, tightening therefore the guides 3 on the slots 4 of the air rifle 2 in which they are adapted, like a staple. So it is obtained to position, to fix and to immobilize the accessory 1 in its correct place on the air rifle 2.

[0026] Moreover, the accessory 1 has an orifice 7, a centering device, detailed in the figure 4. This orifice 7 goes across the accessory 1 in a perpendicular direction to the transversal opening passages 6, and also has a thread in its inner part, being able a centering screw 7' to be screwed on it.

[0027] This screw 7 when being screwed on crosses the accessory 1, and is screwed on also in another hole

2' with thread, placed in the upper part of the same air rifle 2. In this way, the accessory 1 is centered in the air rifle 2.

[0028] The accessory 1 is ready to carry the scope 8, in such a way that this last one can remain finally positioned and installed in the air rifle 2 through the accessory of the invention, and as it is represented in the figures 4 and 5.

[0029] Thanks to the accessory of the invention, the scope remains perfectly installed and centered in the air rifle. The specific fixation of the accessory in the air rifle and its intermediate arrangement between the scope and the same air rifle, allows the scope not to lose its adjustment as a consequence of the vibrations and shakes of the successive shots of the air rifle, and therefore to keep its optical features for the improvement of the conditions of laying of the air rifle by the user.

[0030] Even though the use of screws 6' 7' has been mentioned, the present invention comprises too those other similar means of fixation that accomplish with the same purposes, as some pins or nails, etc.

[0031] The present application describes an accessory for the installation, positioning and clamping of a scope in an air rifle. The examples mentioned here are not limitations of the present invention, for that reason it will be able to have different applications and/or be adapted, all of them within the scope of the following claims.

Claims

1. - Accessory for the installation, positioning and clamping of a scope in an air rifle, of the type formed by a longitudinal support, with means for fixing a scope (8) in its upper part, comprising likewise the referred rifle (2), a series of longitudinal slots (4), faced with said accessory (1) **characterized in that** the mentioned accessory (1) has longitudinal guides (3), in its lower part, adapted for their fitting in the slots (4) of the same air rifle (2).

2. - Accessory according to the claim 1, **characterized in that** the accessory (1) has:

- A longitudinal cavity (5) throughout its longitudinal dimension, and
- A plurality of opening passages (6) that cross from one side to the other the accessory (1) perpendicularly to its longitudinal axis (1) and crossing to said cavity (5) and for the housing of screws (6) or similar means of fixation,

in such a way that when being introduced in the opening passages (6) they compress and they bend the accessory (1) on its own longitudinal axis (1) and on the cavity (5), causing pressure over the guides (3) against the slots (4) of the rifle (2) like a clamp, fixing and immobilizing the accessory (1) in its position on

the rifle (2).

3. - Accessory according to the claim 1, **characterized in that** comprises a centering orifice (7) that crosses the accessory (1) perpendicular to the longitudinal axis (1) of the accessory (1) and to the opening passages (6), for the housing of a screw (7') or similar, centering device, which crosses the accessory (1) and is introduced at the same time in a hole (2) foreseen in the body of the rifle (2).

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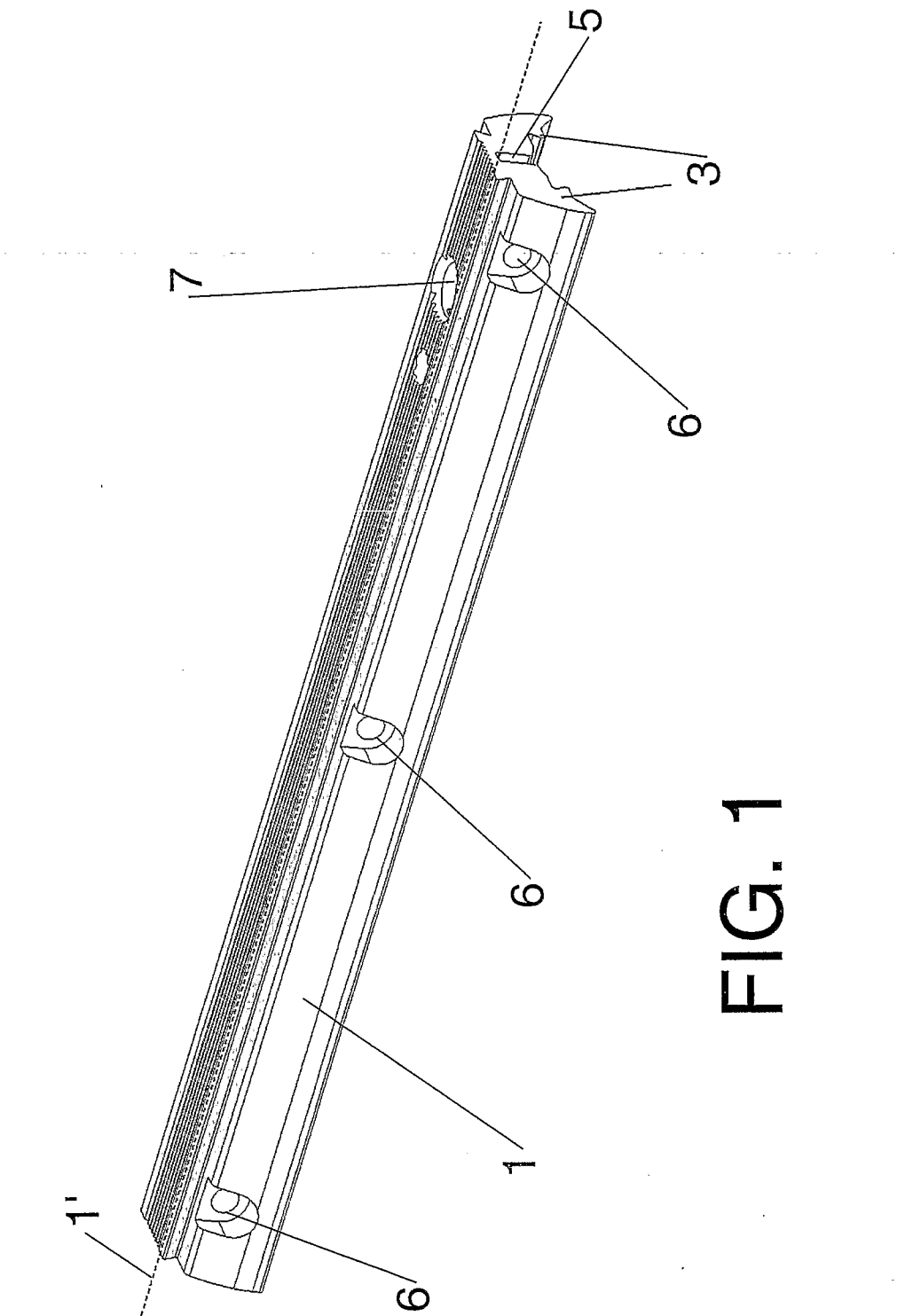


FIG. 1

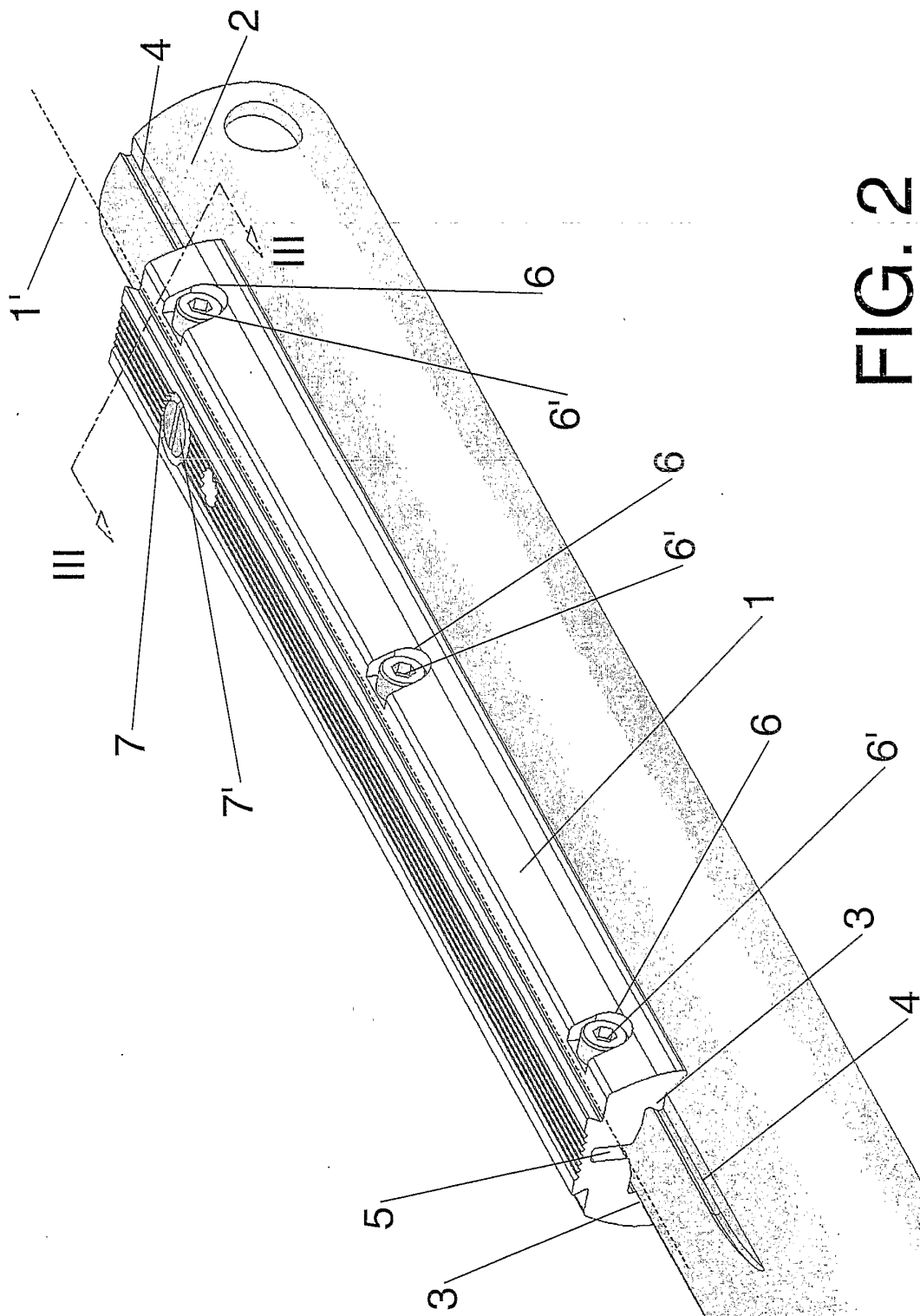
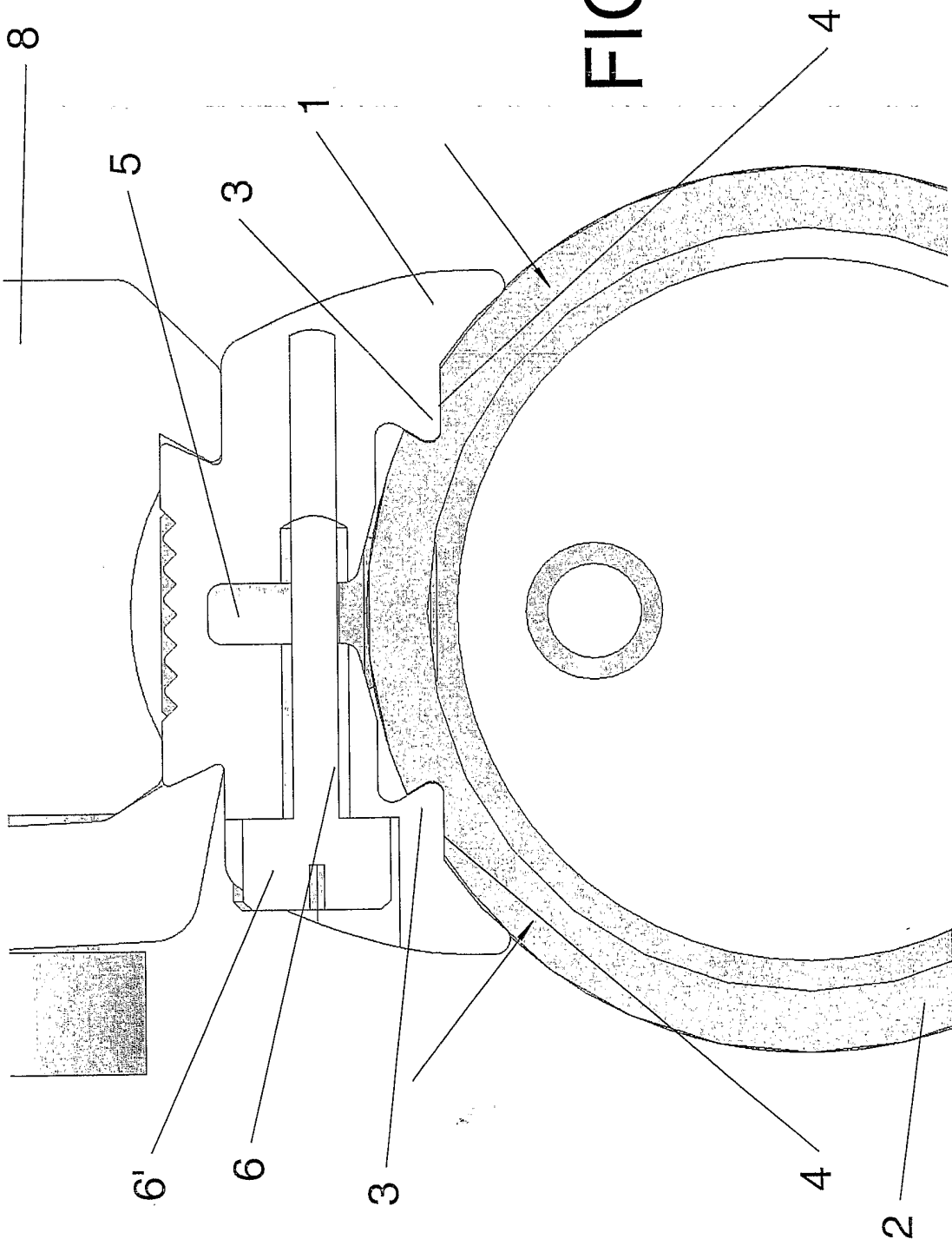


FIG. 2.

FIG. 3



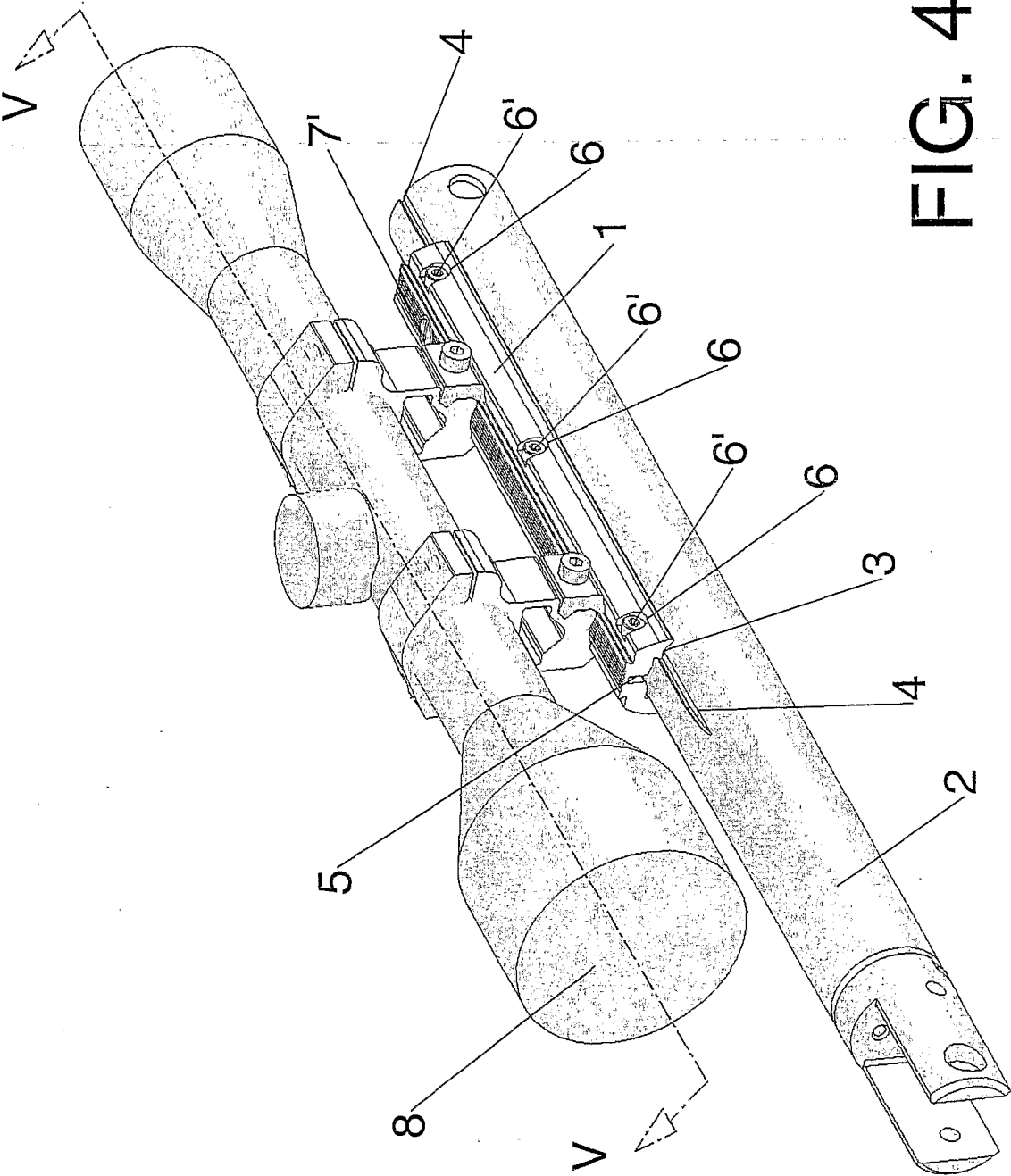


FIG. 4

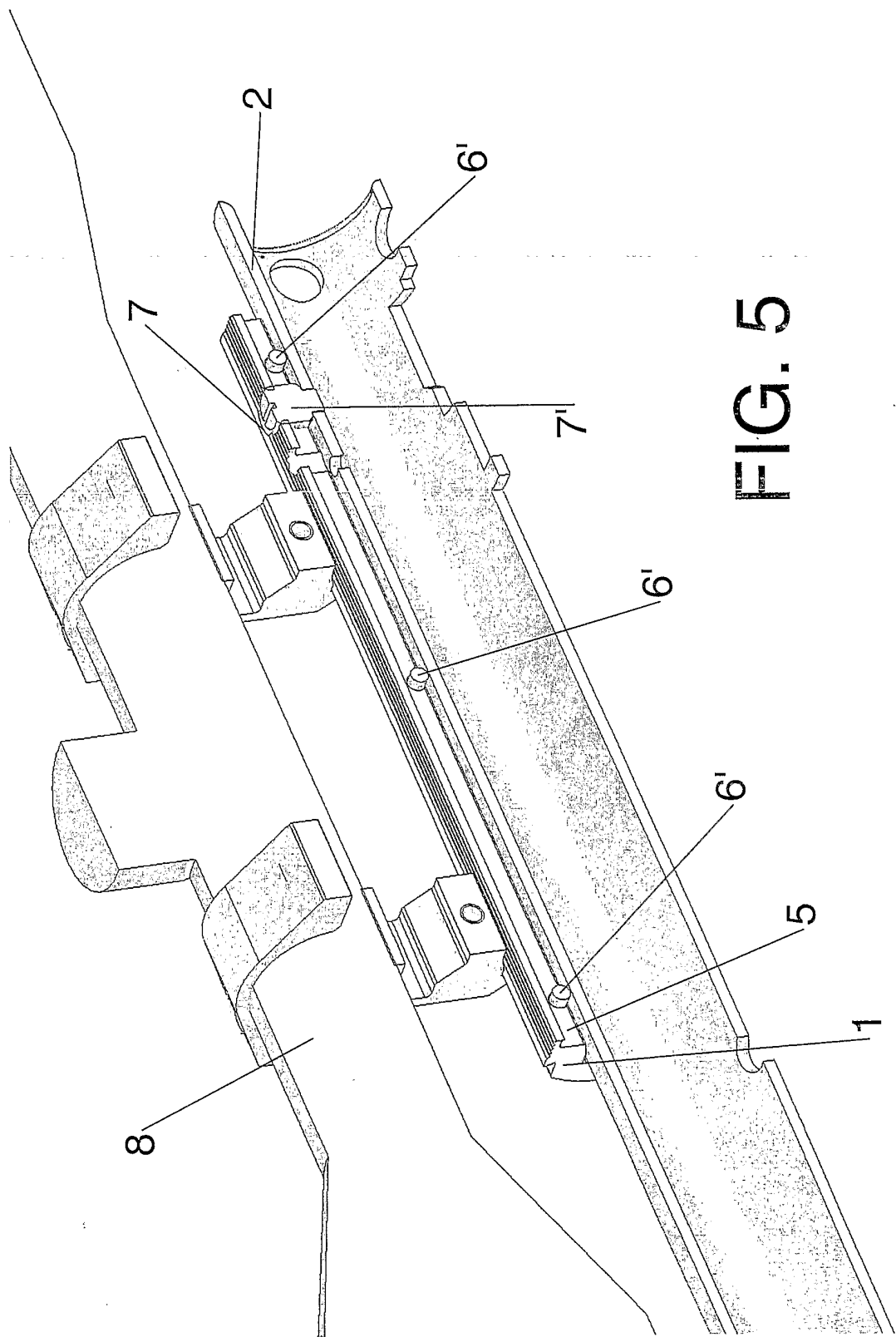


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES2006/000046

A. CLASSIFICATION OF SUBJECT MATTER INV. F41G1/387		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) F41G		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 531 039 A (GORE ET AL) 2 July 1996 (1996-07-02) column 2, line 34 - column 3, line 8 figures 1,2	1,2
X	US 4 026 055 A (WEAST ET AL) 31 May 1977 (1977-05-31) abstract column 2, lines 24-55 column 3, lines 8-20 figures 1-8	1-3
X	US 3 875 675 A (KRISAY ET AL) 8 April 1975 (1975-04-08) abstract column 3, line 28 - column 5, line 60 figures 1-9	1-3
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☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family		
Date of the actual completion of the international search 22 May 2006		Date of mailing of the international search report 29/05/2006
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Menier, R

INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 299 044 A (JOHANSEN ET AL) 10 November 1981 (1981-11-10) column 2, line 6 - column 3, line 24 figures 1-4	1, 2
X	US 3 835 565 A (WEAST) 17 September 1974 (1974-09-17) abstract column 1, line 51 - column 2, line 30 figures 1-4	1-3

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/ES2006/000046

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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