

(12) PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. AU 199645720 B2
(10) Patent No. 711981

(54) Title
An animal ear tag and method of application

(51)⁶ International Patent Classification(s)
A01K 011/00

(21) Application No: **199645720**

(22) Application Date: **1996.02.26**

(30) Priority Data

(31) Number	(32) Date	(33) Country
270564	1995.02.24	NZ

(43) Publication Date : **1996.09.05**

(43) Publication Journal Date : **1996.09.05**

(44) Accepted Journal Date : **1999.10.28**

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(56) Related Art
FR 2403740
US 3731414
AU 32394/84

ABSTRACT

This invention provides an animal ear tag and a method of applying such an ear tag wherein the ear tag engages a driving pin of the applicator through
5 a front face of the head of the tag.

This allows easier fitment of the tag to an applicator in the circumstances where cross-infection through contact between the applicator pin
10 and the animal's ear is not an issue.

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AUSTRALIA

Patents Act 1990

**ORIGINAL
COMPLETE SPECIFICATION
STANDARD PATENT**

Invention Title: "AN ANIMAL EAR TAG AND METHOD OF APPLICATION"

The following statement is a full description of this invention, including the best method of performing it known to me:

BACKGROUND

This invention relates to animal ear tags and a method of applying such ear tags and, in particular, although not necessarily solely, ear tags provided
5 as a single piece without a separate engaging portion with which the ear tag cooperates on opposed sides of the animal's ear.

Previous patents for ear tags have included some
10 direct to ear tags in which a main body portion, neck portion and head portion are provided so the driving pin of an applicator may engage the head portion through the neck portion and both the neck and head portions are passed through the animal's
15 ear. Those such as the apparatus described in New Zealand patent no. 226296/228456 go to some lengths to ensure that the applicator pin or driving means is protected from contact with the animal's ear through being sheathed within the neck and head
20 portions of the tag. This leads to some difficulty in manipulation of the tag onto the driving means. This difficulty is particularly apparent in cold weather during which the material from which the tag is made may be less flexible. Further, this method
25 is somewhat slower than may be necessary.

It is also apparent that such a method of fitment to avoid contact with the animal's ear and, thereby reducing the risk of cross infection is no
30 longer as important when considering ear tags for temporary stock such as feedlot stock.

In the case of such temporary stock, an easier insertion process may be desirable through the use
35 of an alternative tag and method of application.



OBJECT OF THE INVENTION

Therefore, it is an object of the present invention to provide an animal ear tag and method of application which overcomes some of these disadvantages of the prior art or at least provides the public with a useful choice.

SUMMARY OF THE INVENTION

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Accordingly, in a first aspect, the invention consists in an animal ear tag including:

a main body portion;

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a flexible neck portion connected with and extending substantially perpendicularly from said main body portion;

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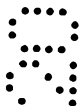
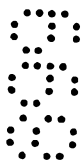
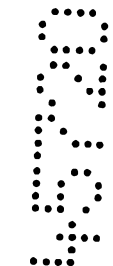
a head portion connected to an end of said neck portion and extending substantially perpendicularly to said neck portion and substantially in the same plane as said main body portion;

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said head portion having an aperture leading to a bore only partially extending within the head portion towards a front end thereof to directly receive a driving means of an applicator to drive said head portion through an animal's ear during application and draw at least a portion of said neck portion into said animal's ear such that said head portion may be disposed on one side of the animal's ear and the main body portion on the opposed side of the ear;

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said head portion having a front end to first engage an animal's ear during application and a rear end;



said aperture having an exposed portion provided on a face of said head portion facing away from said main body portion and adapted to receive directly therein said driving means to leave at least a
5 portion of said driving means exposed during said application; and

the head portion being able to flex about said neck portion so as to lie substantially
10 perpendicular to said main body portion during its application but to revert to its position substantially perpendicular to said neck portion after application.

15 Further aspects of this invention may become apparent to those skilled in the art to which the invention relates upon reading the following description.

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BRIEF DESCRIPTION OF THE DRAWINGS

The description will now be provided with reference to the drawings in which:

25

Figure 1

shows a perspective view of an ear tag and an applicator in accordance with one embodiment of this invention in a first position;

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Figure 2

shows a perspective view of the apparatus of Figure 1 in a second position; and

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Figure 3

shows a perspective view of an ear tag and a portion



of the applicator engaging an animal's ear in accordance with this invention.

5 DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to Figure 1, an animal ear tag 1 can be seen located in an applicator 2 ready for use.

10 The ear tag 1 has a main body portion 3, a neck 4 and a head portion 5 such that the head portion 5 is arranged at or adjacent a distal end of the neck 4 from that to which the main body portion 3 is attached. Such an ear tag 1 is arranged so that the
15 main body portion 3 and head 5 can be disposed on opposed sides of the animal's ear once fitted.

As can be seen from Figure 1, the applicator 2 has a driving means 6 to engage within an aperture
20 in the head 5 such that the driving means 6 may drive the head 5 through an animal's ear. Although a variety of applicators 2 may be used in conjunction with this invention, the preferred form uses an applicator having a driving means comprising
25 a pin 6 as shown in Figure 1.

The head 5 may be of any suitable form and may include such forms whereby the driving means 6 extends entirely through the head 5 or, as shown in
30 this preferred form, the driving means 6 may locate in an aperture 7 and extend towards a front end 8 of the head portion 5. The driving means 6 and the bore extending from the aperture 7 may terminate short of the front end 8 and not extend entirely
35 throughout the head 5.



In accordance with some conventional designs of ear tags, the head 5 may be provided with a cutting portion 9 adjacent that front end 8 to pierce the animal's ear so that the remainder of the head
5 portion 5 and at least a portion of the neck portion 4 can be placed through the opening made in the ear by the cutting means 9.

Turning now to Figure 2, the applicator 2 can be
10 seen with the driving means 6 rotated to lie substantially parallel with the upper jaw 10 of the applicator 2. This is in accordance with a number of existing applicators 2 although this does not necessarily have to be provided in an applicator
15 used in conjunction with this invention.

When used with this preferred form of applicator 2, the ear tag 2 may be relatively easily engaged with the driving means 6 through fitment of the head
20 portion 5 onto the driving means 6 through the aperture 7. To facilitate easy engagement of the driving means 6 with the head 5, the aperture 7 into which the driving means 6 is placed is provided, in this preferred form, on a distal face 11 of the head
25 5 from the main body portion 3. Alternatively, the aperture 7 could be placed on side faces or a rear face of the head 5, however, it is preferred that the aperture 7 is not placed on the side of the head 5 from which the neck 4 extends as this aperture
30 would be more difficult to locate by user of the apparatus in placing the driving means 6 in the aperture 7.

Referring now to Figure 3, it can be seen that
35 the applicator 2 and ear tag 1 are placed adjacent an animal's ear 12. It can be seen that the main



body portion 3 and neck portion 4 are preferably provided with sufficient flexibility so that they may fold against the driving means 6 to reduce the size of the pierced aperture required in the ear 12 to place the tag 1. In this embodiment it can be seen that the ear tag 1 and, in particular, the main body portion 3 is provided with a recess 13 or otherwise shaped and configured so that the driving means 6 can be located relatively closely to the juncture 14 between the neck 4 and the main body portion 3. This allows the ear tag 3 to fold about the driving means 6 as desired to reduce the size of the aperture necessary in the ear 12 during the fitment sequence.

Figure 3 also shows an aperture 15 which is traditionally provided in an ear tag 1 for the normal fitment procedure of the driving means 6 through the neck 4 and then into an aperture provided in the head 5. This aperture 15 itself may more preferably be sealed to prevent engagement in that manner and to force a user to correctly position the driving means 6 through the new aperture 7 provided in the head 5. However, although the aperture 15 may be sealed, the neck 4 itself is still preferably constructed with a hollow core to increase the flexibility of the neck 4 so it can assume the position as shown in Figure 3.

The construction of an ear tag 1 may be through any suitable form of construction and the materials may be of any suitable form including the current materials used for such ear tags being a range of plastic materials. It is preferred that the neck 4 and main body portion 3 are made from a relatively soft material for flexibility and the head 5 or at



least the cutting portion 9 may be made from a firmer material. As is the case with current ear tags 1, the cutting means 9 may be provided as a separate piece made from a different material which is then fitted to the head 5 or, in an alternative form, could be provided as part of a unitary construction of the head 5.

Thus it can be seen that the invention provides an ear tag which may be particularly useful for fitment to animals outside of those used for breeding or long term retention such that the contact between the driving means 6 and the ear 12 during the driving of the head 5 and at least a portion of the neck 4 through the ear 12 is not avoided due to the decreased concern over cross infection in stock of these types.

Such a method allows a faster application of the tag and easier manipulation of the tag. Although particularly useful in cold weather, the increased speed of fitment may be an advantage in all conditions.

Where in the foregoing description, reference has been made to specific components or integers of the invention having known equivalents, then such equivalents are herein incorporated as if individually set forth.

Although this invention has been described by way of example and with reference to possible embodiments thereof, it is to be understood that modifications or improvements may be made thereto without departing from the scope or spirit of the invention as defined in the appended claims.



THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. An animal ear tag comprising:

5 a main body portion;

a flexible neck portion connected with and
extending substantially perpendicular from
said main body portion;

10

a head portion connected to an end of said
neck portion and extending substantially
perpendicularly to said neck portion and
substantially in the same plane as said main
15 body portion;

15

said head portion having an aperture
leading to a bore only partially extending
within the head portion towards a front end
20 thereof to directly receive a driving means of
an applicator to drive said head portion through
an animal's ear during application and draw at
least a portion of said neck portion into said
animal's ear such that said head portion may be
25 disposed on one side of the animal's ear and the
main body portion on the opposed side of the
ear;

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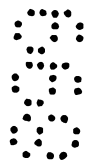
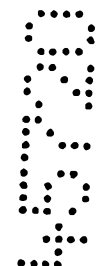
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said head portion having a front end to
30 first engage an animal's ear during application
and a rear end;

30

said aperture having an exposed portion
provided on a face of said head portion facing
35 away from said main body portion and adapted to
receive directly therein said driving means to
leave at least a portion of said driving means
exposed during said application; and

35



5 the head portion being able to flex about
said neck portion so as to lie substantially
perpendicular to said main body portion during
its application but to revert to its position
substantially perpendicular to said neck portion
after application.

10 2. An animal ear tag as claimed in claim 1 wherein
said main body portion provides a recess
adjacent said neck portion to accommodate a
portion of said driving means to the rear of
said aperture of said head portion when said
head portion has flexed about said neck portion.

15 3. An animal ear tag as claimed in claim 1 or claim
2 wherein cutting means are provided adjacent
said front end of said head portion.

20 4. An animal ear tag substantially as hereinbefore
described with reference to the accompanying
drawings.

DATED this Third day of February 1999.

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MICHAEL STUART GARDNER
by his Patent Attorneys
FISHER ADAMS KELLY



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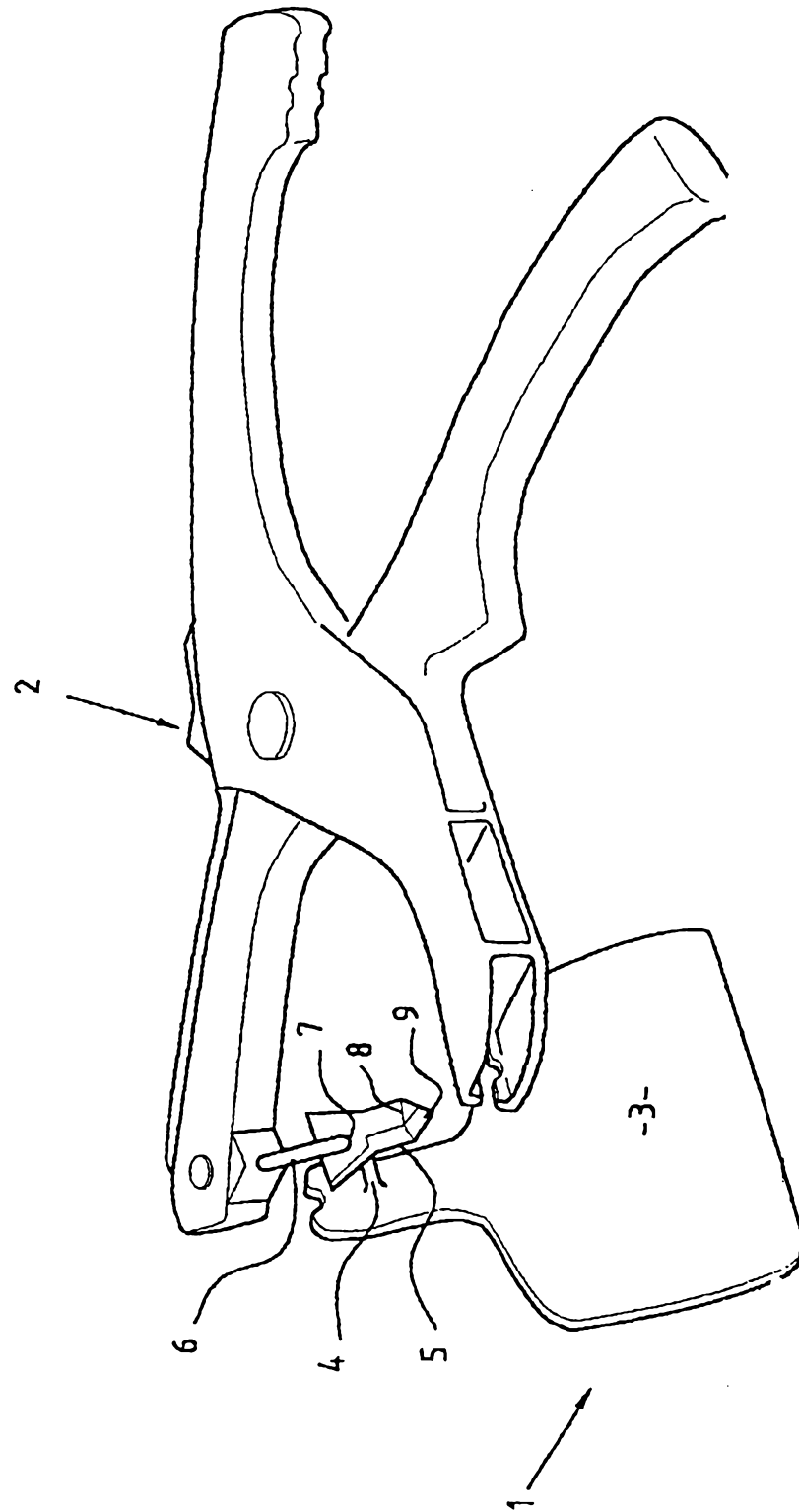


FIG.1.

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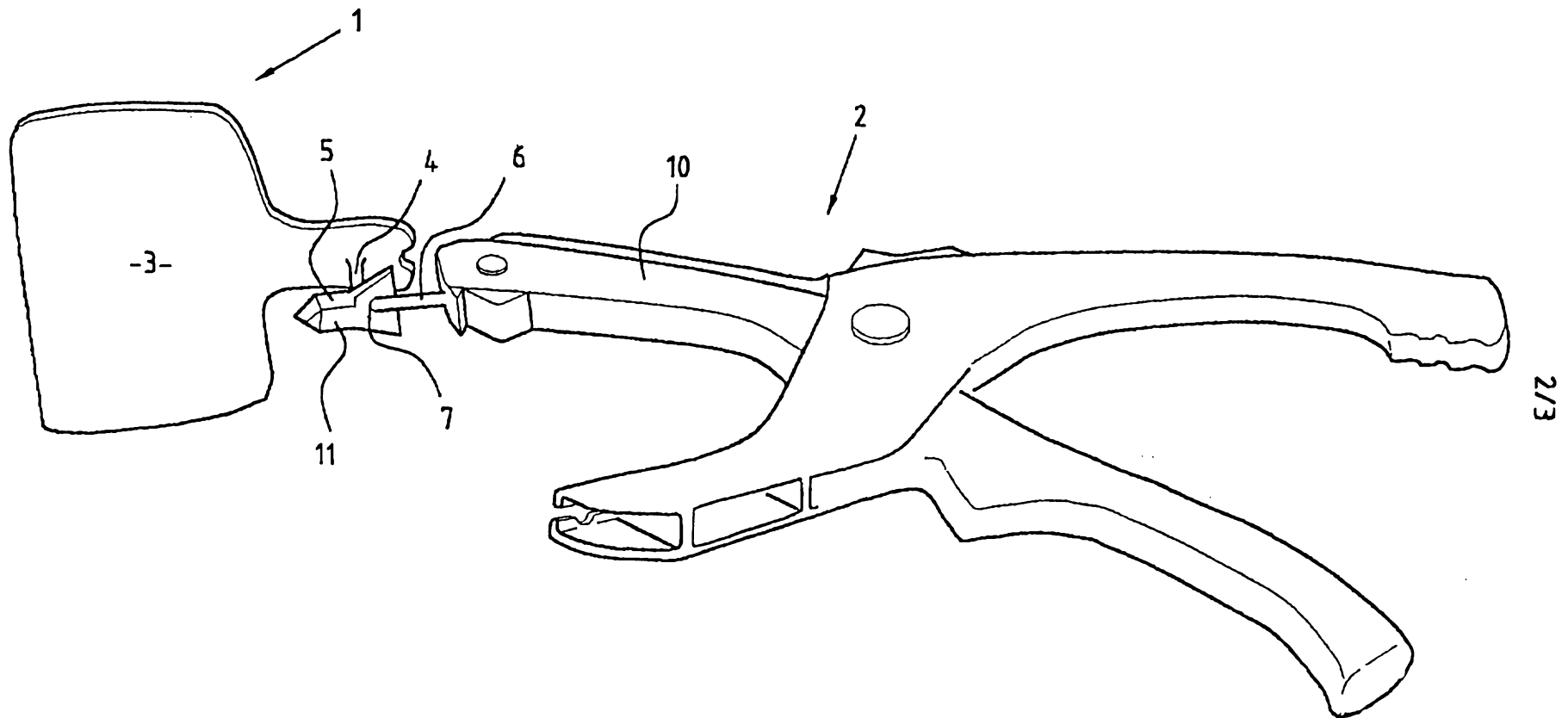


FIG.2.

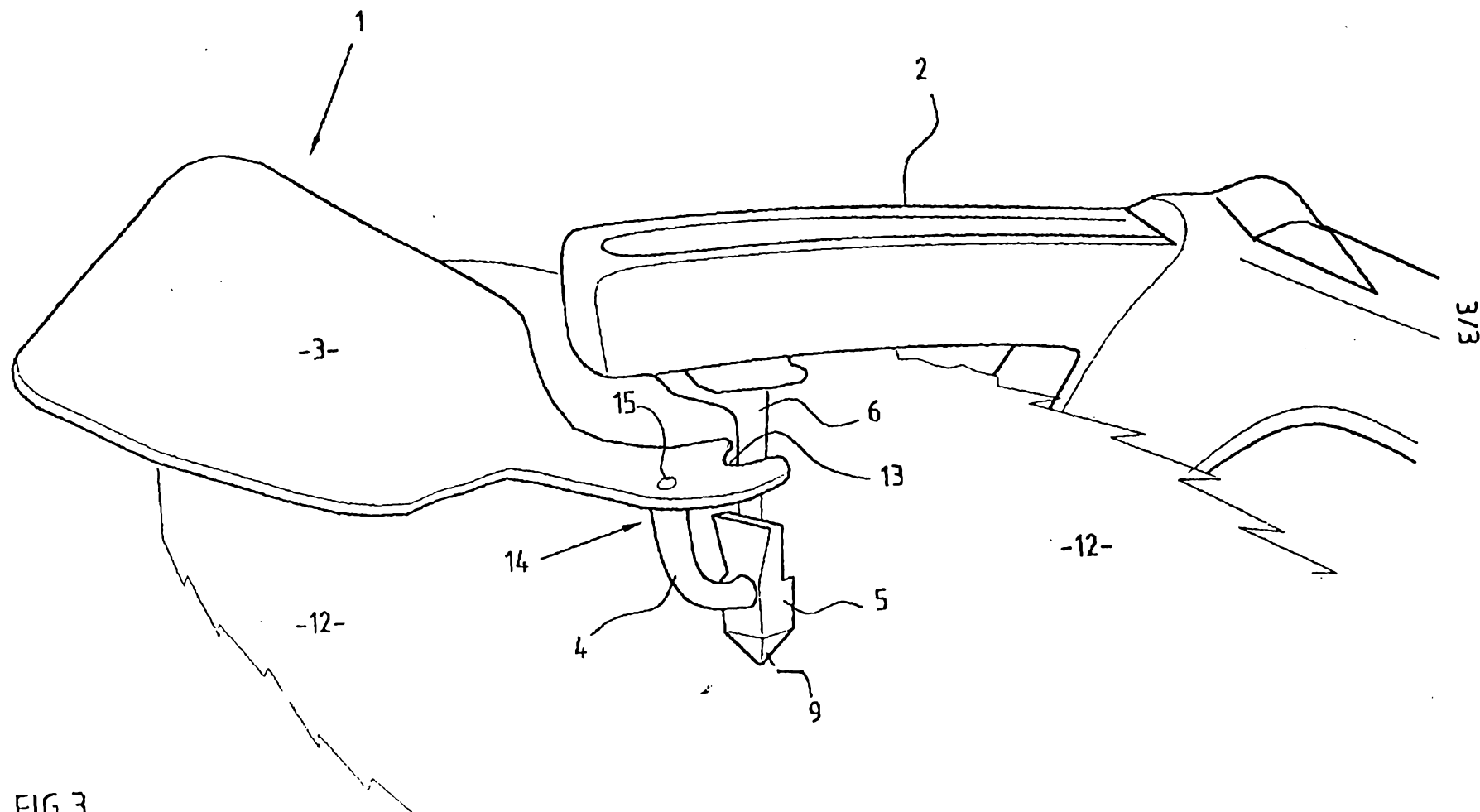


FIG.3.