



PATENT SPECIFICATION

(11) S86711

(21) Application No. S2015/0068

(22) Date of Filing of Application: 11/03/2015

(45) Specification Published: 05 October 2016

(51) Int. Cl. (2016.01)
A01K 1/00

(54) Title: Animal stall partition

(72) Inventor: DAMIEN O'DONOVAN

(73) Patent Granted to: DAMIEN O'DONOVAN, An Irish Citizen, Clontead House,
Coachford, Co.Cork, Ireland

“Animal Stall Partition”

Introduction

5 This invention relates to animal stalls and in particular to partitions for same.

It is known to provide a number of spaced-apart animal stall partitions in cow sheds or the like to provide a row of separate stalls for the animals. One relatively simple and robust stall partition comprises a looped metal rail with substantially horizontal upper and lower rail portions which is mounted in an upright orientation on a support to provide each animal stall partition. When the cows are in the stalls they often lie against the rails, particularly against the lower rail portion. When entering the stall or getting up from a lying position in the stall the cow can easily slip and hit against the rail which may cause an injury to the animal. Also, when lying in the stall the animal may lie against the lower rail portion particularly, which can cause some discomfort due to the coldness of the metal rail. It is desirable to avoid injury to the animals and also to increase the comfort of the animals as this will have a positive effect on productivity.

20 The present invention is directed towards overcoming these problems.

Summary of the Invention

According to the invention, there is provided an animal stall partition including a metal barrier rail for mounting in a substantially upright orientation on a support to form one side of an animal stall and an animal comfort enhancing sleeve mounted on said rail covering at least portion of said rail.

In one embodiment of the invention, the sleeve is a shrink fit on the rail.

30

In another embodiment, the sleeve has a reinforced body.

In a further embodiment, the sleeve comprises a reinforcing cord core encased in a body of resilient material.

35

In another embodiment, the reinforcing cord is a high tenacity polyester tyre cord.

In another embodiment, the rail is of tubular construction and the sleeve has a tubular body which is engagable about the tubular rail.

5

In another embodiment, a bore of the sleeve body has a diameter which is less than an outside diameter of the rail.

In another embodiment, the sleeve comprises a heat insulating resilient material.

10

In another embodiment, the sleeve comprises a rubber or plastics material or a similar material.

In another embodiment, the sleeve comprises styrene butadiene rubber material.

15

In a further embodiment, the rail comprises a top rail and a bottom rail spaced-apart from the top rail and connected to the top rail at one end by an end rail.

In another embodiment, the top rail, bottom rail and end rail all lie in the same plane.

20

In another embodiment, the bottom rail is cranked intermediate its ends.

In another embodiment, the end rail is looped.

25 In another embodiment, the sleeve covers at least that portion of the bottom rail which, in use, is contactable by an animal.

In another embodiment, the sleeve extends around the inner end.

30 In another aspect, the invention provides a method for mounting a resilient sleeve on a metal barrier rail for an animal stall which includes drawing the sleeve onto the rail by means of a vacuum.

35 In another aspect, the invention provides an animal stall system comprising a plurality of the animal stall partitions mounted spaced-apart on a support to form a plurality of

animal stalls.

In a further aspect, the invention provides a comfort enhancing sleeve for mounting on a metal barrier rail to form an animal stall partition as described herein.

5

Brief Description of the Drawings

The invention will be more clearly understood by the following description of some embodiments thereof, given by way of example only, with reference to the accompanying drawings, in which:

10

Fig. 1 is a perspective view of an animal stall partition according to the invention;

15

Fig. 2 is a detail perspective view showing a looped end of the animal stall partition;

Fig. 3 is a detail cross sectional view of a sleeve forming part of the animal stall partition.

20

Fig. 4 is a perspective view illustrating a number of the animal stall partitions of the invention in use, mounted on a support, forming a row of animal stalls; and

Fig. 5 is another perspective view of the animal stall partitions of the invention, in use.

25

Detailed Description of the Preferred Embodiments

Referring to the drawings, there is illustrated an animal stall partition according to the invention, indicated generally by the reference numeral 1. The stall partition 1 comprises a metal barrier rail 2 for mounting in a substantially upright orientation on a support 3 (Fig. 4) to form one side of an animal stall, indicated generally by the reference numeral 4. An animal comfort enhancing sleeve 5 is mounted on the rail 2 covering at least portion of the rail 2 that, in use, comes into contact with an animal 6 using the stall 4.

35

The barrier rail 2 is of galvanised steel material and comprises a top rail 7 spaced-apart from a bottom rail 8 to which it is interconnected by a looped end rail 9. The bottom rail 8 is cranked 10 intermediate its ends and thus the spacing between the top rail 2 and bottom rail 8 is somewhat less adjacent the end rail 9 than between the free inner ends 11, 12 of the top rail 7 and bottom rail 8. Through holes 14, 15 at the inner ends 11, 12 of the top rail 7 and the bottom rail 8 facilitate mounting the rail 2 on the support 3 by means of mounting brackets 16.

The sleeve 5 is a shrink fit on the rail 2 and can be drawn onto the rail 2 by means of a vacuum. The sleeve 5 has a reinforced body 16 (Fig. 3) comprising, in this case, a reinforcing cord core 17 of high tenacity polyester tyre cord encased in a body 18 of resilient material, preferably rubber or plastics material or similar. In this regard, styrene butadiene rubber material has been found particularly suitable.

The rail 2 is of tubular construction and the associated sleeve 5 also has a tubular body which is engagable about the tubular rail 2. A bore 19 of the sleeve 5 body has a diameter which is less than an outside diameter of the rail 2 and thus the sleeve 5 is a shrink fit on the rail 2 so that it snugly and securely clamps itself on the rail 2.

In use, a number of the animal stall partitions 1 of the invention are mounted on a support 3 (Fig. 4) to form a row of juxtaposed stalls 4 for housing animals 6. It will be appreciated that the relatively soft resilient sleeve 5 provides greater comfort for the animal 6 than an exposed metal rail 2 and also prevents injury to the animal 6 if the animal 6 knocks against the rail 2, all without compromising the strength of the barrier rail 2.

It will be noted that sleeves 5 of the invention can also be readily easily retrofitted to existing tubular metal stall partitions. With the rail 2 removed from the support 3 the sleeve 5 can be drawn onto the rail 2 and positioned on the rail 2 as required.

It is envisaged that other methods for securing the sleeve 5 on the rail 2 could be used, such as by means of adhesive for example.

The invention is not limited to the embodiments hereinbefore described which may be varied in both construction and detail.

CLAIMS

1. An animal stall partition including a metal barrier rail for mounting in a substantially upright orientation on a support to form one side of an animal stall and an animal comfort enhancing sleeve mounted on said rail covering at least portion of said rail.
5
2. The animal stall partition as claimed in claim 1, wherein the rail is of tubular construction and the sleeve has a tubular body which is engagable about the tubular rail, a bore of the sleeve body has a diameter which is less than an outside diameter of the rail, and the sleeve comprises a heat insulating resilient material.
10
3. The animal stall partition as claimed in claim 1 or claim 2, wherein the sleeve is a shrink fit on the rail, the sleeve has a reinforced body, the sleeve comprises a reinforcing cord core encased in a body of resilient material, the reinforcing cord is a high tenacity polyester tyre cord, and the sleeve comprises styrene butadiene rubber material.
15
20
4. The animal stall partition as claimed in any preceding claim, wherein the rail comprises a top rail and a bottom rail spaced-apart from the top rail and connected to the top rail at one end by an end rail, the top rail, bottom rail and end rail all lie in the same plane, the bottom rail is cranked intermediate its ends, the end rail is looped, the sleeve covers at least that portion of the bottom rail which, in use, is contactable by an animal and the sleeve extends around the inner end.
25
5. An animal stall partition substantially as hereinbefore described with reference to the accompanying drawings.
30

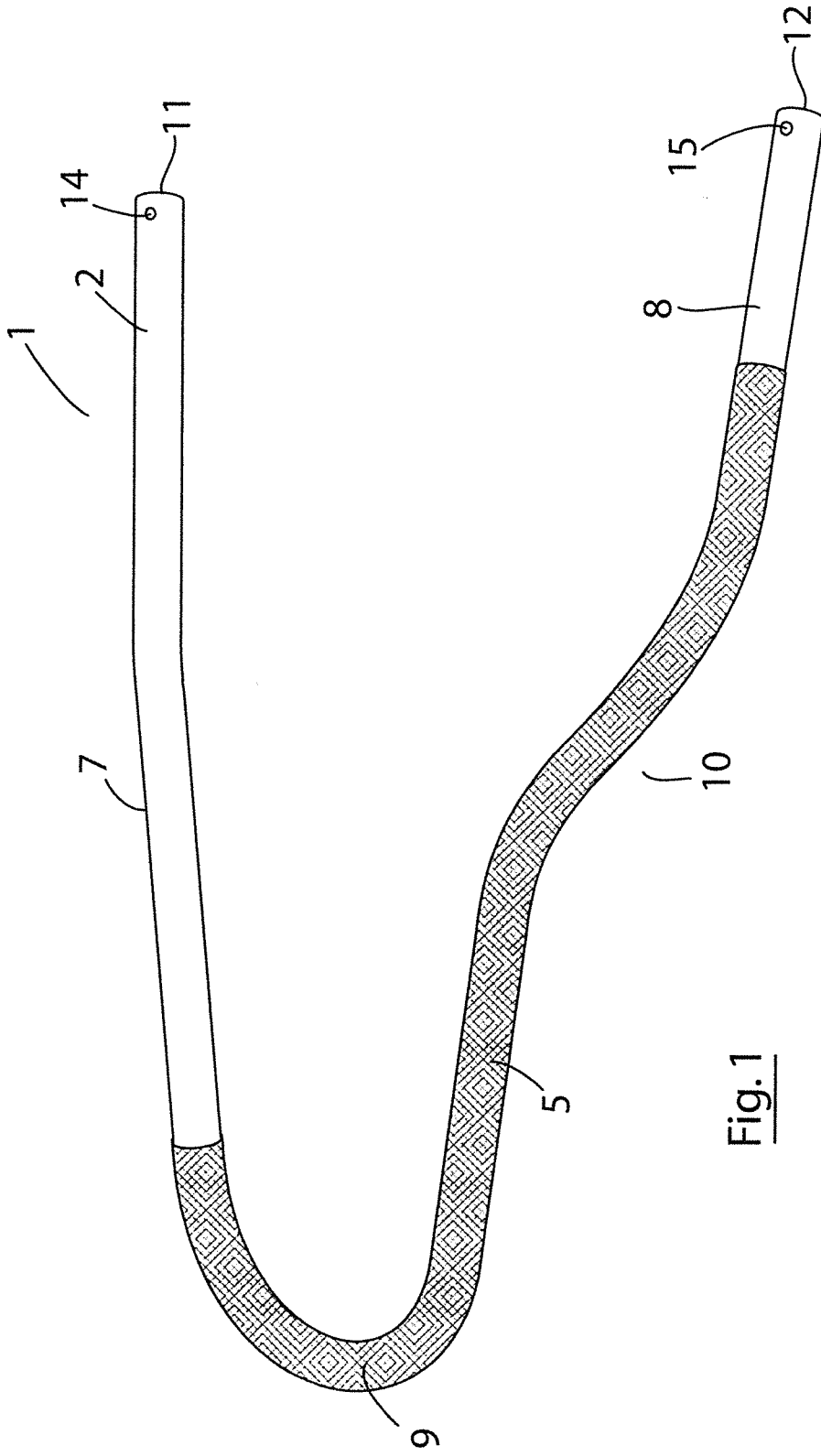


Fig. 1

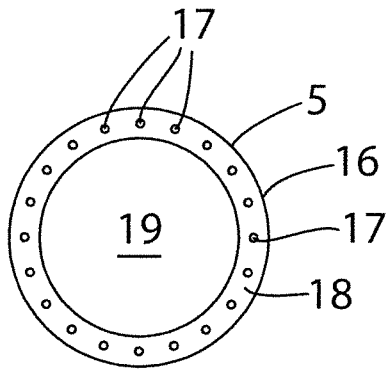


Fig. 3

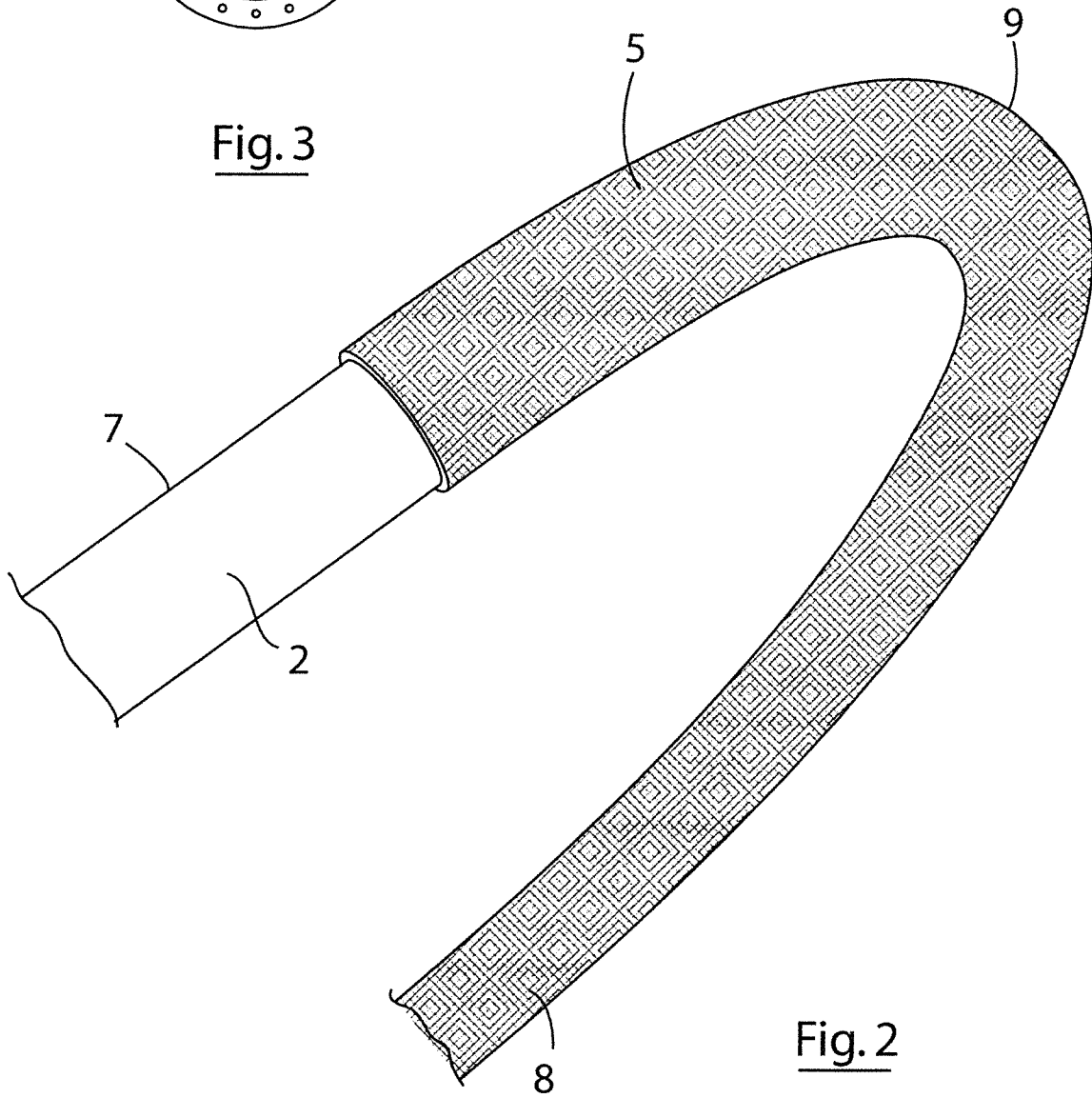


Fig. 2

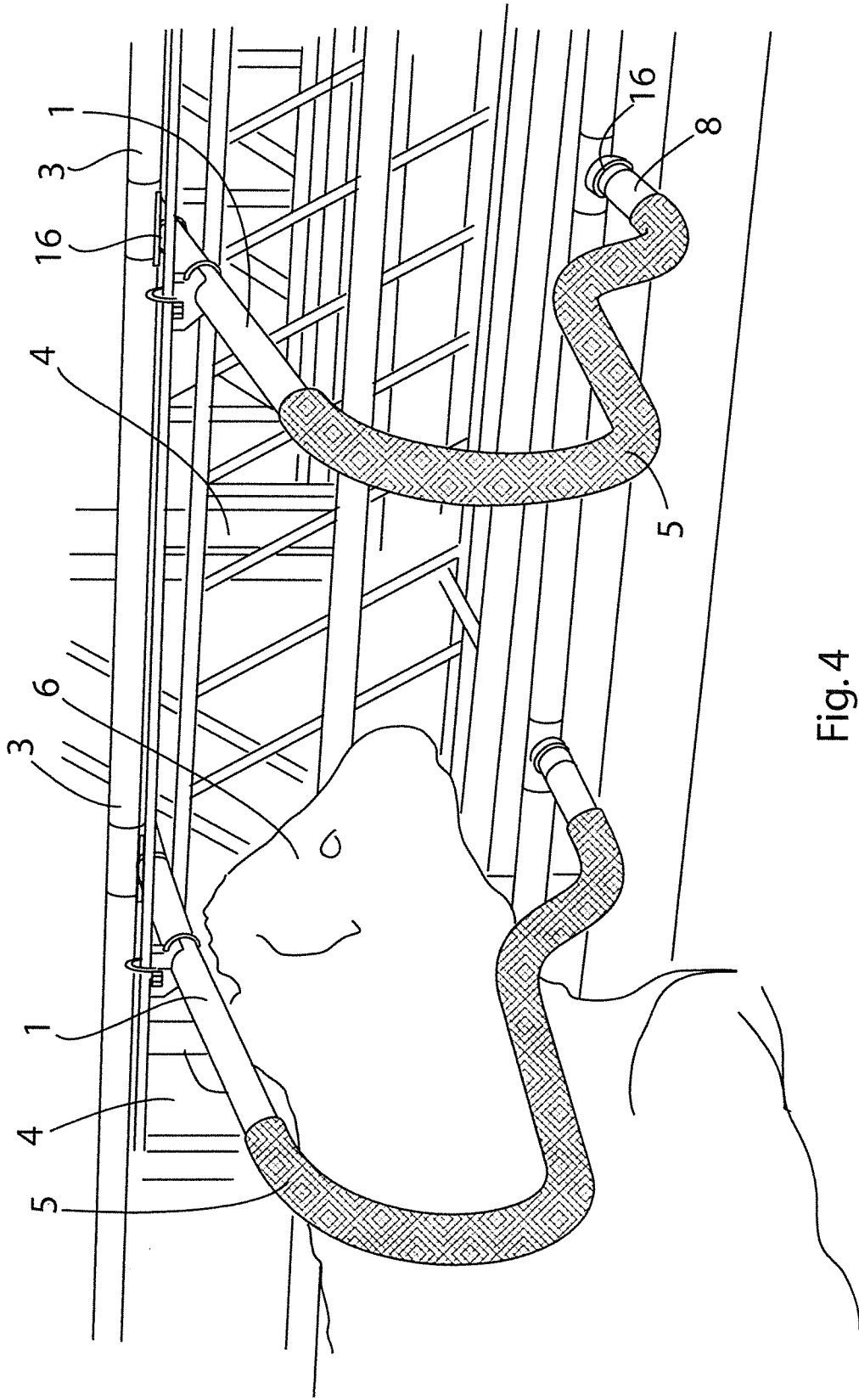


Fig. 4

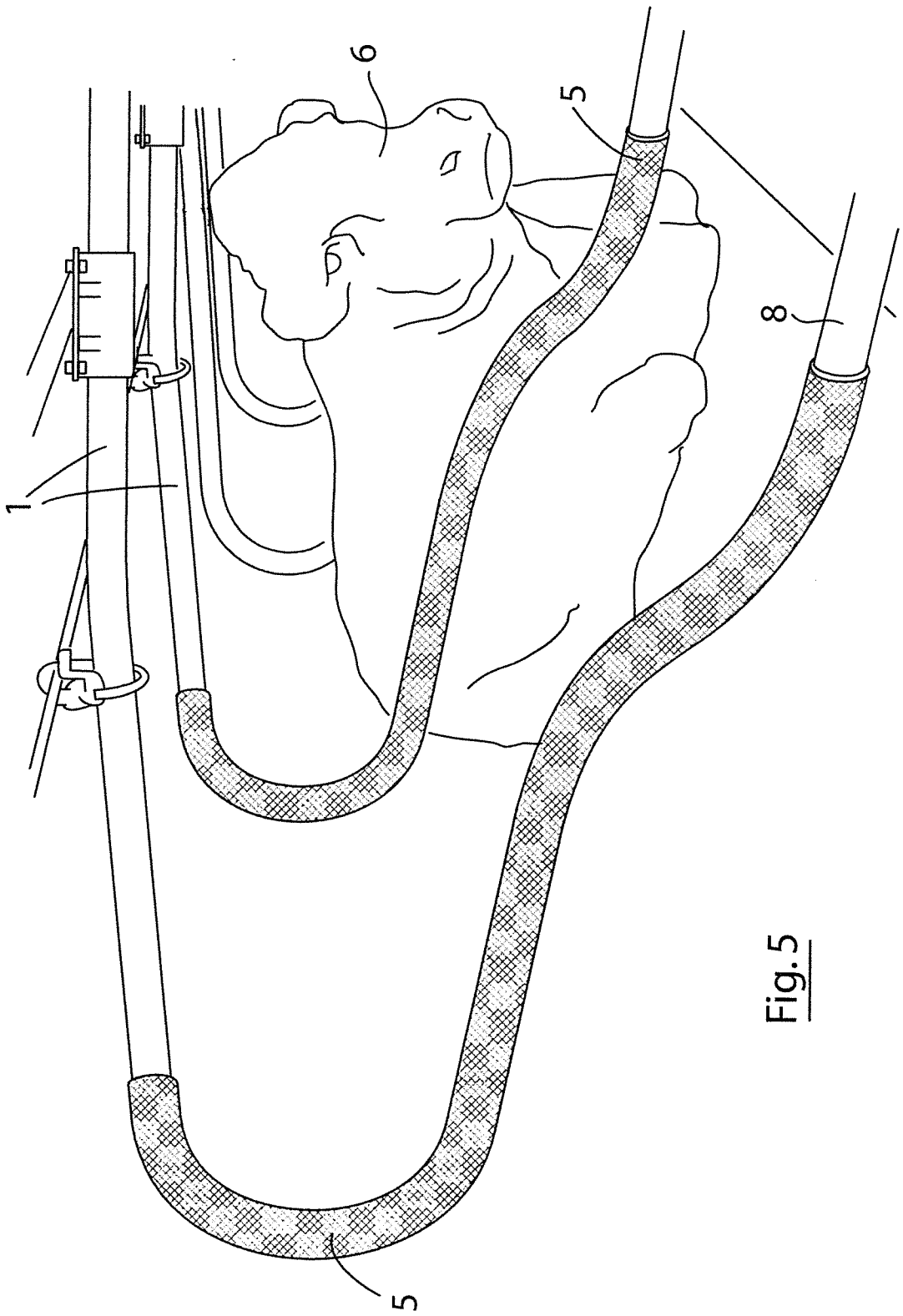


Fig. 5