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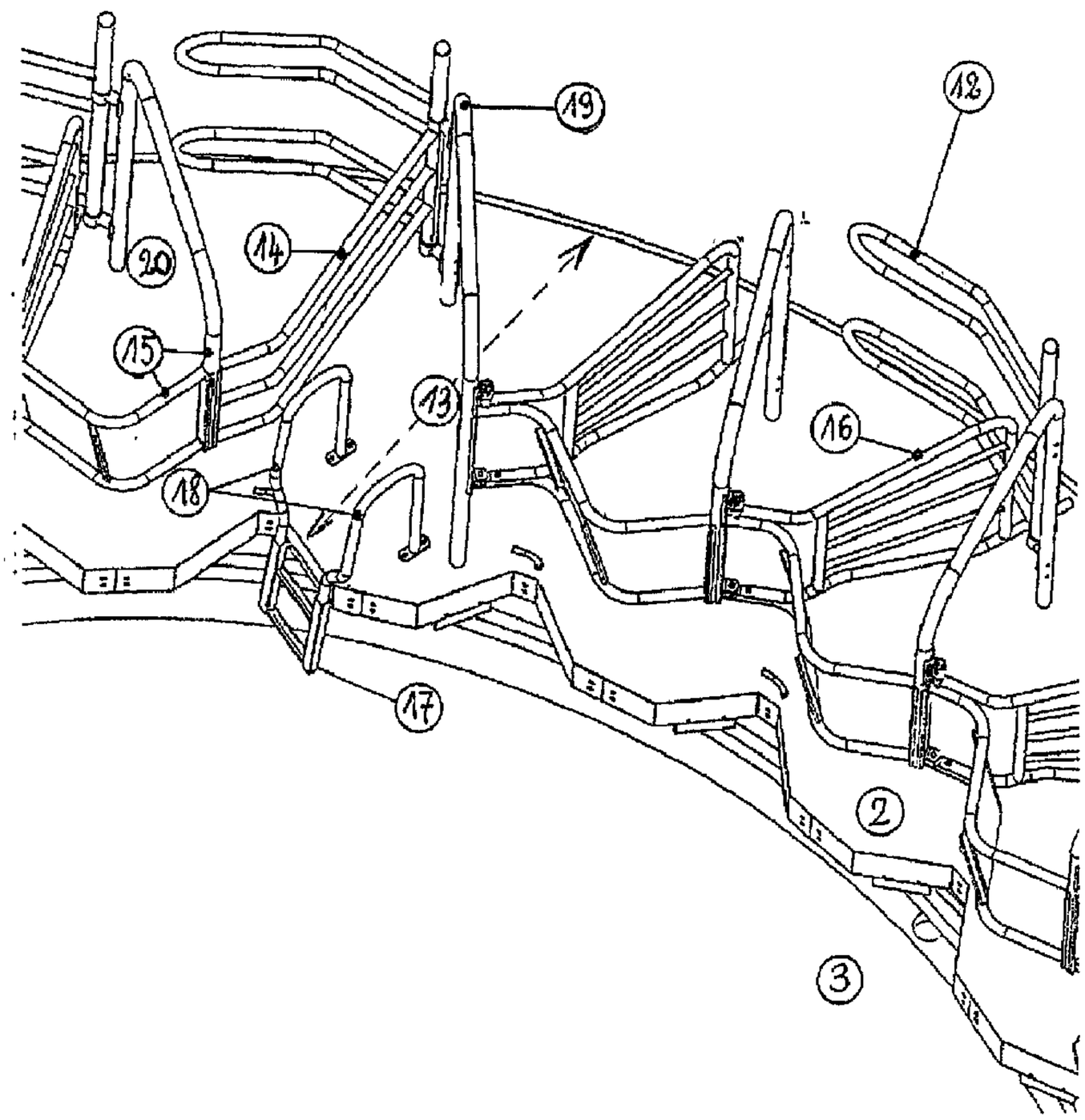
(54) Titre : AMENAGEMENT D'UN PASSAGE D'HOMME POUR TRAITE A L'INTERIEURE D'UNE PLATEFORME CIRCULAIRE ROTATIVE

(54) Title: PROVIDING A HUMAN-SIZED MILKING PASSAGEWAY INSIDE A CIRCULAR TURNTABLE



(57) Abrégé/Abstract:
The present invention relates to a milking facility provided inside a milking parlour circular turntable (2) provided with stalls (20) in which cows can be milked from the side or from behind, characterised in that each of the stalls (20) is provided with an individually

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(57) Abrégé(suite)/Abstract(continued):
openable gate (12), one or more human-sized passageways (13) provided on the turntable each replace one stall and are stall-sized and protected by a stationary barrier (14) as well as a pivotable barrier (16) enabling a cow to be led into the stall (20), whereafter the passageway (13) is cleared of obstacles, and a pit ladder (17) making it easier for a person to move along the passageway (13) and into the milking pit (3).

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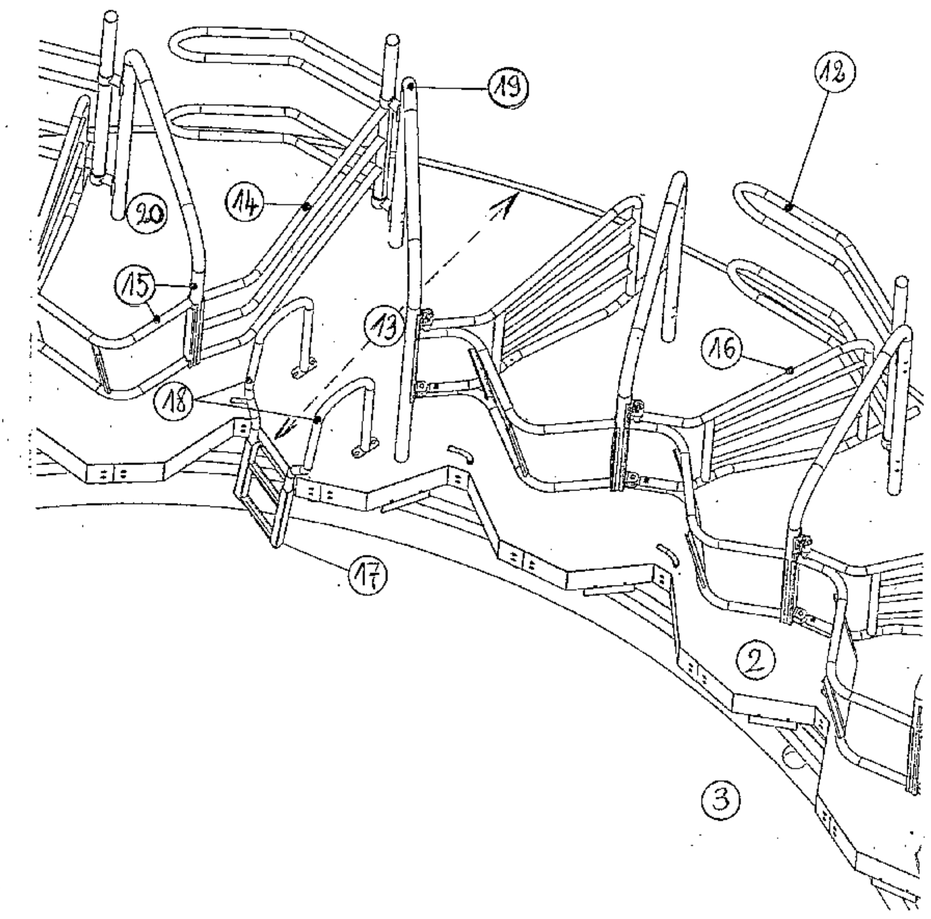

(57) Abstract: The present invention relates to a milking facility provided inside a milking parlour circular turntable (2) provided with stalls (20) in which cows can be milked from the side or from behind, characterised in that each of the stalls (20) is provided with an individually openable gate (12), one or more human-sized passageways (13) provided on the turntable each replace one stall and are stall-sized and protected by a stationary barrier (14) as well as a pivotable barrier (16) enabling a cow to be led into the stall (20), whereafter the passageway (13) is cleared of obstacles, and a pit ladder (17) making it easier for a person to move along the passageway (13) and into the milking pit (3).

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Déclaration en vertu de la règle 4.17 :

— *relative à la qualité d'inventeur (règle 4.17.iv))*

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En ce qui concerne les codes à deux lettres et autres abréviations, se référer aux "Notes explicatives relatives aux codes et abréviations" figurant au début de chaque numéro ordinaire de la Gazette du PCT.

(57) Abrégé : La présente invention concerne un aménagement mis en place dans les salles de traite à plate-forme circulaire tournante (2) pour une traite à l'intérieur de cette plate-forme, équipée de stalles (20) permettant une traite sur le coté ou par l'arrière des vaches, caractérisé en ce que chacune des stalles (20) est munie d'une porte-lice (12) à ouverture individuelle, au moins un passage d'homme (13) étant prévu sur la plate-forme en lieu et place, chacun d'une stalle et chacun dimensionné, semblablement à une stalle, sécurisé par une barrière fixe (14) et une barrière ouvrante (16) permettant l'entrée de la vache dans la stalle (20) , puis libérant le passage d'homme (13) de tout obstacle, ainsi qu'une échelle de fosse (17) facilitant le passage d'homme (13) lors de la descente dans la fosse de traite (3) .

Providing a Human-Sized Milking Passageway Inside a Circular Turntable

The present invention concerns an arranged device, put in place in the stalls for a milking hall with a rotary circular platform, commonly referred to as a milking parlour, equipped with stalls allowing milking at the side or from the rear of the cows. This invention applies in the case where the milking takes place inside this platform, in the milking pit, situated below it, at a height of approximately one metre. The invention thus allows free circulation from outside the parlour onto the platform, and then into the pit, and vice-versa, without any obstacle to be passed.

In the prior art, accessibility from outside to inside the platform and vice-versa takes place either:

1 - Through an underground passage (4), arranged in the foundations of the milking room, passing under the paving of the platform running track, thus allowing secure access in the milking pit (3). However, this solution is very little used because of its excessively high cost over the whole of the construction process.

2 - Through the passage through the cattle restraint stalls, under highly acrobatic and rather unsafe conditions, of the persons wishing to go inside the milking parlour (- Entry onto the platform through the cattle access door (10 & 11), - passing under or between the front restraint bars (5), and then opening the rear cattle restraint bars provided for this purpose in order to pass them and descend into the pit by a staircase fixed to the floor from the rotating platform). Exiting takes place in the reverse order and just as dangerously under the same conditions.

The accompany drawings illustrate:

Fig. 1: Plan view of the current milking parlour with the Front Rail (5) obstructing the manway, and the underground passage (4) mentioned above.

Fig. 2: Current general view of the outside of the milking parlour showing the underground passage (4) in the milking pit (3) and the Front Rail (5) situated on the periphery of the platform, fixed to the external paving (1), the latter being at the same

level as the platform (2).

Fig. 3: Plan view of the milking parlour according to the invention with indication on the platform (2) of the four points (6, 7, 8 & 9) where men can pass from the pit (3) to the outside of the parlour (1) and the arrangement of these four passages without any obstacle.

Fig. 4: General view, according to the invention, of a manway (13) arranged on a rotary circular platform (2).

On the majority of milking parlours constructed at the present time, there is a Front Rail (5) composed of two circular bars, fixed to the slab (1) external to the rotary platform, superimposed at approximately 750 and 1300 mm above this platform (2), with an open passage for the entry (11) and exit (10) of the cattle, in front of the animal loading platform. This front rail (5) locks the cows in the milking position (their head being situated between the two bars) but is also an obstacle to be passed for access to the platform (2), which can be done only by passing under or between the bars.

The advantage of the invention lies in the elimination of this Front Rail (5) in order not to encumber the manway (13) of the milker or milkers and any person needing to go into the milking pit (3). It has therefore been replaced by an individually opening Rail Door (12) installed on all the milking stalls, except at the points where the manways (13) are situated.

The manway (13) in itself is protected by mounting, on one side, of a fixed low-sided barrier (14), bolted between two arches installed to support the milking stalls, running from the rear restraint (15) for the cow to the following arch (19), the support for the Rail Door (12), and, on the other side, of an opening barrier (16) allowing, in the open position, the entry of the cattle onto the platform (2) at the moment when the milking parlour passes in front of the loading dock (11). Once the cow is in the milking position in its stall, the barrier closes again on the cow in order to lock it during the milking, at the same time leaving the manway (13) clear of any obstacle.

Descent into the milking pit (3) takes place easily by means of a pit staircase or ladder of the "swimming pool" type (17), with handrail (18), fixed to the platform (2). The handrails (18) make it possible to hold on tight in order to pass from a step in rotation movement to a fixed floor and vice-versa, in complete safety as on an escalator.

In Fig. 3, we have positioned four passages (6, 7, 8 & 9) which, sized, can be replaced by milking stalls (20), in the case of a frequent increase in the number of cows to be milked or for a saving in milking time which had not been judged necessary at the time of installation of the milking parlour. This therefore gives us a possibility of extension of the number of milking stations on the parlour.

However, it will be necessary to keep at a minimum one manway (13) in order to be able to get out of the milking pit. These manways (13) will be uniformly distributed over the periphery of the parlour at 180° for two manways, at 120° for three manways and 90° for four manways.

This type of manway (13) makes it possible to gain access quickly in complete safety: either to the pen where the cows are situated waiting for the milking, or to any other annexe of the milking unit.

CLAIMS

What is claimed is:

1. A milking parlour for cows, the milking parlour having a rotary circular platform (2) for milking inside this platform, equipped with stalls (20) allowing milking from a side or rear of a cow, wherein each of the stalls (20) is provided with an individually opening rail door (12), at least one manway (13) being provided on the platform wherein each manway (13) is installed in the place of a stall and is sized similarly to a stall, protected by a fixed barrier (14) and an opening barrier (16) as well as a pit ladder (17) facilitating passage of a man when descending into the milking pit.

2. A milking parlour according to claim 1, wherein said opening barrier (16) is mobile between an open position in which a cow can enter onto the platform (2) and a closed position in which the cow is locked during milking and in which the at least one manway (13) is left clear of any obstacle.

3. A milking parlour according to any one of claims 1 or 2, wherein the platform (2) is provided with two manways (13) placed at 180° with respect to one another on the platform.

4. A milking parlour according to any one of claims 1 or 2, wherein the platform (2) is provided with three manways (13) positioned uniformly over the periphery of the platform, at 120° with respect to one another.

5. A milking parlour according to any one of claims 1 or 2, wherein the platform (2) is provided with four manways (13) positioned uniformly over the periphery of the platform, at 90° with respect to one another.

6. A ,milking parlour according to any one of claims 1 to 5, wherein 1, 2 or 3 of these manways (13) can be converted into a milking stall (20).

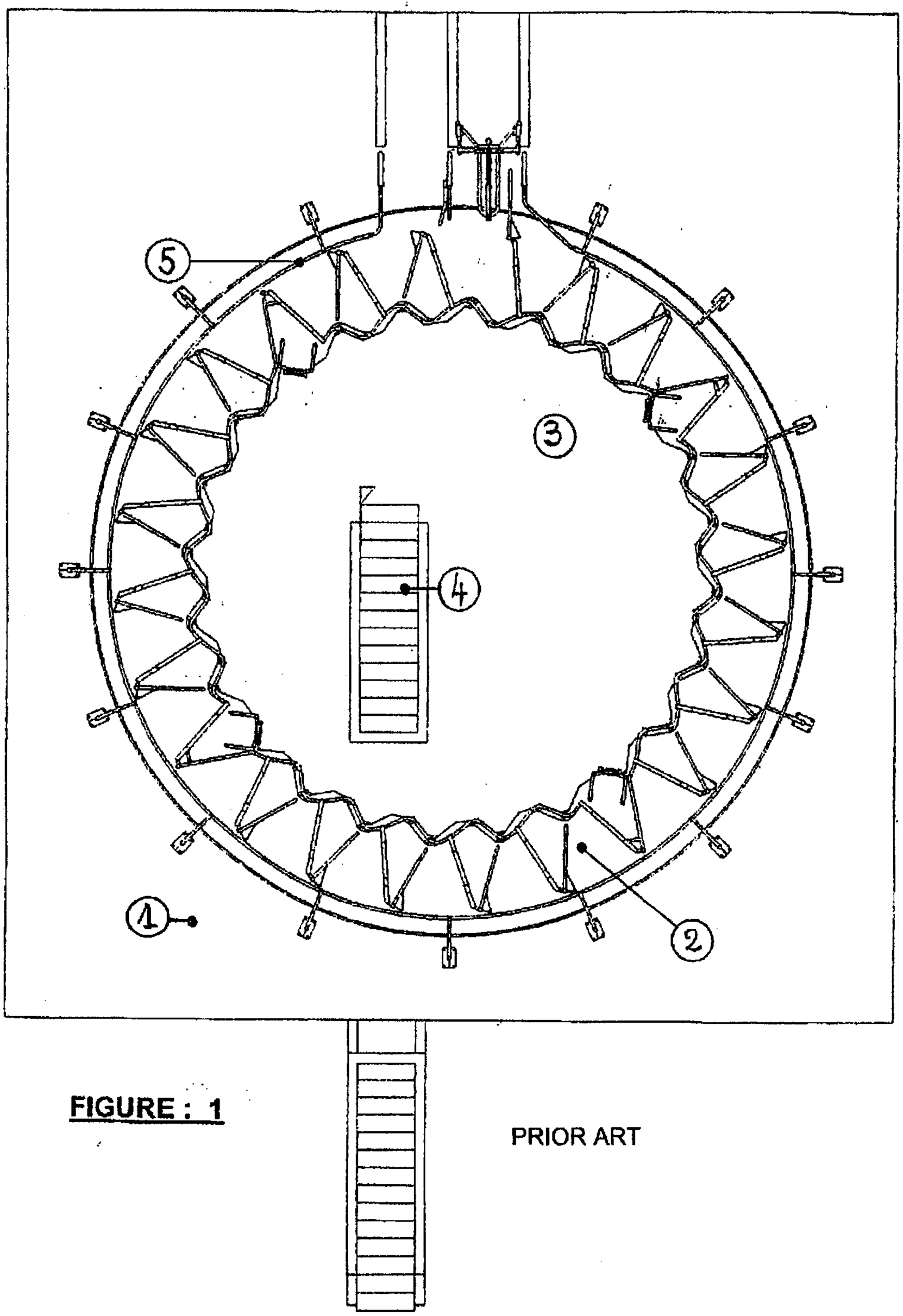


FIGURE : 1

PRIOR ART

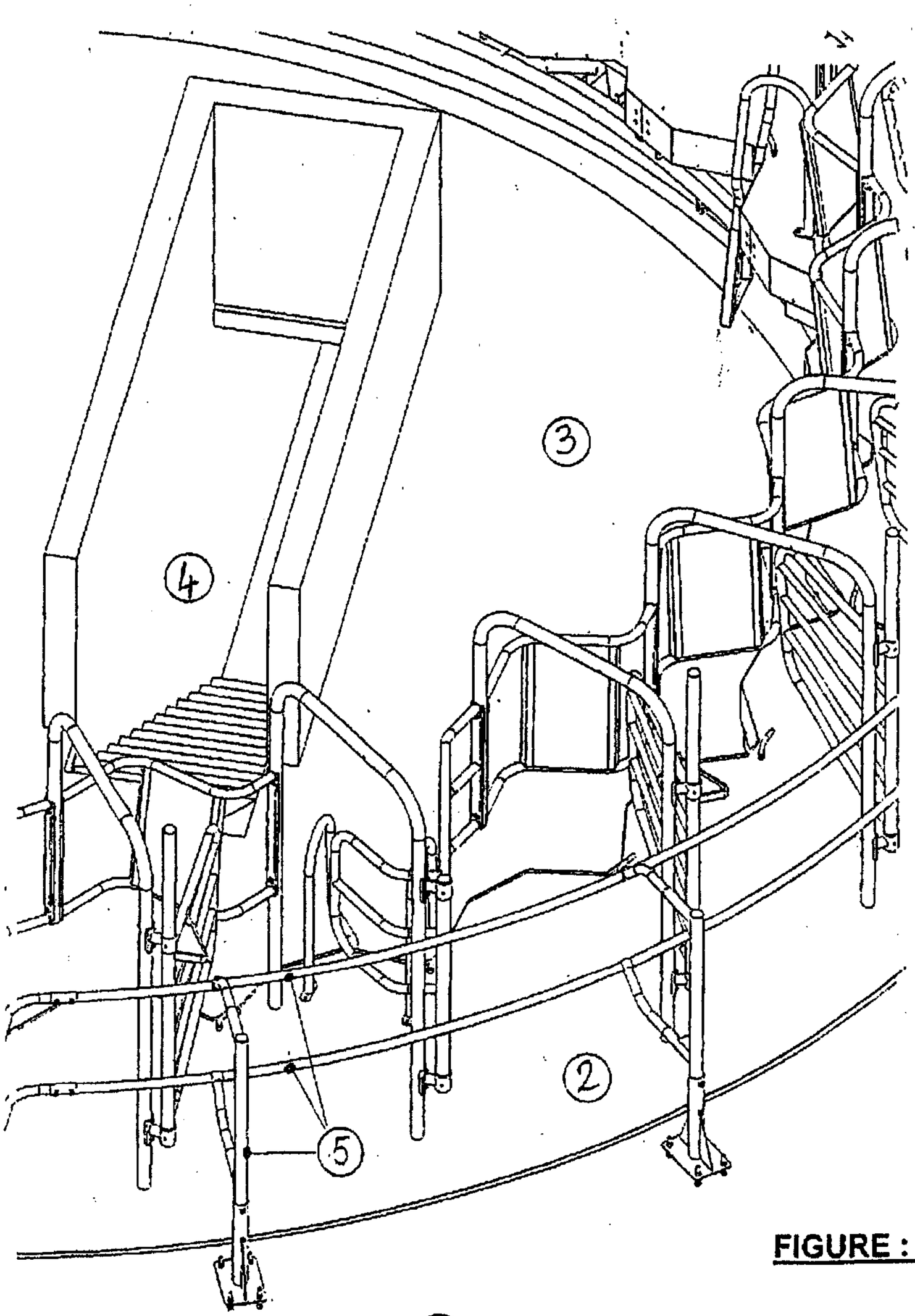


FIGURE : 2

PRIOR ART

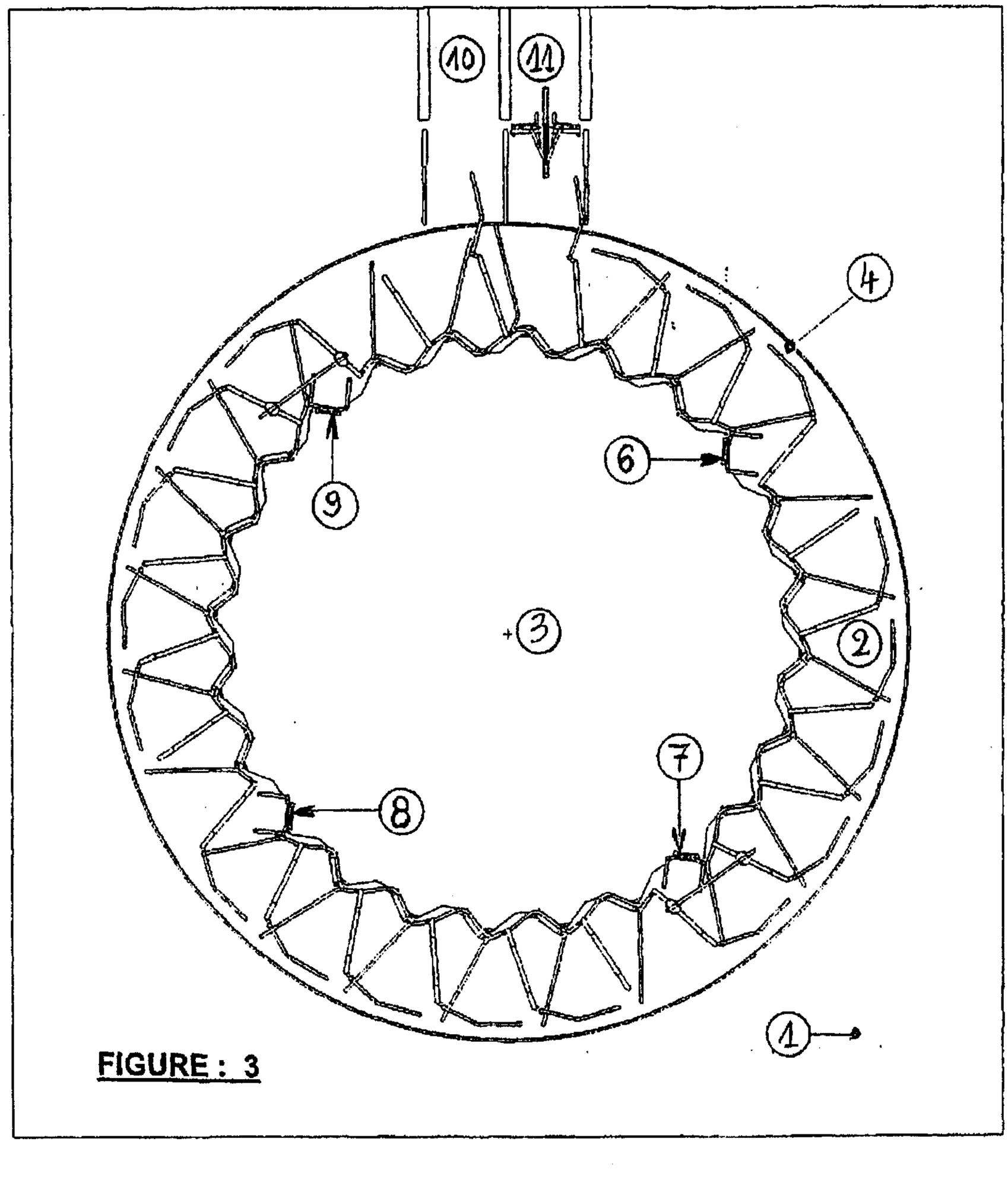


FIGURE : 3

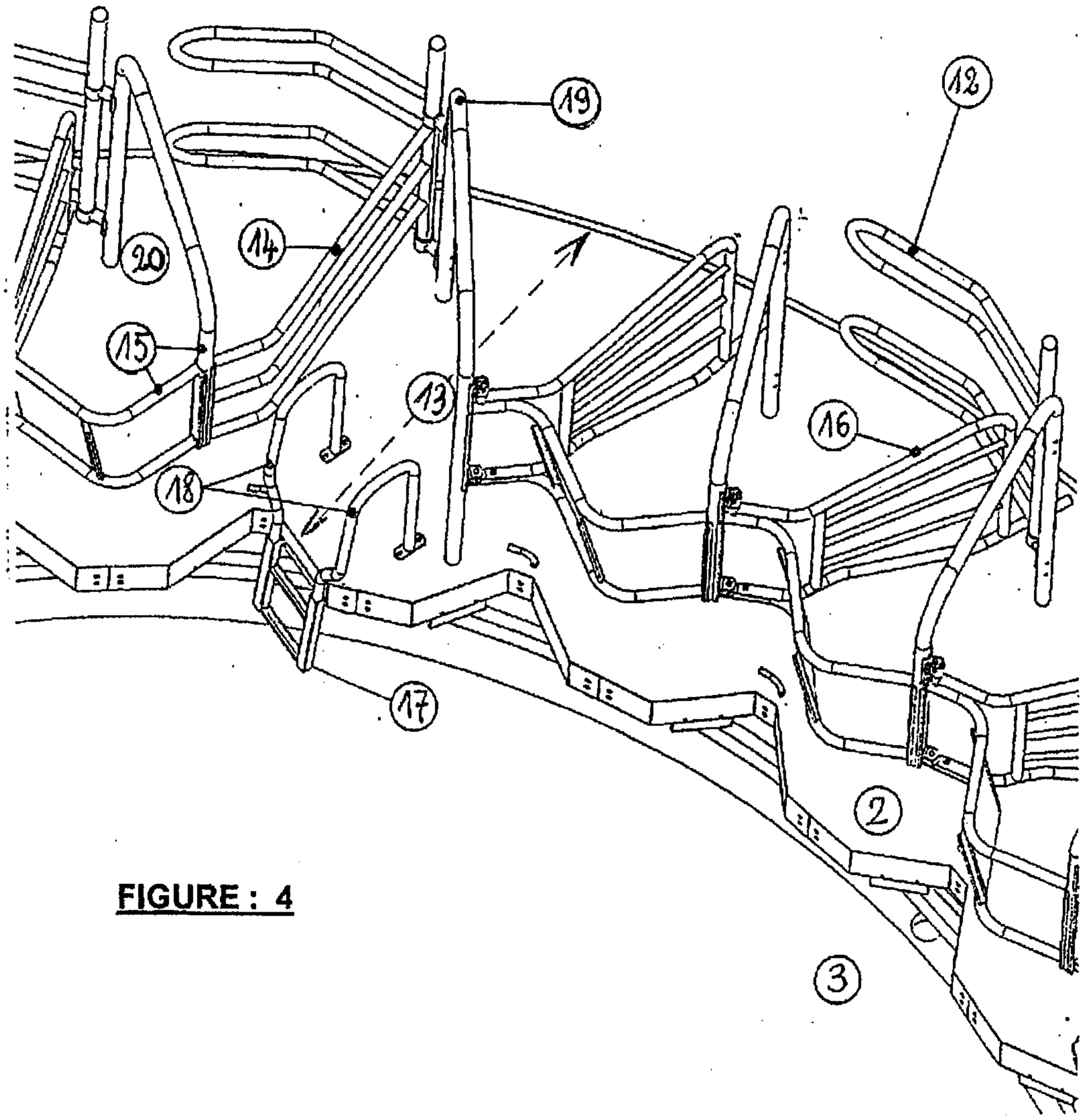
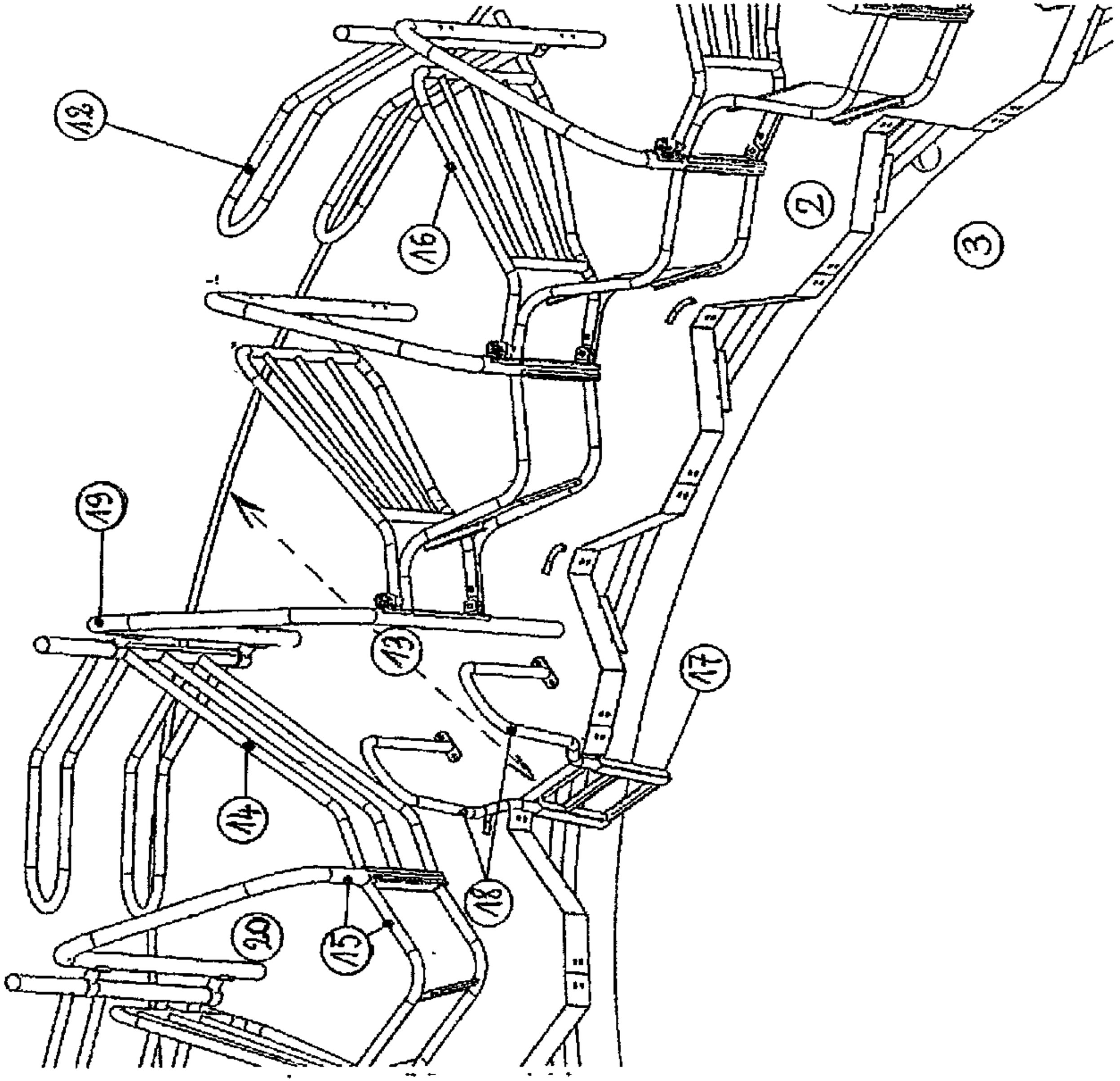


FIGURE : 4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