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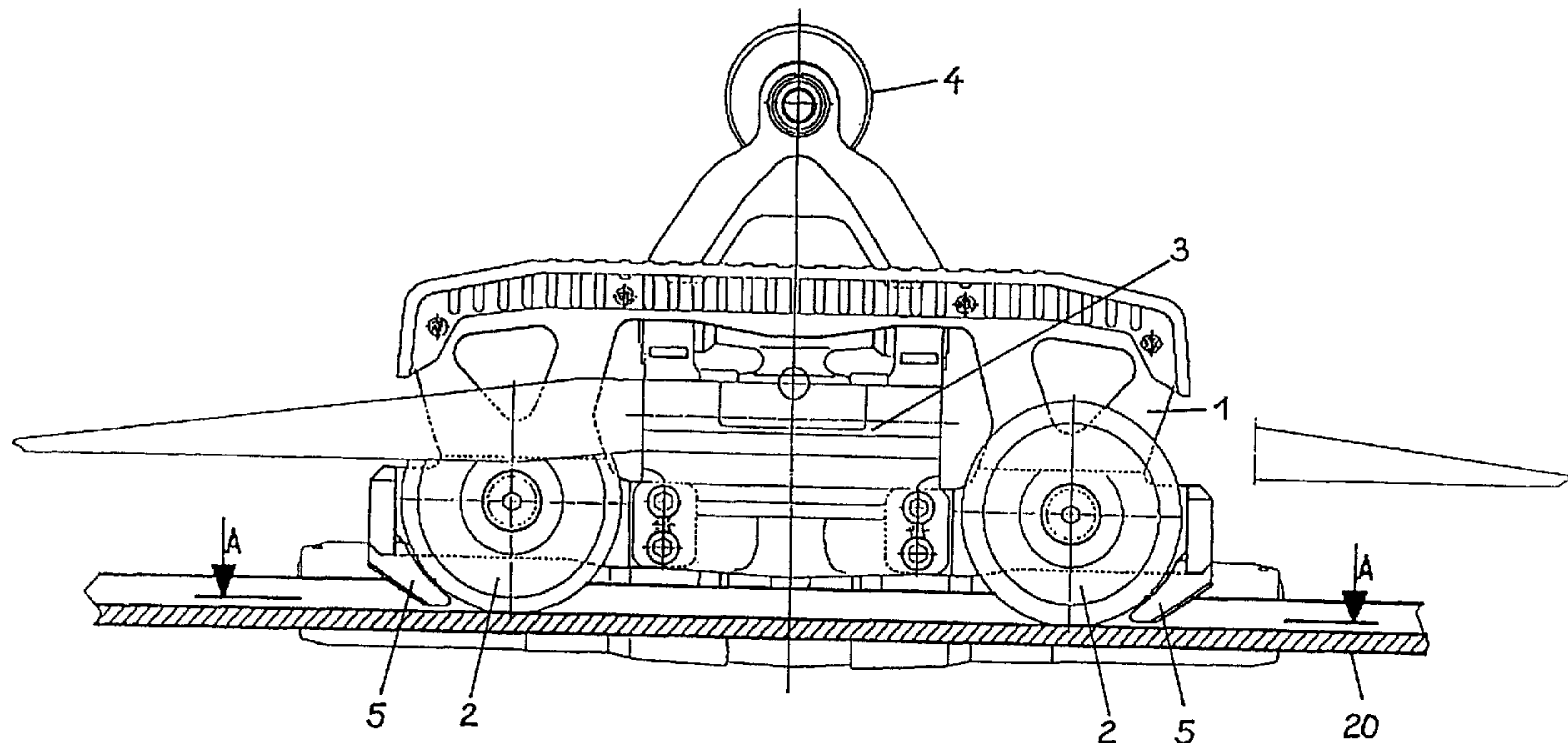
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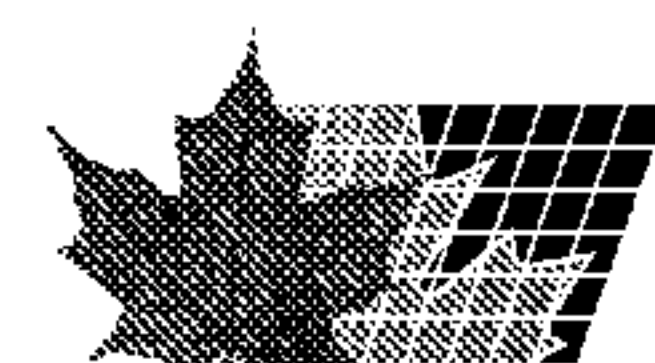
(54) Titre : MECANISME A ENGRENAGE MOBILE POUR LE MOYEN DE TRANSPORT D'UN SYSTEME A CABLES
AERIENS

(54) Title: TRAVELING-GEAR MECHANISM FOR THE TRANSPORTING MEANS OF A CABLEWAY SYSTEM



(57) Abrégé/Abstract:

Running-gear mechanism for the transporting means of a cableway system, which is designed with running rollers (2) and with a coupling arrangement (3). Provided here in the region of the running rollers (2) is at least one downwardly projecting continuation (5) which projects into the guide rails (20) (Fig. 1).



ABSTRACT

Running-gear mechanism for the transporting means of a cableway system, which is designed with running rollers (2) and with a coupling arrangement (3). Provided here in the region of the running rollers (2) is at least one downwardly projecting continuation (5) which projects into the guide rails (20) (Fig. 1).

Traveling-gear mechanism for the transporting means of a cableway system

The present invention relates to a traveling-gear mechanism for the transporting means of a cableway system, which is designed with running rollers and with a coupling arrangement.

It is known in the case of cableway systems for the transporting means to be designed, on the one hand, with clamps, by means of which they can be clamped onto the haulage cable, and, on the other hand, with traveling-gear mechanisms, by means of which they can be moved along guide rails in the stations once the clamps have been opened. In the case of these known cableway systems, the haulage cable is kept circulating at a speed of approximately 8 m/sec. In the stations, the transporting means are uncoupled from the haulage cable and moved through the station region along guide rails at such a speed that passengers can leave and/or board them.

It is known here for the running rollers to be produced from a metallic material. Such known running rollers, however, are disadvantageous because their movement along the guide rails, which are likewise produced from metal, causes very pronounced noise development. In order to keep the running noise to the lowest possible level, it is also known to produce the rollers of the running-gear mechanism from a plastic material. However, such running rollers have the disadvantage that they are at considerably greater risk of rupturing than is the case for running rollers produced from metal. If a running roller ruptures, this can cause serious disruption to operation. In particular, in the region where the transporting means is

coupled to the haulage cable, there is the risk of the haulage cable not being gripped by the clamps, as a result of which the transporting means may crash downward as it leaves the station.

In order to eliminate this risk, it is known to provide additional guide rails, which are intended to ensure that the haulage cable is gripped by the clamps even if a running roller ruptures. These additional guide rails, however, do not meet the current requirements because they result in a further high level of design-related outlay and also because they do not ensure proper functioning of the clamps.

The object of the present invention is thus to provide a traveling-gear mechanism by means of which the disadvantages of the known traveling-gear mechanisms are avoided. This is achieved according to the invention in that, in the region of the running rollers, the traveling-gear mechanism is designed with at least one downwardly projecting continuation which projects into the guide rails. In the case where a running roller ruptures, the continuation projecting into the guide rail assumes the function of a runner which slides in the guide rail, this achieving the necessary emergency running properties during the coupling operation of the clamps.

The at least one continuation preferably projects from a load-bearing member for the running rollers. According to a further preferred embodiment, the at least one continuation is located in the plane defined by the running rollers.

There are preferably provided two continuations which are located outside the two outer running rollers of the traveling-gear mechanism. In this case, said two continuations may be arranged to butt closely against the running rollers,

and they have a cross section which decreases in the direction away from the running rollers. In addition, the at least one continuation is preferably of such a length that its free end terminates slightly above the running surface of the running rollers.

The subject matter of the invention is explained in more detail hereinbelow with reference to an exemplary embodiment illustrated in the drawing, in which:

Fig. 1 shows a side view of the traveling-gear mechanism of a transporting means of a cableway system,

Fig. 1a shows said traveling-gear mechanism in section along line A-A from Fig. 1, and

Figs. 2, 2a and 2b show a side view, plan view and end view of the load-bearing member for the running rollers of the traveling-gear mechanism according to Fig. 1.

The traveling-gear mechanism, illustrated in Fig. 1, for a transporting means, such as a cabin or a chair, of a cableway system comprises a load-bearing member 1 for two running rollers 2. Additionally provided on the traveling-gear mechanism are a clamping arrangement 3 and a control arrangement 4 which interacts therewith. Since these arrangements are known from the prior art, they will not be explained in any more detail. The running rollers 2, in the stations, are assigned guide rails 20, along which the transporting means which have been uncoupled from the haulage cable are moved through the stations at such a speed that passengers can board and/or leave them.

The load-bearing member 1 for the running rollers 2 is designed with downwardly projecting continuations 5 which are located laterally outside the two running rollers 2, said continuations being arranged directly alongside the running rollers 2 and being of such a length that they terminate just slightly above the running surface of the guide rail 20.

The task of these continuations 5 is, in the case where a running roller 2 ruptures, to act as a runner in the guide rail 20, as a result of which the function of the ruptured running roller is assumed so as to ensure the emergency running properties which are necessary for the coupling operation.

In order to fulfil this function, the continuations 5 have to project as far as possible in the guide rails 20, this ensuring that, in the case of a running roller rupturing, the running-gear mechanism is retained in virtually the same vertical position as in the case of a fully functional running roller 2. In addition, the continuations 5 have to be of a width which is approximately equal to the width of the running rollers 2, in order thus also to ensure guidance in the necessary lateral position. Since, however, it is also necessary here to ensure the necessary ability of the running-gear mechanism to negotiate curves, the continuations 5 are of approximately triangular design in horizontal cross section. In this respect, you are referred to the illustration of Fig. 1a.

The load-bearing member 1, which is designed with continuations 5 and is intended for the running rollers 2, will be explained in more detail with reference to Figs. 2, 2a and 2b. This load-bearing member 1, which is designed as an elongate component made of sheet steel, has two plates 11

which are designed with bores 12 into which it is possible to insert bolts for the running rollers 2. In addition, in the plane of the running rollers 2, it is designed with the two obliquely downwardly projecting continuations 5, which project into the guide rails. In the case where the associated running roller ruptures, said continuations 5 act as runners sliding in the guide rails, as a result of which the necessary emergency running properties are achieved. The load-bearing member 1 is also designed with bores 13, which serve for fastening the clamping arrangement on the load-bearing member. In addition, it is designed with bores 14, which serve for fastening the friction surface against which the conveying wheels come into abutment.

PATENT CLAIMS

1. A running-gear mechanism for the transporting means of a cableway system, which is designed with running rollers (2) and with a coupling arrangement (3), characterized in that provided in the region of the running rollers (2) is at least one downwardly projecting continuation (5) which projects into the guide rails (20) (Fig. 1).
2. The running-gear mechanism as claimed in patent claim 1, characterized in that the at least one continuation (5) projects from a load-bearing member (1) for the running rollers (2).
3. The running-gear mechanism as claimed in either of patent claims 1 and 2, characterized in that the at least one continuation (5) is located in the plane defined by the running rollers (2).
4. The running-gear mechanism as claimed in one of patent claims 1 to 3, characterized in that there are provided two continuations (5) which are located outside the two outer running rollers (2) of the traveling-gear mechanism.
5. The running-gear mechanism as claimed in patent claim 4, characterized in that the two continuations (5) are arranged to butt closely against the running rollers (2), and in that they have a cross section which decreases in the direction away from the running rollers (2).
6. The running-gear mechanism as claimed in one of patent claims 1 to 5, characterized in that the at least one continuation (5) is of such a length that its free end

terminates slightly above the running surface of the running rollers (2).

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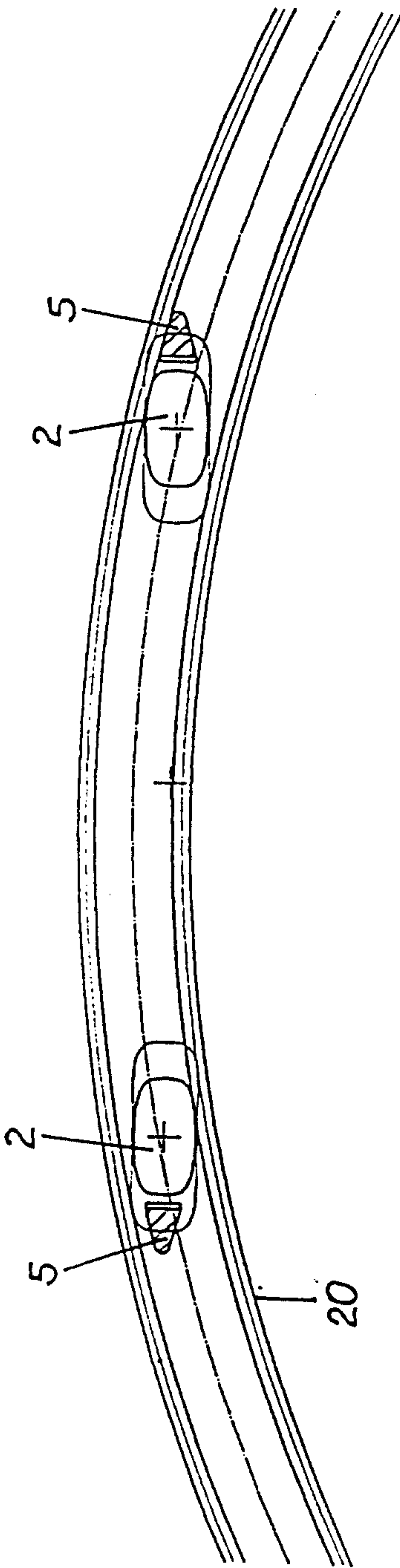
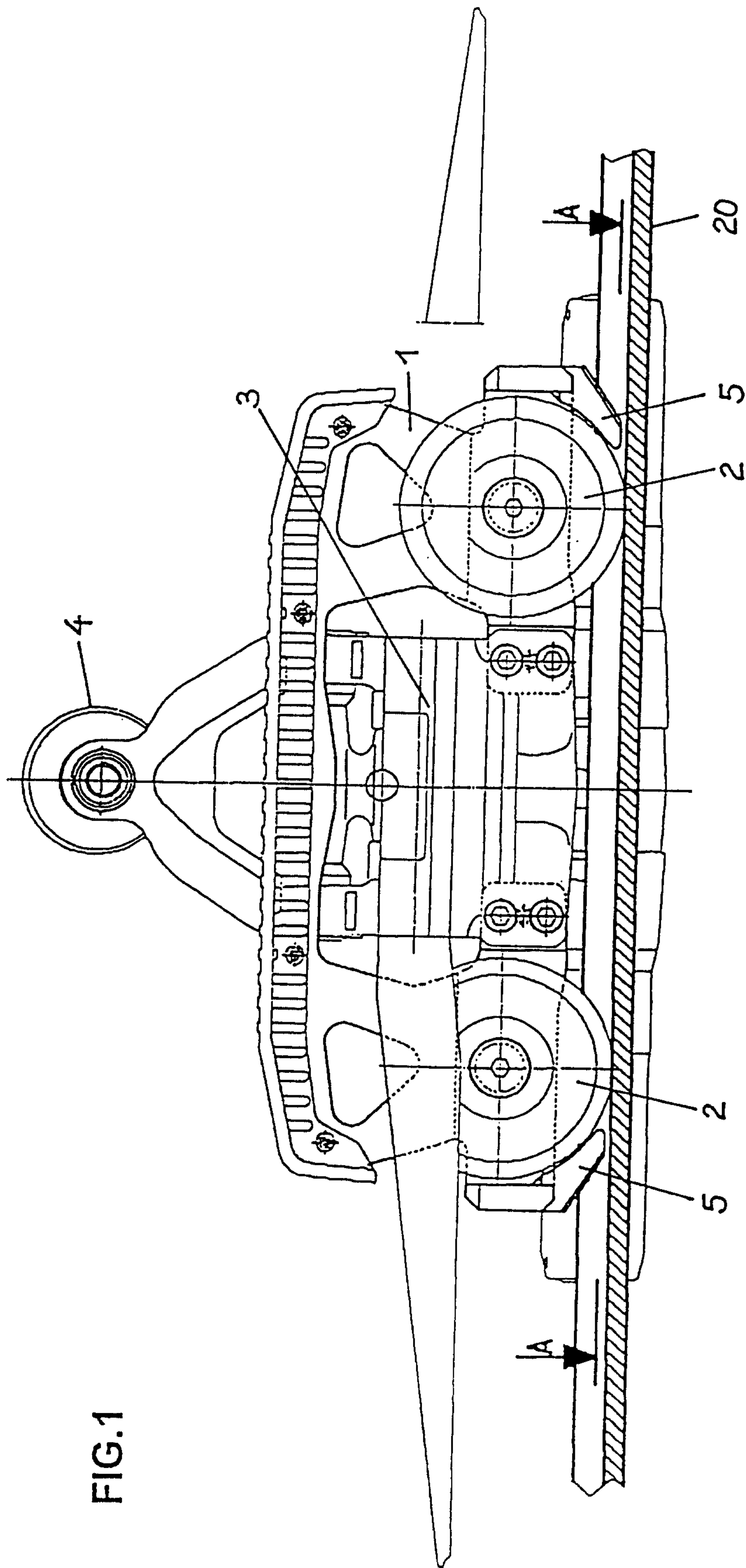


FIG.2

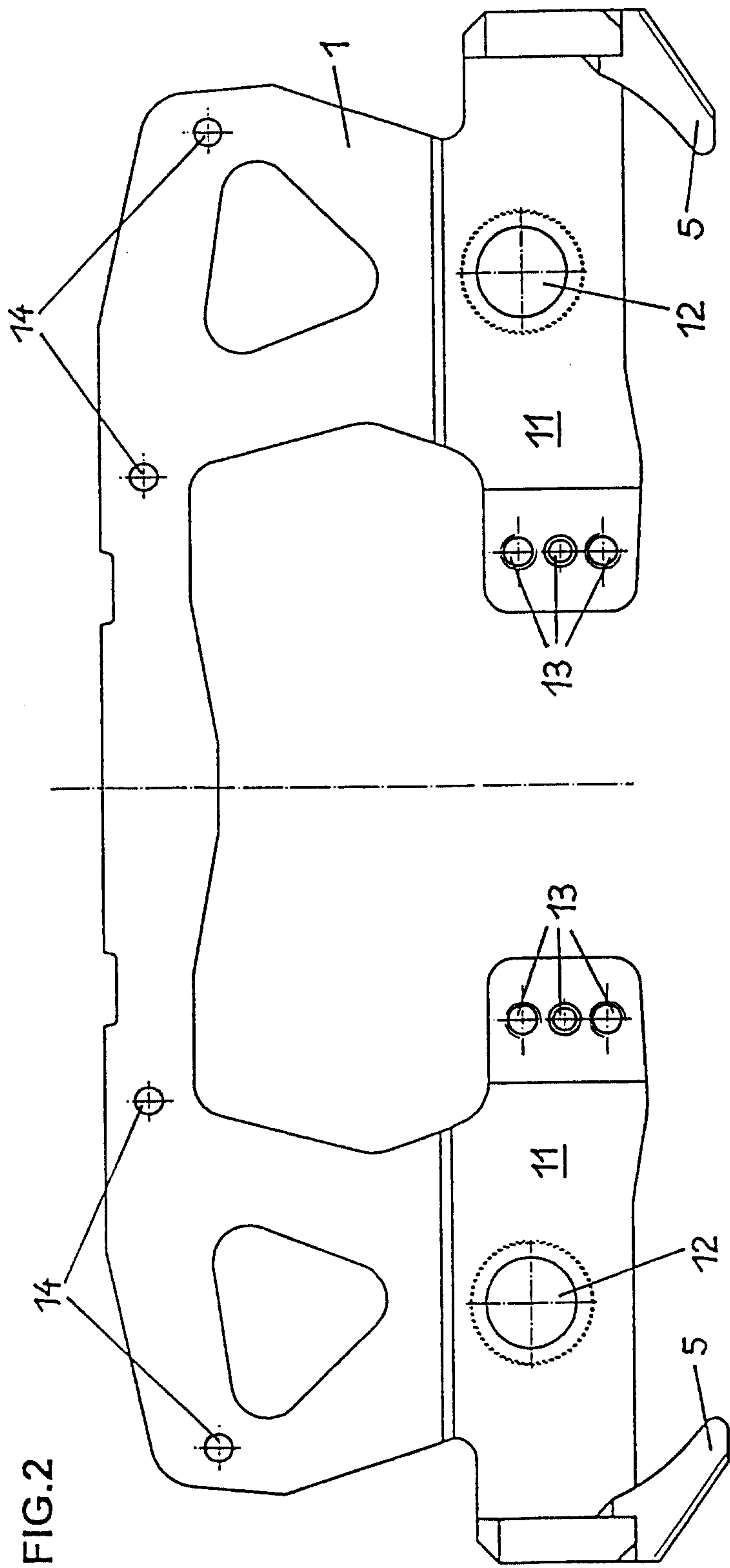


FIG.2b

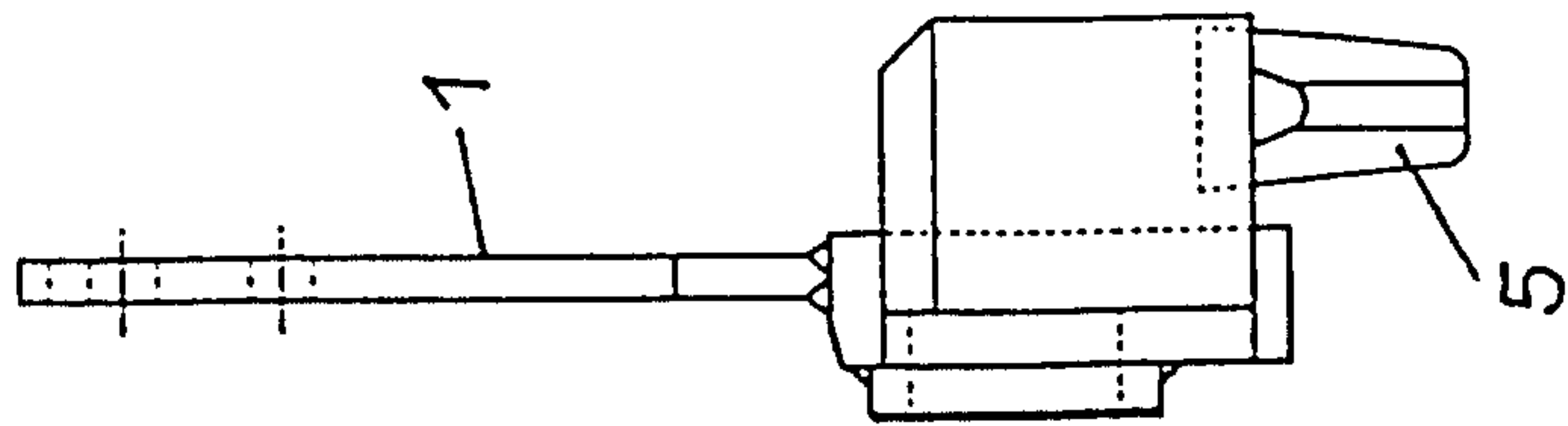


FIG.2a

