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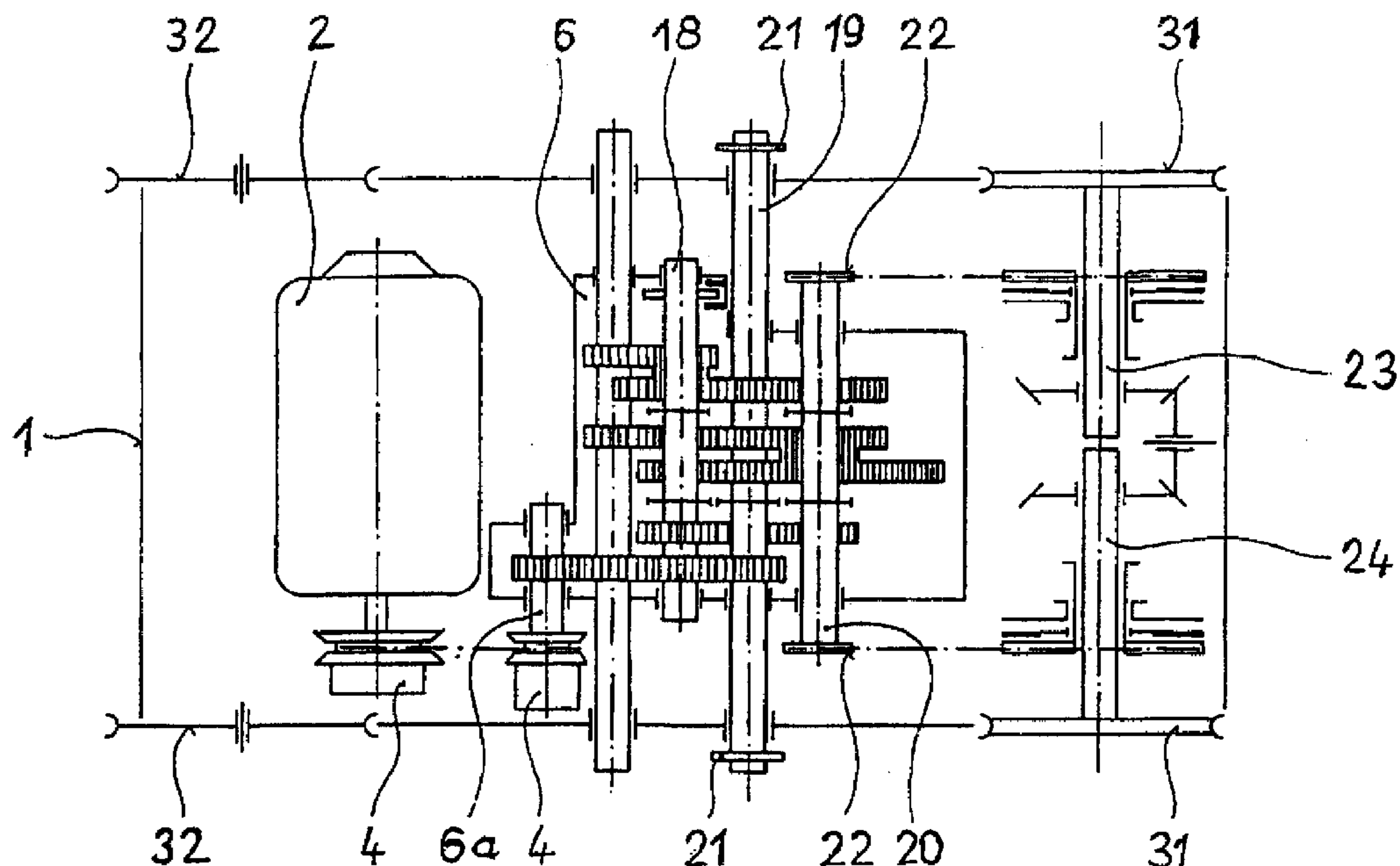
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(54) **SYSTEME AUTOMOTEUR**

(54) **SELFMOVING EQUIPMENT**



(57) Cette invention concerne un système automoteur qui comprend un carter (1) dans lequel se trouve une boîte de vitesses (6) entraînée par un moteur (2). Sur le côté externe du carter (1) se trouve une courroie d'entraînement à plusieurs sections. Ce système se prête à différentes modifications offrant des possibilités de remorquage, de transport par câble, de véhicule à roues, etc.

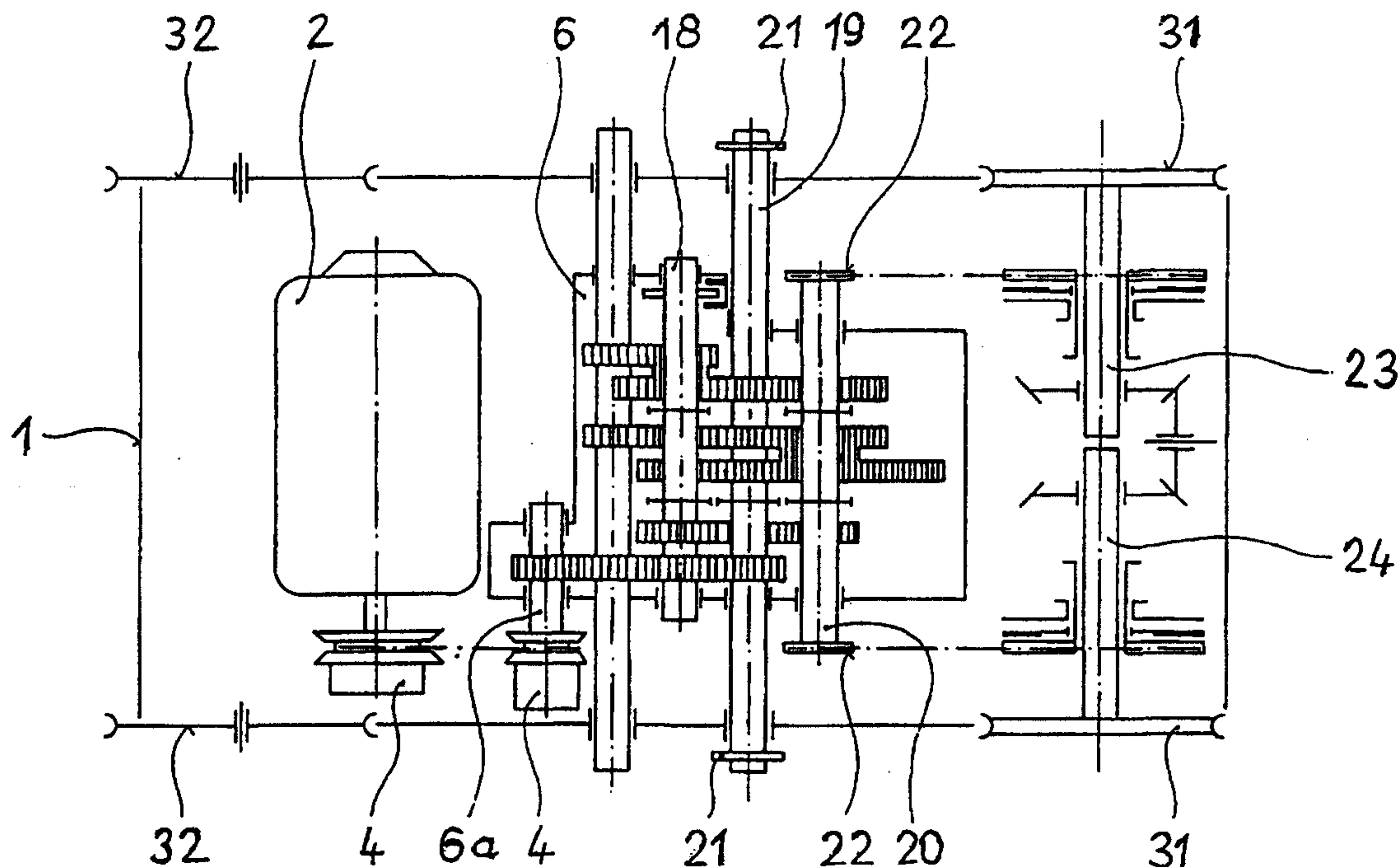
(57) This invention relates to the equipment in the casing (1) of which a gearbox (6) driven by the motor (2) is situated whereby on the outer side of the casing (1) a sectional feeding belt is situated. The mentioned equipment has got several modification possibilities as e.g. tow, ropeway, wheeled vehicle etc.

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(21) International Application Number: PCT/SK98/00009 (22) International Filing Date: 24 June 1998 (24.06.98) (30) Priority Data: PV 0854-97 24 June 1997 (24.06.97) SK (71)(72) Applicant and Inventor: KOMIŠÁK, Ján [SK/SK]; Mlynská 713/44, 091 01 Stropkov (SK). (74) Agent: BELEŠČÁK, Ladislav-Slovpat; Slovpat, Námestie Slobody 6, P.O. Box A 24, 921 01 Piešťany (SK).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: SELFMOVING EQUIPMENT



(57) Abstract

This invention relates to the equipment in the casing (1) of which a gearbox (6) driven by the motor (2) is situated whereby on the outer side of the casing (1) a sectional feeding belt is situated. The mentioned equipment has got several modification possibilities as e.g. tow, ropeway, wheeled vehicle etc.

A SELF-PROPELLED VEHICLE

The present invention relates to a self-propelled vehicle according to the preamble of claim 1. A self-propelled vehicle in accordance with the present invention is particularly suitable for the transportation or dragging of tree trunks through dense and inaccessible terrain. The basic unit of a vehicle in accordance with the present invention can be provided with wheels and a draw rod. Various additional implements, particularly suitable for agricultural applications, can be attached to the back of the vehicle.

Description of the related art.

A self-propelled vehicle according to the preamble of claim 1 is known from US-A-026373. The means for driving such vehicle, especially the engine and the gear box, and other heavy components thereof, are supported by a frame structure that is located above the vehicle's body. Due to this arrangement, such vehicle is prone to tipping over, especially since such vehicle's centre of gravity is high and its body is narrow. For the above reasons, tubular members are required that are connectable to the frame structure of such vehicle, which enable a second operator to hold and control such self-propelled vehicle.

The main disadvantages of the vehicle of US-A-026373 is that the driving means are unprotected and moreover, the arrangement of the driving means and other heavy components upon the vehicle's body requires the need for a second operator.

A further self-propelled vehicle is disclosed by US-A-4645022. Such US patent discloses a vehicle for carrying or dragging a load. Such vehicle comprises an open chassis upon which is located an engine for propelling the vehicle. Two parallel tracks are provided on either side of the chassis, each

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track running over a plurality of wheels, wherein each track is driven by at least one of said wheels. The chassis includes, or is provided with, a control lever. A clutch is connected between the engine and each of the tracks, so that either one of the tracks can be disengaged. The control lever is adapted to actuate one or the other of the clutches by means of a linkage so that the clutch interrupts the transmission of motion to the relevant track. Such vehicle may also be provided with braking means that can act upon the tracks.

The main disadvantages associated with the vehicle of US-A-4645022 is that its chassis and tracks are unprotected and moreover, its range of directional movement is limited.

Summary of the invention.

It is believed that a self-propelled vehicle in accordance with the present invention overcomes the problems associated with known of vehicles of this type, as outlined above.

A basic embodiment of a vehicle in accordance with the present invention includes a body within which is located a motor or engine that drives the transmission gear of a gearbox via a variable speed gear box. The gearbox includes a disconnectable countershaft that drives both a second disconnectable drive shaft and a third drive disconnectable shaft. The body of a basic embodiment of a self-propelled vehicle in accordance with the present invention has the shape of a rounded pentagon. The vehicle is provided with at least one track located around the body. A common axle protrudes from the sidewalls of the body to which wheels may be attached. The vehicle further includes a handle upon which is located a housing for housing the operating elements or controls of the vehicle. Movement of a vehicle in accordance with the present invention is effected by the track and/or wheels, which in turn are driven by three rollers associated with, or located within, the housing. Two of such rollers, which are larger in diameter than the remaining

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roller, are located on the end of the longer diagonal of the lower and upper wall of the body, whereas the remaining, smaller roller, is located in the lower wall in the end of a shorter diagonal between the lower and upper wall of the body of the vehicle. The upper wall, compared with the lower wall, bevels backward in intervals of 10° - 45° , and the wall continues to the upper wall area by a minimum bevelled angle of 40° . The backwards bevelled body wall may further be provided with wheel attachments, which are adapted to receive a second set of wheels locatable on the same axis as the wheels located on the common axle. The attachment of the second set of wheels to a self-propelled vehicle in accordance with the present invention increases the vehicle's mobility on terrain. The body of the self-propelled vehicle may be provided with two parallel tracks, which protrude over the sides of the rounded pentagon shaped body. Movement of the vehicle in accordance with the present invention can be effected by the track and/or by the wheels. For example, when motion is effected by the wheels of the vehicle, and the vehicle enters moorland, the tracks can be activated enabling the vehicle to overcome any obstacles located within the moorland. One of the possible modifications is that a vehicle in accordance with the present invention can be provided with two parallel tracks that protrude over the sides of the body of the vehicle. Additionally, a self-propelled vehicle in accordance with the present invention is provided with a brake wheel attached, or joined, to a disconnectable countershaft; the brake wheel being acted upon by brake plates or pads present on a segment with dextral lead and a segment with a levorotary lead, which are the same as the lead of the helix which is operated by a handle. By turning such handle to the right, the brake plates will move towards the brake wheel such that the vehicle will either slow down or stop. By turning the handle the other way, the brake plates will move away from the brake wheel such that movement of the vehicle is no longer hindered by the brake plates.

In a preferred embodiment, the second disconnectable drive shaft is connected via the chain wheels with the drive of winding equipment, which is

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locatable on a vehicle in accordance with the present invention. The central toothed wheel of the winding equipment is joined, or connected, to the second disconnectable shaft and can impart movement to the internal toothed wheel via the satellite toothed wheels surrounding same, and the driver. At the same time, the central toothed wheel is mechanically joined to the drum and brake plate. In the event that the driver of the satellite toothed wheels are not mechanically joined to the drum, the rope can be freely reeled from the drum. If braking is effected through the internal toothed wheel on the external perimeter, that is, through the pneumatically operated brake belt, the satellite toothed wheels will start to rotate on the internal perimeter of the internal toothed wheel and the driver will start to rotate about its own axis, such that the winding rope drum begins to work. The drum of the winding equipment consists of two parts. The first part is provided with a universal gear box and the other is provided with a pneumatically operated multi-plate clutch. In a preferred embodiment, the winding equipment may have a universal gear box on both sides of the drum. In a further preferred embodiment, the drum may have a universal gear box on one side thereof and a gearbox, with braking equipment on the other. In an additional preferred embodiment, both parts of the drum have a universal gearbox and the braking equipment is provided in the middle of the drum. The winding equipment can be used in the field of forestry to drag tree trunks through dense and inaccessible terrain. The rope of the winding equipment may be used for towing wood or tree trunks, towing various broken down vehicles, towing various agricultural implements, especially on sloped terrain, and in the building industry for lifting heavy weights or building materials via pulleys.

In a further embodiment, a third disconnectable drive shaft is joined by two chain wheels to two independent drives of a half axle, which are joined through the driving wheels with guide wheels. Each half axle is connected to a separate multi-plate clutch, and both half axles are joined via toothed wheels, which in turn engage with bevelled pinions. The third disconnectable drive shaft is for driving a one track, a two track, a two-wheeled or a four-

wheeled version of a vehicle in accordance with the present invention. It drives via the two chain wheels and drive chains and the two independent drives of the half axle with multi-plate clutch. In the two track version, the direction of the vehicle can be changed, or the vehicle can be turned around, by switching on the bevelled pinions at the same time. For the basic one track version, driving of the track is effected by the half axles through the driving and guiding wheels. The drives of the half axles, which are driven by the gear box through the chain wheels, are operated by the lever. Even if one of the multi-plate clutches is disconnected, adequate drive of the half axle is achieved. When one of the half axles is driven, the vehicle will turn fluently in the opposite direction. By operating the gear and the auxiliary lever at the same time, which are both located in the housing on the handle, the half axle and the bevelled pinions will engage, which will result in the vehicle turning around on its own axis. The skilled person will appreciate that a major advantage associated with a vehicle in accordance with the present invention is that up until now, small wheeled vehicles were not able to fully turn around on their own axis, which is particularly advantageous when the vehicle is working in confined spaces.

A vehicle in accordance with the present invention, when provided with winding equipment, can be used for dragging tree trunks after they have been cut down or felled in dense and inaccessible terrain. The tree trunks can be dragged to the timber store or timber yard by being hauled by the rope, or by the tackle on the carrying rope.

The vehicle of the present invention, when provided with the winding equipment, can also be used to provide a mobile ski lift for the lifting of skiers in winter. Hoisting equipment can also be attached to the body of the vehicle.

Two wheeled or four wheeled trailers can be attached on the hoisting equipment. In addition, a carrier for hauling the tree trunks to the timber store or yard can also be attached to the hoisting equipment. Another possible

advantageous construction is that a four-wheeled version of a vehicle in accordance with the present invention may be provided with a three point hitch adapted to receive all agricultural implements. Further preferably, a snowplough or rotary snowplough can be attached to the front of the vehicle, and a metal or plastic roller may be attached to the back of the three point hitch. This enables the front part of a self-propelled vehicle in accordance with the present invention to be used to plough snow and the back part to be used to lay out a ski track or slope.

It will be appreciated from the above, that a self-propelled vehicle in accordance with the present invention has many uses and hence, much utility. It is to be understood that the examples of the various alternatives of construction of the vehicle and the possibilities for its use are not restricted in any way.

Brief description of the drawings.

Non-limiting embodiments of a self-propelled vehicle in accordance with the present invention will now be described by way of example and with reference to the accompanying drawings, in which:

Fig. 1 is a cross-sectional view of the body of a self-propelled vehicle in accordance with the present invention;

Fig. 2 is a side view of a self-propelled in accordance with the present invention;

Fig. 3 is a plan view from below of the vehicle of Fig. 2;

Fig. 4 is a side view of the vehicle of Fig. 1 when provided with two wheels;

Fig. 5 is a plan view from below of the self-propelled vehicle of Fig. 4;

Fig. 6 is a side view of a self-propelled vehicle in accordance with the present invention when provided with four wheels;

Fig. 7 illustrates a plan view from below of the vehicle of Fig. 6;

Fig. 8 is a plan view from below of a self-propelled vehicle in accordance with the present invention when provided with two tracks;

Fig. 9 illustrates the brake wheel of the vehicle of the present invention;

Fig. 10 is a side view of the winding equipment;

Fig. 11 illustrates the drum of the winding equipment with universal gear box and multi-plate clutch;

Fig. 12 illustrates the drum of the winding equipment wherein both parts of the drum have the universal gear box within it;

Fig. 13 illustrates the drum of the winding equipment wherein the universal gear box and the wheels are set;

Fig. 14 illustrates the drum of the winding material and the location of the braking equipment within the middle of the drum;

Fig. 15 illustrates the axle of the self-propelled vehicle;

Fig. 16 is a side view of a self-propelled vehicle in accordance with the present invention when connected to a two-wheeled trailer;

Fig. 17 illustrates the self-propelled vehicle when dragging tree trunks;

Fig. 18 illustrates a self-propelled vehicle when provided with a carrier;

Fig. 19 illustrates a self-propelled vehicle in accordance with the present invention when provided with a snowplough; and

Fig. 20 illustrates a self-propelled vehicle in accordance with the present invention when attached to a mobile ski lift.

Description of a preferred, non-limiting, embodiment

As illustrated in Fig. 1, within the body 1 of a basic embodiment of a self-propelled vehicle in accordance with the present invention there is located a four-stroke engine 2, which has an electric ignition.

Within the body 1 there is located a gear box 6 which is driven by engine or motor 2, having a variable speed gear box 4, via the pinion 6a and disconnectable counter shaft 18. Movement of a second drive shaft 19 and third drive shaft 20 is also driven by gear box 6.

At least one track 13 surrounds the body 1; such track 13 passing over walls 7,8,9,10 and 11 of the body 1.

A common axle 14, to which wheels 47 may be attached, protrudes from side walls 12 of body 1; such common axle 14 extending or protruding passed the sides of the track 13.

A handle 51 also extends from the side walls 12, on which may be located a housing 52 in which the operating controls for the vehicle are located.

As illustrated in Fig. 2, the body 1 of the vehicle has the shape of a rounded pentagon. Around the walls 7,8,9,10 and 11 of the body 1 there is located at least one track 13. Wheels 47 (see Figs. 4 and 5) can be joined or attached, to the common axle 14, which extends or protrudes beyond the sides of the track 13.

Movement of the self-propelled vehicle may be effected by track 13 and/or wheels 47. Rollers 15, 16, 17, which are located in the corners of walls 7 and 11, 8 and 9, and 9 and 10, impart movement to the wheels 47 and track 13. Rollers 15, 16, which have a larger diameter than roller 17, are located in the corners of walls 7 and 11, and 9 and 8 respectively, whereas roller 17 is located in the corner of wall 9 and 10 (see Fig. 2).

As illustrated, wall 10 bevels into wall 9, which extends to upper wall 7 by bevelling wall 8 by a minimum angle of 40° . Backwards bevelled wall 10 of body 1, may be further provided with wheel attachment members 48 to which a further set of wheels 49 may be attached. When such further set of wheels 49 are attached to the wheel attachment members 48 they are on the same axis as wheels 47 (see Figs. 6 and 7). The attachment of a second set of

wheels 49 to a vehicle in accordance with the present invention increases its mobility in terrain.

One of the advantages of a self-propelled vehicle in accordance with the present invention is that same can be modified to include two tracks 13a and 13b, which are located around the body 1 on walls 7, 8, 9, 10, 11, and which protrude over side walls 12 (see Fig. 8).

The body 1 is mounted on, or located on, disconnecting countershaft 18, which is connected to a brake wheel 34, upon which brake plates or pads 50 may act. As illustrated (see Fig. 9), brake plates 50 are located on jaws 35, 36, which are displaceably mounted on shaft 37, and operable by handle 38. By turning the handle 38 to the right, jaws 35 and 36 will move towards one another such that brake plates 50 will come into contact with brake wheel 34. As a result thereof, the vehicle will slow down or stop. Movement of the handle 38 in the opposite direction will result in the opening of jaws 35 and 36, such that the brake plates 50 will no longer act upon brake wheel 34 and hence, movement of the vehicle will no longer be inhibited.

Within the body 1, second disconnecting or disengageable drive shaft 19 is connected via chain wheels 21 to the drive of winding equipment 33. As illustrated (see Fig. 10), a central toothed wheel 39 engages with, and is surrounded by, a number of satellite toothed wheels 41, which in turn engage with a toothed surface provided on an internal surface of wheel 41. Central toothed wheel 39 is connected to a driver 40 via satellite toothed wheels 41, as well as to a drum 43 and brake belt 44. In the event that the driver 40 of the satellite toothed wheels 41 are not mechanically joined or connected, then a rope, provided on drum 43, can be unwound. In the event that a brake belt 44, which is operated by a pneumatic system, acts upon the external perimeter of wheel 42, the satellite toothed wheels 41 will start to rotate on the internal surface of wheel 42 which in turn causes rotation of driver 40 such that winding of the rope is effected.

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The drum 43 of winding equipment 33 comprises of two parts 43a and 43b. As illustrated (see Fig 11), one end of part 43a is provided with a universal gearbox 44 and one end of part 43b is provided with a pneumatically operated multi-plate clutch 45.

Drum 43 can be used to drag loads of lower weight, be used to haul a rope to the load and for pulling out ropes during the assembly of a cableway system.

In a preferred embodiment, the winding equipment 33 may be provided with a universal gearbox 44 on both parts 43a and 43b of drum 43 (see Fig. 12). A drum 43 modified in this manner can be used to haul loads at the same time and moreover, such a modification will increase the lifting force of the winding equipment via pulleys.

In a further preferred embodiment, the drum 43 may be provided with a universal gearbox 44 on one part thereof 43a, and may be provided with formed wheels 53 and braking equipment 46 on the other side 43b (see Fig. 13). A drum 43, modified in this way, has particular application for lowering loads from an elevated position using brakes 46 and for use in a cableway system.

In another preferred embodiment, the ends of each part 43a and 43b of drum 43 are provided with a universal gearbox 44 and braking equipment 46 is provided at the middle of the drum 43 (see Fig. 14).

As illustrated (see Figs. 1 and 15), within the body 1 there is located a third disconnecting or disengageable drive shaft 20 provided with second chain wheels 22 at either end thereof. Such chain wheels 22 are connected to, and drive, two separate half-axles 23, 24, and are joined with guide wheels 32 via driving wheels 31. Each half axle 23, 24 are connected to a separate multi-plate clutch 27, 26 and both half axles 23, 24 are connected via toothed

wheels 28 having bevelled pinions 29. The third disconnecting drive shaft 20 is for driving the one track, two track, two wheeled or four wheeled version of a vehicle in accordance with the present invention, that is, via the chain wheels 22, which act upon the drives of half axles 23, 24. They are joined to the multi-plate clutches 27, 26, which can change the direction in which the two tracked version of the vehicle is moving or, and when the bevelled pinions 29 are activated at the same time, cause the vehicle to turn around.

Track 13 is driven by the common half-axes 23, 24, which also drives the wheels in the basic single track version of a vehicle in accordance with the present invention.

The drives of half-axes 23, 24 are driven by gearbox 6, via chain wheels 22, operable by handle 5. Disconnection of either of the multi-plate clutches 26 or 27 will result in its associated half axle 23, 24 coming to rest, which will result in a fluent turning of the vehicle.

By operating the operating handle 5 and gear lever at the same time, the drive of the half axle will be connected and the bevelled pinions 29, which are in contact with the toothed wheels 28, will rotate, resulting in adequate movement of the half-axle in a reversible direction which will cause the vehicle to rotate or turn about its own axis.

One of the advantages of a vehicle in accordance with the present invention, is that up until now, small wheeled vehicles of this type were not able to fully turn around, or fully rotate about, their own axis; such range of turning being required when the vehicle is located in a confined space.

A self-propelled vehicle in accordance with the present invention, when provided with winding equipment 33, can be used for dragging or transporting tree trunks after they have been felled in dense and inaccessible terrain.

Such trunks can be transported to the timber store or yard, either by being dragged by a carrying rope, or a rope provided with tackle.

A self-propelled vehicle in accordance with the present invention, when provided with winding equipment 33, may also be used as a mobile ski lift for hauling or lifting skiers. The drawing device could be attached behind the body 1 of the vehicle.

A two wheeled or four wheeled trailer could also be attached to the drawing device or a carrier adapted for dragging the trunks to the timber store or yard.

In a preferred embodiment, a four wheeled version of a self-propelled vehicle in accordance with the present invention is provided with a three point hitch with a seat. All types of agricultural tools may be connected, or attached, to such hitch.

In another preferred embodiment, a snowplough may be attached to the front of the vehicle, and a plastic or metal roller can be attached to the back of the vehicle via such three point hitch. This will enable the front part of the vehicle to be used to scrape away any snow and the back part to lay out the ski slopes.

As outlined above, it is to be understood that a self-propelled vehicle in accordance with the present invention has many uses and hence, much utility. It is to be understood that the above-mentioned examples of the various constructions and versions of a self-propelled vehicle in accordance with the present invention are non-limiting and hence, does not restrict the use or construction of a self-propelled vehicle in accordance with the present invention.

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disconnected. One drive of half-axle is in the motion, it does the fluent turning to opposite direction on radius. Gearing the operating 5 and auxilliary handle at the same time the adequate drive of half axle is connected and the bevel pinions 29 put to the mesh through the toothed wheels 28 and the adequate drive of half-axle gets the reversible move which causes the turn of basic unit of selfmoving equipment around its own axis. The advantage of selfmoving equipment, according to the technical solution, is that up to now used small wheels equipments are not able to turn around its own axis in full range which is needed in narrow working conditions. The basic equipment 33 could be used for skidding the trunks after the cutting in heavy and inaccessible terrains. The trunks could be skidded on the bed to the timber stock, by skidding on the carrying rope or on the rope in tackle. The basic unit of selfmoving equipment with the winding equipment 33 could be used like mobile ski-lift for hauling the skiers. The drawing device could be jointed behind the case of basic unit of selfmoving equipment. Two wheels or four wheels trailer could be jointed onto the drawing device or carrier set for skidding the trunks to the timber stock. Another advantageous construction - the basic unit of four wheels version of selfmoving equipment and three point hitch with the seat could be jointed with all agricultural tools. Another advantageous construction, according to the technical solution,- the snow plough can be jointed onto the front part of basic unit and plastic or metal roller onto the back part of three point hitch. It enables to use the front part of selfmoving equipment to scrape away the snow and the back part for laying out the ski slopes. This

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selfmoving equipment, according to the technical solution, has a wide use. Above mentioned examples of various constructions versions of selfmoving equipment and the possibilities of their use do not restrict the use range of invention.

CLAIMS

1. A self-propelled vehicle having a four stroke engine with electric ignition, the self-propelled vehicle including:
 - a body formed from walls (7,8,9,10,11 and 12) and having the shape of a rounded pentagon;
 - a gear box (6) located within the body (1), the gearbox (6) being driven by engine or motor (2), having a variator (4), through pinion (6a);
 - within the body (1) there is further located a first disconnectable drive shaft (18) which is driven by gear box (6), and a second disconnectable drive shaft (19) and a third disconnectable drive shaft (20), both of which are driven by the first disconnectable drive shaft (18);
 - at least one track (13) and a common axle (14) adapted to receive a wheel assembly (47), the common axle (14) protruding passed the sides of the track (13); and
 - a handle (51) provided with a housing (52) within which is located the operating controls (52).
2. The self-propelled vehicle of claim 1, wherein movement of the track (13) is effected via rollers (15,16 and 17) which are part of walls (7-11) of body (1).
3. The self-propelled vehicle of claim 2, wherein two of the rollers (15,16) have a larger diameter than the remaining roller (17) and two of the rollers (15 and 16) are located on the side of a longer diagonal between the walls (7,9) and the other roller (17) is located on wall (9) of the side of a shorter diagonal between wheels (7 and 9).
4. The self-propelled vehicle of claim 1, wherein wall (7) is bevelled against wall (9) backwards in intervals of 10°-45° and the wall passes to an upper area by bevelling under the angle of a minimum of 40°.

5. The self-propelled vehicle of claim 1, wherein the back bevelled wall (10) of body (1) is provided with wheel attachment means (48) to which a second set of wheels (49) may be attached.
6. The self-propelled vehicle of claim 1, wherein the vehicle is provided with two tracks (13a,13b) located around walls (7,8,9,10 and 11).
7. The self-propelled vehicle of claim 1, wherein a brake wheel (34) is located on the first disconnectable drive shaft (18).
8. The self-propelled vehicle according to claim 7, wherein the brake wheel (34) is acted upon by brake pads (50) located on jaws (35, 36) operable by handle (38).
9. The self-propelled vehicle of claim 1, wherein the second disconnectable drive shaft (19) is connectable to the drive of a winding equipment (33) via chain wheels (21) located on the second disconnectable drive shaft (19).
10. The self-propelled vehicle of claim 9, wherein a central toothed wheel (39) is connected to the second disconnectable drive shaft (19) and wherein the central toothed wheel (39) is connected to the internal toothed wheel (42), via satellite toothed wheels (41), and driver (40) and it is mechanically connected at the same time with the drum (43) and brake belt (44).
11. The self-propelled vehicle of claim 10, wherein the drum (43) of the winding equipment (33) includes two parts (43a,43b) and wherein one part (43a) of the drum (43) is provided with a universal gearbox (44) and the outer part (43b) of the drum (43) is provided with a pneumatically operated multi-plate clutch (45).

12. The self-propelled vehicle of claim 10, wherein the drum (43) of the winding equipment (33) includes two parts (43a,43b) and wherein both parts (43a,43b) are provided with a universal gearbox (44).
13. The self-propelled vehicle of claim 10, wherein the drum (43) of the winding equipment (33) includes two parts (43a,43b) and wherein one part (43a) of the drum (43) is provided with a universal gearbox (44) and the other or opposite part (43b) of the drum (43) is provided with formed wheels (45) and braking means (46).
14. The self-propelled vehicle according to claim 10, wherein the drum (43) of the winding equipment (33) includes two parts (43a,43b) and wherein both parts (43a,43b) of the drum (43) is provided with a universal gearbox (44) and wherein at the middle of the drum (43) or between the two parts (43a,43b) of the drum (43) there is provided braking means (46).
15. The self-propelled vehicle of claim 1, wherein the third disconnectable drive shaft (2) is connectable via chain wheels (22) to two independent drivers of half axles (23,24) having drive wheels (30,31), connected to guide wheels (32).
16. The self-propelled vehicle of claim 15, wherein one of the half axles (23) is connected to a multi-plate clutch (26) and the other half axle (24) is connected to a multi-plate clutch (27) and that both half axles (23,24) are joined via toothed wheels (28), which are connected to bevelled pinions (29).
17. The self-propelled vehicle of claim 1, wherein hoisting or lifting equipment is connected to the body (1) of the vehicle.
18. The self-propelled vehicle of claim 17, wherein a two wheeled or four wheeled trailer is connected to the hoisting equipment

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19. The self-propelled vehicle of claim 1, wherein a roller is attached to the front of the body (1).

20. The self-propelled vehicle of claim 19, wherein the roller is made from metal.

21. The self-propelled vehicle of claim 19, wherein the roller is made from plastic.

22. The self-propelled vehicle of claim 1, wherein a plough is connected to the front of the vehicle.

23. The self-propelled vehicle of claim 1, wherein a plough or rotary snowplough is attached to the front part of the body (1) of the vehicle.

24. The self-propelled vehicle of claim 1, wherein a carrier is connected to the vehicle.

25. The self-propelled vehicle of claim 1, wherein a three point hitch with a seat and an agricultural implement is joined to the body (1) of the vehicle.

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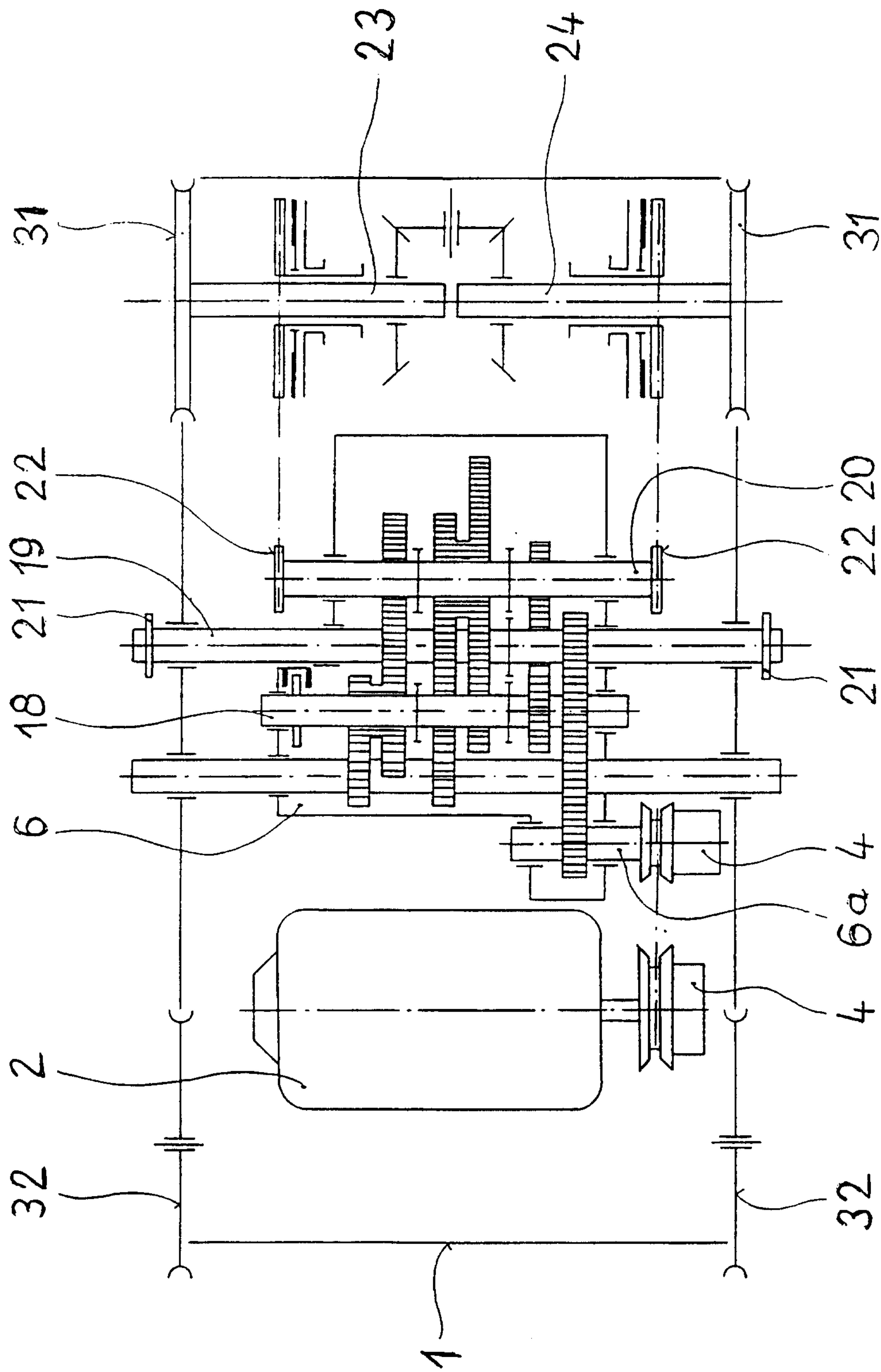


Fig 1.

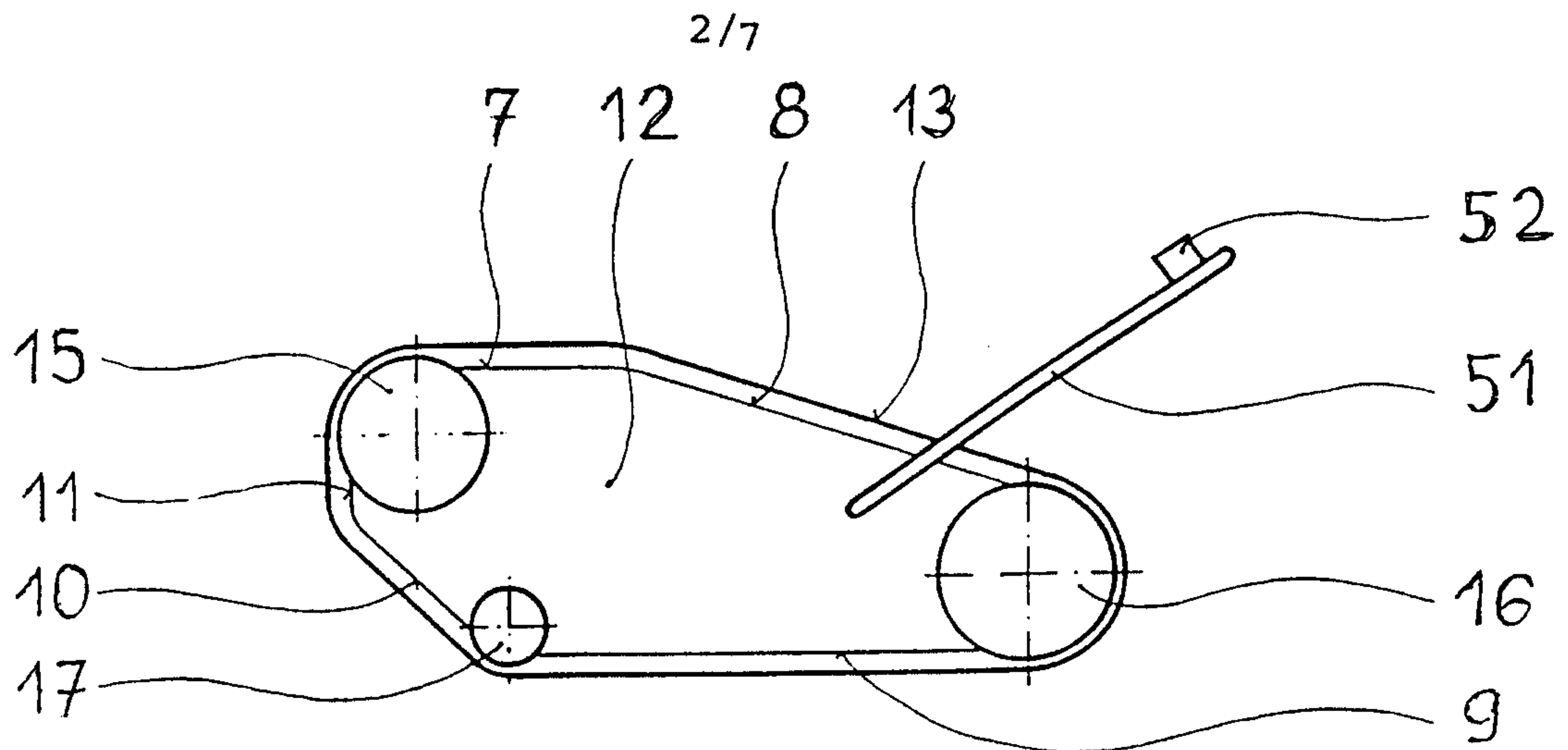


Fig 2.

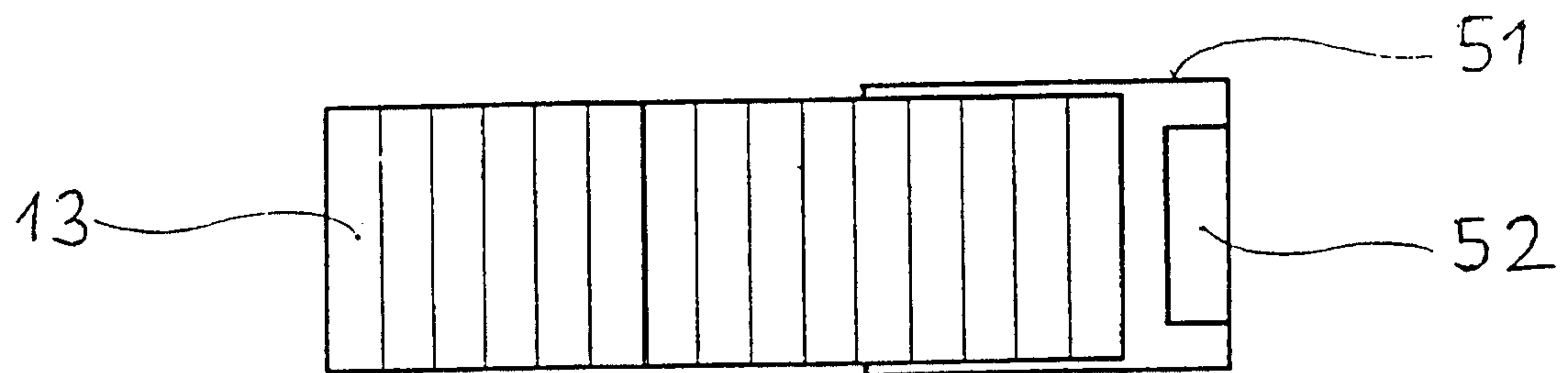


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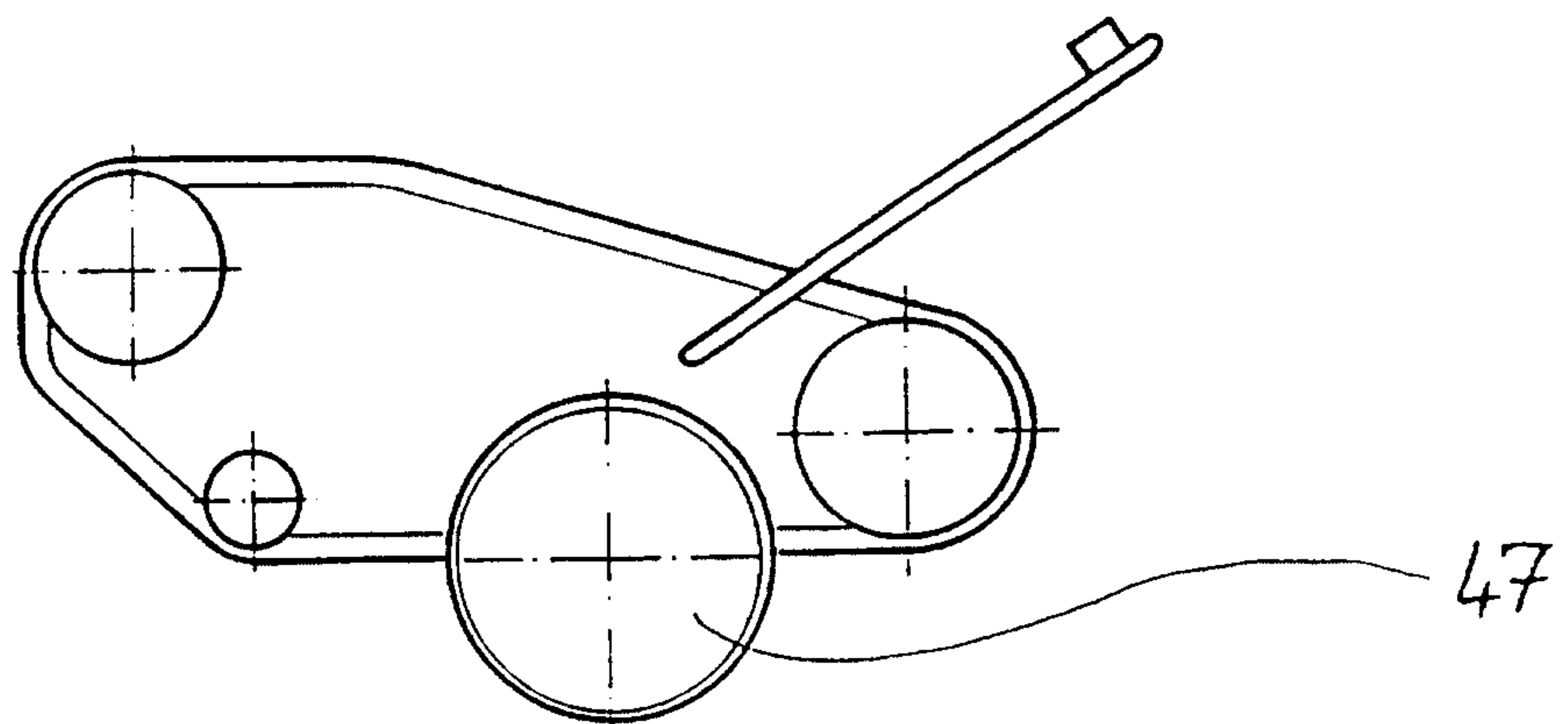


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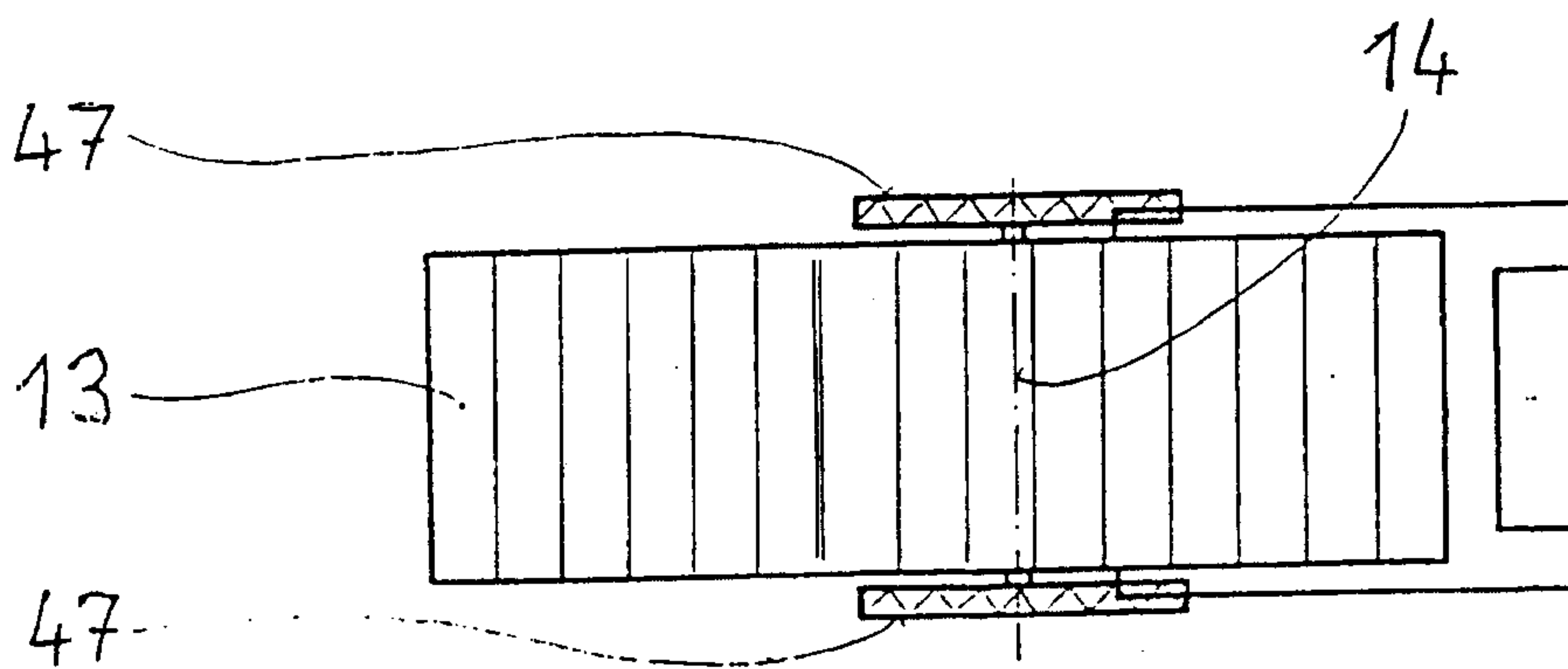
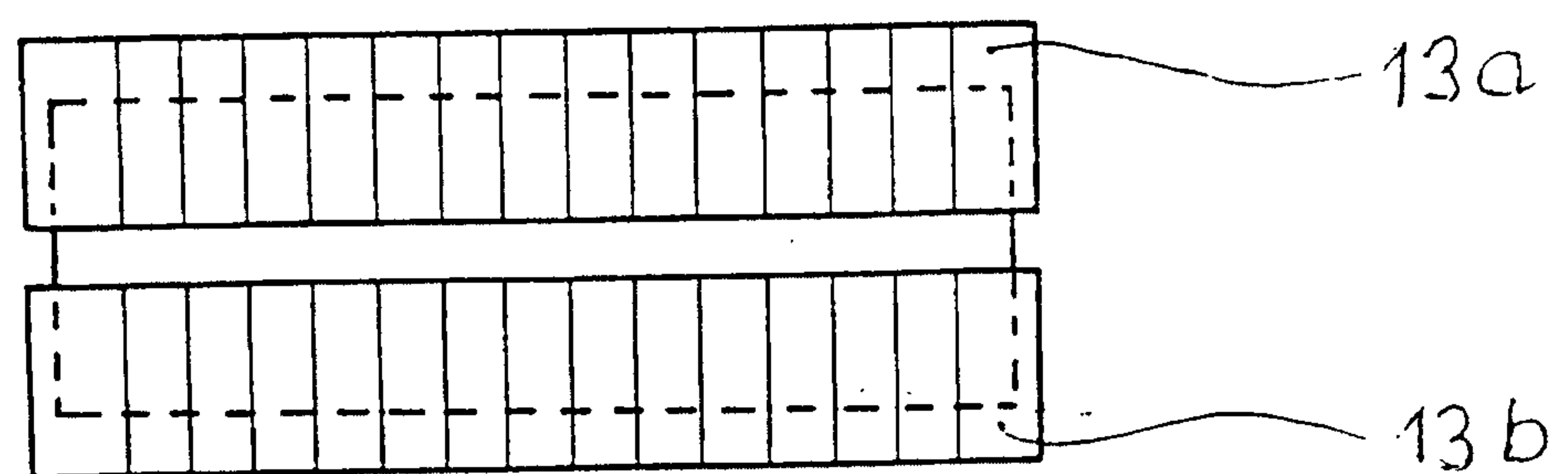
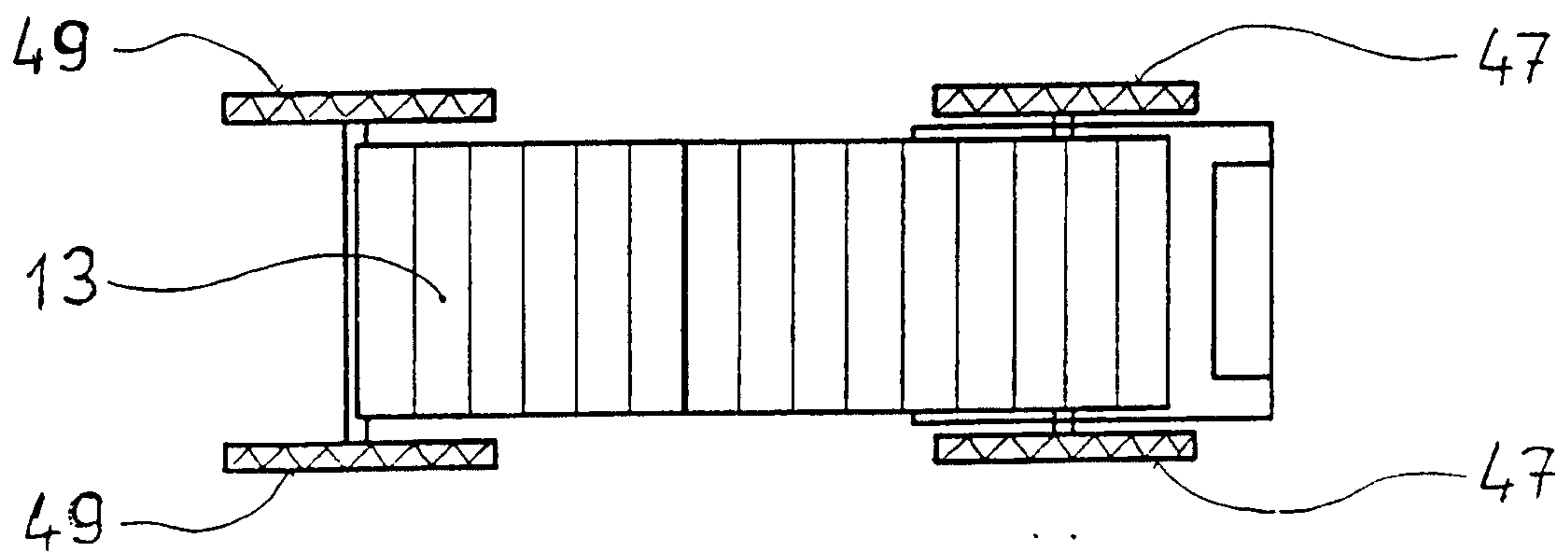
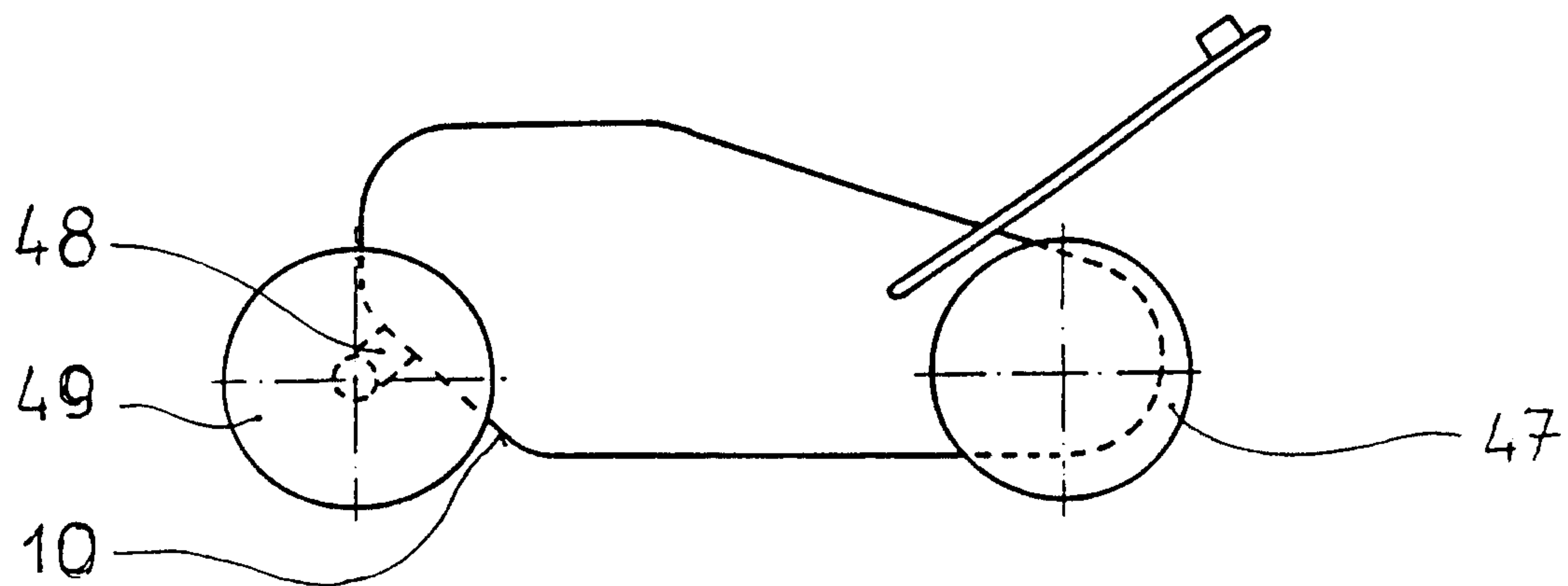
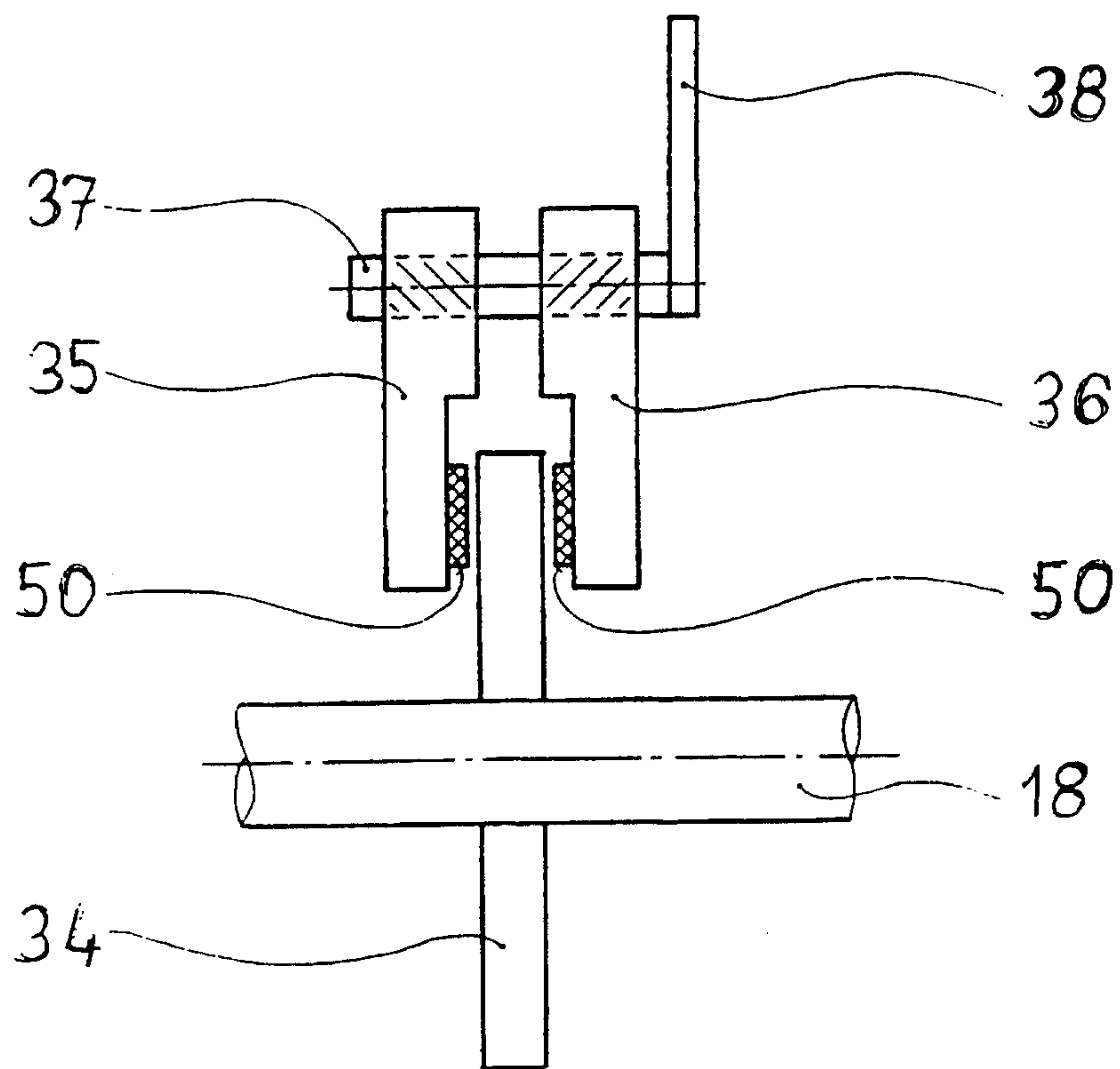
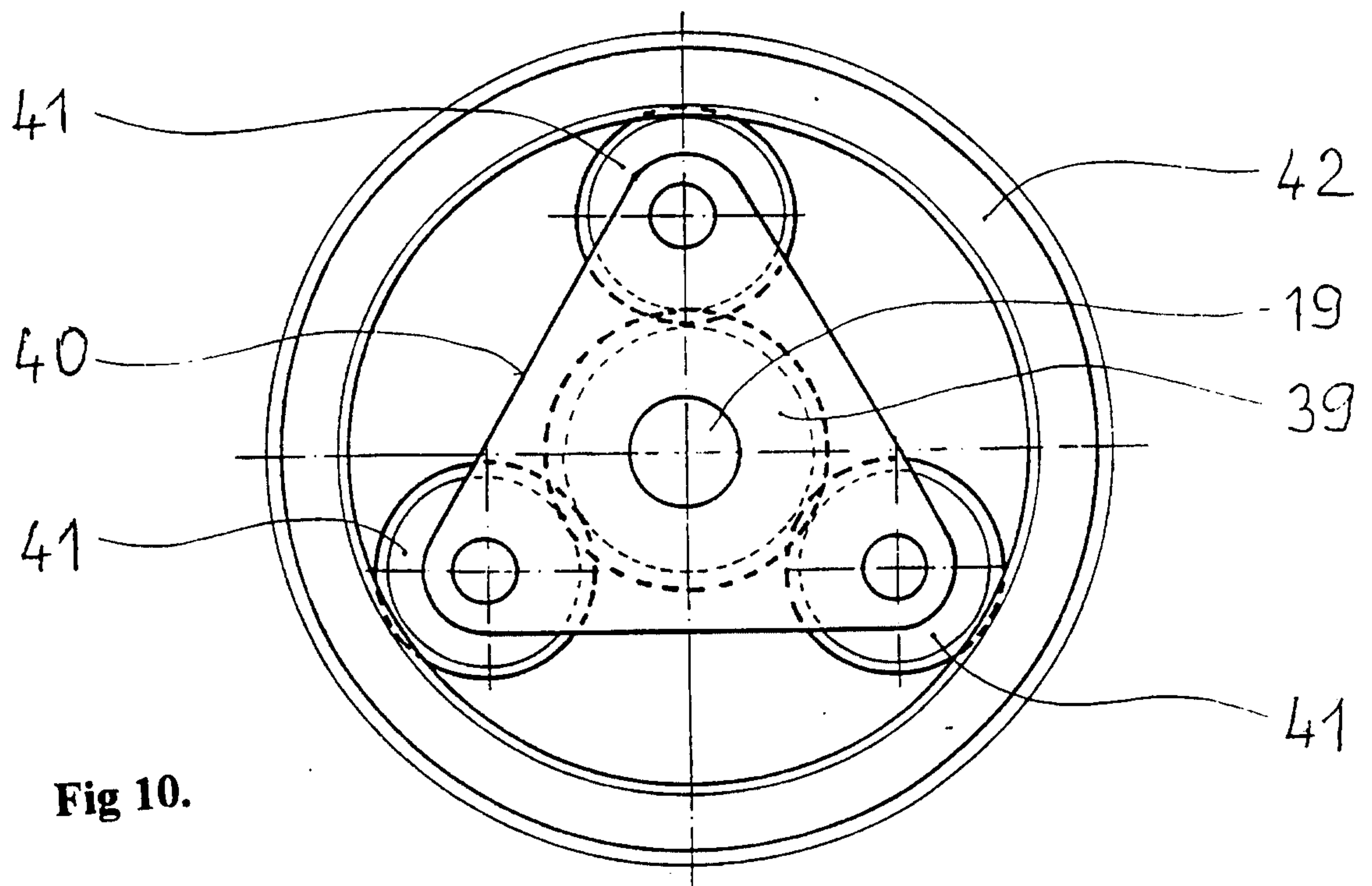


Fig 5.



**Fig 9.****Fig 10.**

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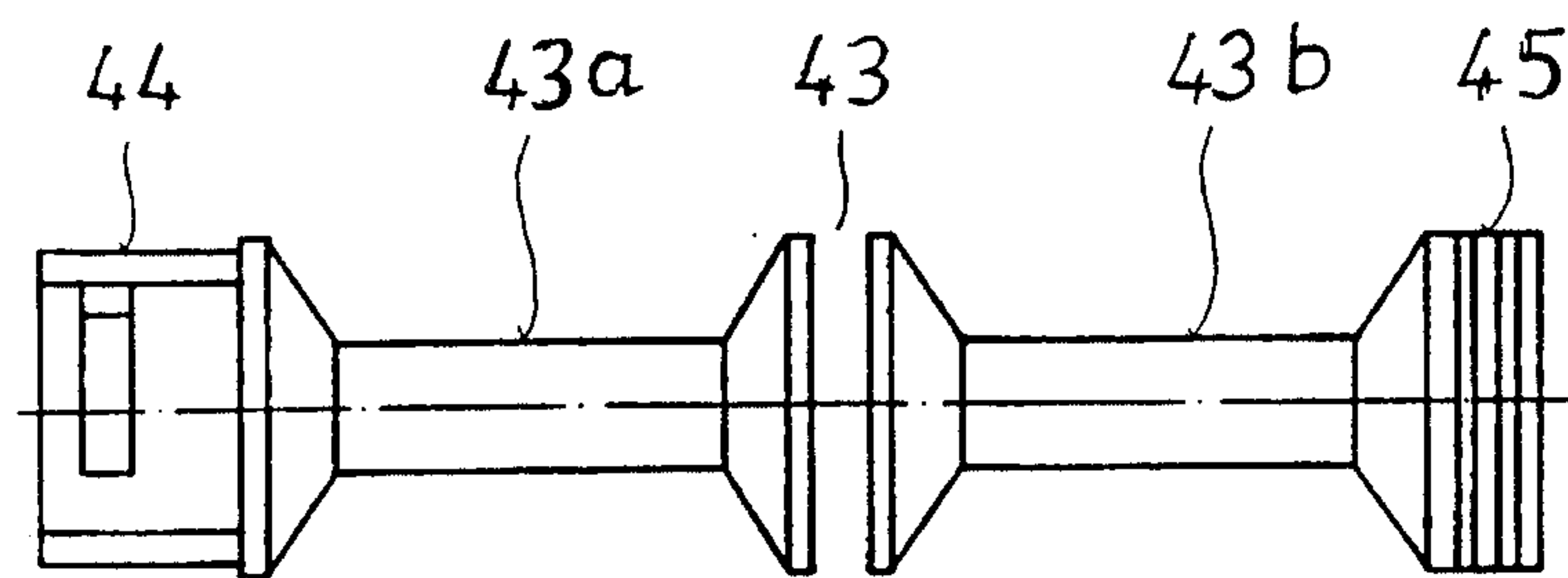


Fig 11

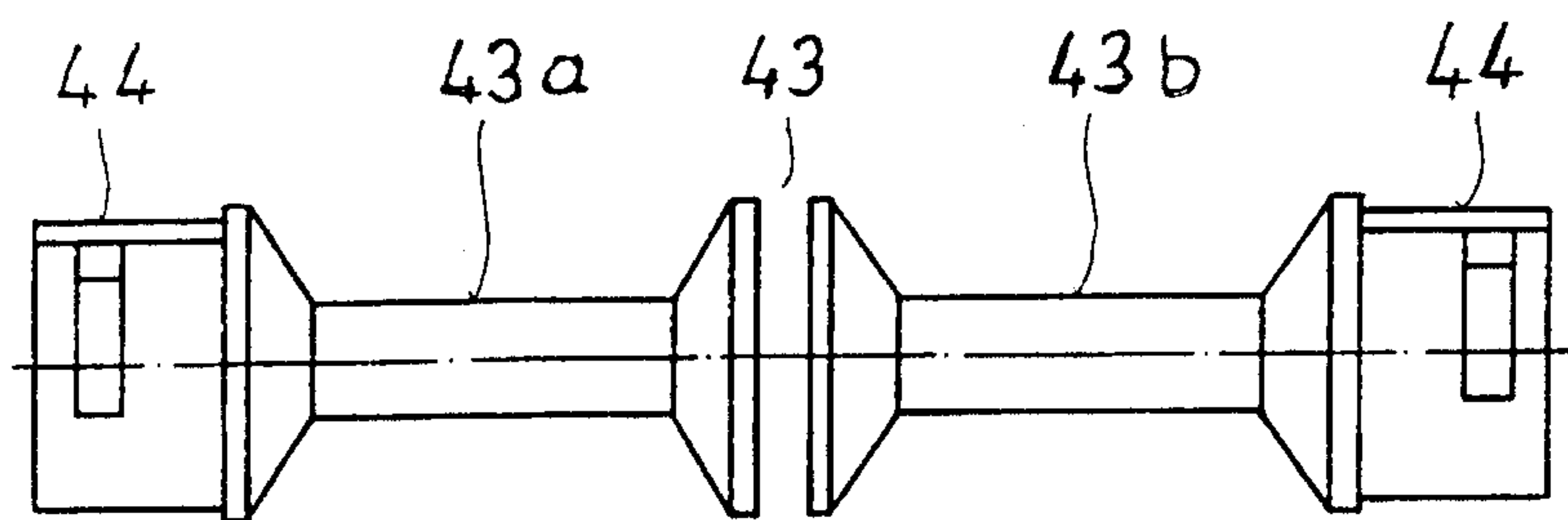


Fig 12

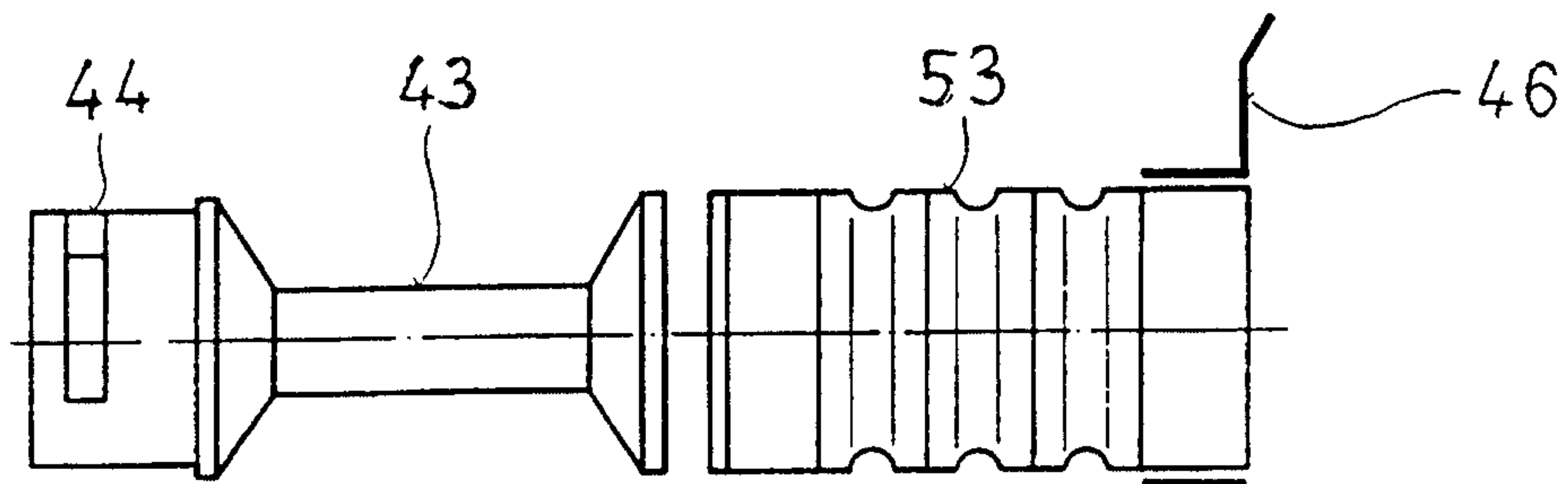


Fig 13

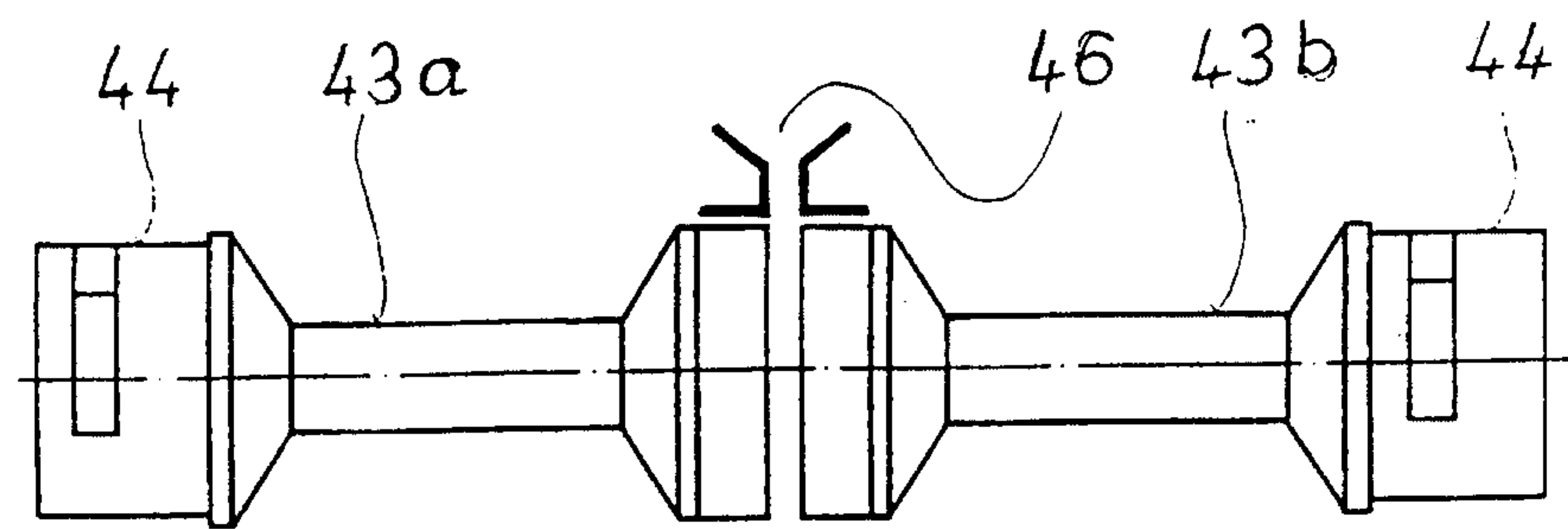


Fig 14

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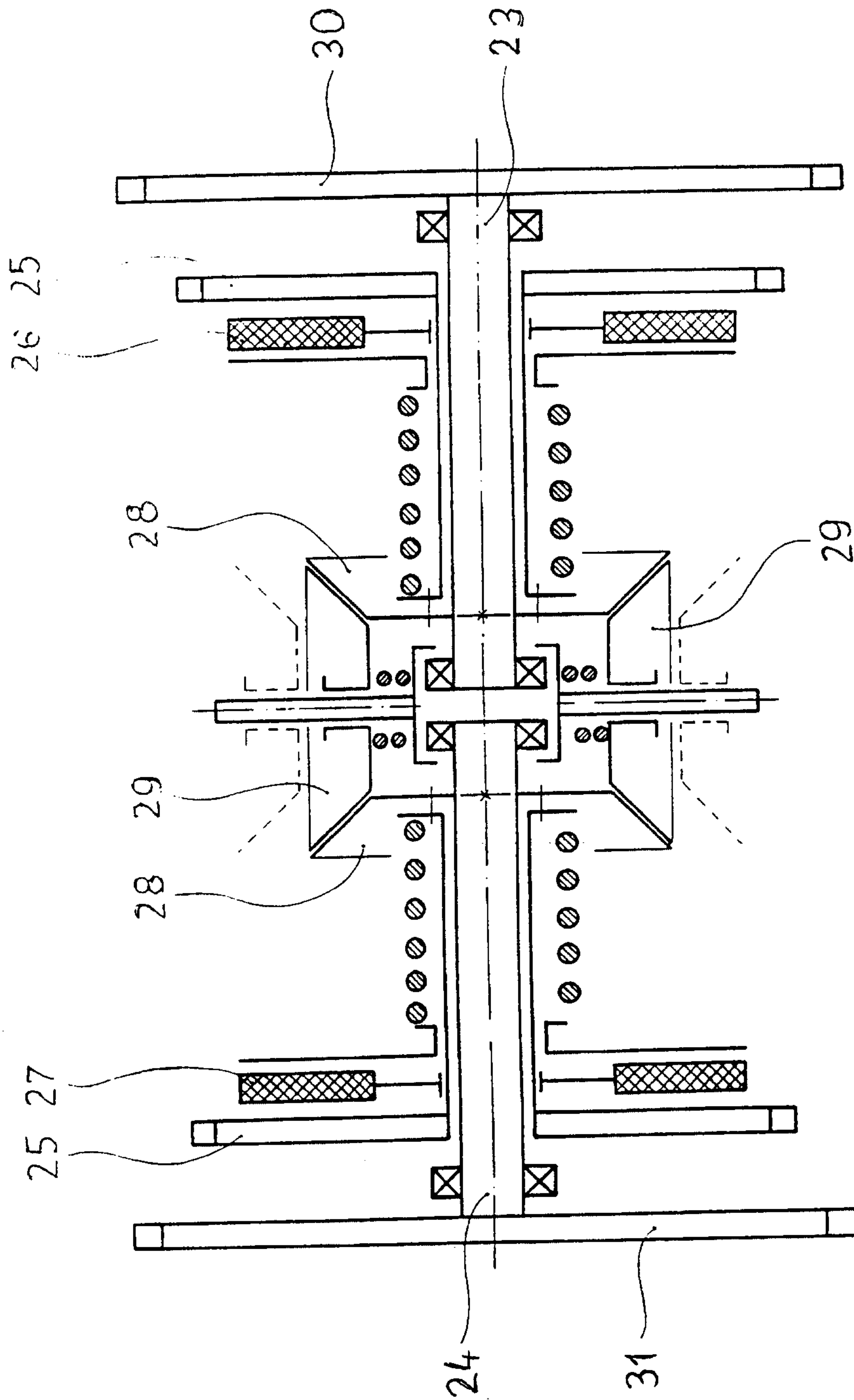
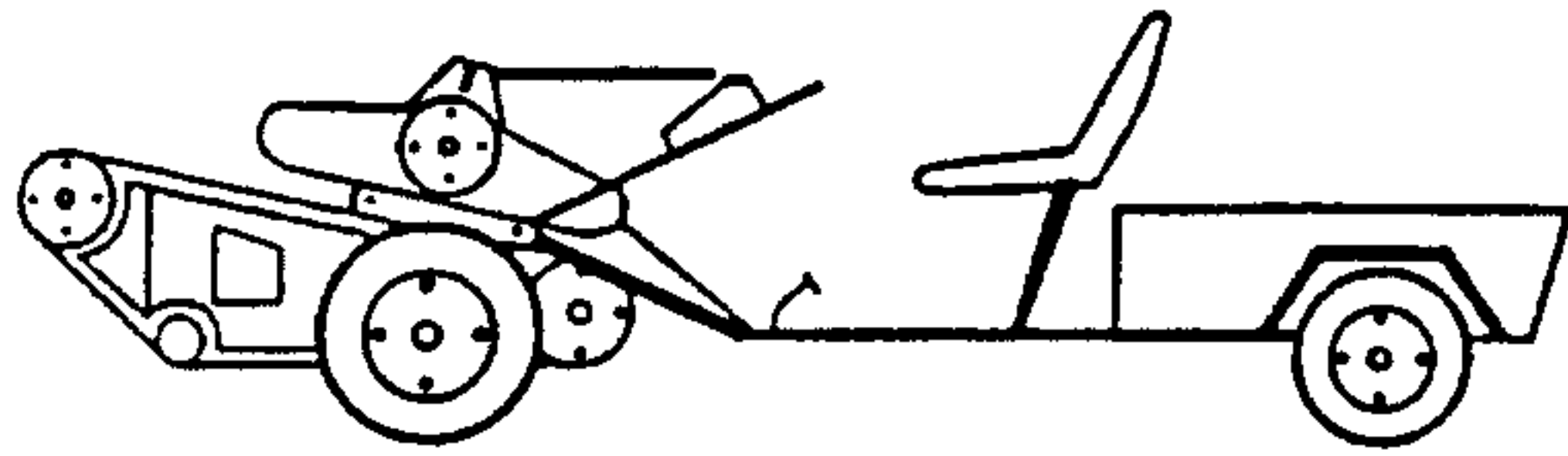
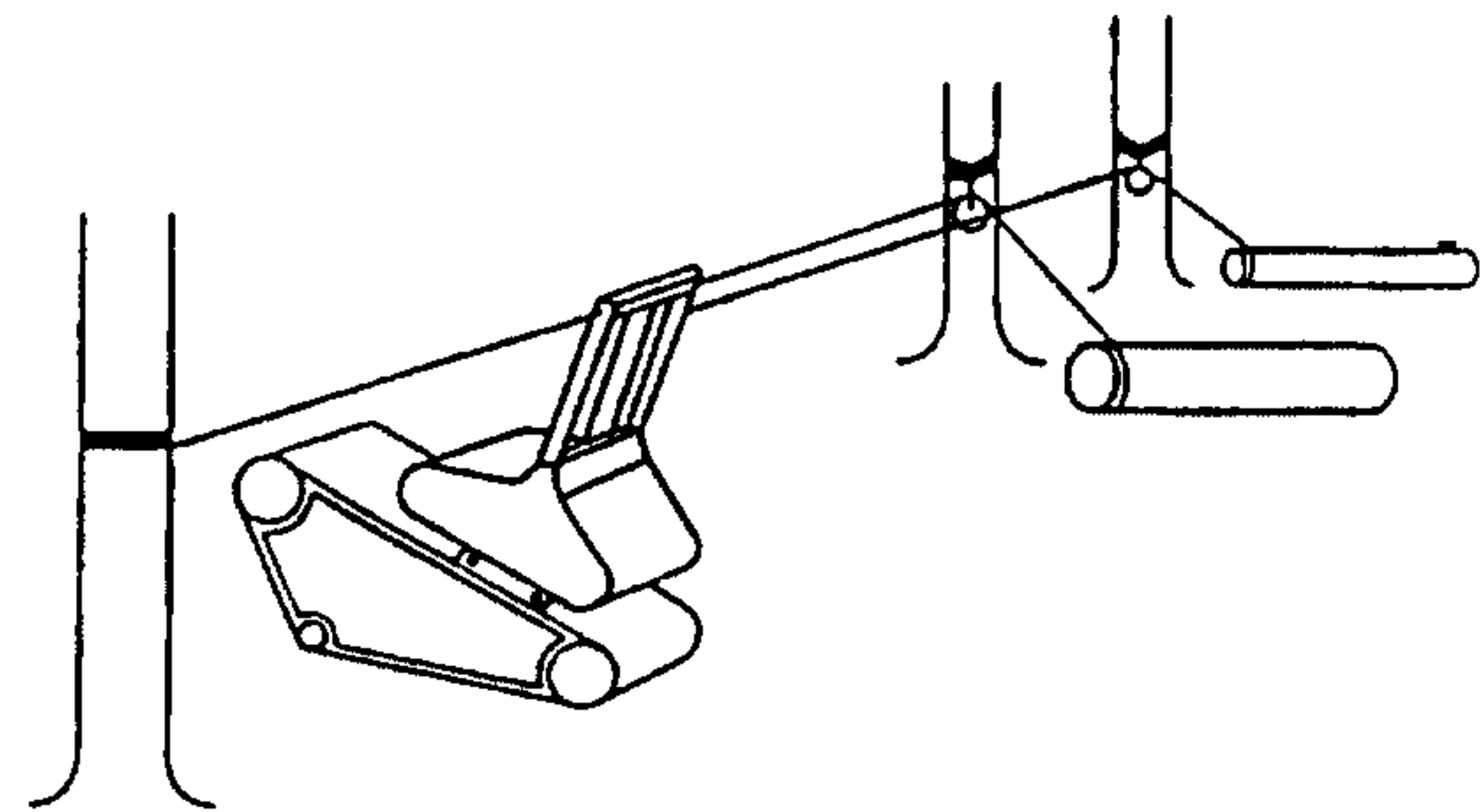
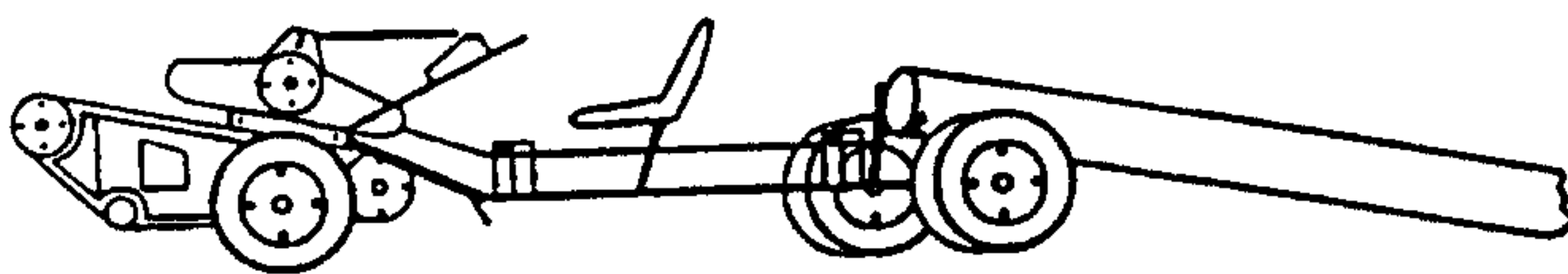
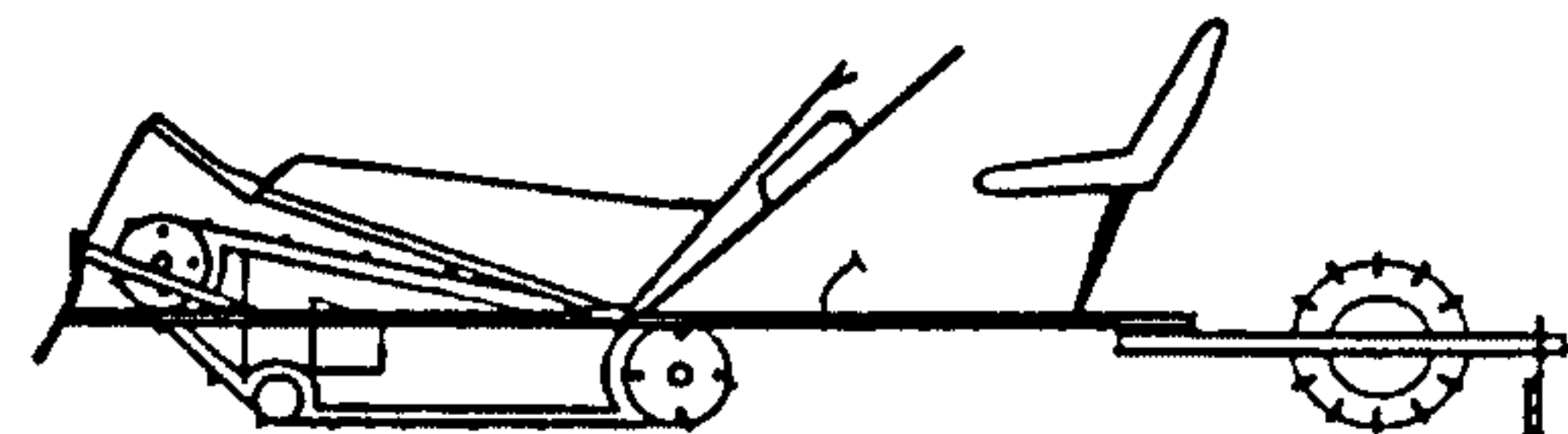
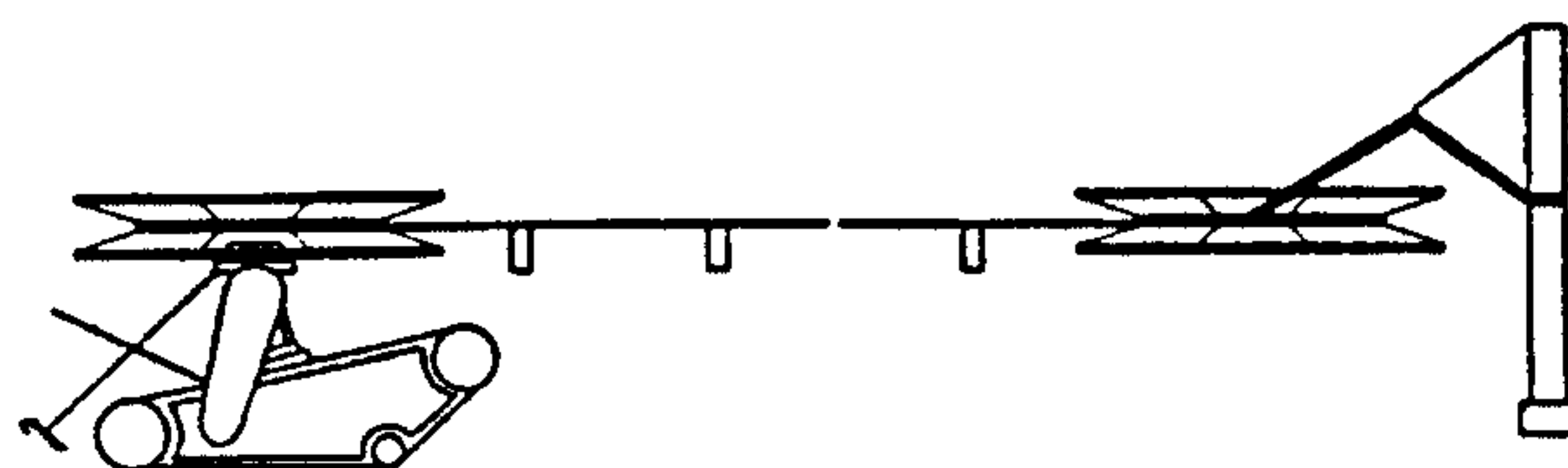


Fig 15

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**Fig 16****Fig 17****Fig 18****Fig 19****Fig 20**