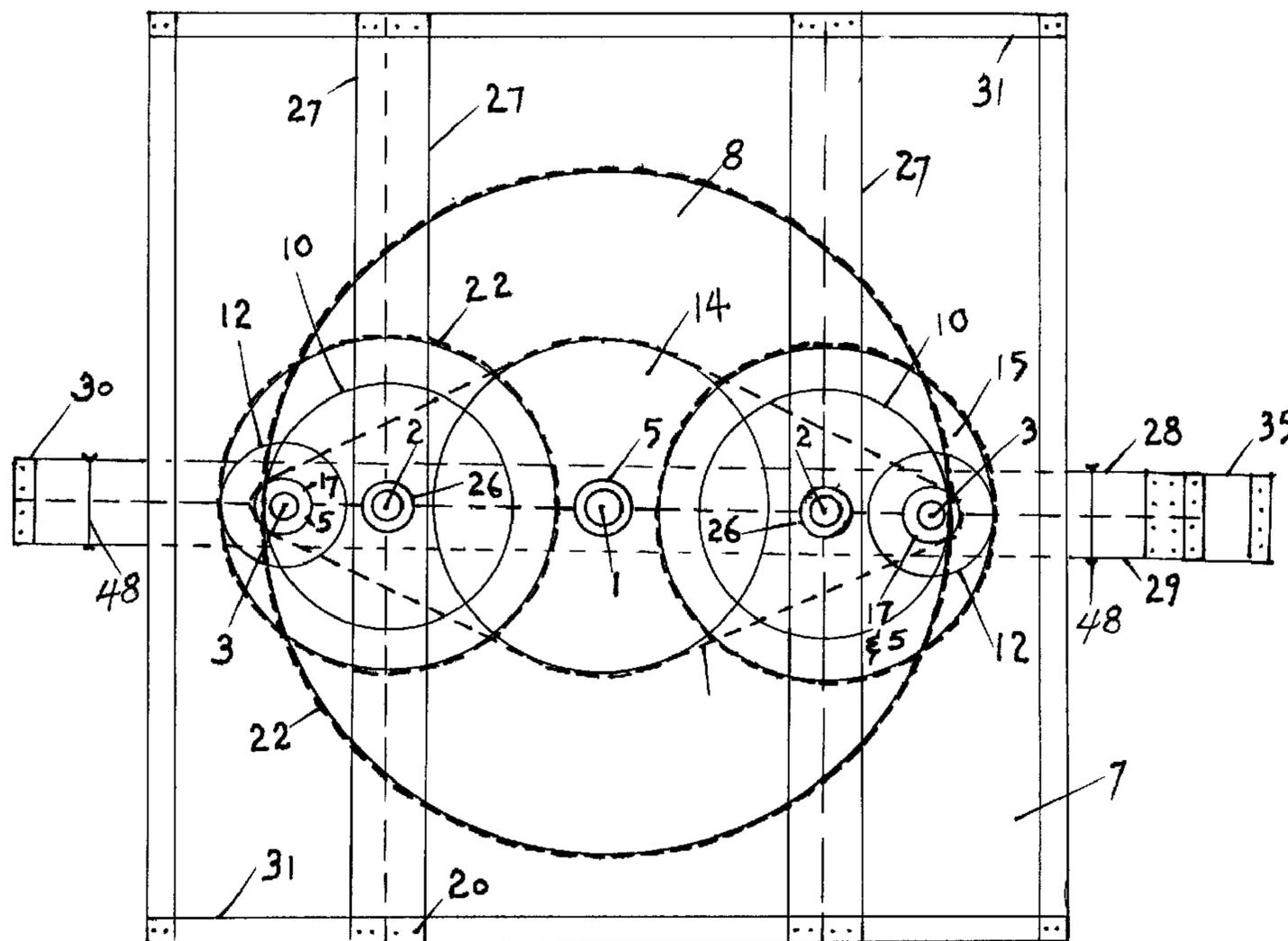




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(54) Title: POWER LEVER CHAIN MOTOR



(57) **Abrégé/Abstract:**

Many previous efforts to construct a perpetual motion machine (weight motor), and have all met with failure. Indeed physicists and mechanical engineers have insisted that it is an impossible task. This machine utilizes wheels (mainly sprockets) and chains, and a leveraging system, to achieve the desired effect. In the most efficient model of the following motor, five shafts are utilized: a central god shaft, which carries two very large single outer sprockets each of which carries double strand chain with the second strand reaching inward to present an engagement site for smaller sprockets (or internal gears); two angel shafts—each diametrically opposed to the other—whose outer sprockets engage the free strand of god chain (or pinion gears); and two tug shafts which are farthest from the god shaft and adjacent to each angel shaft. The god shaft and the angel shafts are held to a constant 'equatorial'

(57) **Abrégé(suite)/Abstract(continued):**

position parallel to one another, while the tug shafts are allowed to teeter slightly about the god shaft via teeter arms. Clearance slots are cut into the teeter arms on each side the god shaft to allow them slight movement free of the angel shafts. The god shaft also supports an inner sprocket whose connecting, reciprocating chain engages a small inner sprocket on each of the tug shafts. There are also two medium sized inner sprockets on each of the angel shafts, which reach beyond the distance described by the short tug shafts. The single-strand inner angel sprockets also carry double stranded chain whose free second strand reaches inwardly, each to allow a small sprocket residing at each end of the tug shaft to engage it. The ratios of outer angel sprocket (or gear) to god sprocket (or gear); of inner god sprockets to inner tug sprockets; of outer tug sprockets to inner angel sprockets; are such that all shafts spin in harmony. Because the tug wheels must always describe a perfect arc about the god shaft axis, but the curve of the receiving inner angel sprocket cannot duplicate that perfect arc, the angel wheels are forced to rotate to accommodate the engaging tug wheels. Thus, when the teeter arms are moved either up or down, so also the angel wheels, and the god wheel must move in the same direction. The produced feedback loop causes the spin to be perpetuated so long as pressure is exerted against the teeter arms at either end of them. This motor can operate in any attitude, and in virtually any medium. Neither fuel nor even gravity is required.



Power Lever Chain Motor **Abstract**

Many previous efforts to construct a perpetual motion machine (weight motor), and have all met with failure. Indeed physicists and mechanical engineers have insisted that it is an impossible task.

This machine utilizes wheels (mainly sprockets) and chains, and a leveraging system, to achieve the desired effect.

In the most efficient model of the following motor, five shafts are utilized: a central god shaft, which carries two very large single outer sprockets each of which carries double strand chain with the second strand reaching inward to present an engagement site for smaller sprockets (or internal gears); two angel shafts—each diametrically opposed to the other—whose outer sprockets engage the free strand of god chain (or pinion gears); and two tug shafts which are farthest from the god shaft and adjacent to each angel shaft. The god shaft and the angel shafts are held to a constant 'equatorial' position parallel to one another, while the tug shafts are allowed to teeter slightly about the god shaft via teeter arms. Clearance slots are cut into the teeter arms on each side the god shaft to allow them slight movement free of the angel shafts.

The god shaft also supports an inner sprocket whose connecting, reciprocating chain engages a small inner sprocket on each of the tug shafts. There are also two medium sized inner sprockets on each of the angel shafts, which reach beyond the distance described by the short tug shafts. The single-strand inner angel sprockets also carry double stranded chain whose free second strand reaches inwardly, each to allow a small sprocket residing at each end of the tug shaft to engage it.

The ratios of outer angel sprocket (or gear) to god sprocket (or gear); of inner god sprockets to inner tug sprockets; of outer tug sprockets to inner angel sprockets; are such that all shafts spin in harmony.

Because the tug wheels must always describe a perfect arc about the god shaft axis, but the curve of the receiving inner angel sprocket cannot duplicate that perfect arc, the angel wheels are forced to rotate to accommodate the engaging tug wheels. Thus, when the teeter arms are moved either up or down, so also the angel wheels, and the god wheel must move in the same direction. The produced feedback loop causes the spin to be perpetuated so long as pressure is exerted against the teeter arms at either end of them.

This motor can operate in any attitude, and in virtually any medium. Neither fuel nor even gravity is required.

Power Lever Specification

This invention relates to a perpetual motion machine ('weight motor'), which is also capable of supplying clean, low cost, usable surplus energy.

In drawings which illustrate* embodiments of the invention, Figure 1 is an elevation of one embodiment, Figure 2 is a top view of this embodiment before any chains are applied to it, Figure 3 is the same top view with chains applied and with teeter arms not shown (for simplicity), Figure 4 is an end view of this embodiment before chains are applied, Figure 5 is an elevation of the same embodiment showing a take-off sprocket on the underside of the god wheel, Figure 6 an elevation of the same embodiment indicating a take-off sprocket on the lower inside of the god sprocket, Figure 7 an elevation of the same embodiment indicating relay sprockets engaging the top of the god sprocket and sending power to a receiving apparatus at the bottom of the unit, Figure 8 is the top view of an embodiment such as is seen in Figure 7 but also having additional outer god sprockets and extra outer angel sprockets, Figure 9 is the top view of an embodiment whose outer god wheels are internal gears and whose outer angel wheels are pinions; and which uses double sprockets for inner god wheels and inner tug wheels; and which uses a wheel fixed to the god shaft outside the motor housing as a take-off wheel, Figure 10 an elevation in section showing more simply the clearance slots in the teeter arms, which allow the tug shafts to pivot slightly about the god shaft, Figure 11 is an elevation in section showing the tagat (tug, angel, god, angel, tug) plane as a longitudinal instead of an equatorial, Figure 12 is an elevation, partly in section, of an embodiment having only three shafts: a god shaft one angel shaft and one tug shaft, (in effect, a tag plane), Figure 13 is an elevation, partly in section, of another three-shaft embodiment, where the tag plane is a longitudinal instead of an equatorial, Figure 14 is an elevation of an embodiment having two tagat planes in a crosswise configuration and at right angles to one another, Figure 15 is an end view of the embodiment shown in Figure 14 but absent the circular armature, Figure 16 is an isometric projection of a two tagat plane embodiment in part, showing the armature which joins all four tug shafts (with armature spokes not shown, and with tug wheels and tug shaft ends not shown, Figure 17 is a side view of an embodiment having two tagat planes in crosswise configuration, and having a reciprocating chain traveling from an inner god sprocket to only one inner tug sprocket, and having a serial connecting chain connecting all tug wheels directly, Figure 18 is an isometric projection in part, of the embodiment shown in Figure 17 but with only two spokes (and with the upper circular armature absent for a simpler reveal of the inner tug sprockets), Figure 19 is an elevation of an embodiment similar to Figures 14 and 17 having the reciprocating chain reaching from one inner tug sprocket to an inner tug sprocket on the opposite side via an inner god sprocket and including the serial chain direct to all inner tug sprockets, Figure 20 is an isometric projection in part, of two tagat plane embodiment having two inner god sprockets which allow two reciprocating chains to reach across to all four inner tug sprockets, (i.e. where two courses of reciprocal chain are in play: each from pairs of inner tug sprockets which are opposite one another, Figure 21 is an elevation of an embodiment similar to the embodiment illustrated in Figure 20 which includes a serial chain which connects all inner tug shafts directly, and serves as a redundant/reinforcing element in the motor, Figure 22 is an end view, zoom profile of an

outer god wheel in part, which is comprised of a foundation/anchor plate 25 which attaches to the god shaft 1, a spacing washer 47, an outer god wheel which is an internal gear 9, and connecting elements 20, Figure 23 is a side view zoom profile in part, showing the anchor plate 25 pictured in Figure 22, plus the (outer god wheel) internal gear 9, and a spacing washer 47 whose inner diameter is less than the total inner diameter achieved by opposite internal gear tooth addendums of the internal gear (so that the washer may serve as a slight pinion guidance feature), Figure 24 is a side view zoom profile of the internal gear, the washer, and the anchor plate in part, where the inner diameter of the washer is greater than the total inner diameter achieved by opposite internal gear tooth dedendums of the internal gear (so that there is no friction between the pinion and adjoining parts).

* For purposes of simplification, collars, hubs and bushings are not shown in these drawings.

Another benefit of using multi-strand sprocket chain instead of internal gears (in addition to the fact that they tend to require less space) is that they can be accessed by sprockets from both sides of the circle they describe.

The motor illustrated in Figures 1, 2, 3 and 4 comprises a strong central god shaft 1 which is borne by a housing side wall 7 at each end of the shaft via bearings 5. Just inboard of the bearings reside a pair of very large sprocket wheels (called outer god wheels) 8, one near each end of the god shaft 1. Fixed to each of the single god wheels around its full circumference is double-stranded sprocket chain 22, such that the outer strand is attached to the god wheel, but the inner strand extends in toward the center of the motor. Two pairs of shafts, one pair on each side of the central god shaft, are parallel to the god shaft and share a common equatorial plane—the ‘tagat plane’*—with the god shaft. Nearer to the god shaft 1, are angel shafts 2 which are fixed into a constant position via bearings 5 by stanchions 27. In this case, the stanchions are split, to allow the angel shafts to easier be installed after the god shaft is installed, and to allow maintenance to occur with less disruption. Each of the stanchion splits is reconnected by connecting bolts 48, and by miscellaneous connecting elements 20 at their top and bottom. The angel shafts 2 also carry outer sprockets 10 at both of their ends, such that each is able to engage the free strand of double-stranded chain 22 that exists on each god sprocket 8. Immediately inboard from each outer angel sprocket 10 is first a bearing 5 which relates to the support stanchion 27, and then an inner angel sprocket 15 which is bigger in diameter than the outer angel sprocket 10, such that there is a total of four angel sprockets on each angel shaft 2. Each of the inner angel sprockets also carries a two-strand chain 22 around its full circumference, such that the outer strand is engaged by the single inner angel sprocket, but the second, inner strand extends inwardly. The shafts most remote from the god shaft are called tug shafts 3. At the end of each tug shaft is an outer tug sprocket 12 which engages the second strand of chain 22 which resides on the inner angel sprocket 15 found inboard of the bearings 5 of the angel shaft 2. Inboard from the end sprocket 12 on each tug shaft 3 is a bearing 5 which relates to a teeter arm which has been split into an upper split 28, and a lower split 29, and then joined again during the installation of the tug shaft elements by bolts 48. The two teeter arms also embrace bearings 5 on the god shaft 1, and have clearance slots 26 cut/designed into them, such

that they, and the tug shafts 3 they carry, are able to pivot slightly about the god shaft. Cross members 30 join both teeter arms at their ends for reinforcement and more consistent load sharing. Near the middle of the god shaft 1 is a medium sized inner god sprocket 14 which is in alignment with very small inner tug sprockets 17 which reside near the middle of the tug shafts 3. Reciprocating chain 50 shared among the inner god sprocket 14 and the two inner tug sprockets 17 (one on each tug shaft) causes the tug shafts 3 and the god shaft 1 to rotate together. The motor housing carries a top panel 42 and a floor/bottom panel 40 which serve both to keep dirt from the mechanism and to offer purchase (in addition to the cross-member reinforcement struts 31) to which the angel stanchions 27 may fix. The stanchions are attached to the struts by joining elements 20. The housing also carries end walls 41 which have windows 37 designed into them which allow the teeter/lever arms 28/29 to extend through them. An extension 35 to the teeter arm may be attached to it for added leverage.

Owing to the specific sprocket tooth ratios of each wheel, all wheels are able to cycle about one another in harmony.

[While other ratios might offer comparable results, in this particular case, the ratio of outer angel sprockets to outer god sprockets is 3:8 (30:80, or 42:112, for examples). For every moment the angel sprockets rotate eight times, the god wheels rotate only three times. Thus, if the ratio of the inner god sprocket to the inner tug sprockets is 80 to 12, the three rotations of the god sprockets will spin the tug sprockets 20 times ($80 \times 3 = 240$, $240 / 12 = 20$). If the ratio of the outer tug sprockets to the inner angel sprockets is 32 to 80, then the 20 revolutions of the 32 pitch tug sprockets will synchronize with the 8 revolutions of the 80 pitch inner angel sprockets ($20 \times 32 = 640$, $8 \times 80 = 640$).]

Because the circle described by the circumference of the inner angel sprocket cannot match the circumference experienced by the outer tug sprockets when they pivot slightly about the god shaft, when the teeter arms are forced up or down, the outer tug sprockets are forced to push/pinch against the chain on the inner angel sprockets 15. This action forces the angel sprockets to resist and turn, which force the outer angel sprockets and the outer god sprockets to turn, which force the inner god sprocket to turn, which forces the inner tug sprockets to turn and reinstate the teeth on the outer tug sprockets, which were pressing against the chain on the inner angel sprockets. Thus the rotation/spin is perpetuated until the force against the teeter arms is released (neutralized) or reversed. In some instances, a priming crank of the wheels—preferably/most easily the god wheels—may be necessary to overcome inertia before the motor is able to maintain spin through pressure imposed on the teeter arms alone.

It is very important that there not be an unreasonable amount of slack chain running from the inner god sprocket to the inner tug sprockets, nor that there be loose fittings between sprockets and their related chains, as either of these conditions might cause the outer tug sprockets to overextend before a working engagement is realized.

To be able to achieve the turning space required by the various sprockets it might be necessary for the outer god wheels and the outer angel wheels to be of a higher gauge/number/pitch size than the inner wheels. For example, the outer god sprockets might be 40x112, when the outer angel wheels are 40x42; while the inner sprockets are of a number 35 type. Or, if the outer sprockets are double the link size of the inner sprockets (outer 2-inch links, inner 1-inch links, for example), then if a 30:80 ratio is used between

the outer angel sprockets and the god sprocket, 80 pitch sprockets may be used to connect chain to the inner tug sprockets. It is also important that shaft sizes not have such great diameters that they prohibit the free turning of adjacent wheels.

In the embodiment illustrated in Figure 5 energy is spilled off the motor via a take-off sprocket 33 fixed to a take-off shaft 34, which engages the inner strands of the god sprockets on their lower outside. This configuration allows a variety of apparatuses 32 (electric motors, pumps, generators, step-up gear boxes, etc.) either to do work in place, or to more easily send power elsewhere as the shaft can reach beyond the confines of the outer god wheel/s.

In the embodiment illustrated in Figure 6 energy is captured via a take-off sprocket 33 which engages the inner strand of chain 22 on the outer god sprocket 8 on the lower inside of its circumference.

In the embodiment illustrated in Figure 7 power is first captured by a small relay sprocket 18 which resides on a relay shaft found above the outer god sprocket, and anchored to the side walls of the housing 7 via bearings 5. A larger relay sprocket 19 sends rotational power to a take-off sprocket 33 found in the lower section of the motor, via chain 21. This configuration provides a step-up in speed before the apparatus 32 receives the power.

In the embodiment illustrated in Figure 8 the outer god sprockets and the outer angel sprocket are doubled requiring quad-strand chain. This configuration provides more strength in the system and serves to resist chain yaw or stretch resulting from the constant pressure of the angel sprockets on only one side of the chain. However it does add more weight and cost to the system. This illustration also shows the small relay wheels 18 which receive power directly from the god wheel chain, and the larger relay wheel 19 on the upper relay shaft 4, (found in Figure 7) which sends power to the take-off sprocket on the under side of the motor.

In the embodiment illustrated in Figure 9 anchor plates 25 serve as foundation for outer god wheels which are now internal gears 9. The internal gears are attached to the foundation plates 25 by connectors 20. The outer angel wheels are now pinions 11. Also in this embodiment are double sprockets for inner god wheels and inner tug wheels. Too, the take-off wheel in this case is a large wheel (either gear or sprocket) 33 fixed directly on the god shaft 1 outside the walls of the motor housing. [The inner tug sprockets are possibly the most stressed elements of the whole system, and so might require multiple sprockets, rather than single ones, to receive the power more capably.]

Figure 10 illustrates more simply the clearance slots 26 required in a teeter arm found in an equatorial position. This figure also indicates how the outer god wheel may be either a sprocket or an internal gear, and the outer angel wheel may be either a sprocket or a pinion accordingly. The god housing and angel stanchions must exist but are not shown.

Figure 11 illustrates more simply the clearance slots 26 required in a teeter arm found in an longitudinal position. The angel shaft stanchions are not shown.

In the embodiment illustrated in Figure 12 only three shafts and their necessary wheels are used. This is less expensive, and does not require quite as much space, but it is also a less efficient way of achieving the desired result.

In the embodiment illustrated in Figure 13 a three-shafted motor is designed to have its tag plane as a longitudinal instead of as an equatorial.

In the embodiment illustrated in Figure 14 two tagat planes in a crosswise configuration and at right angles to one another exist in the same motor. Each pair of stanchions 27 now carry two angel shafts 2 instead of one, and spokes 39 which embrace god bearings 5 reach out to a circular armature 38 which connects to all four tug shafts via bearings 43 on their shafts 3. One of the spokes also serves as a teeter arm 28 which extends beyond the end wall 41 of the housing through a window slot 37 to allow more leverage. On the teeter arm, through the armatures 38 is an armature relay shaft 44 on which is fixed a relay sprocket 36. The reciprocating chain 50 reaches out from the inner god sprocket 14 only to the relay sprocket 36 on the armature teeter arm 28/29. A serial circulating chain 46 travels directly from one inner tug sprocket 17 to another.

This double tagat plane configuration provides slightly more efficiency. Also, when this design is used transversally, i.e. on its side, (in air or space, for examples) the vehicle using it enjoys more balance and stability.

Figure 15 is an end view of the embodiment shown in Figure 14 indicating the bearings 43 which relate to the circular armature (not shown) This projection also shows the receiving relay wheel 36 which receives the reciprocating chain 50 from the inner god sprocket, and the sending relay wheel 45 which sends the serial chain 46 to the inner tug sprockets 17.

Figure 16 shows the upper 51 and lower 52 circular armatures of the embodiments shown in Figures 14 and 15, indicating the relative position of the four tug shafts 3 (but not their entire lengths), the bearings 43 which hold them to the armatures, and the let-throughs 57 on the armatures. It does not show the god shaft, angel shafts, spokes, nor any of the wheels which reside on the shafts.

Figure 17 is an embodiment which is similar to that shown in Figures 14, 15, and 16 but the reciprocating chain 50 travels from the inner god sprocket directly to one of the inner tug sprockets which serves also as a relay wheel 18. On the same tug shaft is a sending sprocket 17 which shares the serial chain 46 among all tug shafts 3 directly.

Figure 18 is the embodiment shown in Figure 17 indicating a (relatively) lower inner god sprocket 54 which also sends reciprocating chain 50 to a lower inner tug sprocket 56. From the same tug shaft 3 a higher inner tug sprocket 55 sends serial chain 46 to the other inner tug sprockets 46 directly, in addition to causing the outer tug wheels on its own

shaft 3 to turn. (A hub 58 helps to fasten the (lower) inner god sprocket 54 to the god shaft 1.

Figure 19 is an embodiment which is similar to that shown in Figure 17 but the reciprocating chain 50 travels from one inner tug sprocket 17 across to an inner tug sprocket 17 opposite it via an inner god sprocket 14. The serial chain 46 continues to connect and synchronize wheels on all four tug shafts.

Figure 20 is an embodiment which is similar to that shown in Figure 19, except that two inner god sprockets exist on the god shaft 1: a (relatively) higher one 53, and a (relatively) lower one 54. The higher inner god sprocket 53 connects opposite higher inner tug sprockets 55 with reciprocating chain 50, and the lower inner god sprocket 54 connects the lower inner tug sprockets 56 with reciprocating chain 50. In this case there is no longer a need for serial chain.

Figure 21 is an embodiment which is similar to that shown in Figure 20 in which there is also a redundant reinforcing serial chain 46 serving to add some strength to the system.

Figure 22 is an end view, zoom profile of an outer god wheel in part, which is comprised of a foundation/anchor plate 25 which attaches to the god shaft 1, a spacing washer 47 (whose inner diameter is less than the diameter expressed the addendums of opposite gear teeth on the internal gear), an outer god wheel which is an internal gear 9, and connecting elements 20.

Figure 23 is a side view zoom profile in part, showing the anchor plate 25 pictured in Figure 22, plus the (outer god wheel) internal gear 9, and a spacing washer 47 whose inner diameter is less than the total inner diameter achieved by opposite internal gear tooth addendums 60 of the internal gear (so that the outer angel pinion 11 may make contact with the whole internal gear face without having to rub against the anchor plate, and the washer may serve as a slight pinion guidance feature) without adding too much friction to the system. This figure also shows the pitch line 61 of the gear teeth.

Figure 24 is an end view, zoom profile of an outer god wheel in part, which is comprised of a foundation/anchor plate 25 which attaches to the god shaft 1, a spacing washer 47 (whose inner diameter is greater than the diameter expressed the dedendums of opposite gear teeth on the internal gear), an outer god wheel which is an internal gear 9, and connecting elements 20.

Figure 25 is a side view zoom profile of the internal gear 9, the washer 47, and the anchor plate 25 in part, where the inner diameter of the washer is greater that the total inner diameter achieved by opposite internal gear tooth dedendums 59 of the internal gear (so that there is no friction between the outer angel pinion 11 and adjoining parts). This figure also shows the pitch line 61 of the gear teeth.

Power Lever Parts List

- 1 god shaft
- 2 angel shaft
- 3 tug shaft
- 4 relay shaft
- 5 common (ball) bearing torus
- 6 thrust bearing
- 7 side wall support housing for god shaft/bearing
- 8 outer god wheel – sprocket
- 9 outer god wheel – internal gear
- 10 outer angel wheel – sprocket
- 11 outer angel wheel – pinion
- 12 outer tug wheel – sprocket
- 13 outer tug wheel – pinion
- 14 inner god sprocket
- 15 inner angel wheel – sprocket
- 16 inner angel wheel – internal gear
- 17 inner tug sprocket
- 18 small relay wheel – sprocket or gear
- 19 large sending relay wheel – sprocket or gear
- 20 miscellaneous connector element
- 21 single-strand sprocket chain
- 22 double-strand sprocket chain
- 23 multi-strand chain (three or more)
- 24 multi-strand sprocket (two or more)
- 25 anchor plate for internal gear
- 26 shaft clearance slot in tug arm (to avoid angel shaft during pivot action)
- 27 support stanchion for angel shaft/s (may have split sides)
- 28 upper teeter support arm and lever (to allow for delayed installation of tug shafts - split)
- 29 lower teeter support arm and lever (to allow for delayed installation of tug shafts - split)
- 30 cross member arm-to-arm (for stabilization and most consistent load sharing)
- 31 cross-member reinforcement from bearing site to bearing site on god shaft housing
- 32 spin/energy receiving apparatus
(motor/pump/generator/dynamo/propeller/step-up gear box)
- 33 take-off wheel (sprocket or gear) spilling energy from the motor for other purposes
- 34 take-off shaft
- 35 teeter/lever arm extension
- 36 relay wheel from god shaft
- 37 lever window in main motor housing wall
- 38 armature connecting all tug shafts and relay shaft
- 39 spoke from god shaft bearing to armature

- 40 floor of motor housing
- 41 end wall of housing
- 42 ceiling/top of housing
- 43 bearing to armature
- 44 armature relay shaft
- 45 armature relay wheel to inner tug wheel series
- 46 tug wheels circulating connecting chain (direct from tug to tug)
- 47 spacing washer
- 48 connecting bolt
- 49 connecting nut
- 50 reciprocating chain (from/to inner god sprocket from/to inner tug sprocket/s)
- 51 upper circular armature
- 52 lower circular armature
- 53 upper inner god sprocket
- 54 lower inner god sprocket
- 55 high inner tug sprocket
- 56 low inner tug sprocket
- 57 let-through hole
- 58 hub
- 59 gear tooth dedendum
- 60 gear tooth addendum
- 61 gear tooth engagement pitch line

Power Lever Claims

The embodiments of the invention for which an exclusive property or privilege is claimed are defined as follows:

1

A chain motor (weight motor), which is comprised of five shafts, all of which carry at least three sprockets. To wit, the central god shaft carries a very large sprocket at each of its ends, and a medium sized sprocket in its middle. It is supported at each end through bearings by a rigid housing or scaffolding, and carries two further bearings, which allow teeter arms to clamp to it during installation. Each of the outer single sprockets carries a double strand chain, which has the second strand reaching in toward the centre of the motor such that a single sprocket which resides at the end of each angel shaft is able to engage it, and does so.

The angel shafts are found parallel to the god shaft—one on each side of it—so that together the three shafts form a common-plane ‘equatorial’. The angel shafts may be installed after the god shaft and its contents are installed, owing to the fact that each support stanchion is split, and thus can capture its respective angel shaft on each side of its bearings, and then be clamped or bolted together and fastened to the rest of its angel cage/superstructure. Inboard of the end sprockets on the angel shafts are two further medium sized, single sprockets which also carry double-strand chain, the second strand of which again reaches in toward the centre of the motor.

Each of the second strands of chain which exist on the inner angel sprockets, is engaged by a tug sprocket which is found on a tug shaft—one beside each angel shaft, distal from the god shaft and sharing the same equatorial plane. In the middle of the tug shaft is a small sprocket which is in alignment with the medium sized middle/inner god sprocket, and which has a chain which meshes with it and with the far middle tug sprocket, and which cycles around all three sprocket elements. Each tug shaft is able to pivot about the god shaft to a limited degree owing to the fact that the teeter arms which embrace them also embrace the god shaft via bearings, and that the teeter arms have clearance slots cut/designed into them which allow the teeter arms to move without disturbing the fixed-placement angel shafts.

The ratios of outer angel sprocket (or pinion) to god sprocket (or gear); of inner god sprocket/s to inner tug sprockets; of outer tug sprockets to inner angel sprockets; are such that all shafts spin in harmony. [For example, if the ratio of outer angel sprockets to outer god sprockets is 3:8 (30:80, or 42:112, for examples), then for every moment the angel sprockets rotate eight times, the god wheels rotate only three times. Thus, if the ratio of the inner god sprocket to the inner tug sprockets is 80 to 12, the three rotations of the god sprockets will spin the tug sprockets 20 times ($80 \times 3 = 240$), $240 / 12 = 20$). If the ratio of the outer tug sprockets to the inner angel sprockets is 32 to 80, then the 20 revolutions of the 32 pitch sprockets will synchronize with the 8 revolutions of the 80 pitch inner angel sprockets ($20 \times 32 = 640$), $8 \times 80 = 640$.)]

When the teeter arms are forced up or down* (caused to arc about the equatorial), the outer tug sprockets cause the inner angel sprockets to rotate slightly (at first).** Thence, the outer angel sprockets cause the outer god sprockets to rotate too.

The rotation of the outer god sprockets causes the inner god sprocket to rotate also, forcing the inner tug sprockets to rotate and recover their former tooth-to-chain position perpetually.

* Because the motor may be utilized in virtually any attitude, 'up or down' as descriptors are relative terms.

** In some cases, a priming crank of the wheels (preferably/most easily the god wheels) may be necessary in order to overcome inertia, and, in conjunction with the compatible leverage of the teeter arms, initiate the spin reaction.

2

A chain motor as described in claim 1, in which there is only one outer god sprocket in the motor, as the other end of the god shaft has none. Thus there is also only one outer angel sprocket one each of the angel shafts. However, in this case, there is still the full complement of inner angel sprockets, of inner and outer tug sprockets, of bearing, and of support arms and stanchions, etc.

3

A chain motor as described in claim 1, or claim 2, in which there is only one angel shaft and one tug shaft. This reduces slightly the room needed for the motor, and the total number of wheels required for an operating system. However, there must still be an equivalent number of support structures—angel shaft stanchions, and tug teeter arms, motor housing, reinforcing members, and bearing supports—for the remaining wheels. In effect, the resulting common plane of shafts is a tag plane (tug, angel, god plane) instead of a five-shaft tagat plane.

4

A chain motor as described in claim 1, or 2, or 3, in which the outer wheels on the god shafts are internal gears*** instead of sprockets, and the outer angel wheels which engage the god gears are pinion gears instead of sprockets.

*** Each internal gear is herein defined as the rim of an internal gear attached directly to an anchor plate, or which has a spacing washer between the internal gear and the anchor plate. The anchor plate reaches in to the hub or bushing which grips the god shaft.

5

A chain motor as described in claim 1, or 2, or 3, in which the outer wheels on the angel shafts are internal gears attached to anchor plates instead of sprockets, and the outer tug wheels which engage the angel gears are pinions instead of sprockets. In this instance additional space is required to accommodate the rim of the internal gear between the angel shaft and the god shaft, and/or the radius of the god shaft might be smaller than otherwise might be the case.

6

A chain motor as described in claim 1, or 2, or 3, in which the outer wheels on the god shafts and the inner wheels on the angel shafts are internal gears instead of sprockets; and

the outer angel wheels which engage the god gears, and the outer tug wheels which engage the inner angel gears, are pinions instead of sprockets.

7

A chain motor as described in claim 1, or 2, or 3, in which multiple sprockets, and multi-strand chain may be used to/from the middle god sprocket element and the small tug sprocket elements.

8

A chain motor as described in any of the above claims, in which the tagat plane (tug, angel, god, angel, tug plane), or tag plane (tug, angel, god plane) is longitudinal instead of equatorial.

9

A chain motor as described in (any claim which employs sprockets as outer god wheels) in which each outer god wheel is comprised of multiple sprockets, yet still fewer than would be required to engage all strands of the chain employed. Thus, for examples, a double sprocket might engage the outer two strands of a triple or quad chain. This configuration helps to resist yaw/side stretch in the chain, as well as adding strength to the overall design. An indirect result of this is that multiple sprockets are also required for the inner god wheels and the inner tug wheels too to tolerate whatever added torque that might accrue as a result of the added outer chain strength and tolerance for added pressure against the teeter arms.

10

A chain motor as described in any of the above claims, in which, in a gravitational field, the motor is operated on its side, relative to the direction of the force of gravity. In this case thrust bearings must be/may be used for the lower end of the god shaft and on collars which support inner bearings; as well as on collars whose bearings support other shafts and wheels and arms.

11

A chain motor as described in any of the above claims having tagat—five shaft—planes, but having an additional set of two angel shafts and two tug shafts (i.e. a second tagat plane) each tagat plane at right angles to the other, and sharing the same god shaft elements. In this case, a circular armature embraces all four tug shafts via bearings, and is joined to the god shaft via spokes. A further shaft which holds relay sprockets is embraced by the armature, where it extends to serve also as a lever. Reciprocating chain reaches from the inner god sprocket to one of the relay sprockets on the lever shaft. A second sprocket on the lever shaft sends a serial chain to inner tug sprockets on all the other four tug shafts and cycles back again. Pressure imposed from the moving outer tug wheels causes the motor to spin as it does in other of the motor designs.

12

A double tagat motor (having two planes of shafts) which is similar to the motor described in claim number 11, except that a separate relay shaft no longer exists on the teeter arm and the reciprocating chain is sent directly from an inner god sprocket to an inner sprocket on one of the four tug shafts. From that receiving shaft, serial chain is sent/cycled to the other three tug shafts and shared among them all.

13

A double tagat motor (having two planes of shafts) which is similar to the motor described in claim number 12, except that a reciprocating chain travels from an inner tug sprocket on one tug shaft across the teeth of an inner god sprocket, to an inner tug sprocket on the opposite side of the god shaft. A serial chain continues to circulate among the inner tug sprockets of all four tug shafts.

14

A double tagat motor (having two planes of shafts) which is similar to the motor described in claim number 13, except that two inner god sprockets exist on the god shaft, with two sets of reciprocating chain. One reciprocating chain cycles among inner tug sprocket, inner god sprocket, and inner tug sprocket on the opposite side of the god shaft, but on the same tagat plane. The second reciprocating chain cycles among the inner tug sprocket, the second inner god sprocket, and the inner tug sprocket on the opposite side of the god shaft, but still on the same tagat plane. A redundant serial chain also circulates among separate inner tug sprockets.

15

A double tagat motor (having two planes of shafts), which is similar to the motor described in claim number 14, except that the redundant serial chain, and the sprockets which engage it, no longer exist.

16

A power lever motor as described in any of the above claims, in which more than one outer god wheel exist at each end of the god shaft.

17

A power lever motor as described in any of the above claims, in which more than one inner god sprocket shares chain with inner tug sprockets on each tug shaft.

18

A power lever motor as described in any of the above claims, in which internal gears are used as the outer wheels, instead of sprockets, and pinion gears are used to engage them instead of smaller sprockets.

19

A power lever motor as described in any of the above claims, in which synchronous, non-skid belting is used as the reciprocating element from/to the inner god wheel to/from the inner tug wheels. In this case, sheaves or pulleys are used instead of sprockets.

20

A power lever motor as described in any of the above claims, in which more than the described number of sprockets or gears are used to implement the desired effect.

21

A power lever motor as described in any of the above claims, in which fewer than the described number of sprockets or gears are used to implement the desired effect.

22

A power lever motor as described in any of the above claims that use large sprockets as the outer god wheels, in which take-off sprockets engage the inner strand/s of the god wheels on the inside of their circumference other than where the strands are already engaged by the outer angel sprockets, in order to use the converted/spin energy for a useful purpose.

23

A power lever motor as described in any of the above claims that use large sprockets as the outer god wheels, in which take-off sprockets engage the inner strand/s of the god wheels on the outside of their circumference other than where the strands are already engaged by the outer angel sprockets, in order to use the converted/spin energy for a useful purpose.

24

A power lever motor as described in any of the above claims that use large sprockets as the outer god wheels, in which small relay sprockets engage the inner strand/s of the god wheels on the outside of their circumference other than where the strands are already engaged by the outer angel sprockets, and send spin energy from a large sprocket on the same relay shaft, to a take-off sprocket on the other side of the motor via chain, in order to use the converted/spin energy for a useful purpose.

25

A power lever motor as described in any of the above claims, in which a sprocket is fixed to the god shaft outside the motor housing from which the converted/spin energy may be used.

26

A power lever motor as described in any of the above claims, in which a gear is fixed to the god shaft outside the motor housing from which the converted/spin energy may be used.

27

A power lever motor as described in any of the above claims, in which the angel shaft stanchions are solid instead of split. This means that the shafts and stanchions must be installed and/or removed together.

28

A power lever motor as described in any of the above claims, in which the teeter/lever arms are solid instead of split. This means that all of the shafts must be loaded with their respective wheels, bearings, collars, and spacers, and become aligned and have their bearings pressed onto their ends together as a single unit.

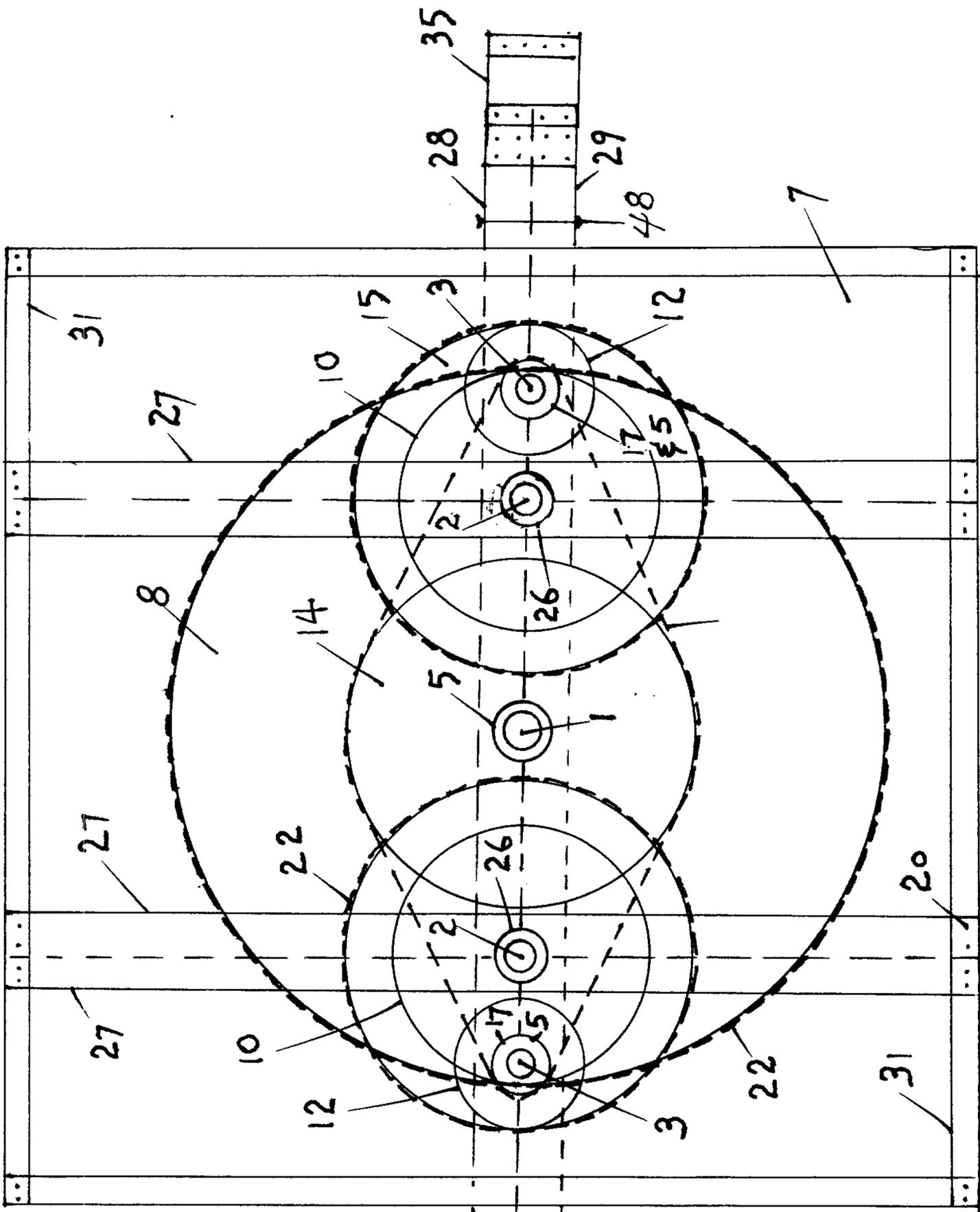


Fig.1

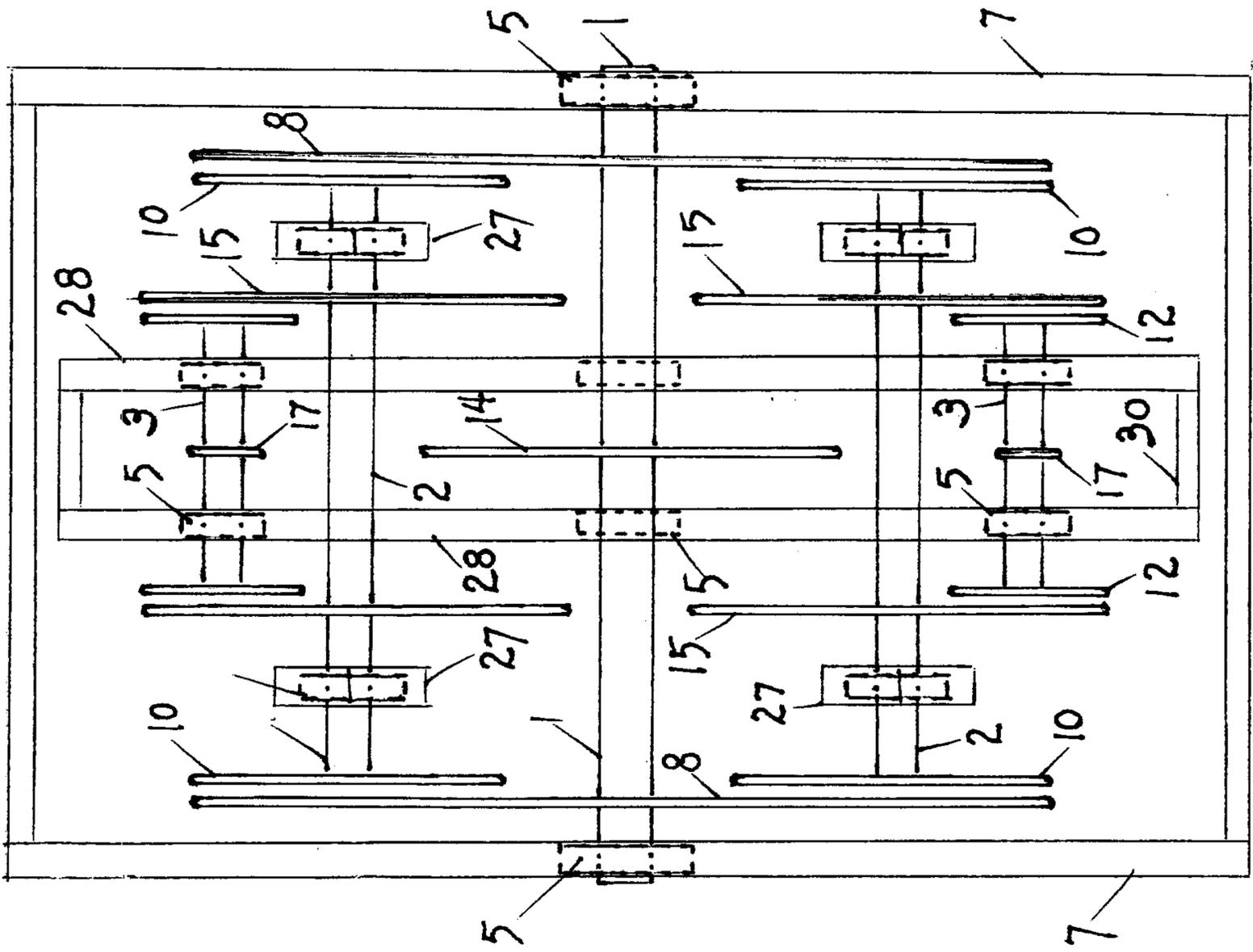


Fig. 2

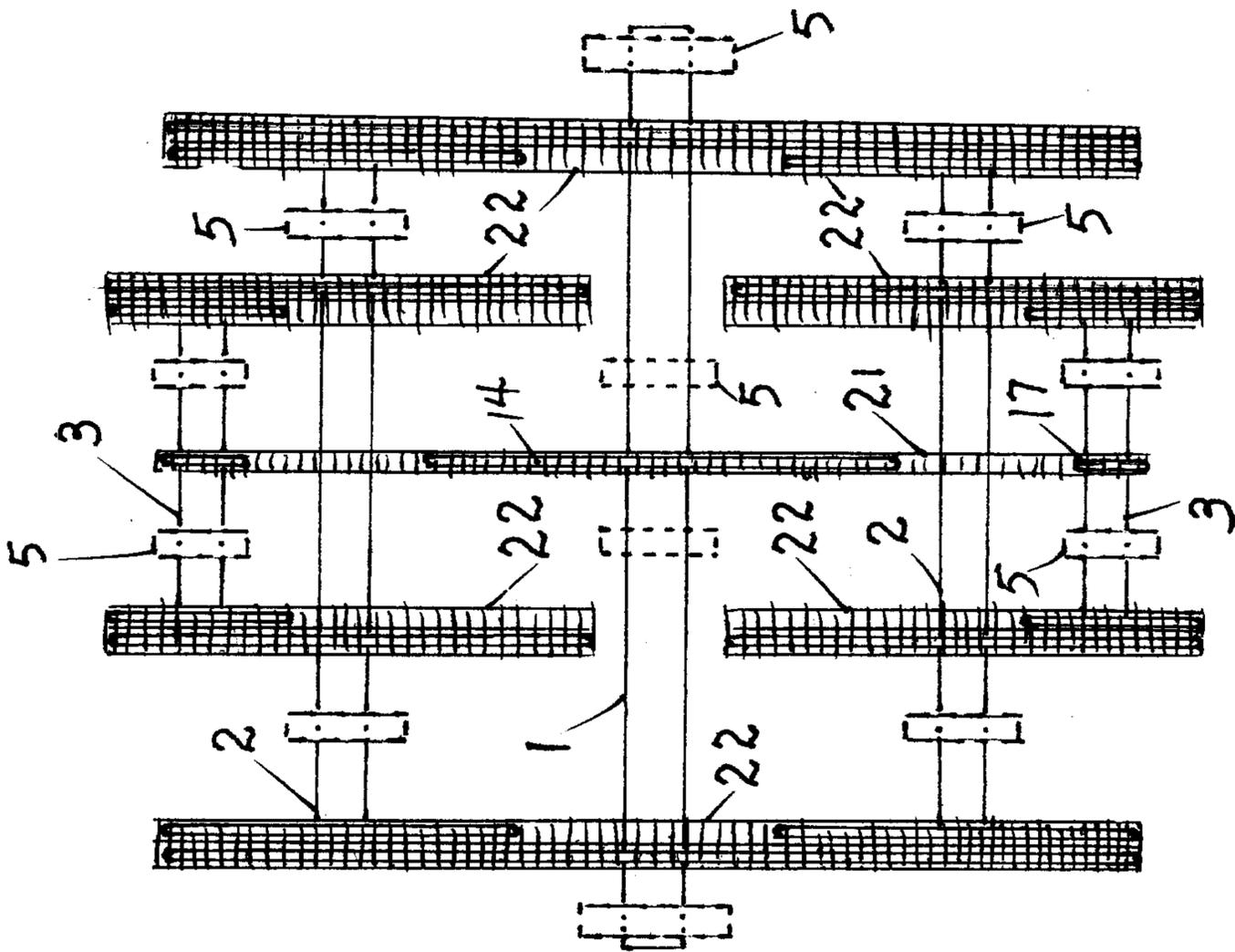


Fig. 3

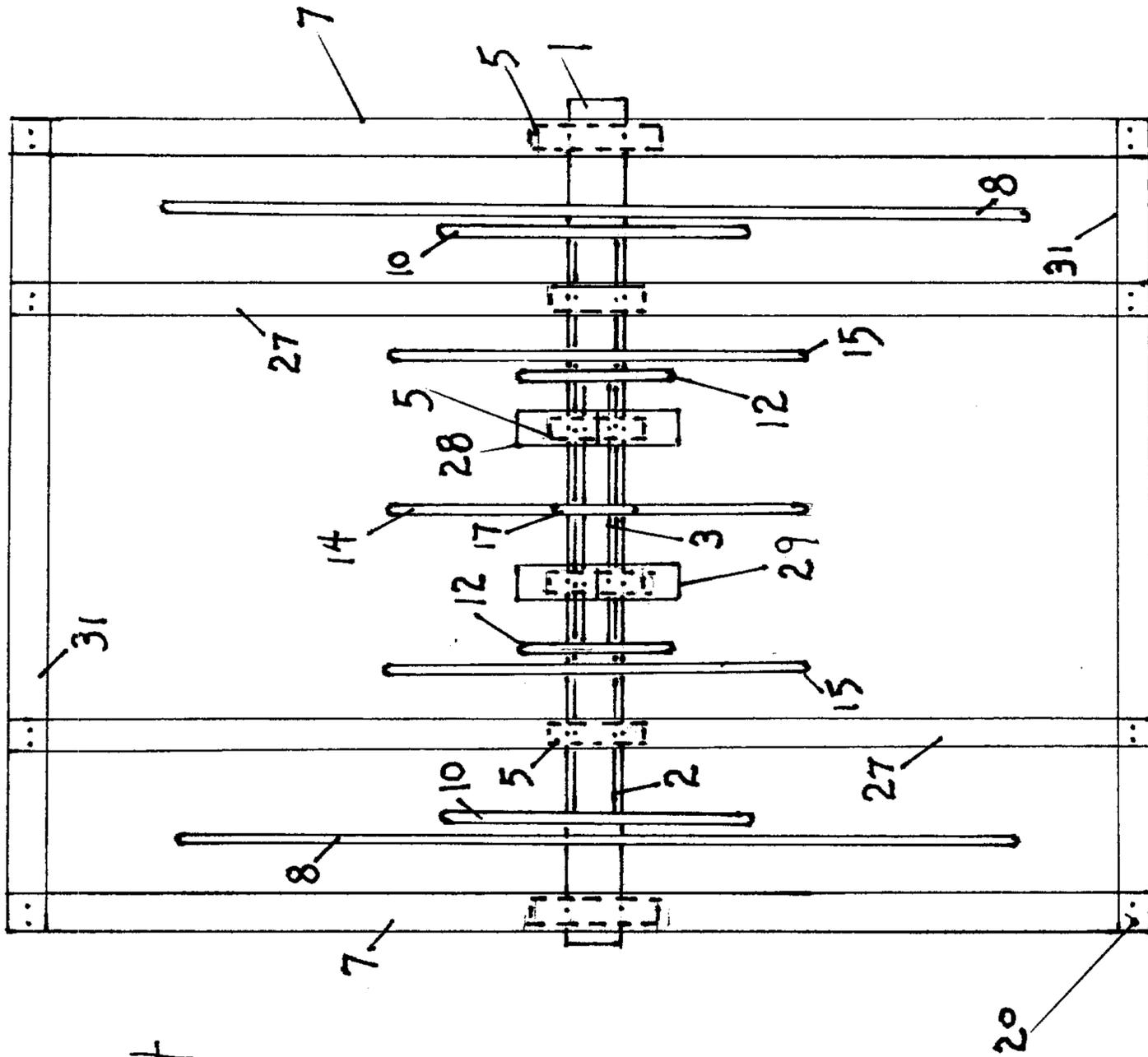


Fig. 4

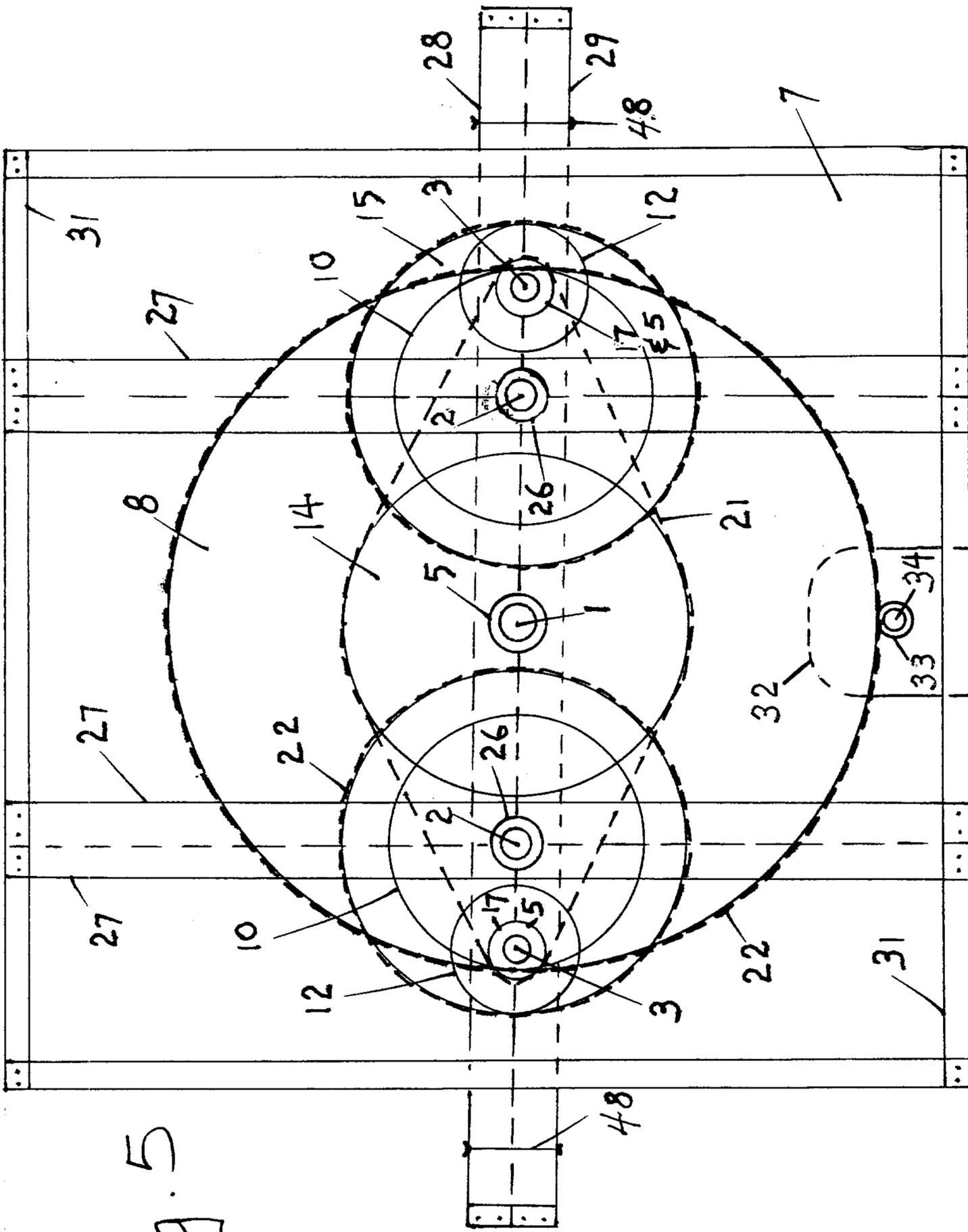


Fig. 5

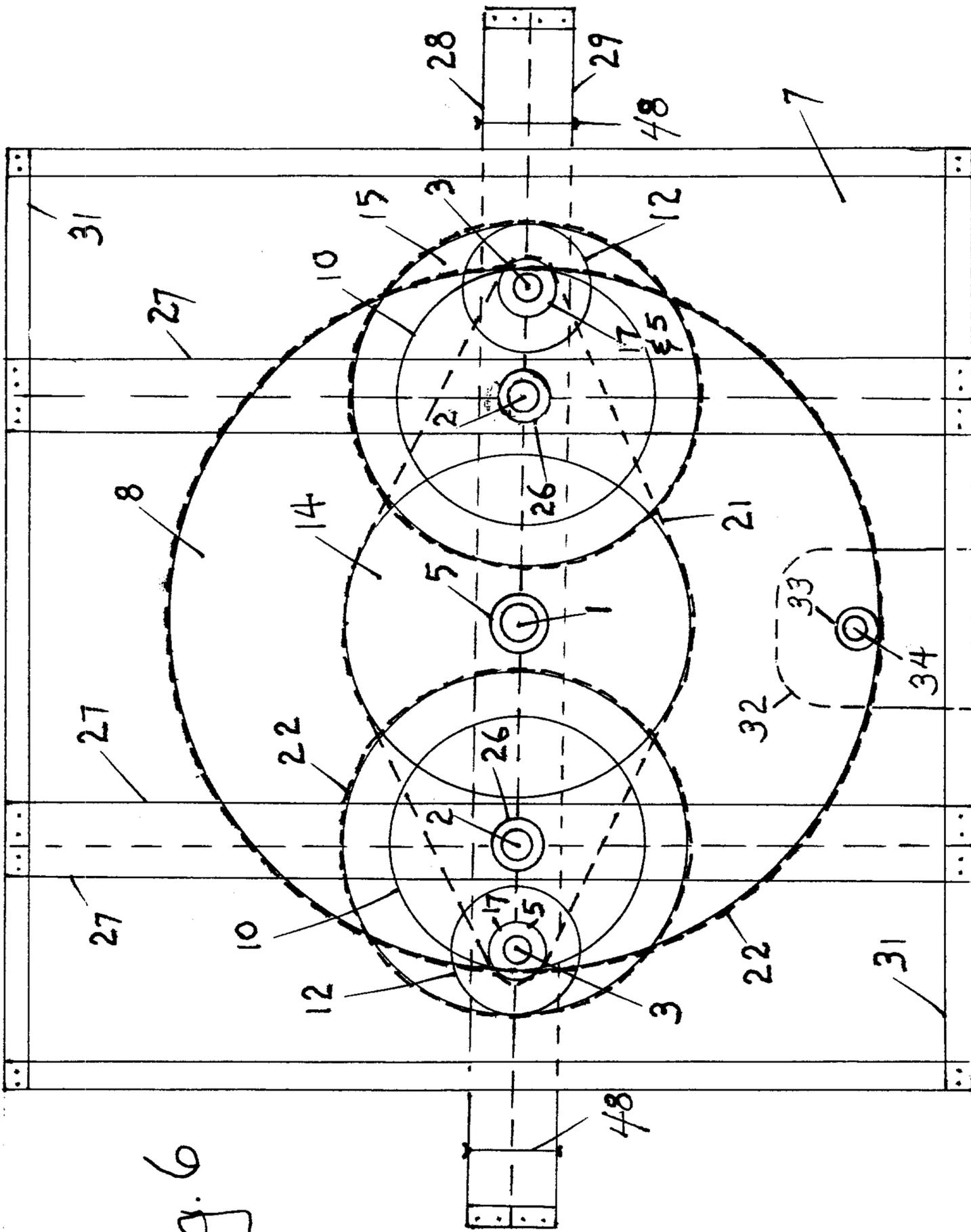


Fig. 6

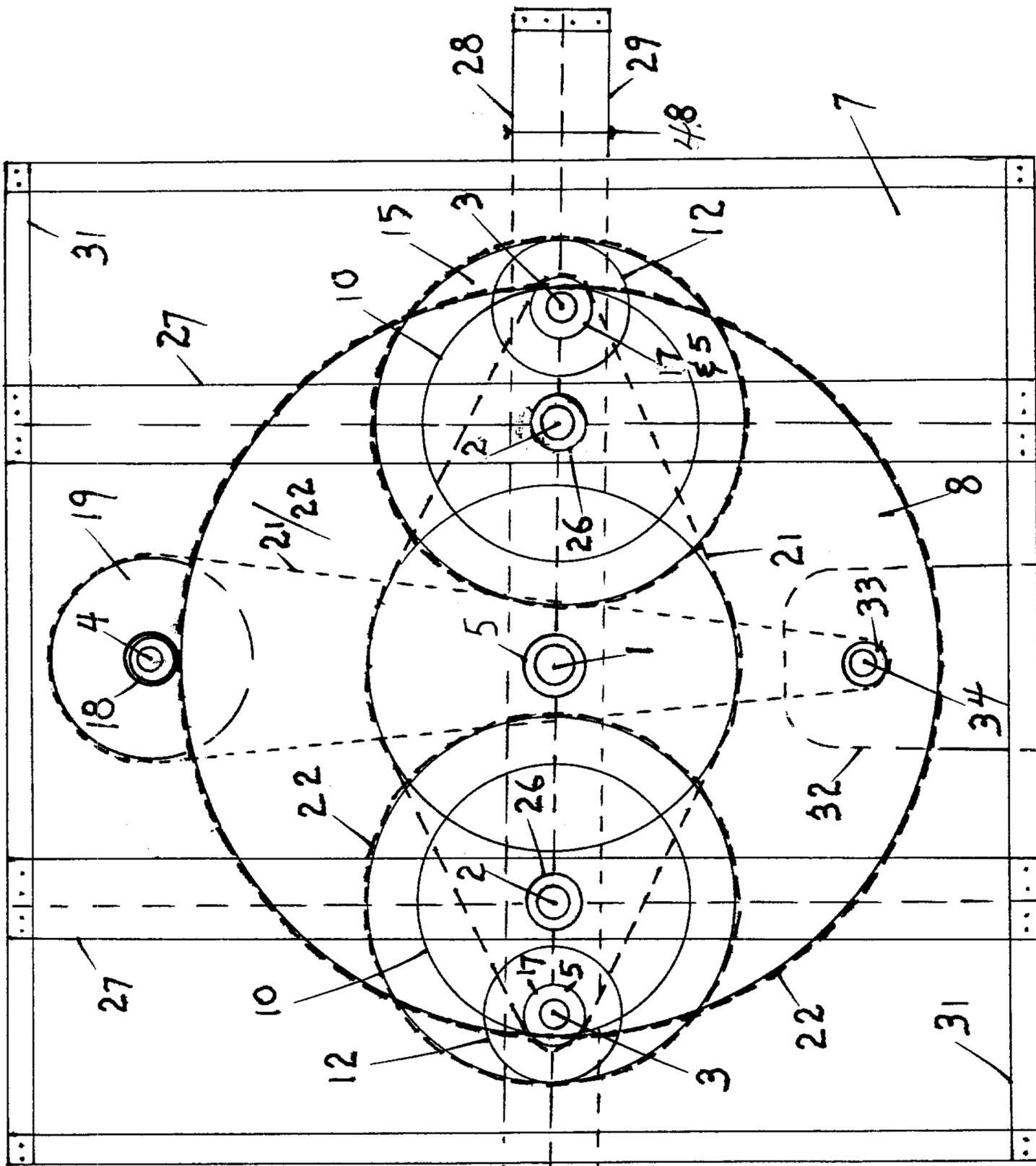


Fig. 7

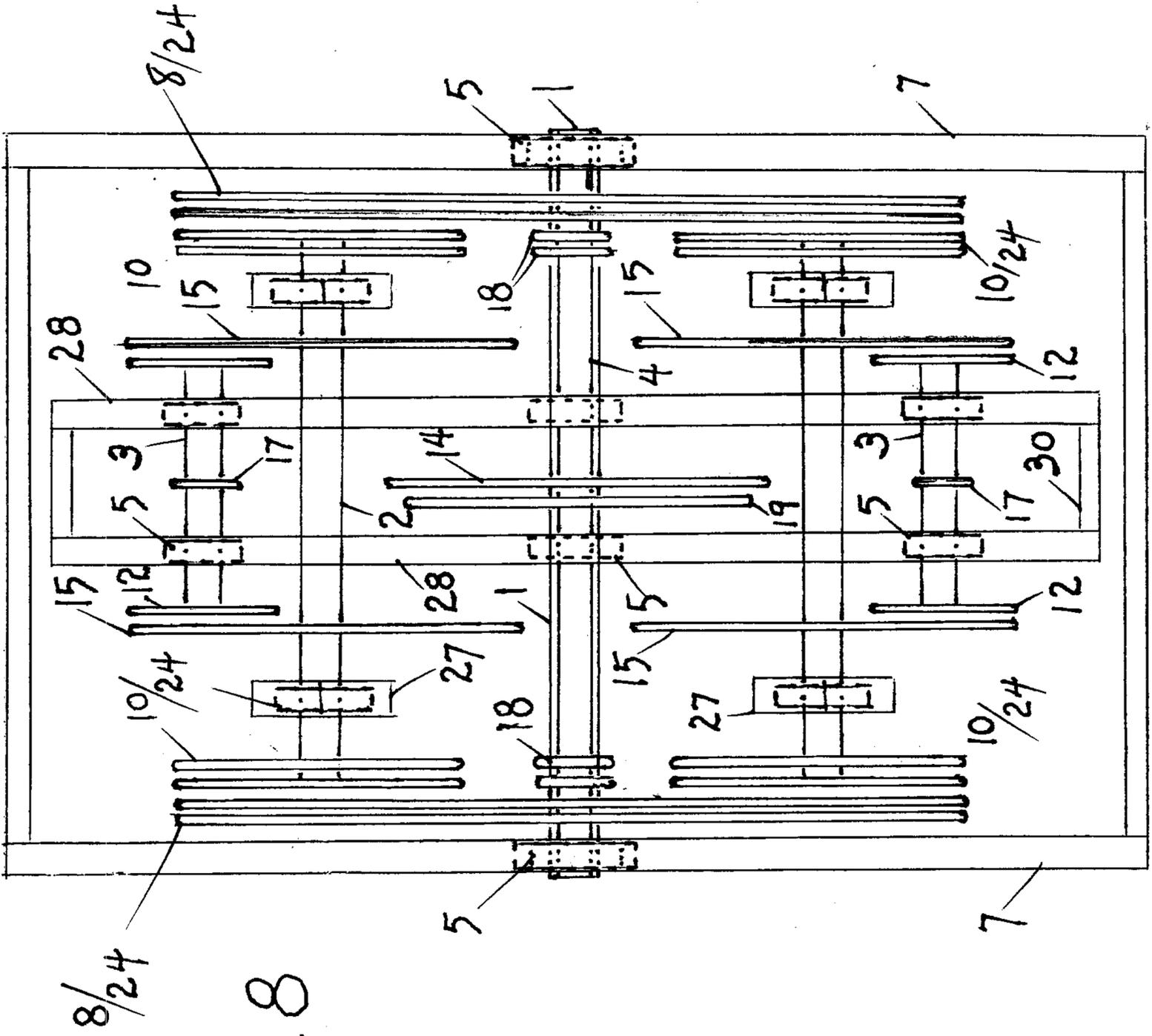
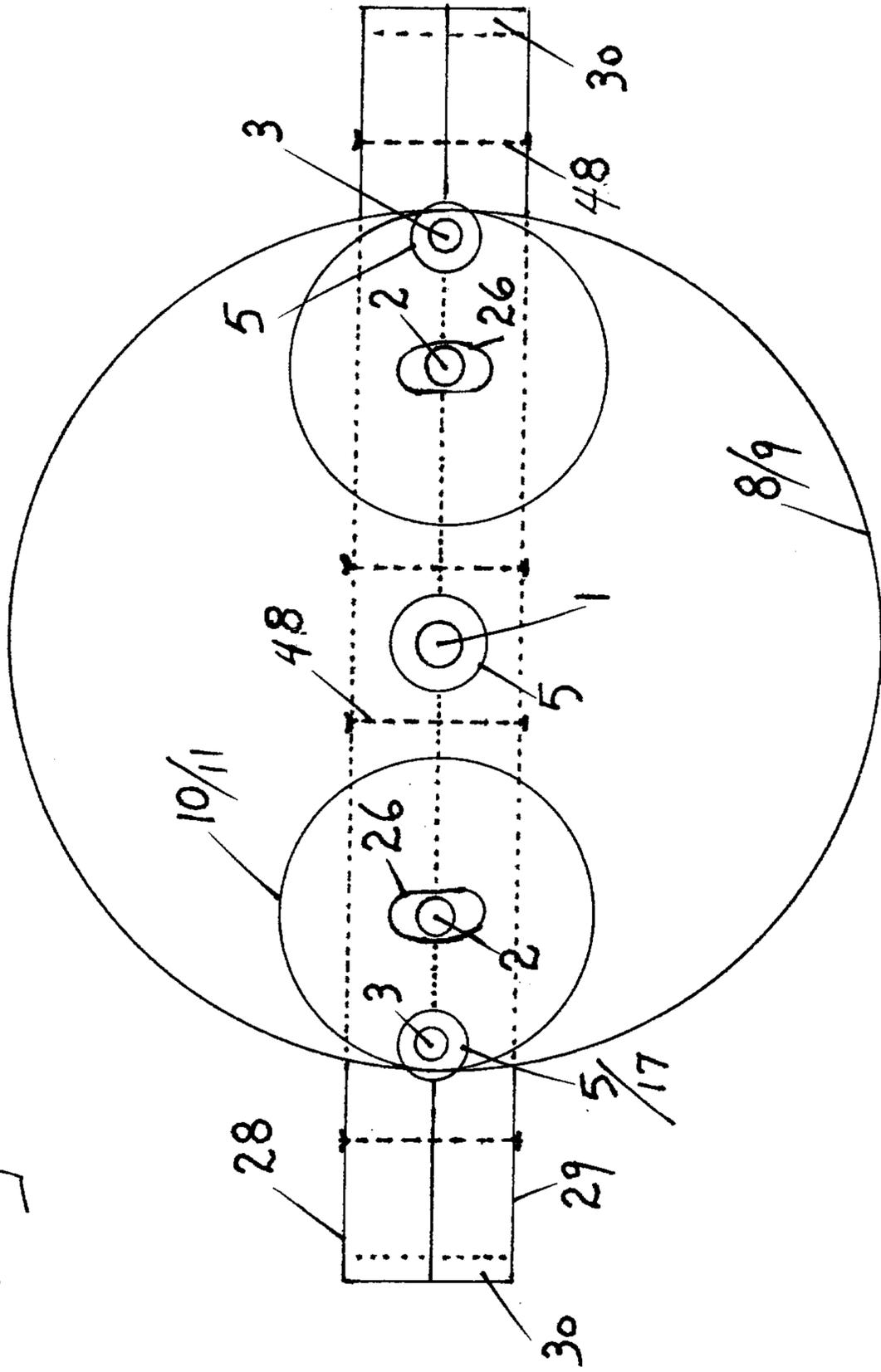


Fig. 8

Fig. 10



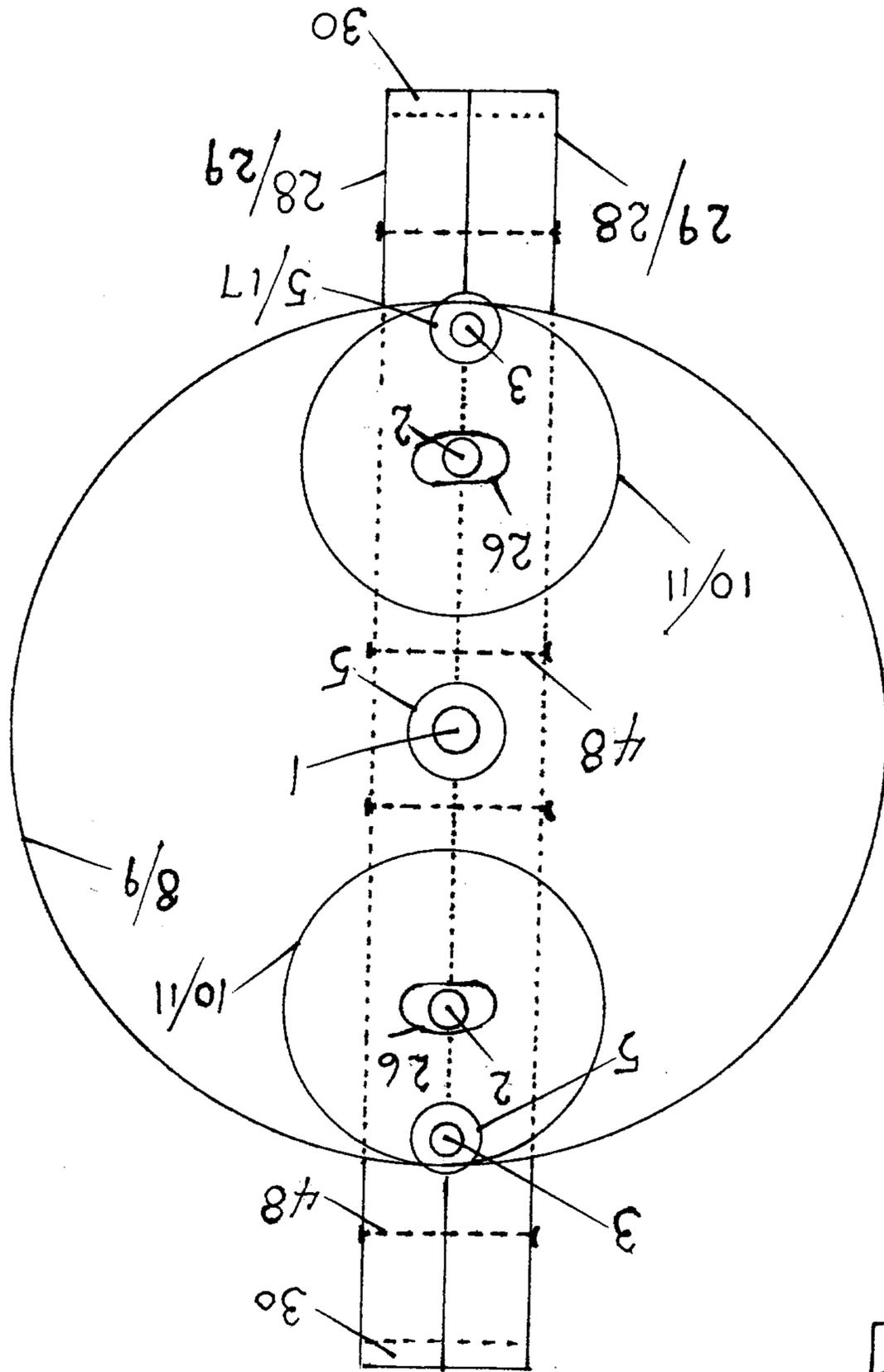


Fig. 11

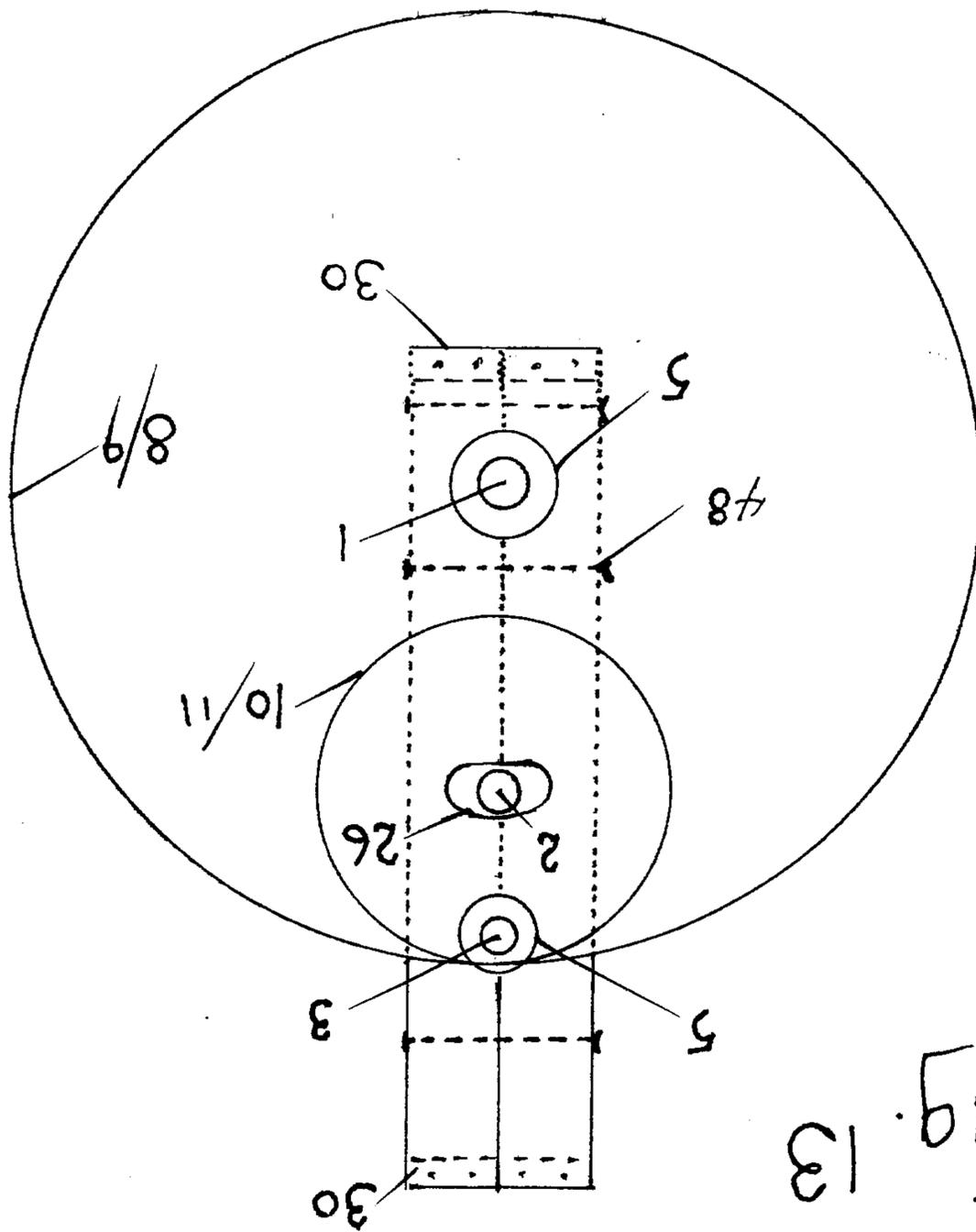


Fig. 13

Fig. 14

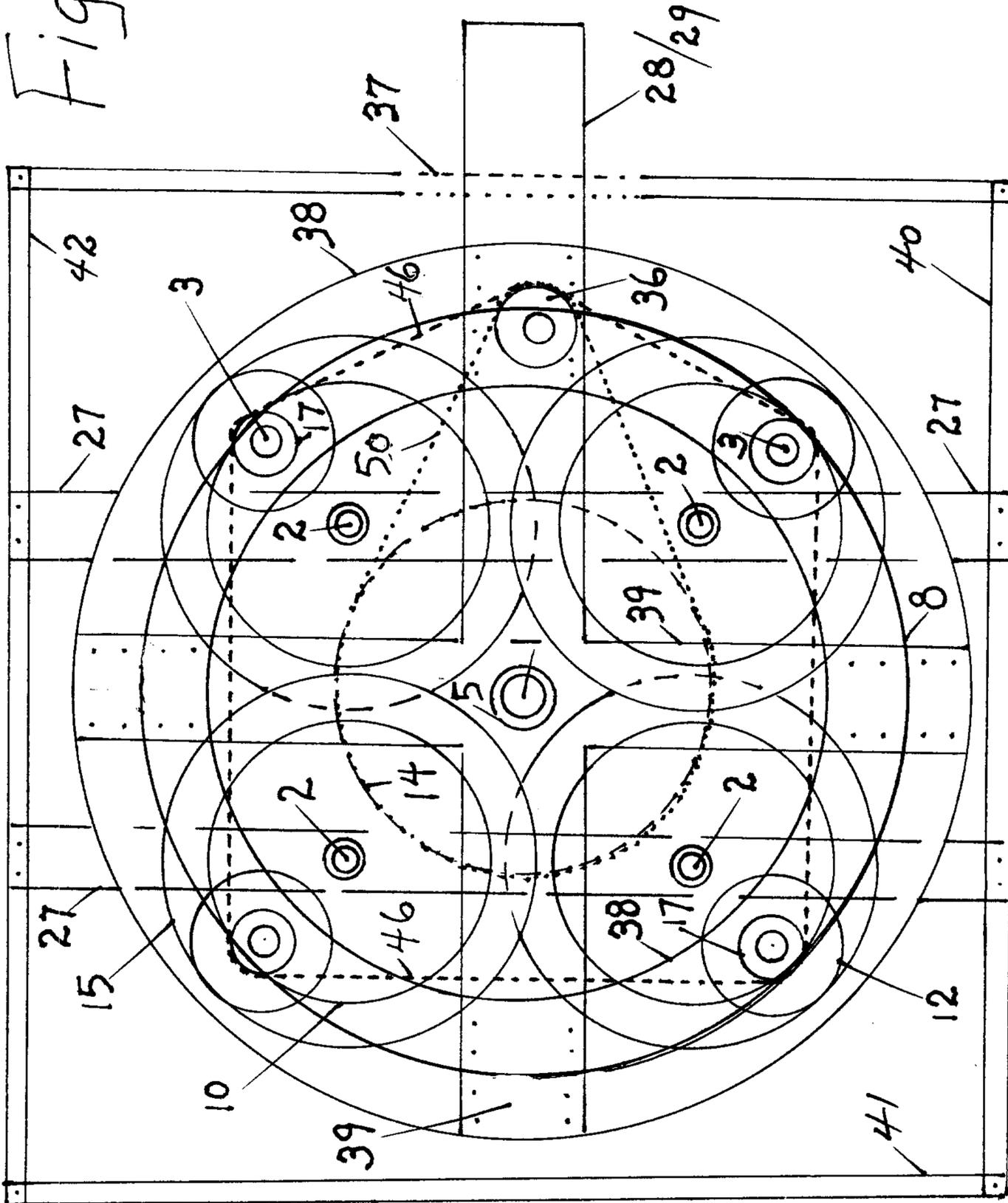


Fig. 15

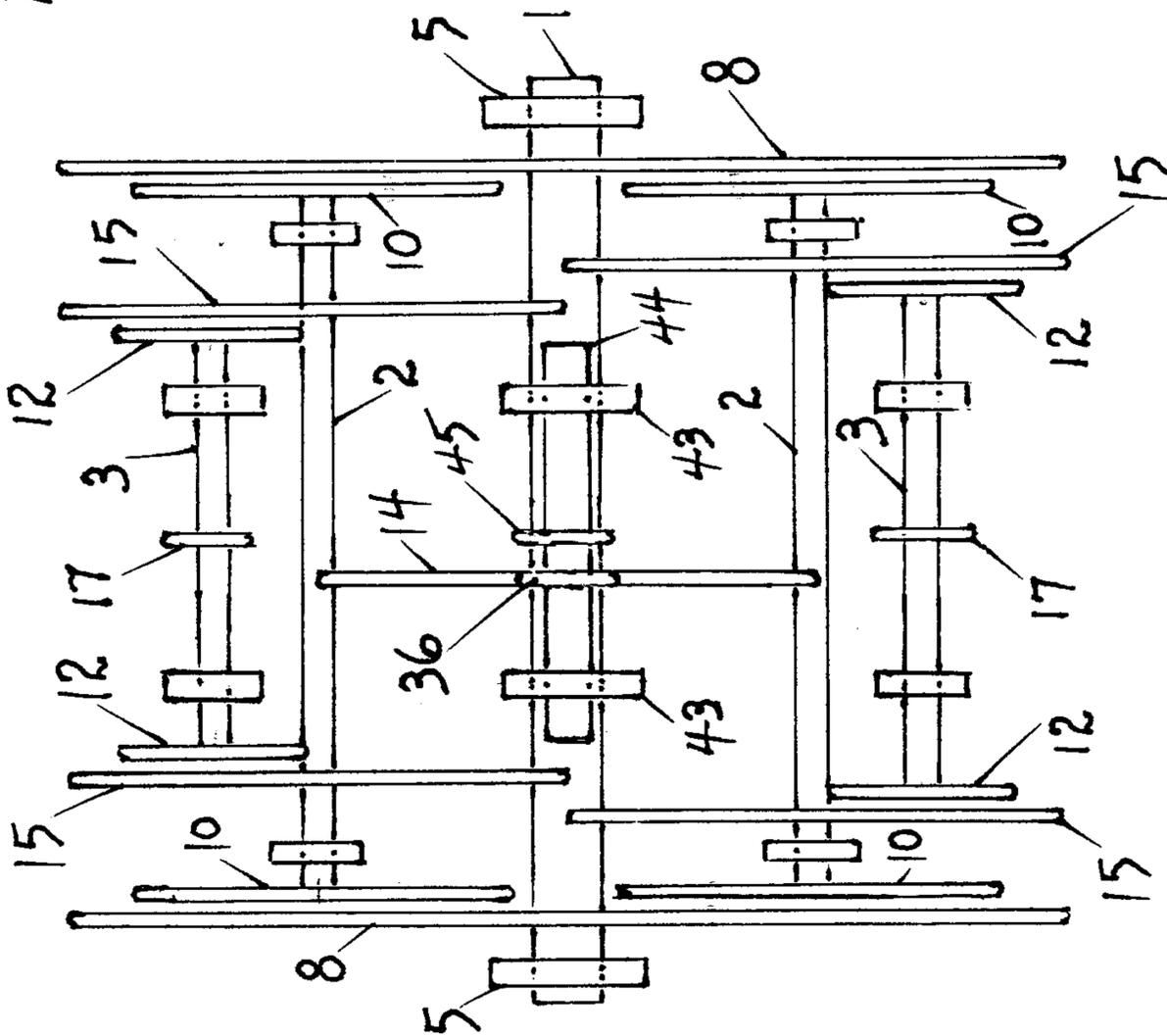
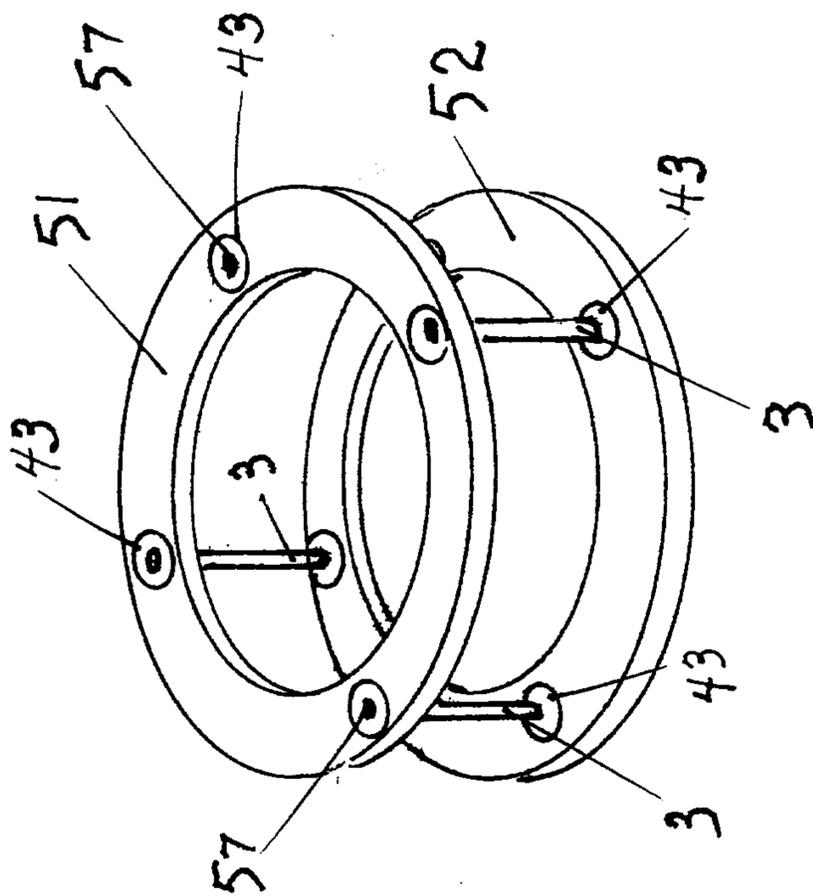


Fig. 16



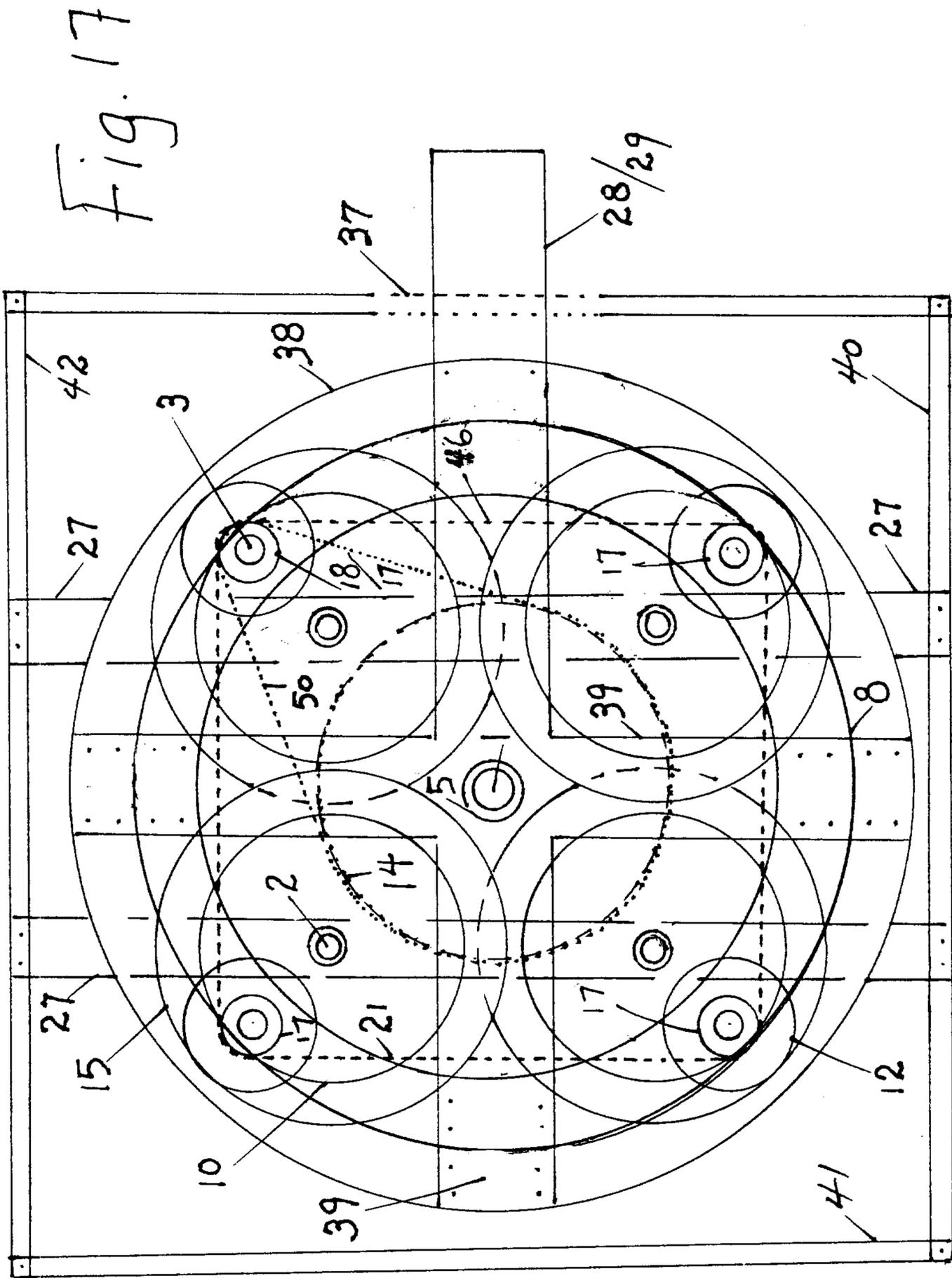


Fig. 18

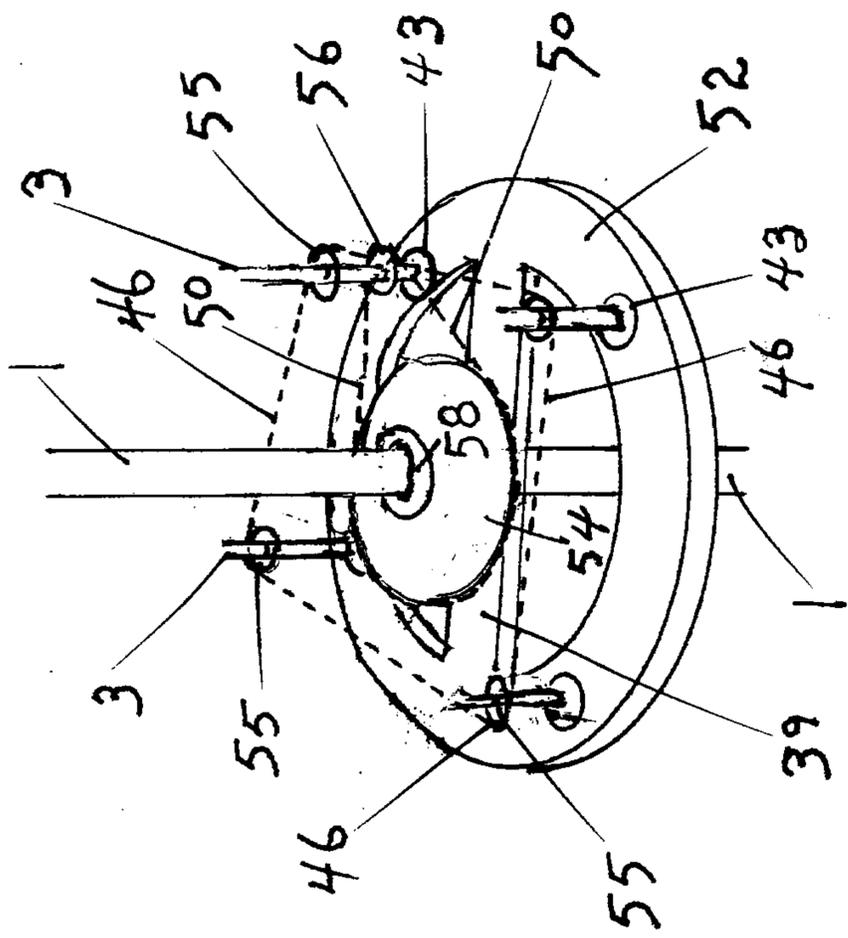


Fig. 19

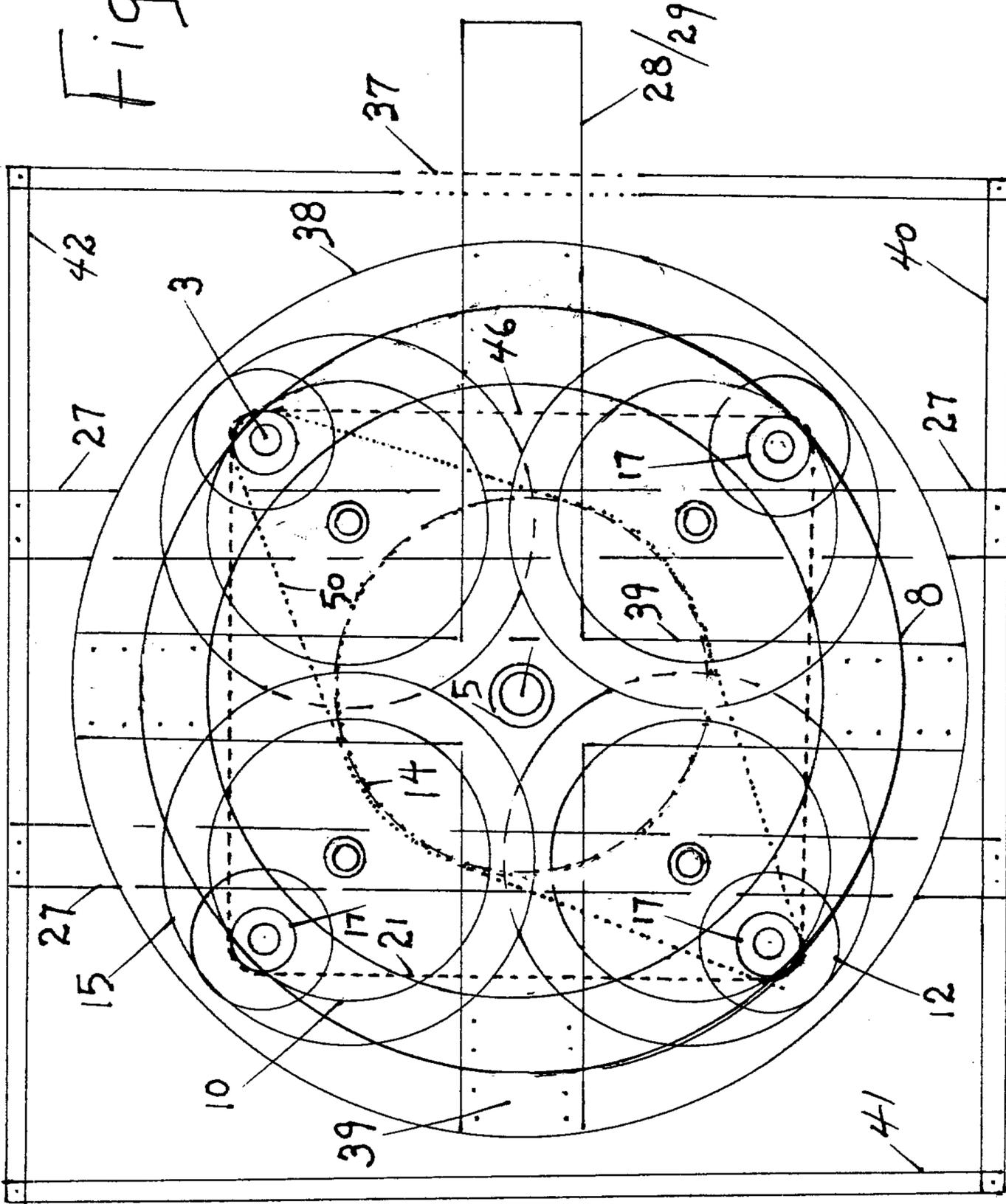


Fig. 20

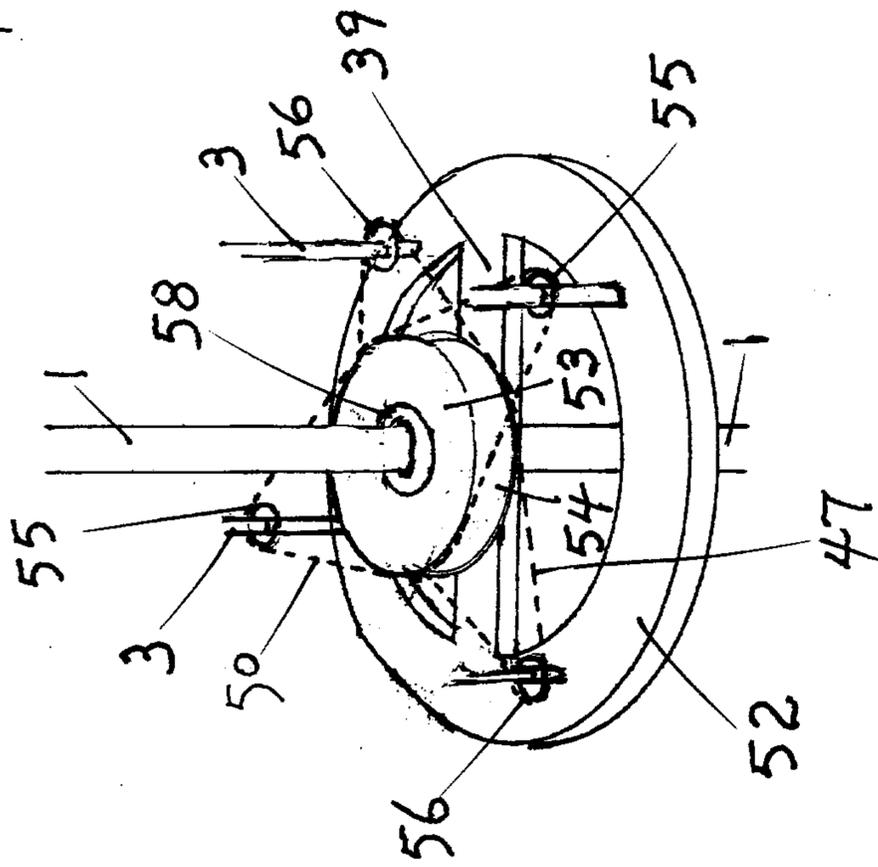
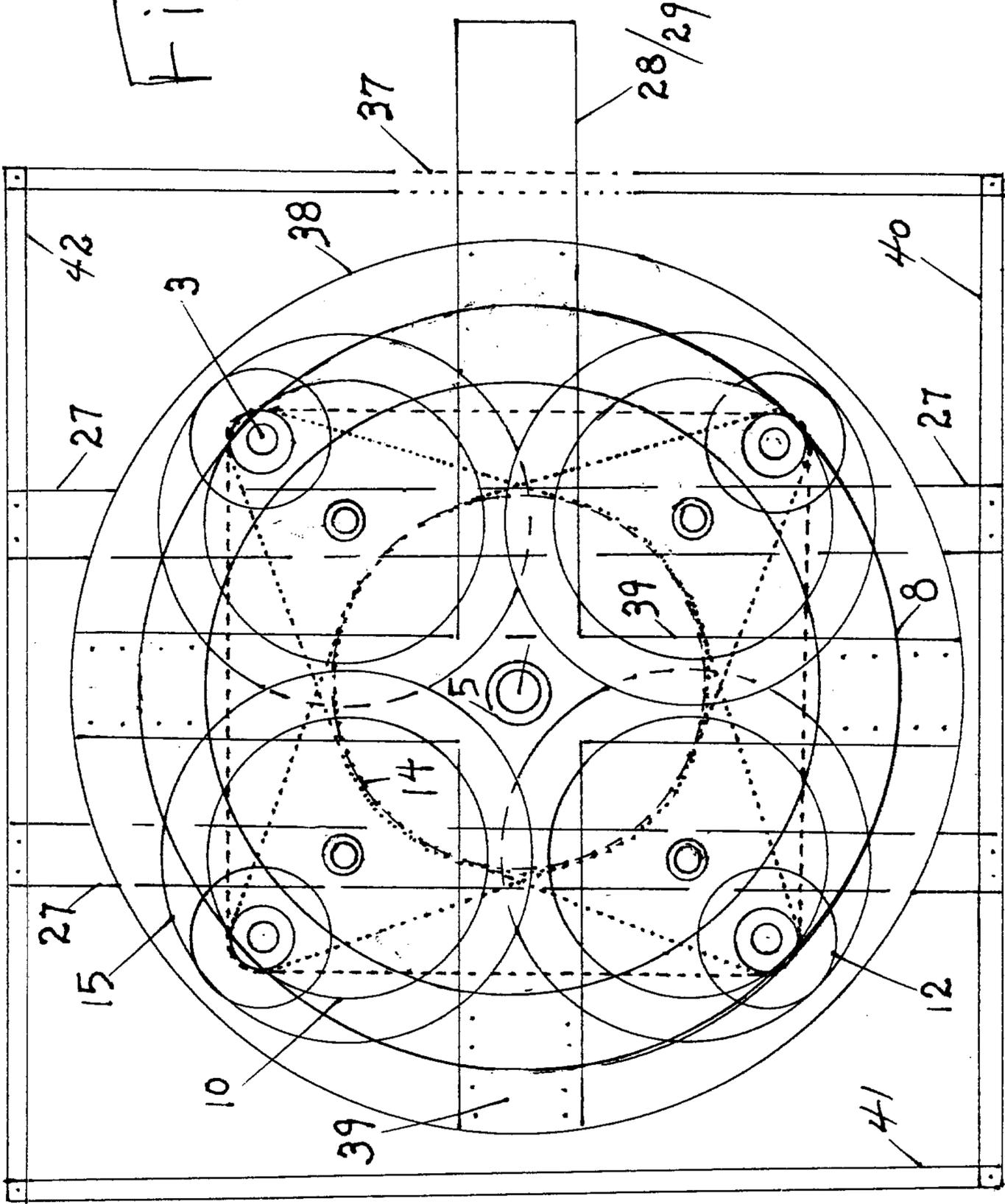


Fig. 21



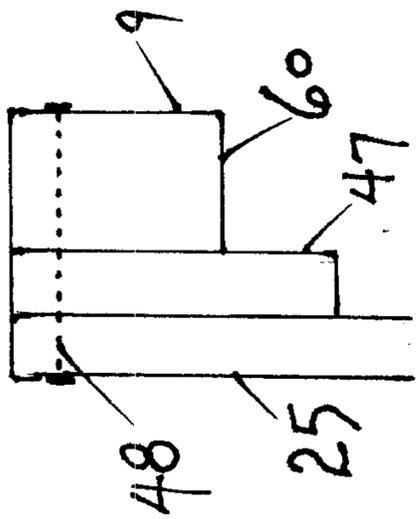


Fig. 22

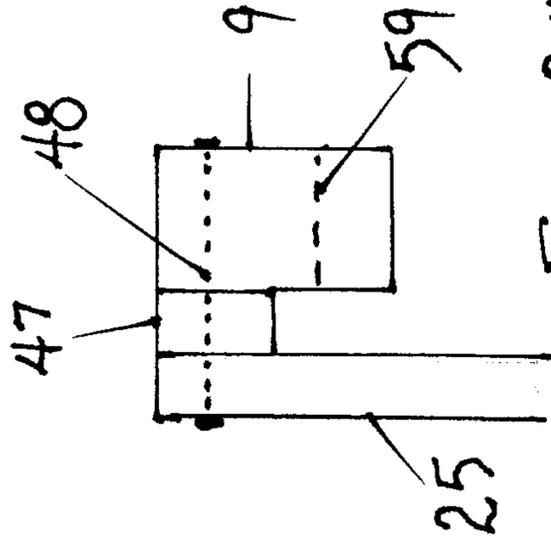


Fig. 24

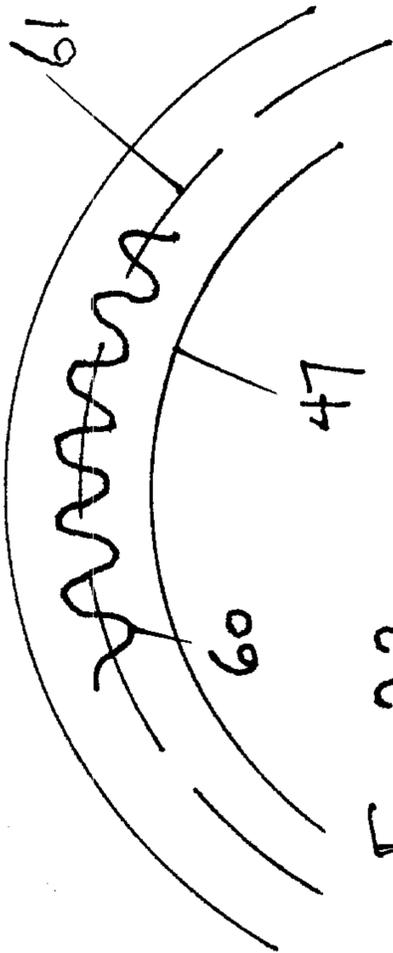


Fig. 23

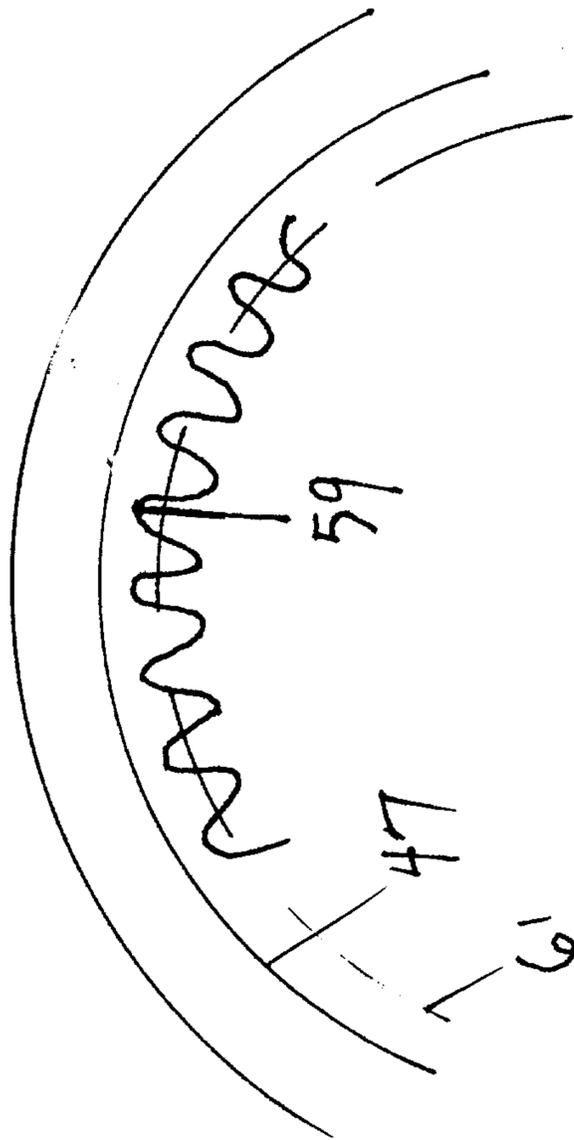


Fig. 25

