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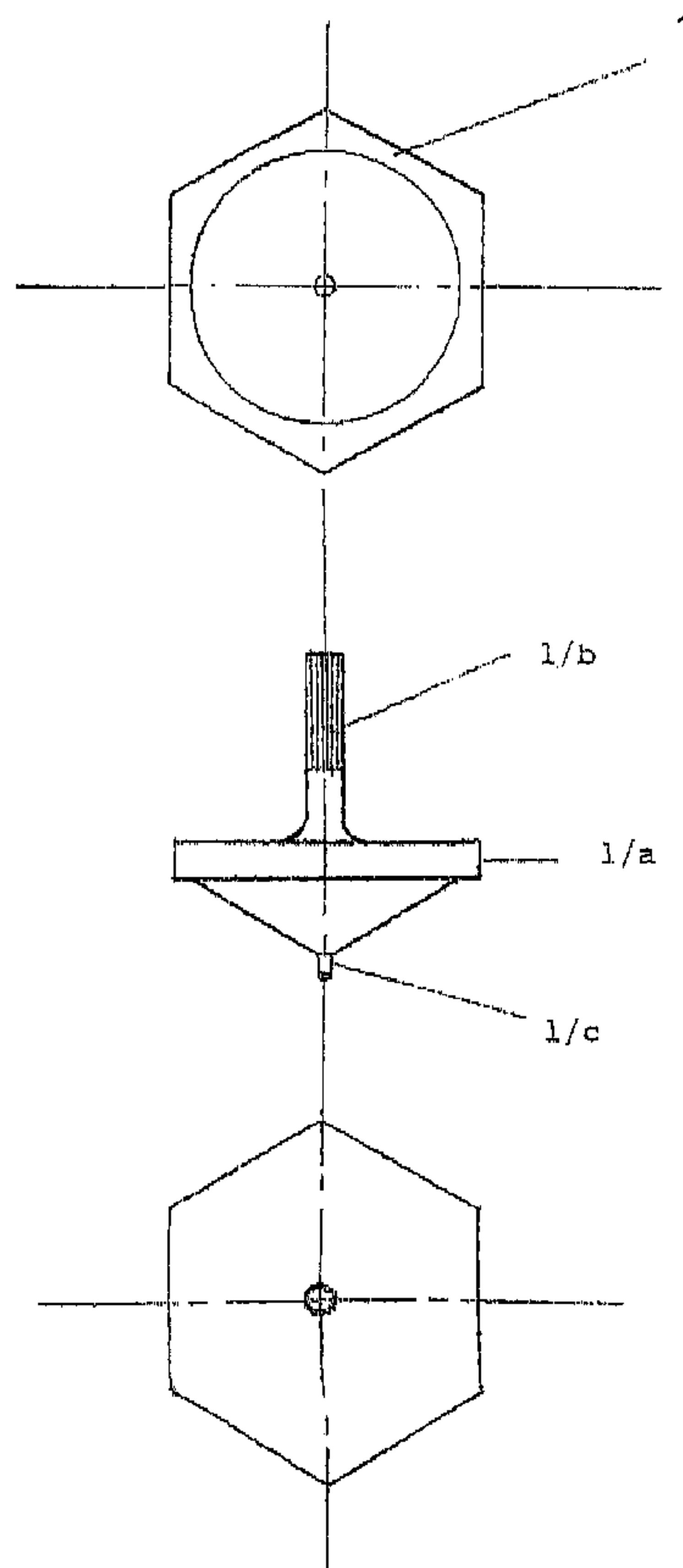
(72) Inventeur/Inventor:  
SZILAGYI, JOZSEF, HU

(73) Propriétaire/Owner:  
SZILAGYI, JOZSEF, HU

(74) Agent: G. RONALD BELL & ASSOCIATES

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(57) Abrégé/Abstract:

A table parlour game, particularly a turbo-bowling game, comprises a turbo player unit, bowling pins and a lane plate tilling in any direction. The turbo player unit is a whirling top, namely a conical solid of rotation, the plate of which is shaped to have a regular hexagonal pattern and is equipped with a rotating tail and tip. The lane plate is equipped by a setting device comprising a centrally attached globe head and globe shell.



## Abstract

A table parlour game, particularly a turbo-bowling game, comprises a turbo player unit, bowling pins and a lane plate tilling in any direction. The turbo player unit is a whirling top, namely a conical solid of rotation, the plate of which is shaped to have a regular hexagonal pattern and is equipped with a rotating tail and tip. The lane plate is equipped by a setting device comprising a centrally attached globe head and globe shell.

## TABLE BOWLING

### Field of the Invention

The subject of the invention is a table parlour game, particularly a turbo-bowling game, having a turbo player device, a lane plate tilting to any direction and bowling pins placed on the lane plate. Turbo-bowling is a table parlour game designed for competitions, in which the players seek to knock down as many bowling pins as possible to defeat their competitors.

### 10 Summary of the Invention

According to an aspect of the present invention, there is provided a table parlour game comprising a turbo player unit, bowling pins, a lane plate tilting to any direction, wherein the turbo player unit is a whirling top, wherein the lane plate is equipped with a setting device comprising a centrally attached globe head and a globe shell, and  
15 wherein the setting device is designed and fashioned to hold the lane plate in a constant position after its tilting and setting due to adhesion between surfaces of the globe head and globe shell.

According to another aspect of the present invention, there is provided a table parlour game comprising a turbo player unit, bowling pins and a lane plate tilting to any  
20 direction, wherein the turbo player unit is a whirling top, wherein the whirling top is conical and solid and comprises a plate which has a regular hexagonal shape, and a rotating tail and tip, wherein the lane plate is equipped with a setting device comprising a centrally attached globe head and a globe shell, and wherein the setting device is designed and fashioned to hold the lane plate in a constant position after its tilting and  
25 setting due to adhesion between surfaces of the globe head and globe shell.

Turbo-bowling is an adaptation of the original bowling game on a smaller scale. According to the present invention, the bowling is not done by a bowling ball but by a whirling top that is fashioned in a proper way. Introducing the whirling top allows for the original long lane to be a shorter one because the whirling top has a lower rate of travel  
30 then a bowling ball. Due to this fact the size of the lane can be reduced as much as is needed to obtain a small scale design. The direction of the whirling top is carried out by tilting the lane plate to any direction.

The whirling top has a special shape and design in order to knock down the pins in a very efficient way. The shape of the lane plate is rectangular. The shape and form of the pins is similar to the pins from the original bowling game.

## 5 Brief Description of the Drawings

Detailed description of the invention is presented by the following figures.

Figure 1: bottom view, side view and top view of whirling top

Figure 2: side view of pin with its cross-section

Figure 3: top view and side view of lane plate

10 Figure 4: cross-sections of lane plate and setting device mounted on lane plate

Figure 5: bottom view and side view of lane plate and setting device mounted on lane plate

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## Detailed Description of the Invention

The major elements of turbo-bowling is the whirling top 1, pins 2, lane plate 3 and setting device 4.

20 The whirling top 1 is a playing device for knocking down the pins 2. The whirling top 1 is a conical rotationally symmetric solid the plate 1/a of which is shaped to have a regular hexagonal pattern and furthermore equipped with a rotating tail 1/b and tip 1/c.

The rotating tail 1/b is fashioned with a grooved roughening in order to avoid slipping during twirling of top by the index-finger and thumb.

25 The conical part of whirling top 1 is ended in a cylindrical tip 1/c, the rotating surface of which is designed to be a semispherical head.

The design of the whirling top 1 is very important from the playing performance point of view, namely knocking down the pins 2 as the fastest and most efficient way is preferred.

30 Most preferably the shaft length of whirling top 1 is equal to the plate distance of the regular hexagon and the points' distance of regular hexagon is double of the largest diameter of pin 2.



It is also preferable if the tip 1/c size, namely the combined length of cylindrical part and semispherical head is double of the diameter of the cylindrical part.

For the sake of a successful game, besides the sizing, the selection of the construction material of the whirling top 1 is very important too. Preferably the constructional material of whirling top 1 is homogeneous brass. Due to its mass and hardness, the whirling top 1 made of brass, by means of a sufficient amount of manual energy transfer, is able to conduct a rotary advanced movement for a sufficiently long time on the surface of lane plate 3 positioned angularly in an adequate angle and is able to knock down the pins 2 in case of advancing towards the optimal direction. According to a preferable embodiment of the game the mass of whirling top 1 is  $100\text{ g} \pm 5\text{ g}$ .

By utilising the combined mechanical energies directly or indirectly, the whirling top 1 knocks down the pins 2. The combination and effectiveness of mechanical energies are guaranteed by playing devices and constructional materials designed in accordance with the considerations discussed in the present invention.

Pins 2 are revolution solids, the form of which is similar to pins in the original bowling game. The size of pins 2 basically fits to the size of lane plate 3. The constructional material and mass of pins 2 are also critical. Preferably, the constructional material of pins 2 is surface-treated and air-dried lime-wood. Preferably the mass of a pin is one tenth of the mass of whirling top 1. A proper ratio of masses of pins 2 to whirling top 1 guarantees a successful game. According to a preferable embodiment of the invention the largest diameter of pin 2 is the half of the points' distance of the regular hexagonal plate 1/a of whirling top 1 and its mass is  $10\text{ g} \pm 1\text{ g}$ .

The ideal masses of whirling top 1 and pins 2 are determined eventually by the size of lane plate 3 however their relative masses are also important.

A set of pins consists of 10 pieces, but consequently, bowling with both nine pins and ten pins can be played.

The shape of the lane plate 3 is rectangular. According to a preferable embodiment of the invention the lane plate 3 consists of framework 3/a, lane plate 3/c and lane board 3/d.

The framework 3/a is fashioned from a revolution solid having an appropriate diameter for fitting to an ordinary human palm. Its size fits to lane plate 3/c. The

constructional material of framework 3/a is preferably surface-treated and air-dried pine-wood.

Optionally the internal side of framework 3/a is protected by a rubber strip 3/b. The rubber strip 3/b has a double function: on the one hand it protects the surface  
5 damage of framework 3/a caused by the whirling top 1 and on the other side it provides the recognition of a false twirl.

The lane plate 3/c is an important element of play-field, the hard and plane surface of which supports the complex movement of whirling top 1. Selection of its constructional material should be done by taking into consideration of these criteria.  
10 The lane plate 3/c may be made of laminated shatterproof glass, rigid and transparent plastic, or hardwood, etc.

According to a preferable embodiment of the invention the lane plate 3/c is made of laminated shatterproof glass. As an advantage the transparent glass plane provides the visibility of field symbols, i.e. white starting cycles against a green background,  
15 starting-line and pin-stands, furthermore it is scratch resistance for prolonged application. In case of ninepin or bowling game the size of the lane place 3/c should be adjusted in such a way the length of rectangle to be three times of its width.

The field symbols of the lane may be drawn directly on the lane plate 3/c. However due to practical reasons, e.g. for avoiding the scratching of symbols in case  
20 of a lane plate 3/c made of shatterproof glass the symbols are preferably placed on the lane board 3/d positioned below the lane plate 3/c. Its constructional material is preferably plastic foil bonded to cardboard.

From the bottom side, the lane plate 3 is closed by clamping-plate 3/e fastened by holding screws 3/f to framework 3/a. The clamping-plate 3/e has a double function  
25 fastening the board 3/d with lane plate 3/c and the setting device 4 to the framework. Preferably the plate is made of stainless steel and its size fits to the bottom part of framework 3/a.

In case of the small scale version, besides the whirling top 1, another important design is the tilting lane 3 being situated on the surface of a ball. This results in rotating  
30 the lane plate 3, and allows the whirling top 1 to advance forward and aside towards the pins.



An aspect of the setting device 4 provides for this by its construction. It is designed as a revolution solid consisting of two elements, namely globe head 4/a and globe shell 4/b. The size of globe head 4/a is designed in a manner that by seating it in the globe shell 4/b it can provide any arbitrary setting positions of lane plate 3.

5 The globe head 4/a of setting device 4 is attached centrally to plate 3/e and mounted by means of a clamping screw 4/d to plate 3/e.

The adhesion of rasping surfaces of globe head 4/a and globe shell 4/b can be achieved by lithographic chalking. The design and the fashioning of setting device 4 is prepared for holding the lane plate 3 after its tilting and setting in a given position until  
10 the next setting.

For avoiding the deformation and cracking the constructional material of setting device 4 is preferably air-dried laminated pine-wood and the cylindrical parts of both elements are surface-treated.

The material quality and the fashioning of setting device 4 together with the  
15 auxiliary material (lithographic chalk) used for providing adhesion ensures the adjustment of lane plate 3.

An anti-skidding rubber slab 4/c is bonded to the bottom surface of the globe shell 4/b for avoiding motion on a plain surface e.g. on a table under operation.

Total mass of a preferable embodiment of the game is around 16 kg.

20 Both the traditional ninepins and bowling with ten pins can be played with the turbo-bowling game.

The field symbols i.e. the starting cycles 5, starting line 6 and pin-stands 7 are marked on figure 3. A player is behind the starting cycles 5.

The twirling of whirling top 1 should be done inside the starting cycle 5 providing  
25 that during operation the tip 1/c of whirling top 1 remains inside the starting cycle 5. The starting cycles 5 represent different scales of difficulties.

When the whirling top 1 is twirled in starting cycle 5 it should be directed by means of tilting the lane plate 3, in a manner that will achieve the best direction for the whirling top. Until before tip 1/c surpasses the starting line 6, the player may modify the  
30 angle of the playing surface by tilting the lane plate 3. During tilting the pins 2 are not

allowed to be tumbled. The starting line 6 is located in the first third section of lane plate 3.

The pin-stands 7 mean the place of pins. Pin-stands 7 are located in the last third section of play-field. The pins should be placed on the circles of play-stands 7.

5 The arrangement of starting cycles 5 and pin-stands 7 on lane plate 3 are identical and symmetrical relative to the longitudinal axis of lane plate 3. The centres of neighbouring starting cycles 5 and pin-stands 7 are in equal distance from each other.

During the execution of the game, the surface of lane plate 3 is placed into horizontal position. The whirling top 1 is twirled manually, such as by spinning, and  
10 through tilting the lane plate 3, most of the pins 2 can be tumbled. The whirling top 1 is able to tumble pins 2 directly or indirectly. During spinning, the regular hexagonal plate 1/a of whirling top 1 tumbles the pins 2 in a spectacular manner, naturally, in case of a successful score(s). The pins 2 remained in standing position but slipped out of the starting cycles 5 should be set back to their original place.

15 Twirling can be carried out by both hands however it might happen that somebody can do the twirling by one hand.

Condition of the successful game is to gain experiences in twirling and positioning the lane done in this order, otherwise in case of doing the lane tilting at first the whirling top slips on the lane which method will result in invalid twirling.

20 Direction of lane tilting is always opposite to the circulation direction of the whirling top.

Similar to the original bowling game both right-hand and left-hand players can play the turbo-bowling.

25 The game inspires competition and it is a sportsmanlike game practised alone and in teams.

The game builds upon ability and should not form the basis for gambling. From a pedagogical point of view, it does not inspire for aggression.

The game is recommended to be taught or played from pupillae.



THE EMBODIMENTS OF THE PRESENT INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A table parlour game comprising a turbo player unit, bowling pins, a lane plate tilting to any direction,  
wherein the turbo player unit is a whirling top,  
wherein the lane plate is equipped with a setting device comprising a centrally attached globe head and a globe shell, and  
wherein the setting device is designed and fashioned to hold the lane plate in a constant position after its tilting and setting due to adhesion between surfaces of the globe head and globe shell.
2. The table parlour game of claim 1, wherein the whirling top, namely a conical solid of rotation, a plate of which is shaped to have a regular hexagonal pattern and the whirling top is equipped with a rotating tail and tip.
3. The table parlour game of claim 1 or 2 wherein an anti-skidding rubber slab is bonded to a bottom surface of the globe shell.
4. The table parlour game of any one of claims 1 to 3 wherein the shape of the lane plate is rectangular.
5. The table parlour game of any one of claims 1 to 4 wherein the length of the lane plate is three times of its width.
6. The table parlour game of claim 4 or 5 wherein an arrangement of starting cycles and pin-stands are identical and a longitudinal axis of the lane plate is symmetrical, furthermore middle points of neighbouring starting cycles and middle points of the pin-stands are in equal distance from each other.

7. The table parlour game of any one of claims 4 to 6 wherein a starting line is located in a first third section of the lane plate.
8. A table parlour game comprising a turbo player unit, bowling pins and a lane plate tilting to any direction,
  - wherein the turbo player unit is a whirling top,
  - wherein the whirling top is conical and solid and comprises a plate which has a regular hexagonal shape, and a rotating tail and tip,
  - wherein the lane plate is equipped with a setting device comprising a centrally attached globe head and a globe shell, and
  - wherein the setting device is designed and fashioned to hold the lane plate in a constant position after its tilting and setting due to adhesion between surfaces of the globe head and globe shell.
9. The table parlour game of claim 8 wherein an anti-skidding rubber slab is bonded to a bottom surface of the globe shell.
10. The table parlour game of claim 8 or 9, wherein the whirling top is made of homogeneous brass, and the mass of the whirling top is from 95 to 105 g.
11. The table parlour game of any one of claims 8 to 10, wherein the pins are made of surface-treated and air-dried lime wood, and the mass of each pin is 9 to 11 g.
12. The table parlour game of any one of claims 8 to 11, wherein the lane plate comprises laminated shatterproof transparent glass.
13. The table parlour game of any one of claims 8 to 12, wherein adhesion of rasping surfaces of the globe head and globe shell is achieved by lithographic chalking.
14. The table parlour game of any one of claims 8 to 13 wherein the shape of the lane plate is rectangular.

15. The table parlour game of claim 14 wherein the length of the lane plate is three times its width.
16. The table parlour game of any one of claims 8 to 15 wherein the lane plate has a plurality of starting cycles where the turbo player unit is twirled and a plurality of pin-stands where the pins are located, and wherein the arrangements of starting cycles and pin-stands are identical and a longitudinal axis of lane plate is symmetrical, furthermore middle points of the neighboring starting cycles and middle points of the pin-stands are in equal distance from each other.
17. The table parlour game of claim 14 having a starting line located in a first third section of lane plate.



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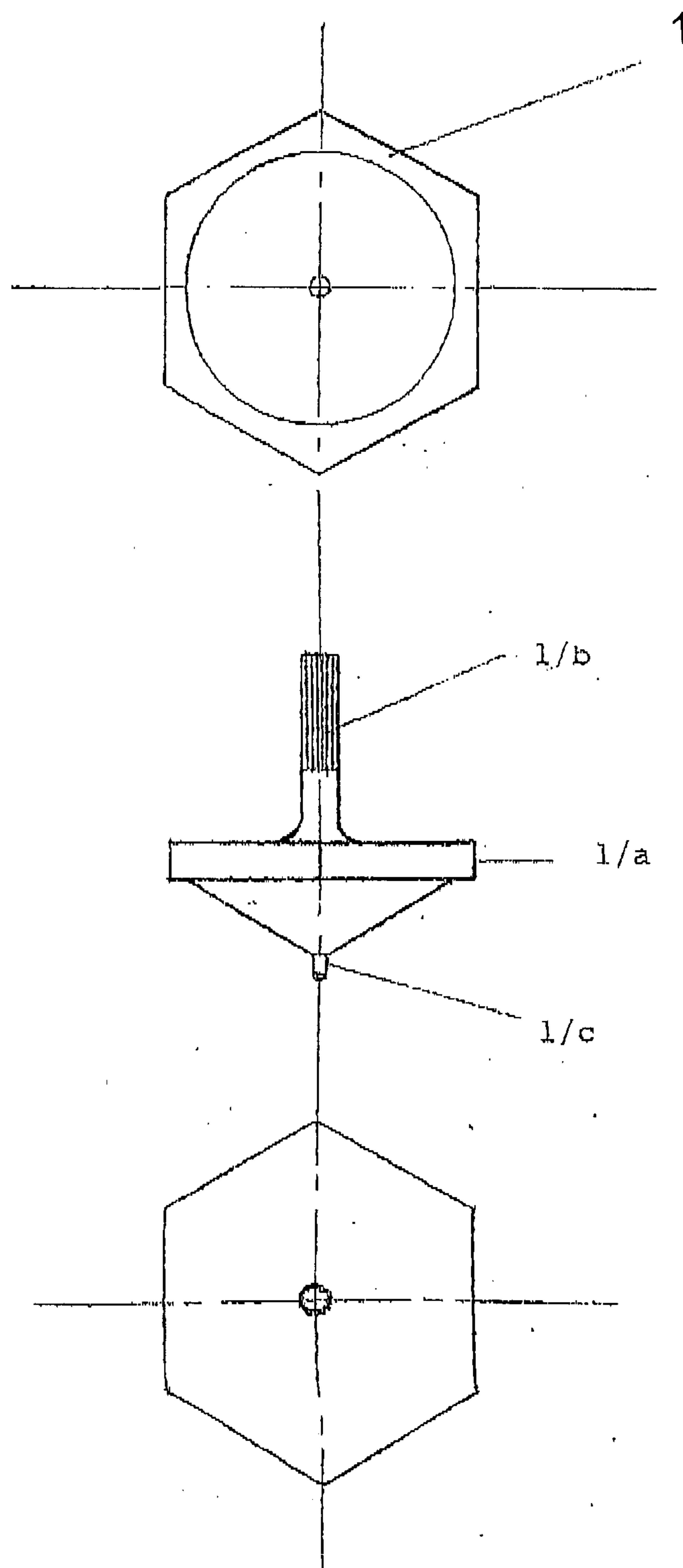


Figure 1

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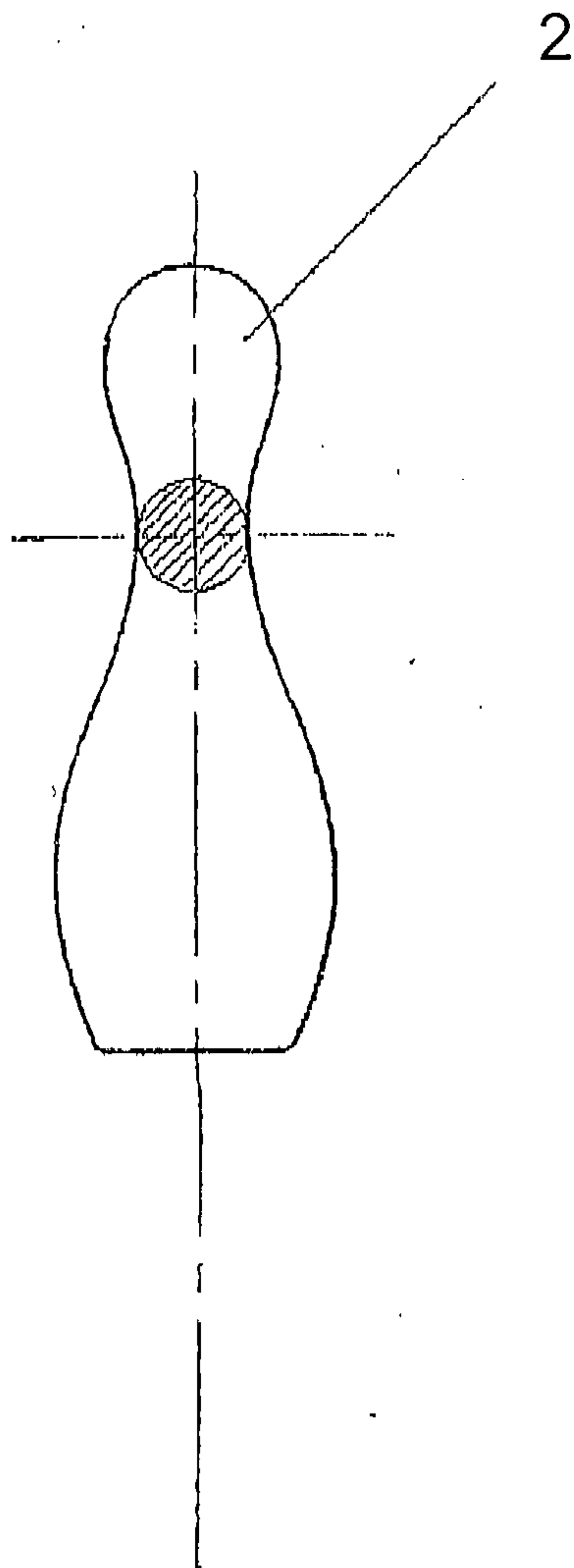


Figure 2

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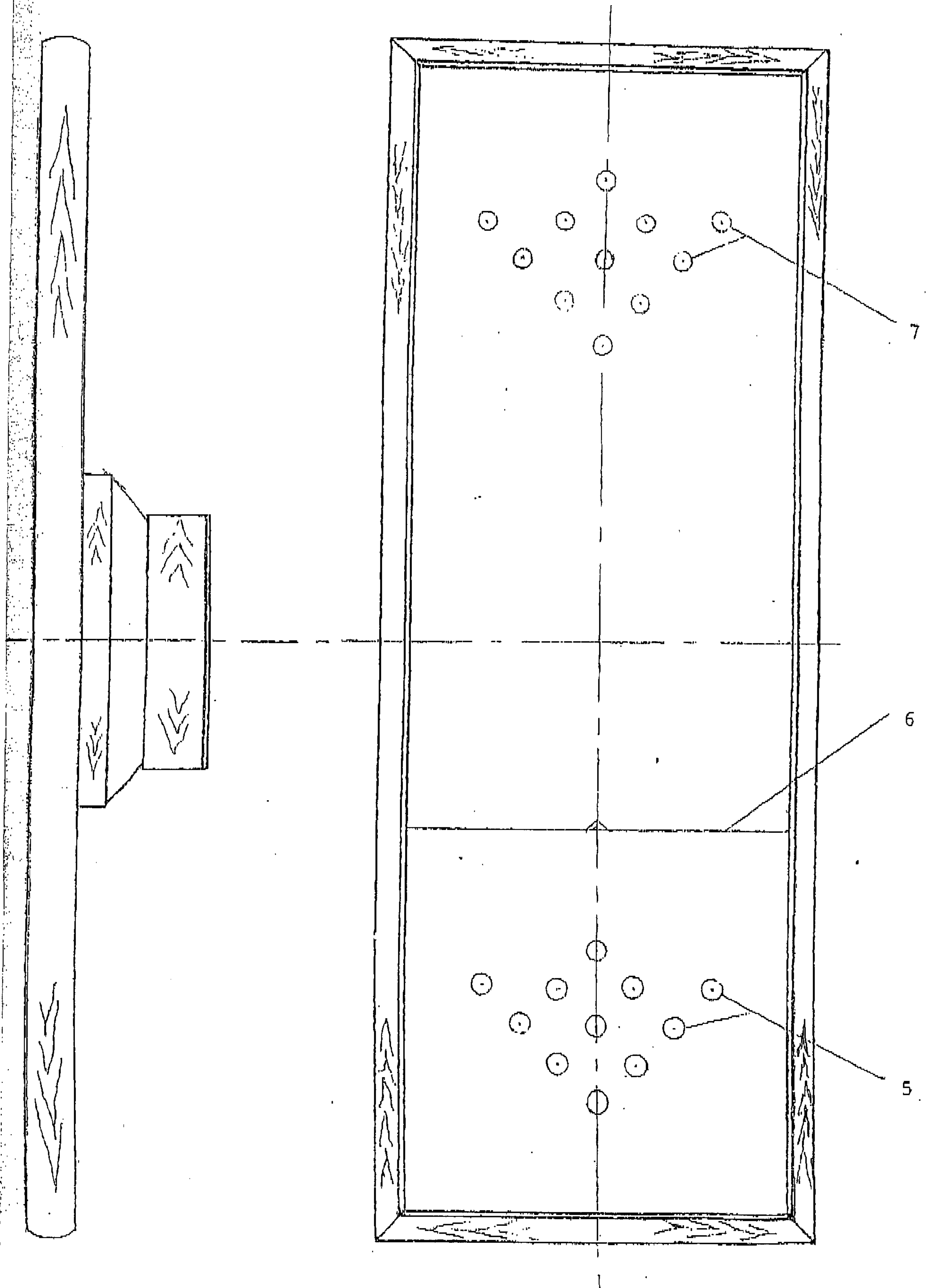
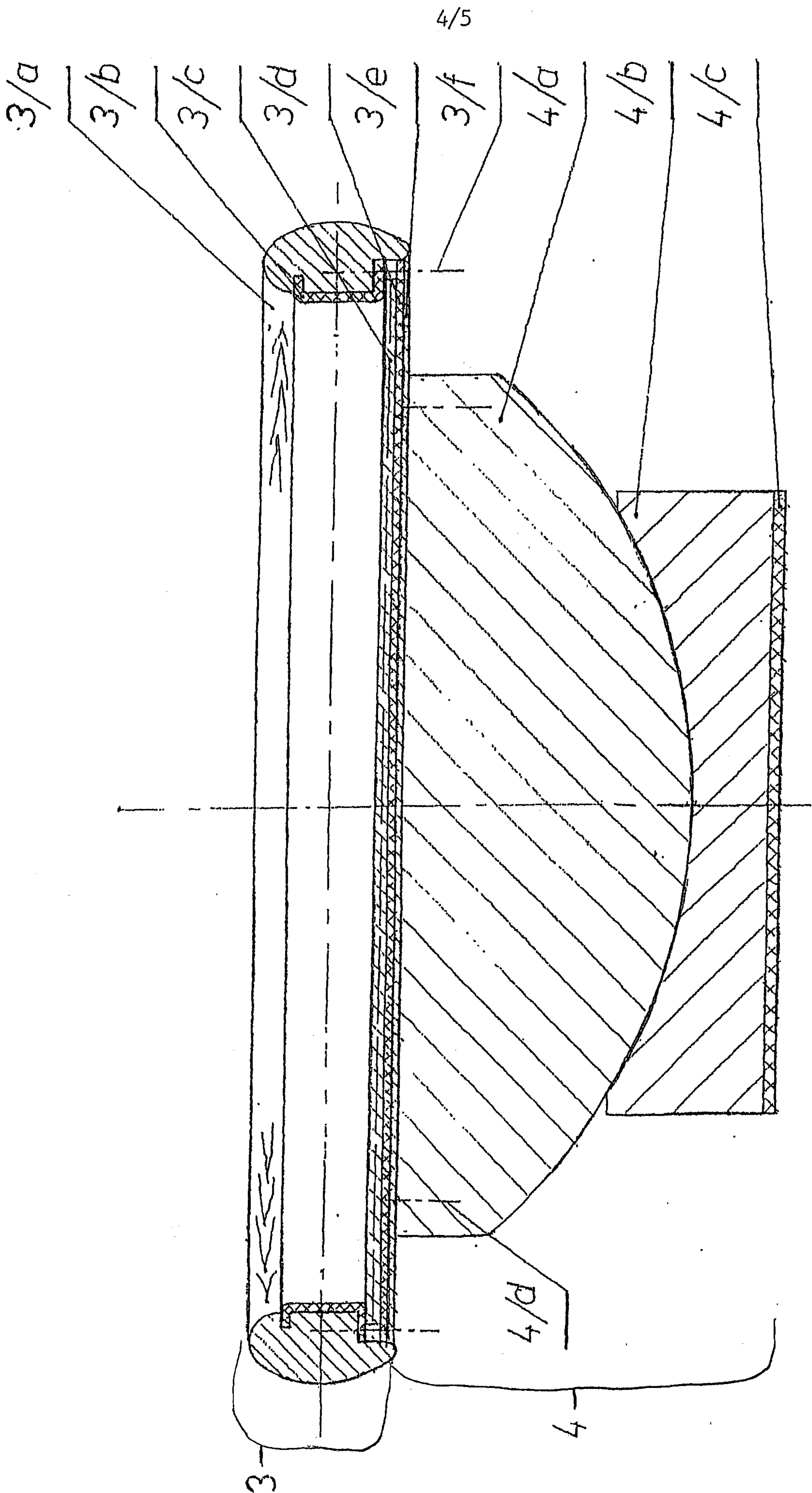


Figure 3





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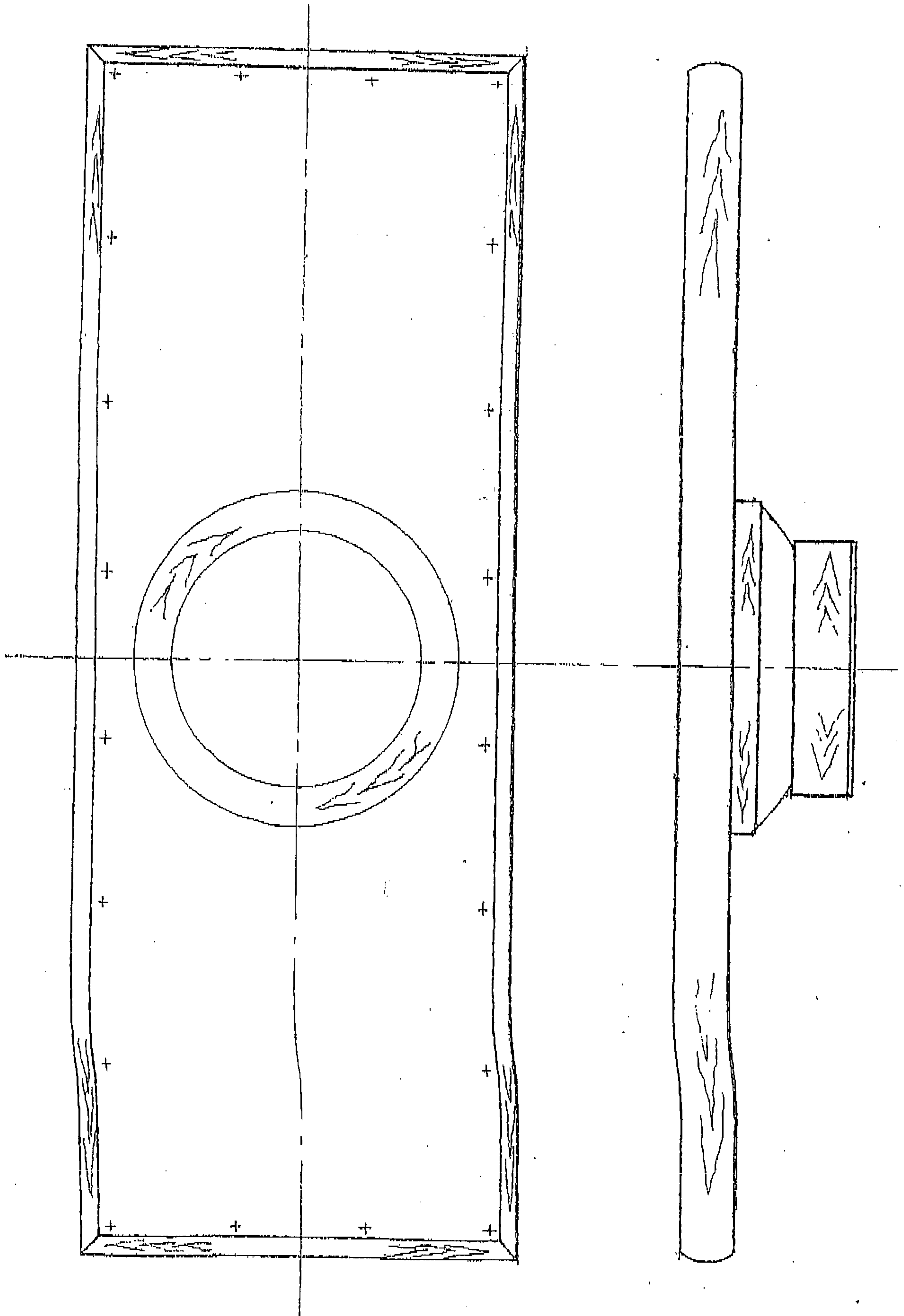


Figure 5

