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(72) Inventeur/Inventor:
Sandsborg, Anders, SE

(73) Propriétaire/Owner:
Sandsborg, Anders, SE

(74) Agent: SMART & BIGGAR

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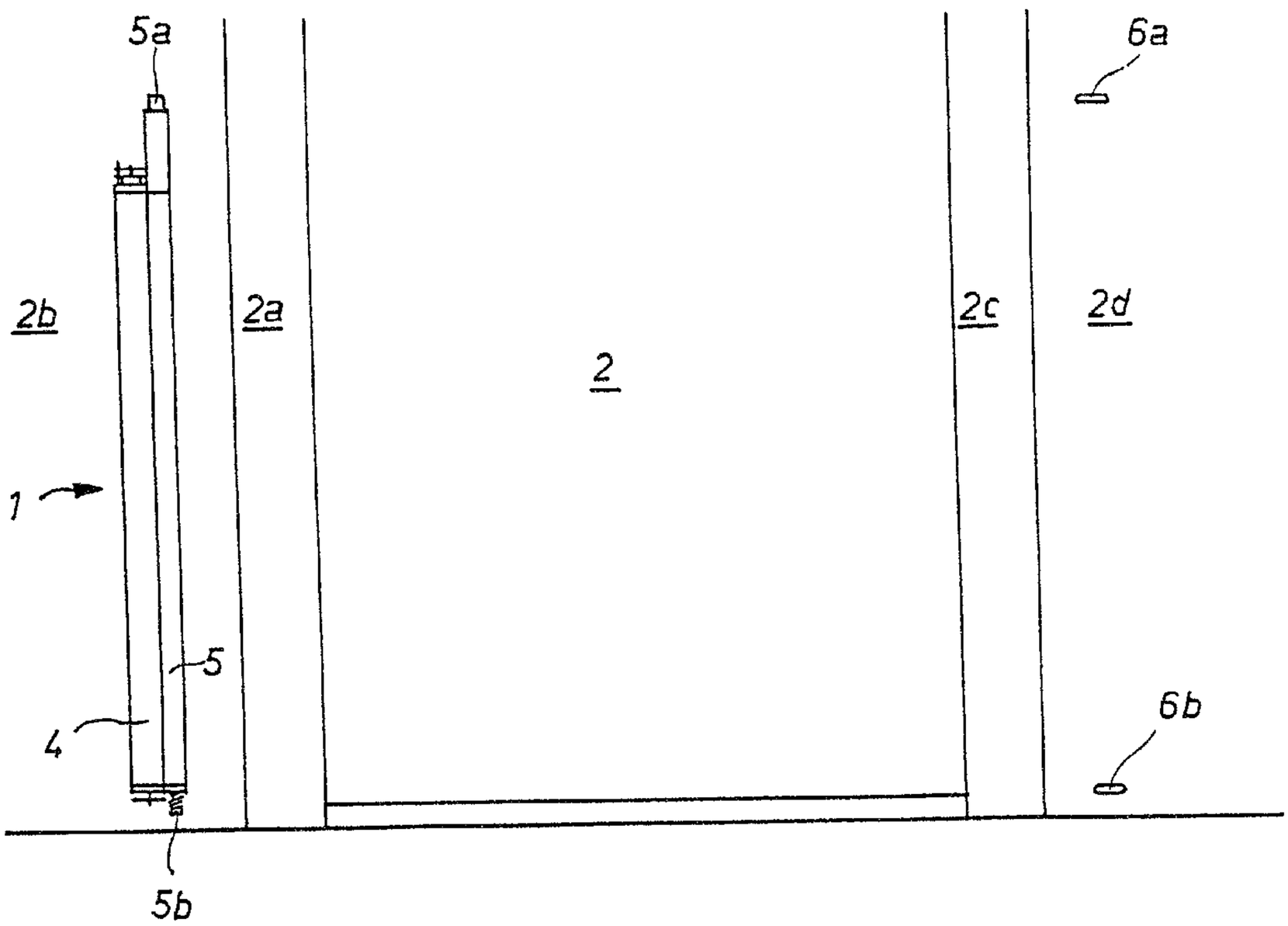

(57) Abrégé/Abstract:
A child safety gate (1) for blocking a passage (2), particularly for children and pets. The gate can be suspended at one (4) of its side edges and is lockable at its other side edge (5) by means of a child proof locking device. The gate consists, between its side edges, of a roll-type curtain (3), which can be rolled around one of said side edges.

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(71)(72) Applicant and Inventor: SANDSBORG, Anders [SE/SE]; Sandbäckshult 4070, S-384 91 Blomstermåla (SE).

(74) Agent: NYDELL, Peder; Nydells Patentbyrå, Hägnen 2573, S-380 30 Rockneby (SE).

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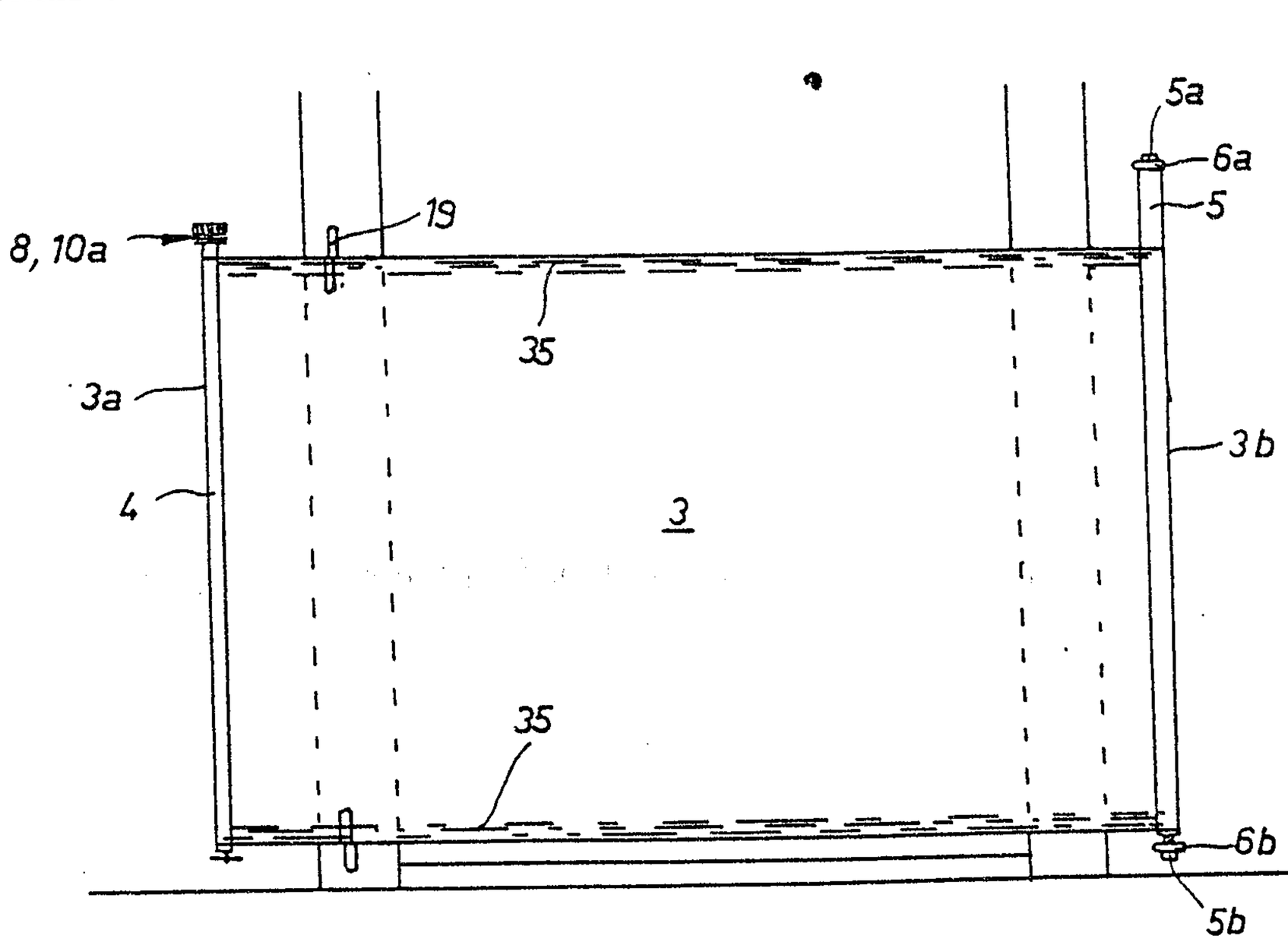


(57) Abstract

A child safety gate (1) for blocking a passage (2), particularly for children and pets. The gate can be suspended at one (4) of its side edges and is lockable at its other side edge (5) by means of a child proof locking device. The gate consists, between its side edges, of a roll-type curtain (3), which can be rolled around one of said side edges.

A child safety gate

FIELD OF THE INVENTION

The present invention relates to a child safety gate for blocking a passage, particularly for children and pets. Each side of the gate is defined by a vertical side edge, one of the side edges being connected to one side of the passage, the other side edge of the gate being, by means of a child proof locking device, removably mounted and locked against the other side of the passage, when it is desired to restrain the passage, and released therefrom when it is desired to open the passage.

BACKGROUND ART

Child safety gates of the above kind are commonly known and used, particularly in households where small children are present, and where there is a high demand for child safety. The gate will ensure not only that the children cannot injure themselves in stairways or in other places where it is not possible to permanently watch the children, but will also ensure that the children can be kept away from places where they may damage fragile goods. This also applies to leisure sites, camping grounds and the like. The same demands are often raised also for domestic animals.

In some cases there is an important need for temporary restrainments, for example when moving certain animals.

As far as safety gates for children and pets are concerned, and also where there is a need to close passages for animals, for example in stables and folds, there are today only gates in the form of wooden or metal gates having bars. These are bulky, hard and unwieldy. The gates may cause injury to children, if they will collide hard aginst the gate. The gates are also bulky, and cannot be removed out of the way when not being used, which brings about that they

will not be used to that extent that would be desirable, which of course will result in more accidents. Known gates and other passage restrainments having bars, cables and the like, do not even function for dog whelps, for instance, since these can crawl between the cables or bars.

SUMMARY OF THE INVENTION

The object of the present invention is, therefore, to provide a child safety gate of the kind mentioned by way of introduction, where the above drawbacks have been eliminated.

According to the invention there is provided child safety gate for blocking a passage, each side of the gate being defined by a vertical side edge, one of the side edges being connected to one side of the passage, the other side edge of the gate being, by means of a child proof locking device, removably mounted and locked against the other side of the passage, when it is desired to restrain the passage, and released therefrom when it is desired to open the gate, characterized in that the gate consists, between said vertical side edges, of a roll-type screening, which, in the open condition of the gate can be uprolled around said one of the vertical side edges, and which in the closed condition of the gate can be extended and stretched across the passage.

The gate according to the invention is also more attractive from an aesthetical point of view, particularly when not in use, since it requires less space. There is also the advantage that the gate is always present when need should arise to use it.

Further developments of the invention are evident from the depending claims.

DESCRIPTION OF THE DRAWING

The invention will now be described in more detail with reference to the accompanying drawing which illustrates a preferred embodiment of the invention.

Fig. 1 is a side view of a gate according to the invention, shown in an open position.

Fig. 2 illustrates the same side view as Fig. 1, but with the gate in a closed position.

Fig. 3 is a top view of the gate according to Fig. 2.

Fig. 4 is a top view of an anchoring device having a special locking function for the gate shown in Figs. 1-3.

Fig. 5 is a cross-section taken along line V-V of Fig. 4.

Figs. 6 and 7 are side views of a child proof locking device for the gate of Figs. 1-3, shown in an open and a closed position, respectively.

Figs. 8-12 illustrate a number of alternative embodiments of the locking device of the gate and of the design of the gate.

PREFERRED EMBODIMENT

Fig. 1 shows a gate, generally depicted 1, for blocking a passage 2 which is sidewardly limited by substantially vertically oriented side elements, which in the example shown consist of a door frame 2a which is oriented adjacent a wall element 2b, and a door frame 2c which is oriented adjacent a wall element 2d, respectively.

The gate according to Fig. 1 consists of a substantially plane and substantially vertically oriented gate element 3 in the form of a rectangular roll-type screening made of a natural or synthetic material, in the embodiment shown in the form of a curtain made of a cloth or a more or less fine-meshed woven fabric, see especially Fig. 2, which curtain is, at its vertical end edges 3a and 3b, respectively, attached to a respective one of two wooden uprights 4 and 5, respectively, which uprights form curtain supporting vertical side edges of the gate 1. The upright 4 is anchored against the wall element 2b, whereas the upright 5 is releasably attachable and lockable to the wall element 2d by means of a child proof locking device, which is shown in more detail in Figs. 6 and 7.

The upright 5 has in its uppermost end a pin 5a to be introduced into a circular locking loop 6a which is stationary mounted in the wall element 2d. The upright 5 has also a lower pin 5b to be introduced into a circular locking loop 6b which is stationary mounted in the wall element 2d.

A coil spring 7 is wound around the pin 5b such that the pin 5b and thereafter the pin 5a can be introduced into their respective locking loop 6a and 6b only if the spring 7 has been compressed, see Fig. 7.

As will appear from Figs. 4 and 5, the upright 4 has its upper end rigidly connected to a horizontal circular plate 8 by means of screws 9a and 9b. The plate 8 and its suspended upright 4 is rotatably mounted on a roll-type shaft 11 against an anchoring device in the form of a wall bracket 10a. The wall bracket 10a is attached to the wall element 2b by means of screws 10b, 10c.

The plate 8 is lockable in a desired angular position in relation to the wall bracket 10a by means of a key pin 12 which is introducable (see arrow 13) into a selected one of a plurality of locking holes 14 in the wall bracket 10a, and then into a selected one of a plurality of locking holes 15 in the plate 8. (For reasons of simplicity Fig. 2 shows only two of the holes 14 of the wall bracket 10a and two of the holes 15 of the plate 8.) Thus, the cloth 3 can be unrolled and extended to a desired length depending upon the width of the passage 2.

The lower end of the upright 4 is rotatably mounted on a spring-biassed shaft 16 which is mounted in a wall bracket 10d. A spring 17 is mounted in the upright 4 between the shaft 16 and a spring anchoring plate 18 in the upright 4

in order to give a desired roll force when unrolling the cloth 3.

The gate element 3 shown in Fig. 2 has a length corresponding to a standard size such that it, when completely unrolled between its end edges 3a and 3b, becomes stretched to thereby prevent any passage through the opening 2. Since the safety gate 3 is made of a curtain cloth, this can be readily fastened to its uprights 4 and 5 by loosely introducing each of them into a separate pleat or the like (not shown) being formed in each side edge 3a and 3b, respectively.

If the length of the gate element 3 exceeds the width of the passage 2 which is to be blocked, the unrolling has to be braked, for instance by means of the key pin 12, as has been described above, or by means of any brake device (not shown) having a similar function as the key pin lock 12.

If the gate element 3 extends past any obstacle, for instance the door frames 2a and 2c (see Figs. 2 and 3), there may be provided supporting means, for example guiding pins 19 or 20, on the gate element 3 in order to hold this in place against the door frames 2a and 2c. In some cases, it may also be suitable to provide stop means in order to prevent any uprolling of the gate element 3. Such stop means may for instance be in the form of snap fasteners 21, see Figs. 2 and 3, or in the form of locking key pins, not shown, or in the form of other brake devices, not shown, for instance of friction-type, which can be biassed, for instance by means of a knob.

The gate in accordance with the invention may be adjustably anchored to the passage 2, but may alternatively be permanently or removably suspended at the passage 2. Any one of the side edges 4, 5 of the gate element 3 may be

used as anchoring means against the wall.

Figs. 8 - 12 illustrate various types of gate elements and of child proof lockings of the gate.

Fig. 8 shows a gate element in the shape of a cloth, one end edge 3b of which is twice folded to form a reinforced edge piece 3c, which is provided with lock loops 22, which can be locked against a corresponding hook 23 in the wall element 2d. Alternatively, a lock means having a belt 24 and a push button 25 is shown replacing the locking means 22 and 23.

Fig. 9 shows a gate element in the form of a net 26, for instance of a metal or plastic wire, where the net is locked against the wall element 2d by means of a hook 27, 28 or nail (screw) 29 being mounted in the wall element 2d.

Fig. 10 shows a lock similar to that of Figs. 6 and 7, but with the gate element in the form of lamellas or coils 30, which are interconnected at short distance from each other by means of wires 31.

Fig. 11 shows a child proof locking of a lamella gate by means of loop 32 and hook 33.

Fig. 12 shows, similarly to Fig. 9, a gate element of net 26, but with a bar-type locking according to Figs. 6-7.

In order to prevent damage of the gate, the gate element 3 is suitably provided with reinforcing means. In case the gate element is of cloth or the like, the reinforcing means may suitably consist of metal wires 35 or the like, see Fig. 2, which may for instance be woven into the upper and lower edge of the cloth.

71025-16

CLAIMS:

1. Child safety gate for blocking a passage, each side of the gate being defined by a vertical side edge, one of the side edges being connected to one side of the passage, the other side edge of the gate being, by means of a child proof locking device, removably mounted and locked against the other side of the passage, when it is desired to restrain the passage, and released therefrom when it is desired to open the gate, characterized in that the gate consists, between said vertical side edges, of a roll-type screening, which, in the open condition of the gate can be uprolled around said one of the vertical side edges, and which in the closed condition of the gate can be extended and stretched across the passage.

2. A gate according to claim 1, characterized in that the roll-type screening is made of cloth, woven fabric, plastic, rubber, or net of a natural or synthetic material.

3. A gate according to claim 1 or claim 2, characterized in that the roll-type screening is reinforced by reinforcing means.

4. A gate according to claim 1, characterized in that the roll-type screening consists of a plurality of interconnected, vertically oriented solid parts.

5. A gate according to claim 4, characterized in that said solid parts consist of lamellas.

6. A gate according to any one of claims 1 to 5, characterized in that said other side edge consists of a bar which is loosely or fixedly connected to the roll-type screening.

71025-16

7. A gate according to any one of claims 1 to 6, characterized in that said one of the vertical side edges consists of an upright.

8. A gate according to claim 7, characterized in that the upright is biased by a counter-force means such that the roll-type screening can be unrolled against the urging of said counter-force means.

9. A gate according to claim 7 or claim 8, characterized in that the upright is provided with a locking or braking device, such that the gate can be blocked in a selected, extended position.

10. A gate according to any one of claims 7 to 9, characterizted in that said upright is a so-called roll-type bar.

SMART & BIGGAR

OTTAWA, CANADA

PATENT AGENTS

FIG. 1

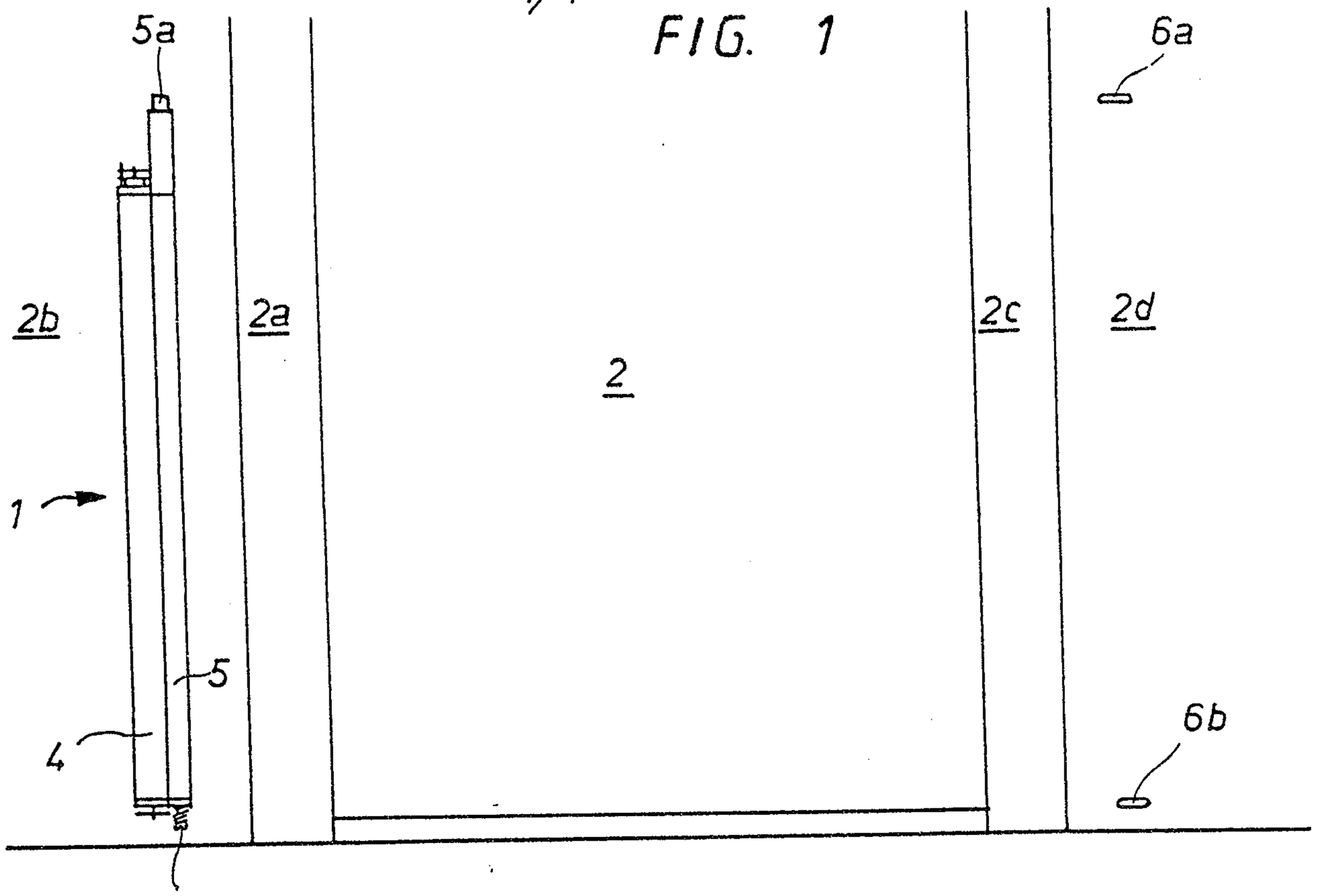


FIG. 2

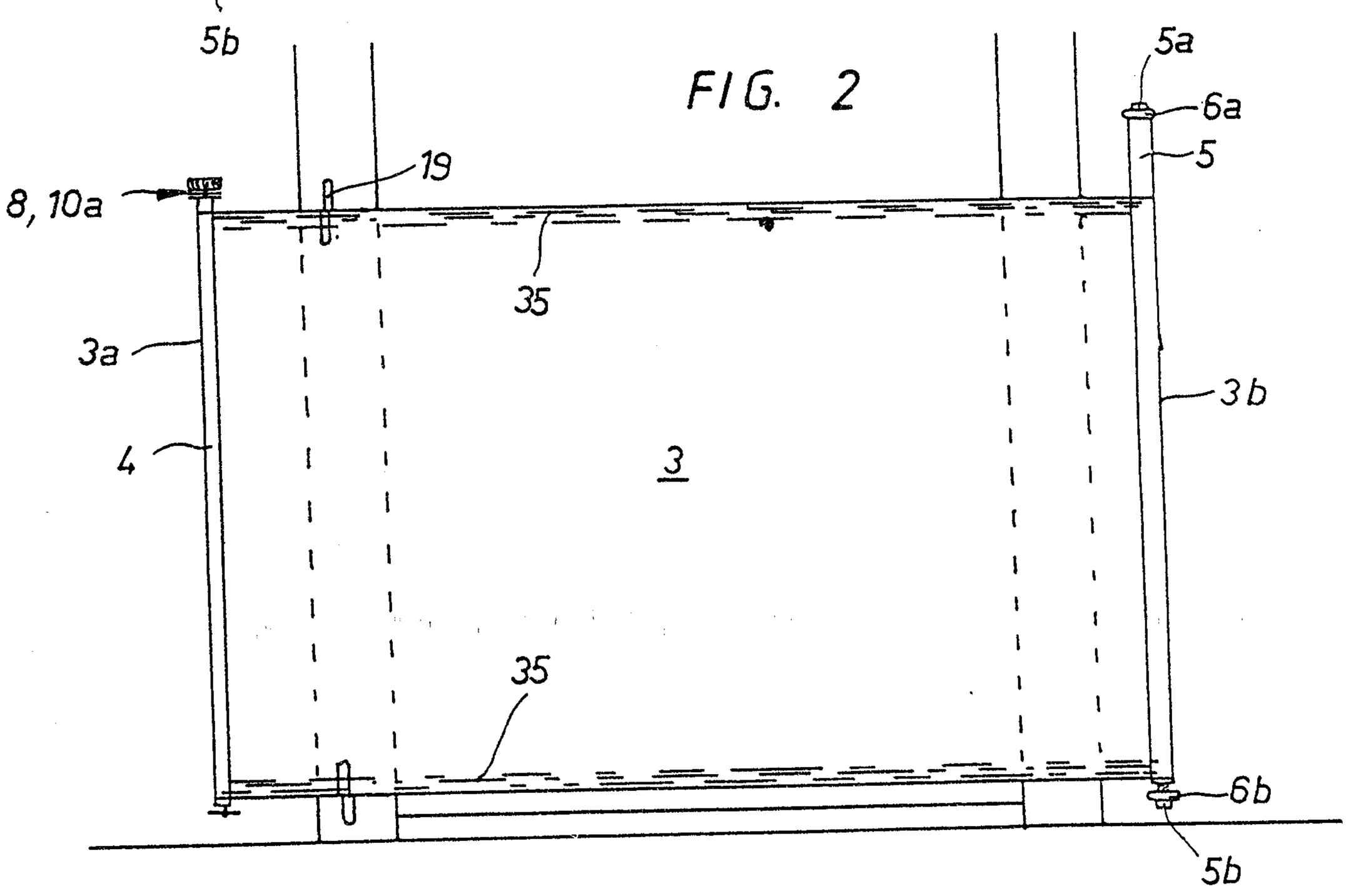
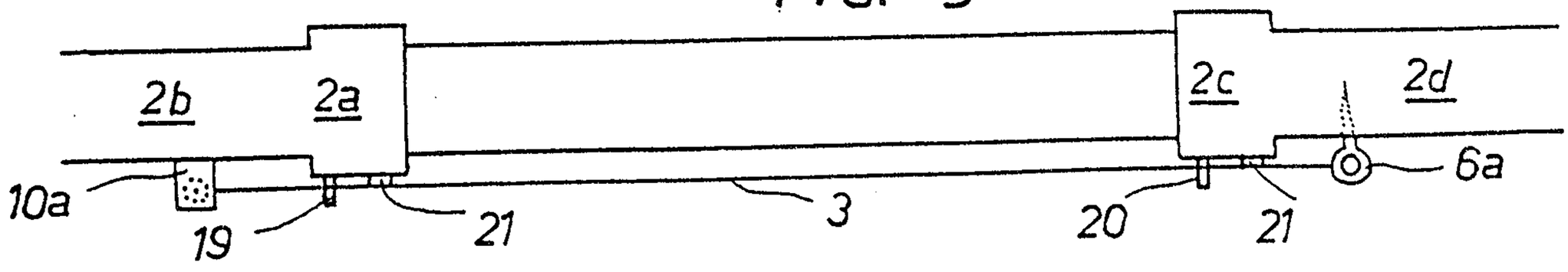


FIG. 3



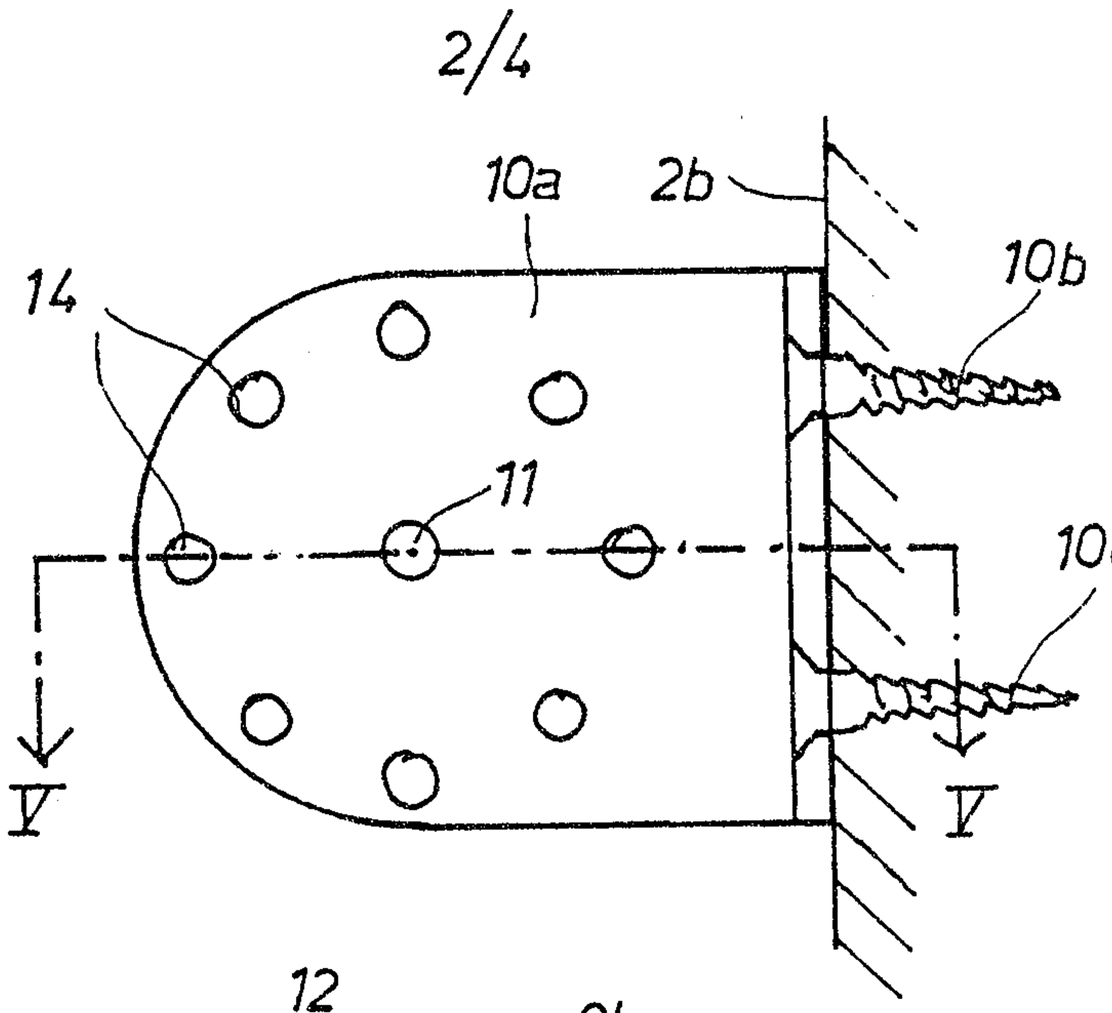

10a
2b
10b
14
11
10c
V
V

FIG. 4

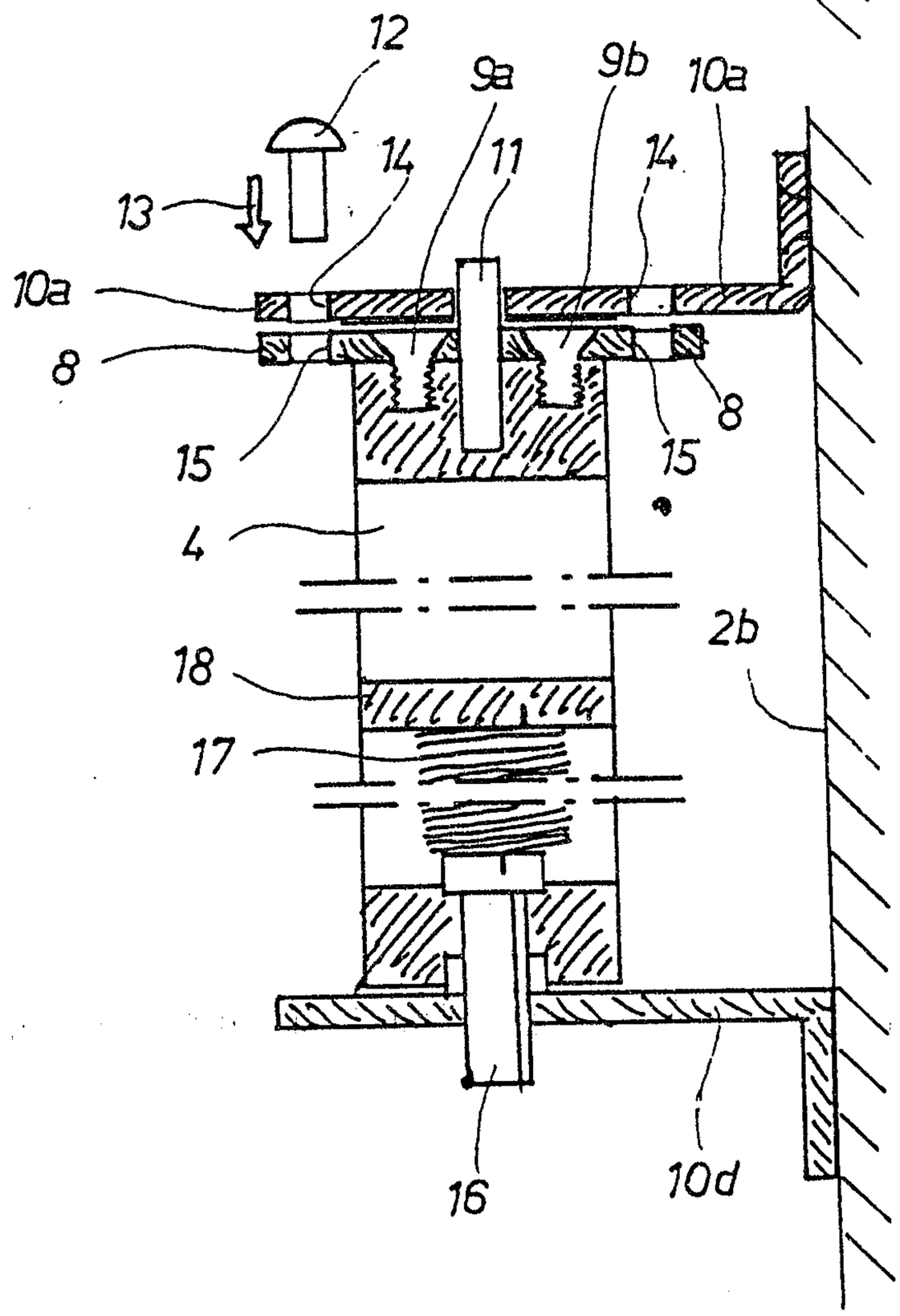

12
9a
9b
10a
14
11
14
13
10a
8
8
15
15
4
2b
18
17
16
10d

FIG. 5

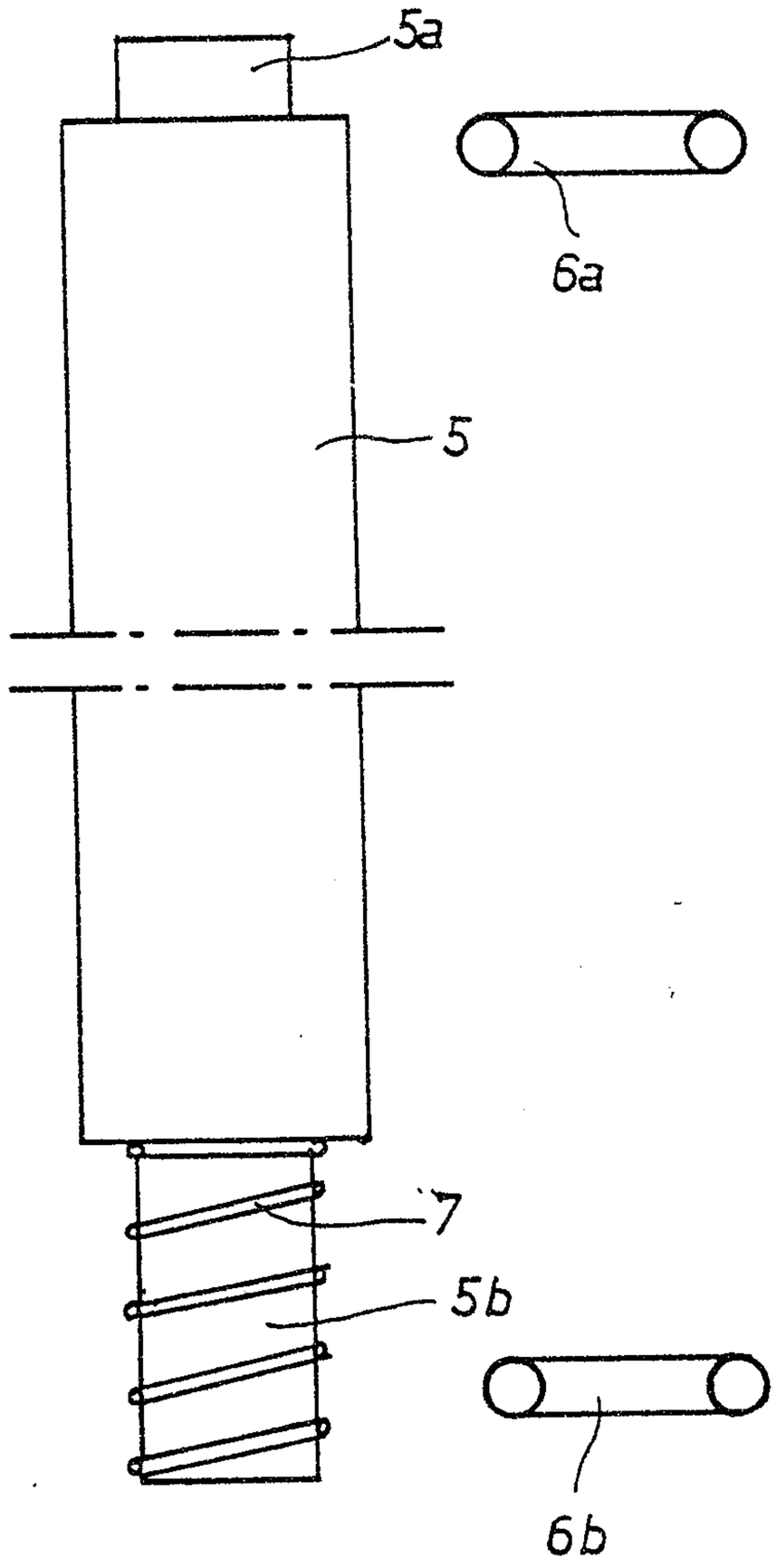


FIG. 6

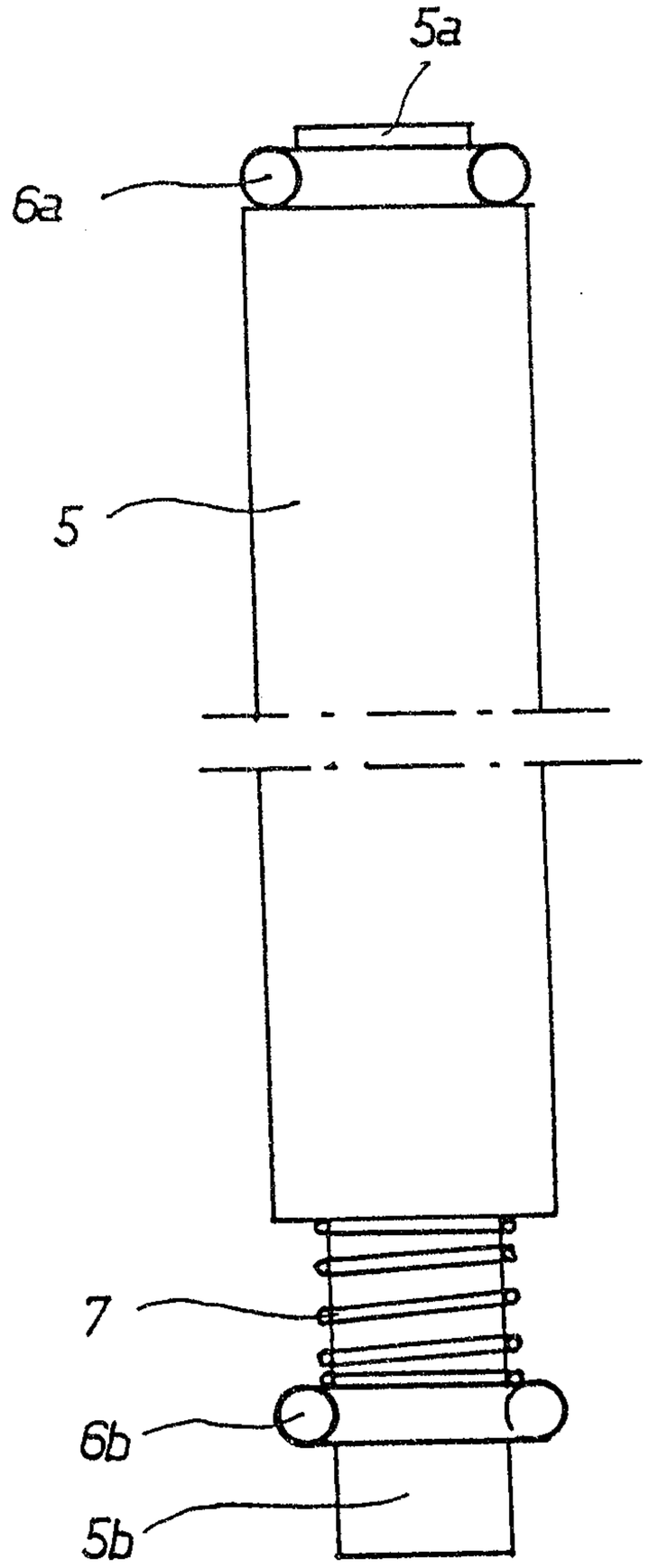


FIG. 7

FIG. 8

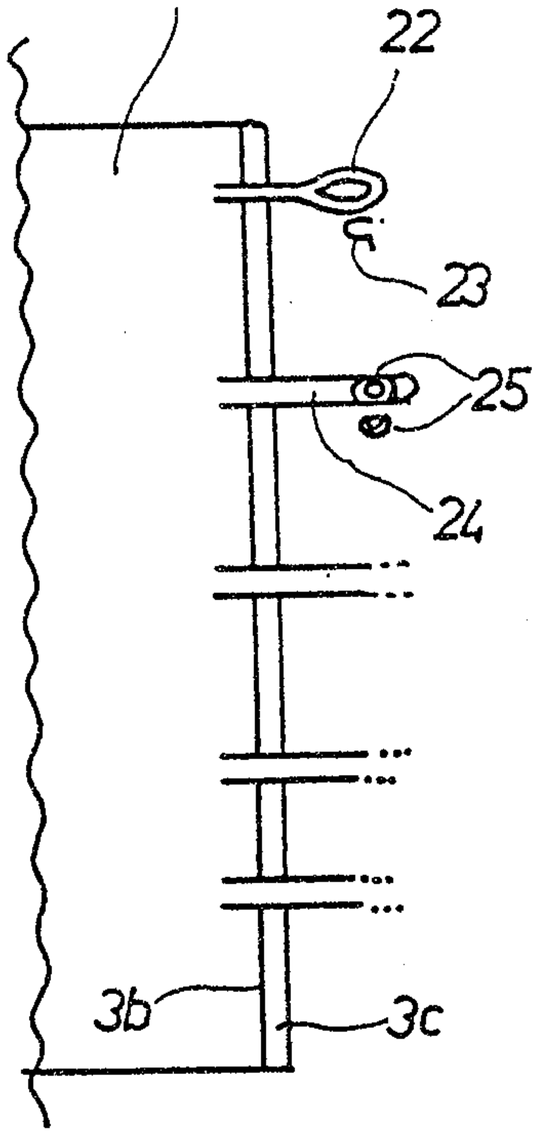


FIG. 9

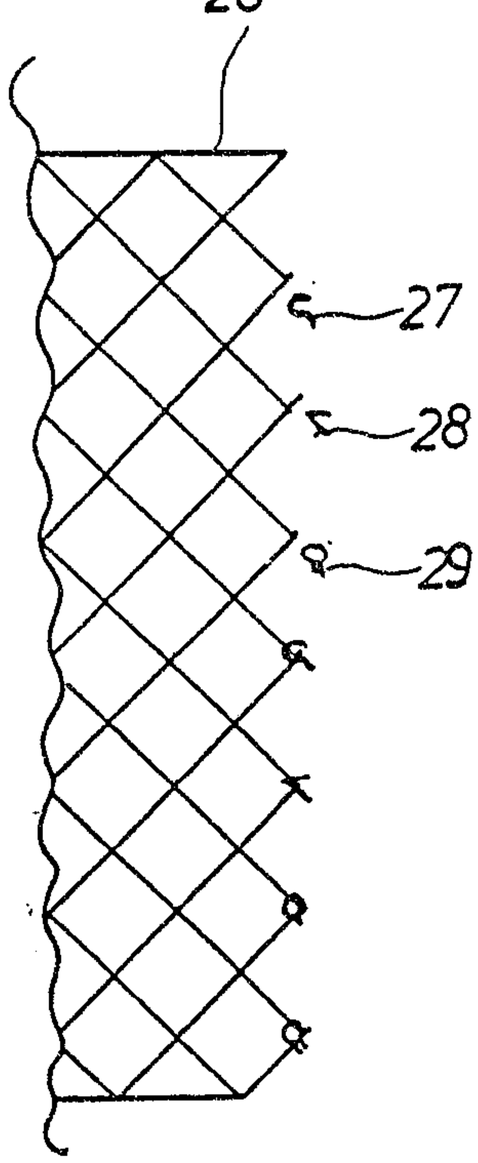


FIG. 10

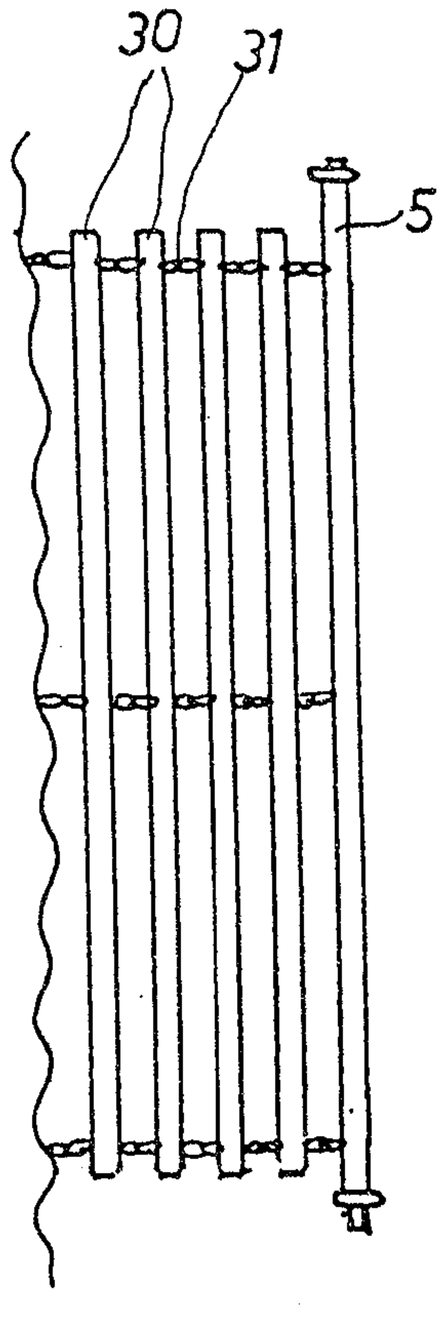
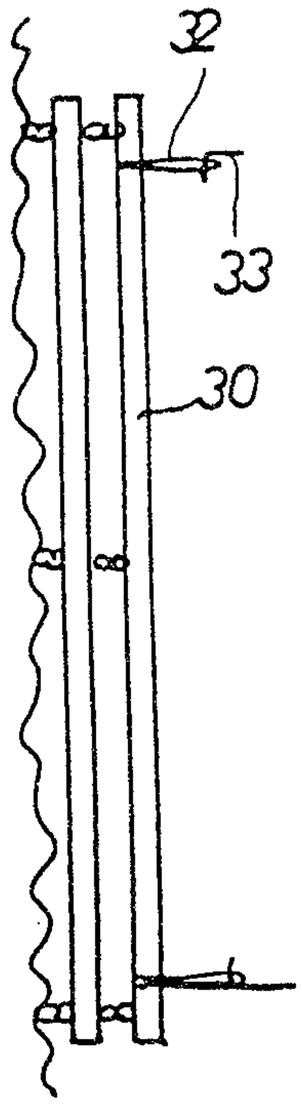


FIG. 11



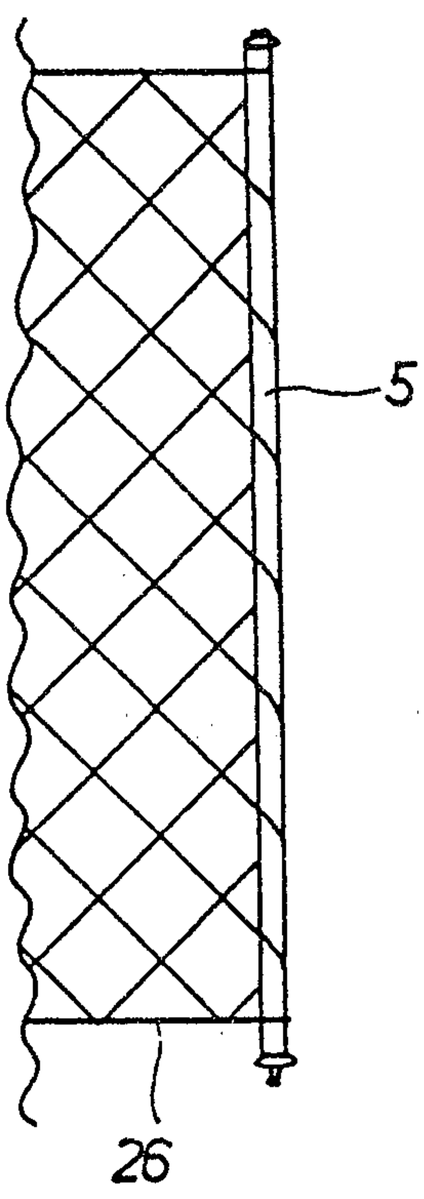
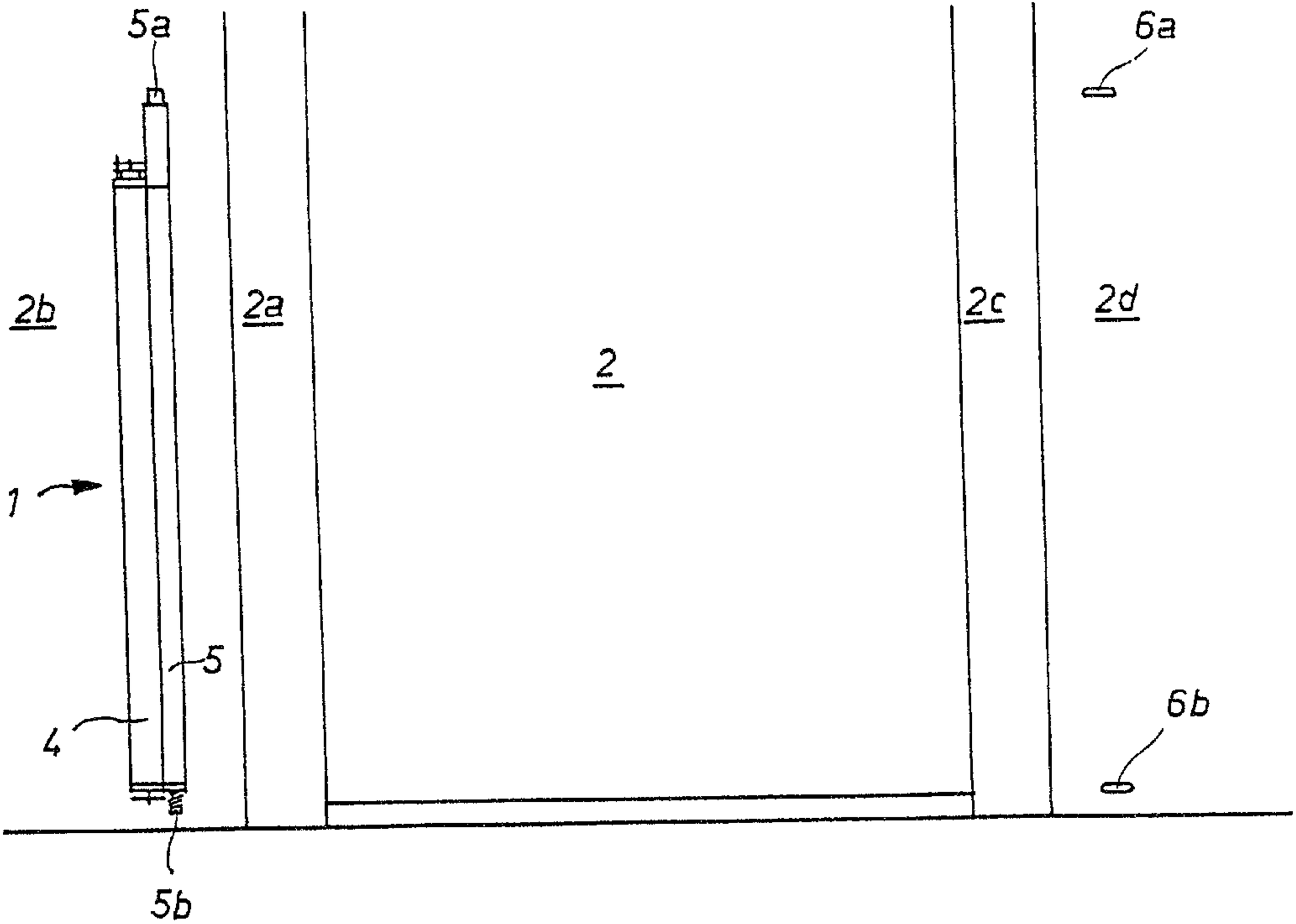


FIG. 12


5a
6a
2b
2a
2
2c
2d
1
5
4
6b
5b