

(No Model.)

2 Sheets—Sheet 1.

C. L. WICKHAM.
VENDING MACHINE.

No. 446,047.

Patented Feb. 10, 1891.

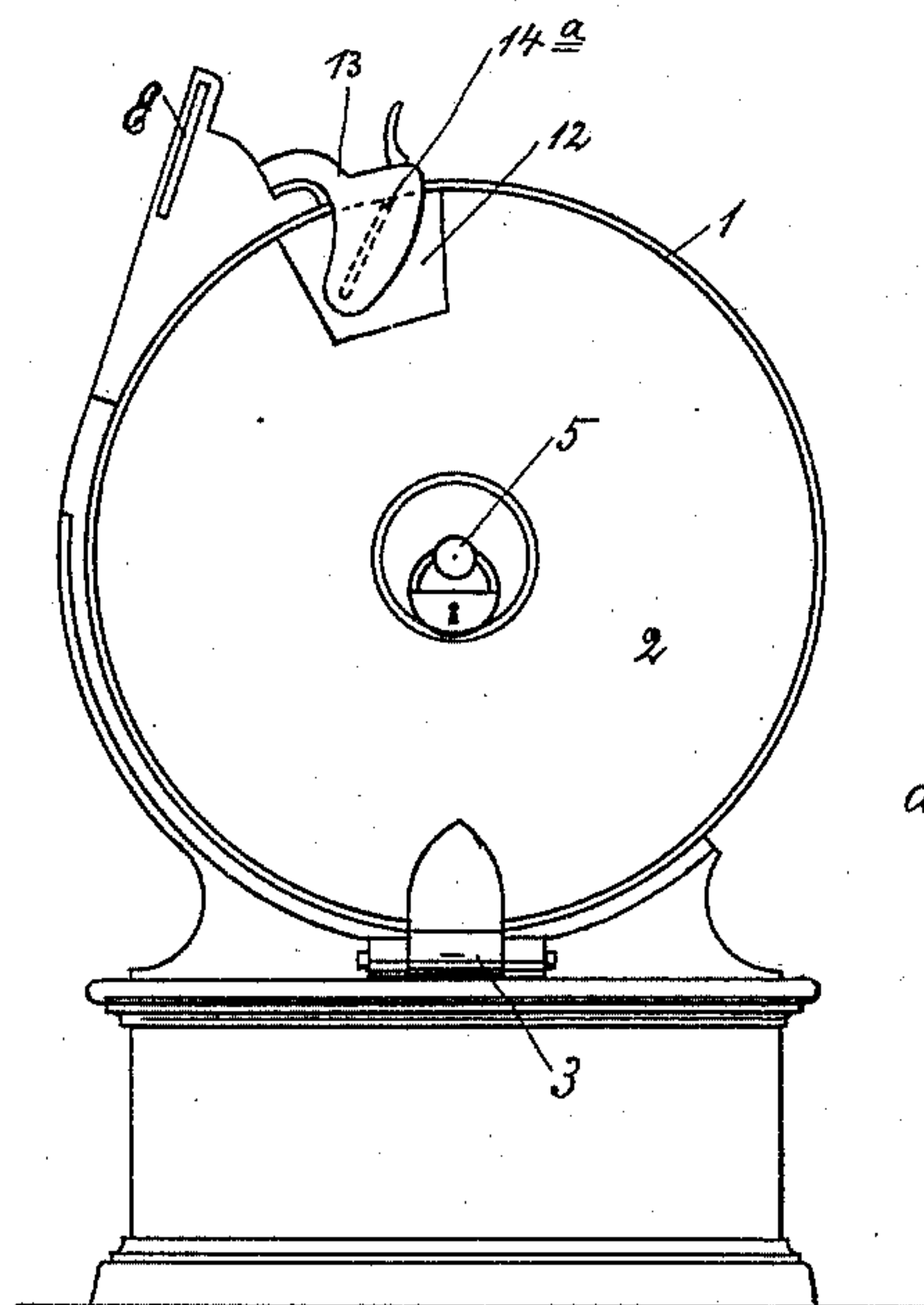


Fig. 1.

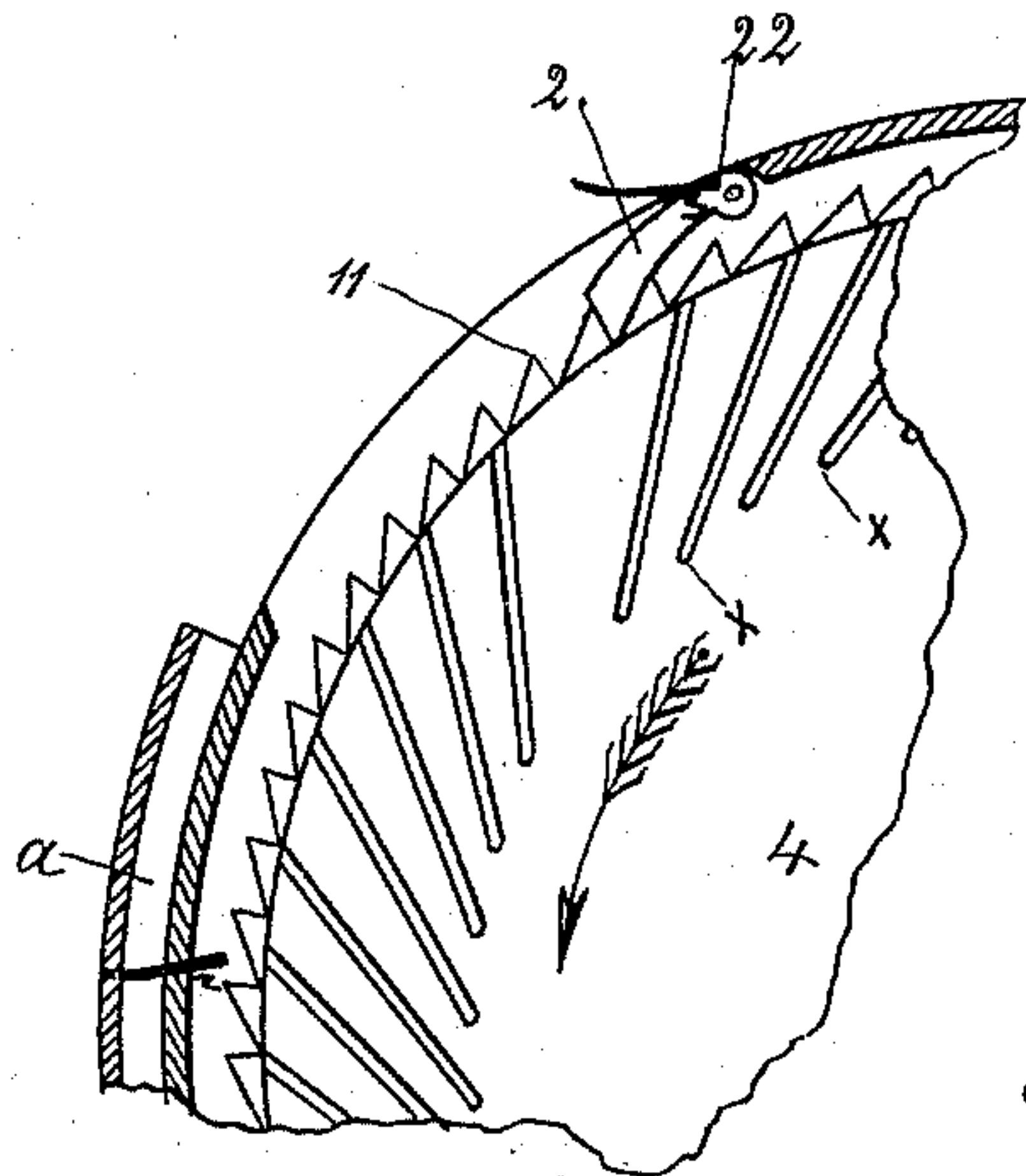


Fig. 3.

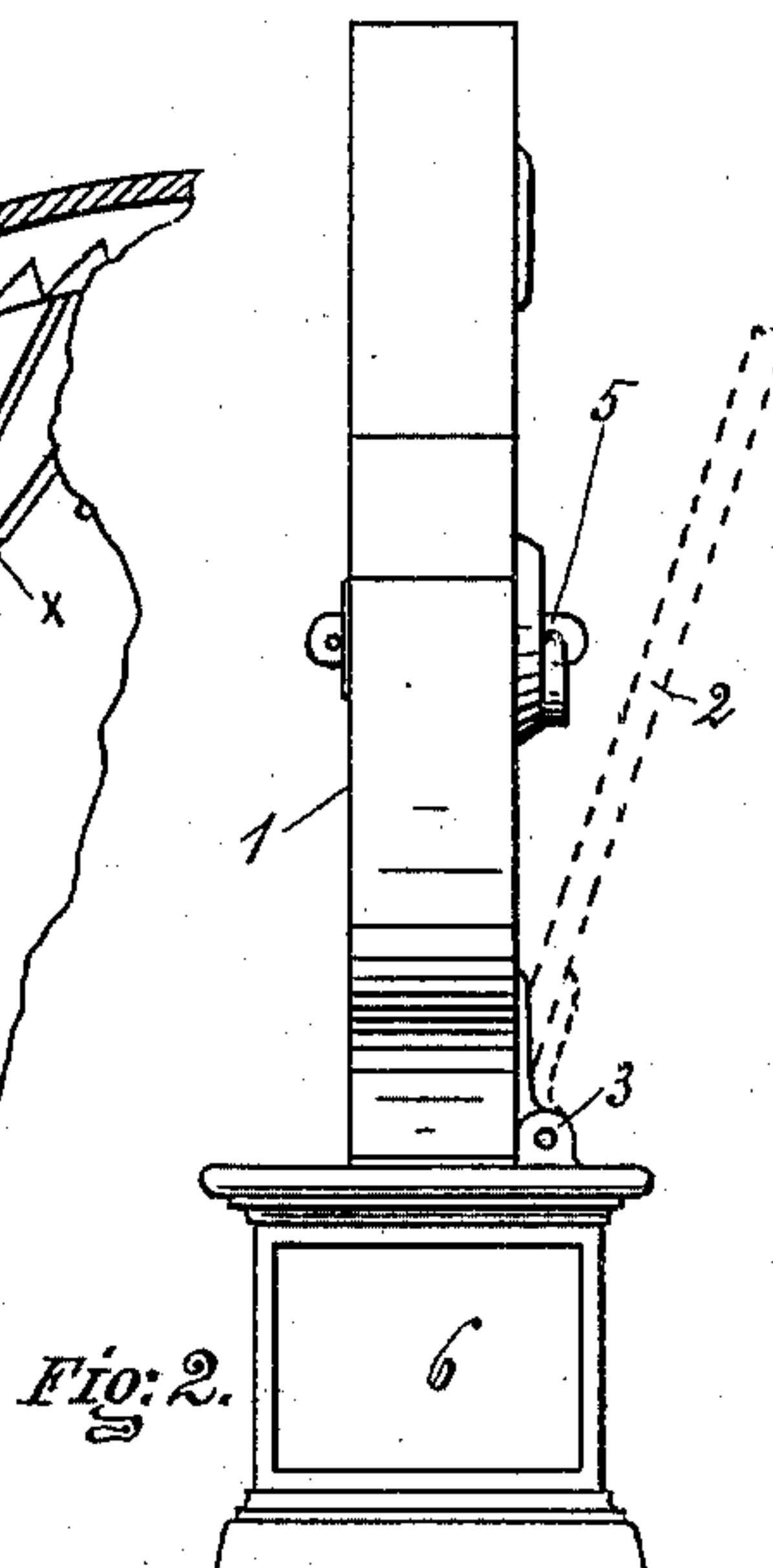


Fig. 2.

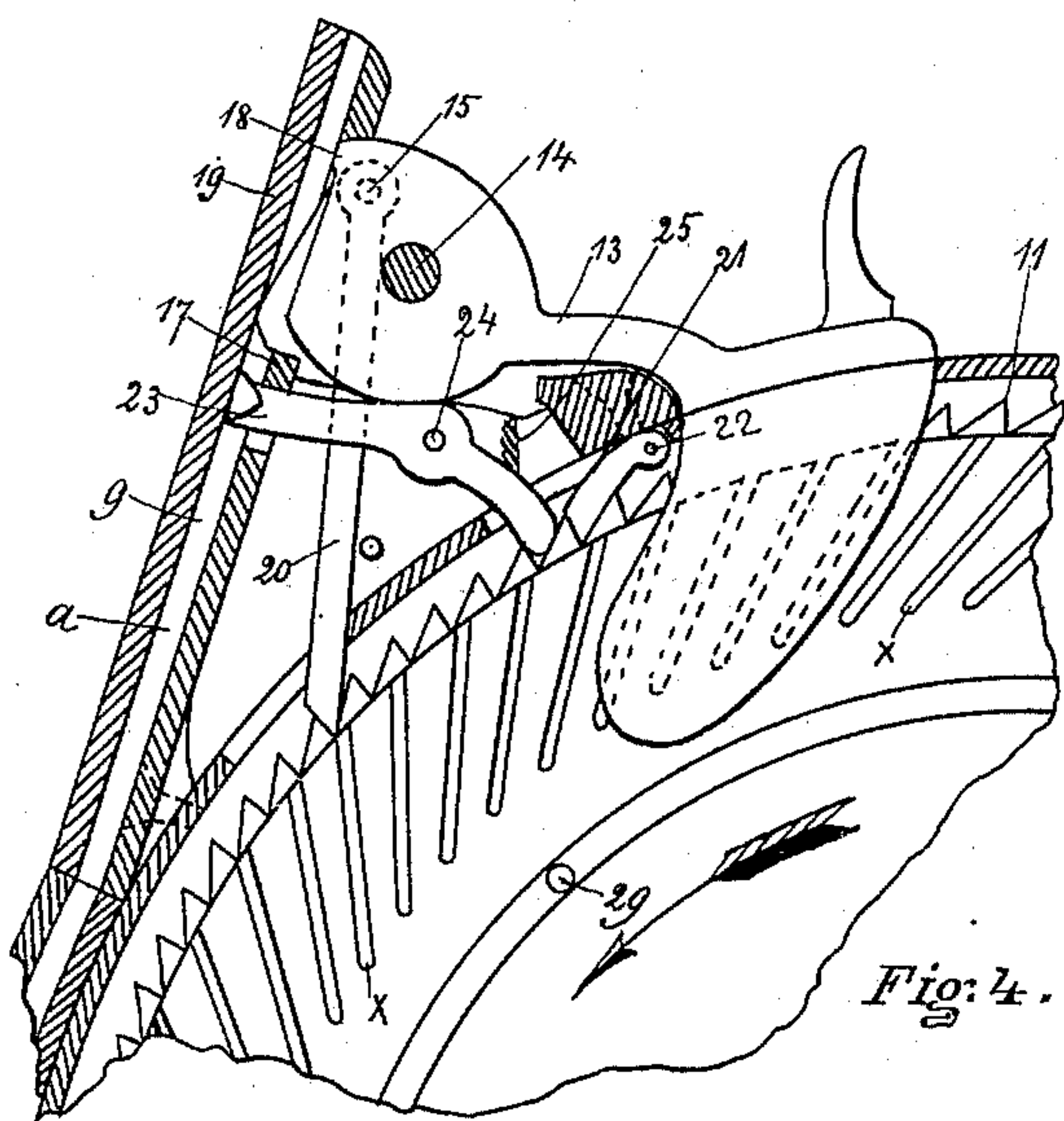


Fig. 4.

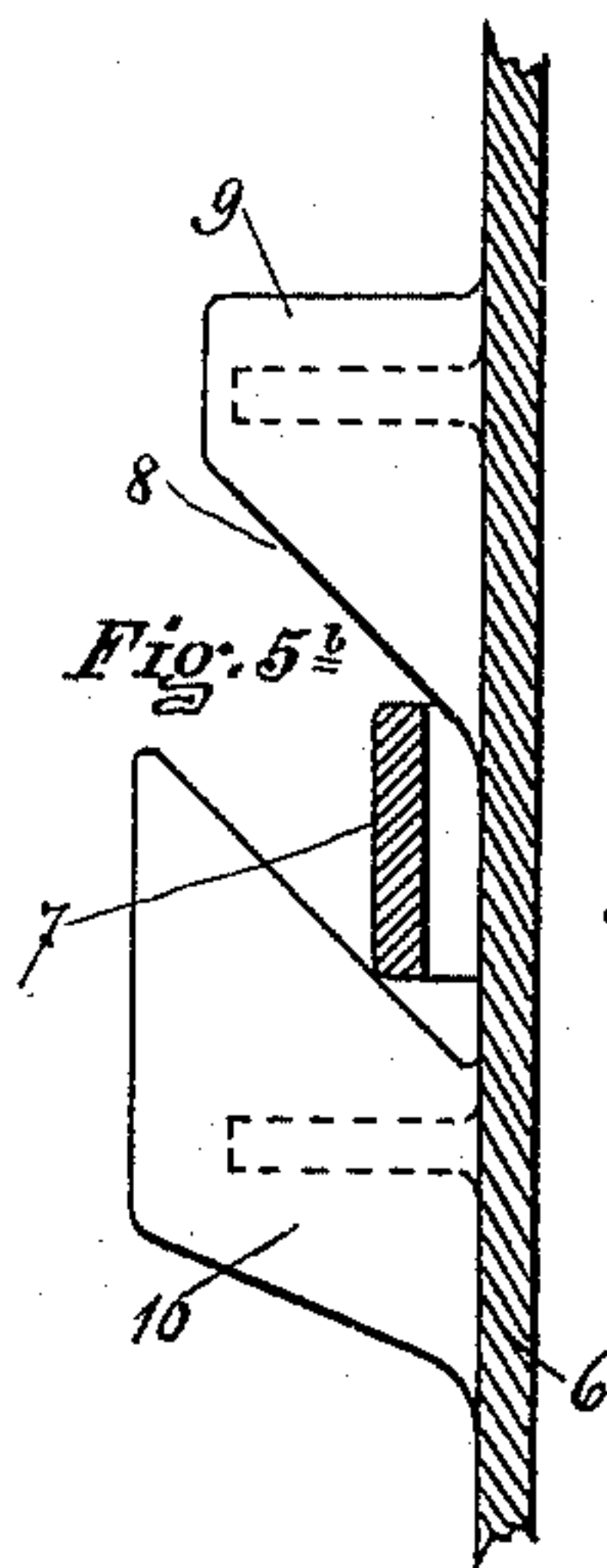


Fig. 5.

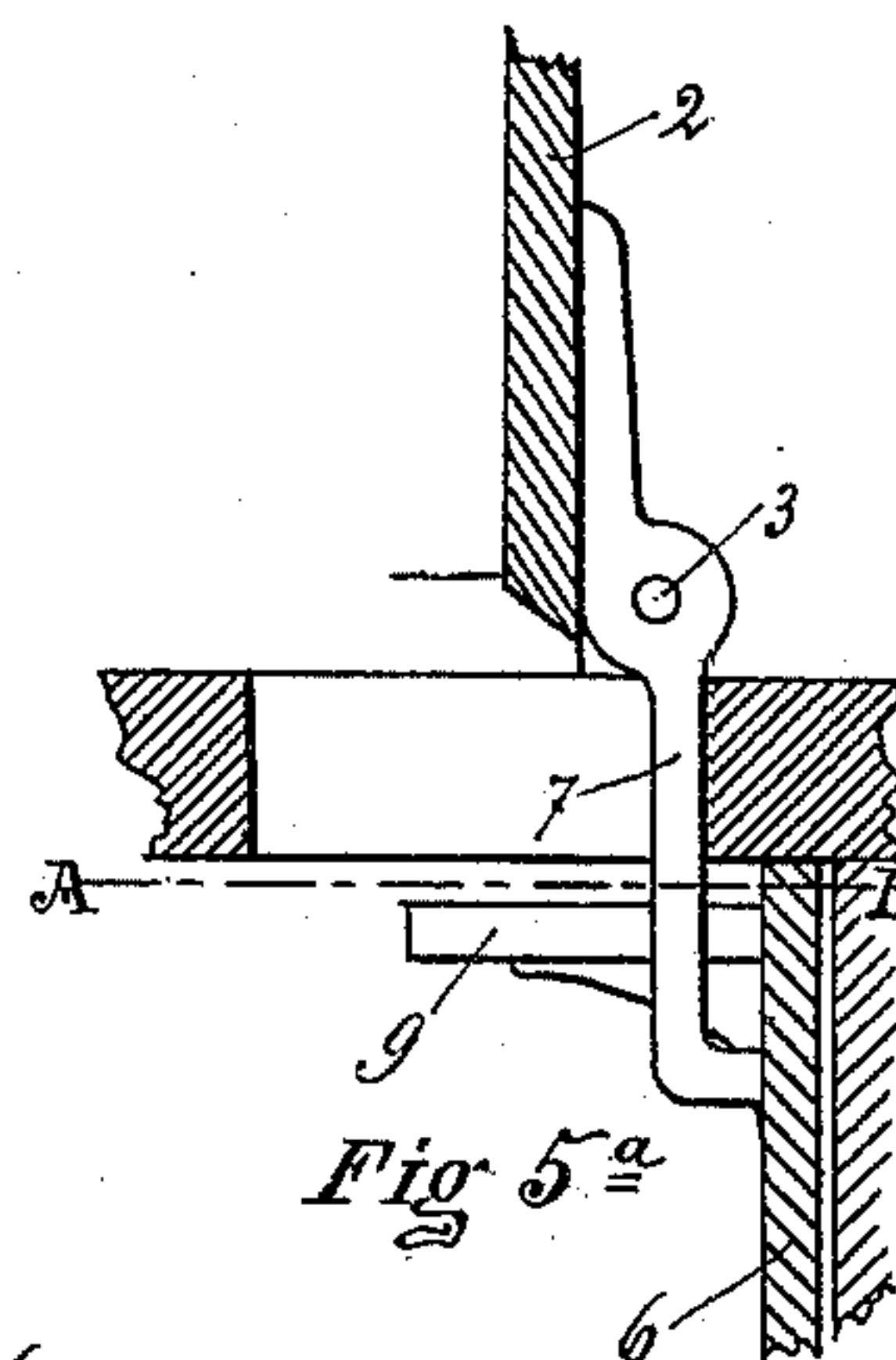


Fig. 5a.

WITNESSES.

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(No Model.)

C. L. WICKHAM.
VENDING MACHINE.

2 Sheets—Sheet 2.

No. 446,047.

Patented Feb. 10, 1891.

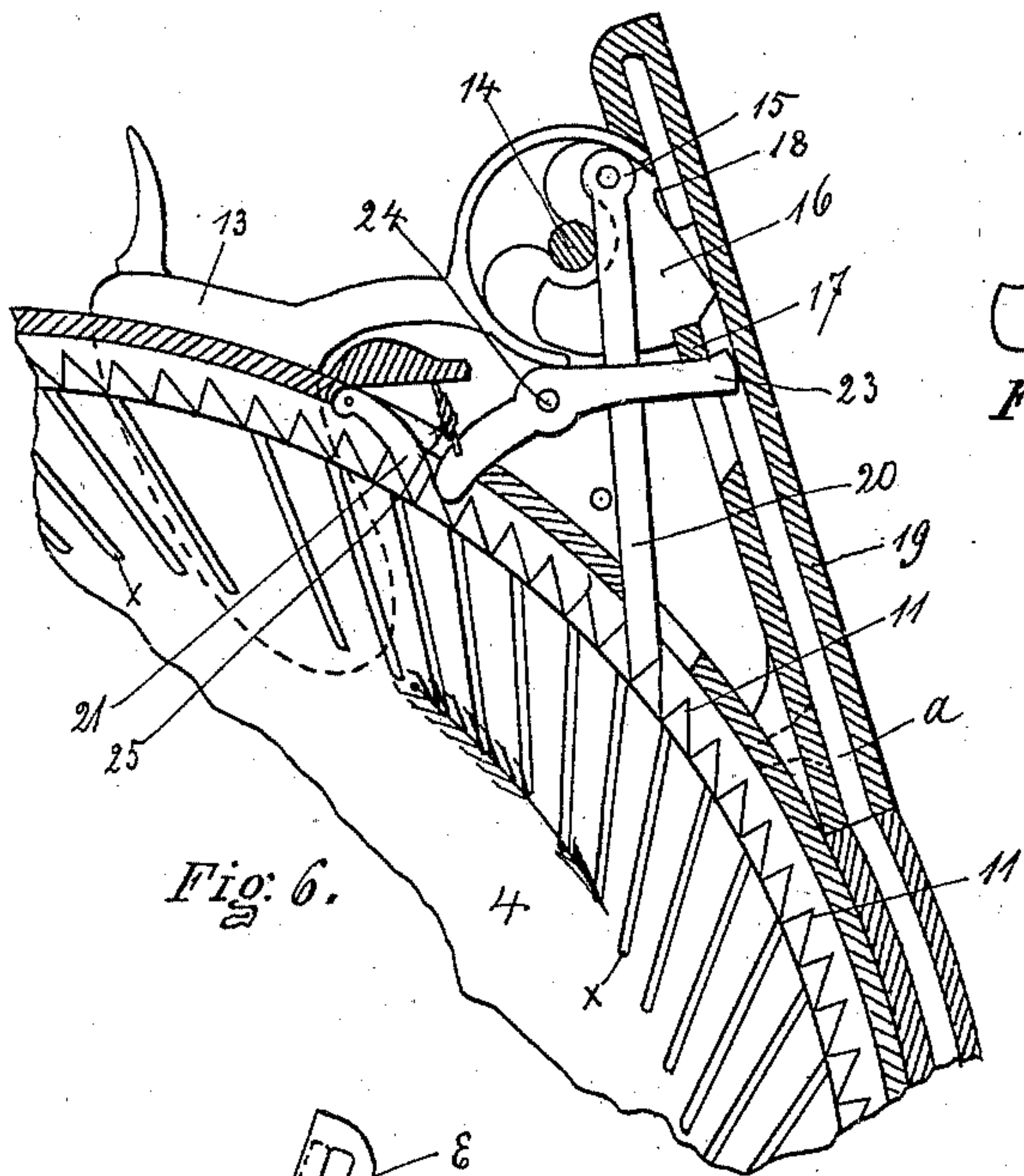


Fig. 6.

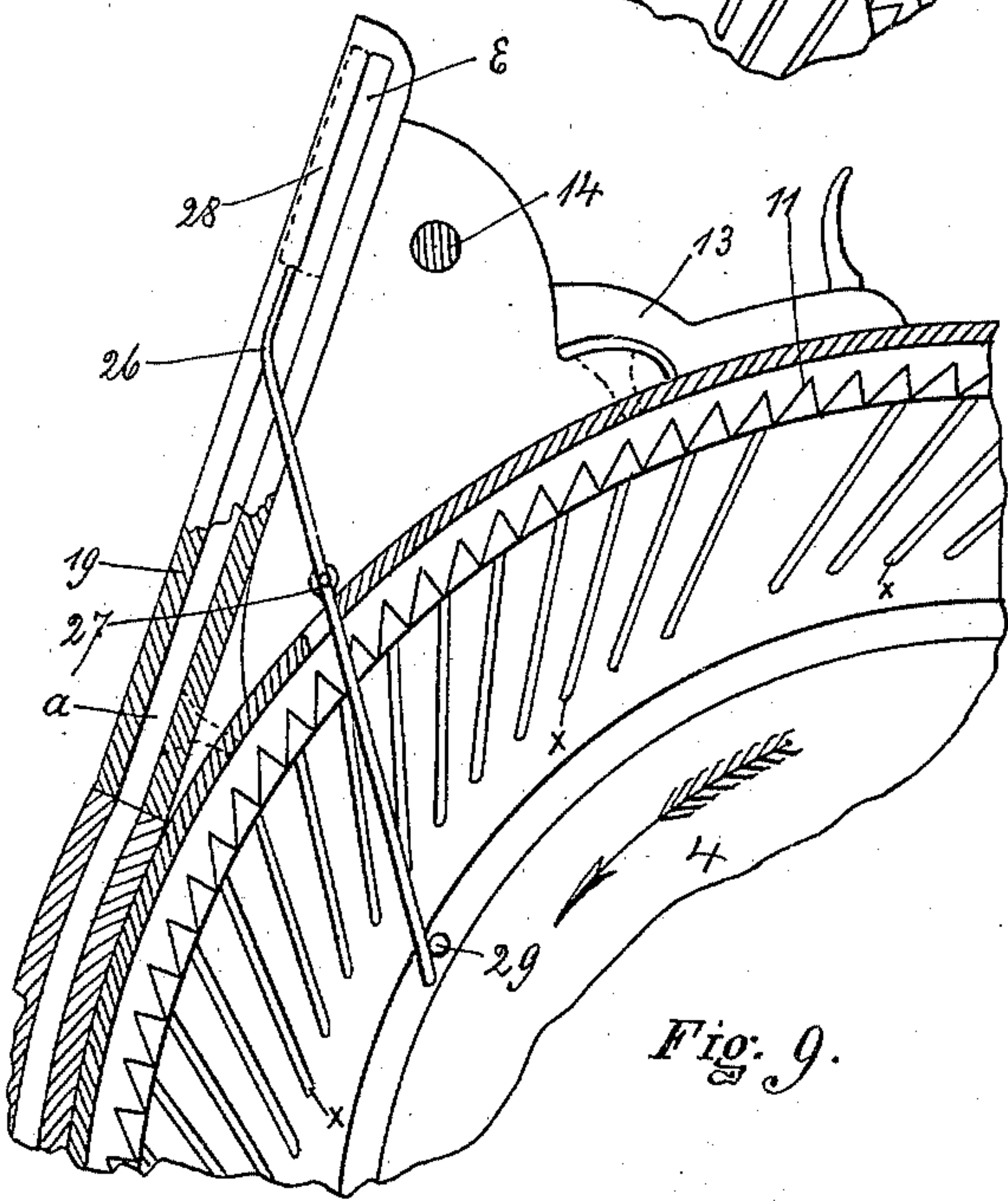


Fig. 9.

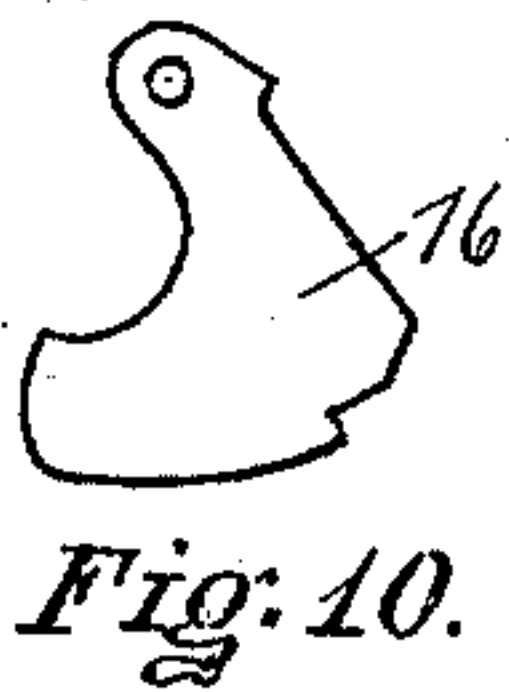


Fig. 10.

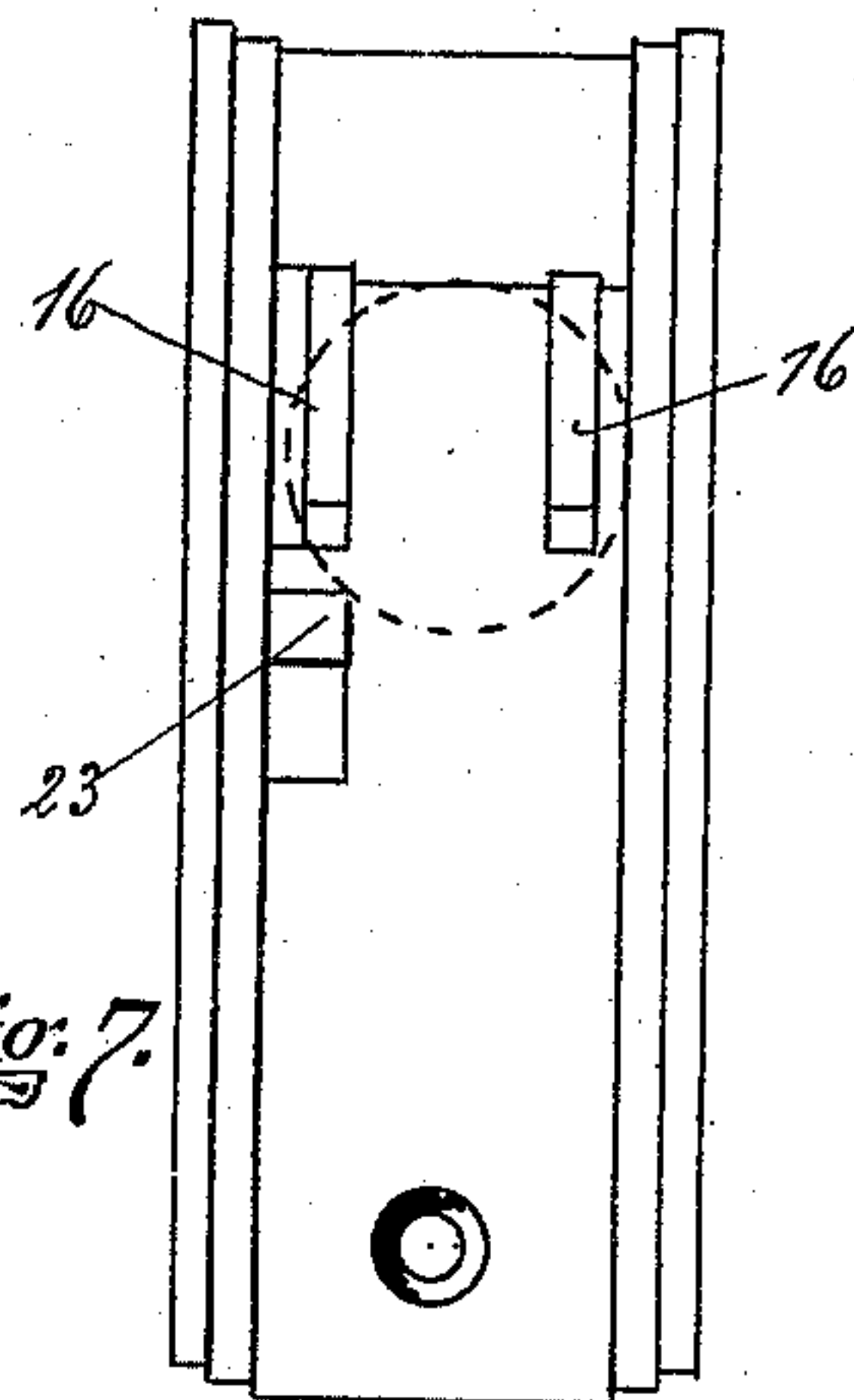


Fig. 7.

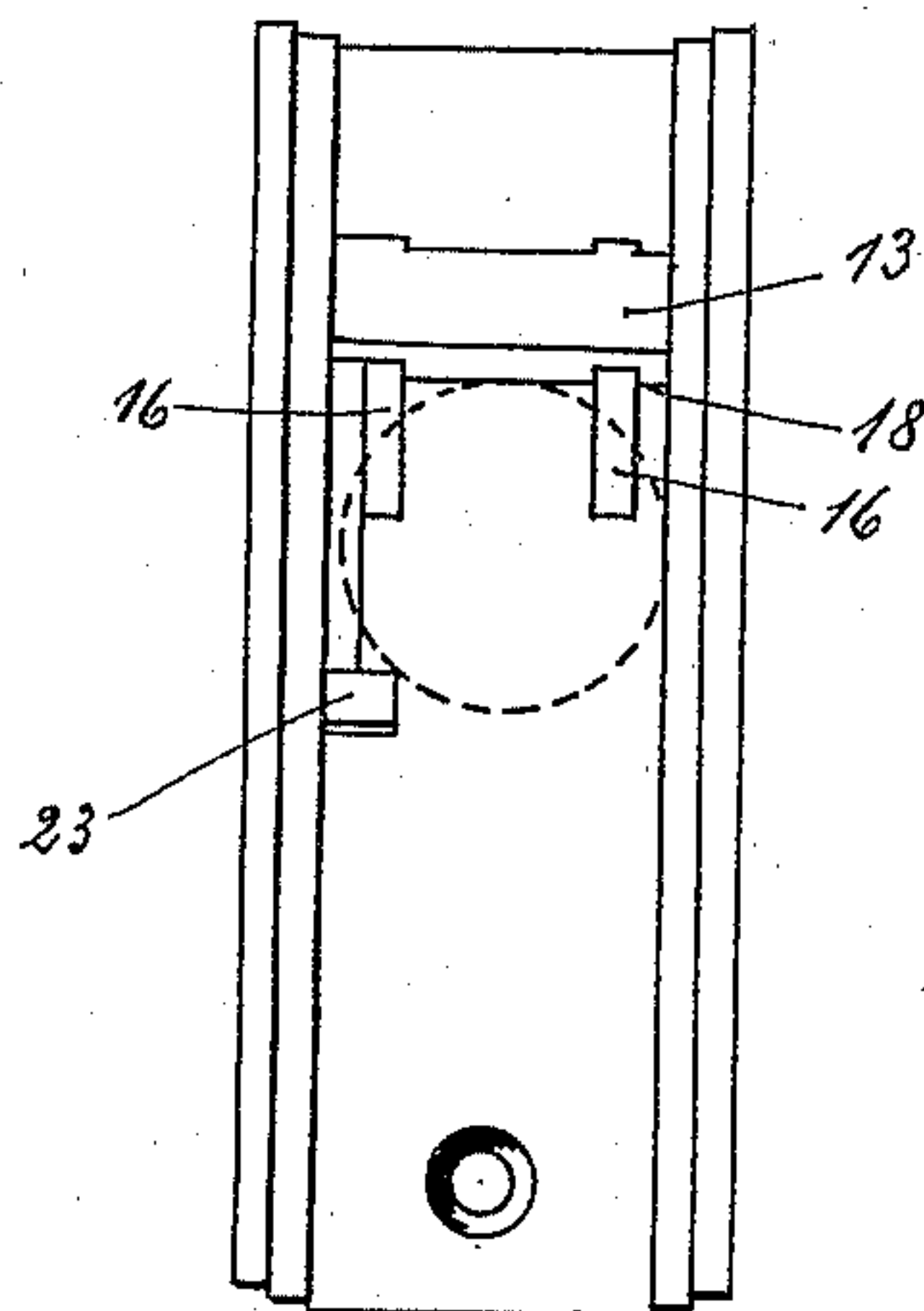


Fig. 8.

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UNITED STATES PATENT OFFICE.

CHARLES L. WICKHAM, OF UTICA, NEW YORK, ASSIGNOR OF ONE-HALF TO
HUGH WHITE, OF SAME PLACE.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 446,047, dated February 10, 1891.

Application filed August 4, 1890. Serial No. 360,914. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. WICKHAM, of the city of Utica, in the county of Oneida and State of New York, have invented certain
5 new and useful Improvements in Vending-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to a vending-machine,
15 and in the construction shown in the drawings the machine is more particularly intended for the purpose of vending postage-stamps.

In the drawings which accompany and form a part of this specification, and in which similar letters and figures of reference refer to like parts in the several views, Figure 1 shows a side view of my machine, being the side which is adapted to open to allow access to the machine, as hereinafter described. Fig.
25 2 is an end view of the machine as seen from the left of Fig. 1. Fig. 3 shows details of construction relating to the drum which carries the goods or stamps. Fig. 4 is a detail view and mostly in section of the mechanism
30 for receiving the coin, operating the drum, and presenting the stamp. Figs. 5^a and 5^b are detail views relating to mechanism for operating the receiving-drawer. Fig. 6 is a detail view, partially in section, of the same
35 parts shown in Fig. 4, taken from the opposite side. Fig. 7 shows a view of the parts shown in Fig. 4, taken from the left, the outer wall being removed. Fig. 8 shows the same parts shown in Fig. 7 in changed position.
40 Fig. 9 is a detail view showing mechanism for closing the slot through which the coin is inserted in the machine when the goods or stamps are exhausted. Fig. 10 shows a tumbler used in my device.

Referring more specifically to the reference-numerals marked on the drawings, 1 indicates the case, which is preferably circular in part to inclose the drum or disk, and is provided in the bottom with a pocket to receive the money-drawer. The circular portion is provided with a cover 2, which is

hinged to the case at 3, and is also circular in form to correspond with the carrying disk or drum, except a small portion at the top, through which the stamps are removed. The
55 door is provided with an opening, through which projects when in closed position one end of shaft or bearing 5, and the door is secured in position by a padlock passing through the hole in the shaft 5, as will be readily understood from Figs. 1 and 2.

6 is a drawer for receiving the coin which operates the machine.

The hinge of the door 2 has a downwardly-extending projection 7, which extends into
65 the pocket in which the drawer moves and is held, and is made to operate the drawer as follows: On the drawer is provided an inclined slot indicated by 8, formed of two projecting pieces 9 and 10 on the top of the one side of the
70 drawer. When the door 2 is open, the drawer may be closed until the projection 10 strikes the projection 7 of the hinge. Then, when the door 2 is closed, the projection 7, acting on the drawer in the incline 8, moves the drawer completely into closed position, so that the end of the drawer is flush with the face of the machine. In this construction the drawer cannot be readily tampered with or forced open. The carrying disk or drum 4 is provided with
80 a series of inclined pockets or chambers, indicated by *x x*, &c., in its periphery, which in the construction shown and described are designed to contain one or more postage-stamps. The disk or drum is also provided with a
85 series of teeth 11 at one side of its periphery, which are engaged by pawls or dogs hereinafter described for operating the drum or securing it in position. The drum or disk 4 is mounted upon shaft or bearing 5. On the
90 edge of the case is provided a removable piece 12 which overlaps the side of the disk and is provided with an inclined slot or opening 14^a, (shown in dotted lines in Fig. 1,) to correspond with the pockets in the periphery of the carrying-drum.

The stamps or articles to be vended are placed in the pockets *x x*, and as the device is operated the pockets *x* are presented successively opposite the slot 14^a in the case, in
100 which position the article contained in the chamber can be removed when the mechan-

ism hereinafter described will permit. A latch piece or cover 13 is provided, pivoted in the case at 14, which latch-piece is adapted to close the slot 14^a when in closed position. Pivoted to the latch-piece 13 at 15 is a tumbler 16, (shown in detail in Fig. 10,) which is adapted to engage at 17 on a portion of the case and prevent the movement of the latch-piece, when the tumblers are in their normal position. The tumblers are held in position by their own gravity, and one or more of them may be provided, two being shown in Fig. 7. The tumbler 16, when in its normal position, projects across the slot *a*, through which the coin moves as it enters and operates the machine. The pivotal end of the latch-piece is provided with a shoulder or ledge at 18, and the distance from the pivotal point to the outer edge of the ledge 18 is equal to the distance from the pivotal point 14 to the wall 19 on the outside of slot *a* through which the coin passes. Also pivoted to the latch 13 at point 15 is a pawl 20, which extends into the machine in suitable position to engage in ratchet-teeth 11 and operate the drum or disk, as hereinafter described.

21 is a dog pivoted at 22 to the case and having its free end engaging in the ratchet-teeth 11 and operating to prevent a backward movement of the disk or drum.

23 is a pawl or dog pivoted to the casing at 24 and adapted to engage in the ratchet-teeth of the disk and prevent the forward movement of the disk or drum, as hereinafter described. The pawl 23 is held in its normal position, which is shown in Figs. 4 and 6, by a spring 25, and is also provided with a projecting arm which projects into the slot or passage-way *a* through which the coin moves.

e indicates the opening where the coin for operating the machine is inserted, and is substantially of the size of the coin which it is intended to receive. The opening *e* communicates with the passage-way *a*.

26 indicates a lever-arm pivoted to the case at 27, which carries at one end a plate 28, adapted to close the opening *e* and the other end of the arm 26 extends into the machine in suitable position to be engaged by pin 29 and fixed in the drum at each revolution, the pin 29 operating the lever 26 and closing the opening *e*. The direction of the movement of the drum is indicated by the arrows in several of the figures.

The operation of the device is substantially as follows: The several pockets having been provided with one or more stamps or other articles which it is designed to vend by the machine, the cover and the drum having been placed in the proper starting position, which will be with the pin 29 just in advance of the lever 26, and the door or cover being closed and secured, as heretofore described, a coin is inserted through the opening *e* and drops into the slot *a*, and as it descends into the slot engages with the tumblers 16 and swings them out of the slot and toward the left, as

shown in Fig. 6, and so that they do not engage with the part 17 of the casing, in which position the latch-piece or cover 13 is released, and is free to be operated. As the coin descends into the slot *a* it is stopped by engaging with the end of lever 23, which projects into the slot *a*. When the latch-piece 13 is released, it is raised swinging on its pivotal point 14, and as it is so raised the ledge 18 engages the upper side of the coin and forces it down the slot *a* against the end of pawl 23 and the tension of spring 25, thus throwing pawl 23 out of engagement with the ratchet-teeth of the drum, and as the latch-piece 13 is further raised the pawl 20 engages with the ratchet-teeth 11 and carries the drum ahead the distance between the pockets or compartments therein and into such a position as to present one of the pockets or compartments *x* at the slot or opening 14^a in the case, in which position the stamp or article contained in the pocket or compartment can be readily removed by pressing the thumb or finger into the slot at the bottom and sliding it up the slot, forcing the stamp out of the top of the case. The slot 14^a extends not only down the side of the case but across the top the depth of the carrying disk or drum. As the disk is advanced in the position by the action of pawl 20 the end of pawl 23 engages upon the top of pawl 21, and the advancement of the disk causes both pawls 21 and 23 to be raised slightly, and the coin, which had heretofore been held in the slot *a* by projecting on the pawl 23 is released and continues its course down the slot or passage-way *a* into the drawer 6, provided for receiving it. When the stamp has been removed from the slot, the latch-piece 13 is allowed to assume its normal position, which it will do of its own gravity, in which position the several parts assume the positions shown in Figs. 6 and 4, and the machine is ready for a repetition of the process just described upon the insertion of another coin into the opening *e*. When the machine has sold all the stamps or articles with which it is furnished and when the last compartment has been presented under the slot 14^a, the pin 29 will operate upon the lever 26 and close the opening *e*, showing that the machine is "sold out." The outline of a coin is shown by dotted lines in Figs. 7 and 8. It will be observed that as the latch-piece is raised the pivotal end of the latch-piece, or more properly that part of it adjacent to the ledge or wall 18, crosses and closes the slot *a*, and by making the edge sharp it will cut a string or wire by which a coin might be suspended in the machine with an intention of picking the combination, or the action of the mechanism would be blocked, thus obviating all danger of operating the machine without the machine receiving and retaining the coin.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a vending-machine,

of a drum or disk having pockets to receive the article to be vended, a case inclosing the drum or disk, an opening in the case, opposite which the pockets are successively presented, a latch-piece or cover adapted to close the opening, and the connection between the drum or disk and latch-piece, whereby the disk is moved forward by the operation of the latch-piece, substantially as set forth.

2. The combination, in a vending-machine, of a drum or disk having pockets to receive the articles to be vended, a casing inclosing the drum and having an opening at which the pockets are successively presented, a slot for the passage of the coin, and a latch-piece or cover adapted to close the opening in the casing and having a portion adapted to close the coin passage-way when the latch-piece is operated, substantially as set forth.

3. In a vending-machine, the combination of a drum or disk having pockets, a casing having an opening opposite which the pockets are successively presented, a coin passage-way, a latch-piece adapted to close the opening in the casing and to close the coin passage-way when the latch-piece is operated, and tumblers operating to secure the latch-piece except when operated by the coin, substantially as set forth.

4. The combination, in a vending-machine, of a drum or disk having pockets, a casing inclosing the drum having an opening opposite which the pockets are successively presented, a latch-piece or cover adapted to close the opening in the casing, tumblers connecting with the latch-piece and operating to secure it except when they are operated by a coin in the coin passage-way, substantially as set forth.

5. The combination, in a vending-machine, of a drum or disk having pockets, a casing inclosing the drum having an opening opposite which the pockets are successively presented, a swinging latch-piece adapted to close the opening, a coin passage-way, tumblers operating to secure the latch-piece and project-

ing into the coin passage-way, and a pawl or connection between the latch-piece and drum, substantially as set forth.

6. The combination, in a vending-machine, of a drum or disk having pockets, a casing inclosing the drum and having an opening opposite which the pockets are successively presented, a coin passage-way across which a portion of the latch-piece is adapted to be projected as it is operated, the tumblers for securing the latch-piece, a connecting-pawl between the drum and latch-piece, and a pawl pivoted in the casing and engaging the drum and having an arm projecting into the coin passage-way, substantially as set forth.

7. The combination, in a vending-machine, of a vending mechanism, an inclosing casing and receiving-drawer, a hinged cover for the casing having a projection adapted to engage inclined faces provided on the drawer and operate the drawer, substantially as set forth.

8. The combination, in a vending-machine, of a disk or drum provided with pockets, an inclosing casing, a slot or opening in the casing, opposite which the pockets are successively presented, a cover for the opening, pivoted in the case, a coin passage-way across which a portion of the cover or connecting part is adapted to be projected as the cover is opened, a tumbler connecting with the cover projecting into the passage-way and operating to secure the cover, a pawl pivoted in the casing and engaging the drum and having an arm projecting into the coin passage-way below the tumblers, and pawl pivoted to the cover and operating the drum, and a receiving-drawer in the casing, to which the coin passage-way leads, all combined substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

CHARLES L. WICKHAM.

Witnesses:

JOSIAH PERRY,
M. E. ROBINSON.