

L. L. MOORE.

POLE TIP.

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970,081.

Patented Sept. 13, 1910.

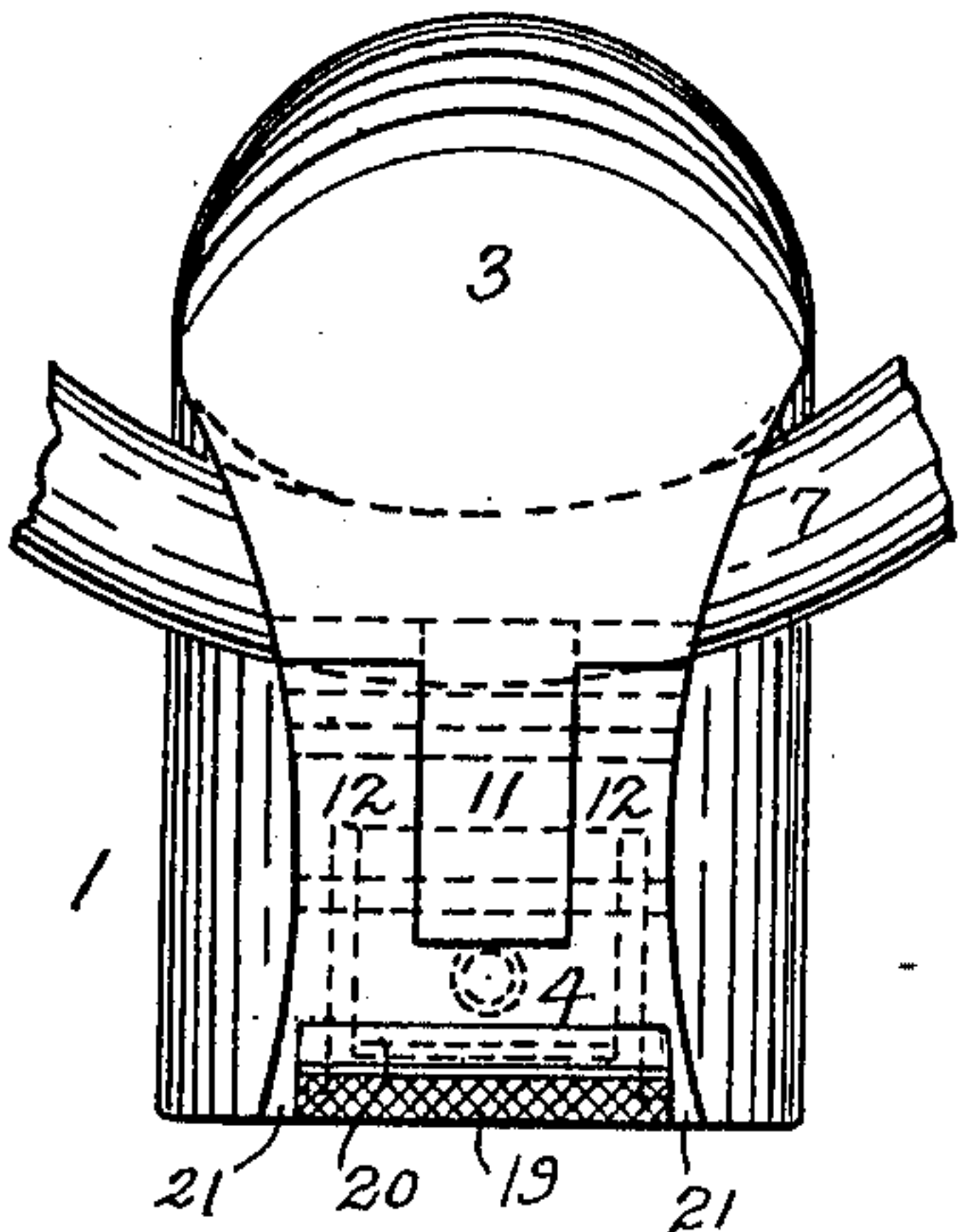


Fig. 2.

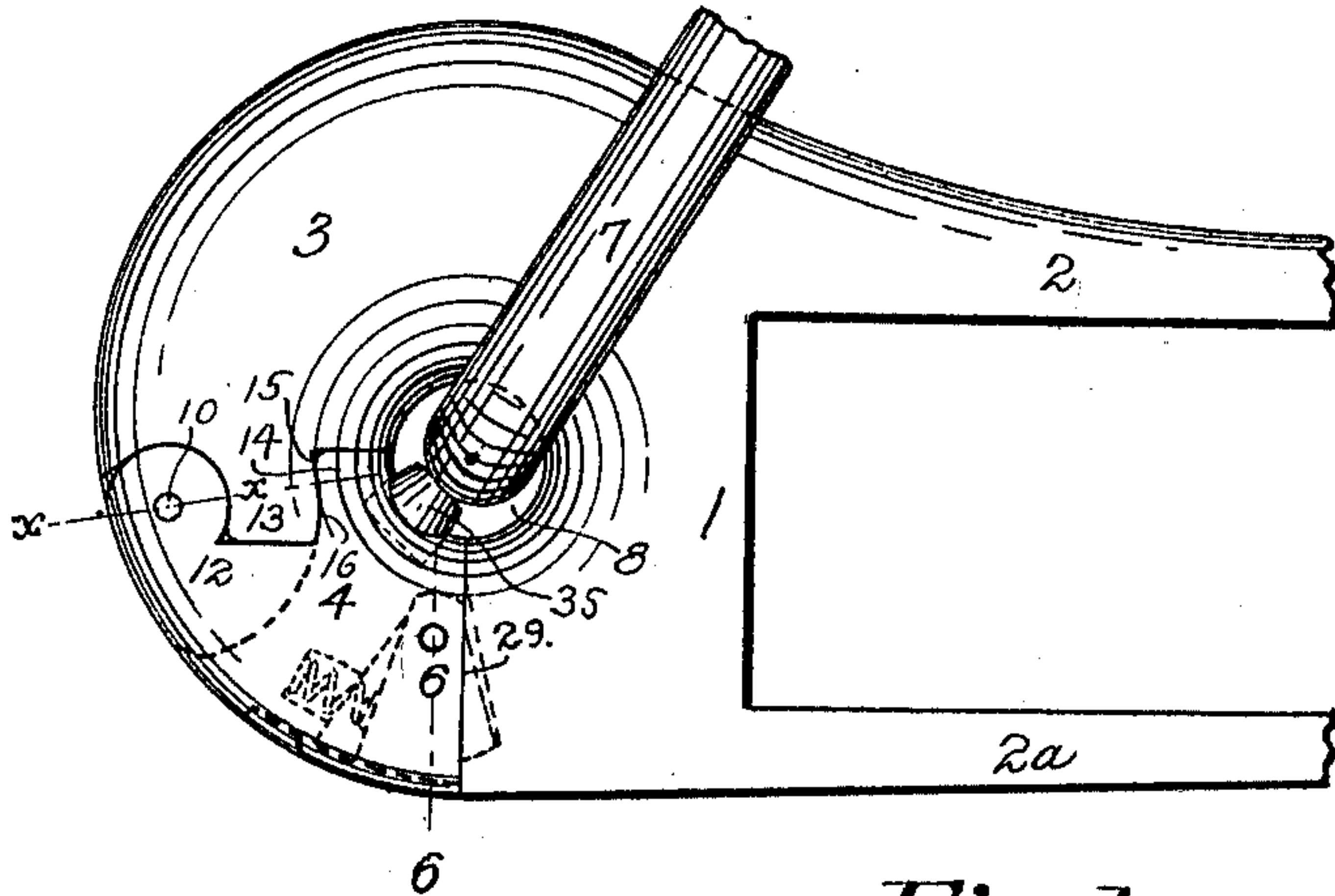


Fig. 1.

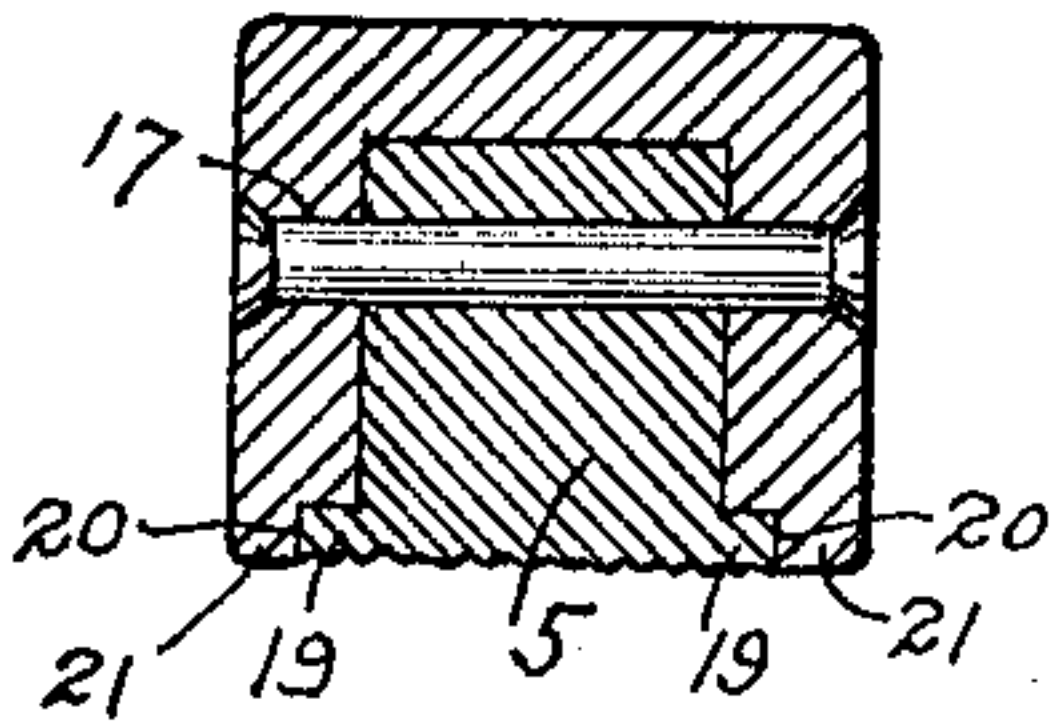


Fig. 6.

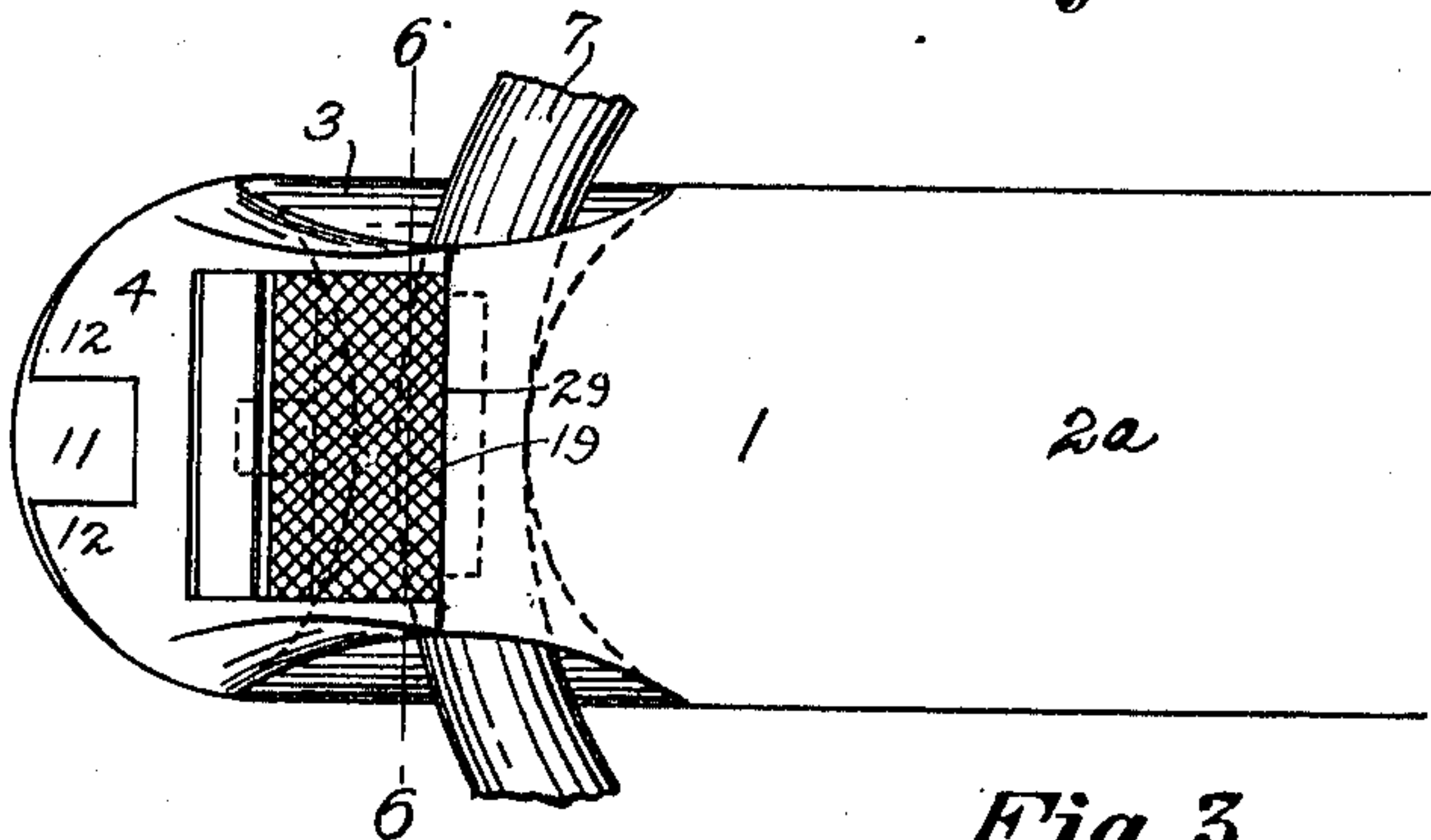


Fig. 3.

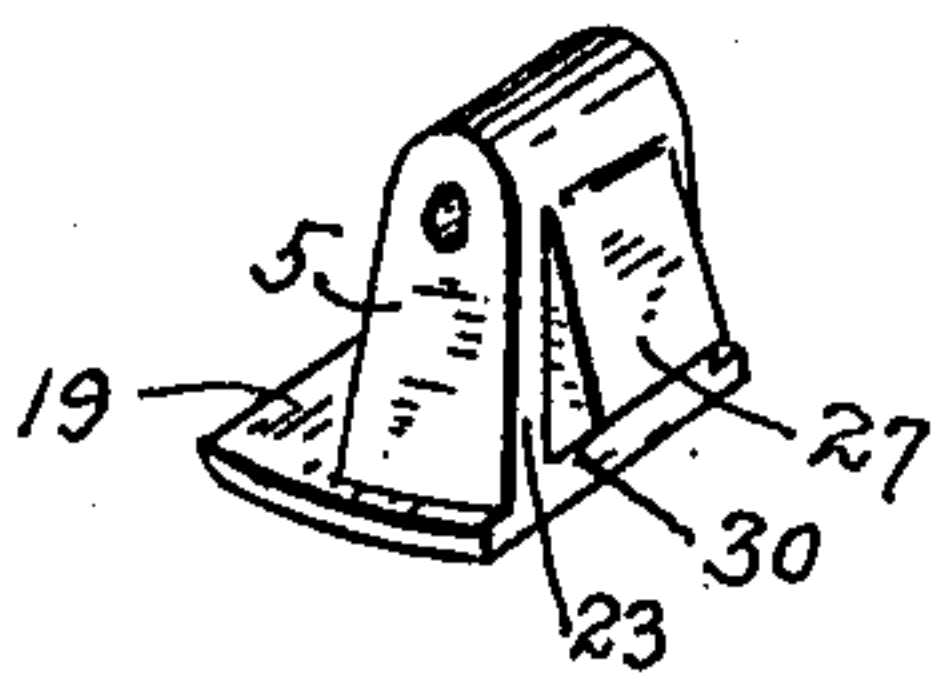


Fig. 5.

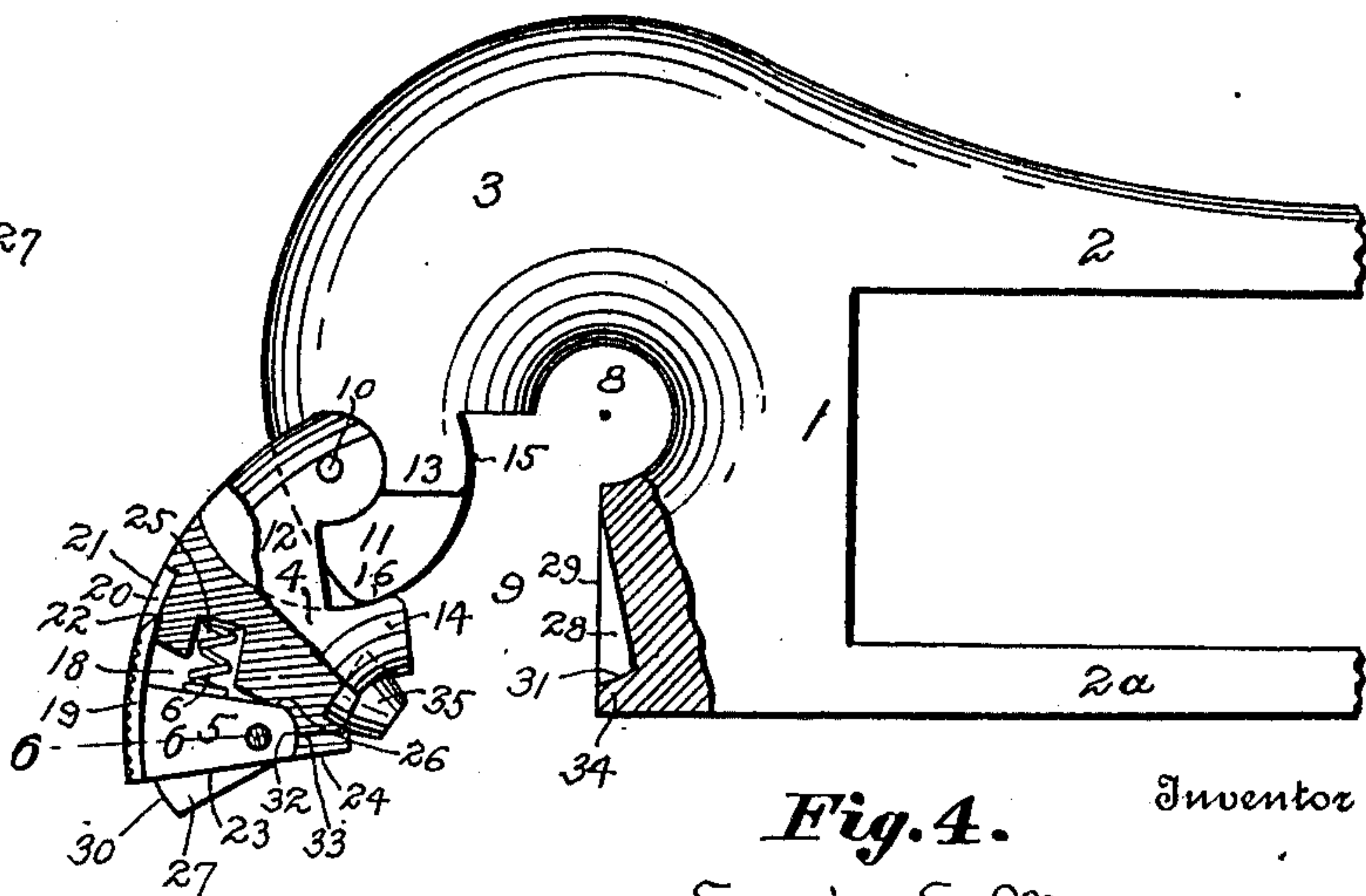


Fig. 4.

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POLE-TIP.

970,081.

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To all whom it may concern:

Be it known that I, LEWIS L. MOORE, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Pole-Tips, of which the following is a specification.

The invention relates to a pole tip having a ring formed on its forward end adapted to receive and hold the ring of a neck yoke; and the object of the improvements is to detach and hinge a portion of the pole-tip ring so that the same may be opened as a gate to permit the entrance and removal of the neck-yoke ring, and to provide a latch for positively locking the gate when closed.

Important features of the invention relate to the form and outline of the pole-tip ring and its gate, which are made without projections so that the straps of a harness will not be caught, and without objectionable recesses so that dirt and snow or other refuse will not be received and retained; and to the structure of the parts, which are provided with abutting shoulders to receive the thrust of the neck yoke when the gate is closed and protect the respective pivots from the same.

A preferred embodiment of the invention, thus briefly set forth, is illustrated in the accompanying drawing, forming part hereof, in which—

Figure 1 is a side elevation of the pole-tip ring with the neck-yoke ring therein and the gate closed; Fig. 2, a front elevation of the same; Fig. 3, an under-plan view of the same; Fig. 4, a side elevation of the pole tip ring with the gate open; Fig. 5, a detached perspective view of the gate latch; and Fig. 6, a sectional view of the gate and latch on line 6—6, Figs. 1, 3 and 4.

Similar numerals refer to similar parts throughout the drawing.

The pole tip 1 is provided with the rearwardly extending plates 2 and 2^a adapted to be secured to the upper and lower sides of a vehicle pole, not shown, and on the forward end of the tip is formed or secured the body portion 3 of a vertical ring, which is provided with the detached hinged portion or gate 4, which gate is adapted to be locked by the latch 5, preferably held in normal position by the spring 6. The neck-yoke ring 7 is adapted to be passed into and removed

from the eye 8 of the pole-tip ring through the gateway 9 when the gate is open, as shown in Fig. 4, and to be retained in the eye by the gate when the same is closed, as shown in Figs. 1, 2 and 3.

The gate 4 preferably comprises the forward lower quadrant of the pole-tip ring and is hinged at its forward end to the body 3 of the ring by the transverse pivot 10. The hinge parts include the preferably central longitudinal flange 11 on the body portion and the laterally contiguous longitudinal flanges 12 on the gate-portion, through which flanges the pivot 10 extends; and the transverse flange 13 on the body portion inside the hinge-pivot and the transverse flange 14 on the inner side of the gate adapted to close against the body flange. The inner face 15 of the transverse body flange and the outer face 16 of the transverse gate flange are curved concentric with the axis of the hinge-pivot 10, and preferably extend squarely across the plane $x-x$ passing through the axes of the ring and the pivot, so that the gate-lug transmits to the body-lug all the thrusts of the neck-yoke ring which would otherwise be imposed on the hinge-pivot, and the contiguous longitudinal flanges serve to protect the pivot from all lateral strains of the gate.

The latch 5 is adapted to oscillate on the transverse pivot 17 in the recess 18 provided in the rear end of the gate, the opening of which recess is completely closed by the face plate 19 on the outer end of the latch, which face plate is located entirely within and is adapted to operate in the countersink 20 provided in the lower side of the gate inside the lateral ribs 21 thereof. The face of the plate 19 is preferably roughened or gnarled to increase the adhesion of the thumb or finger by which the latch is intended to be operated, and the forward edge thereof is preferably beveled to the comparatively sharp inner edge 22, which serves to cut under and expel any dirt or other refuse which may find lodgment in the forward portion of the countersink when the gate and latch are closed.

The latch 5 is normally pushed rearward to bring its rear side 23 in the plane of the rear end 24 of the gate, by action of the spring 6 which abuts the forward side of the latch and preferably extends into the

recess 25 in the body of the gate; and the latch is stopped in this position by the abutment of the inner side of its upper end against the shoulder 26 formed in the gate.

5 The wedge-shaped lock lug 27 protrudes from the rear side of the latch and is adapted to enter the corresponding recess 28 formed in the adjacent end 29 of the body portion of the pole-tip ring, against which

10 end the rear end of the gate is adapted to close. The lower end 30 of the lock lug is curved concentric with the axis of the latch pivot 17, and the corresponding end 31 of the recess 28 is similarly shaped to form an

15 abutment for the curved end of the lock lug; and the upper end 32 of the latch 5 is likewise formed curved concentric with the latch-pivot axis and operates against the similarly shaped inner face 33 of the recess

20 18, thus forming a positive abutment for the latch: whereby all the downward thrusts of the neck-yoke ring against the inner side of the gate are transmitted through the latch and its lug to the transverse abutment

25 flange 34 formed in the body portion of the pole-tip ring below the lock-lug recess 28, and the latch pivot is protected from the same. It is evident that the lock-lug will automatically engage and be retained in the

30 corresponding recess by action of the latch-spring when the gate is closed, and that the latch may be opened by a rotation on its pivot which is conveniently accomplished by action of the thumb or finger applied

35 to the gnarled face plate. And finally, the parts are so proportioned that the neck-yoke ring approximately fills the eye of the pole tip ring, and the resilient cushion 35 is preferably secured on the inner side of the

40 gate and is adapted to press and hold the neck-yoke ring against the opposite side when the gate is closed, thus preventing any rattling of the same in the eye.

I claim:

45 1. A pole tip having a ring formed thereon including a body portion and a hinged gate portion adapted to receive a neck-yoke ring, the hinge ends of the body and gate portions including laterally contiguous longitudinal flanges on the outer side, a trans-

50 verse pivot through the longitudinal flanges, a transverse flange on the body inside the pivot and a transverse flange on the inner side of the gate adapted to close against the

55 inner side of the transverse body flange, the abutting sides of the transverse flanges being arranged to protect the pivot from the thrusts of the neck-yoke ring.

60 2. A pole tip having a ring thereon including a body portion and a hinged gate portion, the hinge ends of the body and gate portions including laterally contiguous longitudinal flanges on the outer side, a trans-

65 verse pivot through the longitudinal flanges, a transverse flange on the body inside the

pivot and a transverse flange on the inner side of the gate adapted to close against the inner side of the transverse body flange, the abutting sides of the transverse flanges being extended squarely across the plane passing through the ring and pivot axes. 70

3. A pole tip having a ring thereon including a body portion and a hinged gate portion, the hinge ends of the body and gate portions including laterally contiguous longitudinal flanges on the outer side, a trans-

75 verse pivot through the longitudinal flanges, a transverse flange on the body inside the pivot and a transverse flange on the inner side of the gate adapted to close against the inner side of the transverse body flange, the abutting sides of the transverse flanges being curved concentric with the pivot axis. 80

4. A pole tip having a ring formed thereon including a body portion and a hinged gate portion adapted to receive a neck-yoke ring and having recesses in their free ends, a transversely pivoted latch in the gate recess having a lock lug on its side adapted to engage in the body recess, there being an

85 abutment in the gate for the inner end of the latch and an abutment in the body for the outer end of the lock lug adapted to protect the latch pivot from the thrusts of the neck-yoke ring, with a countersink in

90 the gate and a face plate on the latch adapted to operate in the countersink and to close the opening of the recess. 95

5. A pole tip having a ring formed thereon including a body portion and a hinged gate portion adapted to receive a neck-yoke ring and having recesses in their free ends, a transversely pivoted spring latch in the gate recess having a lock lug on its side adapted to engage in the body recess, there being an

100 abutment in the gate for the inner end of the latch and an abutment in the body for the outer end of the lock lug adapted to protect the latch pivot from the thrusts of the neck-yoke ring. 110

6. A pole tip having a ring formed thereon including a body portion and a hinged gate portion adapted to receive a neck-yoke ring and having recesses in their free ends, a transversely pivoted latch in the gate recess having a lock lug on its side adapted to engage in the body recess, there being an

115 abutment in the gate for the inner end of the latch and an abutment in the body for the outer end of the lock lug adapted to protect the latch pivot from the thrusts of the neck-yoke ring. 120

7. A pole tip having a ring formed thereon including a body portion and a hinged gate portion with recesses in their free ends, a transversely pivoted latch in the gate recess having a lock lug on its side adapted to engage in the body recess, with an abutment in the gate for the inner end of the latch and an abutment in the body for the 130

outer end of the lock lug, both ends and abutments being curved concentric with the pivot axis.

5 8. A pole tip having a ring thereon including a body portion and a hinged gate portion forming an eye adapted to receive a neck-yoke ring, a cushion on the inner side of one portion adapted to press the neck-yoke ring against the other portion of the
10 eye when the gate is closed, and a latch adapted to lock the gate when closed.

9. A pole tip having a ring thereon including a body portion and a hinged gate
15 portion forming an eye adapted to receive a neck-yoke ring, and a cushion on the inner

side of the gate adapted to press the neck-yoke ring against the body portion of the eye when the gate is closed.

10. A pole tip having a ring thereon including a body portion and a hinged gate 20 portion forming an eye adapted to receive a neck-yoke ring, and a cushion on the inner side of one portion adapted to press the neck-yoke ring against the other portion of the eye when the gate is closed.

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Witnesses:

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