

No. 826,609.

PATENTED JULY 24, 1906.

M. B. REACH.  
GYMNASIUM APPARATUS.  
APPLICATION FILED DEC. 3, 1904.

4 SHEETS—SHEET 1.

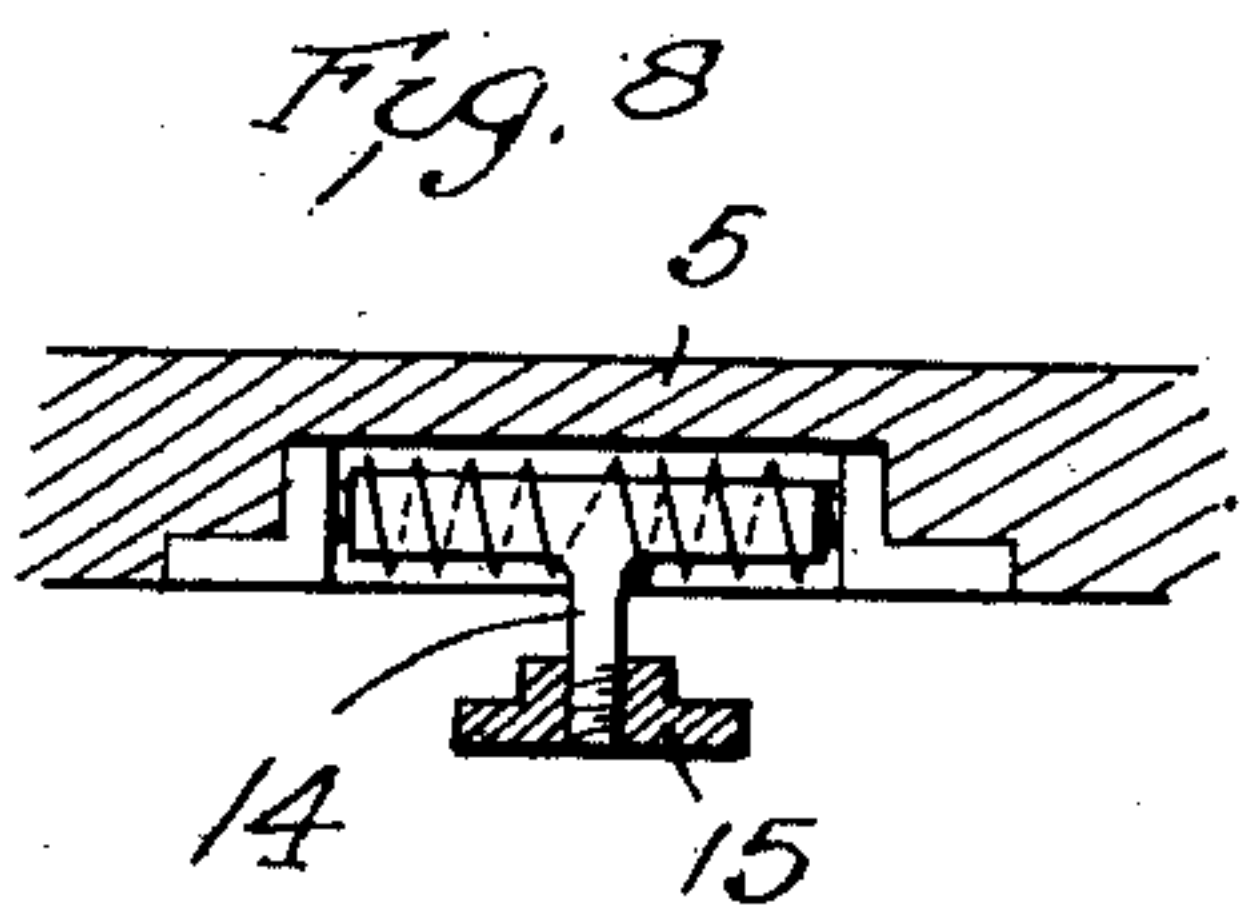
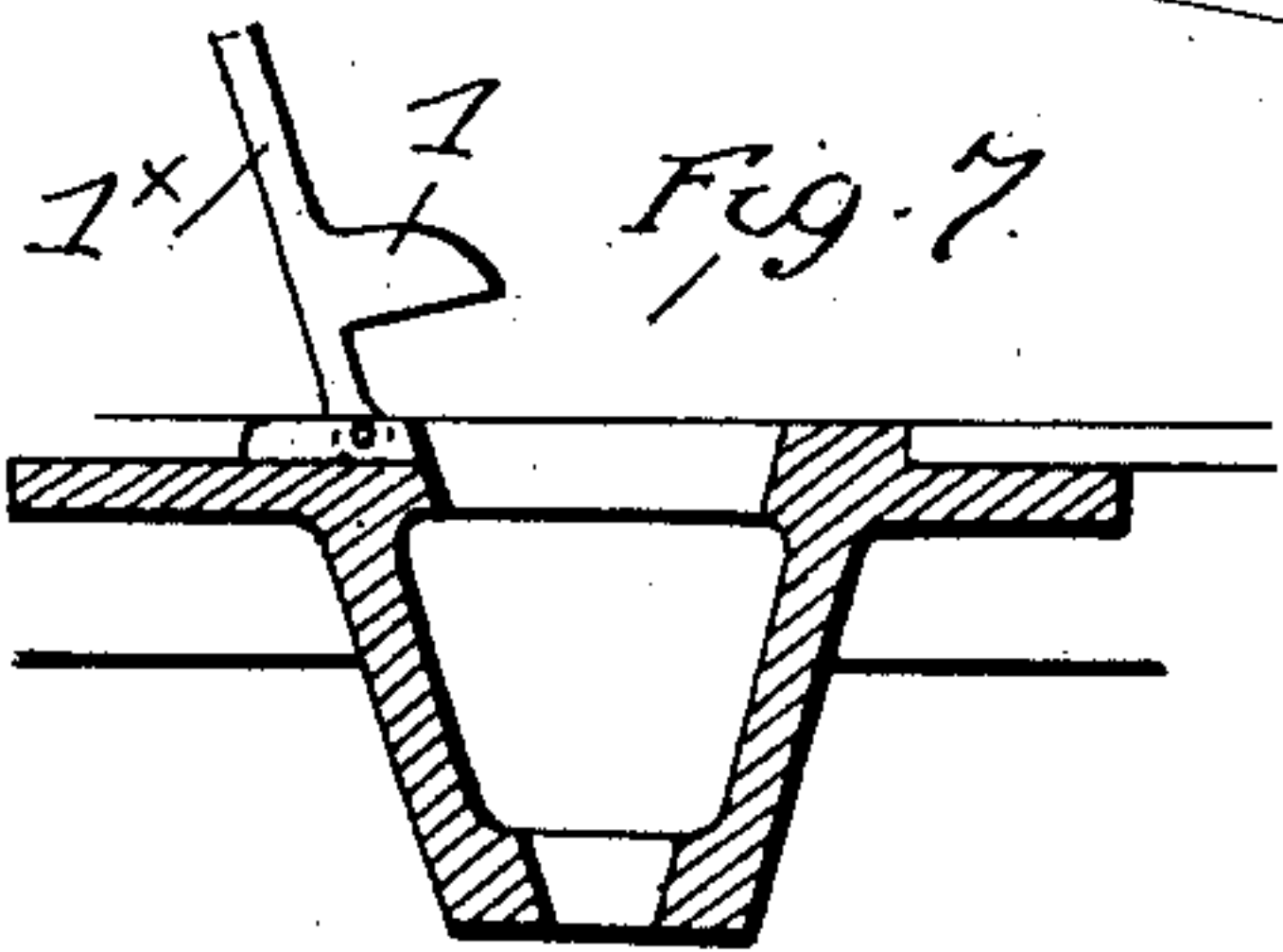
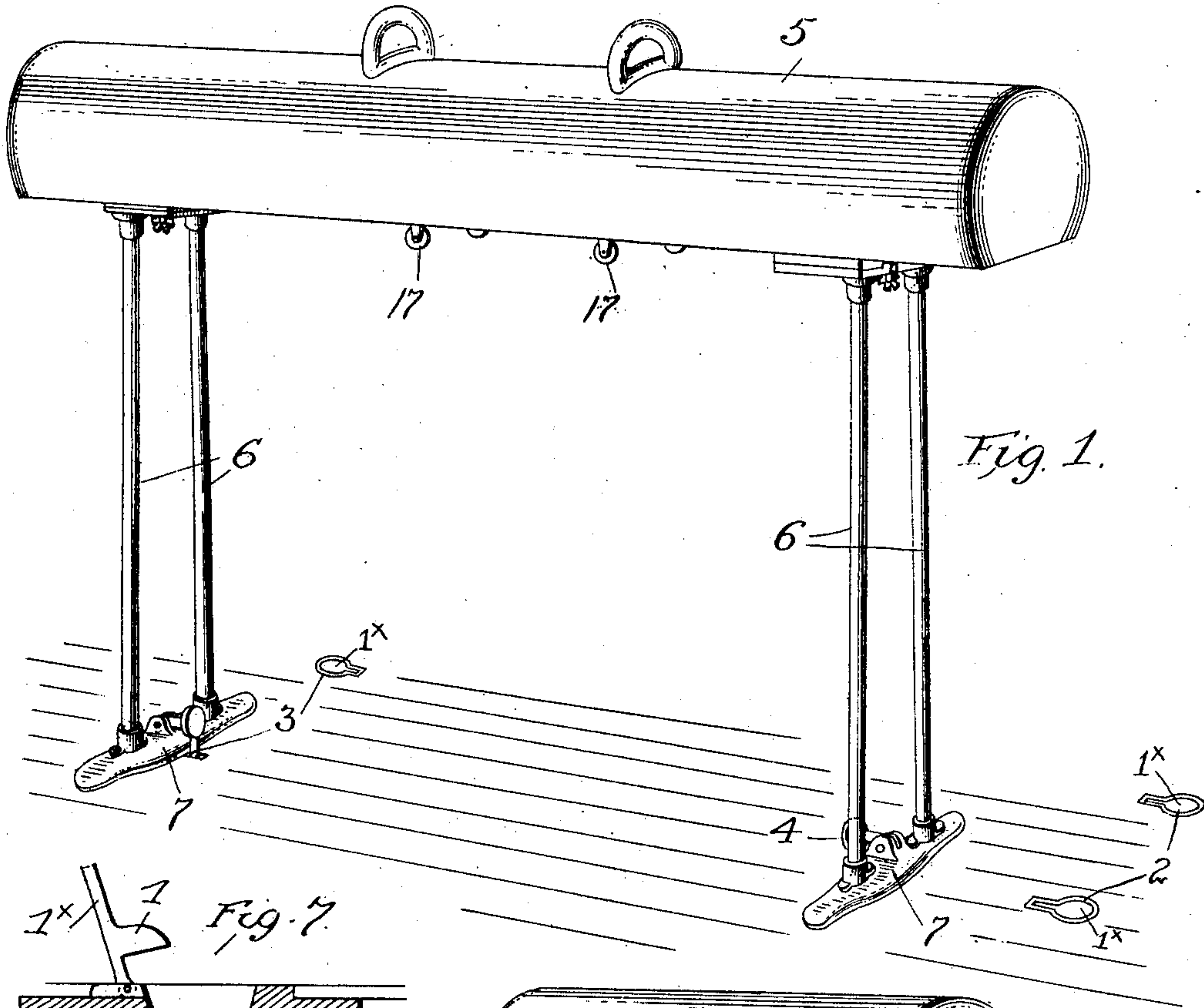
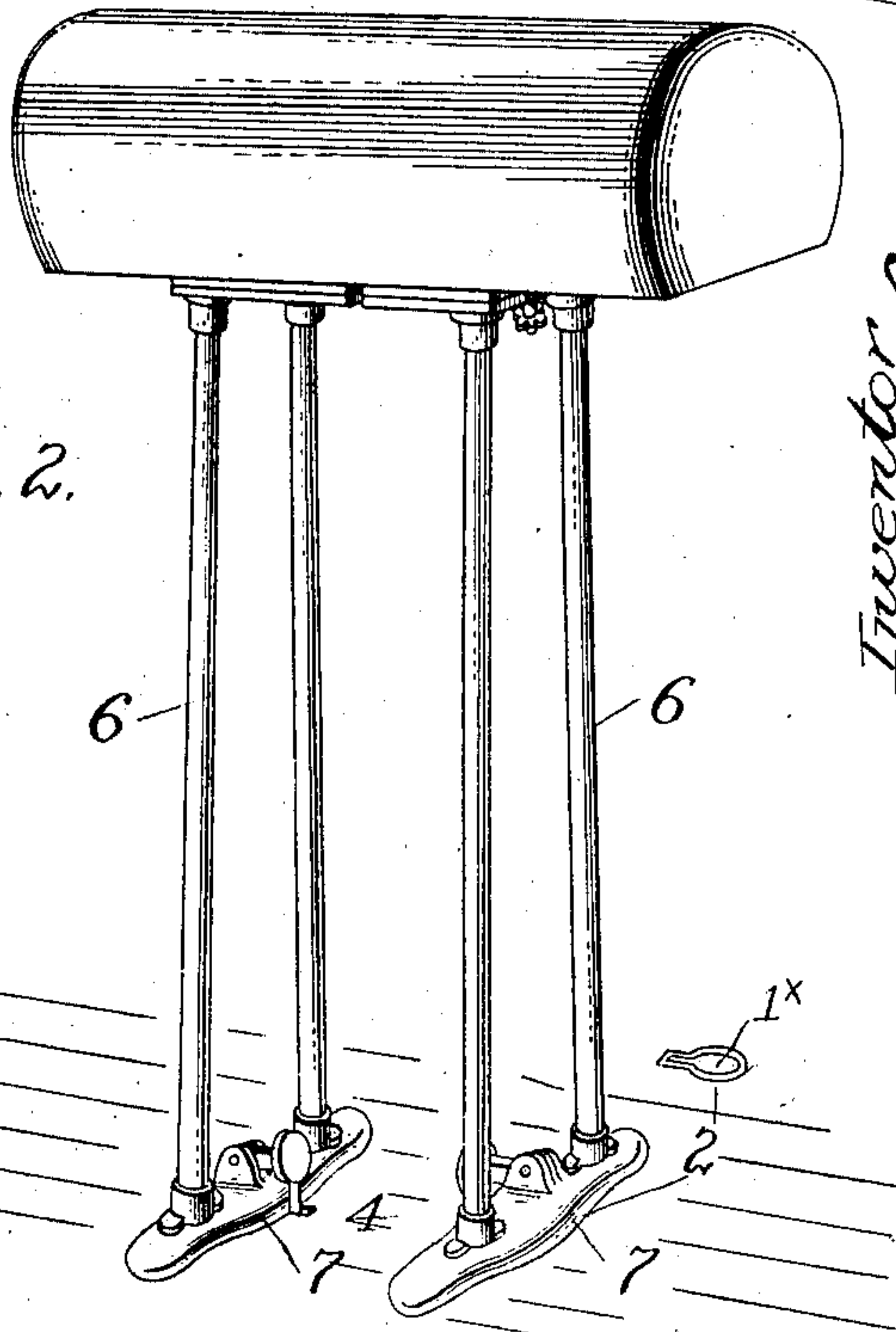


Fig. 2.



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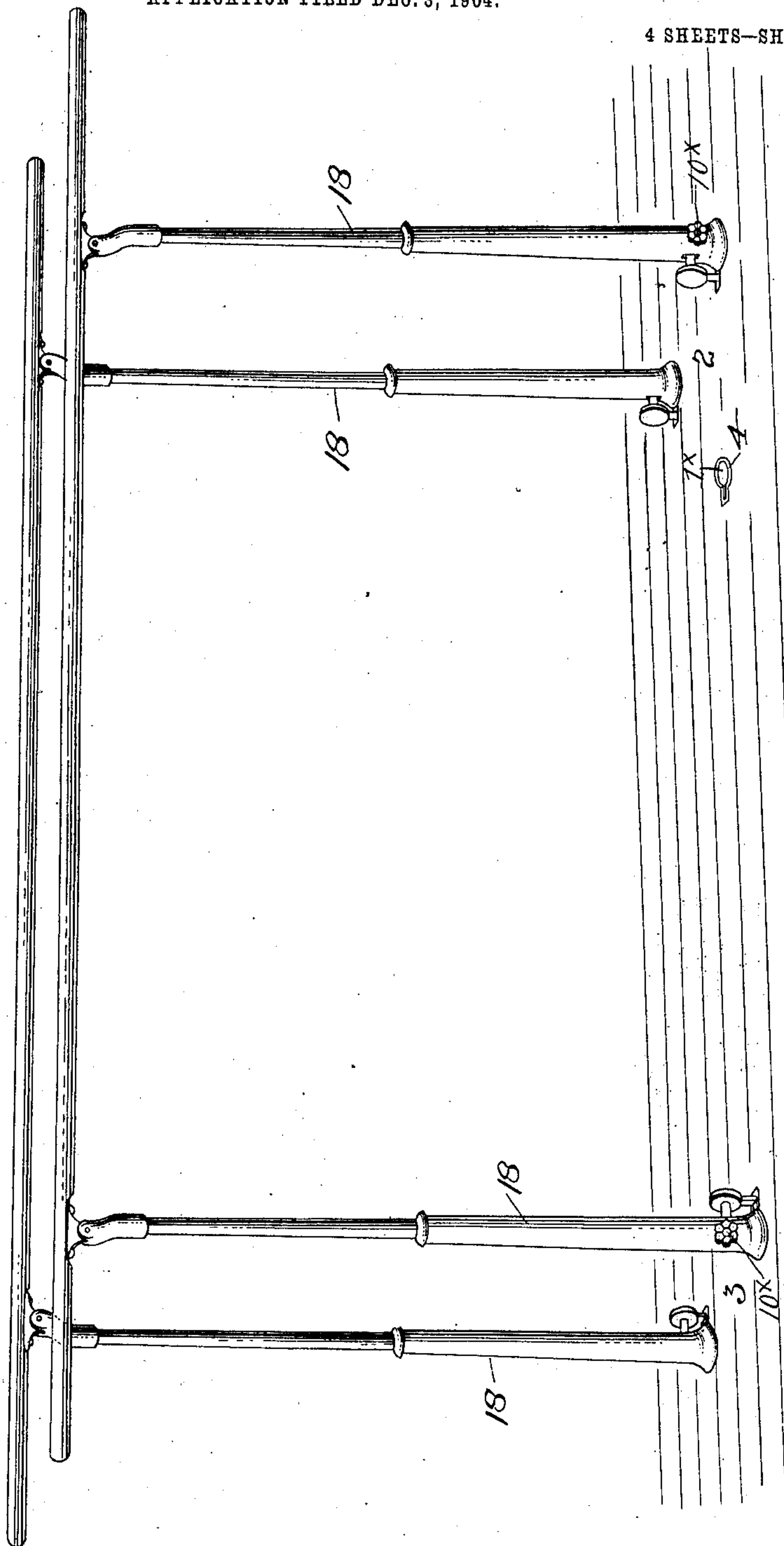
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4 SHEETS—SHEET 2.

Fig. 3.



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Fig. 4.

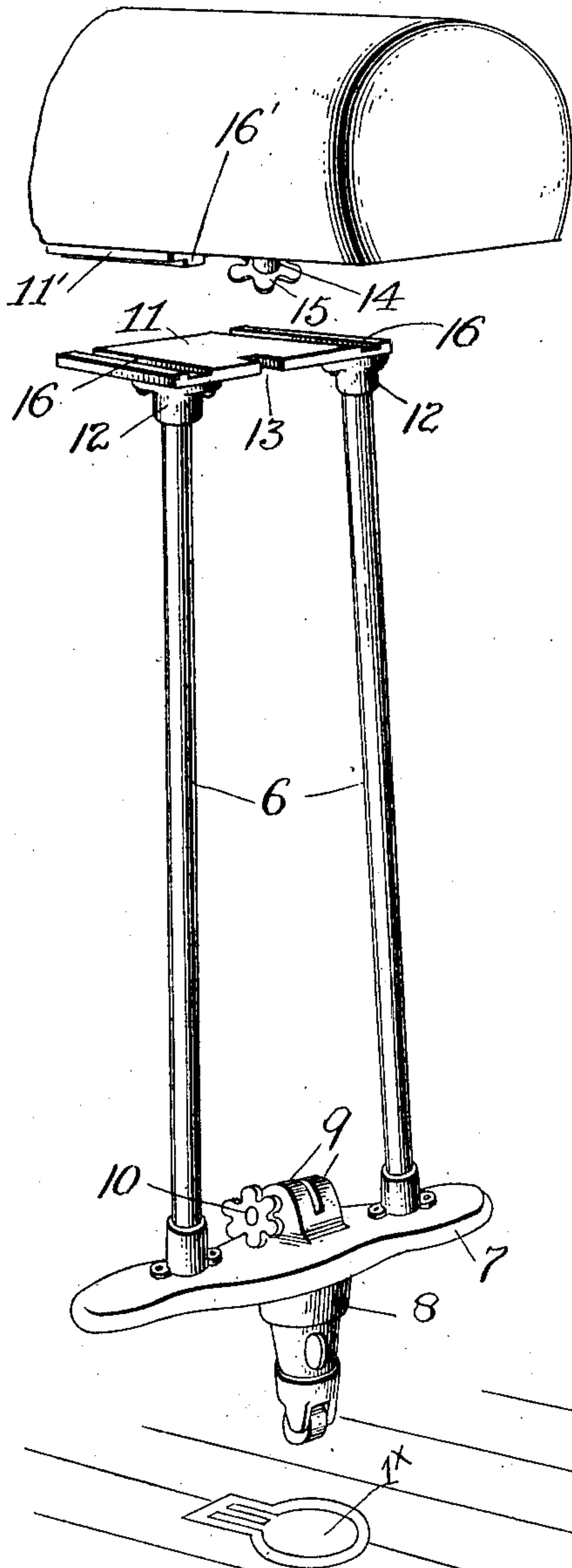
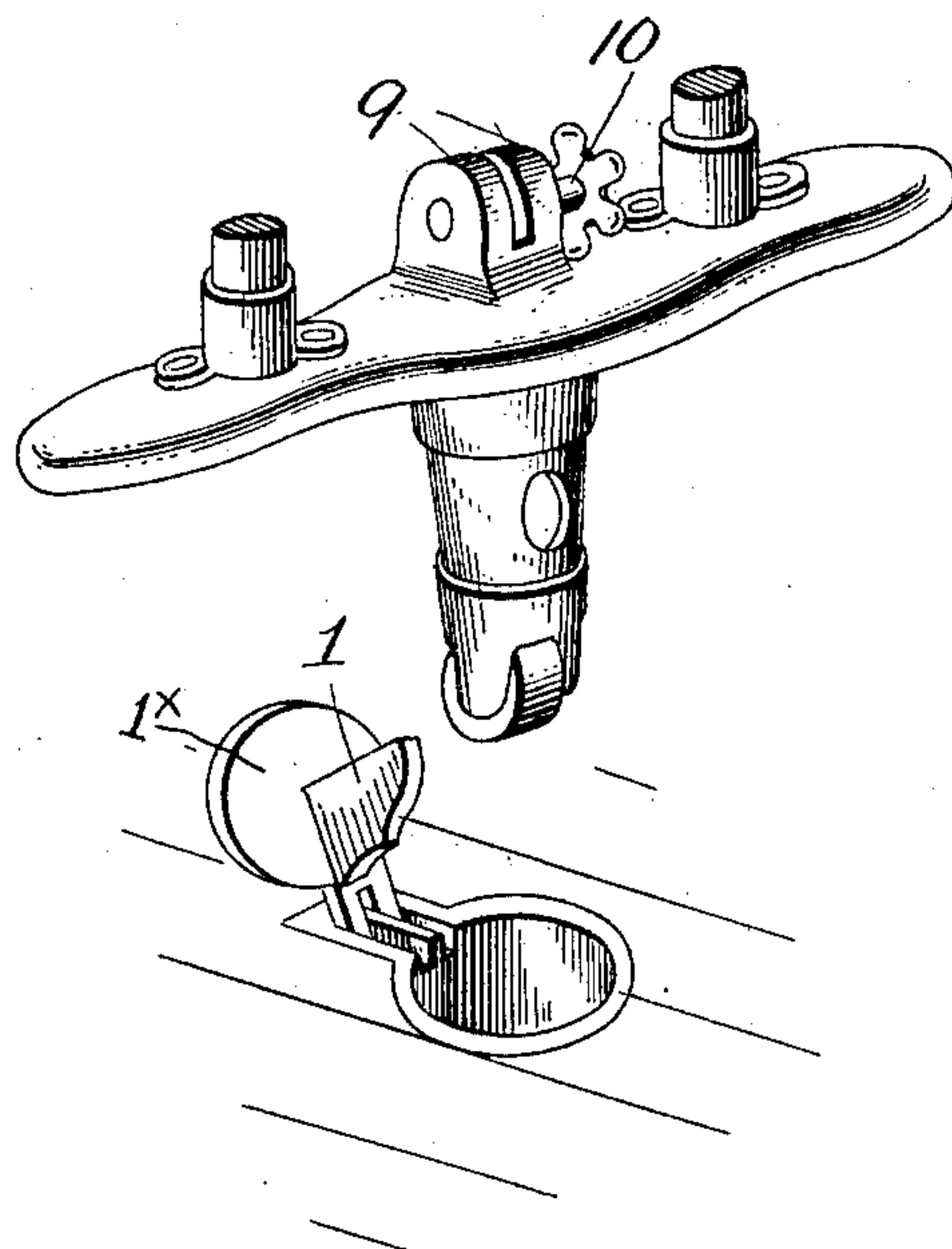


Fig. 5.



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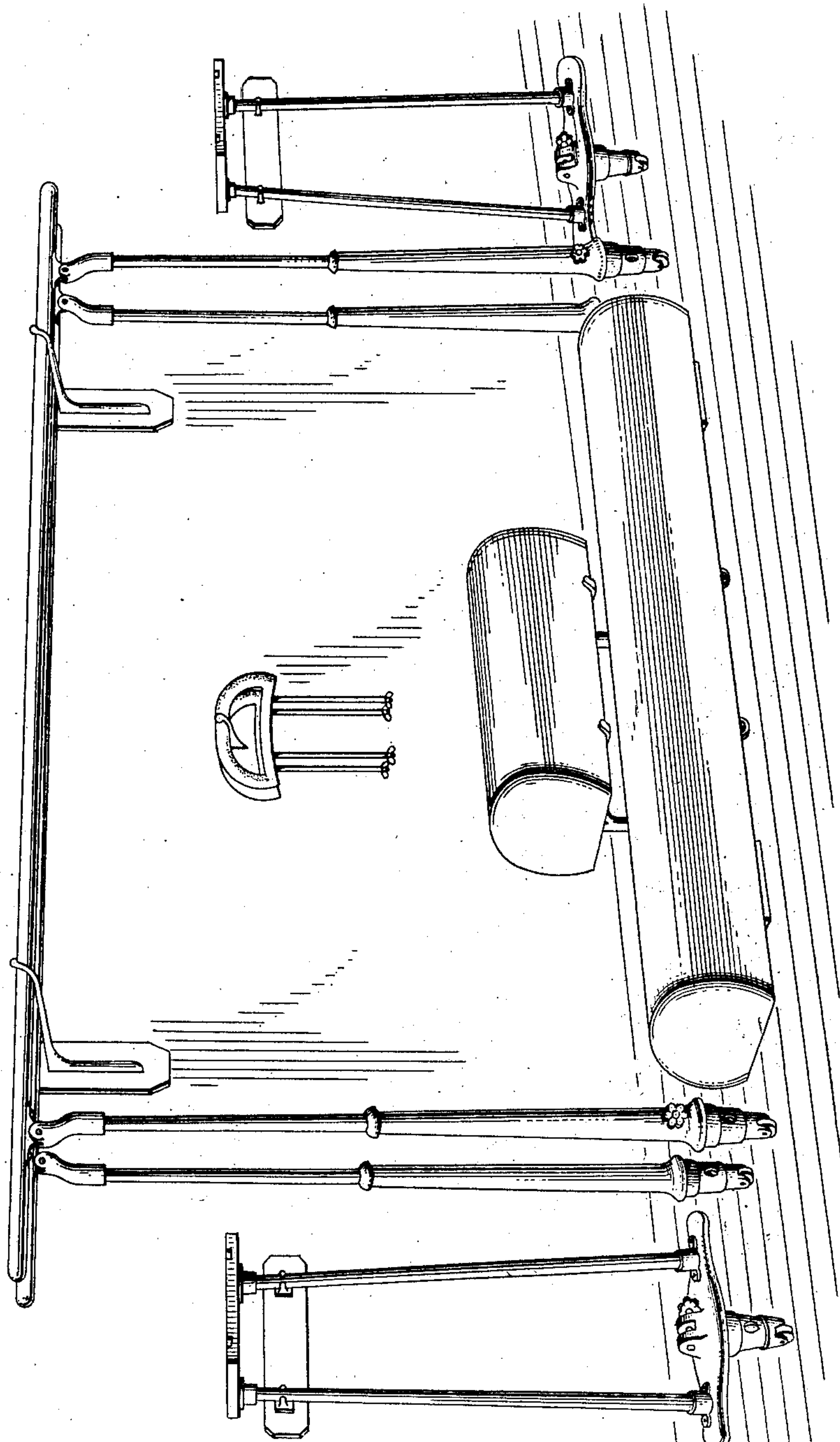
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4 SHEETS—SHEET 4.

Fig. 6.



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As Witness  
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# UNITED STATES PATENT OFFICE.

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## GYMNASIUM APPARATUS.

No. 826,609.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed December 3, 1904. Serial No. 235,371.

*To all whom it may concern:*

Be it known that I, MILTON BENJAMIN REACH, a citizen of the United States; residing at Chicopee Falls, Massachusetts, have  
5 invented certain new and useful Improvements in Gymnasiums, of which the following is a specification.

My invention relates to gymnasium apparatus; and my object is to provide means  
10 whereby in gymnasiums where the floor-space is of limited area a large number of exercising apparatus may be employed.

In many gymnasiums the floor-space is limited, and yet it is desired to carry on class  
15 work and also to employ a variety of exercising-machines. In carrying out my invention I provide means whereby a given floor space or area is adapted to receive a plurality of exercising apparatus of different  
20 forms, the said apparatus being of a knock-down character or, in other words, being composed of detachable parts and being also provided with means whereby they may be readily attached to or detached from the floor at  
25 different points over the said area and having means also to facilitate the easy transportation of the parts of the apparatus, so that they may be stored when not in use to one side of the gymnasium, leaving the floor-space clear for class work or for the setting  
30 up of an apparatus of different form.

In the accompanying drawings, Figure 1 is a perspective view of part of the floor of the gymnasium with one form of gymnasium apparatus set up thereon, the said view illustrating the arrangement of devices and their relation whereby different apparatus may be  
35 set up on the given floor-space in place of that illustrated. Fig. 2 is a perspective view of the same floor-surface shown in Fig. 1 with a different form of apparatus set up thereon. Fig. 3 is a perspective view of the same floor area as shown in Figs. 1 and 2 with another form of gymnasium apparatus set up thereon.  
40 Fig. 4 is a perspective view of parts of the apparatus shown in Figs. 1 and 2 detached from each other. Fig. 5 is a perspective view of the lower part of Fig. 4 in its relation to the clamp or holding device arranged  
45 in the floor; and Fig. 6 is a perspective view of the various parts of the gymnasium apparatus shown in the preceding figures, some being in knockdown condition and all of the

said machines or apparatus being stored against the wall. Fig. 7 is a detail sectional  
55 view of the socket and catch. Fig. 8 is a detail view of the connecting device on the bottom of the horse.

In the floor of the gymnasium and disposed at different points over a given area thereof,  
60 as illustrated in Figs. 1, 2, and 3, I arrange a series of devices adapted to detachably hold various forms of gymnasium apparatus. These attaching devices consist of metallic sockets arranged in the floor and pivoted  
65 catches or locking devices arranged at one edge of the sockets and each adapted, by means of a projection 1 thereon, to engage a portion of the gymnasium apparatus.

In carrying out my invention I employ a  
70 group of five of these attaching devices arranged in two pairs 2 and 3 and with an odd one between them, as shown at 4. The odd attaching device is arranged closer to one of the pairs of attaching devices than it is to  
75 the other pair.

Fig. 1 illustrates a vaulting-horse set up on the given floor area of the gymnasium, the said horse being composed of a body 5, with a pair of standards 6 at each end, the  
80 lower ends of the said standards being connected with a base-plate 7, which is provided with a depending spur 8, arranged centrally thereof and adapted to fit into either one of the tapered sockets in the floor, wherein the  
85 said spur, with the base-plate and standard, will be held by the catch above mentioned, the projection on which fits between ears 9, cast on the surface of the base-plate. This projection is then engaged by a clamp-screw  
90 10, operated by a hand-wheel and passing through the ears. The standards of the vaulting-horse are attached at their upper ends to an upper cross-plate 11, which has, preferably, sockets 12 on its under side, into  
95 which the upper ends of the standards fit, the said sockets being bolted to the cross-plate. The standards, together with the upper and lower cross-plates, form a rigid structure, and they are detachably connected with  
100 the body of the vaulting-horse. For this purpose the upper cross-plate is provided with a notch 13 in its edge adapted to receive a clamping bolt or rod 14, which is pivotally connected to the bottom of the body of the  
105 vaulting-horse and is adapted when the body



is in place on the upper plate to swing into the notch, and then by turning a hand-wheel 15 the parts will be clamped together, the said hand-wheel being threaded on the end of the bolt and acting as a nut to clamp against 5 the under side of the upper cross-plate. A suitable spring may be employed to hold the swinging bolt normally out of connection with the notch in the upper plate, so that as 10 soon as the hand-nut is loosened the spring will throw the bolt out of the notch, so that the body of the vaulting-horse may be readily lifted from the standards.

The body of the vaulting-horse is provided 15 on its under side with plates 11', adapted to rest on the cross-plates at the upper ends of the standards, the said cross-plates having grooves 16 extending longitudinally of the apparatus and adapted to receive ribs 16', 20 projecting from the plates on the bottom of the body of the horse. This rib-and-groove connection serves to hold the parts more securely and resists lateral strain, taking said strain off of the detachable locking-bolt con- 25 nections.

As illustrated in Fig. 4, each pair of standards has one of the depending tapered spurs adapted to fit into the sockets in the floor-plate, and thus in setting up this apparatus 30 only two of the floor-clamps or attaching devices are employed, these two being one of the pair 3 at the left of Fig. 1 and the odd floor-clamp 4 located between the two pairs. The floor-clamps are of such construction 35 that when not in use they close the sockets associated therewith, so as to form a flush continuation of the floor-surface, as illustrated in Figs. 1, 2, and 4.

In taking the apparatus shown in Fig. 1 40 off from the floor-space shown therein, so that this floor-space may be used for class work or for other apparatus, it is simply necessary to detach the body from the standards and then transport the body to the 45 place of storage, for which purpose the said body is provided on its under side with rollers 17, and I prefer to employ two pair of such rollers, and they may be in the form of caster-wheels, so as to adjust themselves to any di- 50 rection in which the body may be moved. The catches 1 are then detached from the standards, and said standards are lifted, thus raising their spurs or projections from the sockets in the floor, and then these standards 55 may be rolled to the place of storage, for which purpose each spur or projection is provided with a roller at its lower end.

Fig. 2 illustrates a different form of gymnasium apparatus from that shown in Fig. 1, 60 set up on the space formerly occupied by the apparatus of Fig. 1. The apparatus of Fig. 2 being much shorter than that shown in Fig. 1, a different set of floor-clamps is employed, consisting of one of the pair 2 and the adja- 65 cent odd floor-clamp. The odd floor-clamp,

it will be noticed, is located, as before stated, nearer to one pair of floor-clamps than the other and is located between the two pairs and in direct line with the corresponding 70 floor-clamps of the two pairs, and its pivoted clamp swings in the same direction as do the other clamps and in the same vertical plane, passing through the corresponding clamps of the two pair. Of course the same stand- 75 ards used in Fig. 1 may be employed in Fig. 2 by simply shifting them into the relation necessary for the new form of apparatus desired to be used.

As shown in Fig. 3, another form of appa- 80 ratus differing from that shown in either Fig. 1 or Fig. 2 may be set up on the said given floor-space, and I have illustrated in this connection a pair of parallel bars, each bar having its standard 18 held by the floor- 85 clamps. In this case the two pair of floor-clamps are utilized, whereas the odd floor-clamp is not used. In this form the plates 7 and 11 above described are not used, and the projections or catches engage directly in 90 openings in the standards, where they are held by set-screws 10<sup>x</sup>.

When it is desired to clear the floor-space of all apparatus, the said apparatus may be stored against the wall, as illustrated in Fig. 6. The standard of the parallel bars are 95 also provided with caster wheels or rollers.

It will be understood that in the above description and in the drawings I have disclosed several forms of apparatus which may be used 100 in connection with my invention; but my invention is not limited to the precise forms of apparatus which I describe above.

The catches or projections 1 are associated with closing plates or caps 1<sup>x</sup>, which serve to close the upper ends of the sockets and pre- 105 sent a surface flush with the floor when the catches are not in use.

I claim—

1. A gymnasium apparatus comprising standards, means detachably connecting the 110 same to the floor a body supported on and detachable from the said standards and movable means pivoted to the body and serving as the detachable connection, substantially as described. 115

2. A gymnasium apparatus comprising standards detachably connected with the floor and having a cross-plate at their upper 120 ends extending between them, a body resting on the cross-plate and means for detachably connecting the body to the cross-plate, substantially as described.

3. A gymnasium apparatus comprising standards detachably connected with sockets 125 in the floor, a cross-plate at the upper ends thereof, notched on one edge and a clamping-bolt extending from the body and detachably engaging the said notch, substantially as described.

4. A gymnasium apparatus comprising 130



pairs of standards, a cross-plate at the top of each pair of standards extending between the members of each pair and a body detachably connected with the cross-plate, substantially as described.

5 5. A gymnasium apparatus comprising standards, sockets in the floor, said standards having spurs detachably engaging said sockets with means adjacent said sockets for locking the spurs therein and a vaulting-horse body detachably connected with the standards, substantially as described.

15 6. A gymnasium apparatus comprising standards, a cross-plate at the upper end thereof, notched on one edge and a vaulting-horse body or the like having a bolt detachably connecting the same with the cross-plate, substantially as described.

20 7. A gymnasium apparatus comprising standards, a cross-plate at the top having grooves, a vaulting-horse body or the like having ribs to fit in the said grooves and means for detachably holding the vaulting-horse body to the grooved plate, substantially as described.

25 8. A gymnasium apparatus comprising standards having a cross-plate at the bottom with one or more depending spurs having a caster-wheel at the lower end, means for holding the said spur within a socket within the floor, a vaulting-horse body or the like detachably connected with the standards and

rollers on the vaulting-horse body, substantially as described.

9. A gymnasium apparatus comprising a 35 socket in the floor, an exercising appliance having its lower end adapted to fit in the said socket with a roller supported on the said end and adapted to be located in the socket when the appliance is in use, substantially as 40 described.

10. A gymnasium apparatus comprising an exercising appliance having a roller at its lower end and means adjacent thereto to be engaged by an attaching device, and means 45 on the floor for receiving the lower end of the appliance with its roller, said means having a device to engage the devices on the exercising appliance, substantially as described.

11. A gymnasium apparatus, comprising 50 standards, a vaulting-horse body or the like, means projecting below the plane of the under side of the horse-body for detachably securing the same to the standards and rollers on the under side, said body projecting below 55 the attaching means and upon which the body may be moved, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

MILTON BENJAMIN REACH.

Witnesses:

JAMES M. CARRINGTON,  
JOHN F. STANTON.