

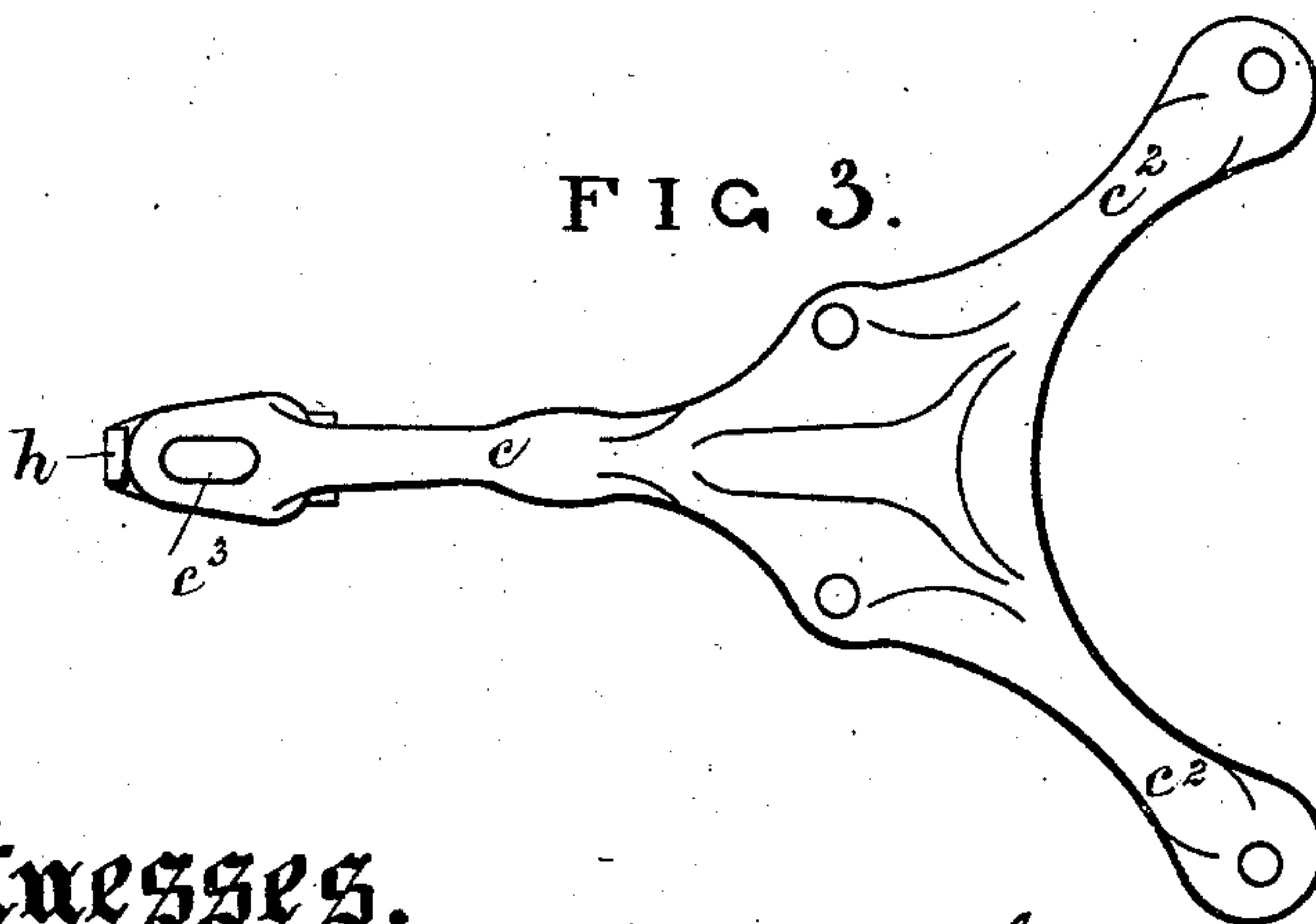
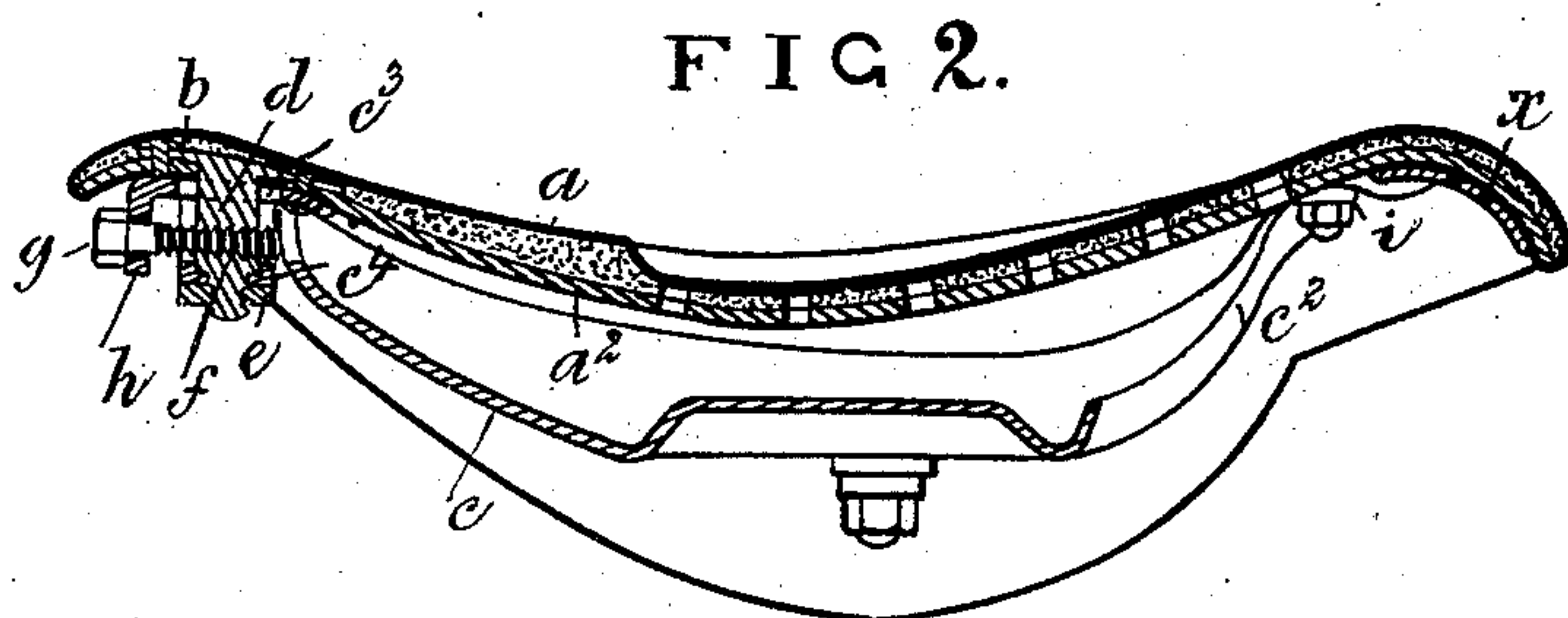
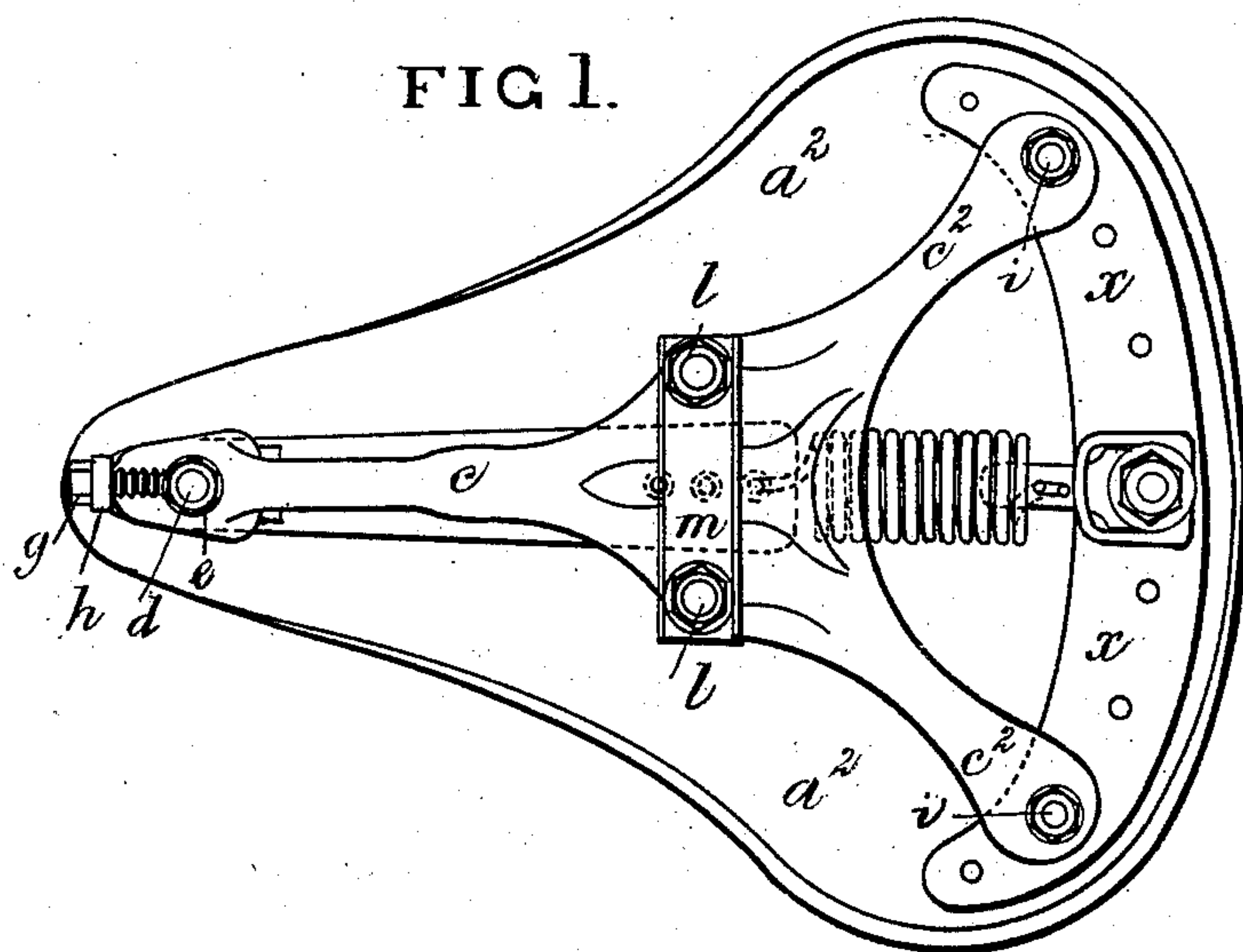
(No Model.)

5 Sheets—Sheet 1.

J. A. LAMPLUGH.  
SADDLE FOR BICYCLES.

No. 293,656.

Patented Feb. 19, 1884.



Witnesses.  
Richard Skerrett  
Arthur J. Powell

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(No Model.)

5 Sheets—Sheet 2.

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FIG 4.

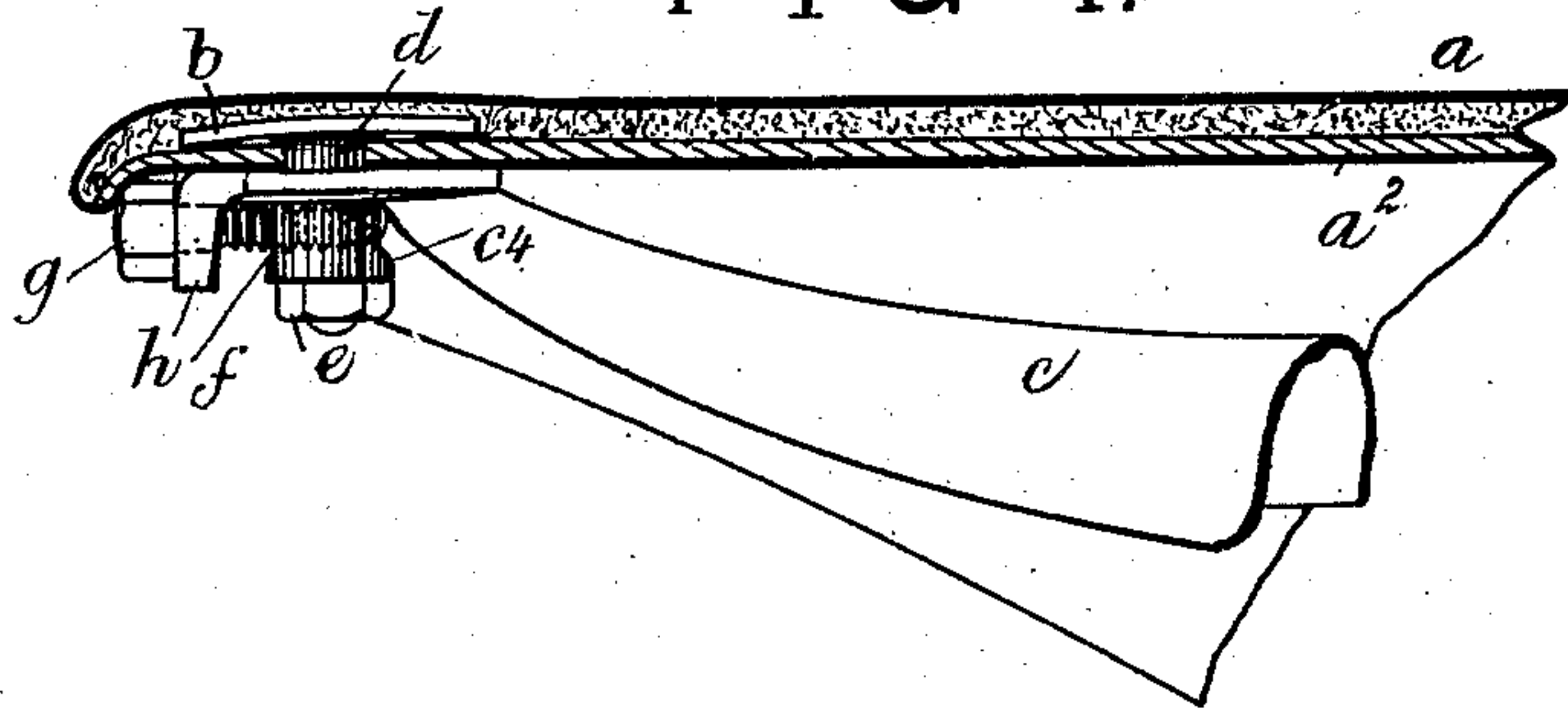


FIG 5.

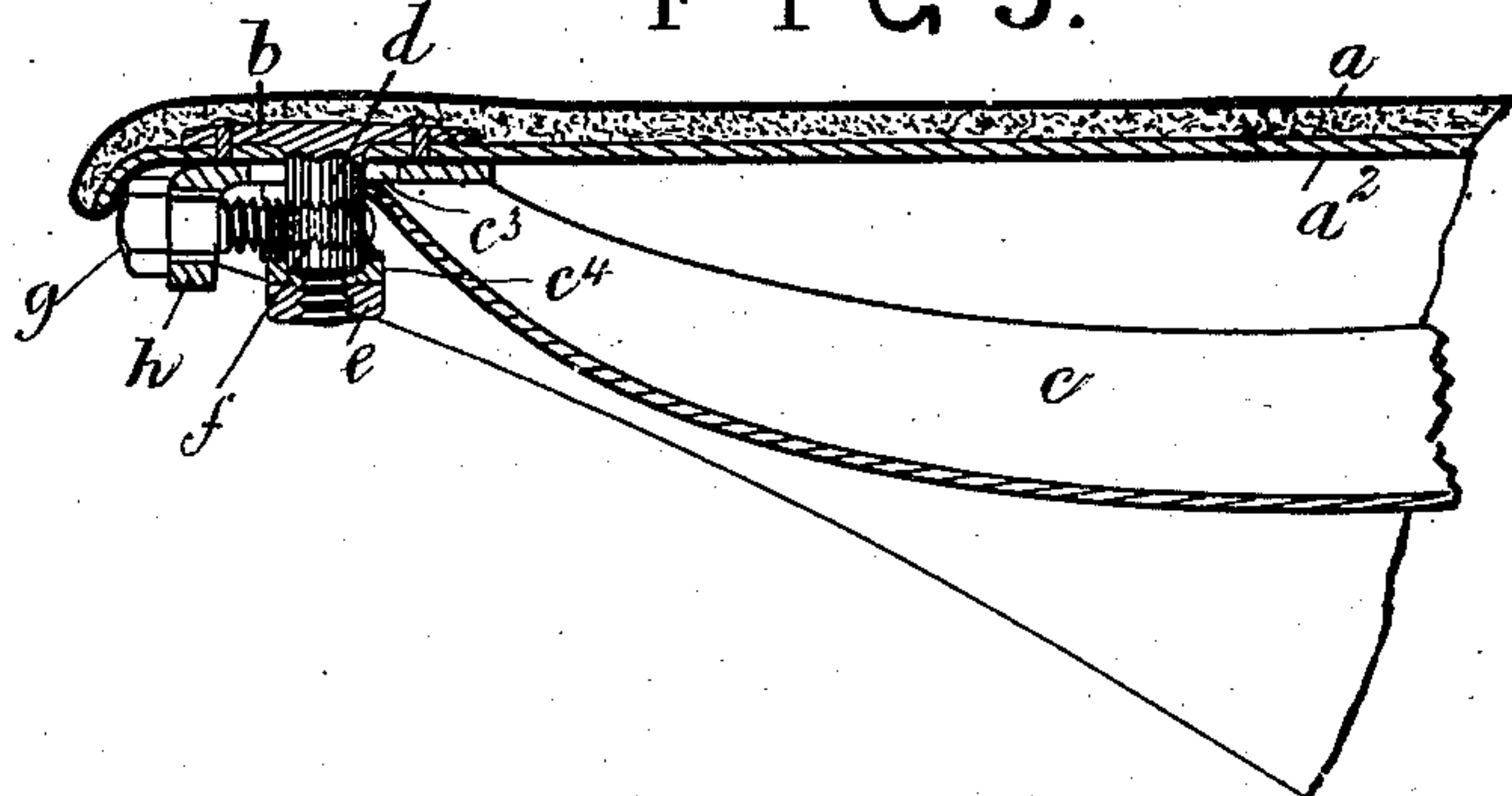


FIG 6.

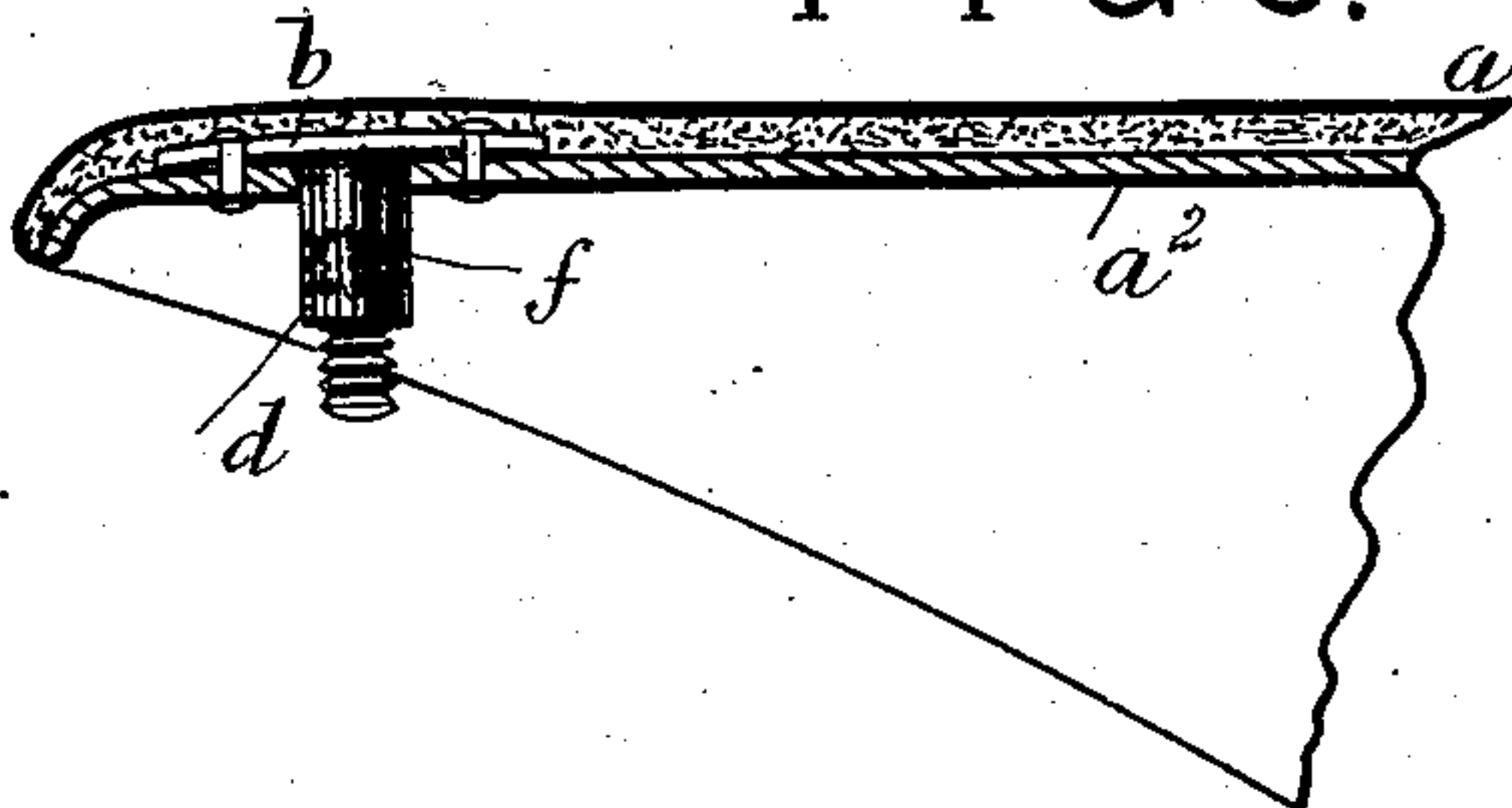
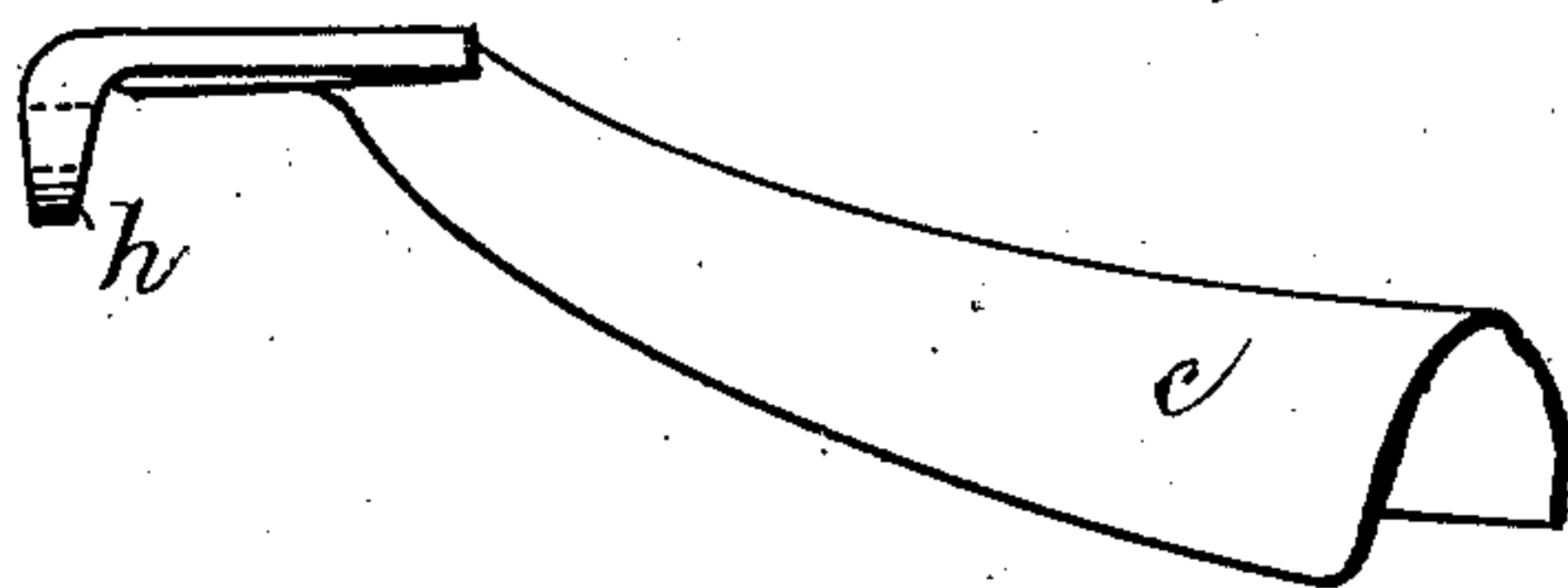


FIG 7.



Witnesses.

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FIG. 8.

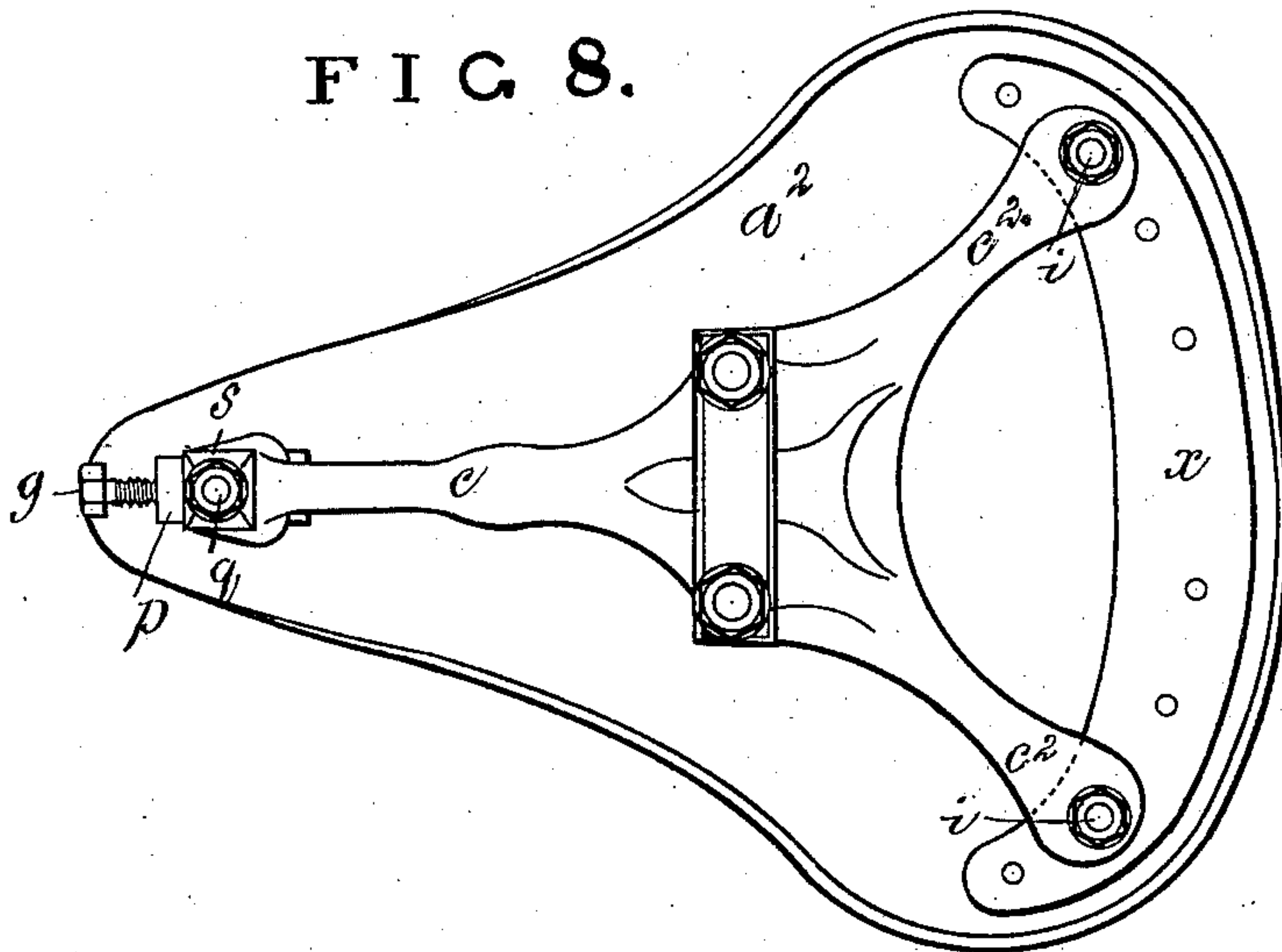


FIG. 9.

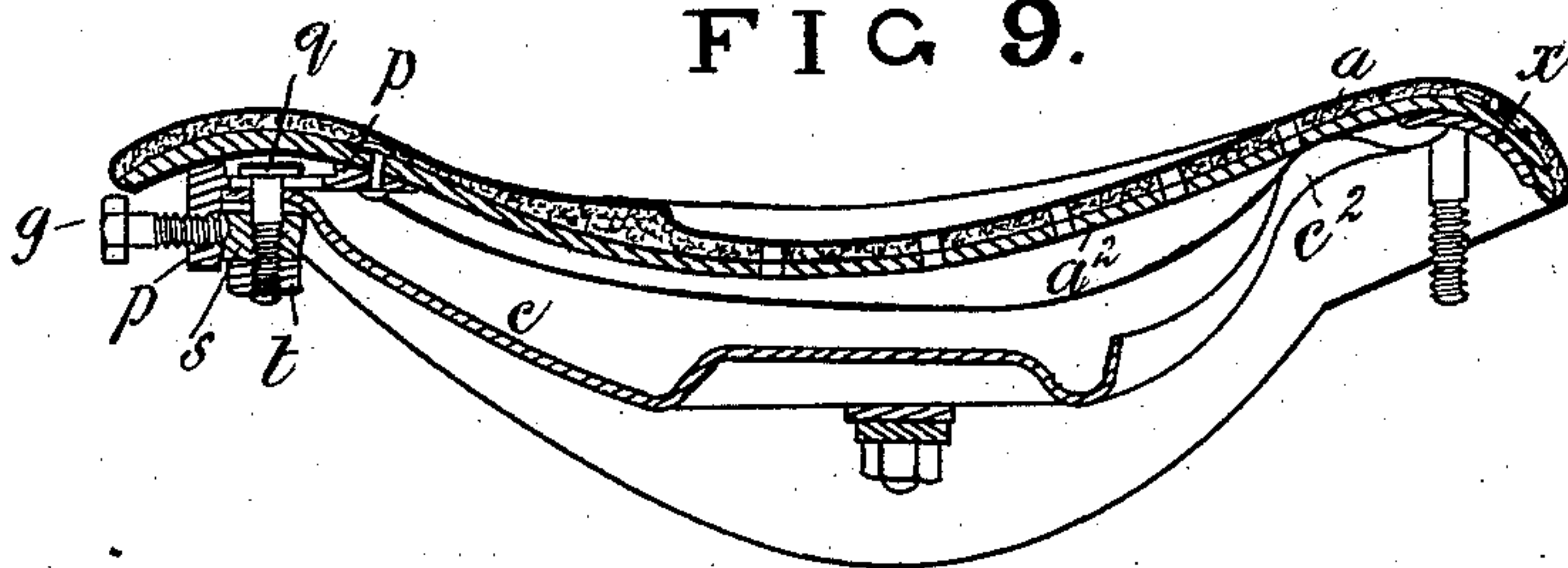


FIG. 10.

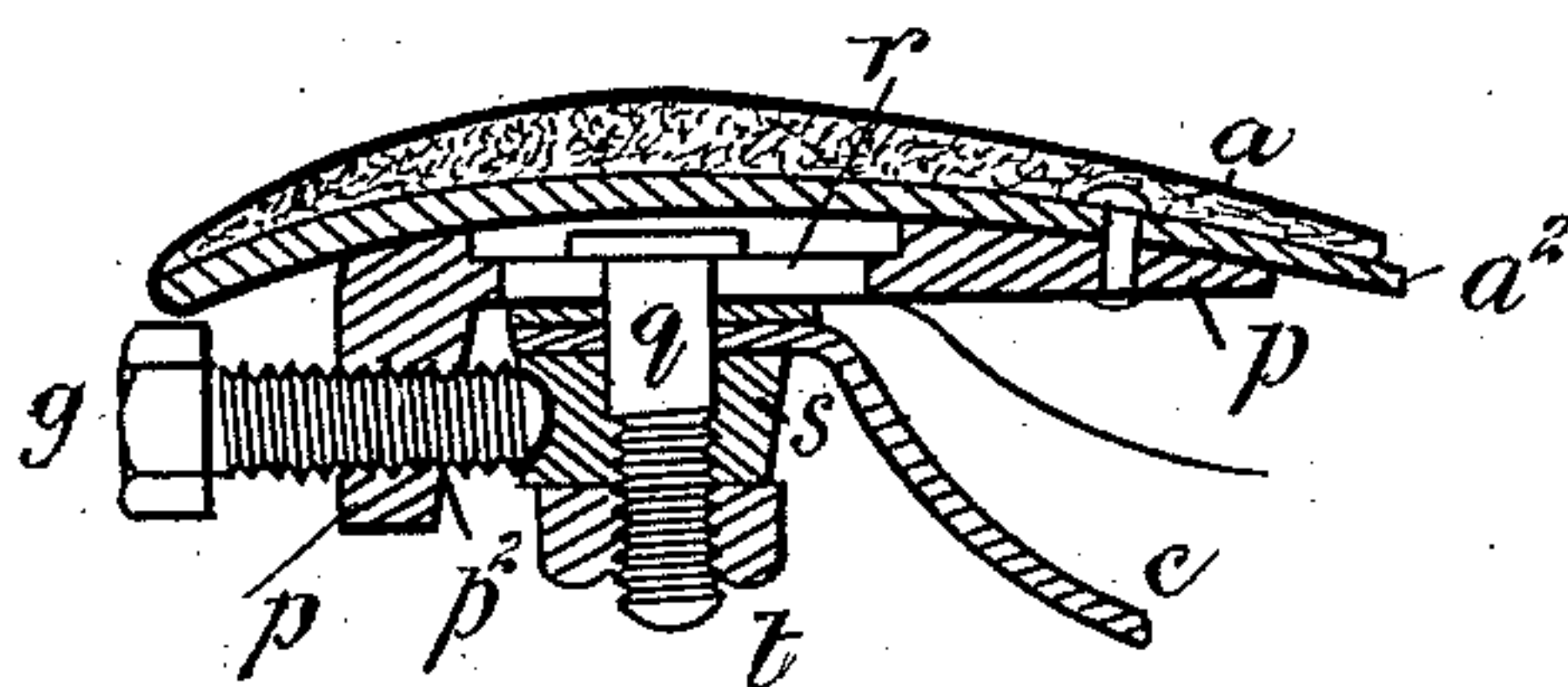
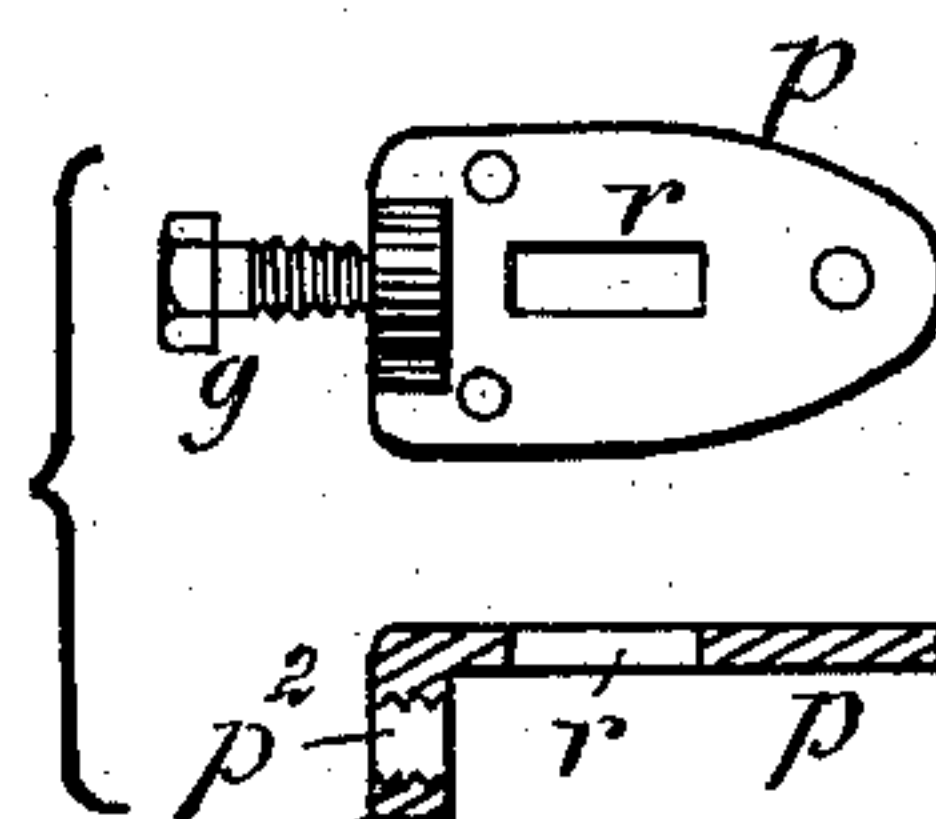


FIG. 11.



Witnesses.  
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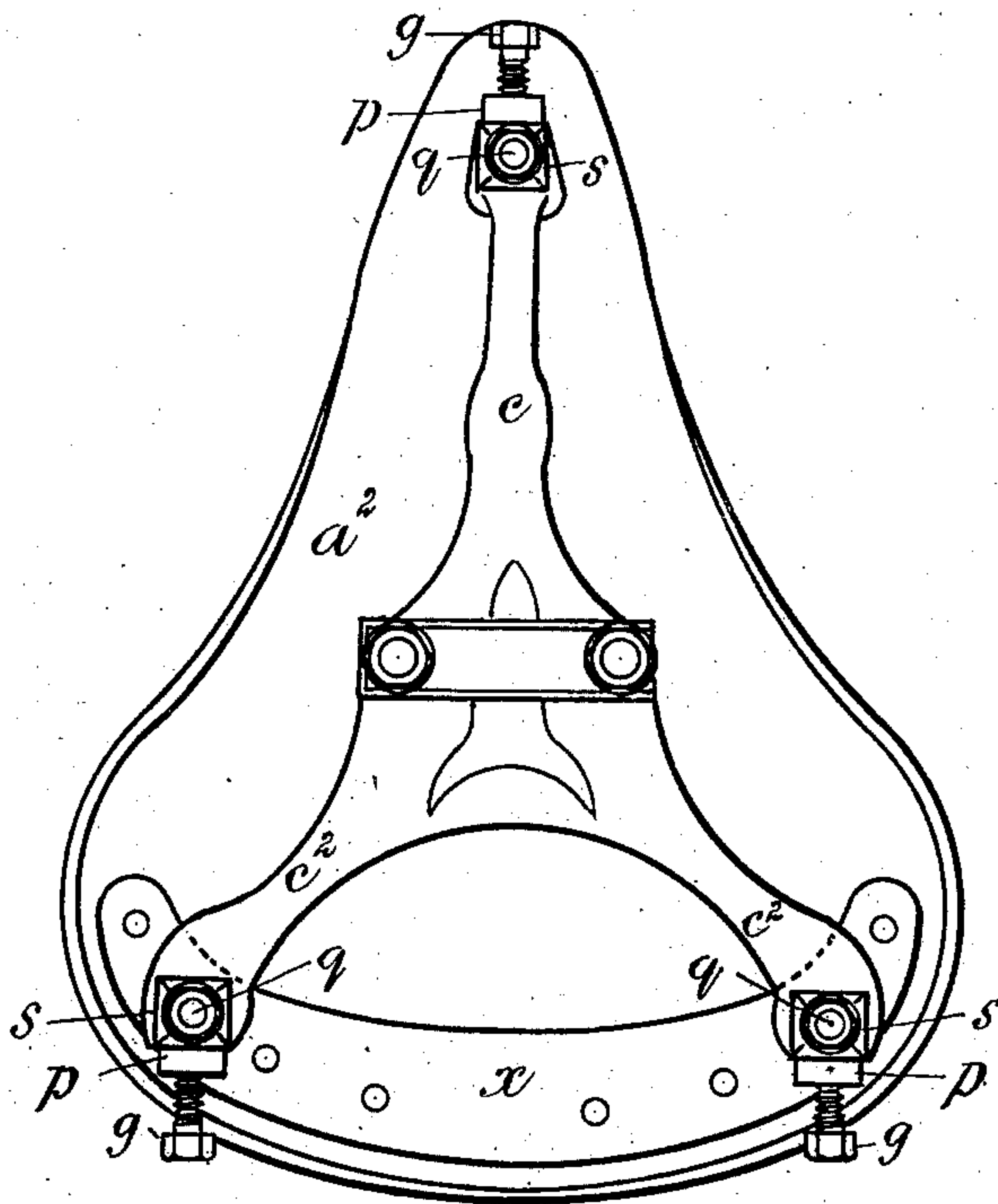
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FIG 12.



Witnesses.

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FIG 13

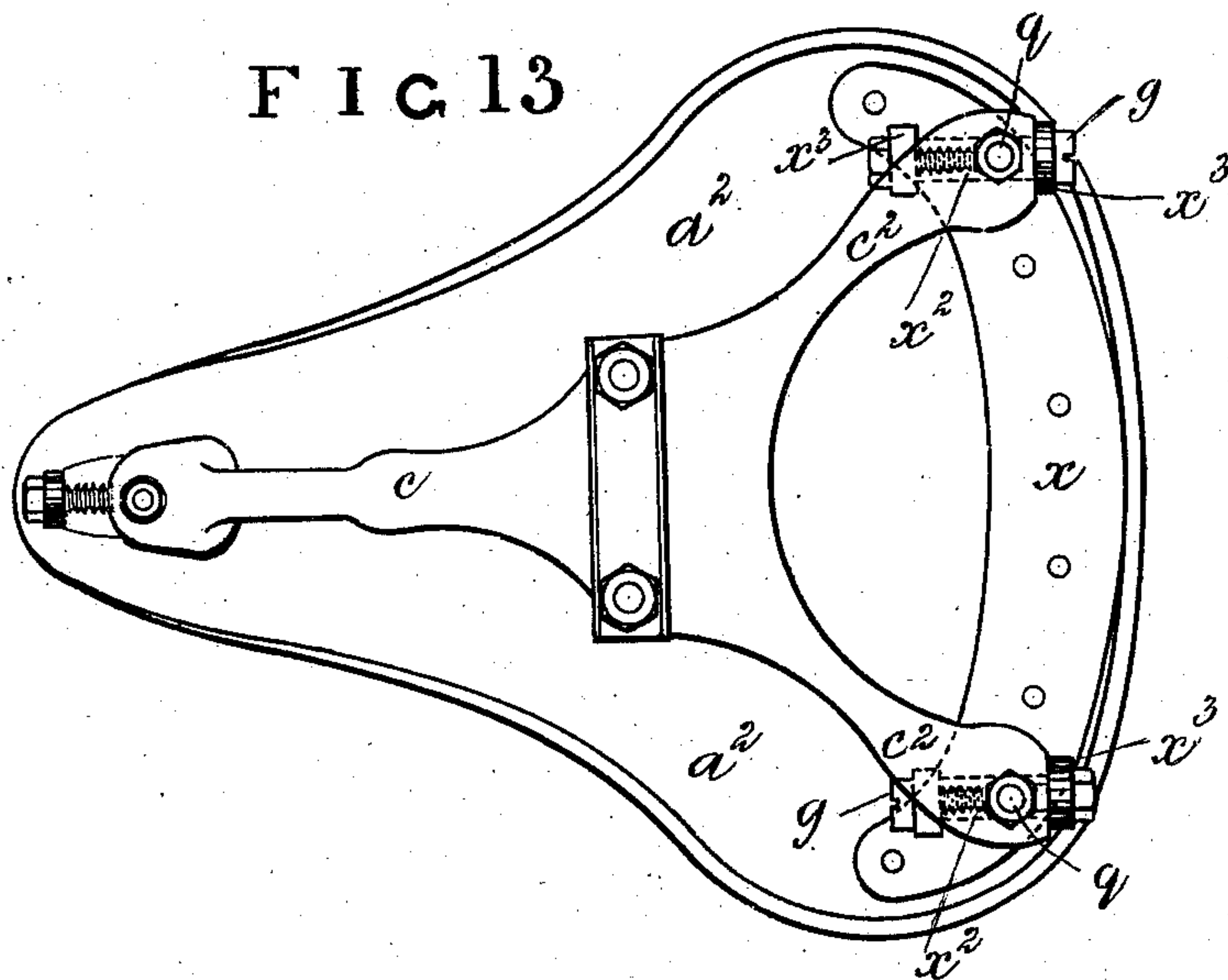


FIG 14.

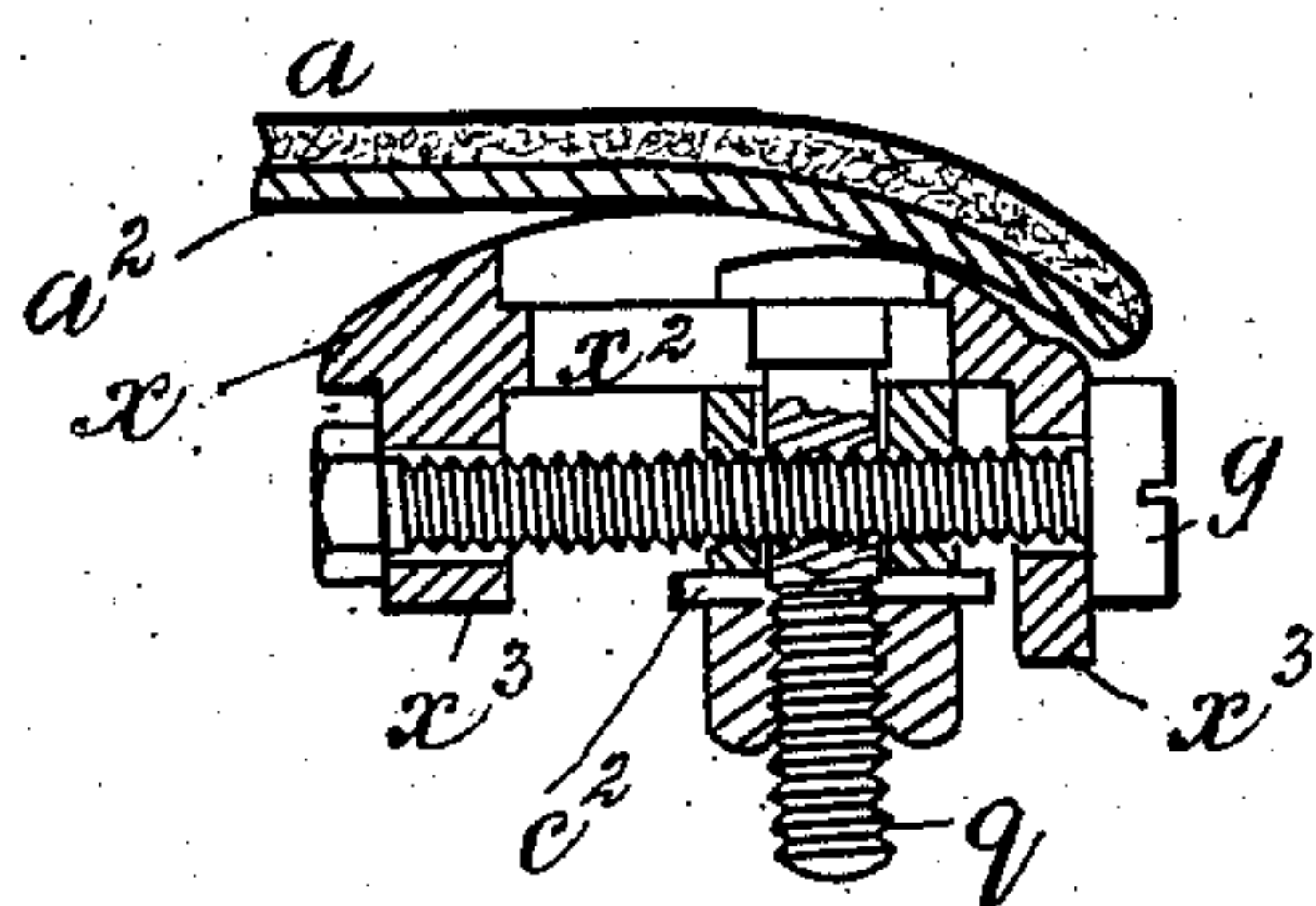
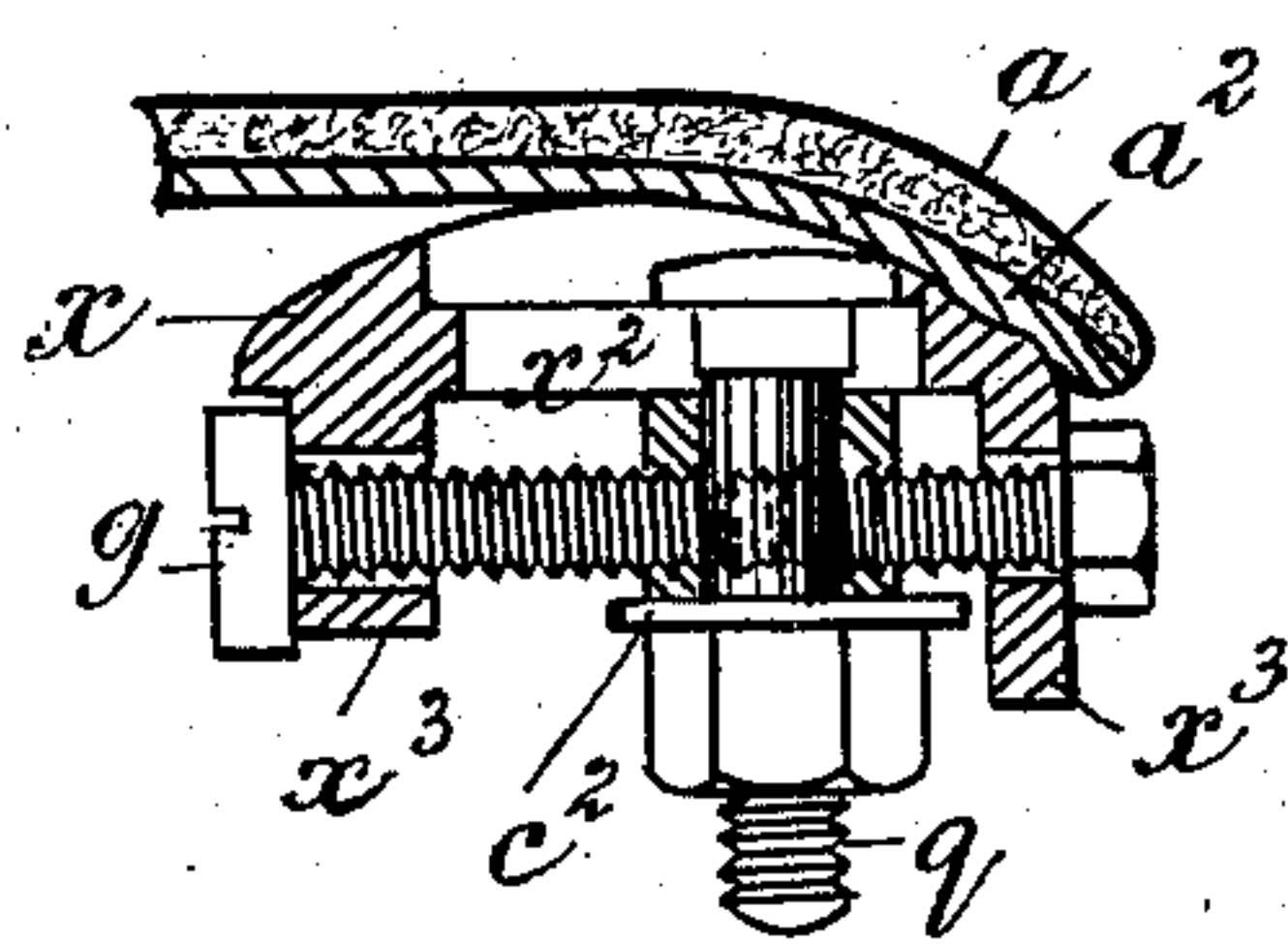


FIG 15.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES ALFRED LAMPLUGH, OF BIRMINGHAM, COUNTY OF WARWICK,  
ENGLAND.

## SADDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 293,656, dated February 19, 1884.

Application filed December 28, 1883. (No model.) Patented in England February 24, 1883, No. 1,008.

*To all whom it may concern:*

Be it known that I, JAMES ALFRED LAMPLUGH, of the firm of LAMPLUGH & BROWN, of Birmingham, in the county of Warwick, England, manufacturers, a subject of the Queen of Great Britain, have invented certain new and useful Improvements in Saddles for Bicycles, Tricycles, and other Velocipedes, and Vehicles, (for which I have received Letters Patent in Great Britain No. 1,008, dated February 24, 1883,) of which the following is a specification.

My invention consists of the construction and combinations of parts, hereinafter described, and illustrated in the accompanying drawings, for tightening the seats of saddles for bicycles, tricycles, and other velocipedes and vehicles.

In making a saddle according to my invention I form the seat without any internal rigid support, the said seat having a foundation of strong leather, between which and the covering or upper leather is stuffing of the ordinary kind. This seat is supported by preference by means of an external three-branched plate concave on its upper side. The seat is not fixed rigidly to the supporting-plate by its three branches, but the front attachment of the said plate is made adjustable by means of a screw and other appliances, so as to produce in the seat the required degree of tension; or the tightening of the seat may be effected by means of an adjustable attachment at each of the branches of the supporting-plate or at the two rear branches of the said plate.

Figure 1 of the accompanying drawings represents in plan of under side, and Fig. 2 in longitudinal section, a bicycle-saddle containing one of the arrangements of my invention for producing the required tension in the leather foundation of the seat. Fig. 3 represents a plan of under side of the three-branched supporting-plate. Figs. 4, 5, and 6 represent in section, and Fig. 7 in elevation, parts of the seat and tension mechanism, drawn to a larger scale than Figs. 1, 2, and 3.

The same letters of reference indicate the same parts in Figs. 1, 2, 3, 4, 5, 6, and 7.

The seat of the saddle is formed of a foundation of strong leather,  $a^2$ , and a covering or upper leather,  $a$ , between which is a stuffing

of the ordinary kind, the said seat  $a^2$  being without any rigid internal support. The seat of the saddle is supported by an external support consisting of a three-branched plate,  $c$   $c^2$  55  $c^2$ , made of sheet metal and concave on its upper side. The expanded ends of the rear branches,  $c^2$   $c^2$ , of the branched plate are provided with holes, which take upon the fixed screws  $i$   $i$ , which are secured by their heads 60 between the foundation  $a^2$  and covering  $a$  of the seat, the said expanded ends of the said branches  $c^2$   $c^2$  taking a bearing upon the curved metal plate  $x$ , riveted to the foundation  $a^2$ . The front attachment,  $e$ , of the branched plate 65  $c$   $c^2$   $c^2$  is made adjustable, for producing the required tension in the leather foundation  $a^2$  of the seat in the following way:

To the leather foundation  $a^2$  of the seat a plate,  $b$ , is fixed, the said plate having on its 70 under side the screwed pin  $d$ . In the expanded end of the branch  $c$  of the supporting-plate is a slot,  $c^3$ , in which the plain part of the pin  $d$  works. Over the pin  $d$  is a slotted cap,  $c^4$ , which is fixed by a screw-nut,  $e$ . In 75 the pin  $d$  is a cross-screwed hole or screw-box,  $f$ , in which the tension-screw  $g$  works, the said tension-screw passing through a plain hole in the lip or abutment  $h$  at the front of the three-branched plate. The head of the 80 tension-screw  $g$  takes a bearing against the lip or abutment  $h$ , as represented. By turning the screw  $g$  so as to advance it in the screw-box  $f$ , the adjustable attachment  $d$  is drawn upon the said screw  $g$ , and the leather 85 foundation  $a^2$  of the seat, to which the said adjustable attachment is connected, is thereby tightened longitudinally, and the required degree of tension put upon it.

Instead of or in addition to making the front 90 attachment,  $e$ , of the branched supporting-plate  $c$   $c^2$   $c^2$  adjustable, as described and represented, the attachments of the rear branches,  $c^2$   $c^2$ , may be made adjustable by the appliances described and represented with respect to the 95 front end.

The seat is connected to the backbone of the bicycle by the ordinary screws and nuts,  $l$ , carried by the three-branched plate and the ordinary cross-bar,  $m$ .

Fig. 8 represents in plan of under side a bicycle-saddle, to the front end of which a modi-



fication of the adjusting mechanism hereinbefore described is applied. Fig. 9 represents the same in longitudinal section; and Fig. 10 represents in longitudinal section the front portion of the saddle and the adjustable appliances, drawn to a larger scale; and Fig. 11 represents in plan and section a part of the adjusting appliances, drawn to the same scale as Figs. 8 and 9.

10 Instead of a pin having a screw-box in it being fixed to the leather foundation  $a^2$  of the seat, as before described, for the tension-screw to engage with, in the modification, Figs. 8, 9, 10, and 11, a plate,  $p$ , (shown separately in Fig. 11,) is fixed to the leather foundation  $a^2$ . The lip or bent part at the front of the plate  $p$  is furnished with a screwed hole or screw-box,  $p^2$ , for the tension-screw  $g$  to work in. The lip on the front branch,  $c$ , of the branched plate is dispensed with, and a plain hole is made in the branch  $c$ , for taking upon the screw-pin  $q$ , the stem of which passes through a slot,  $r$ , in the tension-plate  $p$ , fixed to the leather foundation  $a^2$ . On the said screw-pin  $q$ , and bearing against the end of the branch  $c$ , is a collar,  $s$ , which acts as a fixed bearing or abutment for the end of the tension-screw  $g$ . The screw-pin  $q$  is held in its place by the screw-nut  $t$ .

30 When the seat of the saddle is required to be tightened, the tension-screw  $g$  is turned in the direction proper to drive it home. As the tension-screw  $g$  is incapable of advancing, in consequence of its abutment against the collar  $s$ , the screw-box  $p^2$  on the tension-plate  $p$  advances on the said screw  $g$ , and the leather foundation  $a^2$  of the seat may be tightened longitudinally to the required extent. As the tension-plate  $q$  is drawn back, its slot  $r$  works upon the stem of the screw-pin  $q$ , to which the front branch,  $c$ , of the branched plate is secured, as will be understood by an examination of Figs. 9 and 10.

45 Fig. 12 represents in plan of under side the seat of a bicycle-saddle in which the tension mechanism constructed as last described is applied to the rear end of the seat, as well as to the front end of the seat.

By the use of the tension mechanism represented in Fig. 12, the tightening longitudinally of the leather foundation  $a^2$  of the seat may be effected either at the front end or at the rear end of the seat; or the tension mechanism at the front end of the seat may be omitted, and the front branch,  $c$ , of the branched plate be fixed to the leather foundation, instead of being made adjustable.

50 The tension-plates  $p p$ , carrying the tension-screws  $g g$  at the rear of the seat, may be made in one piece with the curved bearing-plate  $x$  by the casting process; or, when the rear adjustable attachments are carried by the bearing-plate  $x$ , they may be so constructed that the tightening of the leather foundation may either be effected at the outer edge or inner edge of the said bearing-plate, as illustrated in the plan of under side of a bicycle-saddle

in Fig. 13, and cross-sections of portions of the same, drawn to a larger scale, in Figs. 14 and 15.

70 In the arrangement represented in Fig. 14 the head of the tension-screw  $g$  is situated at the outer edge of the bearing-plate  $x$ , and in the arrangement represented in Fig. 15 the head of the tension-screw  $g$  is situated at the inner edge of the bearing-plate  $x$ . The said bearing-plate  $x$ , carrying the rear adjusting appliances, is riveted to the leather foundation  $a^2$  of the saddle, and the ends of the rear branches,  $c^2 c^2$ , of the three-branched plate are secured on the screwed pins  $q q$ , which pass through cross-slots  $x^2 x^2$  in the bearing-plate  $x$ . The screwed pins  $q q$  have cross-screwed holes or screw-boxes for the tension-screws  $g g$  to work in, the said tension-screws being capable only of a rotary motion, and being supported in the brackets  $x^3 x^3$  on bearing-plate  $x$ . By rotating the tension-screws  $g g$  they advance in one or other direction in the fixed screw-boxes of the pins  $q q$ , thereby giving a sliding or longitudinal motion to the bearing-plate  $x$ , the cross-slots  $x^2 x^2$  in the said plate  $x$  working upon the fixed screw-pins  $q q$ . As the plate  $x$  is fixed to the leather foundation  $a^2$ , the latter may be tightened or its tension relaxed, according to the direction in which the tension-screws  $g g$  are turned.

Although, for convenience of illustration, I have shown the two arrangements of rear tightening appliances in the same saddle, yet I wish it to be understood that in practice they may be used separately, and this construction of tightening appliances may also be applied to the front end of the saddle, for tightening the leather foundation or for relaxing its tension, as desired.

Although I have described my improvements as applied to the seat of a bicycle-saddle, yet my improvements are also applicable to the seats of saddles for tricycles and other velocipedes and vehicles.

Having now described the nature of my invention and the manner in which the same is to be performed, I wish it to be understood that I claim as my invention—

1. The combination, with the frame or support, and the seat composed of leather or similar flexible material, of the adjusting devices comprising a slotted plate, a pin working in the slot, and a screw for adjusting the position of said pin in said slot, substantially as described.

2. The combination of the seat, made of leather or similar flexible material, the concavo-convex support or frame having three arms or branches, and the fastening devices for securing the seat to the ends of said arms or branches; substantially as described.

JAMES ALFRED LAMPLUGH. [L. S.]

Witnesses:

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