

No. 777,847.

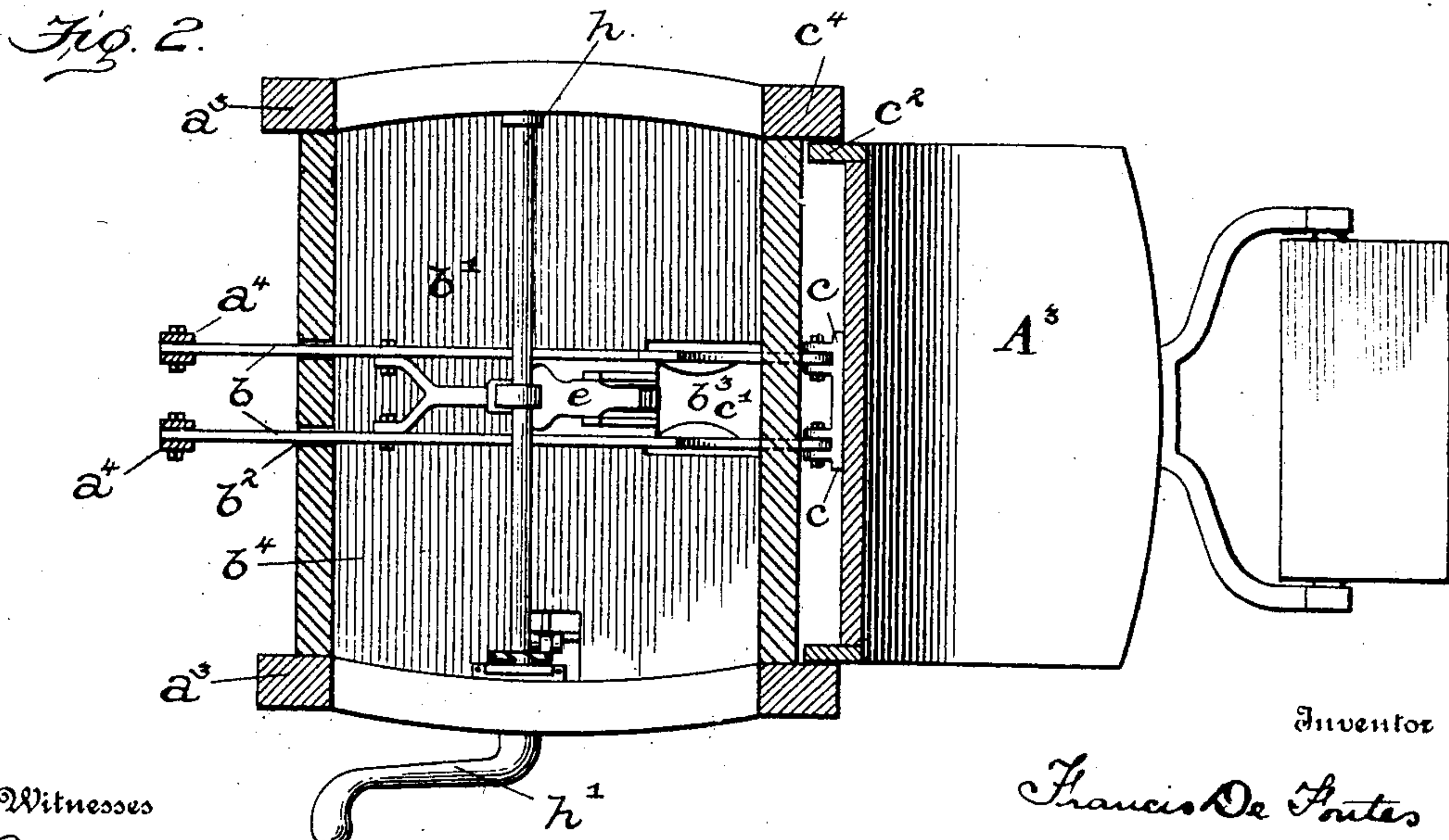
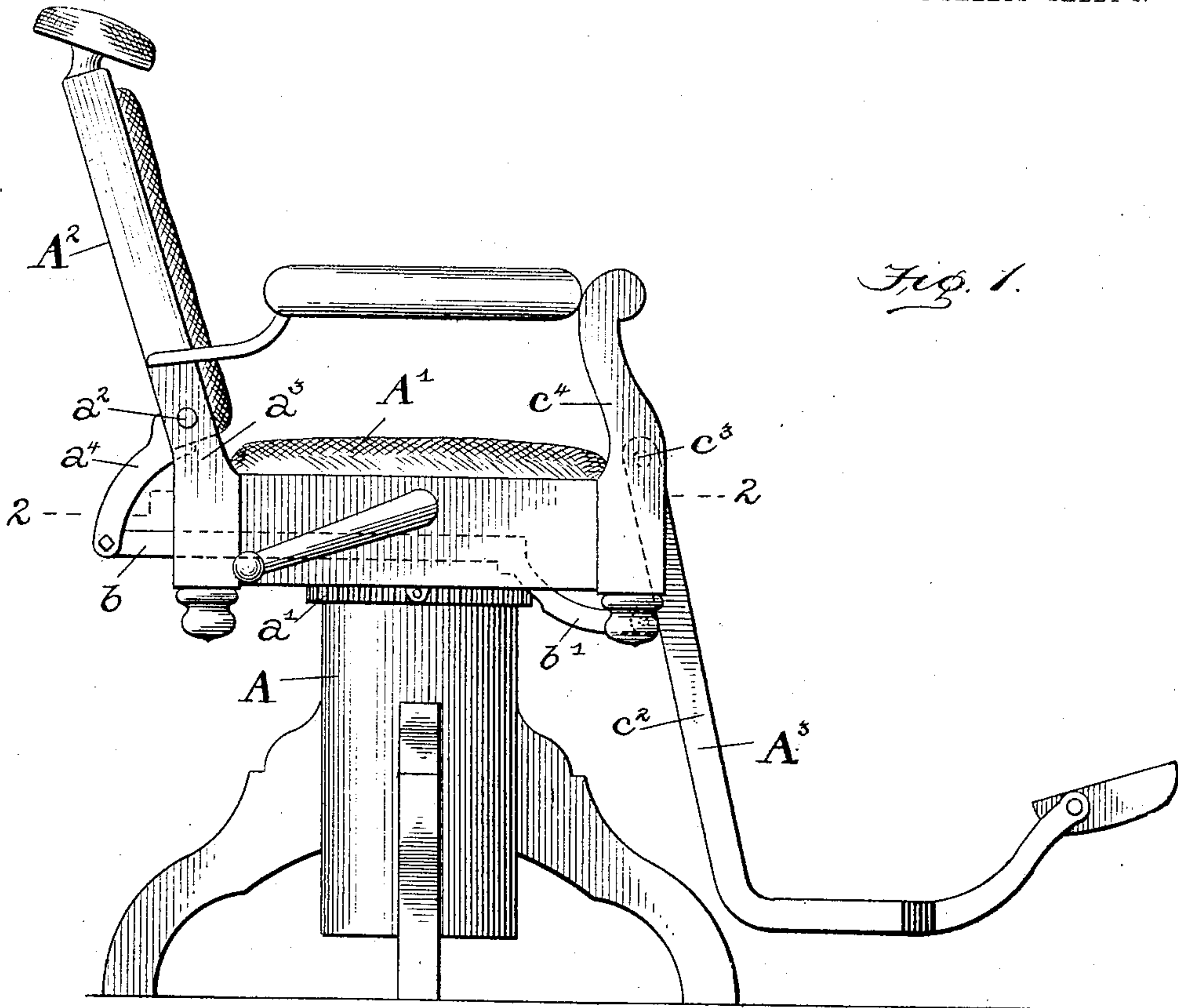
PATENTED DEC. 20, 1904.

F. DE FONTES.
BARBER'S CHAIR.

APPLICATION FILED MAY 16, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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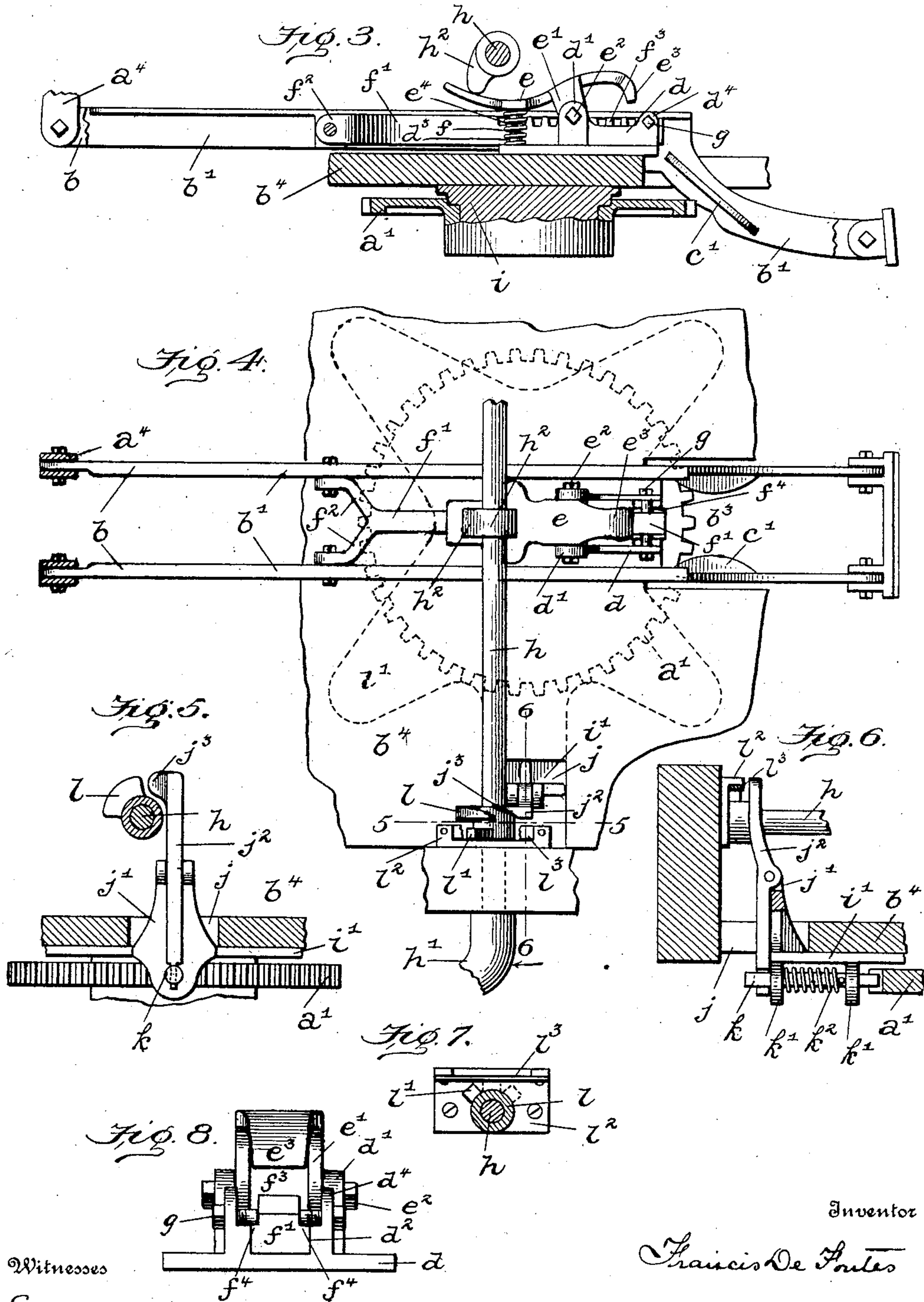
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UNITED STATES PATENT OFFICE.

FRANCIS DE FONTES, OF BALTIMORE, MARYLAND.

BARBER'S CHAIR.

SPECIFICATION forming part of Letters Patent No. 777,847, dated December 20, 1904.

Application filed May 16, 1904. Serial No. 208,066.

To all whom it may concern:

Be it known that I, FRANCIS DE FONTES, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Barbers' Chairs, of which the following is a specification.

This invention relates to improvements in barbers' chairs, and has for its object to provide a simple construction whereby the back and foot-rest may be adjusted simultaneously and held in the adjusted position and whereby the chair may be revolved or turned in a horizontal plane and locked in any position desired.

The invention consists in the novel construction, combination, and arrangement of parts hereinafter described, and more particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 illustrates a side elevation of a chair provided with my improved construction. Fig. 2 illustrates a sectional plan view of the same on the line 2 2 of Fig. 1. Fig. 3 illustrates a sectional elevation of the mechanism for locking the back and foot-rest in the adjusted position. Fig. 4 illustrates a plan view of the same. Fig. 5 illustrates a sectional elevation of the horizontal adjustment-locking mechanism, the section being taken on the line 5 5 of Fig. 4. Fig. 6 illustrates a side elevation of the same looking in the direction of the dart on the line 6 6 of Fig. 4. Fig. 7 illustrates a detail of the shaft-locking device, and Fig. 8 illustrates a front elevation of the device for locking the back and foot-rest in their adjusted positions.

In the drawings, A designates a base of any suitable construction and which is provided at its upper end with a stationary circular rack a' for a purpose to be presently described.

The chair A' is provided with the usual side arms, the pivoted back A^2 , and pivoted foot-rest A^3 . The back A^2 is pivoted at its lower end a^2 between the short rear standards a^3 , and the extreme lower end of said back is provided with two downwardly and outwardly curved brackets a^4 , which latter are bifurcated at their lower ends and take over the outer projecting ends b of horizontal rods b' . In

the present instance two of these horizontal rods b' are provided, and they extend from said curved brackets a^4 through vertical slots b^2 in the rear wall of the seat-box and toward the foot-rest A^3 . The forward end of these rods b' curve downwardly and project through a slot b^3 in the bottom b^4 of said seat-box, and the outer end of each of said rods is pivotally connected to a bracket c on the rear side of the said foot-rest A^3 . Each of these rods is provided with a laterally-projecting web c' at that point where the ends curve down from the horizontal portion merely for the purpose of strengthening same at that point.

The foot-rest A^3 comprises the vertically-extending side arms c^2 , which are pivotally connected at c^3 to the front standards c^4 of the arms. It will thus be seen that the pivoted back A^2 and the pivoted foot-rest A^3 are connected by means of the curved brackets a^4 and rods b' , and when the back is swung toward the rear by swinging on its pivot end a^2 the foot-rest A^3 will be simultaneously elevated.

A stationary bracket d is secured in any suitable manner to the bottom b^4 of the seat-box, and said bracket has position at the edge of the slot b^3 in said bottom. This bracket is provided at each side with a vertically-extending lug d' and also has a central guideway d^2 , which extends longitudinally between said vertical lugs. At the rear and on each side of the guideway the bracket is provided with vertically-projecting pins d^3 , and at the forward end the bracket is provided at opposite sides with a lug d^4 .

A pawl device e is provided at opposite sides with downwardly-projecting lugs e' , which fit between the vertical lugs d' on the bracket d and are pivoted thereto by a bolt e^2 . The forward end of this pawl is curved downwardly at e^3 for a purpose to be presently described, while the rear end of said pawl curves upwardly and on its bottom surface is provided with down-projecting pins e^4 , which register with the vertical pins d^3 on the bracket beneath. A spiral spring f has its opposite ends fitting around said pins d^3 and d^4 , and said springs serve to keep the forward end e^3 of the pawl pressed downward.

A rack-bar f' extends horizontally beneath the pawl e and between the two rods b' , and said rack-bar at its rear end is provided with two lateral arms f'' , which extend in opposite
 5 directions and are pivotally secured to the rods b' . The forward end of this bar f' is provided on its top surface with a rack f^3 and also has two horizontal side flanges f^4 . This forward end of the rack-bar extends through
 10 the central guideway d^2 of the stationary bracket and is free to move in a horizontal plane between the vertical lugs and beneath the pawl e when the latter is elevated. A set-screw g extends through each of the lugs d^4
 15 on the forward end of the bracket d , and the inner end of said screws project over the side flanges f^4 on the rack-bar and serve to keep the end of said bar down in the central guideway d^2 . It will therefore be seen that the
 20 horizontal movement of the rods b' and rack-bar f' can only take place after the pawl e has been raised out of engagement with the rack. The mechanism for operating the pawl will now be described.

25 A horizontal rock-shaft h extends across the seat-box in a direction at right angles to the rods b' and over the rear end of the pawl e . This shaft extends through one of the sides of the seat-box and is provided at its outer end
 30 with an operating-arm h' .

A cam h^2 is secured on the shaft h and has position immediately above the pawl e , and when the shaft is rocked so that the cam will be moved downwardly it will contact with the
 35 pawl and depress the rear end and elevate the forward end e^3 and disengage the latter from the rack f^3 and permit the rack-bar f' and rods b' to be moved in a horizontal plane, so as to adjust the back and foot-rest. When the back
 40 and foot-rest have been properly adjusted, the shaft is rocked back to its normal position and the pawl will again engage the rack and hold the parts in the adjusted position.

The mechanism thus far described relates particularly to the adjustment of the back and
 45 foot-rest and with the exception of the rock-shaft h and circular rack a' has no part in the horizontal or revoluble movement of the chair. The mechanism therefore now to be described
 50 relates particularly to the horizontal movement of the chair with respect to the base.

The base A is provided at its upper end with a head i , which latter has a plurality of lateral arms i' , which are best seen in broken
 55 lines in Fig. 4, and these arms extend in a horizontal direction and support the chair-bottom b^4 above the circular rack a' . The chair-bottom b^4 is provided at one side with a slot j , which latter has position beneath the rock-shaft h . A bracket j' is supported on the
 60 outer end of one of the arms i' , and said bracket extends vertically through the slot in the bottom b^4 and pivotally supports a cam-lever j^2 , the upper end of which is provided with a
 65 cam-surface j^3 , which projects laterally and

over the rock-shaft h . The lower end of the cam-lever j^2 passes through a vertical slot in the outer end of a horizontally-movable bolt
 70 k . This bolt is supported in two lugs k' , which project from the arm i' , and a spiral spring k^2 surrounds said bolt and serves to keep the inner end thereof in engagement with the circular rack a' and keep the chair normally locked against horizontal movement.

A cam l is provided on the horizontal shaft
 75 h , and said cam has position with respect to the cam-lever j^2 , whereby when the shaft is rocked so as to throw the cam forward it will contact with the cam-surface j^3 on said lever and move the upper end of said cam-lever in-
 80 wardly and the lower end of said lever outwardly, thereby withdrawing the bolt from engagement with the rack a' and permitting the chair to be revolved in a horizontal plane. A lug l' is provided on the cam l and pro-
 85 jects laterally therefrom, and said lug has a sweeping movement when the shaft h is rocked.

A plate l^2 is secured to the side of the seat-box and carries a flat leaf-spring l^3 , which lat-
 90 ter has position immediately above and in the path of the lug l' , and as the latter is turned in a vertical plane the lug contacts with the spring-plate l^3 and bows the latter in order to pass. This construction enables the shaft h
 95 to be held in either of the two operated positions—that is, so as to hold the pawl device e out of engagement with the rack f^3 , as in Fig. 3, or to hold the cam-lever j^2 and bolt k in the withdrawn position from the circular rack a' .
 100

When the lug l' on the cam l has the vertical position and in contact with the spring-plate l^3 , the rock-shaft will be held in the in-
 operative position.

Having thus fully described my invention,
 105 what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a base, of a seat mounted on said base; a back pivoted with respect to said seat; a foot-rest also pivoted with
 110 respect to said seat; lever mechanism extending horizontally below the seat; a rack-bar pivoted at its rear end to said lever mechanism and extending toward the foot-rest; a guideway for the forward end of said rack-
 115 bar; a pawl for engaging the rack-bar whereby to hold the lever mechanism stationary; means for pivotally connecting the back to one end of said lever mechanism, means for pivotally connecting the other end of said lever
 120 mechanism to said foot-rest; a shaft extending above said rack-bar, and a cam on said shaft for engaging the pawl.

2. The combination with a base, of a seat mounted on said base; a back pivoted with re-
 125 spect to said seat; a foot-rest also pivoted with respect to said seat; a pair of levers extending horizontally beneath said seat; a bar extending in a direction parallel with said levers and between the latter and pivoted at one end
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to said levers and at its free end having a rack; a pawl pivotally mounted between said levers and arranged to engage said rack; a shaft; a cam on said shaft for operating said pawl; brackets pivotally connecting the back to one end of said levers and means for pivotally connecting the other ends of said levers to said foot-rest.

3. The combination with a base, of a seat mounted on said base; a circular rack rigidly secured to said base; a horizontally-movable

pin beneath the seat and at the side of said rack; a pivoted vertical lever one end of which is connected to said pin; a cam for operating the other end of said lever, and means for operating said cam.

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

FRANCIS DE FONTES.

Witnesses:

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FELIX R. SULLIVAN.