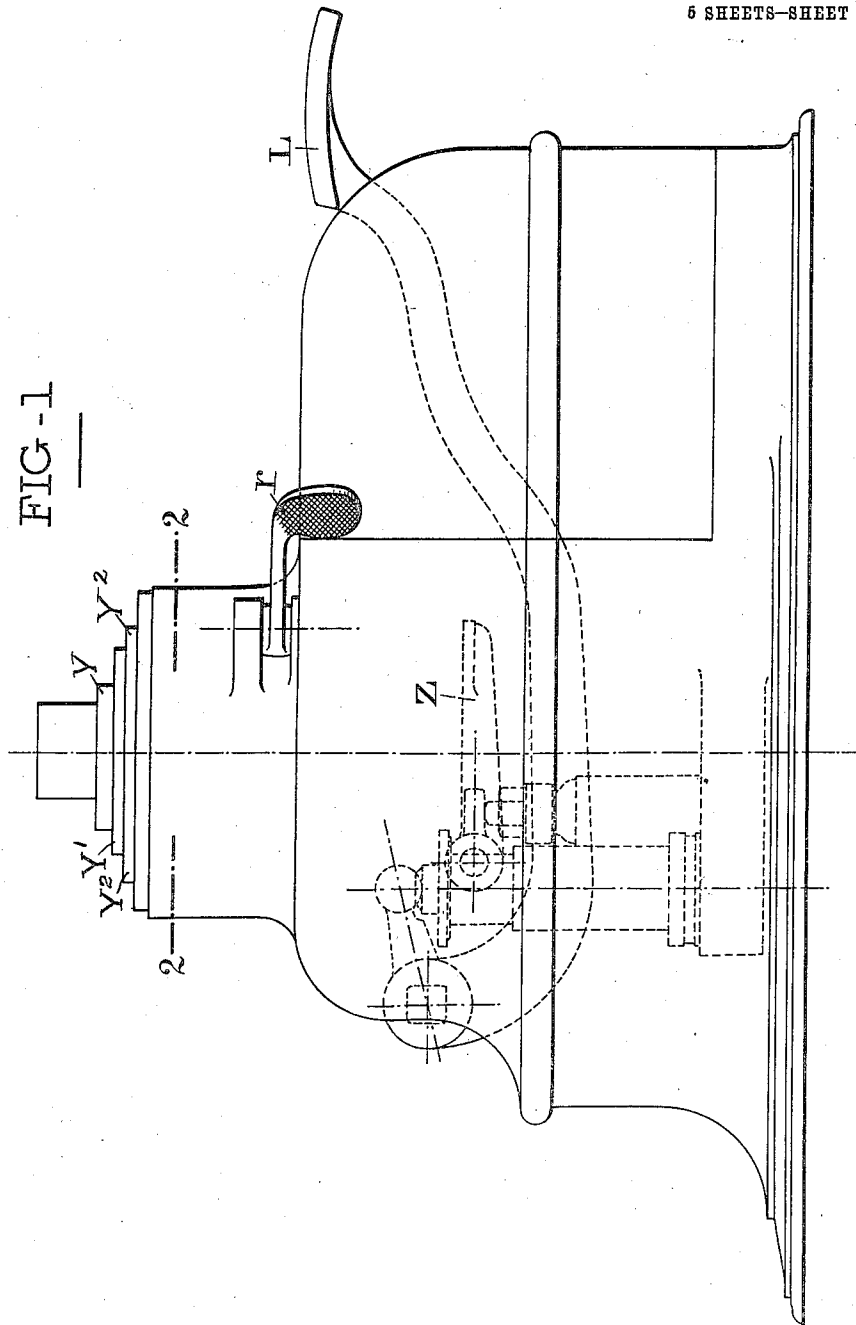


P. P. DESPINS.
 PEDESTAL CHAIR.
 APPLICATION FILED DEC. 21, 1912.

1,069,863.

Patented Aug. 12, 1913.

5 SHEETS—SHEET 1.



Witnesses:

Jesou J. J. J. J.
Guillaume Pioche

Inventor:

by *Ren Paul Despins*

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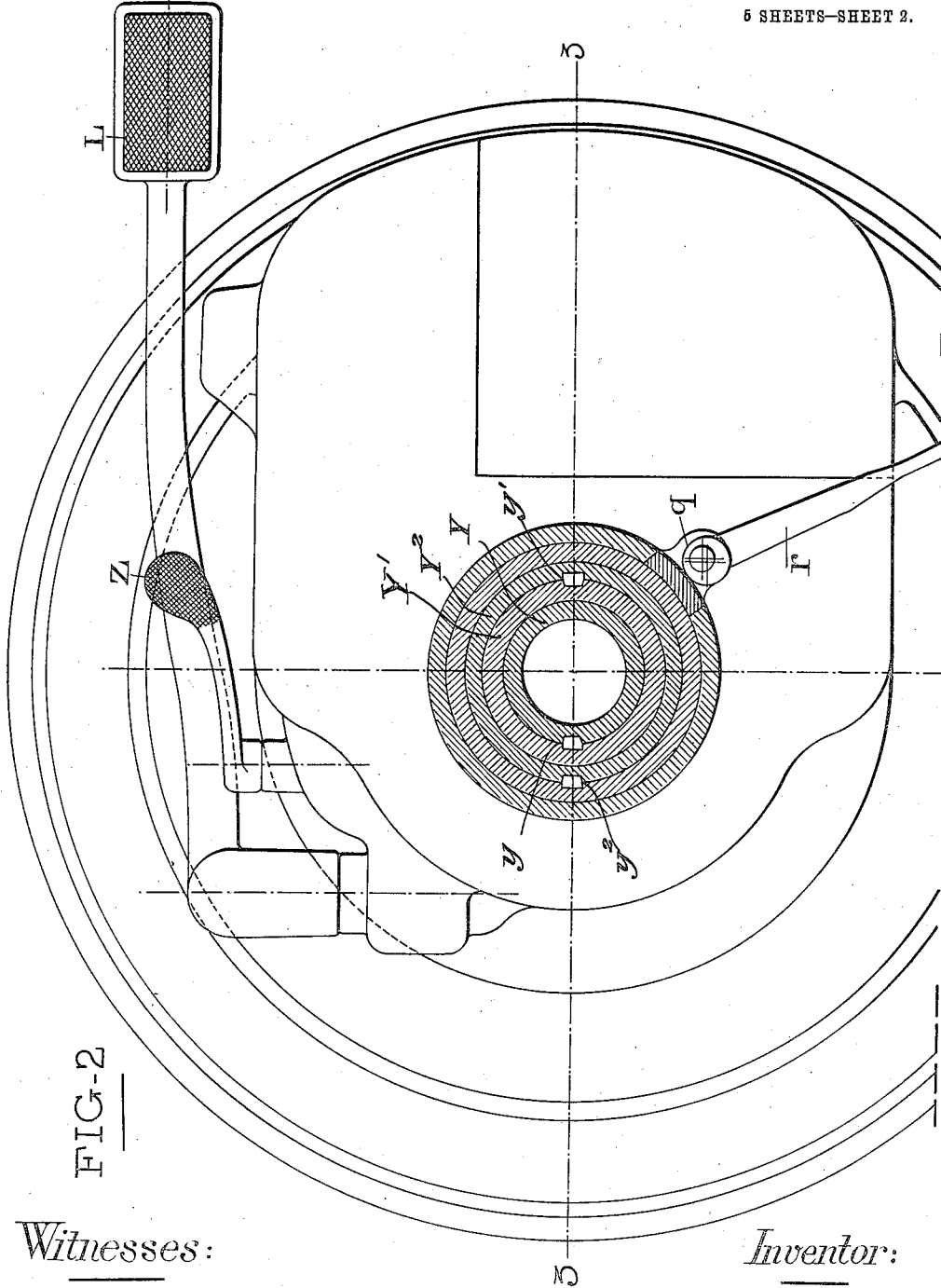


FIG-2

Witnesses:

Jean Formisain
Guillaume Dicoche

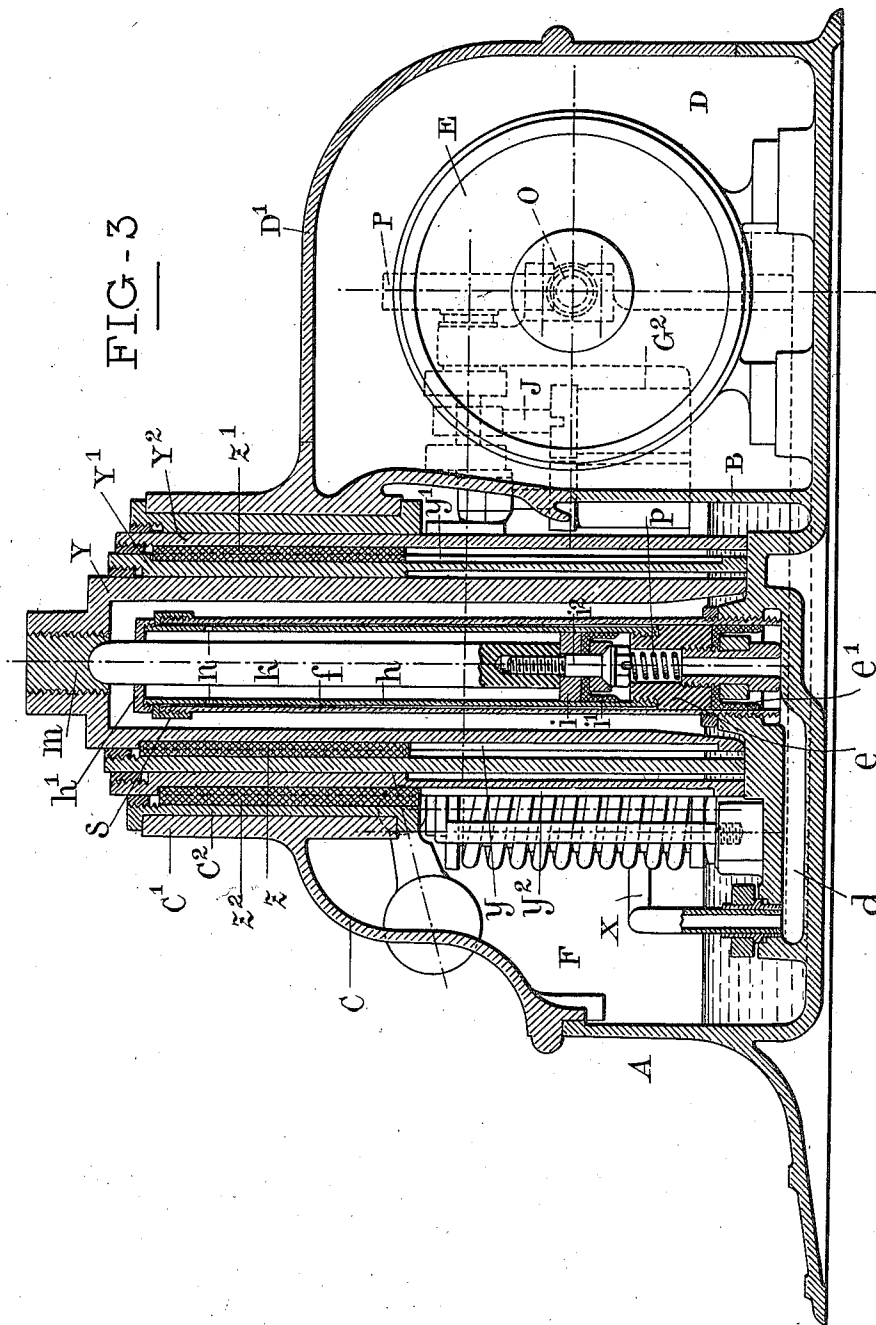
Inventor:

Paul Despins

1,069,863.

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PEDESTAL CHAIR,
APPLICATION FILED DEC. 21, 1912.

Patented Aug. 12, 1913.
5 SHEETS—SHEET 3.



Witnesses:

Jean Fermain
Guillaume Pioche

Inventor:

Pierre Paul Despins

P. P. DESPINS.
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APPLICATION FILED DEC. 21, 1912.

1,069,863.

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5 SHEETS—SHEET 4.

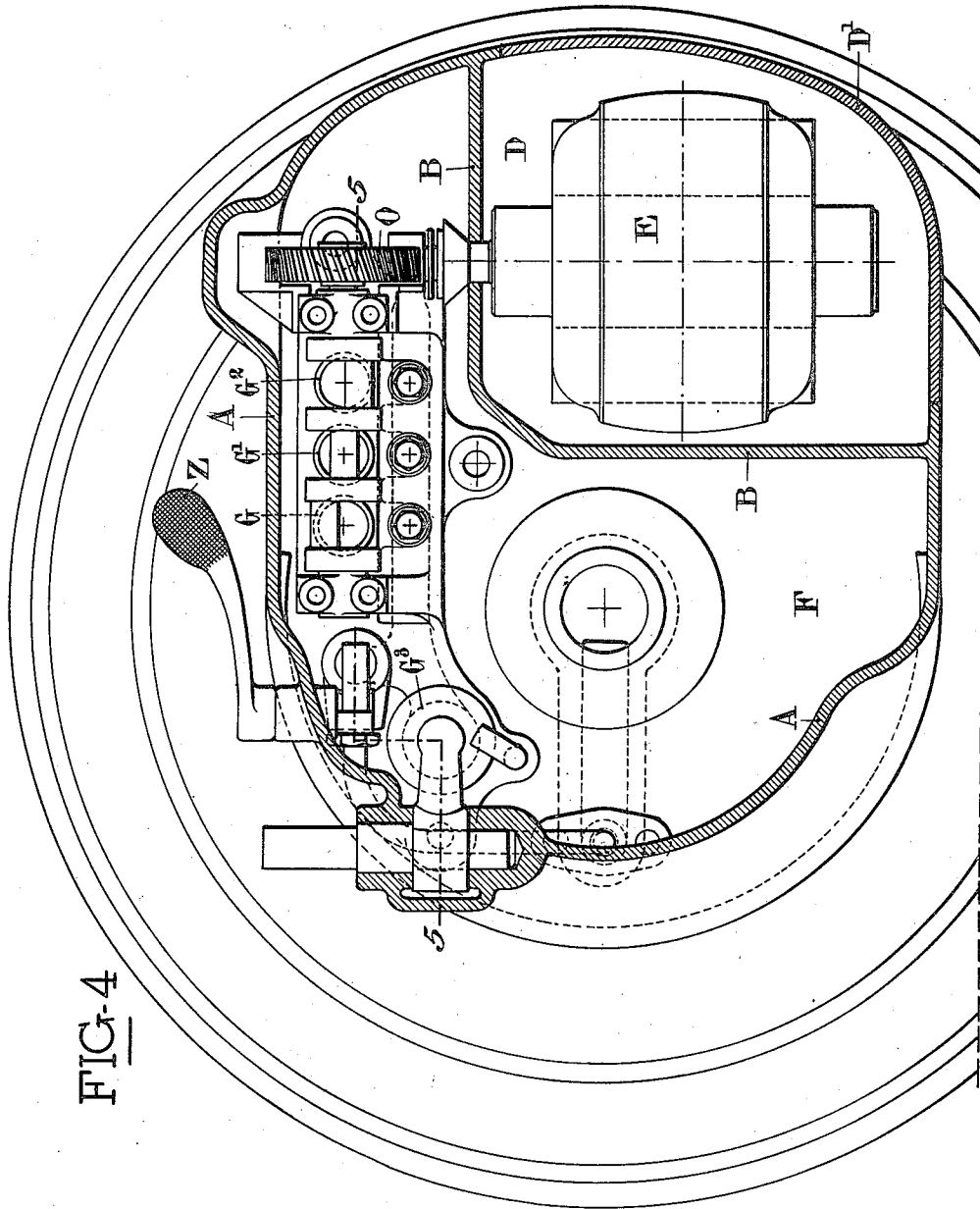


FIG-4

Witnesses:

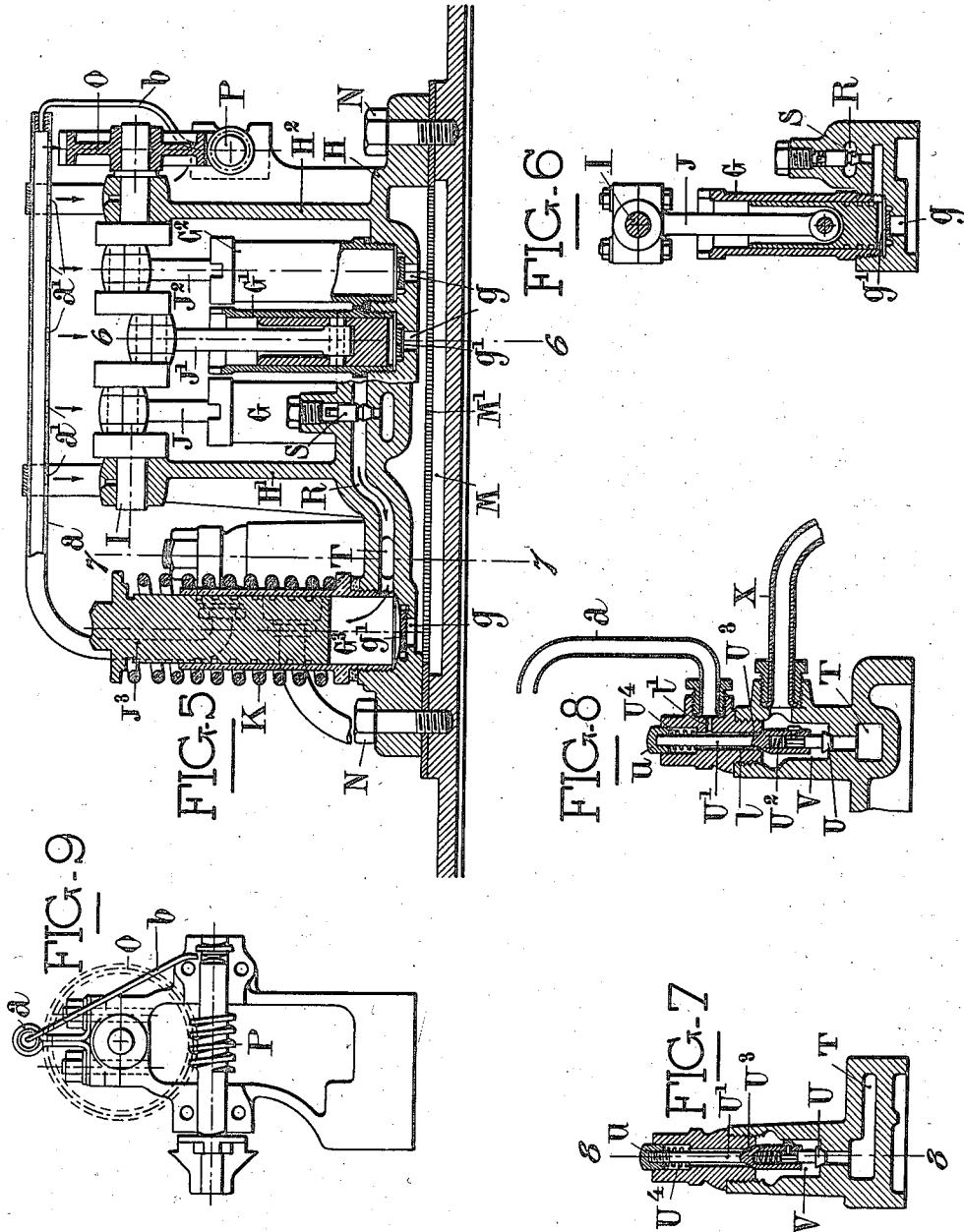
Jean Germain
Guillaume Bioche

Inventor:

Rene Paul Despins

1,069,863.

Patented Aug. 12, 1913.
 5 SHEETS—SHEET 5.



Witnesses:

Jos. Germain
Guillaume Pioche

Inventor:

Paul Paul Despins

UNITED STATES PATENT OFFICE.

PIERRE PAUL DESPINS, OF LYON, FRANCE.

PEDESTAL-CHAIR.

1,069,863.

Specification of Letters Patent.

Patented Aug. 12, 1913.

Application filed December 21, 1912. Serial No. 733,058.

To all whom it may concern:

Be it known that I, PIERRE PAUL DESPINS, a citizen of the French Republic, residing at 84 Rue de la Buire, Lyon, France, have invented a certain new and useful Improvement in Pedestal-Chairs, of which the following is a specification.

This invention relates to pedestal chairs for dentists, barbers and the like, and it has for its object an improved device which enables the lifting of the chair at any desired height by a pressure on an electric push.

With this object in view the invention consists in the combination with a base of any suitable form, of an electric motor lodged in a tight casing in the interior of the base, a pump acted on by the motor, a telescopic standard and means for distributing oil under pressure to the working parts of the pedestal.

A further object of the invention consists in the construction hereinafter described which allows the lodging of the whole mechanism in a very limited space, and a perfect lubricating of the moving parts of the apparatus.

In order that the invention may be easily understood it is represented in the annexed drawings in which:—

Figure 1 is an elevation of the pedestal. Fig. 2 is a plan view of the same, partly in section on the line 2—2, Fig. 1. Fig. 3 is a sectional elevation on the line 3—3. Fig. 4 is a plan view, partly in section, showing the position of the motor and the pump. Fig. 5 is a vertical section of the pump on the line 5—5, Fig. 4. Figs. 6, 7 and 8 are sections on lines 6—6, 7—7 and 8—8, respectively. Fig. 9 is an end view of the mechanism transmitting the movement from the electric motor to the crank shaft of the pump.

A is a cast iron base in form of basin divided in two tight chambers by a partition B and surrounded by a cap C provided with sleeve C¹ and bearing C² for the telescopic standard. The chamber D in which stands the electric motor E is closed by a cover D¹ which allows the control and lubrication of the motor.

The chamber F receives the pump, the distributing device and the telescopic standard. The pump, in its preferred form, has three barrels G G¹ G² (Fig. 5) fixed on a base H having two supports H¹ H² for the crank shaft I the cranks of which are at 120°

and connected with the piston rods J, J¹ J². On the base H is also fixed a supplementary barrel G³ having a piston J³ constantly pushed upward by a spring K. This pump may be worked by a pedal L (Figs. 1 and 2) as usual, if the electric current were accidentally broken.

The barrels G G¹ G² G³ communicate at their lower end, by means of holes *g* provided with valves *g*¹, with an oil tank M having a wire gauze M¹ which prevents the impurities contained in oil to pass through the barrels. All these devices are fixed by screws N to the base A of the apparatus.

At the end of the shaft I is keyed a helicoidal wheel O which meshes with a worm wheel P fixed on the shaft of the electric motor E and which transmits the movement from this latter to the pumps with the necessary speed reduction.

When the motor is running the oil contained in the tank M is sucked through the holes *g* of the barrels G G¹ G² and forced in the canal R which is closed after each piston stroke by the valves S of the barrels. The oil thus forced through the canal R to the hole T, forces open a valve U sliding in a hollow rod U¹ and enters the chamber V, after which it passes through the pipe X and lifts the telescopic tubes Y Y¹ Y² of the standard in the manner hereinafter explained. As soon as the electric motor stops the forcing back of the oil ceases, the valve U falls down on its seat under the pressure of a spring U² and the flowing of oil is prevented. The lifting of the telescopic tubes Y Y¹ Y² is thus stopped and they are maintained in place by the oil which cannot flow away. The rod U¹ is provided with a conical valve U³ which normally is pressed on its seat by a spring U⁴.

In order to lower the telescopic tubes Y Y¹ Y² it is sufficient to remove the oil from under them. To that end a pressure is exerted on the head *u* of the rod U¹ by means of a pedal Z (Figs. 1, 2 and 4). The valve U³ then opens and the oil from the central pillar under pressure owing to the weight of the tubes Y Y¹ Y² and the chair, flows by *l* and *l*¹ in the pipe *a* and to the tank M. The pipe *a* is perforated at *a*¹ opposite the bearings, connecting rods, worm wheel and other moving parts which are thereby perfectly and constantly lubricated. A tube *b* is also provided for lubricating the bracket of the worm wheel, so that the whole

oil contained in the inner tubes circulates and lubricates the moving parts of the apparatus at every lowering of the standard. The lifting of this latter is obtained as follows:—Oil under pressure supplied by the pump to the pipe X and canal *d* is discharged under the piston *e* within a cylinder *f* screwed to the center of the base A. Suitable leathers *e*¹ are provided, and the piston *e* has secured thereto the cylinder *h*, within which is another piston *i* provided with leather *i*¹, and having a piston rod *k* fixed by the screw *i*². This rod *k* passes loosely through the cap *h*¹ and bears against the lower side of the plug *m* in the top of the inner telescopic tube Y and pushes same in its lifting movement. When the large piston *e* arrives at the end of its run it is retained by the cap *s* screwed to the top of the tube *f*, and the small piston *i* continues alone to lift. When it arrives at the end of its run, it allows the oil to escape through the holes *n* and fall down in the tank M, so that the motor may continue to run without any disadvantage for the apparatus.

The three telescopic tubes Y Y¹ Y² are provided with longitudinal grooves *y* *y*¹ *y*² and keys *z* *z*¹ *z*², so that when the inner tube Y arrives at the end of its run the lower abutment of its groove *y* bears against the key *z* on the interior of the second tube Y¹ and raises this latter in its lifting movement. In the same manner the outer tube Y² is raised by the abutment of the groove end *y*¹ against the key *z*¹. The whole run of the three telescopic tubes Y Y¹ Y² is equal to the whole run of the two pistons *e* and *i*.

In addition to the above described device there is also a spring *p* which weakens the shocks when the telescopic tubes are lowered. The apparatus is also provided with a locking device which locks the standard at every desired position, and which consists in an eccentric roller *q* (Figs. 1 and 2) capable of wedging the tube Y² under the action of a lever *r*.

The electric current is supplied to the motor by means of any suitable connection.

What I claim and desire to secure by Letters Patent is:—

1. Pedestal chair for dentists having in combination a base, a casing in the base separated in two tight chambers by a partition,

an electric motor in one chamber, a pump, means for transmitting the movement from the electric motor to the pump, telescopic tubes, and canals provided with valves and putting in communication the pump with said telescopic tubes, substantially as described.

2. Pedestal chair for dentists having in combination a base, a casing in the base separated in two tight chambers by a partition, an electric motor in one chamber, a pump, means for transmitting the movement from the electric motor to the pump, telescopic tubes, canals provided with valves and putting in communication the pump with said telescopic tubes, and oil pipes perforated above the moving parts of the apparatus for lubricating same, substantially as described.

3. Pedestal chair for dentists having in combination a base, a casing in the base separated in two tight chambers by a partition, an electric motor in one chamber, a pump, means for transmitting the movement from the electric motor to the pump, telescopic tubes, canals provided with valves and putting in communication the pump with said telescopic tubes, oil pipes perforated above the moving parts of the apparatus for lubricating same, another pump acted on by a pedal, and pipes in communication with those of the other pump, substantially as described.

4. Pedestal chair for dentists having in combination a base, a casing in the base separated into two chambers by a partition, an electric motor in one chamber, a pump, means for transmitting movement from the electric motor to the pump, a tube mounted in the base, a tube sliding therein and provided with a piston at its lower end, a second piston and rod arranged in said inner tube, a series of telescoping cylinders, said rod arranged to lift the same, an aperture in the inner tube, and valved channels adapted to connect the pump with said tubes, substantially as described.

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

PIERRE PAUL DESPINS.

Witnesses:

JEAN GERMAIN,
GUILLAUME PIOCHE.