

No. 721,475.

PATENTED FEB. 24, 1903.

A. STOCQUART.

DEVICE FOR THE SUSPENSION OF VEHICLES BY MEANS OF SPRINGS
WITH COMPRESSED AIR.

APPLICATION FILED OCT. 17, 1901.

NO MODEL.

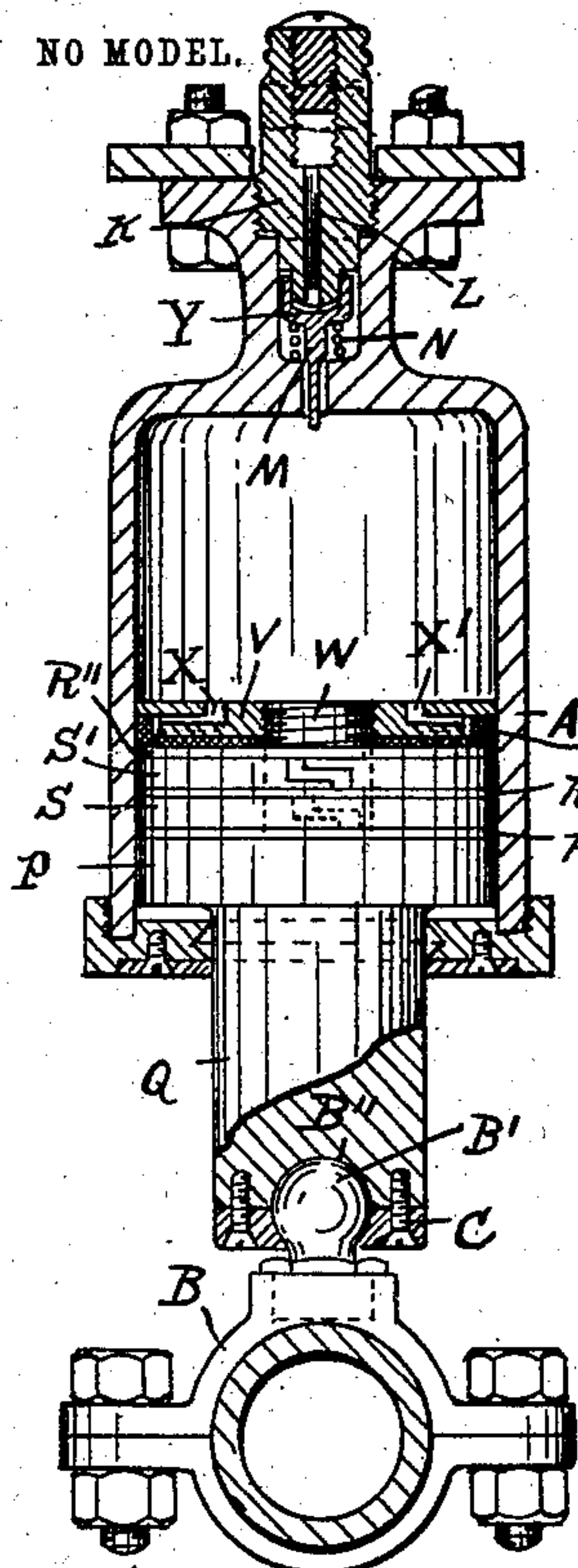


Fig. 2.

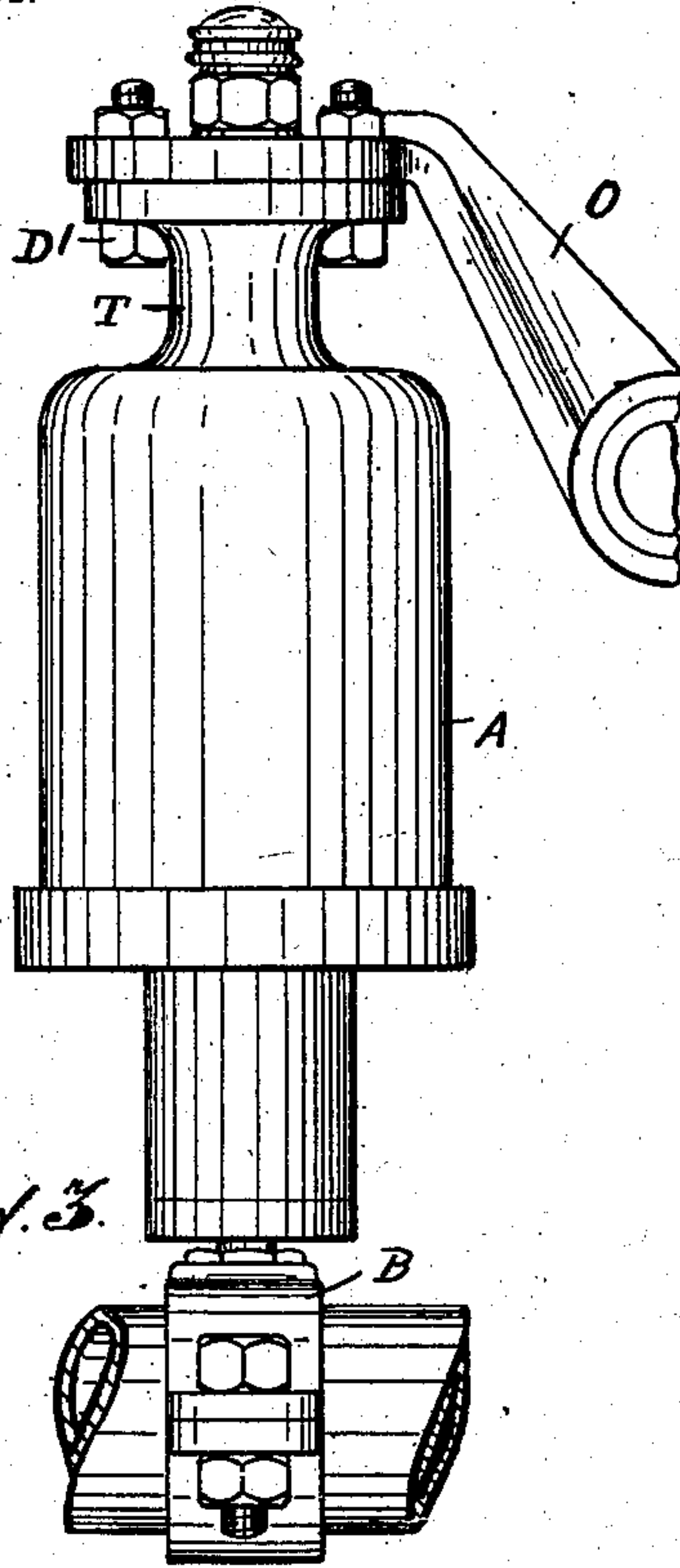


Fig. 3.

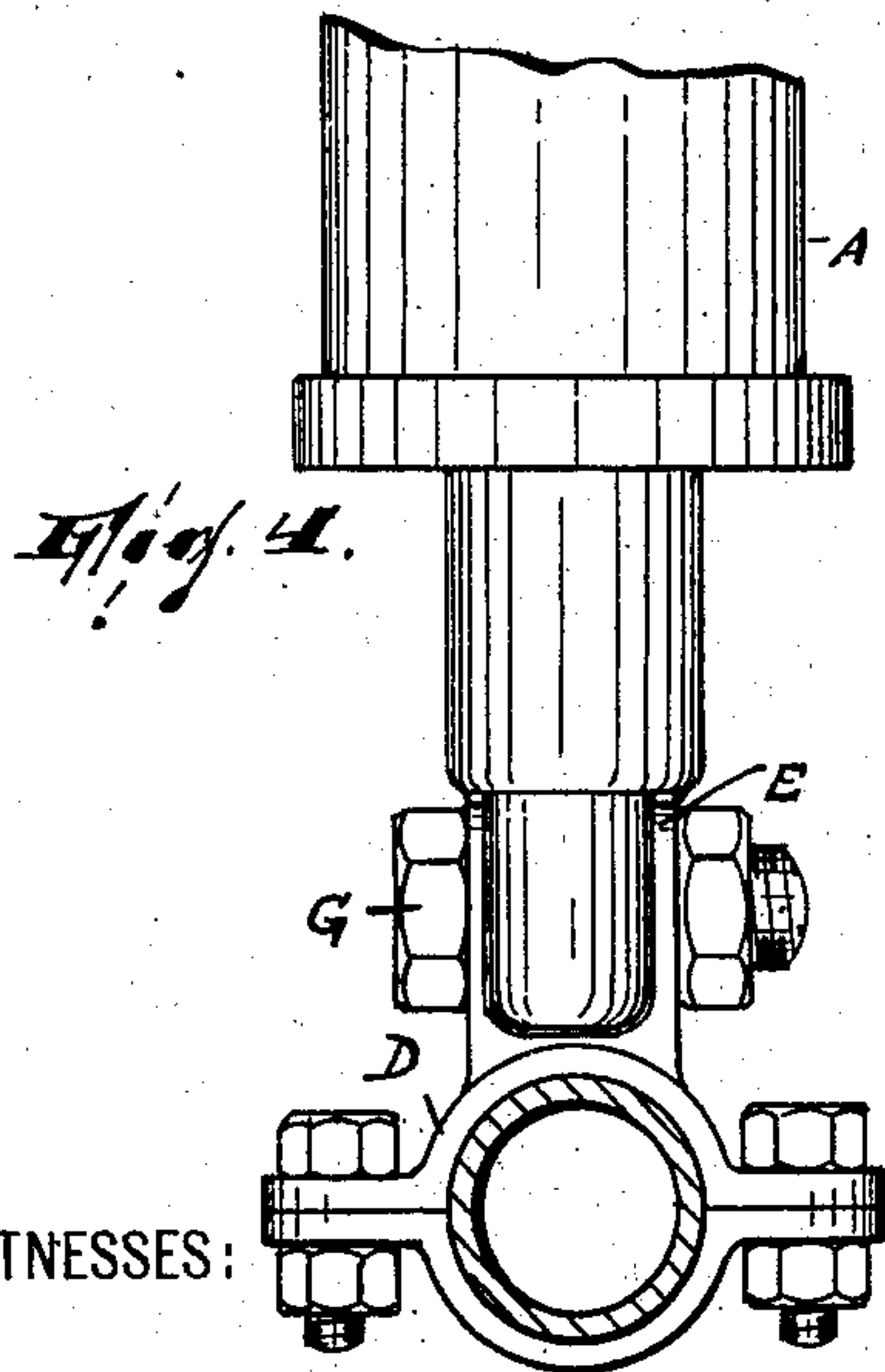


Fig. 4.

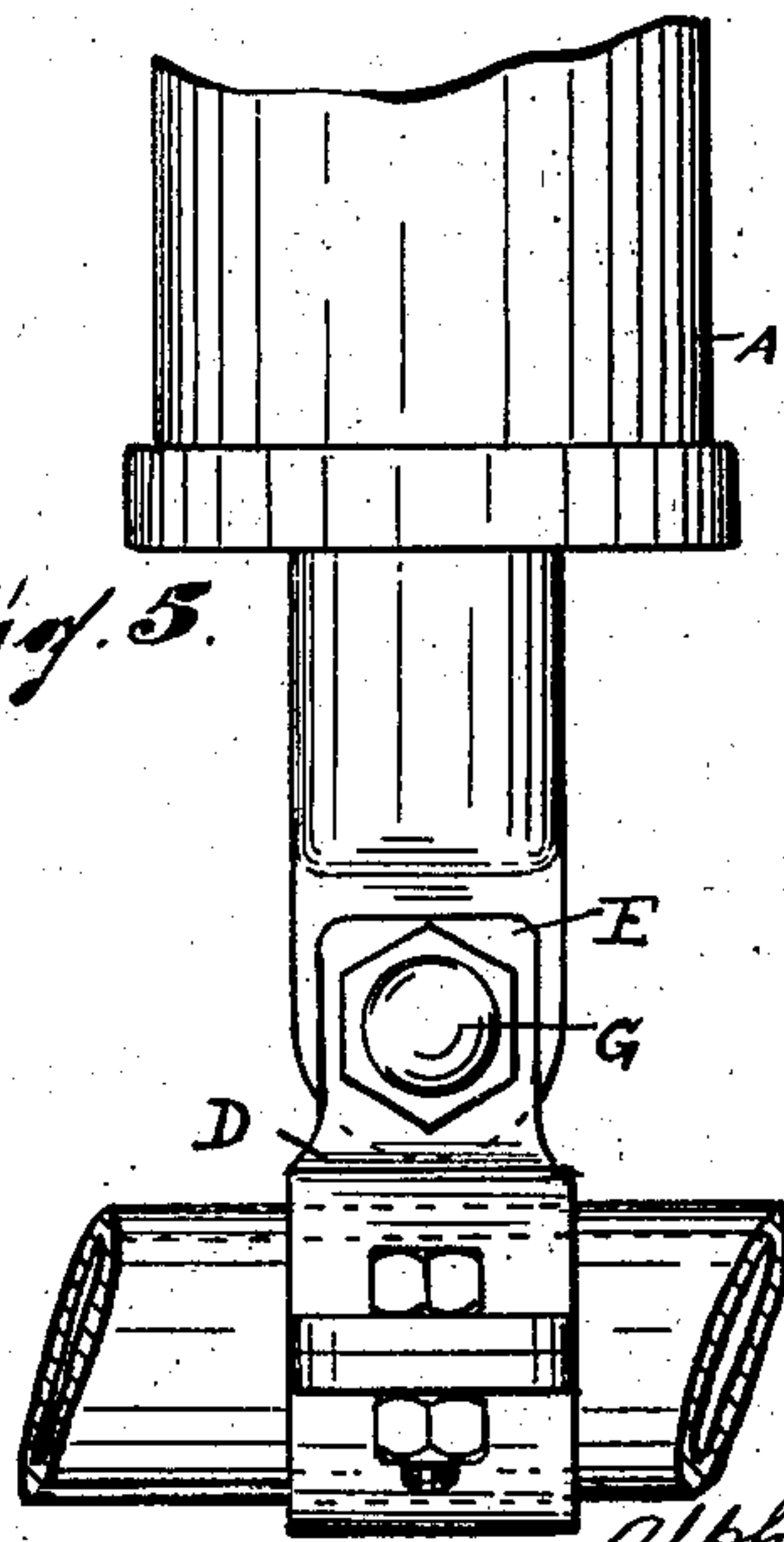


Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ALPHONSE STOCQUART, OF PARIS, FRANCE.

DEVICE FOR THE SUSPENSION OF VEHICLES BY MEANS OF SPRINGS WITH COMPRESSED AIR.

SPECIFICATION forming part of Letters Patent No. 721,475, dated February 24, 1903.

Application filed October 17, 1901. Serial No. 78,988. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSE STOCQUART, advocate, a citizen of the French Republic, residing at 3 Rue Hogador, Paris, France, have invented a new and useful Pneumatic Vehicle-Cushion; and I do hereby declare the following to be a full, clear, and exact description of the same.

The object of this invention is to provide an improved form of vehicle-cushion of the kind wherein a piston and cylinder acting to compress a body of air or other suitable gas comprise the essential elements.

The invention will be found fully illustrated in the accompanying drawings, wherein—

Figure 1 is a view, partly in section and partly in elevation, of one form of my invention. Fig. 2 is a vertical sectional view of the upper portion of a modified form of the device as shown in Fig. 1. Fig. 3 is a view in side elevation of what is shown in Fig. 1, and Figs. 4 and 5 are views in front and side elevation of a modified form of the invention.

In said drawings, A is the cylinder, while P is the main portion of the piston, Q being the piston-rod. These parts are preferably disposed with the cylinder uppermost, the piston-rod working in the lower head of the cylinder, though they may be inverted. Besides the part P the piston comprises a collar R, a metallic elastic segment S, another metallic collar R', another metallic and elastic segment S', and still another metallic collar R'', these various parts being superposed on the part P in the order named. They are all secured together by a block V, which is screwed onto a threaded part W, said block being separated from the uppermost collar R'' by a leather washer U. The block V is perforated by air-holes X X', which allow the air to penetrate between the faces of the block V and of the washer U, so as to produce a hermetic joint between piston and cylinder.

It will be understood that the piston may be formed in any other desired manner to insure a close fit between the same and the cylinder without departing from the spirit of my invention.

Upon the device being put into use it is initially charged with the air or other gas forming the elastic medium between the piston and cylinder. For this purpose either at the upper head of the cylinder or in the side of said cylinder may be formed an inlet-

duct, in which is disposed an inwardly-opening valve Y, controlled by a spiral spring N, which is coiled about the valve-stem M, said valve controlling a channel L, which extends through the charging-plug K. In filling the cylinder any suitable form of compression-pump is temporarily attached to the charging-plug.

As a means for securing the cylinder portion of the device in place in the vehicle, as to a part of said vehicle, such as O, an integral pedestal T may be integrally formed on the top of the cylinder, said part O and the pedestal being secured together by bolts D'.

The piston is supported on the axle or some other part of the running-gear by means of a two-part bracket B, into which is screwed a ball-headed part B', the ball of which fits in a recess B'' in the lower end of the piston-rod, the ball being held in place by a plate C, fixed to the piston-rod, or said bracket may be in the form of that marked D in Figs. 4 and 5, where said part has a bifurcated portion E, which receives the lower flattened end of the piston-rod, the several parts being pivotally connected by a bolt G.

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

1. The combination of a cylinder adapted to receive a compressible fluid, a piston disposed in said cylinder and having a piston-rod projecting out of the same at one end thereof, a pedestal forming an integral extension of the free end of the cylinder, and a mounting-bracket operatively secured to the free end of the piston-rod, substantially as described.

2. The combination of a cylinder adapted to receive a compressible fluid, a piston disposed in said cylinder and having a piston-rod projecting out of the same at one end thereof, a pedestal forming an integral extension of the free end of the cylinder, and a mounting-bracket flexibly secured to the free end of the piston-rod, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALPHONSE STOCQUART.

Witnesses:

J. H. WOREMSER,
GREGORY PHELAN.