June 19, 1923. 1,459,121

F. VAN DE WIEL

STOPPER FOR CLOSING THE CONTAINERS OF ELECTRIC ACCUMULATORS

Original Filed Oct. 25, 1920

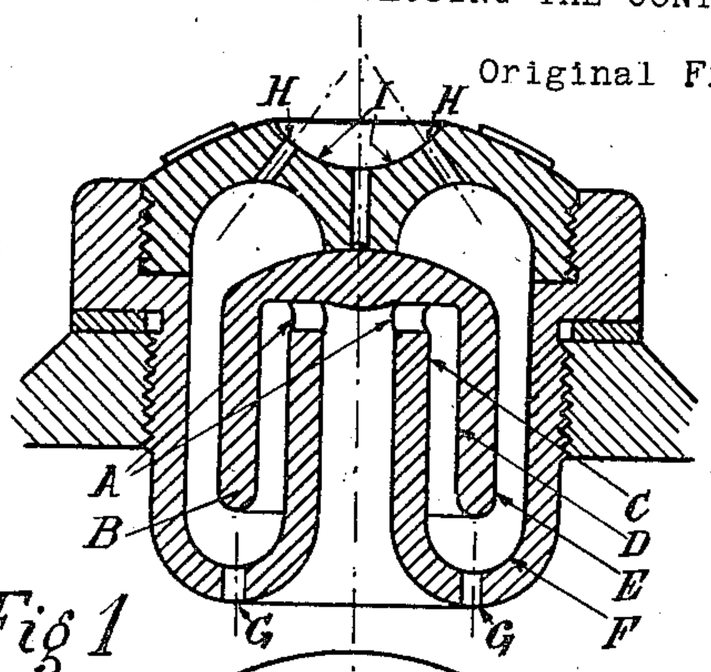

Fig 1

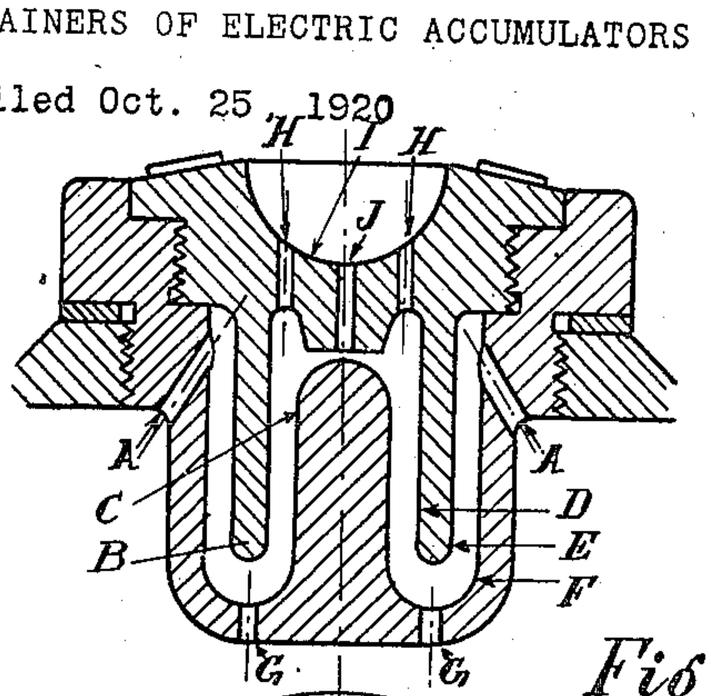

Fig 2

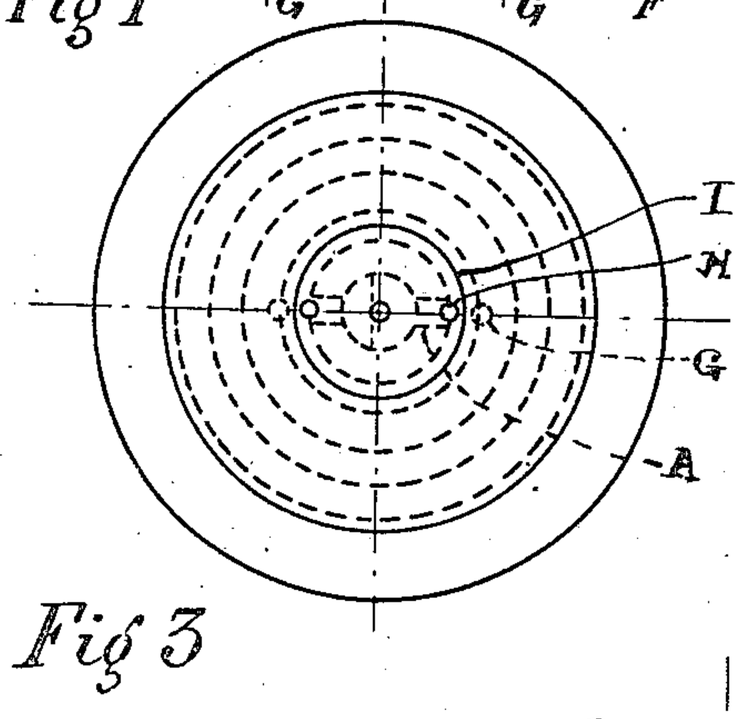

Fig 3

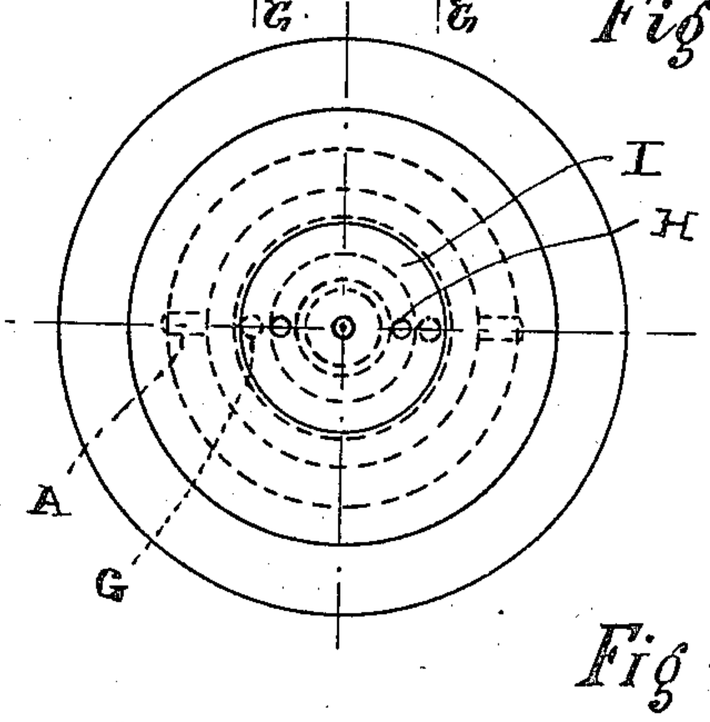

Fig 4

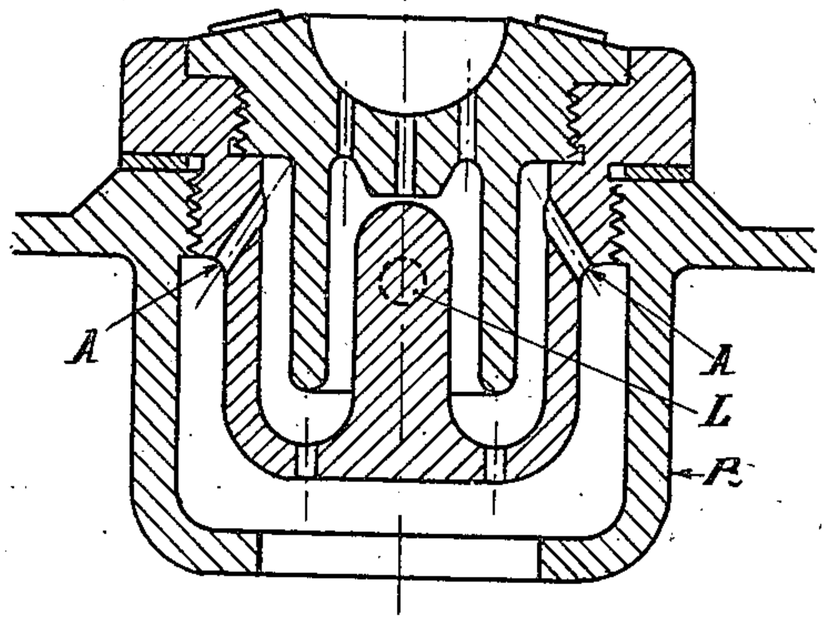

Fig 5

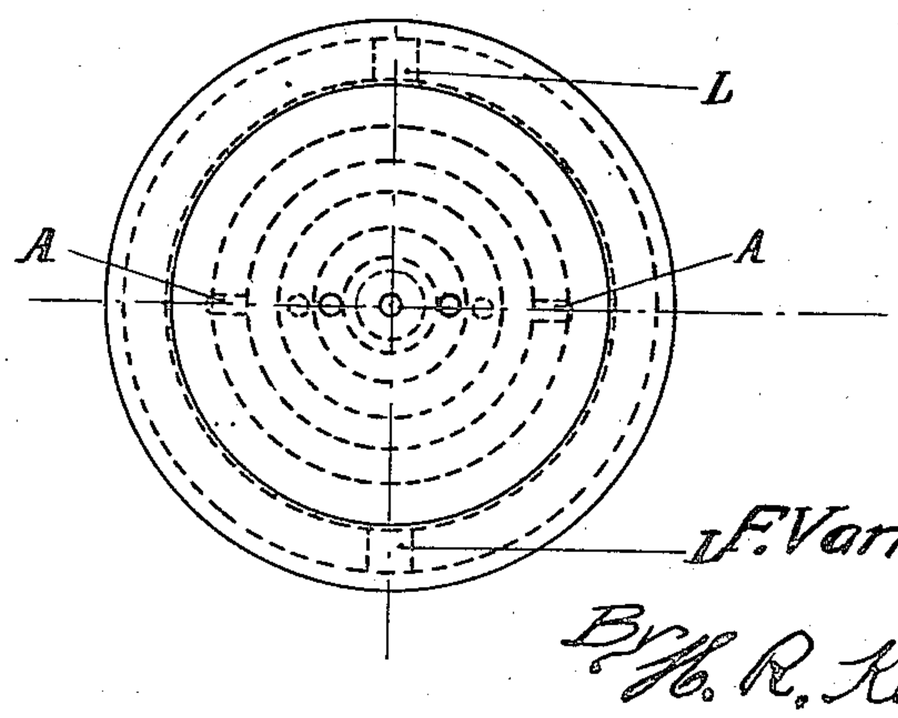

Fig 6

Inventor
F. Van de Wiel

By H. R. Kerslake
Atty's

Patented June 19, 1923. 1,459,121

UNITED STATES PATENT OFFICE.

FERNAND VAN DE WIEL, OF PARIS, FRANCE, ASSIGNOR TO COMPAGNIE GENERALE D'ELECTRICITE, OF PARIS, FRANCE.

STOPPER FOR CLOSING THE CONTAINERS OF ELECTRIC ACCUMULATORS.

Application filed October 25, 1920, Serial No. 419,531. Renewed March 30, 1923.

To all whom it may concern:

Be it known that I, FERNAND VAN DE WIEL, a subject of the King of Belgium, residing at Paris, France, have invented new and useful Improvements in Stoppers for Closing the Containers of Electric Accumulators, of which the following is a specification.

The present invention relates to improvements relating to stoppers for closing the containers of electric accumulators.

In electric accumulators of which the containers are provided with a cover, a stopper which permits the escape of the gas is necessary.

According to the present invention such stoppers are so constructed as to provide the following combination of features viz: that the gases charged with liquid particles are constrained by one or more vertical baffles to traverse a circuitous path between their entrance into the stopper and their escape into the surrounding air; and further the gases enter and leave the stopper at points which are at a higher level than those through which liquid particles carried in suspension by the gas respectively return to the vessel or re-enter the stopper.

In the accompanying drawing:—

Figures 1 and 3 are sectional and plan views, respectively, of the improved stopper;

Figures 2 and 4 are sectional and plan views, respectively, of a modification of the stopper;

Figures 5 and 6 are sectional and plan views, respectively, of a further modification of the stopper.

Referring to Figs. 1–4 the gases charged with liquid particles enter the stopper by openings A where the baffle B causes them to traverse a circuitous course during which they leave on the walls C, D, E, F the liquid particles with which they are charged.

These particles collect in the bottom of the stopper and re-enter the container through holes G, the presence of the liquid in the holes G causing the gases to enter by the openings A.

The gases dried in this manner escape by openings H leading into the hollow I having at its lower part a hole J, by which any liquid particles which may happen to have been carried over return to the interior of the stopper, and thence into the container.

In Figs. 5 and 6 a supplementary baffle R is placed externally to the stopper; the gases pass through openings L in the walls of the baffle R and after traversing a quarter of the annular channel between the walls of the baffle and the stopper enter the latter by the openings A, whence they escape by the apertures H, the liquid particles collecting in the hollow I and returning to the container by the opening J and the openings G at the bottom of the stopper. It is obvious that multiple baffles could be placed in the interior of the stopper.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

A stopper for an electric accumulator comprising a body having gas inlet ports, a separate liquid outlet port at the bottom of the body arranged at a lower level than the gas inlet ports, gas outlet ports at the upper part of the body, a liquid inlet port located at a lower level than said gas outlet ports, and baffles interposed between the gas inlet ports and also interposed between the gas and liquid outlet ports arranged to cause the outgoing gases to traverse a circuitous path, said baffle being also arranged to intercept the direct flow of gas from the liquid outlet port to the gas outlet port.

In testimony whereof I have signed my name to this specification

FERNAND VAN DE WIEL.

Witnesses:

RENE P. WITTEBOLLE,

EMIL VANWARZECH.