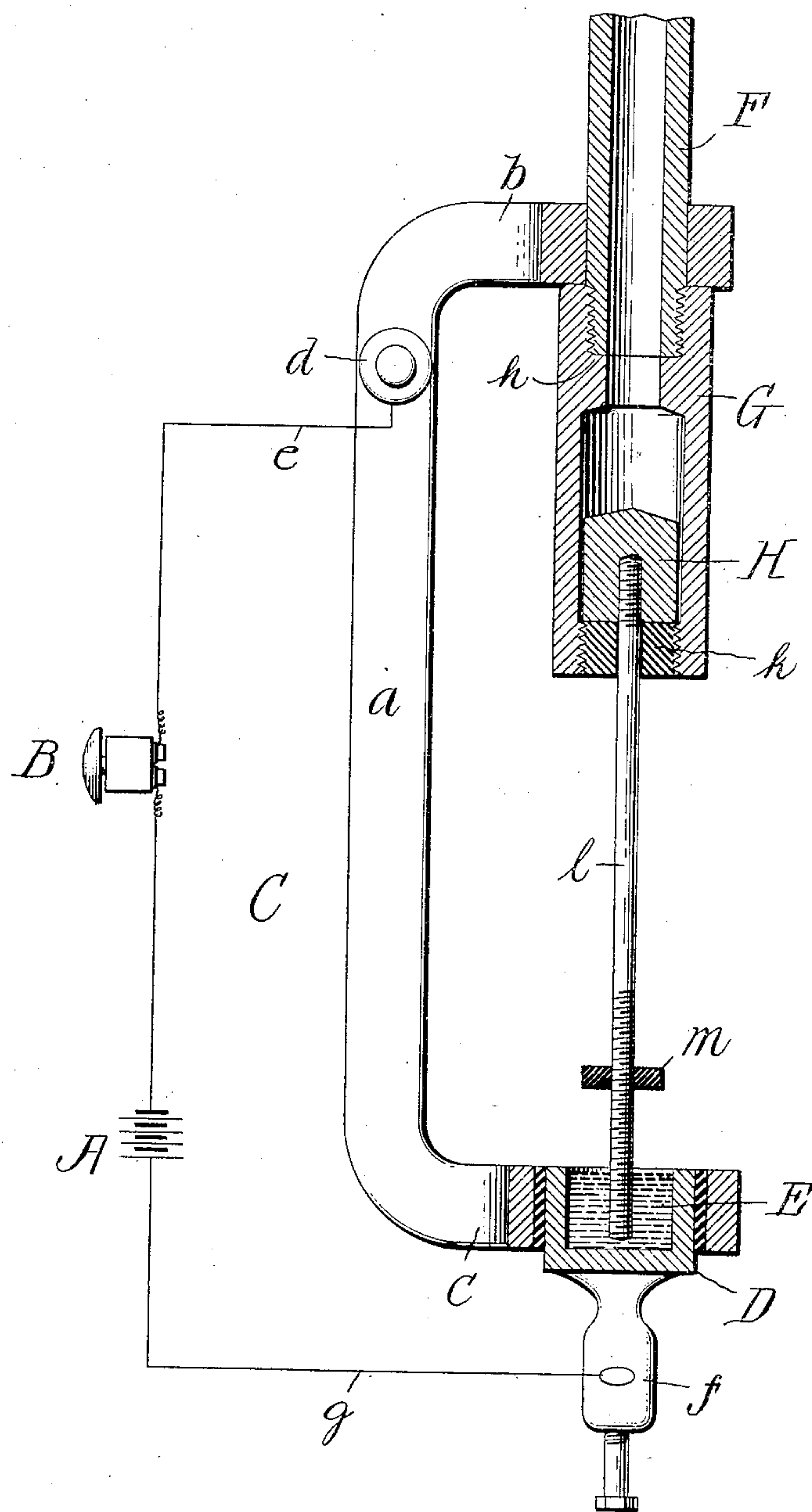


No. 856,071.

PATENTED JUNE 4, 1907.

G. LANGLUMÉ.
ELECTRIC SIGNAL.
APPLICATION FILED OCT. 6, 1906.



Witnesses

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ELECTRIC SIGNAL.

No. 856,071.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 6, 1906. Serial No. 337,783.

To all whom it may concern:

Be it known that I, GEORGE LANGLUMÉ, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented new and useful Improvements in Electric Signals, of which the following is a specification.

My invention pertains to electric signals; and it contemplates the provision of a compact, durable and inexpensive electric signal, designed to give an alarm in the event of a vacuum pump or condenser ceasing to work, this with a view of rendering it unnecessary for an engineer to watch the gage, and of avoiding the necessity of the engineer at frequent intervals visiting the condenser which in most plants is not on the same floor with the engine and pump.

The invention will be fully understood from the following description and claims when the same are read in connection with the accompanying drawing, forming part of this specification, in which the figure is a view illustrating the circuit closer of the signal, partly in elevation and partly in section, as electrically connected with a source of electric energy and an electric bell.

Referring by letter to said drawing: A is a source of electric energy, and B is an electric bell, both of which are preferably of the conventional construction.

C is the circuit closer which is arranged in a normally open circuit with the source of electric energy and the bell as will be hereinafter described in detail. The said circuit closer comprises a bracket *a* adapted to be attached to a support (not shown) and having upper and lower apertured arms *b* and *c*, a binding post *d* carried by the bracket and connected to one wire *e* of the electric circuit, a cup D for holding mercury E, secured in the lower apertured arm *c* of bracket C and having an integral binding post *f* for the connection of a wire *g* of the electric circuit, a vacuum pipe F extending upward through the upper apertured arm *b* of the bracket C, and threaded at its lower end, a cylinder G screwed on the said threaded end of pipe F and having an interior abutment *h* and also having an aper-

tured head *k*, a plunger H movable in the cylinder, between the abutment *h* and the head *k*, and a stem *l* connected to said plunger and movable through the apertured head *k* and into the mercury E in cup D. The said stem *l* is preferably threaded as shown and provided with a finger piece *m*, of non-conducting material, to permit of the stem and plunger being readily raised by the engineer when necessary.

In the practical use of my novel signal, the pipe F is connected with the vacuum pump or condenser (not shown) and the plunger H is raised and held in position by vacuum from pipe F when the plunger will be retained in such position so long as the vacuum is maintained. In the event, however, of the pumps stopping or the vacuum being destroyed in any other manner, the plunger H will drop and the plunger stem *l* entering the mercury E in cup D, which is insulated from bracket *a*, will complete the electric circuit with the result that the electric bell B will be sounded and the engineer apprised of the fact that the vacuum is lacking.

The construction herein shown and described constitutes the preferred embodiment of my invention, but I desire it understood that in practice such changes in the form, construction, and relative arrangement of parts may be made as fairly fall within the scope of my invention as claimed.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

In an electric signal, a circuit closer for the purpose described comprising a bracket having upper and lower apertured arms, a cup containing mercury secured in the lower apertured arm of the bracket and separated therefrom by insulating material and having an integral, depending binding post, a pipe extending through the upper apertured arm of the bracket and provided below said arm with an exterior thread, a cylinder interiorly threaded at its upper end and receiving the said threaded end of the pipe and having an interior abutment and also having an apertured head at its lower end, and a plunger

movable in said cylinder, between the abutment and apertured head thereof, and having a depending stem and a non-conducting finger piece on the stem; the lower end of the
5 said stem being arranged when the plunger is permitted to move downward, to enter the mercury in the cup.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE LANGLUMÉ.

Witnesses:

AVITUS C. KELLY,
WILLIAM ZENGE.