No. 619,263. Patented Feb. 14, 1899.

J. F. BACHMANN & A. VOGT.

CARBON CLAMP FOR ELECTRICAL PURPOSES.

(Application filed Oct. 8, 1897.)

(No Model.)

Fig. 2

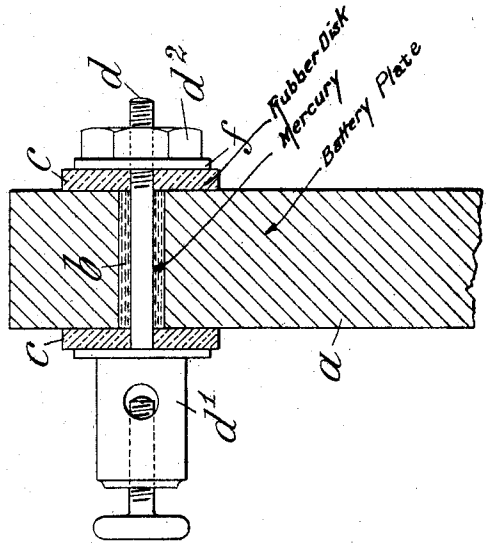
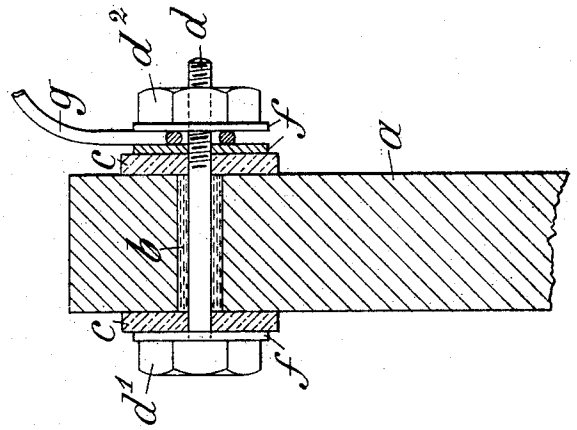


Fig. 1



Witnesses
B. S. Ober
B. W. Sommers

Inventors
Josef Franz Bachmann
Adolf Vogt.
by. Henry Orth & Co
Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEF FRANZ BACHMANN AND ADOLF VOGT, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNORS OF TWO-THIRDS TO JOSEF KIRCHNER, ALBERT KONIG, CARL CAMILLO WEINER, AND ALEXANDER ZORG, OF SAME PLACE.

CARBON-CLAMP FOR ELECTRICAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 619,263, dated February 14, 1899.

Application filed October 8, 1897. Serial No. 654,559. (No model.)

To all whom it may concern:

Be it known that we, JOSEF FRANZ BACHMANN and ADOLF VOGT, subjects of the Emperor of Austria-Hungary, residing at Vienna, in the Province of Lower Austria, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Carbon-Clamps for Electrical Purposes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to a carbon-clamp which is electrically connected to the material forming a carbon electrode by means of an inclosed body of mercury shut off from the outside, whereby a reliable connection of the carbon electrode with the conducting-wire is effected, which is not injuriously affected by any corrosive vapors or gases that may rise up from the battery-cell.

The said carbon-clamp is shown in two modifications in Figures 1 and 2 of the accompanying drawings.

The carbon electrode *a* is formed with an enlarged hole *b*, through which is passed the screw-bolt *d* of a clamp. The space between the bolt *d* and the sides of the hole *b* is filled with mercury, the escape of which is prevented by caoutchouc plates *c*, which are pressed against the end surfaces of the hole. For this purpose the bolt *d* is provided with a head d' and a screw-nut d^2, which latter, in the arrangement of Fig. 1, maintains the conducting-wire *g* in conducting connection with the bolt *d* by means of the metal washers *f*. As the electric contact between the bolt *d* and the electrode *a* is effected by means of a body of mercury which is inclosed and shut off from the outside by means of the caoutchouc disks *c*, this contact cannot be injuriously affected or destroyed by any corrosive gases or vapors that may rise up from the battery element.

Instead of the construction and arrangement described in respect of Fig. 1 a binding-post d', provided with a screw-threaded shank for the nut d^2, may be used, as shown in Fig. 2, in which binding-post the circuit-wire is clamped by a screw in the usual manner.

We claim—

1. In combination, an electrode, a conductor extending therethrough and secured directly thereto, a body of mercury confined within the electrode and surrounding said conductor, and means for securing a circuit-wire to the conductor, for the purpose set forth.

2. The combination with an electrode provided near one end with a transverse open-ended chamber or passage, a conductor extending through said chamber, means for closing the ends thereof, means for securing the conductor to the electrode, a body of mercury confined in the chamber and surrounding the conductor, and means for connecting a circuit-wire thereto, for the purpose set forth.

3. The combination with an electrode provided near one end with an open-ended chamber or passage, a conductive bolt extending therethrough, said bolt carrying a nut at one end and provided at the other with a head both of greater cross-sectional area than that of said chamber, a washer interposed between said nut and head respectively and closing the ends of the chamber fluid-tight, a body of mercury confined in the chamber and surrounding the bolt and means for connecting a circuit-wire thereto, for the purpose set forth.

4. A carbon electrode provided near one end with an open-ended chamber or passage, a binding-post provided with a screw-threaded shank extending through said chamber and carrying a nut, both binding-post and nut of greater cross-sectional area than that of the chamber, rubber washers interposed between the binding-post and nut and the faces of the electrode respectively to close the ends of the chamber fluid-tight, and a body of mercury confined in said chamber and surrounding the shank of the binding-post, for the purposes set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEF FRANZ BACHMANN.
ADOLF VOGT.

Witnesses:
CHAS. E. CARPENTER,
DAVID ALBIN.