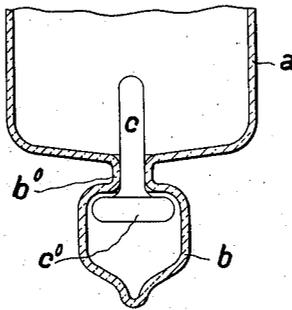


Oct. 7, 1930.

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DEVICE FOR PROTECTING THE EXHAUSTING SOCKET  
OF VACUUM GLASS VESSELS CONTAINING MERCURY  
Filed July 20, 1927

1,777,861



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# UNITED STATES PATENT OFFICE

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DEVICE FOR PROTECTING THE EXHAUSTING SOCKET OF VACUUM GLASS VESSELS CON-  
TAINING MERCURY

Application filed July 20, 1927, Serial No. 207,245, and in Germany August 2, 1926.

In vacuum glass vessels in order to avoid the mercury contained therein injuring the exhausting socket due to sudden changes of the position of the vessel, it has been suggested to dispose in the socket a body by which the opening of the socket is for the most part closed. According to the present invention a particularly simplified and at the same time very effective construction for such a device consists in the use of a stopper which penetrates from the socket into a constriction, lying between the vessel and the socket, and fills it up as tightly as possible. It is not necessary, however, to attain perfect tightness (e. g. by grinding in) but it suffices if the stopper fits approximately. It has proved of particular advantage to impart to the stopper such a length that it projects into the glass vessel.

The annexed drawing shows an example of the invention.

The glass vessel is denoted by *a*, the exhausting socket by *b*. A cylindrical stopper *c* fits with only slight play into the constriction *b'* of the socket. The drawing shows the point *d* of the socket in a fused state, corresponding to a glass vessel ready for use. When evacuating the vessel the point is still open, and the socket is being connected to an air pump. When evacuating the air is not prevented by the stopper to rush by the latter and escape from the vessel. However, when in use the mercury cannot pass by the stopper and cause damage to the socket, since the surface tension of the mercury prevents it from rushing past it. A head *e* prevents the stopper from falling out of the socket.

I claim:

1. In a glass vessel to be evacuated a socket for the evacuation of the vessel, the socket having a constriction, and a cylindrical stopper projecting from the said socket into the constriction, having a thickness corresponding to the width of the constriction and being movable therein.

2. In a glass vessel to be evacuated a socket for the evacuation of the vessel, the socket having a constriction, and a cylindrical stopper projecting from the said socket through the constriction into the glass vessel, having

a thickness corresponding to the width of the said constriction and being movable therein.

3. In a glass vessel to be evacuated a socket for the evacuation of the vessel, the socket having a constriction, a cylindrical stopper projecting from the said socket into the constriction, having a diameter equal to that of the constriction and being movable therein, and a head fixed to that end of the stopper which faces the socket, the diameter of the head being greater than that of the constriction.

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