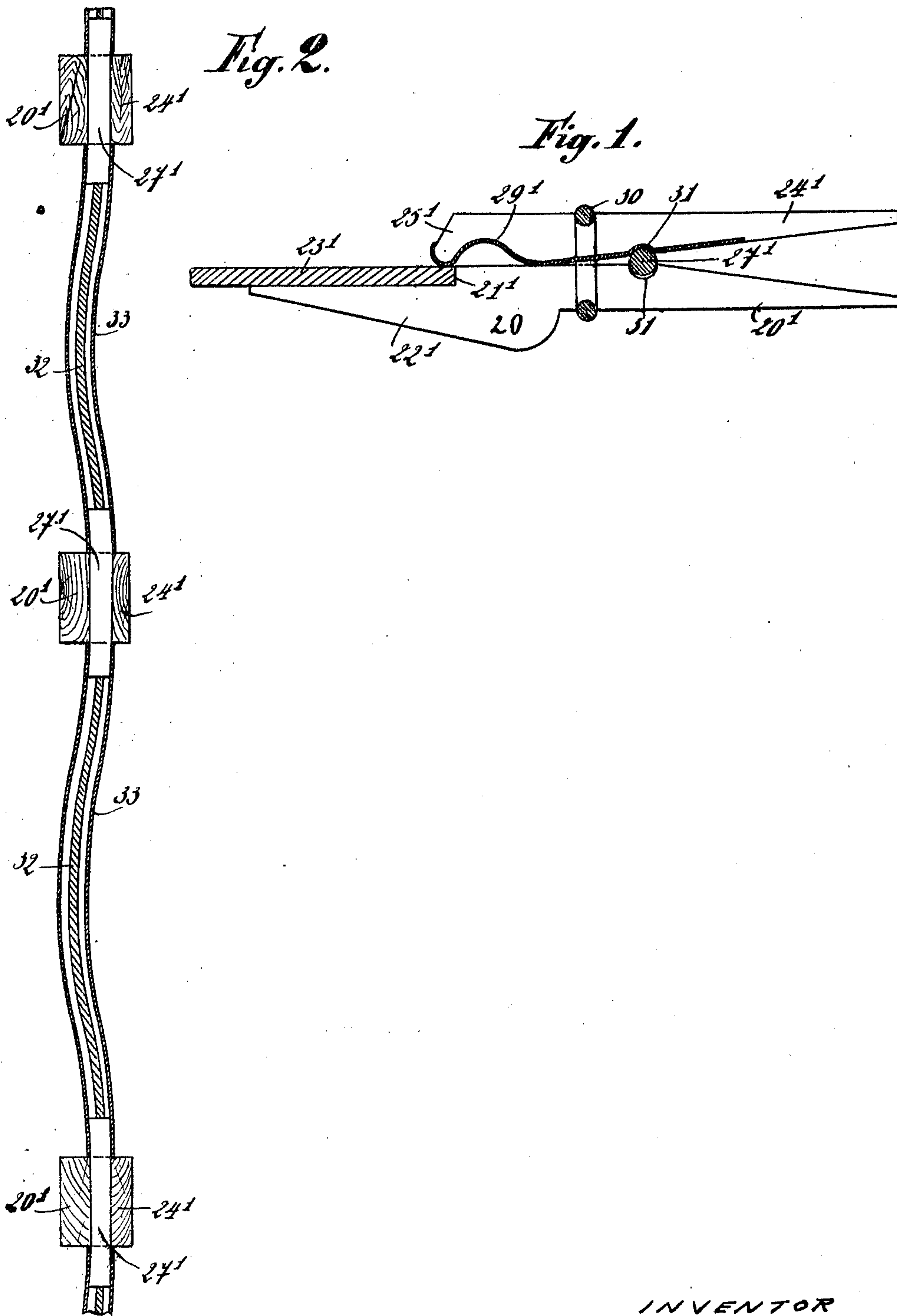


E. HOORICKX.
MANUFACTURE OF SILVERED GLASS MIRRORS.
APPLICATION FILED JUNE 21, 1910.

993,776.

Patented May 30, 1911.



WITNESSES

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UNITED STATES PATENT OFFICE.

EMILE HOORICKX, OF BRUSSELS, BELGIUM.

MANUFACTURE OF SILVERED-GLASS MIRRORS.

993,776.

Specification of Letters Patent.

Patented May 30, 1911.

Original application filed June 22, 1909, Serial No. 503,708. Divided and this application filed June 21, 1910. Serial No. 568,155.

To all whom it may concern:

Be it known that I, EMILE HOORICKX, subject of the King of Belgium, residing at 308 Rue des Palais, Brussels, Belgium, have invented new and useful Improvements in and Relating to the Manufacture of Silvered-Glass Mirrors, of which the following is a specification.

The present invention relates to a process of depositing on silvered mirrors a protecting layer of copper or some other suitable metal by electrolysis.

It has for its object to provide a perfect connection between the negative pole of the generator and the layer of silver on the mirror.

This application is a division of my co-pending application, filed June 22, 1909, Serial No. 503,708.

In the accompanying drawings: Figure 1 is an elevation of a connecting clamp; Fig. 2 is a view of the flexible conductor with the connecting pieces mounted on it.

The current is conveyed to the silvered surface very carefully in order not to damage the surface. The device illustrated in Figs. 1 and 2 is well adapted for this purpose. The system consists in a series of spring clamps connected with each other and with the negative pole of the current generator by means of a flexible conductor. These clamps clip the edges of the mirror and for this purpose consist each of two parts, connected pivotally together or simply connected together by an elastic connection, one of which is a contact finger, the part of which that is to make contact with the layer of silver is connected electrically with the flexible conductor. Owing to this construction the current is conveyed to the silvered surface freely and smoothly whatever may be the position of the mirror or its thickness. The flexible conductor allows of each clamp being displaced during working of the apparatus, this being necessary in order that the portion of the layer of silver which is beneath the contact finger of the clamp may in its turn receive a deposit. The displacement of one clamp does not prevent current being conveyed to the layer of silver by the other clamps. Whatever may be the form of the mirror, that is to say whether it is rectangular, oval, round or of irregular contour, the clamps can always be applied

along the edge of the mirror, the flexible conductor facilitating this. When the current is to be conducted by a single set of clamps to several carriers of small dimensions this may be done without any difficulty.

In the clamp shown in Fig. 1, the member 20 is provided with a shoulder 21' and an extension 22', adapted to be applied to the under surface of the mirror 23', is connected with the member 24' by a caoutchouc band 30, preferably situated in a groove of suitable cross section in the two members. The finger 25' is put into electrical connection with the conductor 27' by a metallic deposit 29'. The members 20' and 24' are preferably each provided with a groove 31 in which the conductor 27' may be situated so that it may form a fulcrum upon which the part 24' turns. Preferably, the whole of the clamp is made of insulating material such as impermeable wood, fiber or ebonite; in fact when the electroplating process is that generally used, the clamp must be covered completely with an insulating varnish except at the end of the finger 25' which makes contact with the mirror.

In order thoroughly to distribute the current through the layer of silver a number of clamps are distributed along the sides of the mirror, a single insulated conductor of suitable section connecting all the clamps or several of them with each other.

A suitable flexible conductor is shown in section in Fig. 2; it comprises a number of short bars 27' which are the current terminals resting in the clamp member 20'; these are connected by soldering or otherwise with thin flexible conductors 32 contained within caoutchouc tubes 33 of suitable length slipped at one end on one of the bars 27' and at the other end on the next following bar so as to leave uncovered sufficient of the bar to form the necessary connection with the conducting surface of the clamp. The length of the flexible portion 32 is of course determined by the distance between the current terminals. The advantages which accrue from the flexibility of the conductor will be obvious, for example, it enables the clamps to be satisfactorily connected with the mirror whatever the form or contour of the mirror may be.

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:—

1. In apparatus for electroplating mirrors, a single conductor and a plurality of means spaced from one another and connected electrically to said conductor and carried thereby, each of said plurality of means being provided with an electrically conducting portion adapted to engage with the edges of the mirror which is to be electroplated.

2. In apparatus for electroplating mirrors, a single conductor and a plurality of spring clamps carried thereby, said clamps being spaced from one another, each of said clamps comprising means for electrically connecting said conductor with the edges of the mirror to be electroplated.

3. In apparatus for electroplating mirrors, a single flexible conductor provided

with a plurality of spaced rigid sections, and means carried by each of said sections for electrically connecting said conductor with the edges of the mirror to be electroplated.

4. In apparatus for electroplating mirrors, a single conductor and a plurality of spaced means carried by said conductor for electrically connecting said conductor with the edges of the mirror to be electroplated, said means extending substantially at right angles with said conductor.

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

EMILE HOORICKX.

Witnesses:

JAS. LOSSIER,

M. GERBEAULT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."