

WILLIAM B. GUERNSEY.

Improvement in Electrical Lining for Safes, Vaults, &c.

No. 126,289.

Patented April 30, 1872.

Fig.1.

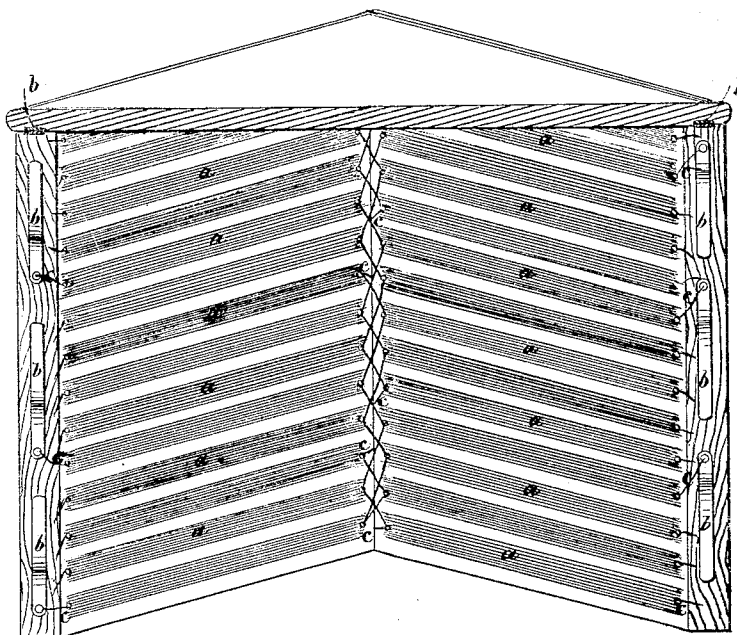
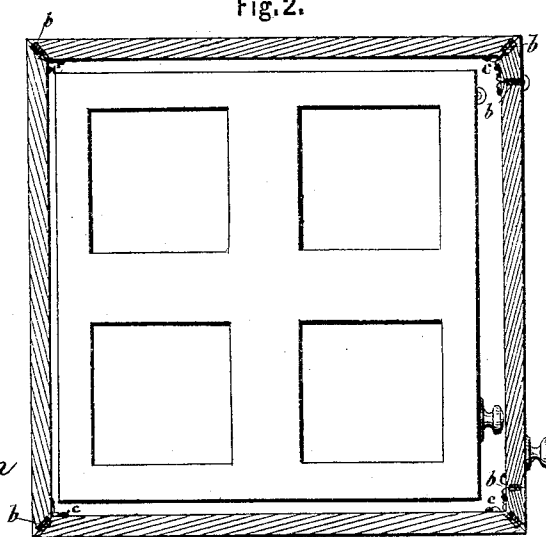


Fig.2.



WITNESSES.

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IMPROVEMENT IN ELECTRICAL LININGS FOR SAFES, VAULTS, &c.

Specification forming part of Letters Patent No. 126,289, dated April 30, 1872.

Specification of an Improved Electrical Protecting Screen or Lining for Safes, Vaults, &c., invented by WILLIAM B. GUERNSEY, of Jersey City, in the county of Hudson, State of New Jersey.

The purpose of this invention is to enable a screen or lining of electrical conductors to be so made that attempts to penetrate it to any damaging extent must necessarily result in the breaking of the electrical circuit, or in a cross-connecting of two circuits to the same effect as if either or both were broken. I effect this by using for such conductors stripes of metal foil, superimposed upon wood or other suitable material by (preferably) such means as are used by painters and gilders in ornamentation. As these stripes can be reached only by piercing the wood or base upon which they are made, it becomes practically impossible to tamper with them, as could be done with wires or with sheets of foil, as heretofore used. They will be surely broken by any attempt to make a metallic connection upon them from the outside. By first placing a coating of some hard but brittle material like "plaster," upon the wood, and then making the stripe upon such coating, the difficulty of tampering with such conductors is greatly increased.

Figure 1 is a view of the interior of one-half of a screen (or cabinet) designed for the protection of safes. Fig. 2 is a "plan" view of same arrangement showing safe in its place.

The stripes of metal foil *a a a*, &c., are here shown as being mere parallel bands; but their shape, width, or proximity are mere matters of detail to be determined by judgment and experience. So, also, a stripe may be made, instead of as here shown, in a continuous length or coil surrounding the whole inside of

the "cabinet," and returning again and again upon itself, having no or but few joinings, and only two "free ends;" or may be arranged in other manners; but in the figure the stripes are shown as having been made in sections, each section embracing some component part of the cabinet, as a side or a top, and each end of each stripe terminating in a short length of copper wire, which is embedded in or connected with the stripe by a broad-headed screw or nail, except that some of the said stripes are connected to springs or metallic contact pieces *b b b b*, placed in the joinings of such sections, so that when the cabinet is together it cannot be taken apart without breaking a circuit, which might otherwise be closed. When the cabinet is put together the foil ends of the wires *c c c c* are to be attached in either a regular or confused manner, so as to bring each stripe into the circuit or into a circuit—perhaps into one of the two parts of a circuit, which parts are so related to each other that the cross-connecting of them shall produce the same effect as the severing of them.

I do not claim the use of sheet metal or metallic ribbons in the construction of electric protecting envelopes for safes, as I am aware that these have been used before.

Claim.

I claim as my invention—

Electrical conductors constituted of strips of metal of so slight cohesion as to depend for their cohesion and continuity upon the base or support to which they are attached.

W. B. GUERNSEY

Witnesses:

OCTAVIUS KNIGHT,
WALTER ALLEN.