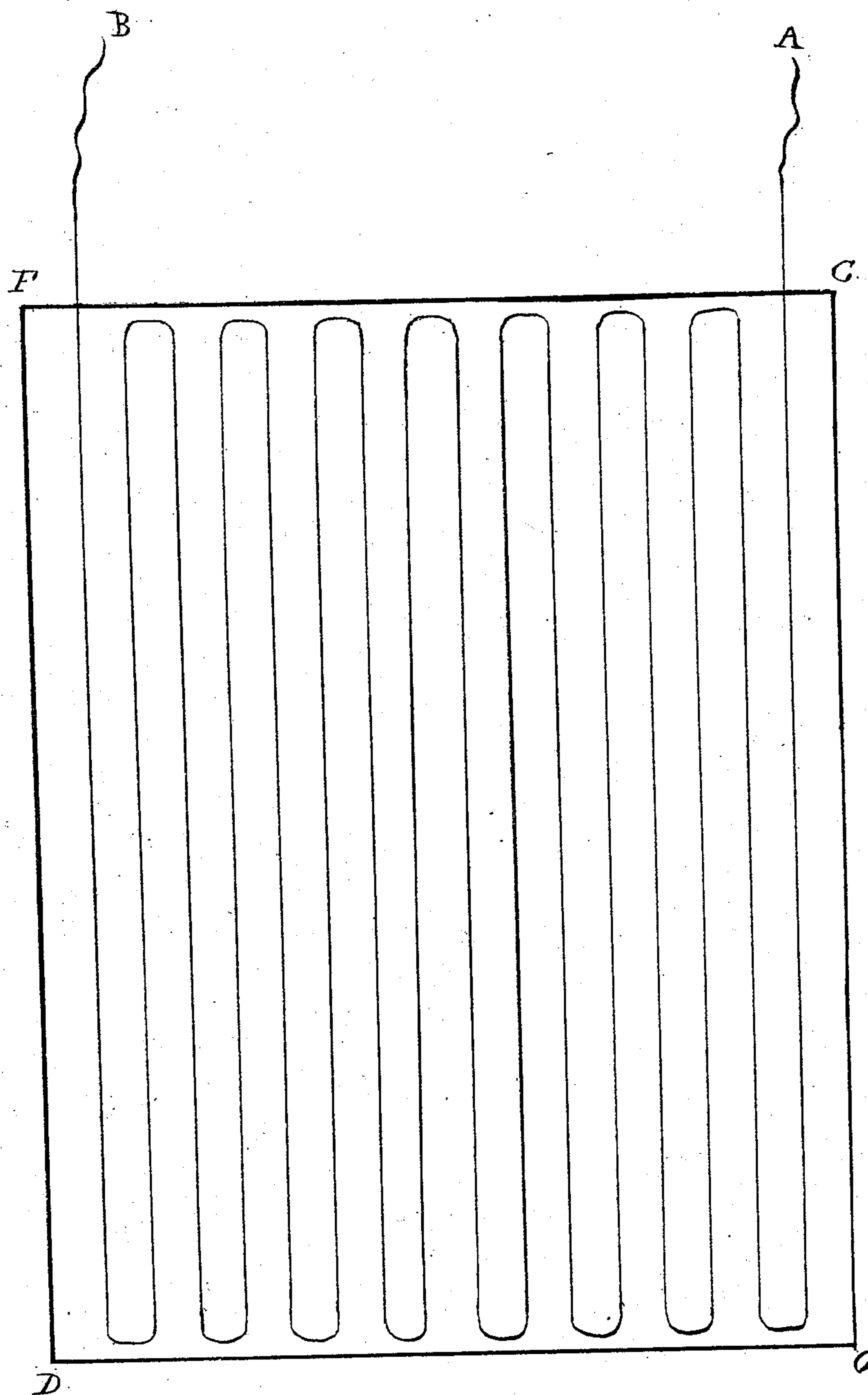


C. T. CHESTER.  
ELECTRICAL SAFE PROTECTOR.

No. 106,324.

Patented Aug. 16, 1870.



Witnesses  
Van Handel Dawes  
J. A. Fletchers

Charles T. Chester  
Inventor

# United States Patent Office.

CHARLES T. CHESTER, OF ENGLEWOOD, NEW JERSEY.

Letters Patent No. 106,324, dated August 16, 1870.

## IMPROVEMENT IN PROTECTING SAFES AND VAULTS FROM BURGLARS.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES T. CHESTER, of Englewood, Bergen county, New Jersey, have invented certain Improvements in the Protection of Safes and Vaults from Burglars, of which the following is a specification.

I am aware that devices have been applied to houses and vaults for the purpose of breaking and closing electrical circuits, the effect of which is to ring a bell or sound an alarm at a place more or less remote from the point of entrance. Thus doors and windows have had such attachments made to them, that, upon altering the position of these attachments, a circuit is closed. But the object of my invention is to secure a safe, vault, or chamber containing valuables, from the inroads of burglars, who have frequently entered such places by knocking a hole through iron or masonry of which the sides or floor of the vault are composed.

I propose, therefore, to cover every portion of such wall or floor or roof with a net-work of wire or other electric conductor, so woven into textile fabric, or imbedded in wood or plaster, or any other material, of which the interior or exterior covering of such vault, safe, or chamber may be composed, that, if an attack is made at any part of such protected place, the violence of the blows, or the cutting effect of the tools used, shall rupture the electrical conductivity, and act on any of the well-known means of causing an alarm by ringing bells or tripping machinery.

This electric appliance or attachment may be made in various ways. The conductor may be buried in a wooden panel to be affixed to the safe, care being taken that the attachment from one panel to another is electrically perfect, and at each such junction provision may be made for a test of the soundness and completeness of the whole conductor, or the special section of conductor embraced in the special panel or side of the vault, safe, or chamber, in the usual way familiar to electricians.

The conductor may be buried in rubber-cloth or between sheets of thick paper, or behind common wall-paper, or in very many ways which would be suggested as applicable to different positions where the electrical protector may be required.

I do not confine myself to any particular mode of carrying out the protection. In the construction of the fabric, lining or cover, the electrical conducting lines may be run at various distances.

Referring to the drawing—

The square space F C D O represents a panel or entire side of a safe.

The conductor entering at A proceeds alternately downward and upward continuously, and in the same plane, emerging at B, at which place it connects with the adjoining conductor of the adjoining panel or side, top, or bottom of the safe, vault, or chamber.

The spaces between these adjoining lines of conductor may be varied in size, thus protecting against various sizes of holes that may be made in the structure, in one place the attack anticipated being the introduction of powder, in another the introduction of the burglar himself, as through the ceiling of a room below the safe or vault.

Without confining myself to any particular size of space between conductors, nor to any particular fabric or structure in which it may be imbedded,

I claim as my invention—

A continuous electrical conductor imbedded in the interior or exterior covering of a vault, safe, or room, which, when ruptured, will produce an electrical alarm in the usual manner.

CHARLES T. CHESTER.

Witnesses:

S. A. STEBBINS,

VAN ZANDT DAMES.