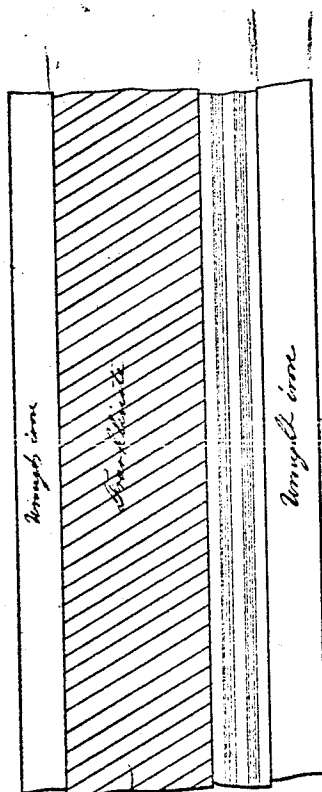


J. FARREL.

Burglar-Proof Safes.

No. 133,637.

Patented Dec. 3, 1872.



Witnesses

J. Emmertmann.

J. V. Hayes

John Farrel
by his Attorney
Easle H. Smith

UNITED STATES PATENT OFFICE.

JOHN FARREL, OF NEW YORK, N. Y.

IMPROVEMENT IN BURGLAR-PROOF SAFES.

Specification forming part of Letters Patent No. 133,637, dated December 3, 1872.

To all whom it may concern:

Be it known that I, JOHN FARREL, of the State, city, and county of New York, have invented a new and useful Improvement in the Construction of Walls of Safes to render them burglar-proof, of which the following is a specification:

The object of my invention is so to reduce the chances of success in any attempt to break into a safe through the wall as to discourage the commencement of the undertaking and to prevent all such attempts by rendering them hopeless.

Previous to this invention walls of safes have been made with Franklinite linings, which metal, though capable of intercepting the operation of drills and cutting-tools, may nevertheless be removed by fracture through percussion, as with a sledge; and walls have also been made wherein plates of welded iron and steel were solely relied on as burglar-proof. But it is now known that the temper may be drawn from the steel portion of such plates by means of a blow-pipe made portable and of easy application, when said plates may be entirely penetrated by the drill. It will therefore be apparent that neither of these systems of construction is, alone, properly "burglar-proof," as they are each alike susceptible when the proper means of attack are employed.

Now, my invention creates a new structure, which is equally proof against attack by burglars with any appliance they are known to use; and it consists in a certain combination and relative arrangement of laminae of metal of varying texture and quality which will co-operate with and sustain each other in maintaining a prolonged and successful resistance to any and all means of attack that are practical of application in the hands of burglars.

To enable others skilled in the art to avail themselves of my invention, I will proceed to describe the same.

For the principal part of the wall I employ a heavy mass of such a metal as Franklinite, the nature of which is such that no amount of heat that is practical of application to its surface at any one place or locality thereon can so soften it as to prepare it for penetration by any operation of cutting. Then, to provide thorough protection against the removal of this metal by fracture, to which it is susceptible, I construct and combine therewith

an outer section or plate of several laminae of high steel, (or steel which may be tempered,) alternated with like laminae of non-tempering or low steel, which is characterized by toughness and tensile strength; and within I apply a strong impassive backing or support of heavy wrought-iron. The aforesaid various laminae, together, form a combine wall of differing metals, all mutually useful to each other in accomplishing the end desired. Thus, first, the high or tempering steel supplements the drill-resisting qualities of the Franklinite; inasmuch as, second, the dense body of the latter, in immediate contiguity with and behind the former, co-operates therewith in absorbing and diffusing heat applied, (as with a blow-pipe,) to soften the steel section of the wall, and nullifies such application; third, the low steel protects both the high or tempered steel and the surface of the Franklinite from injury by attempts at fracture through blows given with the sledge; while, fourth, the massive wrought-iron backing provides firm support behind to withstand the shock of blows so administered, as aforesaid. The result is a metallic structure for the walls and doors of safes believed to be capable of successfully resisting all known appliances of burglars for entering safes by penetrating the walls thereof. The various parts of the wall may be secured to each other by any plan or device common to the art of metal-working.

In the foregoing specification I have described the best way of practicing my invention; but do not, however, confine myself to particular methods of construction, nor to the specific metals named, but shall use others that are substantially the same in their respective differing characteristics, so that when combined, as set forth, they will, together, accomplish the result specified.

I claim as my invention, and desire to secure by Letters Patent—

The arrangement and combination, with a mass of Franklinite or like metal, of the outer protecting laminae of high and low steel, or their equivalent, and the inner backing or support of heavy wrought-iron, substantially as described.

JOHN FARREL.

Witnesses:

EARLE H. SMITH,
WM. H. JOHNSON.