

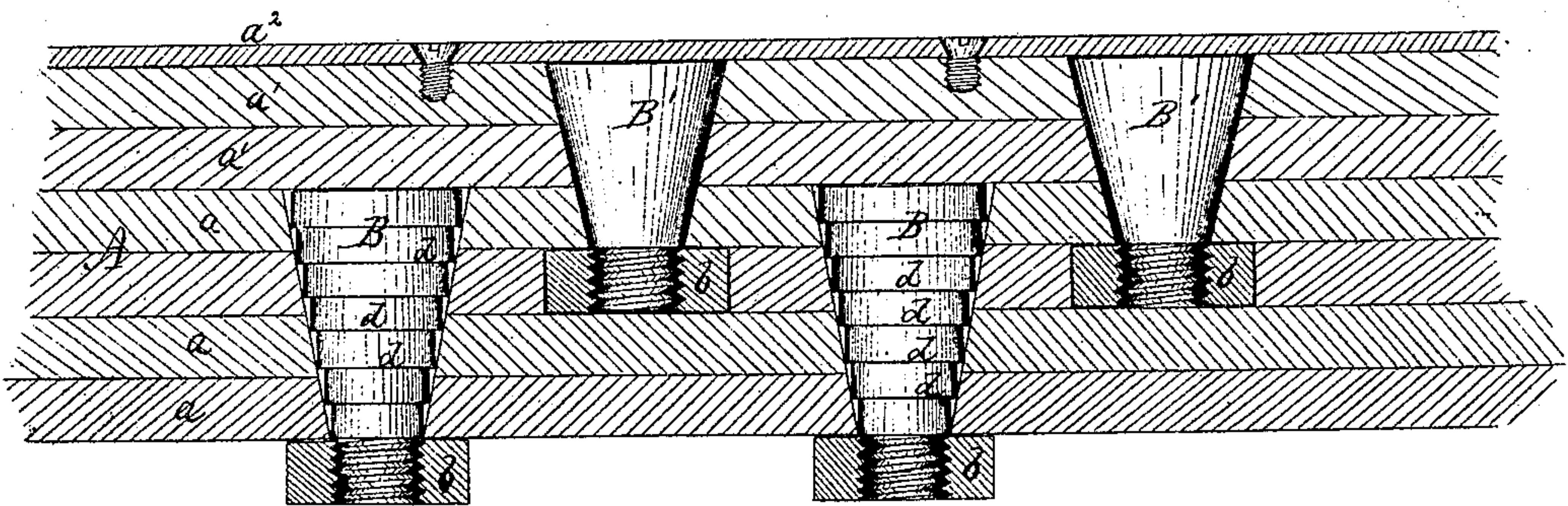
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*J. Sargent,*  
*Burglar Proof Safe.*

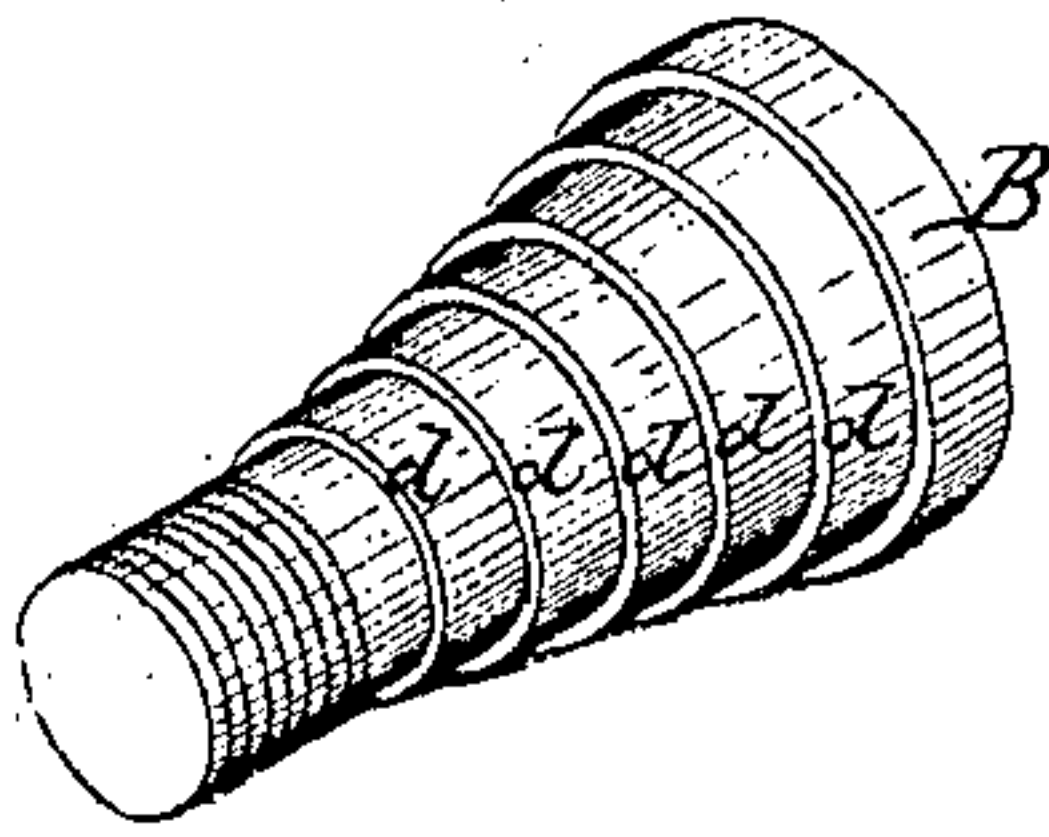
*No. 98714.*

*Patented Jan. 11. 1870.*

*FIG. I.*



*FIG. II.*



Witnesses.

*John B. Underhill*  
*D. P. Row*

Inventor.

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# UNITED STATES PATENT OFFICE.

JAMES SARGENT, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN THE CONSTRUCTION OF SAFES, VAULTS, OR DOORS.

Specification forming part of Letters Patent No. 98,714, dated January 11, 1870.

*To all whom it may concern:*

Be it known that I, JAMES SARGENT, of the city of Rochester, county of Monroe, and State of New York, have invented a certain new and useful Improvement in the Construction of Safes, Vaults, or Doors; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a section of a portion of a safe provided with my improvement; Fig. 2, a perspective view of one of the bolts.

Like letters of reference indicate corresponding parts in both figures.

This invention consists, first, in the arrangement of the bolts binding the plates together, said bolts being in two or more series, one outside the other, as hereinafter described; and, second, in the construction of the bolts with a series of steps or cutting shoulders to prevent driving through the safe.

In the drawings, A represents a section of the safe, made up of welded iron and steel plates *a a a'*. The plates are united and bound together by hardened-steel bolts B B and B' B', made of conical form, as shown, and held in place by nuts *b b* screwed upon their inner ends. These bolts are arranged in alternate sets—that is, in the construction of a safe, when a suitable number of the plates *a a* are placed together, they are united by the first series or set of the bolts B B, which extend through and have the holding-nuts upon the inside; then outside these plates and bolts are placed the rest of the plates, *a' a'*, composing the thickness of the safe, and the other series or set, B' B', of the bolts passes through these plates, and also through a portion of the thickness of the first or inner set of plates, where they are held by their nuts being countersunk in one of the interior plates. Outside the whole a finishing-plate, *a''*, is applied, whose office is simply to cover the heads of the outer set of bolts and produce a finished exterior.

I am aware that large conical bolts passing

entirely through the safe have before been used. Such I do not claim.

My invention consists, essentially, in the use of the two or more series of bolts, one series of which has the heads of the bolts embedded in the plating, while the other has the small or taper ends embedded in the same manner.

The effect of this construction is, first, the outer series of the bolts cannot be driven in nor bored through, for the reason that their inner ends abut or strike against the abrupt inner plates, which present an impassable barrier; and, second, the heads of the inner series of bolts cannot be easily reached, for the reason that they are embedded and covered by several thicknesses of the outer plating. In boring through the outer bolts the tool would strike the solid plating inside, which is impenetrable to such instruments, and, to reach the inner bolts to bore through, the outer plating would first have to be torn away, which could not be accomplished without first removing the outer bolts. The two series of bolts, therefore, serve as a mutual protection to each other.

Where the bolts extend through the whole thickness of the safe, as before referred to, they can easily be bored out to admit gun-powder or nitro-glycerine. If hardened, the hardened surface extends but little way in, and the temper is easily drawn. By the use of the double series of bolts, as above described, all difficulties of this kind are remedied.

As the inner series of bolts are most exposed to driving, in case the outer plating is torn away, I form on the periphery of said bolts a series of steps or sharp shoulders, *d d*, which, when driven with force, cut each a path in the solid material of the plating. By this means the hold in the metal is much greater than would be were the surface plain, and at the same time rebound of the bolts is prevented, which would occur were the aggregate of the small shoulders all combined in a single large one. A plain tapered bolt

can be driven in with much less difficulty than one cut with a series of shoulders, as described.

If desired, the outer as well as the inner bolts may be stepped.

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

1. The arrangement of the two or more sets of conical bolts B B, combined with the plating of a safe, vault, or door, in the manner and for the purpose herein described.

2. A bolt for holding the plates, consisting of a conical shaft with steps or shoulders *d d* formed thereon, in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES SARGENT.

Witnesses:

R. F. OSGOOD,

GEO. W. MIATT.