R. NEUMANN.

BURGLAR-PROOF SAFE.

No. 185,832. Patented Jan. 2, 1877.

185,832. BURGLAR-PROOF SAFES. Rob Neumann, Konigsberg, i. P., Prus (Filed Jan. 4, 1876.)

The outer and inner casing of fire and bu lar proof safes, constructed of single c pound plates, composed of two iron she and one middle steel sheet of alternat hardened and tempered strips, united countersunk rivets, in the manner and for purposes as specified.

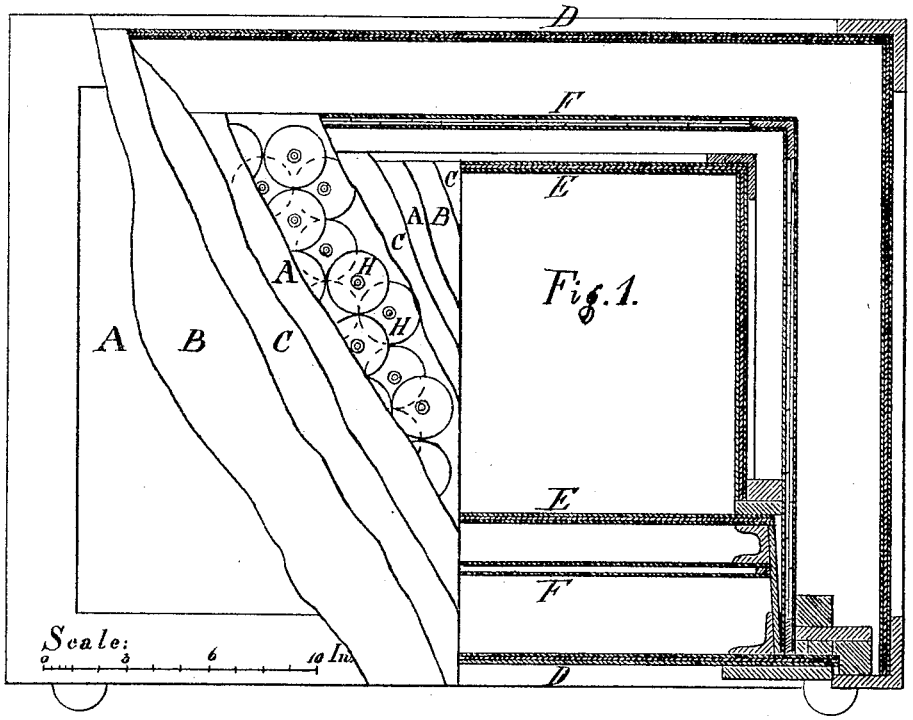

Fig. 1.

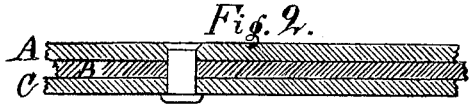

Fig. 2.

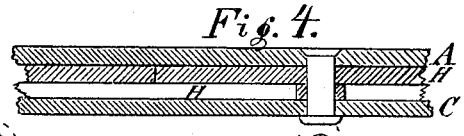

Fig. 4.

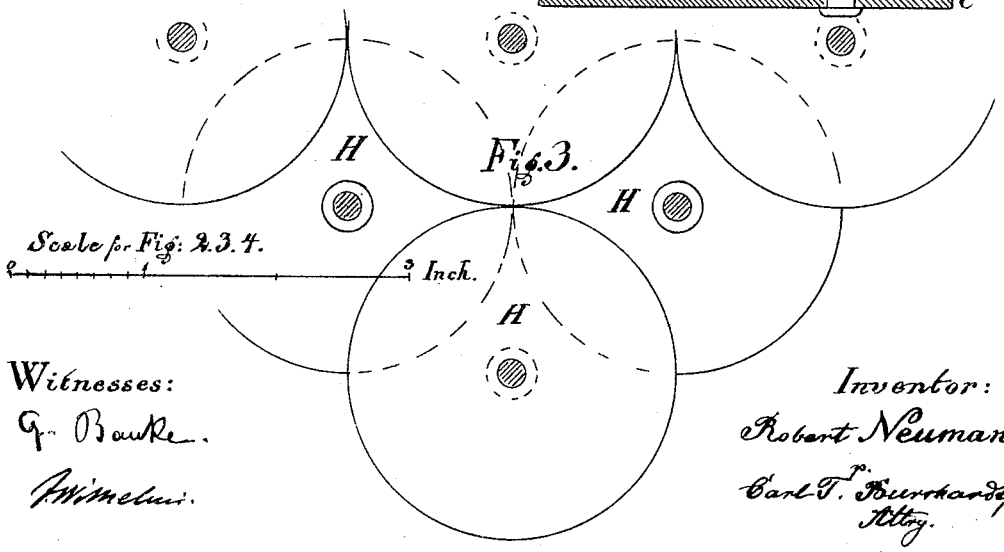

Fig. 3.

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ROBERT NEUMANN, OF KÖNIGSBERG, I. P., PRUSSIA.

IMPROVEMENT IN BURGLAR-PROOF SAFES.

Specification forming part of Letters Patent No. **185,832**, dated January 2, 1877; application filed January 4, 1876.

To all whom it may concern:

Be it known that I, ROBERT NEUMANN, of the city of Königsberg, i. P., Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Burglar-Proof Safes; and I do hereby declare that the following is a full and exact description thereof.

The accompanying drawing forms a part of this specification.

My invention relates to that class of fire-proof safes which are made burglar-proof by the application of hardened steel plates, and the object is to furnish safes at a low price in proportion to their absolute proof against the attacks of burglars.

Figure 1 shows a top view of a safe, partly in cross-section, partly with the different layers or sheets broken away. Fig. 2 shows a cross-section of a part of a simple compound plate. Fig. 3 is a plan of a compound scale-plate. Fig. 4 is a cross-section of the same.

I reduce the cost of a safe by using as small an amount of metal as the solidity of the work will admit, and make the iron and steel sheets in my safes very thin, about one-eighth of an inch in thickness, and for making the safes burglar-proof I arrange them in such a way that it is impossible to remove or penetrate them by tools carried by burglars in such time at their command.

For the outside and inside cover or casing of my safe I use plates constructed from three sheets of metal, each about one-eighth thick, as shown in Fig. 2, so that the middle sheet B, in one or more pieces, is steel-hardened in a peculiar way, as described hereafter. The outside and inside sheets A and C are iron. These three sheets are united by means of countersunk rivets, to form a simple compound plate, about three-eighths thick. Such simple compound plates are shown in Fig. 1 as forming the outer casing D and the inner casing E of my safe.

A third casing, as shown in Fig. 3 or 4, or any other safety arrangement, or none at all, may be placed between these two described casings.

To make the safe fire-proof the open spaces between the different plates D F E are filled, in the common way, with ashes or other suitable material, according to the judgment of the manufacturer.

If the steel sheets B (used in my construction) are made hard all over, it would be possible to break them in pieces, and if they are tempered all over they could easily be drilled; therefore, I combine hardened steel with tempered steel in the following manner: I harden the steel sheets first all over and temper them afterward in strips of about three-eighths inch width, so as to have a strip three-eighths wide, tempered; then a strip three-eighths wide, hard, and so on. The hard steel cannot be broken, on account of the two adjoining tempered strips; and if a drill should hit even a tempered strip it would be ruined by striking the sides of the adjoining hard strips.

Rivet and other holes necessary for fitting together the different sheets have to be bored before the steel sheets are hardened.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The outer and inner casing of fire and burglar proof safes, constructed of single compound plates, composed of two iron sheets and one middle steel sheet of alternately hardened and tempered strips, united by countersunk rivets, in the manner and for the purposes as specified.

This specification signed by me in presence of two witnesses this the 6th day of October, 1875.

ROBERT NEUMANN.

Witnesses:
CARL T. BURCHARDT,
EDWARD P. MACLEAN.