

(No Model.)

2 Sheets—Sheet 1.

T. BARNES.
SAFETY VAULT FOR BANKS.

No. 554,411.

Patented Feb. 11, 1896.

Fig. 1.

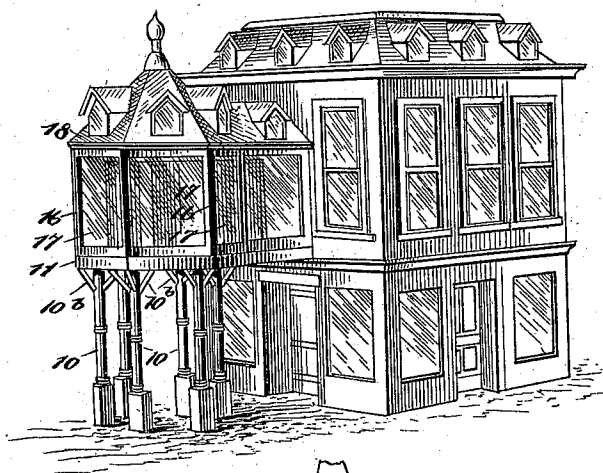


Fig. 2.

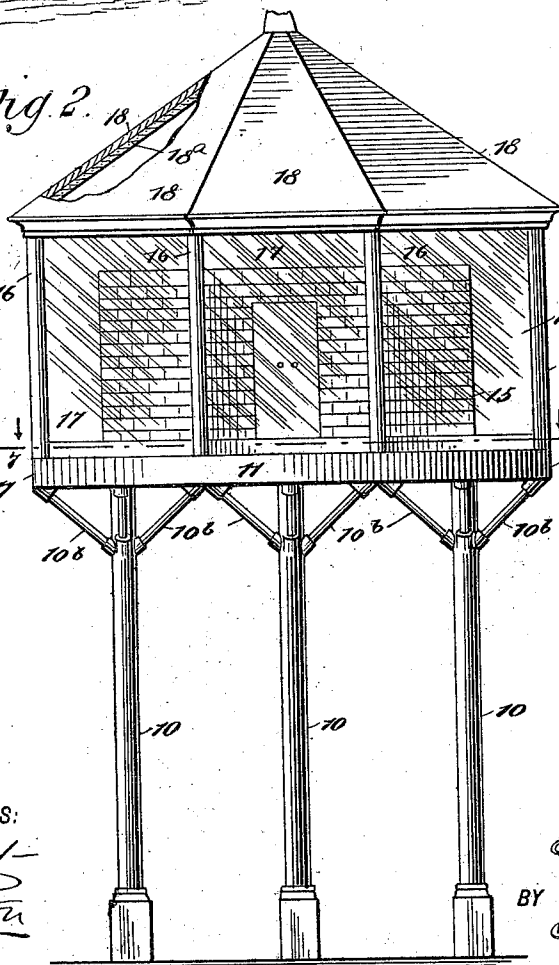


Fig. 3.

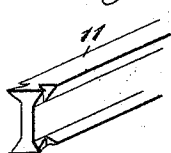


Fig. 4.

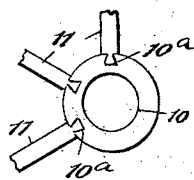
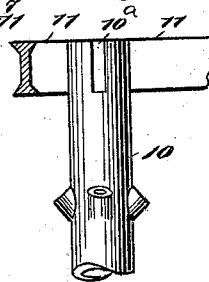


Fig. 5.



WITNESSES:

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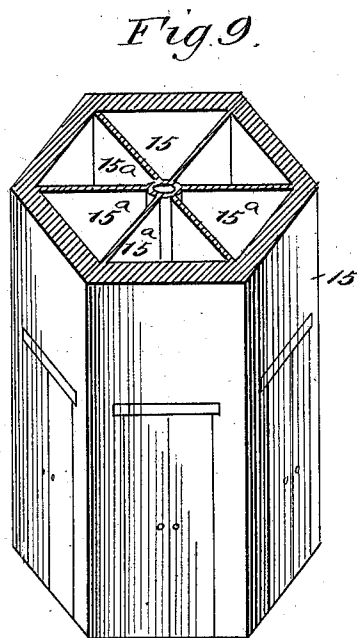
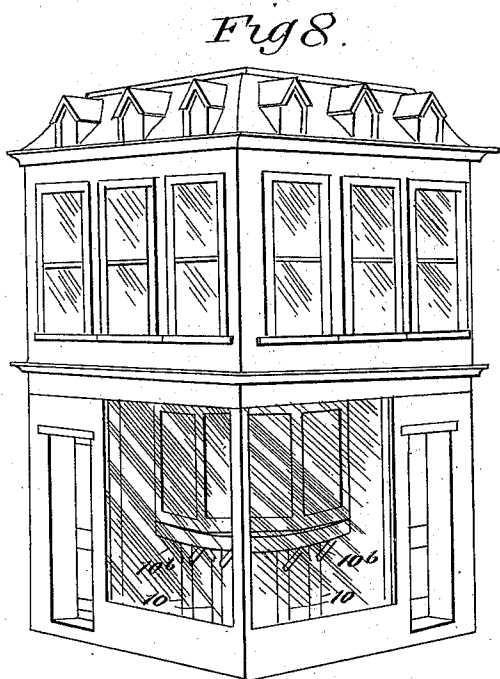
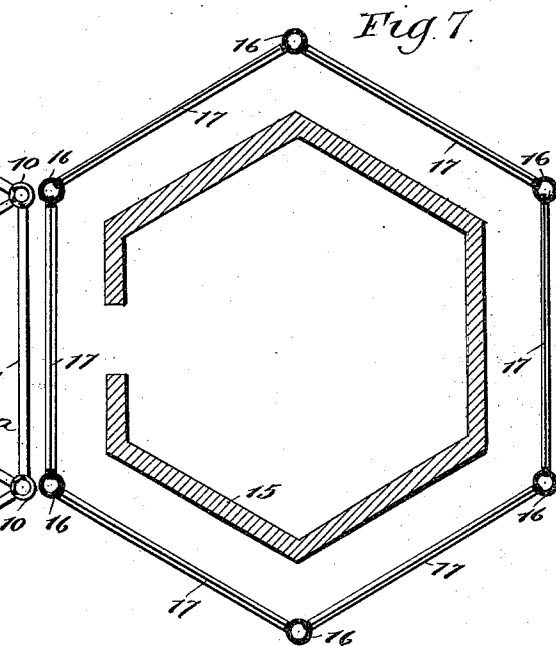
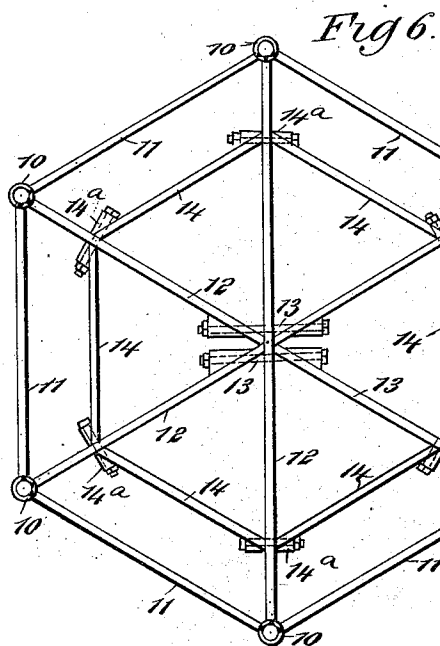
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2 Sheets—Sheet 2.

T. BARNES.
SAFETY VAULT FOR BANKS.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS BARNES, OF RAWLINS, WYOMING, ASSIGNOR OF ONE-HALF TO
JOHN MAHONEY, OF SAME PLACE.

SAFETY-VAULT FOR BANKS.

SPECIFICATION forming part of Letters Patent No. 554,411, dated February 11, 1896.

Application filed April 6, 1895. Serial No. 544,773. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BARNES, of Rawlins, in the county of Carbon and State of Wyoming, have invented a new and Improved Safety-Vault for Banks and other Purposes, of which the following is a full, clear, and exact description.

This invention relates to an improved safety-vault for the protection of valuables, which may be located within a building or be erected as an independent structure.

The invention consists in the peculiar construction of the vault and its supports, and also consists in the combination of parts, as is hereinafter described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement erected exterior of a building. Fig. 2 is an enlarged front elevation of the improvement on its supports, and which may be erected within a bank or other building, the roof of the vault being partly broken away. Figs. 3, 4, and 5 represent details of the supporting-frame preferably employed to sustain the improved vault. Fig. 6 is a plan view of the metal supporting-frame for the vault. Fig. 7 is a sectional plan view of one form of the vault and connected parts on the line 7-7 in Fig. 2. Fig. 8 is a perspective view of a building wherein the vault structure is located, and which is exposed to view through glazed windows of the building; and Fig. 9 is a perspective view of a slightly-changed construction of the vault.

The improvement in brief consists in the provision of a burglar and fire proof vault, which may contain one or a plurality of compartments, and the erection of the vault structure on an upright skeleton frame sufficiently elevated from the ground or floor of a building to expose the lower side of the vault, the vault being built on a network of horizontal floor-beams that are tied together and held engaged with their supports by novel means.

The invention also comprises a gallery that completely encompasses the vault and is sustained by the same supports, the said gallery,

that affords access to one or more doors in the vault, having heavy plate-glass sides that permit a free inspection of the exterior of the vault from the ground around said vault structure, and to facilitate such a complete display of all sides of the vault from one or more points in the street mirrors are disposed so as to reflect otherwise hidden parts of the structure and thus expose one or more persons who may be striving to illicitly enter the vault.

Referring to the drawings, it will be seen that a plurality of upright columns 10 are erected on a substantial foundation, (not shown,) the said columns being preferably arranged as shown, and represent the vertices of a polygonal figure produced by joining all the columns with I-beams 11.

There can be six, eight or more columns 10 used; but for economy in construction six of said columns may be used to advantage, and this is indicated in the drawings.

The upper ends of the columns 10 are furnished with dovetail sockets 10^a, as indicated in Figs. 4 and 5, for the reception of dovetailed tongues formed on the ends of the I-beams 11, as clearly represented in Fig. 4. In Fig. 6 other I-beams 12 are shown, which are interlocked by dovetailed connections with the columns 10, intermediate of the polygonally-arranged beams 11, and the beams 12, radiating from a common center, are tied together by the bolts 13, which are adapted to bind all the beams in place and stiffen the structure that is produced, as described.

At a proper distance from the columns 10 a series of I-beams 14 are held parallel with the beams 11 by bolted connections 14^a, as shown in Fig. 6, these concentrically-arranged beams 14 conducing to render the floor-support more substantial and provide a base whereon the preferably masonry wall 15 may be erected.

The columns 10 and polygonally-arranged beams 11 are supported by braces 10^b, that respectively engage their ends with sockets formed on or secured to the columns and beams, which will render the framework complete and extremely strong in all its parts.

The wall 15 is rendered fireproof in any suitable manner and is given a sufficient height

required for the production of the vault. It is of advantage to give the contour of the wall 15 the same shape in plan as that of the polygonal frame whereon the wall is located, and, if desired, the interior space bounded by said wall may be divided into a number of compartments 15^a, each having a door produced in its wall to afford access to each section of the vault, this formation of the vault appearing in Fig. 9.

A series of spaced posts 16 is located one at each corner of the exterior polygonal frame formed of the lower columns 10 and I-beams 11, these vertical posts being adapted to receive and retain in position the vertical glass plates 17, which when in place afford walls for the inclosure of a gallery, the floor of which is produced by suitably covering the beams 12 with fireproof material, and it should also be mentioned that this floor is treated in a like manner with any proper substance that will be difficult to penetrate and that is fireproof or measurably so.

The vault-wall 15 should have a very substantial cover imposed on it and secured in place by such means as will prevent its displacement by robbers.

An exterior roof 18 is located on the posts 16 and is preferably elevated at the center, pitching toward the lower and outer edges of each section of the roof—that is, for convenience in construction and architectural harmony of appearance, made pyramidal, having an equal number of sides with the gallery it covers. The several sides of the roof 18 may be and preferably are interiorly lined with mirrors, as indicated at 18^a, and it will be of advantage to convert into mirrors portions of the glazed vertical wall 17 if near another structure—as, for instance, adjacent to an interior wall of a building in which the vault may be placed.

From the elevated position given to the vault and the provision of the gallery surrounding said vault, together with the glass side walls and mirror-plates lining the roof of the entire structure, it will be evident that a watchman or passer-by in the street will be enabled to see all sides of the vault, in daylight and at night, as it is to be understood that provision is to be made for the brilliant illumination of the gallery in a manner that

cannot be tampered with by evil-disposed persons.

It is obvious that by providing locks for the doors of the vault of such construction as will consume time in opening them entrance to the vault will be prevented, if ordinary precaution is had by the watchman, or by people passing the vault, which vault may be either within a bank-building, as shown in Fig. 8, be erected outside such building, or be independent of any other structure, if preferred.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A burglar-proof vault, comprising a burglar and fire proof structure, an elevated supporting-frame therefor, and a glazed inclosure for the vault, substantially as described.

2. A burglar-proof vault, comprising a vault-inclosure built on an elevated frame support, an inclosing gallery having a glass side wall, and a centrally-elevated roof covering the vault and gallery, substantially as described.

3. In a burglar-proof vault, the combination with a frame supported on a series of columns, of a vault-inclosure having a door, a surrounding gallery the side wall of which is transparent, the said gallery affording access to the vault-door, a pitched roof covering the vault and gallery without touching the vault, and mirrors on the inner face of the roof, substantially as described.

4. In a burglar-proof vault and support therefor, the elevated frame structure, comprising a series of columns a series of beams interlocked with the tops of the columns and arranged in polygonal form, transverse floor-beams interlocked at their ends with the columns intermediate of the marginal beams, and bound together where they join by clamping-bolts, and beams affording a base for the vault-wall and secured in parallel planes with and respectively opposite the polygonally-arranged marginal beams, substantially as described.

THOMAS BARNES.

Witnesses:

JAS. M. RUMSEY, Jr.,
MORGAN M. MAGHEE.