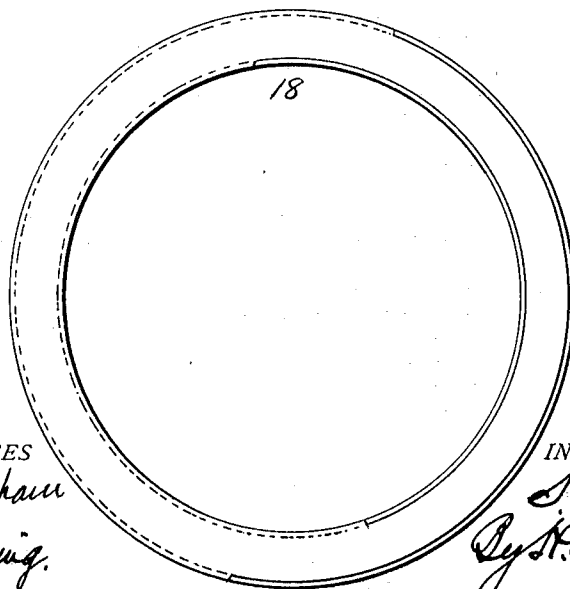
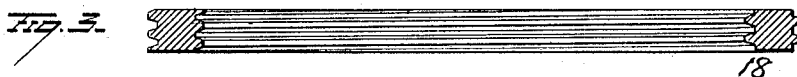
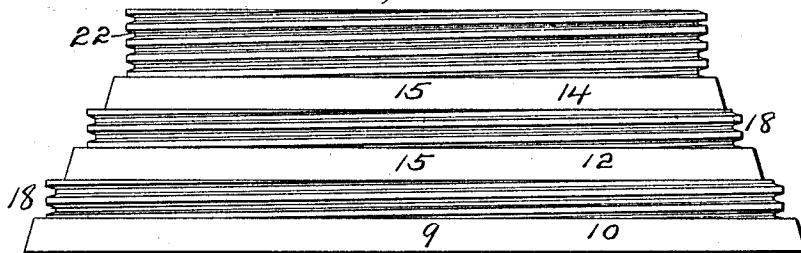
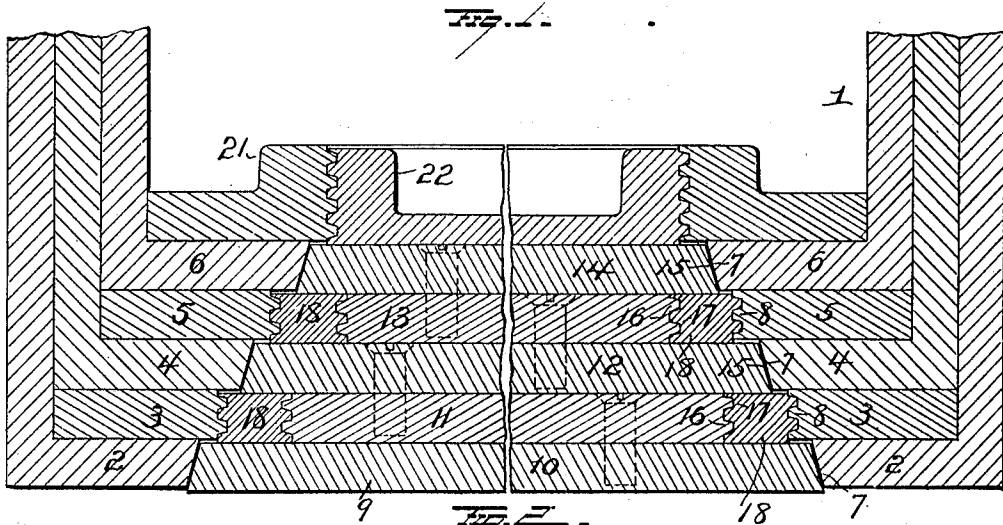


S. L. CARY.
SAFE CONSTRUCTION,
APPLICATION FILED JULY 19, 1910.

1,051,681.

Patented Jan. 28, 1913.



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SAFE CONSTRUCTION.

1,051,681.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed July 19, 1910. Serial No. 572,780.

To all whom it may concern:

Be it known that I, SHERMAN L. CARY, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Safe Construction; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in safes, and more particularly to round door portions provided with threads.

The object of my present invention is to construct a safe structure in such manner that portions of the door which bear against portions of the door frame, can be ground to make a perfect fit, with the exception of those parts which have threaded coöperation with the door frame or wall of the door opening.

A further object is to so construct a circular safe door structure as to provide threaded and plain portions to coöperate with similarly formed abutments afforded by the door frame or wall of the door opening and so that the connection of the door with the body of the safe shall be firm, strong and effective.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claim.

In the accompanying drawings, Figure 1 is a sectional view showing my improved door in position in the door frame of a safe. Fig. 2 is an edge view of the door. Fig. 3 is a sectional view of one of the screw-rings, and Fig. 4 is a face view of the latter.

The door will be supported by a suitable hinged frame and any approved means may be provided for preventing the door from turning. These devices are common in the art and I deem it unnecessary to further describe them or to show them in the drawings.

In order to illustrate an embodiment of my invention, I have shown in the drawings a portion 1 of a safe,—the front of which may comprise a series of plates 2, 3, 4, 5 and 6, which may be secured together in any approved manner, and if desired a greater or less number of these plates might be employed. The several plates are provided

with openings which coöperate to form the door-opening of the safe and constitute a door frame, the walls of the openings of said plates forming engaging faces for a door; some of said engaging faces being threaded and others plain. Thus alternate plates 2, 4 and 6 may be plain and beveled as shown at 7, while the walls of the openings in the plates 3 and 5 may be provided with threaded portions 8. The openings of the several plates so vary in size that the door-opening will be tapering with step like formation.

When the door frame of the safe is provided with five circulate engaging faces my improved door 9 will also have the same number of engaging faces. Thus the door may comprise five plates as plates indicated by the reference characters 10, 11, 12, 13 and 14. The door plates 10, 12 and 14 are made with plain beveled peripheral portions or engaging faces 15 to abut against the plain beveled faces 7 of the safe plates 2, 4 and 6. The alternate door plates 11 and 13 are made appreciably less in diameter than that of the adjacent door plates 10, 12 and 14 and on account of general tapering form of the door the plate 13 has less diameter than the plate 11, while the plates 10, 12 and 14 differ in diameter successively as clearly shown in Fig. 1.

The peripheral portions of the door plates 11 and 13 are made with threads 16 for the reception of internal threads 17 of screw-rings 18. These screw-rings are provided with external threads 19 to coöperate with the threads 8 of the safe plates 3 and 5.

After the various members of the door (except the threaded rings) shall have been assembled, the peripheral portions of the plates 10, 12 and 14 can be ground against the corresponding engaging surfaces of the door frame for the purpose of insuring a tight fit of these peripheral faces against the inclined faces 7 of the safe plates 3, 4 and 6. The door can then be taken apart and reassembled with the threaded rings in place, and the various members of the door secured together.

As shown in the drawings, the plates 10, 12 and 14 are of slightly greater diameter than the openings in their companion plates 2, 4 and 6, so that when the parts are assembled there will be slight spaces left between the inner faces of the plates 10, 12

and 14 and the outer faces of the plates 3 and 5 and the externally threaded ring 21, which spaces are sufficient to permit the engaging screw surfaces to draw the beveled surfaces of the door into close and intimate contact with the mating surfaces in the door frame, and they also provide and compensate for all wear of the beveled faces. If desired, an internally threaded ring 21 may be secured within the safe and the door 9 provided at its inner end with an internally threaded ring 22 to engage said internally threaded ring 21 the threaded section of the ring 22 being of greater length than the thickness of the threaded plates 3 and 5, so as to engage its ring 21, before the threads on the door and frame are brought into contact.

I do not wish to confine myself to any particular number of plates in the door or frame nor to a series of plates in each of these members, nor to any specific dimensions of the plates as these may be varied in accordance with the type and size of the safe to which it may be desired to apply the door.

Having fully described my invention

what I claim as new and desire to secure by Letters-Patent, is:—

In safe construction, the combination of a door frame comprising a plurality of plates having circular openings therein decreasing in size from the outer plates inwardly, the walls of the openings in several of the plates being beveled, and the walls of the openings in the alternate plates being threaded, and a circular door composed of alternate beveled and threaded plates, the beveled plates of the door being slightly greater in diameter than its opening in its companion plate in the door frame, whereby spaces are left between the beveled plates of the door and the plates of the door frame overlapped by said door plates, whereby wear on the beveled plates may be compensated for.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

SHERMAN L. CARY.

Witnesses:

A. W. SMITH,
H. G. BUSH.