

S. W. FISH.
SAFE OR VAULT.
APPLICATION FILED NOV. 10, 1909.

997,792.

Patented July 11, 1911.

FIG. 1.

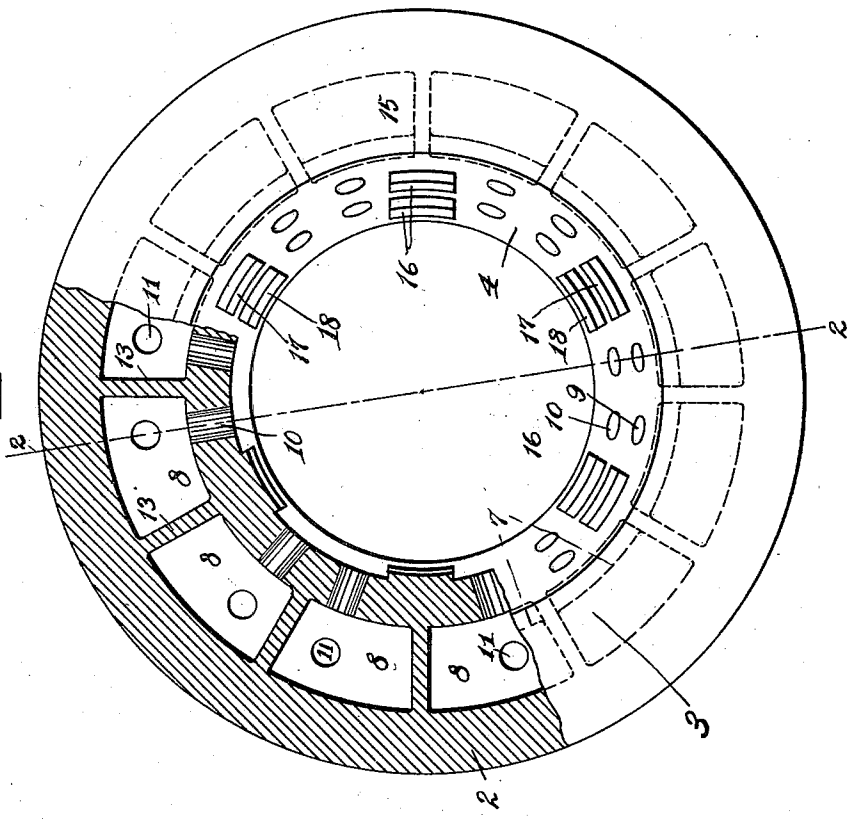
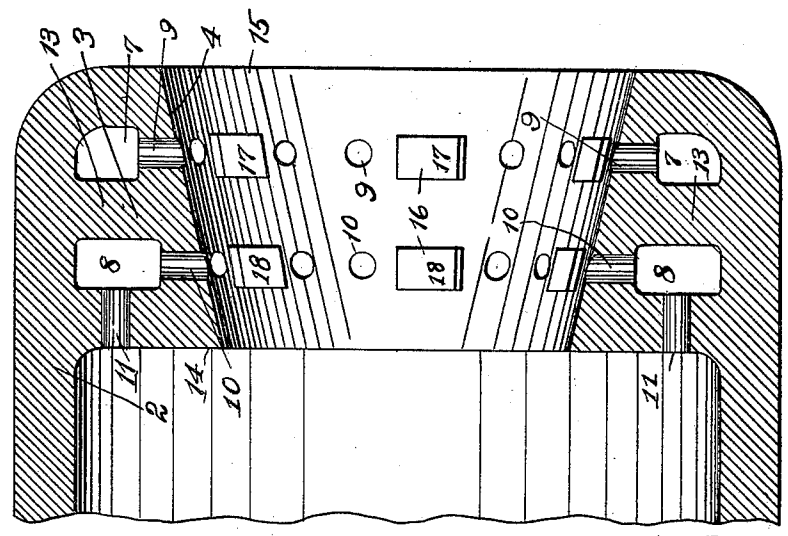


FIG. 2.



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UNITED STATES PATENT OFFICE.

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SAFE OR VAULT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL W. FISH, a citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Safes or Vaults, of which the following is a specification.

This invention relates to safes or vaults, and particularly to safe or vault bodies, the object of the invention being to provide an improved body which when made of un-machineable metal, as for instance manganese steel, may have a relatively long door joint or jamb surface without the necessity of providing it with an inwardly extending flange as heretofore in order to facilitate the heat treatment thereof.

As is well known, a safe or vault body made of manganese steel must be of substantially uniform thickness in order to facilitate the heat treatment of this steel. Consequently it has been the practice to provide an inwardly extending flange adjacent to the jamb of the body in order to reduce the thickness of the metal around the jamb.

To do away with the necessity of providing this flange and yet permit the formation of a long door joint or jamb surface is therefore the object of the present improvement.

In the drawings accompanying and forming part of this specification, Figure 1 is a front view of this improved safe body partly broken away and in section; and Fig. 2 is a cross-sectional view thereof taken in line 2—2, Fig. 1.

Similar characters of reference indicate corresponding parts in the figures of the drawings.

This improved body 2 is provided with an enlarged front portion 3 having an elongated tapered jamb surface 4. In practice the length of this jamb surface, owing to the mass of metal required to form it, would be prohibitive if the structure was made of un-machineable metal, as for instance manganese steel, as it would be impracticable to heat treat it because such mass of metal would not be uniform with the rest of the casting. In order, however, to permit the formation of such a long joint surface without, as hereinbefore stated, the necessity of

providing an interiorly extending flange I have provided around the jamb a series of cells, shown herein as two sets thereof, an outer set 7 and an inner set 8, each cell of the outer set communicating by an opening or duct 9 with the jamb and each cell of the inner set also communicating by an opening 10 with the jamb and also by an opening 11 with the interior of the chamber or the body, these openings thus communicating with an open space of the body either at the jamb or at the interior of such body and permitting the withdrawal of the core used to form the cells during the casting of the safe body as well as facilitating the heat treatment of the casting by reducing the thickness of the mass of metal forming the jamb. The cells of each set are separated from each other by relatively thin walls 13 forming bridges between that part of the structure forming the jamb surface 14 and the outer wall of the body. This jamb surface is shown as of tapered formation and provided with locking lugs 16 for engagement with similarly formed lugs carried by the door when this is of a rotary form. In the present instance two sets of locking lugs are provided, as 17 and 18, and the lugs of each set are preferably located between the openings which communicate with the cells. By reason of this construction it will be observed that a relatively long joint surface is obtained, while at the same time the mass of metal necessary to provide this joint surface is rendered substantially uniform in thickness at all points, so that the treatment thereof in the manner in which it is necessary to treat manganese steel is rendered entirely practicable.

By reason of the parallel location of the cells a longer jamb surface may be provided without affecting the substantial uniformity of the metal at the jamb, while at the same time, by the provision of sets of cells located in the manner described the heat treatment is very much facilitated.

I claim as my invention:

1. A safe or vault body having a jamb surface and having around the same and within the casting forming such jamb surface a cellular formation formed by a plurality of separated cells communicating by ducts with an open space of the body.
2. A safe or vault body having a jamb

surface and having around the same and within the casting forming such jamb surface a cellular formation made up of a series of separated cells each having communication with the interior of the body by an opening of less diameter.

3. A safe or vault body having a jamb surface and having around the same and within the casting forming such jamb surface a cellular formation made up of a series of separated cells each having a communication of less diameter than the cell with the jamb.

4. A safe or vault body having a jamb surface and having around the same and within the casting forming such jamb surface a cellular formation made up of a series of separated cells, each having communication with the jamb and with the interior of the body by openings of less diameter.

5. A safe or vault body having a jamb surface, and a series of cells located in parallel rows one in the rear of the other within the casting forming such jamb surface and having communication with an open space of the body.

6. A safe or vault body comprising a casting having a jamb surface, and around the same and within the casting forming such jamb surface two sets of cells having communication with an open space of the body.

7. A safe or vault body comprising a casting having a jamb surface, and around the same and within the casting forming such jamb surface two set of cells, each cell

of each set communicating with the jamb surface.

8. A safe or vault body comprising a casting having a jamb surface, and around the same and within the casting forming such jamb surface two sets of cells, each cell of each set communicating with the jamb surface and each cell of one set also communicating with the interior of the body.

9. A safe or vault body comprising a body having an elongated jamb surface, and around such jamb surface and within the casting forming the same two sets of cells located in parallel rows one in the rear of the other, the cells of each set being separated from each other and communicating with an open space of the body.

10. A safe or vault body comprising a body having an elongated jamb surface, and around such jamb surface and within the casting forming the same two sets of cells, the cells of each set being separated from each other and communicating with the jamb surface and the cells of the inner set also communicating with the interior of the body.

11. A safe or vault body having a jamb surface, the metal around such jamb surface having a cellular formation and communicating with an open space by an opening of less diameter.

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