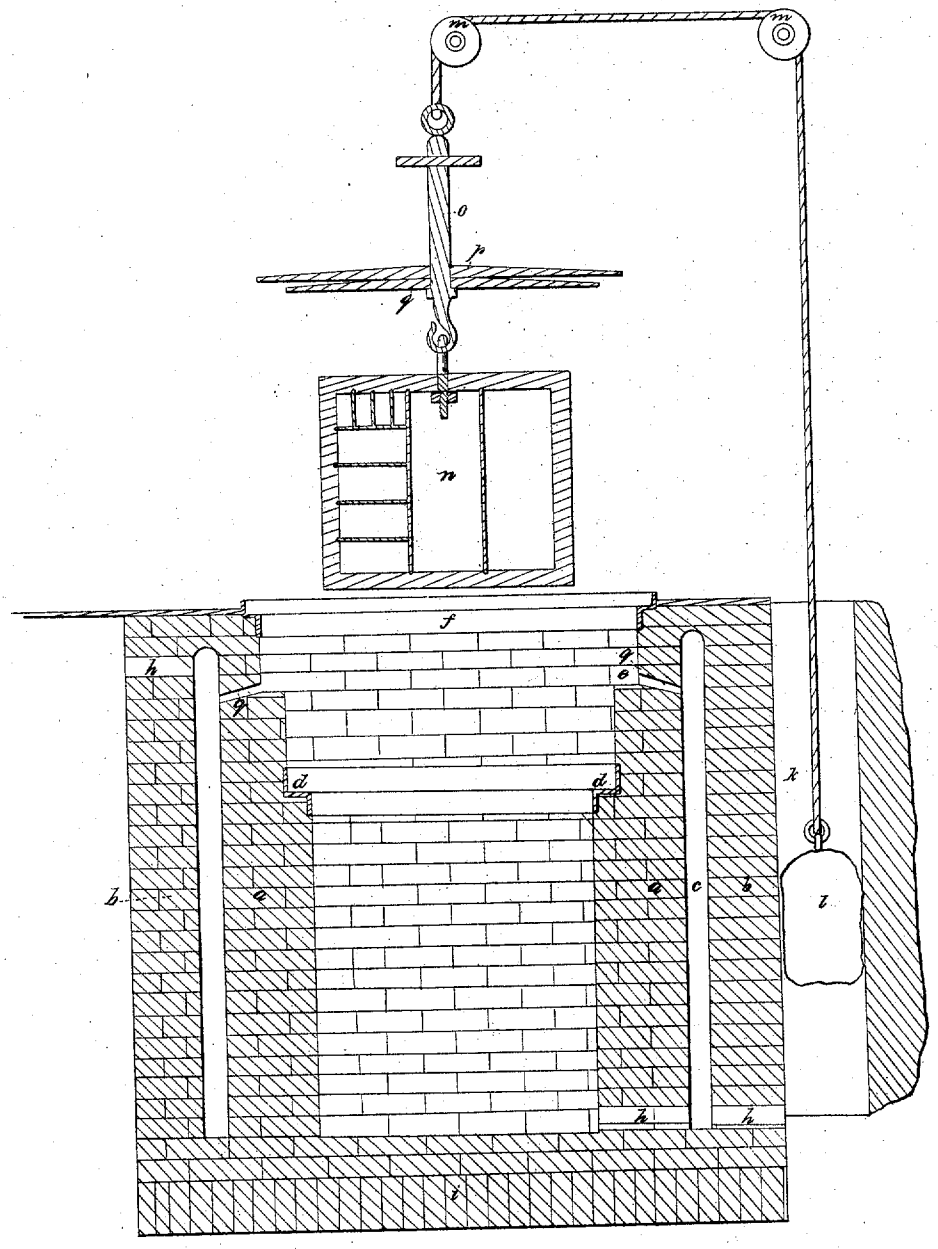
2 Sheets-Sheet 1.

9455X

D. Harrington,

Fire-Proof Safe.

Patented Mar. 2, 1836.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

2 Sheets-Sheet 2

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D. Harrington,

Fire-Proof Safe.

Patented Mar. 2, 1830.

Fig. 1

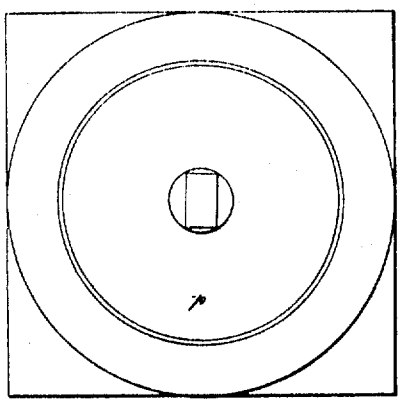
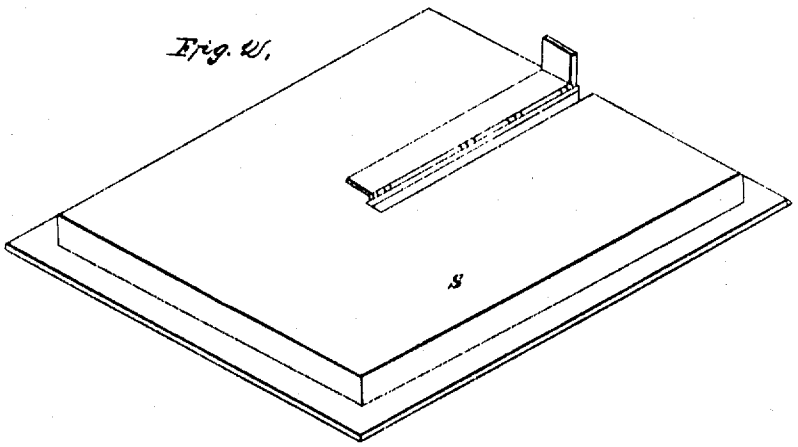


Fig. 2.



Mar 2, 1836

Daniel Harrington (146) 9455X

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Daniel Harrington himself of his improvement in the fire proof safety vaults for keeping Books papers &c.

To all whom it may concern Be it known that I Daniel Harrington of the City of Philadelphia in the state of Pennsylvania have invented a safety vault or cell case & other apparatus connected with the same which I denominate fire proof apparatus for the safe keeping of Books, papers & money (and other things during the conflagration of buildings &c.

The first communicating the vaults or to the cases of brick stone or other materials and strengthened with the bottom of the cellars then the walls of the vaults of the same materials are to be commenced of (any) that height from one to four feet that may be deemed necessary and continued perpendicularly with the top of the first floor above, or a double wall may be erected each leaving an air chamber of 2 4. or 6 inches between the inner and outer wall which the walls may be brought up to one then the top leaving an outlet for the escape of vapour and at their junction on one or other side communicated for each air at their bottom which inlet may be by tunnels also through the middle wall, these inlets for air may be by means of a tube from the end side of the building or from the bottom of the cellar. The dimensions of the vaults within commencing at the bottom may be one and a half by three feet which size may be continued to within 4 or 5 feet from the top, at which height a shoulder may set off 3 inches or to be made on all sides for bearing plates or Cross with the inner surface of the walls on which for the purpose of strength may be turned 2 or 3 inches below the offset (arch) for the purpose of forming a chamber all around may be 2, 4. or 6 inches above it. the walls

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may then be carried up leaving the dimensions of that part of the canal two feet by 3 feet within one foot of the top at which it is to be another offset similar to the above described within which another division piece may be made and the walls continued to the top in such a manner to be left as described above between each of the divisions above the first and this mode of proceeding to be continued to the top of the canal the offsets are also formed to prevent water from descending into the canal. The other mode proposed by me is to stop such water as may descend into the canal by having a small arch in the bank work sloping obliquely downwards to the bottom of the canal on the side of the wall next to the air chamber, and a double wall. The inner wall to be the bank wall of the canal & the outer wall answering some purpose such as may be made of sufficient a small chamber free from water to stop of any necessary dimensions in which a candle might be placed to be mentioned may belong up and down. The use for answering doors, stopping or letting water and may be made of wood or metal of any dimensions that will seem fit to stop down in the inner part of the wall and it may have small wheels attached to it to move to and fro running within two rails the wall within letting down or drawing up at the centre of the upper end of the door is to be attached one end of a hook or any other kind of thing for a moveable attachment (on the opposite side of these rails had attached near to the side of the canal an eye eight or ten) this hook may be of any small size but of sufficient length when the top of it is a little above the little below the upper part of the door to let the top of the door down the upper part of the door when the other end of this hook may be put into the other eye hole to secure the door or other in which it is stopped

over a couple of pulley rafters to be attached to the joists of the floor of the second story of the building, the other end of which rope or chain is to be attached to the counterweight which latter is to be almost (but not quite) as heavy as the load and apparatus to be pulled up by it, and which apparatus will or may consist of two thick iron bars (or wrought iron) one to pass loosely down and rest upon the lower offset or rim (and the other to rest upon the second offset) these two bars by means of a mortise in the centre of each through which the iron bar is to be inserted, will be drawn up and let down with the case, and by their sliding upon the bar will always (against themselves) be kept parallel to each other or above it. a small shoulder may be left upon the bar above its attachment to the case or a pin or key put through it which would sustain the weight of these two bars or they may slide quite down upon the bar until resting upon the top of the case. The second hole from the top of the bar may have a pin or key through it which may be of iron, wood, brass or whatever & which pin will or may be moved to rest across the mortise in the middle bars and sustain the weight of the case below & its contents. The top most bar (to be made of wrought or cast iron (and of any necessary thickness) may be screwed down at each of its ends by two screws so as to embrace the two sides of the rim at the top and prevent the rim at each side of said bar. This bar may rise upon four standards or be made without them. Since the centre of this bar is one of its least strong parts it may be proper or convenient to make a hole through it for the passage of the rope or chain which is drawn up the standards through pulleys over the mouth of the mould or the last described to the second floor. Here there may be an iron cross bar made by means

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of mine at two lengths to two several and close this groove by cycloids figured to form cutting through it. Of this last curve should be well fastened down by cast lead it will constitute a safety bank against thieves as well as against fire — When the case is to be drawn up the last curve is to be drawn from the mouth of the bank and the case and its appendages being a little heavier than the counter weight a slight exertion of strength will be sufficient to unbank it above the reservoir. When the case is to be unbanked by the glass 3 the case is first to stand on that upon the mode of letting it down as might well suggest itself.

This first part of operation as above described, this invention subjoins to be first that for the purpose of double additional safety the case may be extended as low below the bottom of the cellar as may be required. This kind of extended part may be lengthened or shortened at pleasure by means of a screw or other suitable kind of joint below the bottom of the cellar. A pit or sinking should previously be dug with bricks or other suitable materials to wall with appropriate offsets to stand at sufficient distance from the cellar leaving at the top a little space round the cellar so that it will fall of itself and close the groove. Also it should be sunk upon with a pump to clear away the standing water. That the weight of the case and its appendages may readily descend of its own and thereby close the groove after it. In case it should be found to have lodged its usual depth upon any occasion, this additional length of the case above mentioned will be sufficient to bring it down to its proper depth. When this additional depth of case is considered as being in the second part of the operation as above described it will be of some material use to have it made as long as may be. If from any change this depth of case should become so much altered as to prevent the glass descending into the groove by leaving out the [illegible]

fein & rope (a chain in this case should not be used) the end
end bar will instantly fall to the ballow (and close the trap door
after it) and a small spring which should be under the
hinder or upper side of the lower main cover will close the
middle by sliding over it, & thereby prevent another from
falling through, the same thing of spring (may) be attached
to the middle cover if deemed necessary. If the middle
of the two covers by projecting forward when the case is
open should be in the way, about ½ of their front edges
may be made to turn up, by means of hinges and rest
against the bar during the day & turned down at
dark when about to let the cats down, there are other ways
by which this appearance may be varied (and damned such
as that mentioned earlier, but by none so easily perhaps
as by the one above described. Both the inside and case
may be varied as to their dimensions, according to circum-
stances while the same principles are retained. As a combina-
tion of old and new forms a principle forming a dis-
tinct invention believes himself to be entitled to it. To the
first above mentioned mode of shutting by the case itself to the
particular construction of the inside cell or chamber
to the particular construction of the two doors (which should
be hinged down at the edge opposite to the groove the
doors or at their ends) to the mode of forming the com-
pound door so as to shut upon the bar & be drawn & replaced
simultaneously with the hoisting (and lowering of the cell
& arrangement of pulleys or drawing of wire & tackle or the
hinges, and the particular manner of disposing the
case so that the removal of prisoners by conveying
the prisoner into the case to descend before it
however variations. Although in the foregoing description
I have enumerated the various parts which I believe to be
original with myself, I do not intend to disclaim those
similar

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individually [illegible] Daniel Harrington

Witness

W. F. Gammell

Sus. A. Brinsmead

Exhs 1165

[illegible]

[1991 words]