

No. 810,861.

PATENTED JAN. 23, 1906.

W. H. HEDGES.
PORTABLE FIREPROOF VAULT.
APPLICATION FILED FEB. 2, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

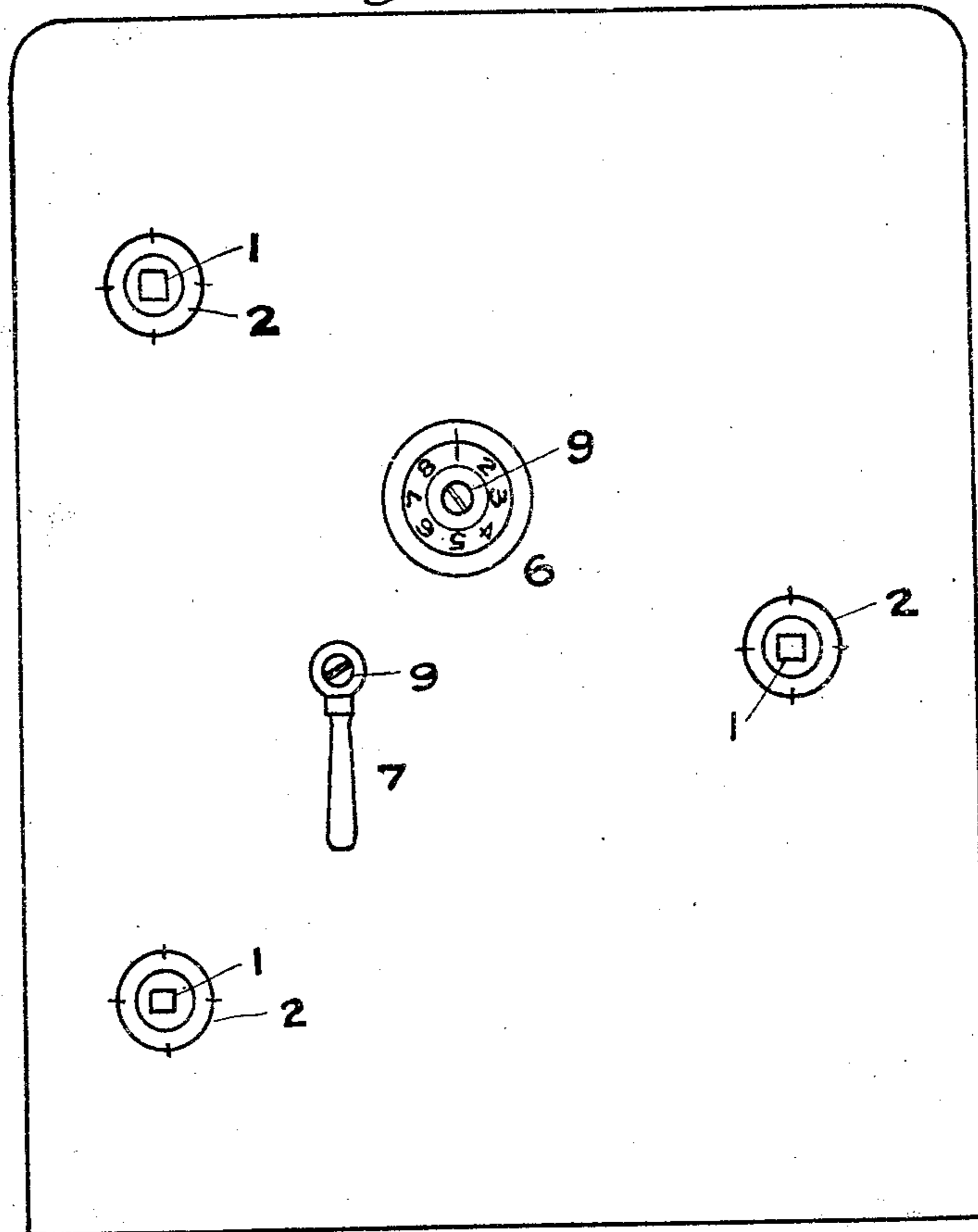


Fig. 2.

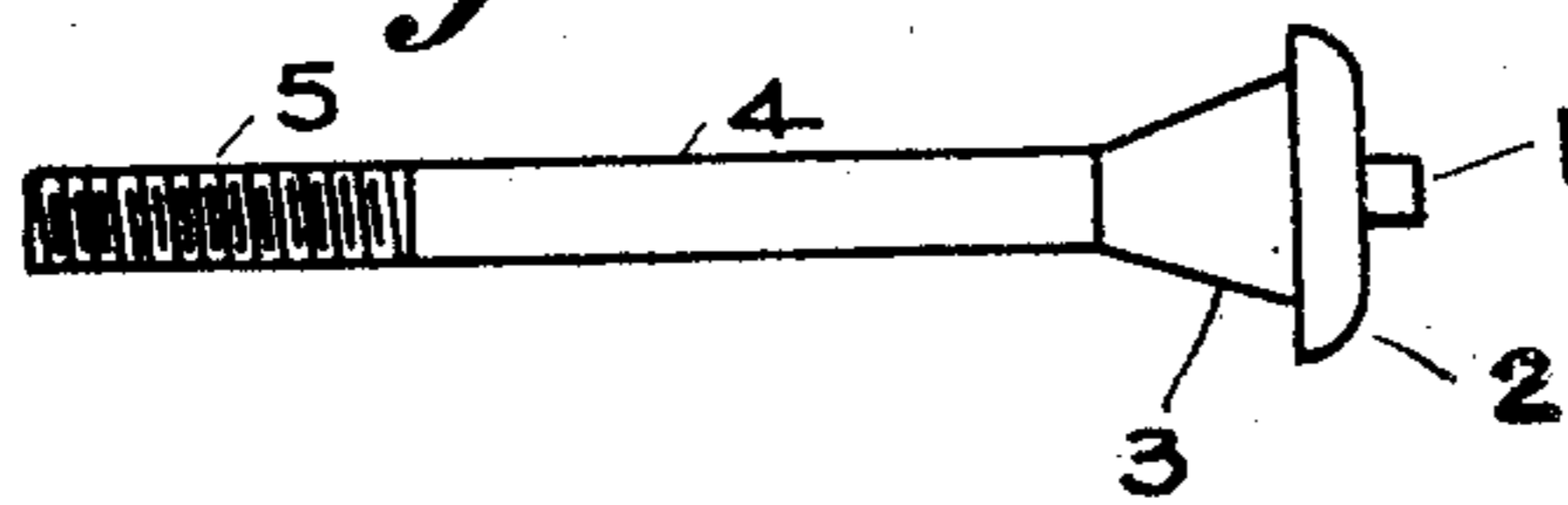
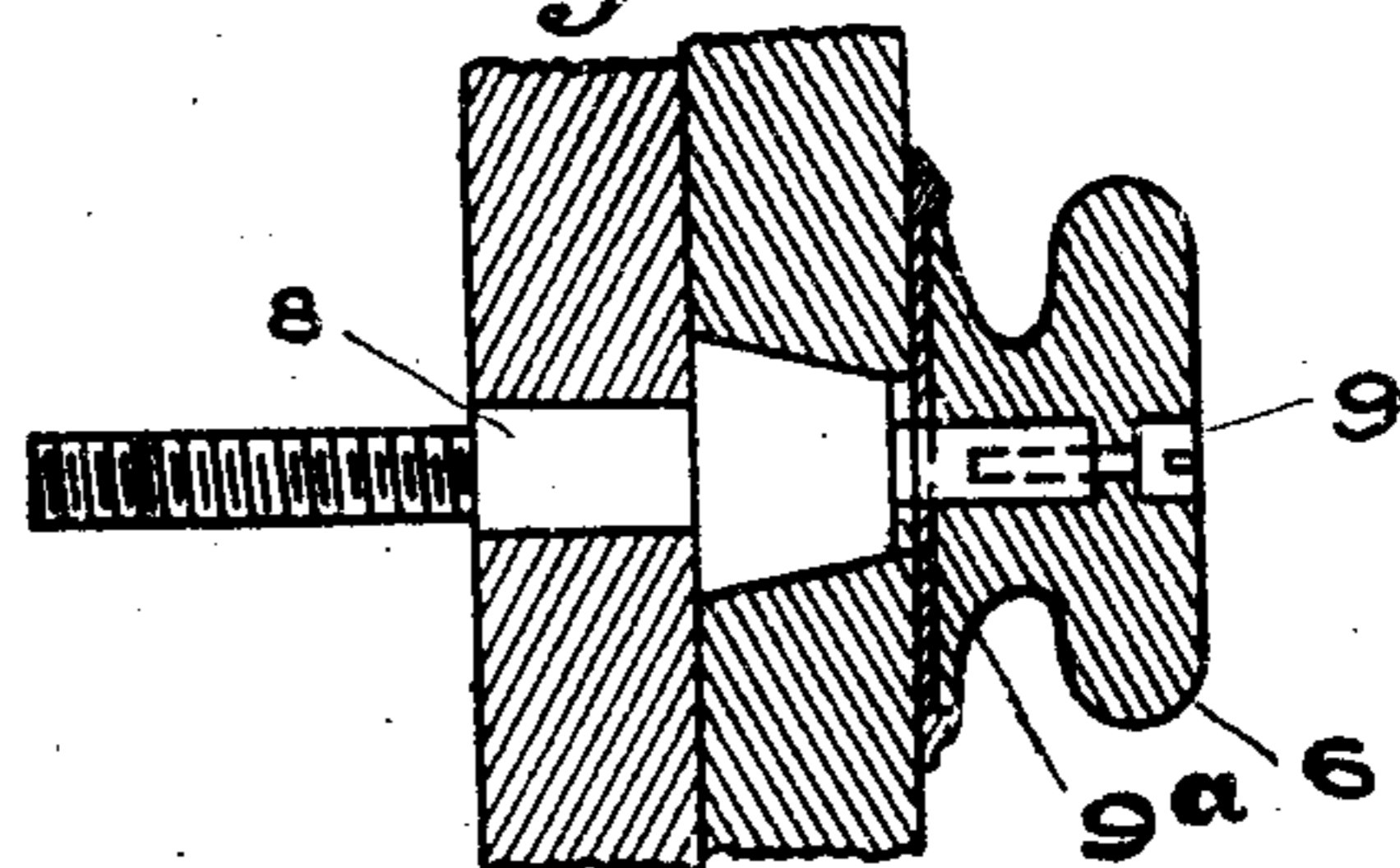


Fig. 3.



Witnesses.

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3 SHEETS—SHEET 2.

Fig. 4.

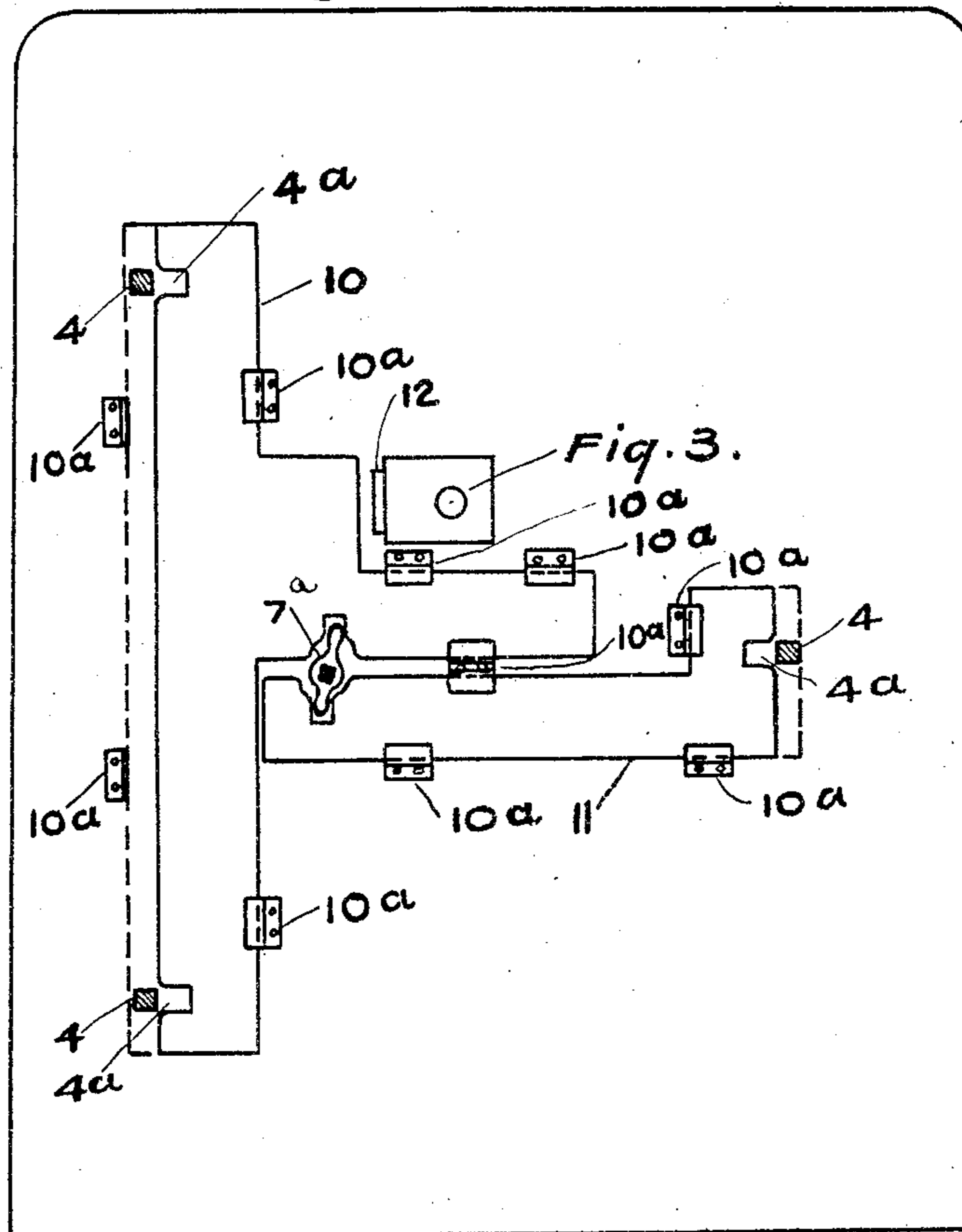


Fig. 5.

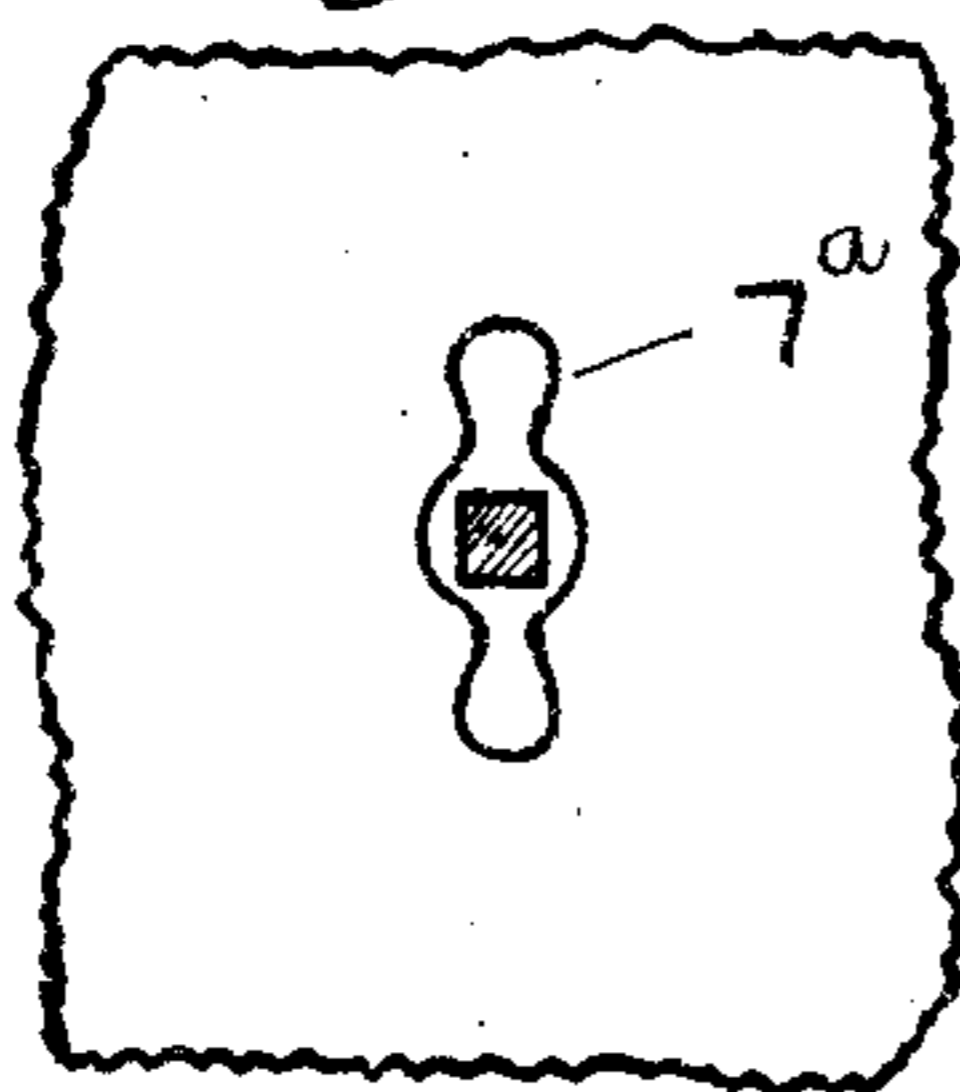
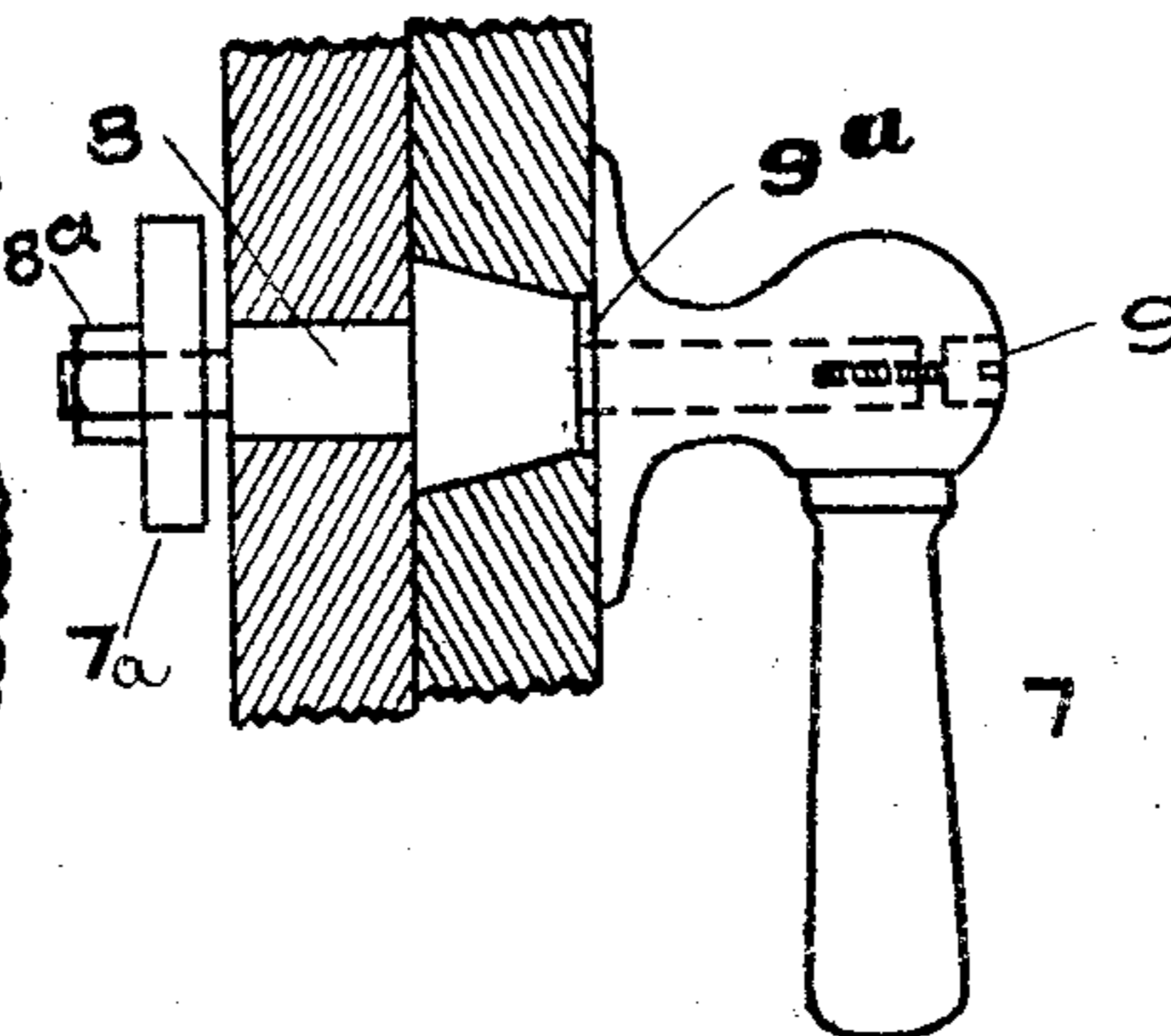


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 7.

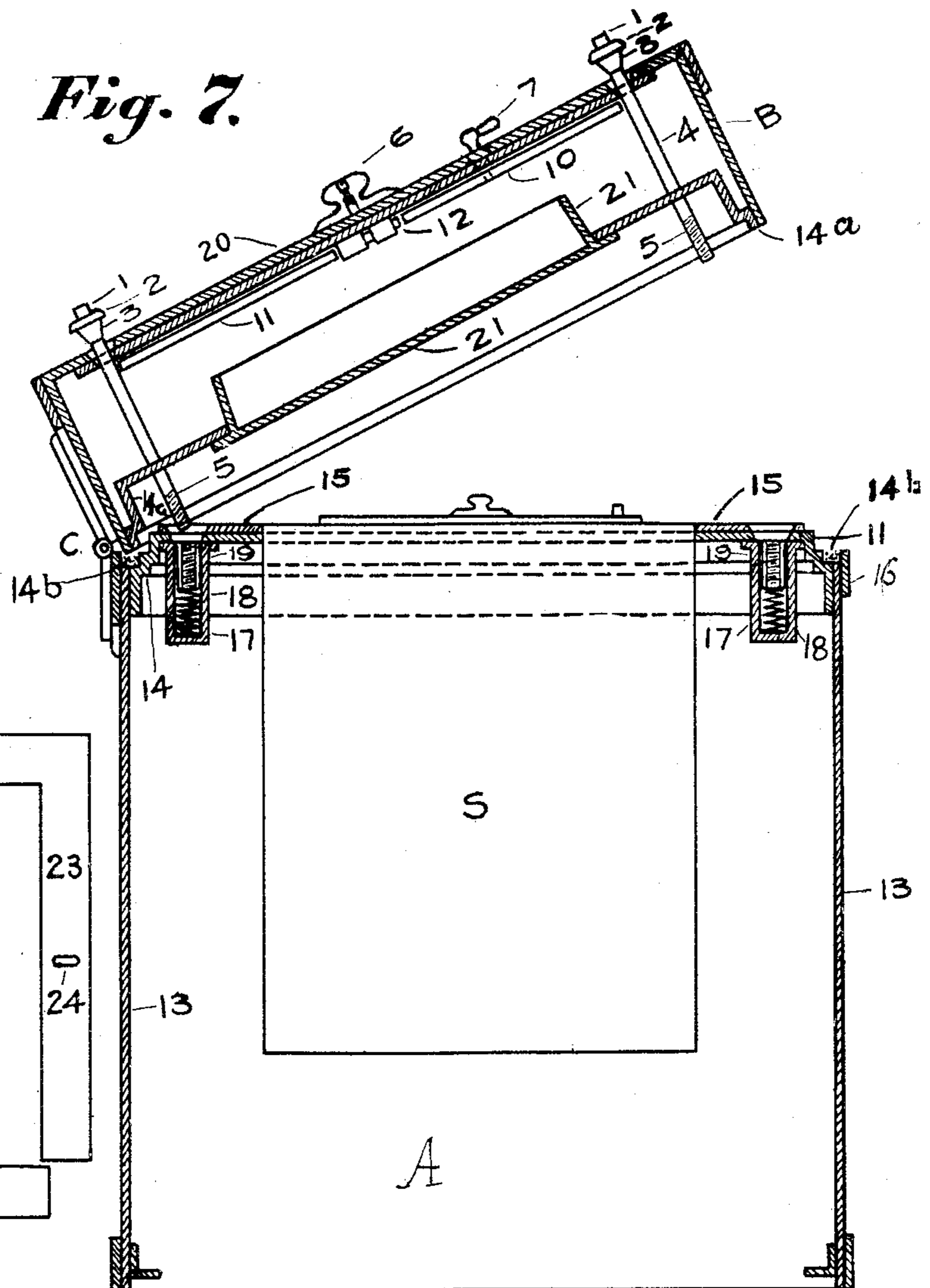
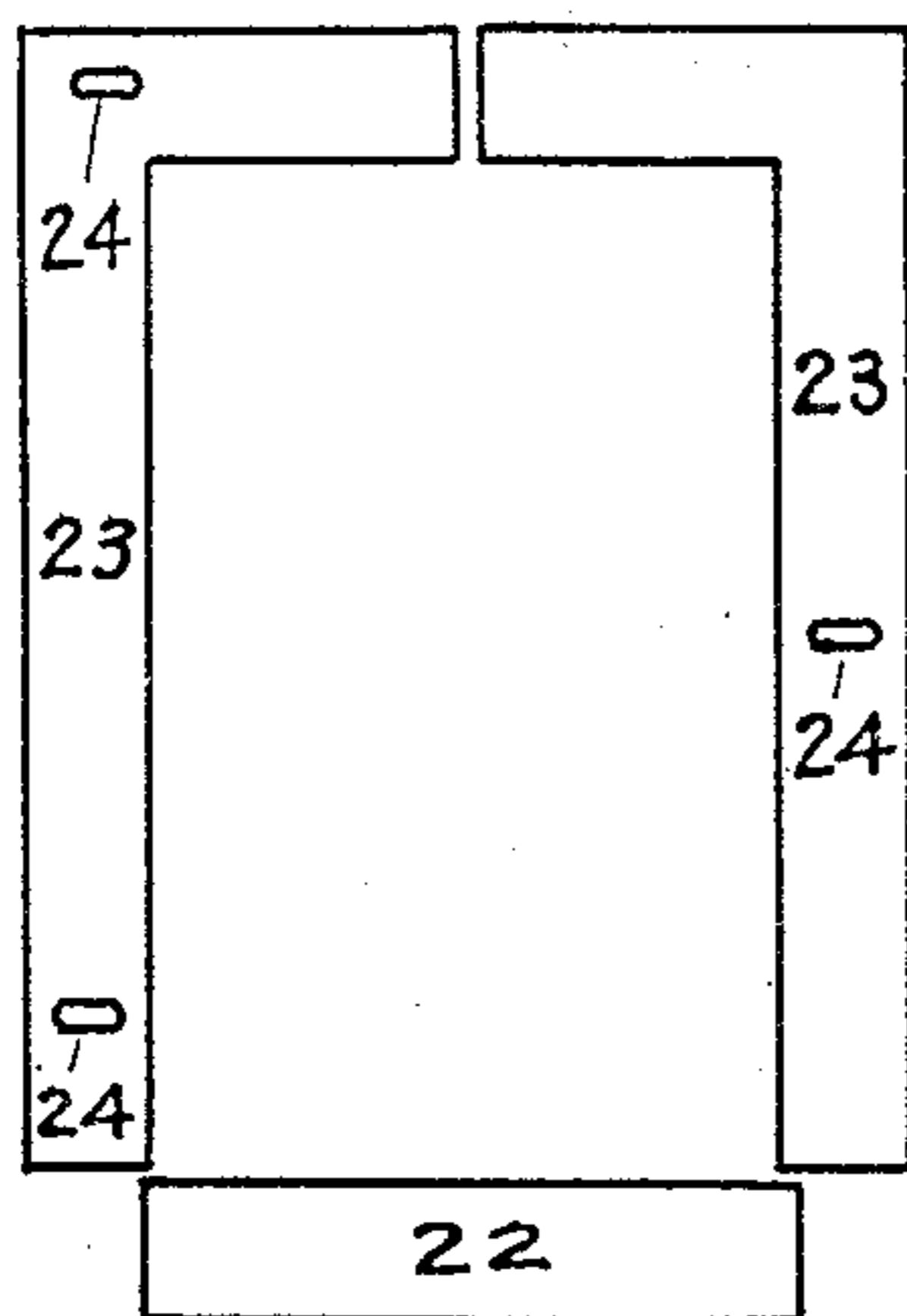


Fig. 8.



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UNITED STATES PATENT OFFICE.

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PORTABLE FIREPROOF VAULT.

No. 810,861.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed February 2, 1904. Serial No. 191,750.

To all whom it may concern:

Be it known that I, WILLIAM H. HEDGES, a citizen of the United States, residing at 650 Garfield avenue, Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Portable Fire and Water Proof Vaults; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention pertains to improvements in fire and burglar proof safes, its object being to provide a portable fire and water proof vault so constructed that it may readily be applied to any of the many forms of burglar-proof safes in common use and when so applied shall not only render such safe fire and water proof, but shall also render it more convenient in use than if fireproofed by any of the usual methods or if placed in the usual old form of vault for fire protection.

A further object of my invention is to so construct the portable vault that a safe being of definite size or proportions as to its height or width the vault shall have an appreciable degree of adjustability within certain limits to the end that the same size vault may be applied to and made to fit safes differing in size or shape, thus obviating the necessity of building a vault of an exact size to fit each particular safe.

I attain these objects by means of the novel forms and details of construction given to the several parts of my portable vault, as will be fully understood from the following specification, and illustrated by the drawings, which accompany and form part of this application, in which—

Figure 1 is a plan view of the front or door side of my improved portable fire and water proof vault, showing the approximate relative positions of its several operating parts. Fig. 2 is a detailed plan view of one of the screw-bolts by means of which the hinged side or door of the vault is tightly secured in place when closed to render the vault water-proof. Fig. 3 is a sectional view of the outside knob and its connecting-spindle by which the locking mechanism shown in Fig. 4 is operated. Fig. 4 is a plan view of the

mechanism by which the screw-bolts fastening the door in place are locked against turning to release it. Fig. 5 is an enlarged view of the inner end of the key, showing the two projecting wards by which the two locking-bolts 10 and 11 are both moved at once, but in opposite directions. Fig. 6 is a view of the spindle with exterior drop-handle for operating the locking mechanism instead of knob, as shown in Fig. 3. Fig. 7 is a horizontal cross-sectional view of the vault, showing the hinged side or door partly open and an outline of top of the inclosed safe. Fig. 8 is a plan view of the adjustable flange-casting or finishing-plate which surrounds the front side of an inclosed safe, being of suitable width, extending from it to the metal walls of the vault, forming the inner step of the flanged joint.

A special feature in the novel construction of my improved portable fire and water proof vault is that the portion forming the door by which it is opened to afford access to the safe within consists of one entire side of the box-like structure hinged at a vertical line in the side walls of the vault approximately flush with the front of the inclosed safe. This hinged portion of the vault forming the door is telescopic or somewhat similar in form to the lid of a trunk in that when closed its side, top, and bottom edges are flush with the outer surfaces of the side, top, and bottom walls of the main portion of the vault. By this novel construction the open space between the inner wall of the trunk-lid form of door and the front wall of the inclosed safe in addition to forming a dead-air space as a factor of the fireproofing also gives room for the spindle, knob, dial, or other device used for operating the locking mechanism of the inclosed safe, such spindle, knob, or handle usually projecting some distance beyond the front face of the safe. By this means the inclosed burglar-proof safe is so situated that when the side of the portable vault forming its door is open the front face of the inclosed safe is directly accessible instead of being situated back in a recess, where from imperfect light or the adjacent walls of the vault its use is found inconvenient, as in most forms of combined fire and burglar proof safes, as also where burglar-proof safes are placed in old-style vaults for fire protection.

It will be understood that the outer walls of the portable vault are of metal, preferably

steel, and the main portion of such size—
larger than the safe proposed to be inclosed—
that the space between their walls may be
filled in with fire-brick, plaster, or other suit-
5 able material of non-conducting properties,
and, if desired, a dead-air chamber may also
be left as a further element of fireproofing.
The hinged portion or door of the vault is
also constructed with double walls, as shown
10 in Fig. 7, and to be packed with any of the
well-known heat-resisting substances, such
as asbestos 14^b, plaster, &c.

Along the joints where the hinged side
shuts against the edges of the main portion I
15 provide steps forming angles in the joints as a
feature for better preventing the penetration
of heat. The outer step of the flanged cast-
ing is packed with asbestos 14^b as a further
heat and water proof protection at the joints
20 between the door and the main body of the
vault.

The adjustable feature of the vault,
whereby it is adapted to be applied to vary-
ing sizes of safes, consists in partially closing
25 the front open side of the main portion with a
flat flange-casting having an opening be-
tween its three parts somewhat larger than
the lateral and vertical dimensions of the
safe to be inclosed. This flange-casting is
30 made in three sections, as shown in Fig. 8,
and the safe being in its proper position in
the main portion of the vault the straight
section 22 of the casting is cut to a length
equal to the width of the safe, and the two
35 angle-sections 23 23 are cut to length so their
top short arms together equal the width of
the safe, while their long side rails extend to
lower edge of the bottom rail 22. Thus it
will be seen that by the simple cutting of
40 these sections of the finishing-plate the vault
may be adjusted to fit safes differing mate-
rially in size or the relative proportion of
width to height. This flanged casting or fin-
ishing-plate extending from the outer walls
45 of the safe to the metal walls of the vault
covers and incloses the fire-brick or other
material used in forming the fireproofing and
also the dead-air space, if such has been left
as a feature of the fireproofing, and presents
50 a neat finished appearance. This finishing-
plate is pierced with oblong openings 24 to
permit passage through it of the screw-bolts,
and being elongated these openings allow
plates to be adjusted without obstructing
55 free passage of the bolts. These screw-bolts
passing through the door side of the vault en-
ter the nuts in the main portion, thus secur-
ing the door in place when closed, and they
may thus be screwed down so tightly as to
60 render the joint between the two portions of
the vault absolutely waterproof, one of the
important objects of the invention. The
screw-bolts, as seen from Fig. 2, are so fash-
ioned that when screwed down to the de-
65 sired tension they may be locked at that

point by means of the mechanism shown in
Fig. 4. It is also seen from Fig. 2 that the
outside projecting ends of these screw-bolts
where the wrench is applied to manipulate
them are of much lighter body of metal than 70
the portion where the square notches of the
locking-bolts clamp and hold them in posi-
tion. Hence any attempt to tamper with
them when they are locked would break off
this square end where wrench is applied 75
without forcing them loose from the lock.
This feature has been introduced here as an
additional element of burglar-proofing.

Referring to the details of construction as
shown in the drawings of the several figures 80
and views, like reference letters and figures
indicate like parts in all the views.

In Fig. 1, 1 is the square projecting end of
the screw-bolt. 2 is the collar or flange
forming part of the bolt. 6 is the dial of the 85
locking mechanism. 7 is the lever-handle
by which the interior locking-bolts 10 and 11
are operated. 9 is the adjustment-screw at-
taching both dial and lever-handle and by
which the conical spindle 8 is drawn outward 90
to render the joint around it waterproof.

In Fig. 2, 3 is the tapered round head of
the screw-bolt. 4 is its square portion,
which enters the square notch in the locking-
bolts, and 5 is its screw-threaded inner end, 95
which meshes in the nut situated in the main
portion of the vault.

In Fig. 3, 8 is the conical spindle extending
from outer dial to inner locking mechanism,
a portion of its length being conical or taper- 100
ing for purposes hereinbefore explained. 9^a
is a washer situated between the dial-knob
and the face of the metal outside wall 20 of
the door.

In Fig. 4, 10 and 11 are the two locking- 105
bolts, secured in place by the studs 10^a and
having a reciprocating motion to lock and
unlock the screw-bolts, as operated by the
double-warded key 7^a. (Shown in Fig. 5.)
These locking-bolts have the square notches 110
4^a, which embrace the square portion 4 of the
screw-bolts, as heretofore explained. 12 is
the bolt of the dial-lock, which being thrown
forward from the position shown in drawings
locks the locking-bolts 10 and 11 in place, but 115
being thrown in opposite direction releases
them, so they may be thrown back by means
of the outside operating-handle 7 and the
screw-bolts may be turned.

In Fig. 6, 7 is the operating-handle, 7^a is 120
its inner double-warded key end, 8 is the con-
ical spindle, and 8^a is the screw-nut securing
the key in place on end of the spindle.

In Fig. 7 the main portion of the vault is
indicated by A, the hinged or door portion by 125
B, and their connecting-hinge by C. The in-
closed safe S is shown by outlines in position
within the main portion A, its front being
about flush with the adjustable flange or fin-
ishing-plate 15 and its dial-knob and lock-op- 130

erating handle projecting forward into the dead-air space heretofore described. In this Fig. 7 the exterior metal walls of the vault are 13. The stepped flange-castings inclosing part of the front side are 14. The adjustable flange-casting or finishing-plate is 15. A frame or band around the entire structure and covering the joint between the two parts A and B is 16. 17 is a hollow casting in which is situated the nuts 19, into which the screw-bolts enter. 18 is a coil-spring giving automatic adjustment to the screw-bolts. In the hinged portion or door B, 20 is the exterior metal wall and 21 is the interior metal wall, the space between the two walls being filled in with asbestos or other suitable fireproofing material. In Fig. 7 are also shown the flange-castings 14 and 14^a, the casting 14 being attached to the main portion of the vault A, while its mate, 14^a, is attached to the hinged portion B, the two castings meshing when the door is closed and forming the angles in the joint. The adjustable flange or finishing-plate 15 is shown in enlarged details in Fig. 8, in which 22 is the horizontal bottom rail or section of the plate; 23 23, the angle-sections forming the top and side rails. The sections 23 23 are pierced with the openings 24, through which the screw-bolts pass.

It will be seen that a portable fire and water proof vault constructed according to my invention has many advantages. The user of a safe so protected finds it convenient of access and its locking-dial in good light. It is not only fireproof, but also waterproof. The vault may be applied to any form of burglar-proof safe already in use or on the market. It is understood that the vault will be provided with wheels, so when applied to a safe the vault, with its inclosed safe, may readily be moved to any desired position, as in a window or other well-lighted part of the room. This feature of portability is regarded as an important element of the invention, it being well known that burglars and safe-blowers prefer the mantle of darkness and the silence of surrounding vault-walls in an obscure place to the glare of light and an exposed place in which to perform their evil work. For this reason the fireproof protection by the method I have devised becomes an additional factor in the problem of burglar-proof protection.

Having thus fully described my invention and pointed out its novel and useful features, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A portable fire and water proof vault for safes, composed essentially of main portion, A, and a door portion, B, connected by suitable hinges, C; said vault being of such size larger than the safe to be inclosed therein as to leave vacant space between the inclosed safe and the walls of the vault for packing with suitable fireproofing material; said vault having

between its main portion, A, and its door portion, B, a stepped flange-joint of the usual form, in which joint the adjustable covering-plate, 15, forms the inner or highest step, the outer or lowest step, 14, forming one wall, and the covering-band, 16, forming the other wall of a channel or groove adapted to receive and retain in place the asbestos packing, 14^b, all substantially as, and for the purposes shown and described.

2. In a portable fire and water proof vault for safes, composed essentially of a main portion, A, and a door portion, B, connected by suitable hinges, C, the door portion, B, forming one entire side of the structure, and having double walls as a feature of fireproof protection, locking mechanism located between said walls and comprising the outside operating-handle 7, the interior locking-bolts 10 and 11, and the double-warded key 7^a, connected by the conical spindle 8, all situated and coacting in the manner and for the purposes substantially as shown and described.

3. In a portable fire and water proof vault for safes, composed essentially of a main portion, A, and a door portion, B, connected by suitable hinges, C, the fastening-bolt passing through the door portion, B, and having a square projecting end, 1; a collar, or flange, 2; a conical head, 3; a square intermediate portion, 4, engages the notches, 4^a, of the locking-bolts 10 and 11, and a screw-threaded inner end portion engages the nut, 19, secured in the main portion, A, of the vault, all substantially as and for the purposes shown and described.

4. In a portable fire and water proof vault for safes, composed essentially of a main portion, A, and a door portion, B, connected by suitable hinges, C, a locking mechanism situated between the outer and inner walls of the door portion, B, by means of which the fastening-bolts are secured against being unscrewed, said locking mechanism comprising essentially the outside operating-handle, 7, the inside double-warded key, 7^a, the connecting conical spindle, 8, and the locking-bolts 10 and 11, having the square notches, 4^a which mesh with the square portion, 4, of the fastening-bolts, substantially in the manner, and for the purposes shown and described.

5. In a portable fire and water proof vault for safes, composed essentially of a main portion, A, and a door portion, B, connected by suitable hinges, the adjustable flange-casting or covering-plate, 15, preferably composed of three sections, the straight section, 22, and the two angle-sections, 23, 23, said pieces being pierced with oblong openings for the free passage through them of the fastening-bolts, all substantially in the manner and for the purposes shown and described.

6. In a portable fire and water proof vault for safes, composed essentially of a main por-

tion, A, and a door portion B, connected by
suitable hinges, C, the covering-band, 16, at-
tached to the main portion, A, and project-
ing a suitable distance beyond the base of the
5 outer or lower step of the flanged casting-
joint between the two portions, A and B, to
form with the side or riser of said step, a re-
cess or cavity for receiving and retaining in

place the asbestos packing, all substantially
as and for the purposes shown and described. 10

In testimony whereof I affix my signature
in presence of two witnesses.

WILLIAM H. HEDGES.

Witnesses:

J. LEE KNIGHT,
JOHN COVET.