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PATENTED JULY 4, 1905.

J. H. HODGE & I. ZLOTKOWSKI.

MEANS FOR EXTINGUISHING FIRES WITHIN INCLOSED STRUCTURES.

APPLICATION FILED AUG. 30, 1904.

2 SHEETS—SHEET 1.

Fig 1.

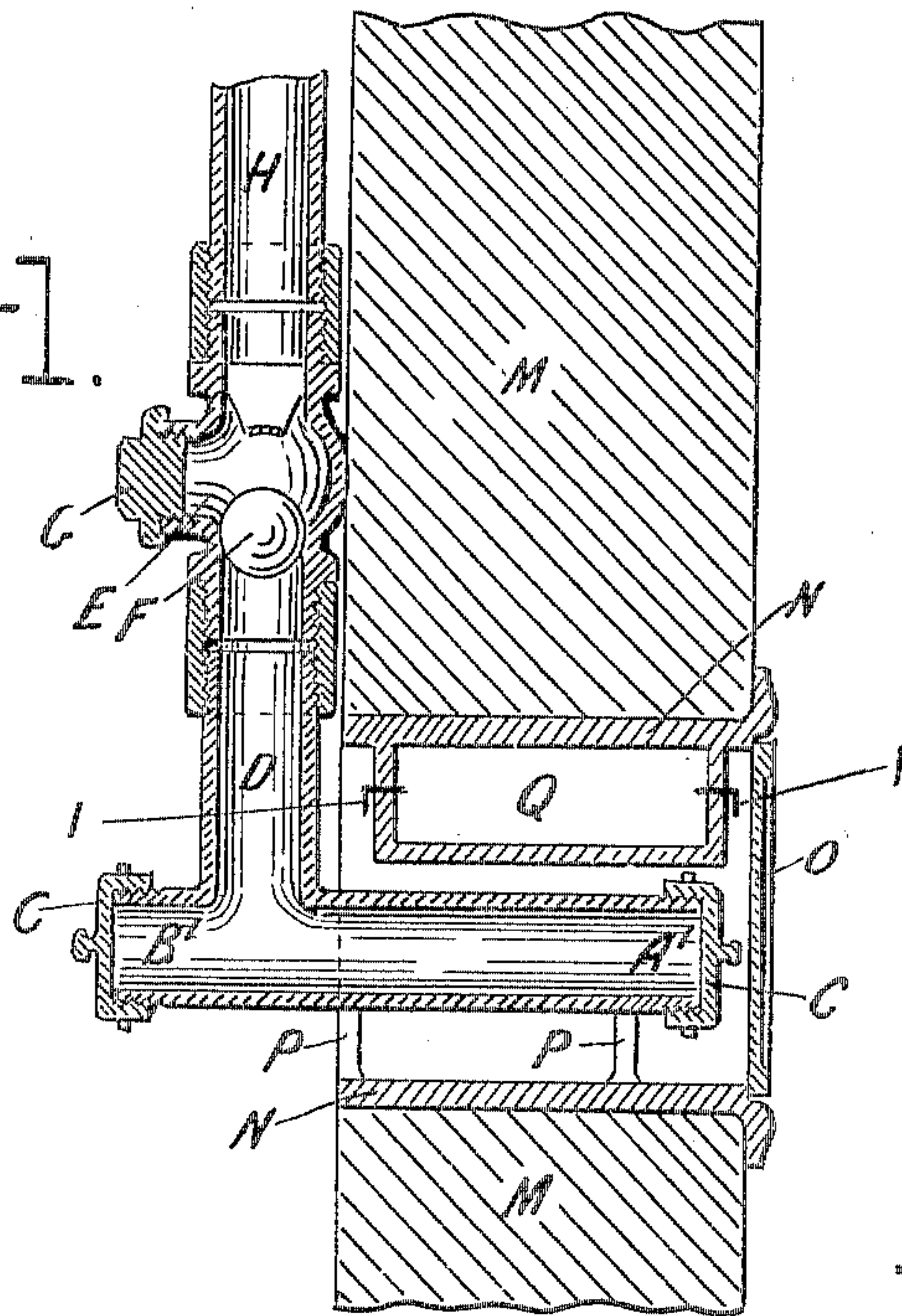


Fig 2.

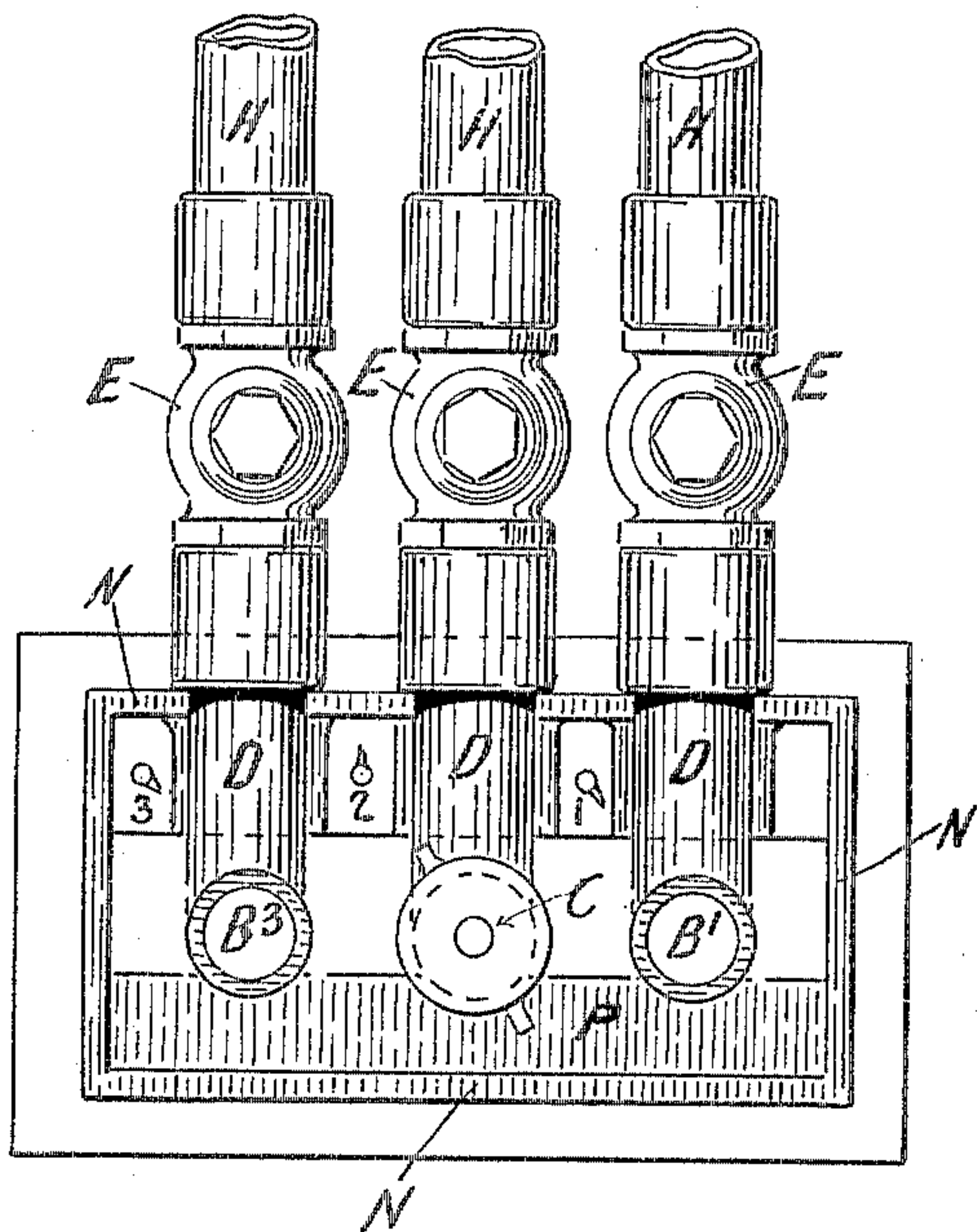
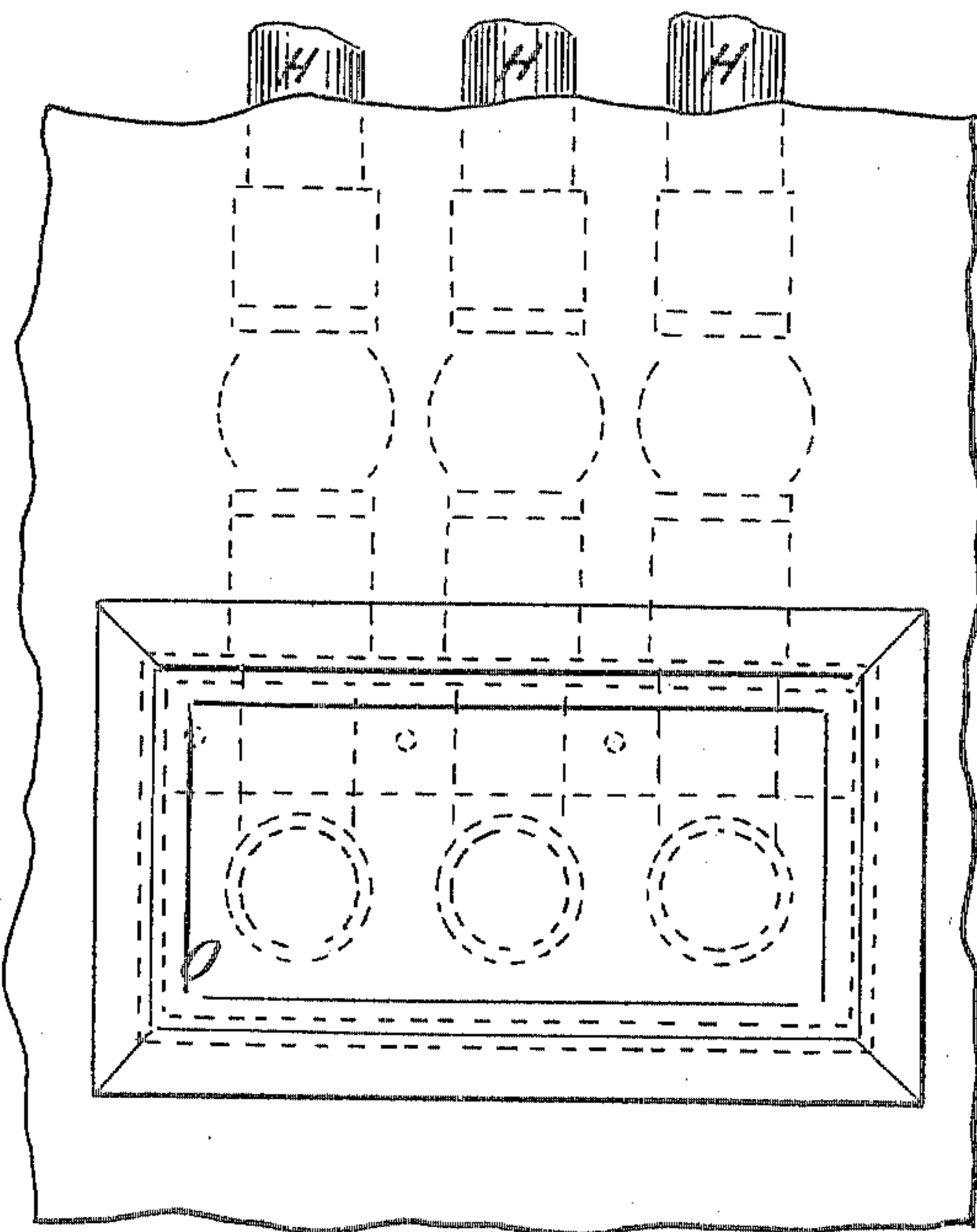


Fig 3.



Witnesses.
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Geo. M. Copenhaver.

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2 SHEETS—SHEET 2.

Fig 4.

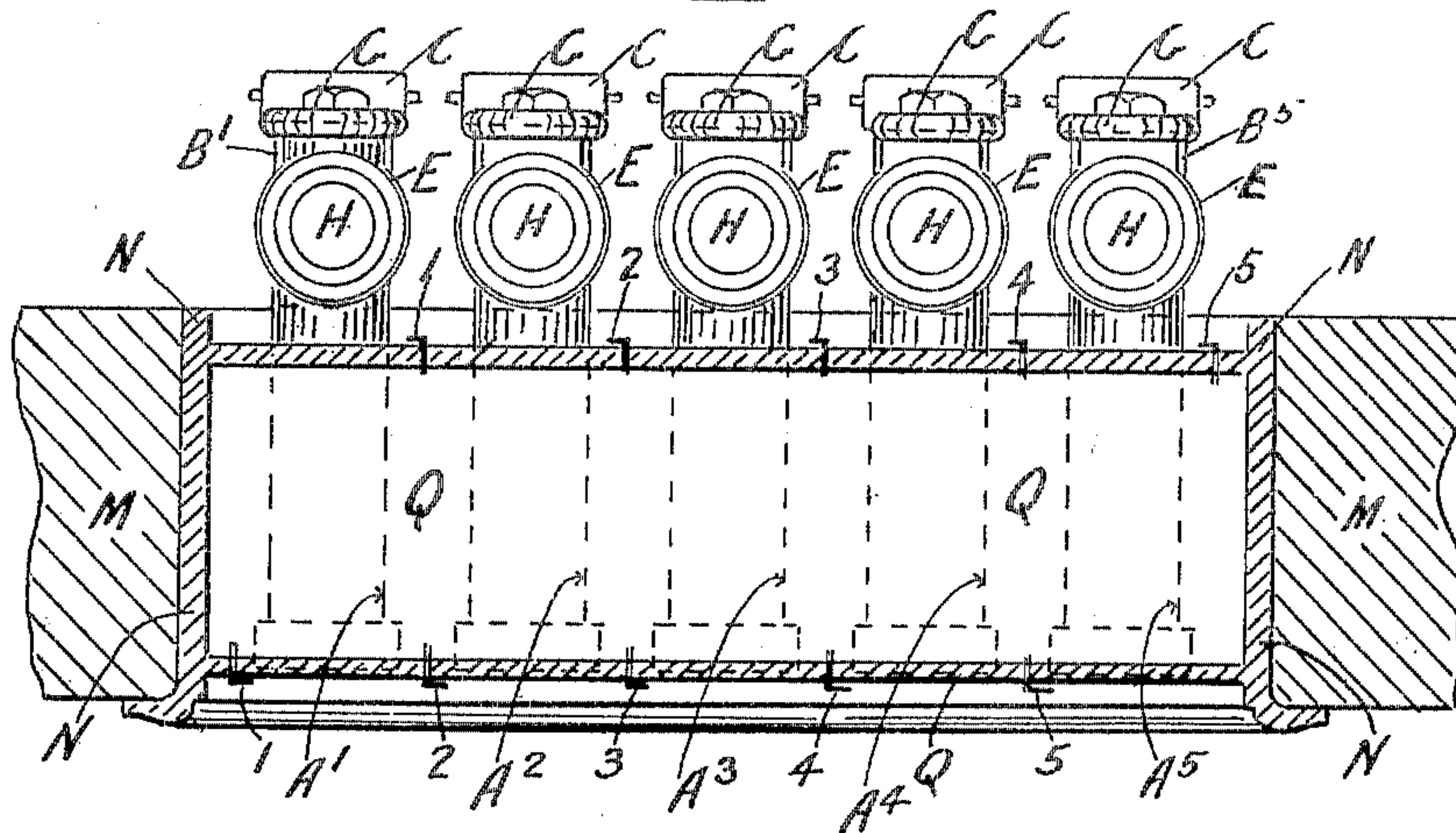
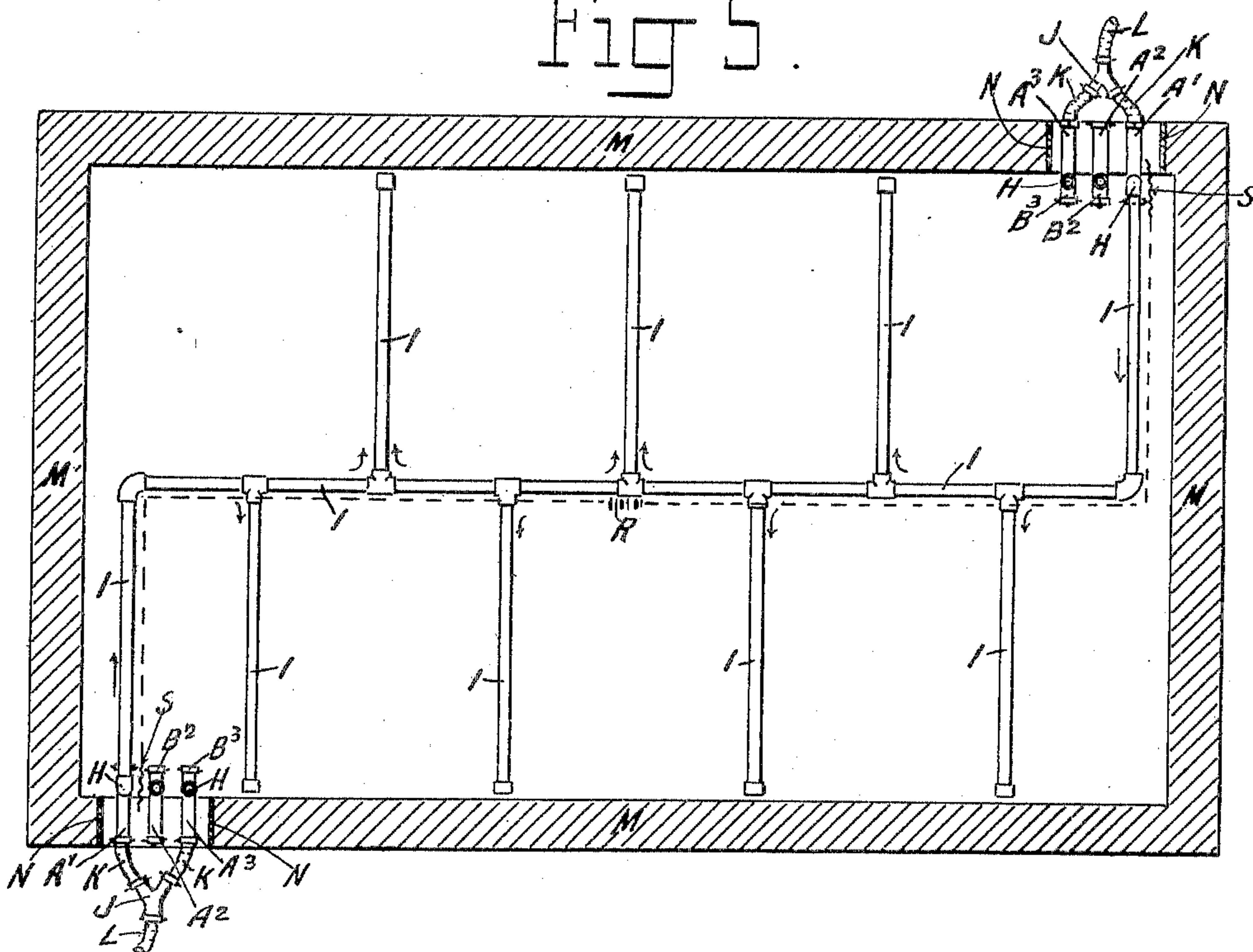


Fig 5.



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UNITED STATES PATENT OFFICE.

JAMES HENRY HODGE AND IGNACY ZLOTKOWSKI, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

MEANS FOR EXTINGUISHING FIRES WITHIN INCLOSED STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 793,931, dated July 4, 1905.

Application filed August 30, 1904. Serial No. 222,692.

To all whom it may concern:

Be it known that we, JAMES HENRY HODGE, engineer, residing at No. 6 Bellevue street, Glebe, Sydney, and IGNACY ZLOTKOWSKI, engineer, residing in Grovestreet, Marrickville, Sydney, in the State of New South Wales, Commonwealth of Australia, subjects of the King of Great Britain and Ireland, have invented certain new and useful Improvements in Means for Extinguishing Fires Within Inclosed Structures; and we 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.

By means of this invention provision is made for giving more additional facilities than heretofore, for locating and extinguishing fires, occurring within inclosed structures inclusive of dwellings, stores, warehouses, bonds, factories, also coal or other mines, and the holds of steam or sailing vessels.

It is further designed to obviate the necessity for entering the structure when in a state of conflagration and also to avoid the mutilation which usually occurs when endeavoring to ascertain the exact location of the fire. This is accomplished by the use of primary coupling parts attached to the structures in positions which are accessible to fire-fighters, both externally and internally. In association therewith is provided a system of conduits, pipes, or the like having piercings, slits, or perforations for the distribution of the quenching fluid, comprising water, gas, chemicals, or vapor suitable for the purpose. These conduits form an attachment to the structure and may be an essential part thereof. They are not necessarily used as retainers of the quenching fluid, but merely provide for its discharge after the supply has been coupled on by the fire-fighters. The primary coupling parts, if used in groups for convenience of access, may be suitably associated with each other, so that the whole or portion only may be utilized simultaneously. By this means the damage resulting to the structure from the use of quenching fluid (if it be water) will only be confined to a restricted area. Reten-

tion-valves are provided as a necessary adjunct to the primary coupling parts to enable the distributing conduits or pipes being served from other coupling parts situated in remote positions and which form part of the general scheme. Associated with the primary coupling parts, retention-valves, and distributing-conduits (wherever situated within the structure) is a telltale self-registering indicator, which is made to operate by the abnormal heat arising from the fire outbreak, and will register at each primary coupling part comprised in the system, the exact portions of the distributing-conduits which are to be put into use. By this means the necessity to enter the structure at the time of conflagration is obviated.

In order that our invention may be readily understood, reference will be made to the accompanying drawings, in which similar letters are used throughout the various views to indicate similar parts, and in which—

Figure 1 is a detail in vertical section of a primary coupling part and retention-valve as applied to a structure for external and internal use. Fig. 2 is an elevation of Fig. 1 taken internally to a structure, showing the primary coupling parts in triplicate, two of which are ready for coupling together. Fig. 3 is an external elevation of Fig. 2. Fig. 4 is a horizontal plan, partly in section, showing five primary coupling parts and the associated telltale indicators. Fig. 5 is a horizontal sectional plan of a structure provided with primary coupling conduits and telltale self-registering indicator.

In Fig. 1 the primary coupling part is shown in the form of a T-piece, the long arm A' being adapted to receive an attachment to be applied from without the structure. The short arm B' is for an attachment to be applied from within. The usual removable caps C are shown on the screwed ends. The stem D, coupled to the retention-valve chamber E, having the valve F and screw-plug G, serve to communicate with the upwardly-extending pipe H used to deliver the quenching fluid into the distributing-conduits I, as in Fig. 5. In the said figure the distributing-conduits

are shown in association with two triplicate sets of primary coupling parts lettered A', A², and A³, as also in Fig. 3. In Fig. 2 the short arms B', B², and B³ are shown. In Fig. 4 the number is increased to five, and the lettering for same being respectively A', A², A³, A⁴, and A⁵. The two triplicate sets in Fig. 5 serve to illustrate the manner in which the primary coupling parts can be placed in remote positions and yet be made accessible to the fire-fighters.

It may be assumed from the diagram that two fire zones have to be treated, and the quenching fluid has been coupled on from without the structure to the primary coupling parts A' and A³, respectively, by means of the Y-couplings J J and the hose connections K K and L L. Under such conditions the two sets of coupling parts receive their supply of quenching fluid from the same source and distribute it to the two separate fire zones, the coupling parts A' A' being considered as in communication with the first floor of a structure and the coupling parts A³ A³ as in communication with the third floor of a structure.

It is obvious that the arrangement of the primary coupling parts as in Fig. 4 will admit of a variety of combinations of connections being used, so that not only alternate parts may be associated, but, if desired, the whole nest of such parts may be put into communication with the same fluid-supply, so as to be brought into use at the same time.

The retention-valves are so arranged that under whatever conditions the quenching fluid may be supplied to the distributing-conduits I no unnecessary waste of such fluid can take place.

In Figs. 1 and 5, the wall M being considered part of the structure to which the invention is attached, a wall-box N, with its outer removable door O, is provided to inclose the primary coupling parts which take their seating upon the supports P P. The chambered portion Q serves as a receptacle for the telltale self-registering indicator, of which there are many well-known devices. The said receptacle may contain the electric battery suitable to such purposes. The indicators Nos. 1, 2, and 3 in Fig. 2 would be connected therewith and likewise the Nos. 1 to 5 of Fig. 4. The wires connecting therewith are diagrammatically shown in Fig. 5 and are lettered, respectively, R and S, R being the parts which

are to be influenced by the abnormal heat within the structures.

In Fig. 2 the indicators 1 and 2 are shown as having been actuated and pointing toward the primary coupling parts which are to be brought into use.

We are aware that pipes and conduits are well known devices for the distribution of fluid, and the telltale devices are likewise well known; but

What we claim as new, and desire to secure by Letters Patent, is—

1. In fire-extinguishing apparatus, a box set in a wall and provided with a removable outer cover allowing access to its interior in combination with a T-shaped tubular primary coupling having removable covers at both ends of its lower horizontal parts which extends into the said box, and means for conducting fire-extinguishing fluid from said primary coupling and discharging the same substantially as and for the purpose set forth.

2. In fire-extinguishing apparatus, a box set in a wall and provided with a removable outer cover allowing access to its interior in combination with a primary coupling having a horizontal part which extends into the said box and means for conducting fire-extinguishing fluid from said primary coupling and discharging the same, the said box being provided in its upper part with a suspended receptacle Q substantially as and for the purpose set forth.

3. In fire-extinguishing apparatus, a box set in a wall and permitting access to its interior from the outer side said box being also provided with apparatus raised from its bottom in combination with a series of T-shaped primary couplings resting on said supports within the said box, tubular communications from said couplings to the points of discharge and removable caps covering the outer and inner ends of the parts of the said coupling which enters the said box in order that fire-extinguishing fluid may be conveniently supplied to said coupling either from within or from without the building substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES HENRY HODGE.
IGNACY ZLOTKOWSKI.

Witnesses:

JOHN J. STONE,
F. R. SNOWBALL.