

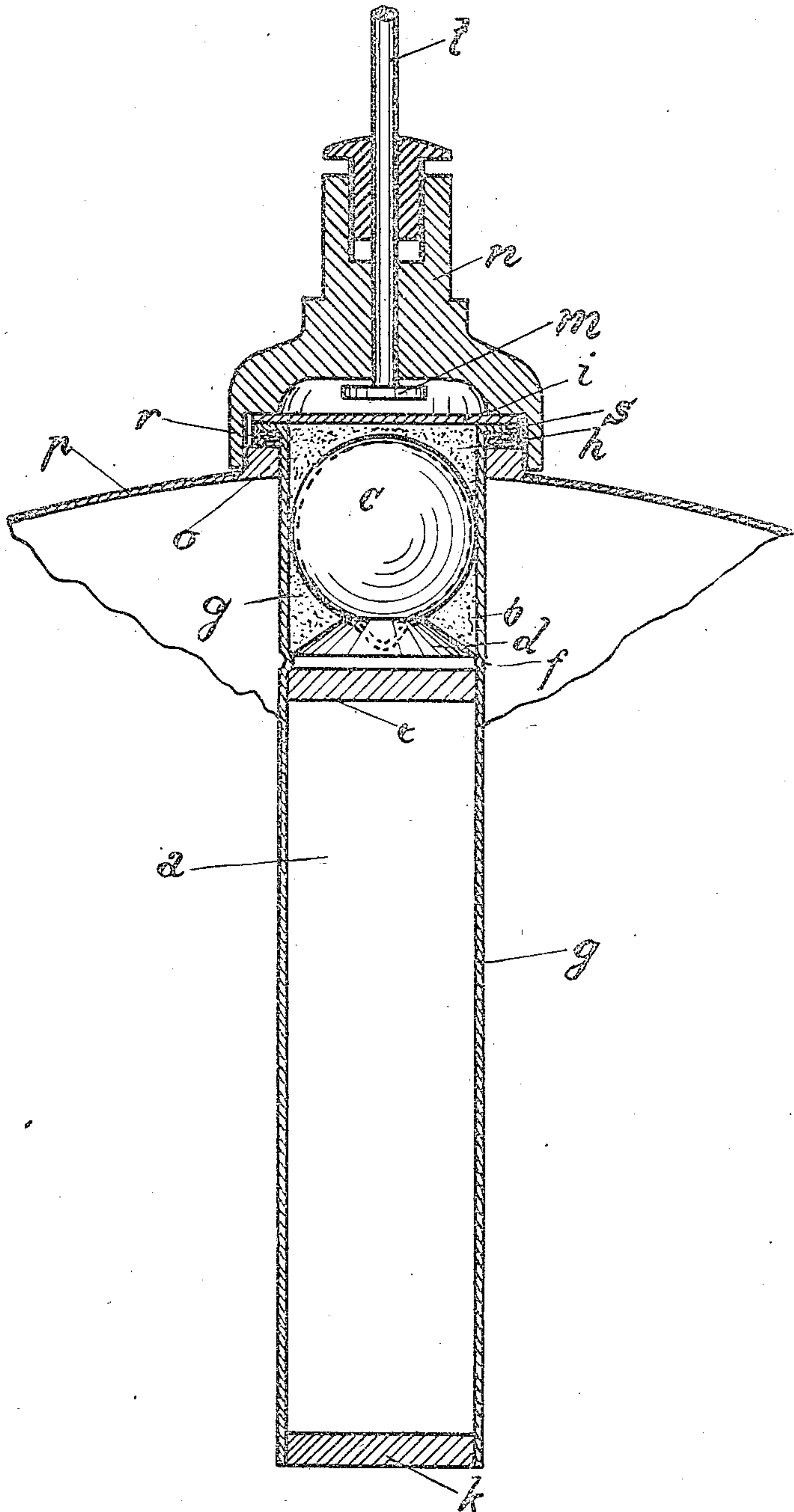
H. MIKOREY.

EXCHANGEABLE CONTAINER FOR CHEMICAL FIRE EXTINGUISHERS.

APPLICATION FILED MAY 14, 1907.

923,551.

Patented June 1, 1909.



Witnesses:
E. Heinicke
J. Hauke

Inventor:
Hans Mikorey
By G. Litzman
Attorney

UNITED STATES PATENT OFFICE.

HANS MIKOREY, OF SCHÖNEBERG, NEAR BERLIN, GERMANY, ASSIGNOR TO THE FIRM OF W. GRAAFF & COMPAGNIE, GES. MIT BESCHR. HAFTUNG, OF BERLIN, GERMANY.

EXCHANGEABLE CONTAINER FOR CHEMICAL FIRE-EXTINGUISHERS.

No. 923,551.

Specification of Letters Patent.

Patented June 1, 1909

Application filed May 14, 1907. Serial No. 373,589.

To all whom it may concern:

Be it known that I, HANS MIKOREY, a subject of the German Emperor, residing in the city of Schöneberg, near Berlin, Germany, have invented certain new and useful Improvements in Exchangeable Containers for Chemical Fire-Extinguishers, of which the following is a full, clear, and exact specification.

This invention relates to exchangeable containers for chemical fire extinguishers especially for the reception of acid, to be used in connection with chemical fire extinguishers operated by gas pressure. In fire extinguishers of this kind the acid for the extinguishing liquid was added before the gas pressure was produced by crushing or tilting over the acid containing vessel. In accordance with this invention a gas is produced in the interior of the container which by its pressure produces a forcible ejection of the chemical from its container and into the vessel holding the bulk of the extinguishing liquid, so as to effect an intimate mixture of the gas producing chemical with the extinguishing liquid. An exchangeable interior container is particularly adapted with advantage for the admixture of a powder, thus for instance of a suitable acid anhydrid to the extinguishing liquid.

The container constituting the object of this invention is characterized by the arrangement of two chambers, one of which contains the substance, an acid for instance, to be added to the extinguishing liquid, while in the other chamber a gas is produced, when the fire extinguisher is used to drive such acid into the extinguishing liquid.

On the drawing a form of construction of the subject matter of the invention is shown by way of example.

The container *g* comprises a main chamber *a* which holds the substance to be added to the extinguishing liquid, an acid for instance, and preferably in the shape of a powder; *b* is the other chamber, which in the form of construction represented by way of example is adapted to contain two chemical substances preferably kept separate from each other and which produce a gas when united. One of these substances for instance an acid or an alkali, is contained in the glass receptacle *c*. The said glass receptacle is placed in the chamber *b* where it is preferably surrounded by a pulverulent substance *h*, such

as for instance bicarbonate of soda, the anhydrid of a suitable acid or in some other substance which generates a gas, when mixed with the other substance. The receptacle *c* is supported on a truncated cone *d* provided with one or more perforations. The chambers *a* and *b* are separated from each other by suitable means, such as a piston *e*, which rests against a contracted part *f* of the container *g* being closed tightly at both ends, the said part *f* serving as an abutment.

The plate *k* at the bottom is simply pressed into the end of the container and readily yields under pressure allowing the contents of the container *g* to escape into the liquid of the extinguisher *p*. The plate *i* closing the container at the top end rests upon a flange *s* of the container *g* which is inserted into the extinguisher vessel *p* through a ring *o* on its top, provided with screw-thread on the outer periphery for receiving a closing cap *n* in the well known manner. By screwing down said closing cap the cover *i* and the flange *s* are tightly pressed against the ring and washers, such as *r*, may or may not be interposed. A push pin *t*, suitably guided in the cap *n* may be provided at the inner end with a plate *m* serving to act under hand pressure from the outside upon the cover plate *i*. This latter is made of a metal which will readily yield or bend under such pressure so as to act on the contents of the chamber *b* or to break the glass receptacle *c*. The acid or alkali contained therein is mixed with the powderous alkali or with the acid-anhydrid *h*, whereby gas is formed, developing a comparatively high pressure. This gas flows through the openings of the supporting plate *d* and passes to the rear of the piston *e* thereby pushing the piston forward; by this means the contents of the chamber *a* are compressed until the closing plate *k* will finally yield, whereby the entire contents of the chamber *a* are ejected into the liquid of the fire extinguisher.

It is immaterial, in what manner the gas pressure is produced in the chamber *b*. Thus, it would be possible, to arrange two glass receptacles filled with suitable substances in the chamber *b* instead of embedding the glass receptacle *c* in a powder, the said two glass receptacles being crushed simultaneously, or this chamber may contain only one suitable substance, which is

made to explode by any suitable means, thus for instance by a forcible stroke.

The gist of the invention resides in the fact, that a gas pressure is produced by any
5 suitable means in the chamber *b*, the said pressure being utilized for ejecting the contents of the chamber *a*.

Having thus described my invention, what I claim is:

10 1. Exchangeable container for chemical fire extinguishers composed of a vessel with an upper and a lower chamber, of a piston separating said chambers from each other, the lower chamber for an acid being closed at
15 the bottom by an easily yielding plate, and the upper chamber for a chemical adapted to produce a pressure by the disengagement of gases, of a cover at the top, tightly closing the vessel and adapted to yield under pressure,
20 of a push-pin extending outward through the cap of the fire extinguisher adapted to bend said cover.

2. Exchangeable container for chemical fire extinguishers composed of a vessel with an upper and lower chamber, of a piston separating said chambers from each other, the lower chamber for an acid being closed at the bottom by an easily yielding plate, and the upper chamber for a chemical adapted to produce a pressure by the disengagement of
30 gases, of a globular glass receptacle in said upper chamber, of a cover at the top, tightly closing the vessel and adapted to yield under pressure, of a push-pin extending outward through the cap of the fire-extinguisher
31 adapted to bend said cover and to break said glass receptacle.

In witness whereof I have hereunto signed my name this 19th day of April 1907, in the presence of two subscribing witnesses.

HANS MIKOREY.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.