

No. 652,335.

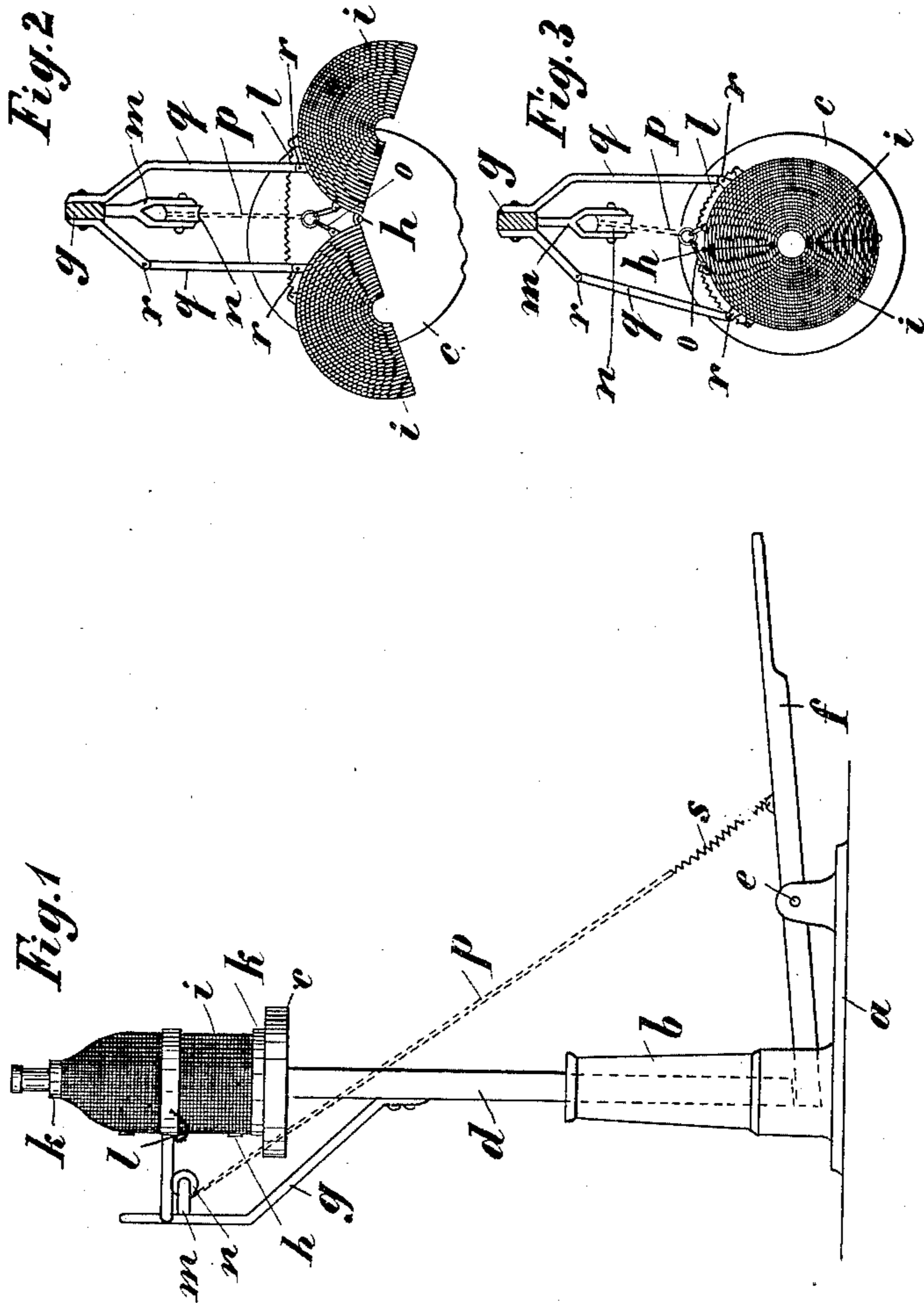
Patented June 26, 1900.

E. SCHÜTZE.

SAFETY APPARATUS FOR FILLING MINERAL WATER BOTTLES.

(Application filed Dec. 28, 1897.)

(No Model.)



Witnesses

Paul Folger
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UNITED STATES PATENT OFFICE.

ERNST SCHÜTZE, OF BERLIN, GERMANY.

SAFETY APPARATUS FOR FILLING MINERAL-WATER BOTTLES.

SPECIFICATION forming part of Letters Patent No. 652,335, dated June 26, 1900.

Application filed December 28, 1897. Serial No. 663,855. (No model.)

To all whom it may concern:

Be it known that I, ERNST SCHÜTZE, a citizen of the German Empire, residing in Berlin, in the Kingdom of Prussia and Empire of Germany, have invented certain new and useful Improvements in Safety Apparatus for Filling Mineral-Water Bottles, of which the following is a specification.

This invention relates to a new and improved safety device for filling mineral-water bottles, which frequently burst while being filled with the effervescent liquid, and has for its object to provide means for entirely preventing the flying about of the splinters and pieces of glass when a bottle bursts.

The invention consists of a safety device for filling mineral-water bottles comprising a suitably-supported standard, a plate carried by said standard, a protective screen consisting of two spring-actuated bottle-inclosing semisections hinged together, means for supporting said screen relatively to said plate, and a treadle mechanism for operating simultaneously said standard and protective screen.

In the accompanying drawings, Figure 1 is a side view of the device in closed position. Fig. 2 is a plan view, on a larger scale, of the device in opened position; and Fig. 3 is a plan view, also on a scale larger than Fig. 1, of the device in closed position.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* indicates the footpiece of my improved device, and *b* a guide-standard rising from the footpiece and serving to support a vertically-movable standard *d*, which carries at its upper end a plate *c*, adapted to support a bottle to be filled. The protective screen for inclosing the bottle when being filled is made of fine wire-netting or other suitable material and is composed of two semisections *i i*, which are hinged together at their rear edges at *h* and supported above the plate *c* by arms *q q*, one of which is hinged at *r*, said arms extending from a support *g*, attached to the standard *d*. The semisections of the protective screen are strengthened by stays *k* and connected by a spring *l*, which is placed under tension when the semisections are closed, as shown in Fig. 3, and which serves for opening the semisections

when they are released. A treadle mechanism is employed for operating the standard *d* and protective screen, said mechanism comprising a treadle *f*, pivoted at *e* to the footpiece and engaging the standard *d*, and a chain *p*, connected at one end by a spring *s* with the treadle and extending over a roller *n*, pivoted to a bracket *m* of the support *g*, and connected at the other end by rings *o* with each semisection of the screen.

When a bottle is placed upon the plate *c* and the treadle depressed, the standard *d* is raised and the semisections simultaneously closed about the bottle in the position shown in Fig. 3. When the treadle is released, the standard *d* and parts carried by it descend and the semisections are opened automatically by the spring *l*, so that the bottle may be removed. When, as frequently happens, owing to the great pressure of the gas contained in the liquid, a bottle bursts while inclosed in the screen, the flying about of the splinters and pieces of glass is entirely prevented by the screen, and the broken bottle is confined within the screen, so that on opening the screen all the broken glass can be removed without inconvenience.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A safety device for filling mineral-water bottles, consisting of a suitably-supported standard, a treadle for raising and lowering the same, a plate carried by said standard, a support extending from said standard, a pulley carried by said support, arms one of which is hinged extending from said support, a protective screen supported over said table by said arms, said screen consisting of spring-actuated bottle-inclosing semisections hinged together at their rear edges, and an operating-chain passing over said pulley and connected at one end with each of said semisections and at its opposite end with said treadle, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ERNST SCHÜTZE.

Witnesses:

PAUL FALBER,
EUGEN SEIFERT.