

No. 773,033.

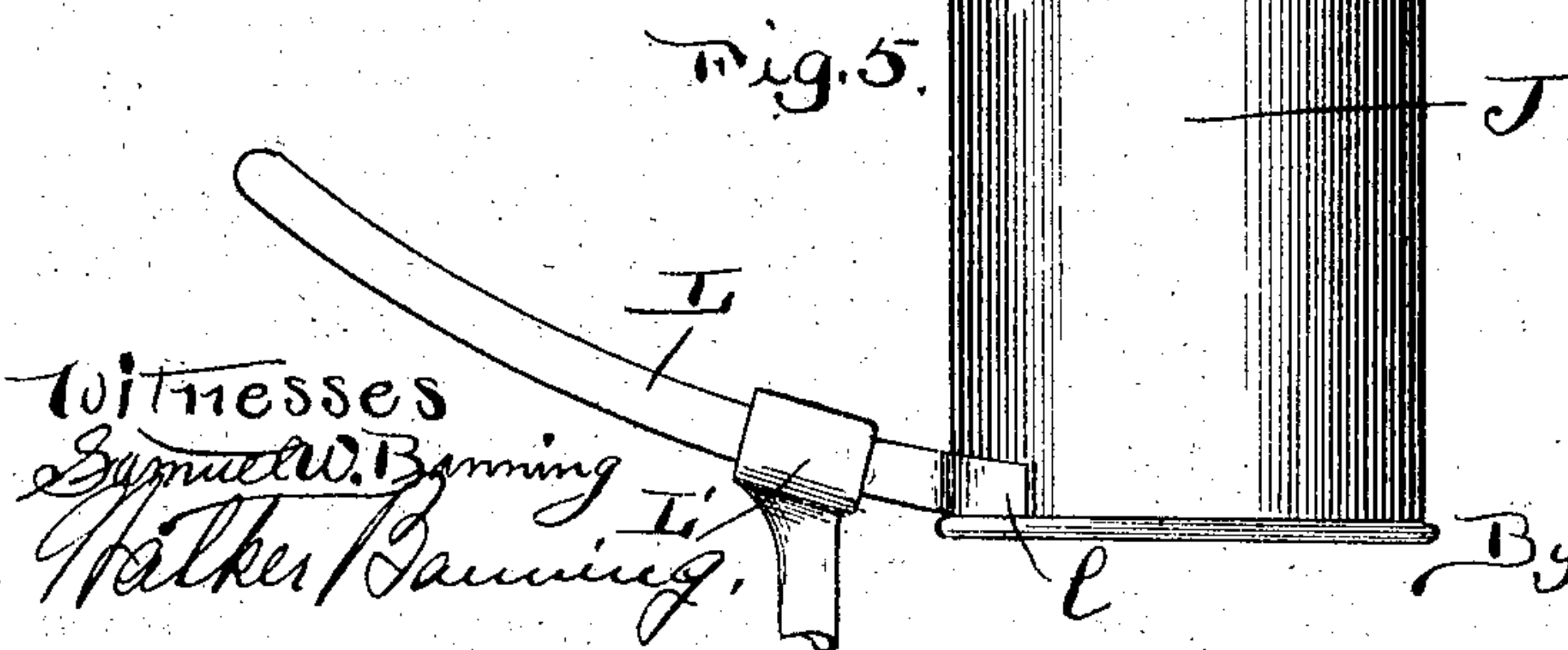
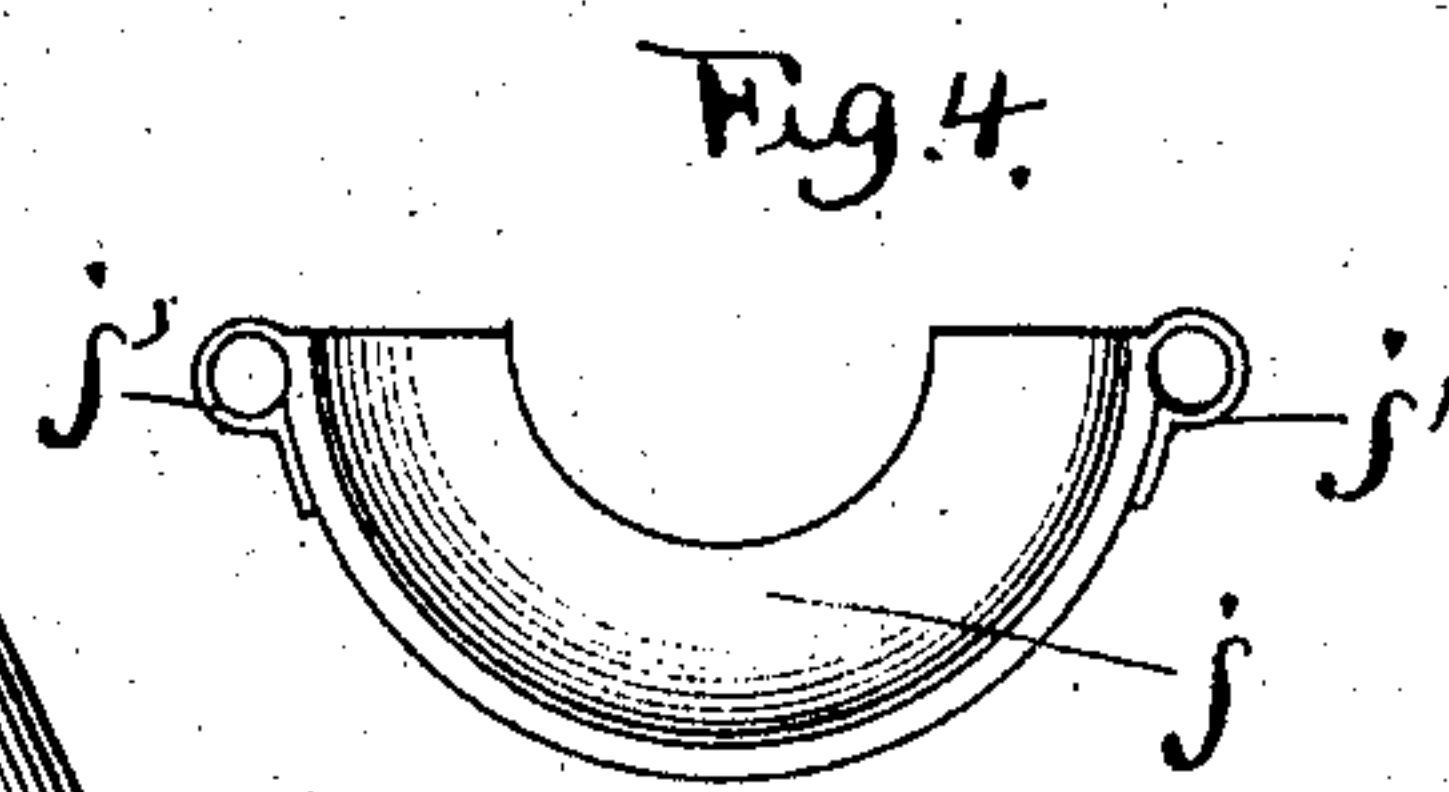
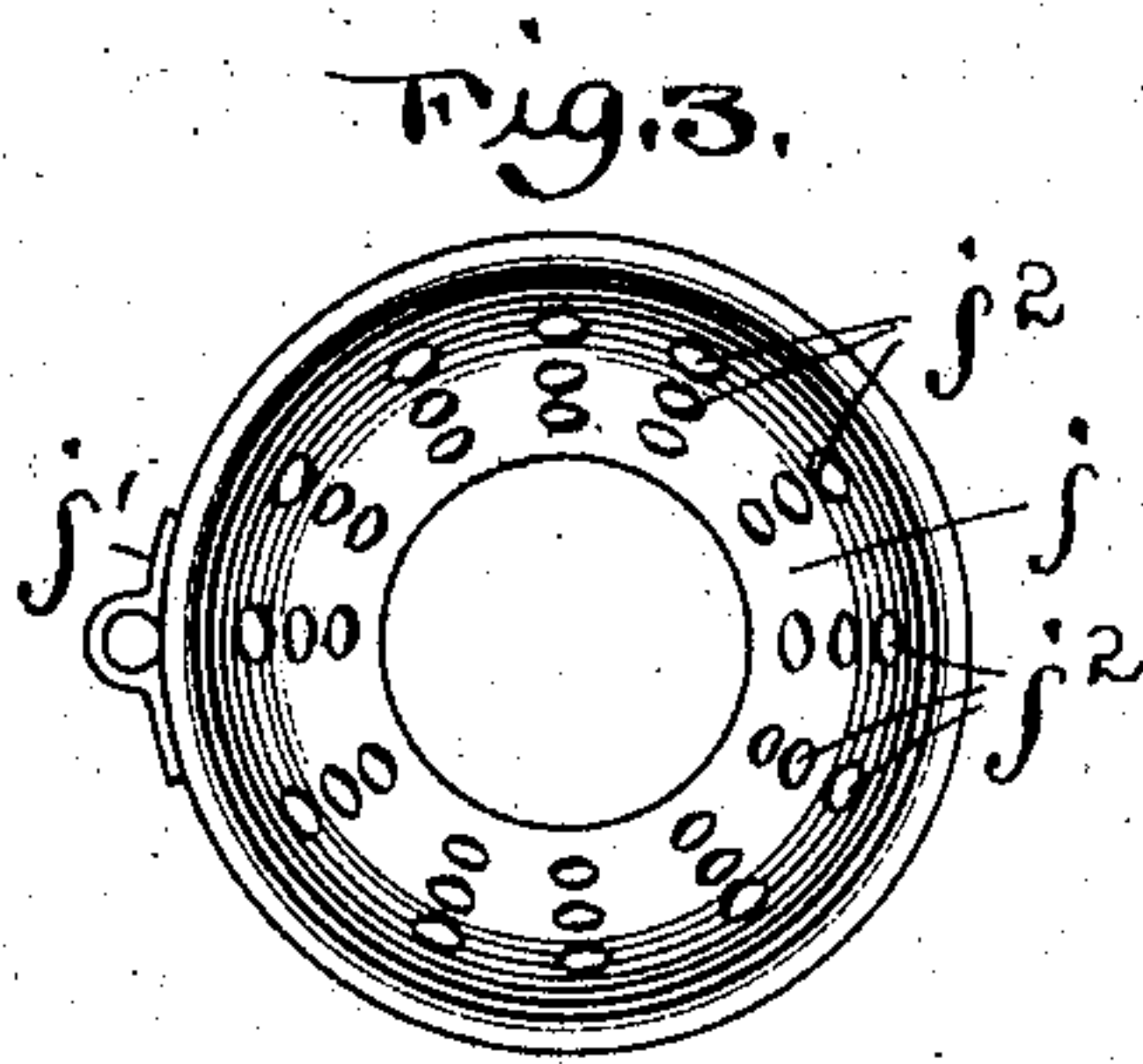
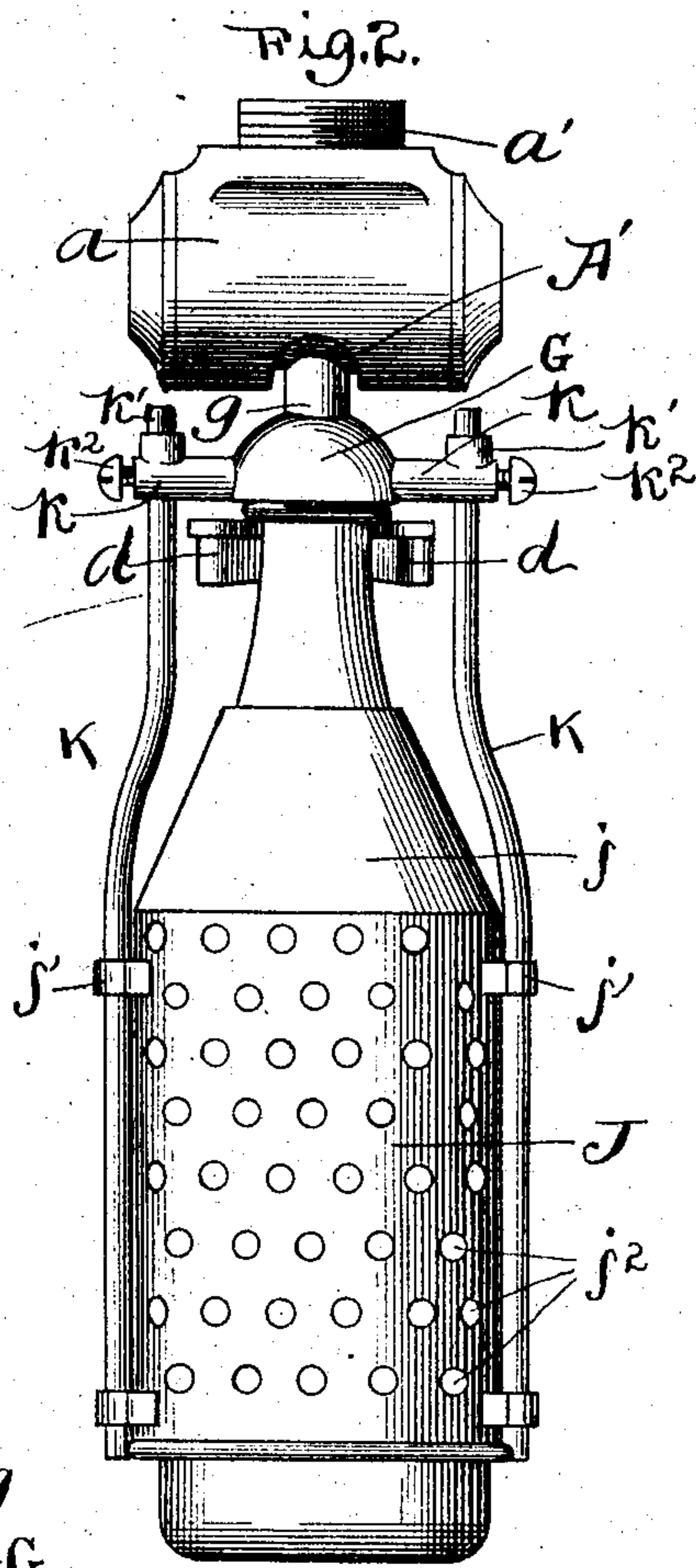
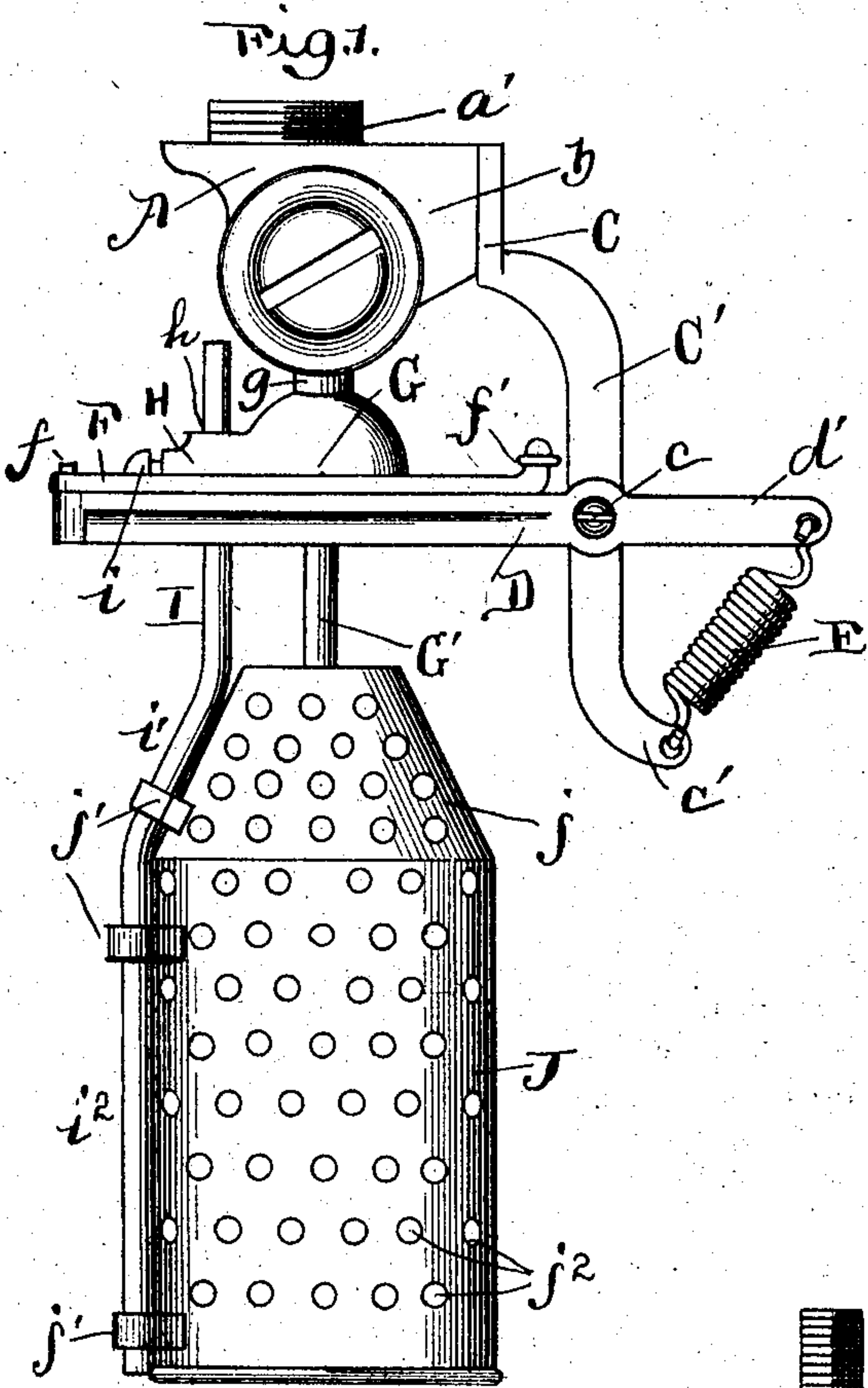
PATENTED OCT. 25, 1904.

A. SCHNEIDER.

GUARD OR PROTECTOR FOR USE WITH BOTTLE HOLDERS.

APPLICATION FILED MAR. 14, 1903. RENEWED FEB. 29, 1904.

NO MODEL.



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GUARD OR PROTECTOR FOR USE WITH BOTTLE-HOLDERS.

SPECIFICATION forming part of Letters Patent No. 773,033, dated October 25, 1904.

Application filed March 14, 1903. Renewed February 29, 1904. Serial No. 195,894. (No model.)

To all whom it may concern:

Be it known that I, ADOLPH SCHNEIDER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Guards or Protectors for Use with Bottle-Holders, of which the following is a specification.

The object of this invention is to construct a protective casing or guard for use with bottle-holders on bottle-filling machines employing pressure, and the guard or protector is so arranged that the body, and more particularly the hand of the operator, will be protected during the filling operation against the explosion or breaking of bottles due to an excess of pressure or to defects in the bottle, thereby enabling the filling operation to be performed in a safer manner than if the bottle be left unprotected. The guard, however, is so arranged that it does not interfere in any way with the filling operation and, in fact, serves to more readily position the bottle in place on the filling-valve for the filling operation.

The invention consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the guard or protector employed in connection with a pressure-equalizing valve and a spring bottle-holder; Fig. 2, a front view of a somewhat modified form of construction; Fig. 3, an end view of the guard or protector of Fig. 1; Fig. 4, an end view of the guard or protector of Fig. 2, and Fig. 5 a slightly-modified form of guard or protector.

As shown, the invention is employed with a pressure-regulating valve A, having a casing *a*, a screw-threaded head *a'*, and a movable plug A', entered into the shell or casing, which plug controls the flow of liquor through the valve. To the rear face *b* of the casing is attached a bottle-holder consisting of a plate C, from which extends downwardly an arm C', to which is pivoted, by means of a pivot-pin *c*, a forked arm D, provided with side arms or bars *d* and an end arm or bar *d'*, extending rearwardly from the fixed vertical arm C'. The arm C', as shown, termi-

nates in a curved end *c'* below the pivotal point of the forked arm D, and between the ends of the fixed and pivoted arms or bars is a coil-spring E, which serves to hold the forked arm against downward movement, allowing of such movement under pressure from the spring. On the top of the forked arm are converging side bars F, pivoted at their outer ends by means of pivot-pins *f* and held in contracted relation at their free ends by means of a transversely-extending coil-spring *f'*, permitting of the insertion of a bottle between the side bars, which bars are expanded by the insertion of the neck of the bottle thereinto preparatory to the filling operation. The invention, however, may be employed with bottle-holders adapted to clamp the necks of bottles but of a construction other than that hitherto described, and the above apparatus is shown merely for purposes of illustration.

The closing-cap G of hemispherical formation is provided with a screw-threaded neck *g*, which is entered into the plug of the valve and controls the movement of the latter. From the closing-cap projects a filling-tube G', adapted to enter the bottle to be filled and movable simultaneously with the filling-head and the plug to open or close the valve when in use. As shown in Fig. 1, the closing-cap is provided on its front side with a boss H, provided with a vertically-extending aperture *h*, through which extends a rod I, which serves to support the guard or protector, which more particularly forms the subject-matter of the present invention, and the rod is held in position within the boss by means of a set-screw *i*, which bears against the rod and permits of its vertical adjustment. The rod I may be of any suitable shape, but as shown is adapted to roughly conform to the outlines of a bottle having an obliquely-extending section *i'* parallel with the upper or adjusting end. To the rear face of the rod is attached a cylindrical shell or casing J, having a body-section J' and a converging breast-section *j*, adapted to conform to the shape of a bottle to be inserted therein, and the shell or casing is fixedly attached to the rod by means of suitable straps *j'* or in any suitable manner. As shown, the shell

or casing may be provided in whole or in part with a series of holes or perforations j'' , which serve to lessen the weight of the casing, although such holes or apertures may be dispensed with, as shown in Fig. 5, without in any way departing from the spirit of the invention. Moreover, the shell or casing may be cylindrical, as shown in Fig. 1, or semicylindrical, as shown in Fig. 2, extending only around that portion of bottle which is toward the operator, the rear face of the bottle in this case being left unprotected.

The filling-tube from the valve extends down into the shell or casing of the protector and is so centered that the bottle to be filled may be quickly and easily slipped within the shell or casing and into the closing-cap when the valve is closed and then slipped down between the pivoted bars of the bottle-holder, as shown in Fig. 2, which operation opens the valve and allows the liquor to fill the bottle. If, however, the pressure entering the bottle be such as to break the latter, the guard or protector will prevent the pieces of glass from flying and injuring the hand or body of the operator.

In Fig. 2 instead of a single rod and boss on the closing-cap side rods K have been employed, passing up through laterally-projecting arms k on opposite sides of the filling-head, and the side rods are adjustably held within bosses k' on the laterally-projecting arms by means of set-screws k'' , bearing against the side rods. The casing J is attached to the side rods by means of straps j' in a manner similar to that hitherto described, and, as shown, the casing of Fig. 2 is semicylindrical, although it is plain that it might be cylindrical, as is the casing of Fig. 1.

In Fig. 5 is shown a construction in which the protective shell or casing is supported independently of the closing-cap by means of a curved rod L, slidably mounted and operating within a suitable support L' and secured to the shell or casing by means of laterally-extending flanges l or in any other suitable manner. When a bottle has been inserted into the shell or case of Fig. 5 and into the closing-cap G on the valve, the bottle itself serves to unite the valve and the protective casing and enable them to be moved or operated simultaneously, the rod L being curved to allow for the swinging movement of the shell or casing. In this way the bottle itself, in effect, takes the place of the supporting-rod hitherto described, and the arrangement enables a large number of protectors to be supported from a single base or support without the necessity for altering the closing-cap to hold the supporting-rods.

It will be seen that the invention is one of great practical utility and that it is not limited to use with any particular style of valve or bottle-holder, but may be used with any of

the usual and well-known forms of valve and bottle-holder, and that it serves to protect the operator against accidents due to an excess of pressure without in any way increasing the difficulty of the filling operation, but rather serving to position the bottle as the same is brought into place for insertion into the closing-cap.

What I regard as new, and desire to secure by Letters Patent, is—

1. In combination with a bottle-holder adapted to clamp the neck of a bottle and a filling-valve having a closing-head and filling-tube passing therethrough and movable therewith to open and close the valve, a guard or protector open at the bottom for the admission of a bottle consisting of a casing for the bottle encircling the filling-tube and adapted to be connected with the closing-head and be moved simultaneously therewith in opening and closing the valve, substantially as described.

2. In combination with a bottle-holder and a filling-valve provided with a closing-head, a filling-tube passing therethrough and movable therewith to open and close the valve, a protector open at the bottom for the admission of a bottle consisting of a shell or casing encircling the filling-tube and connected with the filling-head and adapted to be moved simultaneously therewith and with the bottle in opening and closing the valve, substantially as described.

3. In combination with a filling-valve having a filling-tube, and a closing-head movable to open and close the valve, a shell or casing encircling the filling-tube, and an adjustable rod connecting the shell or casing with the closing-head for the shell or casing to be moved simultaneously with the closing-head, substantially as described.

4. In combination with a bottle-holder and a movable filling-valve having a filling-tube and closing-head, a guard or protector consisting of a shell or casing of a shape to roughly conform with the curvature of a bottle, a supporting-rod rigidly connecting the shell or casing with the closing-head and enabling it to be moved simultaneously therewith, and means for adjusting the rod with respect to the closing-head, substantially as described.

5. In a device of the class described, the combination of a bottle-holder, a valve provided with a closing-head, a hollow boss on the closing-head, a supporting-rod passing through the hollow boss, a set-screw for regulating the adjustment of the supporting-rod, and a shell or casing fixedly attached to the supporting-rod and depending below the closing-head, substantially as described.

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