

No. 719,726.

PATENTED FEB. 3, 1903.

G. R. BILZ.
MATCH BOX.

APPLICATION FILED AUG. 6, 1902.

NO MODEL.

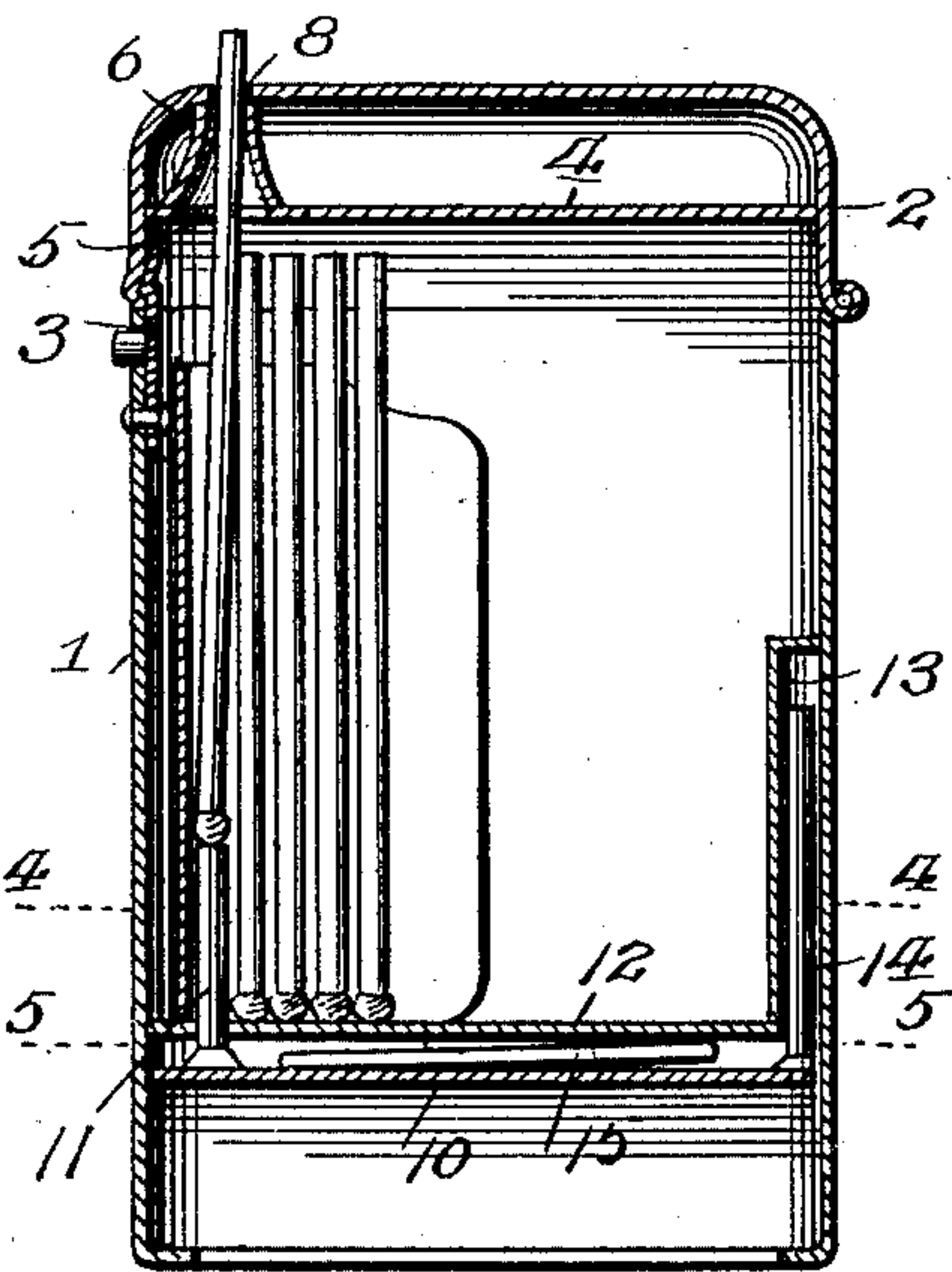
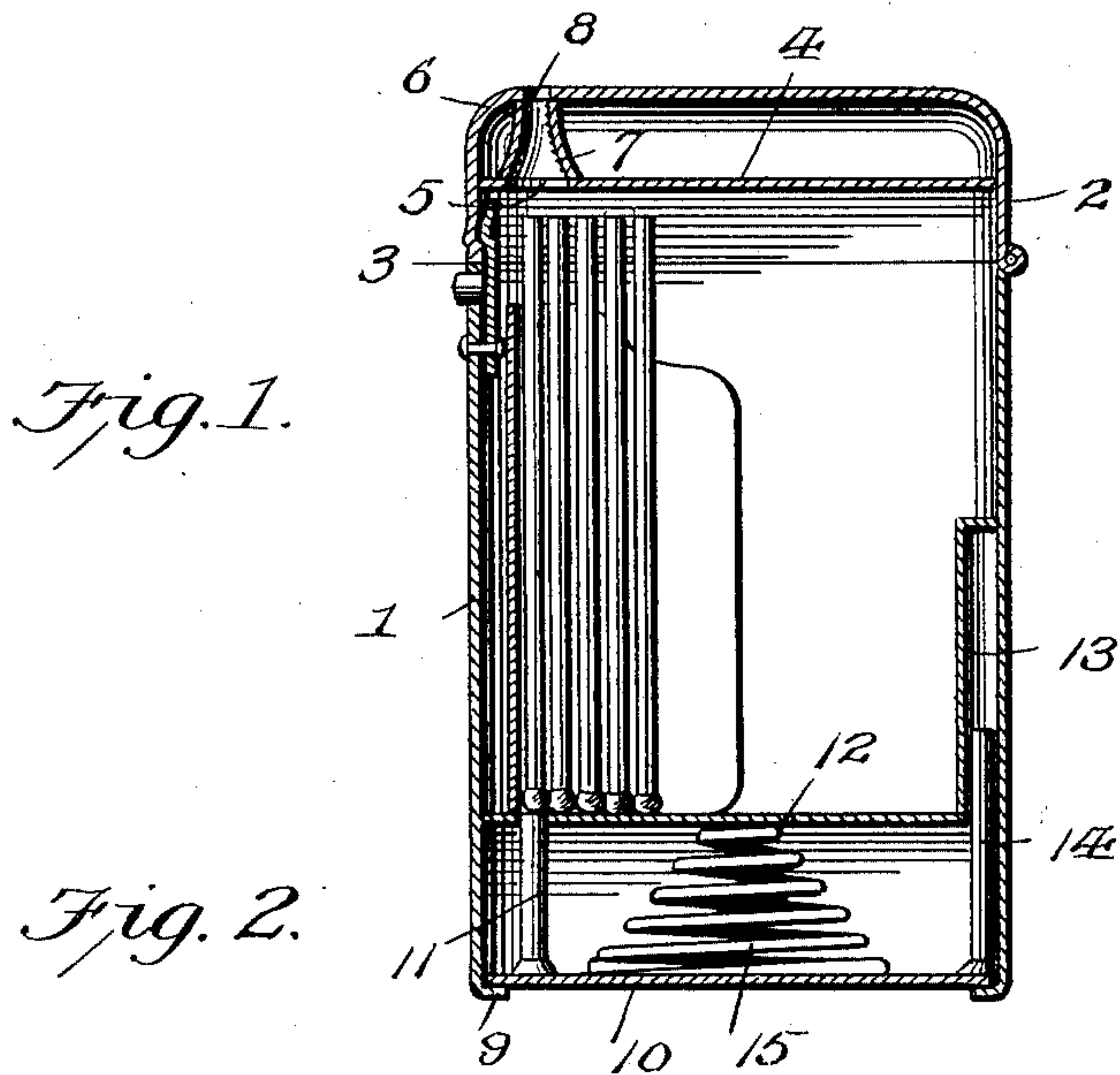


Fig. 4.

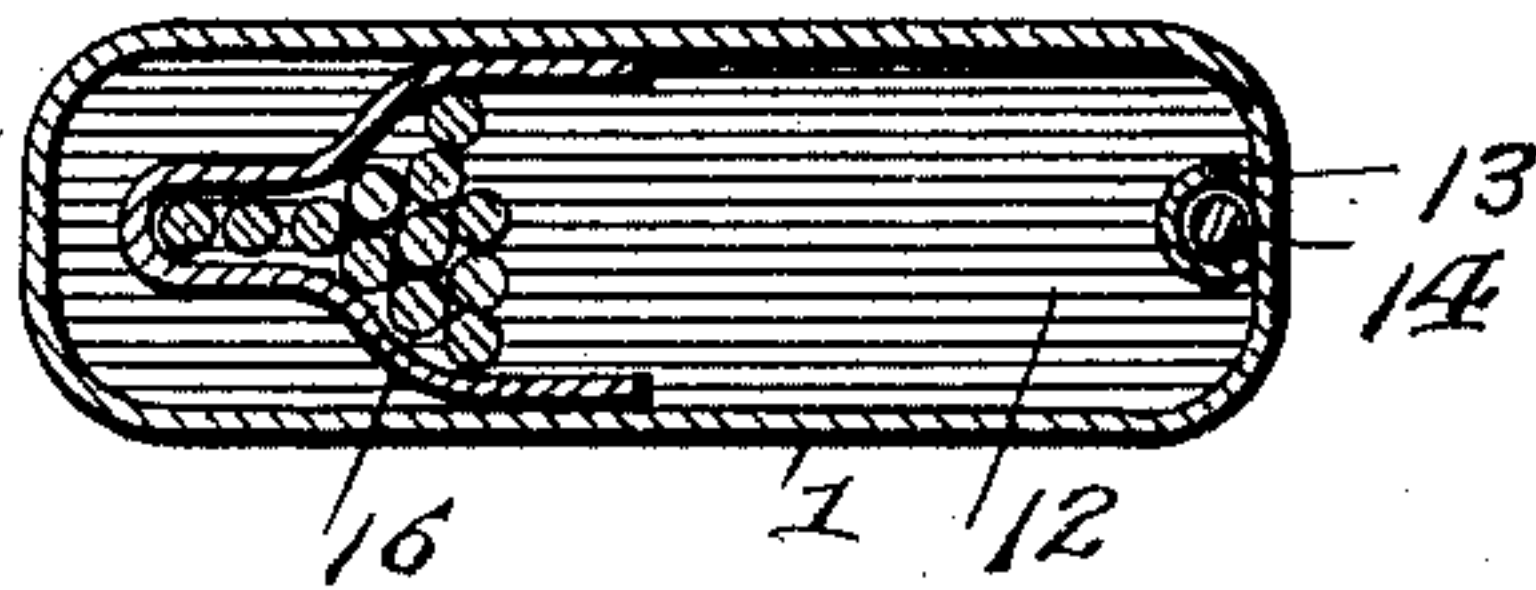
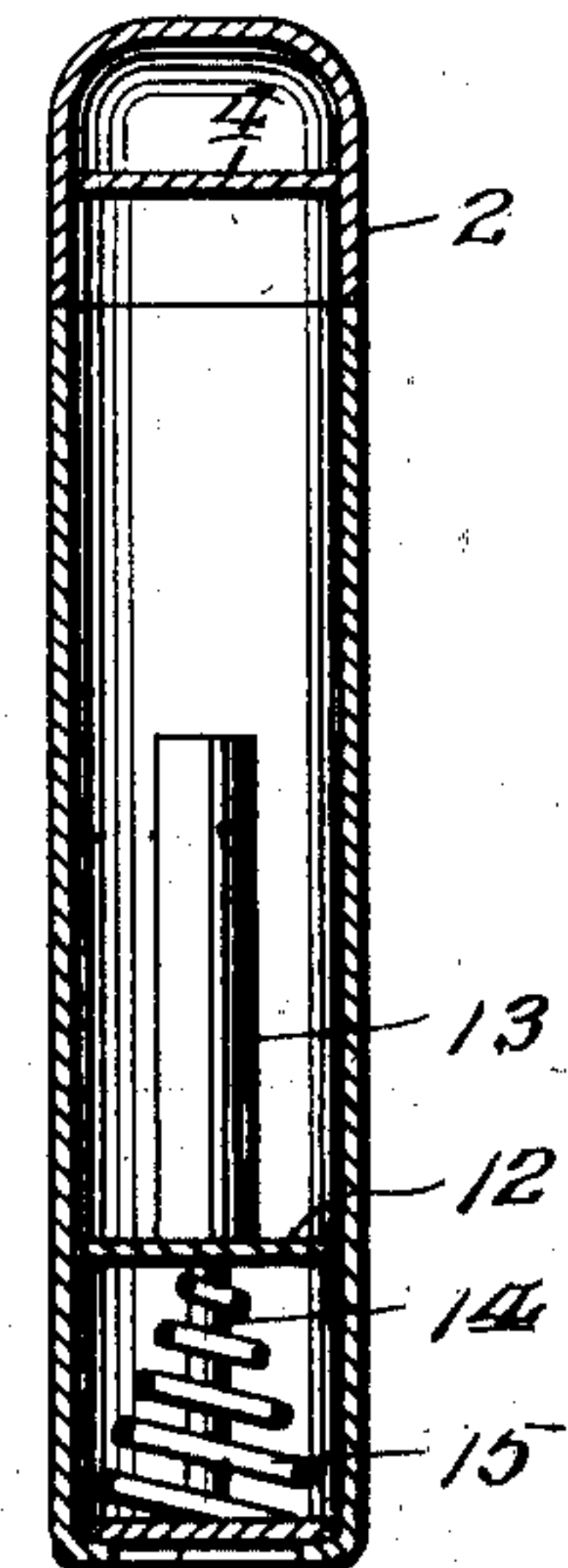
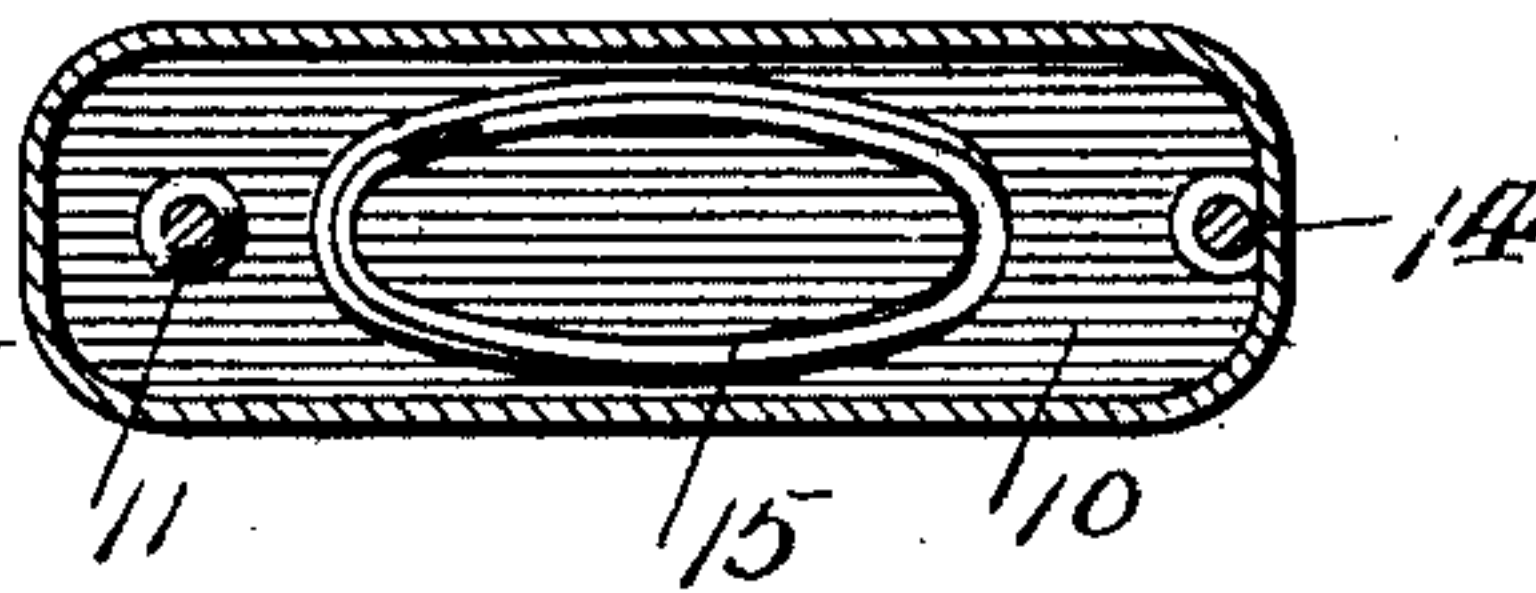


Fig. 5.



Inventor

Gustav Reinhold Bilz

Witnesses
Geo. Ackman.
Chas. S. Hoyer.

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

GUSTAV REINHOLD BILZ, OF NEW YORK, N. Y.

MATCH-BOX.

SPECIFICATION forming part of Letters Patent No. 719,726, dated February 3, 1903.

Application filed August 6, 1902. Serial No. 118,669. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV REINHOLD BILZ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Match-Boxes, of which the following is a specification.

This invention relates to match-boxes; and the object of the same is to produce a simple and inexpensive device of this class in which matches can be conveniently carried and provided with means for singly delivering the matches therefrom and igniting them as taken from the box.

The invention consists, primarily, of a match-box of ordinary dimensions with a spring-actuated false bottom having an expelling device for engaging the individual matches and forcing them through an outlet in the top of the box, the said outlet being provided with means for igniting each match as it is drawn from the box.

The invention further consists in the construction and arrangement in detail of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a longitudinal vertical section of a match-box embodying the features of the invention and shown in normal condition. Fig. 2 is a similar view showing the parts arranged to expel a match. Fig. 3 is a transverse vertical section of the box. Fig. 4 is a horizontal section on the line 4 4, Fig. 2. Fig. 5 is a horizontal section on the line 5 5, Fig. 2.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the body of the box, having suitable dimensions and constructed from any preferred material. Hinged at one end to the body is a closing-cap 2, which is normally held closed by a spring catch or snap 3, carried by the body 1 and engaging the end of the cap opposite that to which the hinge is secured. Within the cap 2 is a horizontal partition 4, having an opening 5 near one end, and secured over the said opening is a vertically-disposed inverted-funnel-shaped guide 6, having an interior roughened surface 7 and its upper reduced

end coinciding with an opening 8 in the top of the cap, adjacent to the free end of the same.

The lower end of the body 1 is open and the edges are intumed to form a surrounding stop-flange 9, and thereon is loosely mounted a false bottom 10, having an expeller 11 near one end in the form of a pin of suitable diameter which slidably moves through an opening in a supporting-bottom 12, said supporting-bottom being at an elevation above the lower end of the body 1 and rigidly secured and connecting with a rear upright socket 13, in which a guide 14, secured to the end of the false bottom opposite that having the expeller thereon, is freely movable. The guide 14 is in the form of an elongated pin and operates to steady the movement of the bottom 10, and between the latter and the supporting-bottom 12 a spring 15 is interposed to restore the bottom 10 and the parts carried thereby to normal position when pressure force is relieved therefrom.

Within the body and resting at its lower end on the supporting-bottom 12 is a combined pocket and guide 16, which is reduced at its front portion to a transverse dimension a little greater on the interior than the diameter of a match, so that the matches will be individually forced thereinto. This combined pocket and guide is constructed from sheet metal doubled at the center and diverged toward the rear from the front reduced edge portion, the rear of the pocket and guide being fully open to permit the matches in the body of the box to pass thereinto and be directed toward the front reduced edge portion of this attachment. The front terminal of the combined pocket and guide is located slightly inward from the front end wall of the body 1, and the expeller moves upwardly through the bottom 12 into the pocket and guide, close to the inner surface of the front wall of the reduced edge portion thereof. The expeller 11 is also substantially in vertical alinement with the opening 5 in the partition 4 of the cap leading into the guide 6, so that when the said expeller forces a match upwardly it will be directed through the said opening 5 and the guide 6.

The box is filled with matches in the containing portion thereof provided between the

combined guide and pocket 16 and the rear end of the body 1. The matches are gradually fed or move into the combined pocket and guide or may be directed into the latter 5 by slightly shaking the box, if found necessary. When it is desired to obtain a match from the box, the bottom 10 is pressed toward the bottom 12, thereby causing the free end of the expeller to engage the end of the 10 adjacent match and move the latter upwardly through the opening 5 and guide 6 and outwardly through the opening 8 far enough to be grasped by the user, when the expelled match can be easily withdrawn from the box. 15 In arranging the matches in the box they are inverted and have their heads bearing upon the bottom 12, and when each match is withdrawn, after being expelled far enough, as set forth, the head thereof is ignited by coming 20 into contact with the inner roughened surface of the guide 6, and it will be observed that the ignition of each match takes place at such a distance from the heads of the matches remaining in the box that liability of firing the 25 matches in the box is completely avoided.

The improved box may be suitably ornamented or formed of fine or coarse grades of material, and in view of the convenience ensuing from the attachment set forth the expense of manufacture will be comparatively 30 small.

Having thus fully described the invention, what is claimed as new is—

1. A match-box having an immovable supporting-bottom therein located inwardly a distance from one end thereof, a cap hinged to the opposite end and having an outlet formed therein adjacent one edge portion of the box, a spring-actuated false bottom below the said 40 immovable supporting-bottom and normally engaging and closing the end of the box op-

posite that having the hinged cap, the said false bottom being provided with an expeller movable through the supporting-bottom to individually project matches through the outlet in the cap, and a guide device secured to 45 and movable with the false bottom into a part of the body to maintain said false bottom in normal position relatively to the supporting-bottom. 50

2. A match-box having an open end, a supporting-bottom removably held therein at a distance from said end, a hinged cap on the opposite end having an outlet device, a combined pocket and guide disposed on the supporting-bottom and extending upwardly into the box and having a front reduced end portion, and a false bottom movably held in the open end of the box and provided with an expeller slidable through the supporting-bottom 60 into the front reduced portion of the combined pocket and guide.

3. A match-box comprising a body open at one end and having a hinged cap at the opposite end, outlet devices in the cap having igniting means, a supporting-bottom located inwardly at a distance from the open end of the body having a vertically-disposed socket at one end, a combined pocket and guide on the supporting-bottom, and a false bottom 70 having an expeller movable through the supporting-bottom into the combined pocket and guide, and a guide device movable into said socket, the said false bottom being normally held outward from the supporting-bottom. 75

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

GUSTAV REINHOLD BILZ.

Witnesses:

L. BERINGER,
RUDOLF KUTSCHERA.