

MATCH BOX.

907,243.

2 SHEETS—SHEET 1.

Fig. 1.

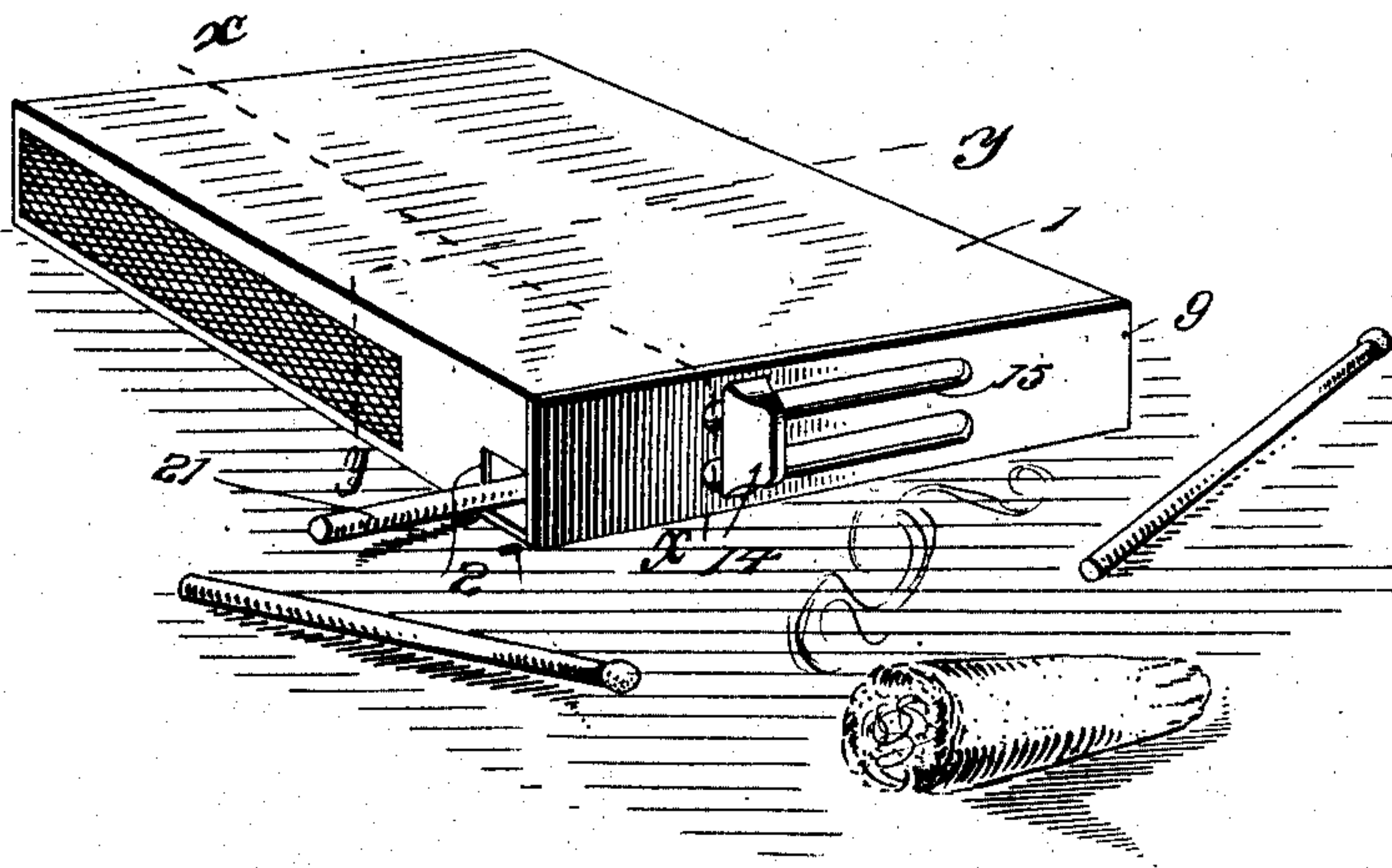
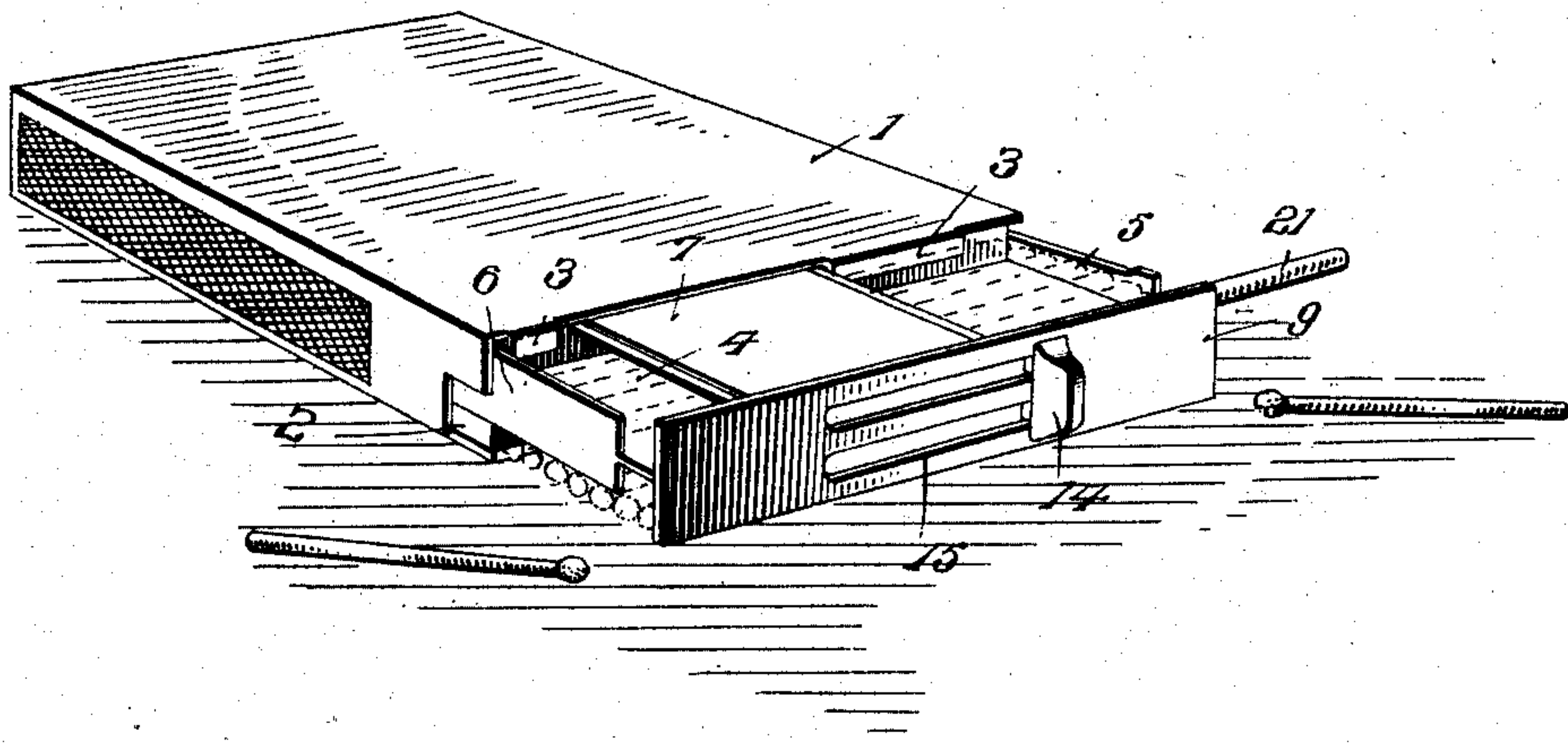


Fig. 2.



Witnesses

Witnessed

[Signature]

W. P. Hudson

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Pharos, Attorneys

G. JOHNSON.
MATCH BOX.

APPLICATION FILED SEPT. 18, 1907.

907,243.

Patented Dec. 22, 1908.

2 SHEETS—SHEET 2.

Fig. 3.

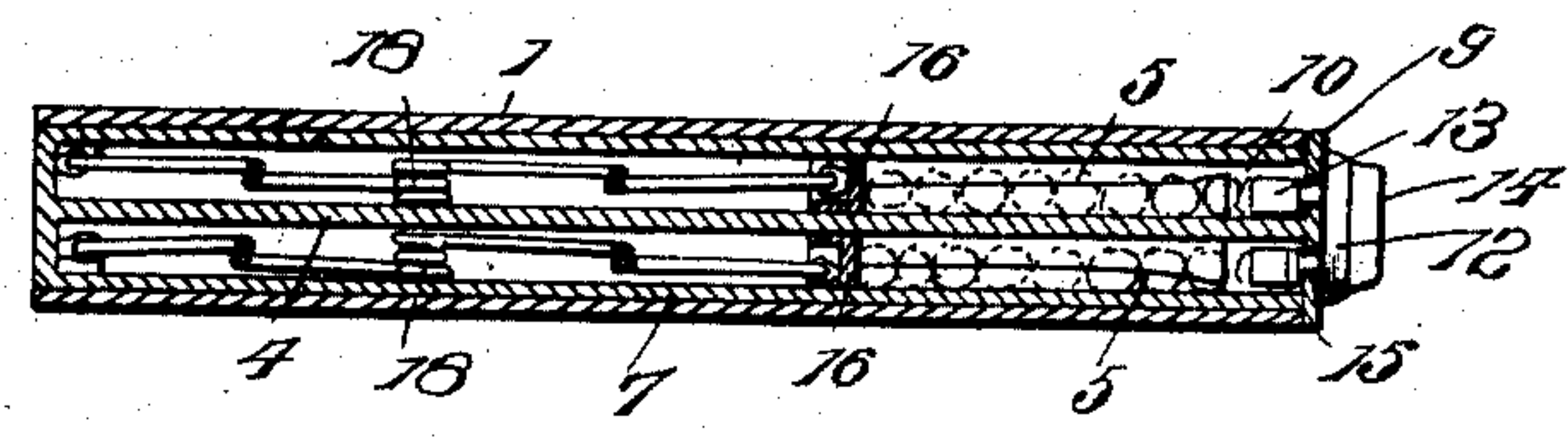


Fig. 4.

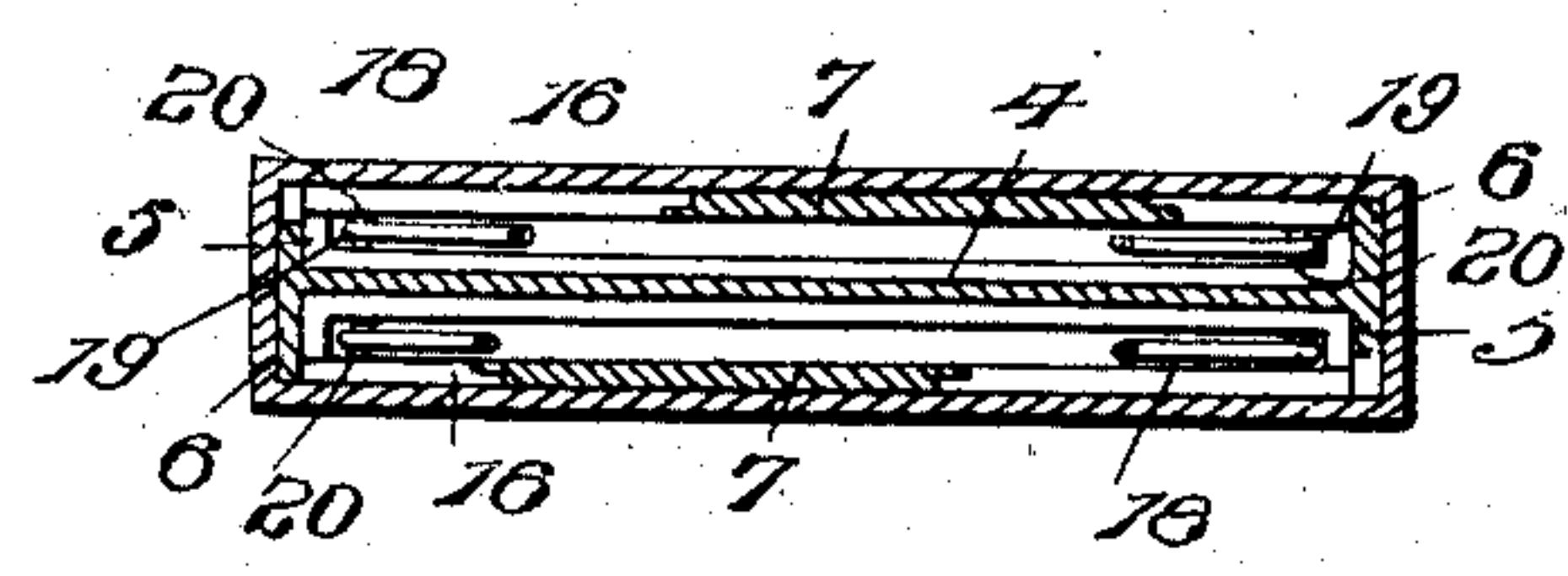


Fig. 6.

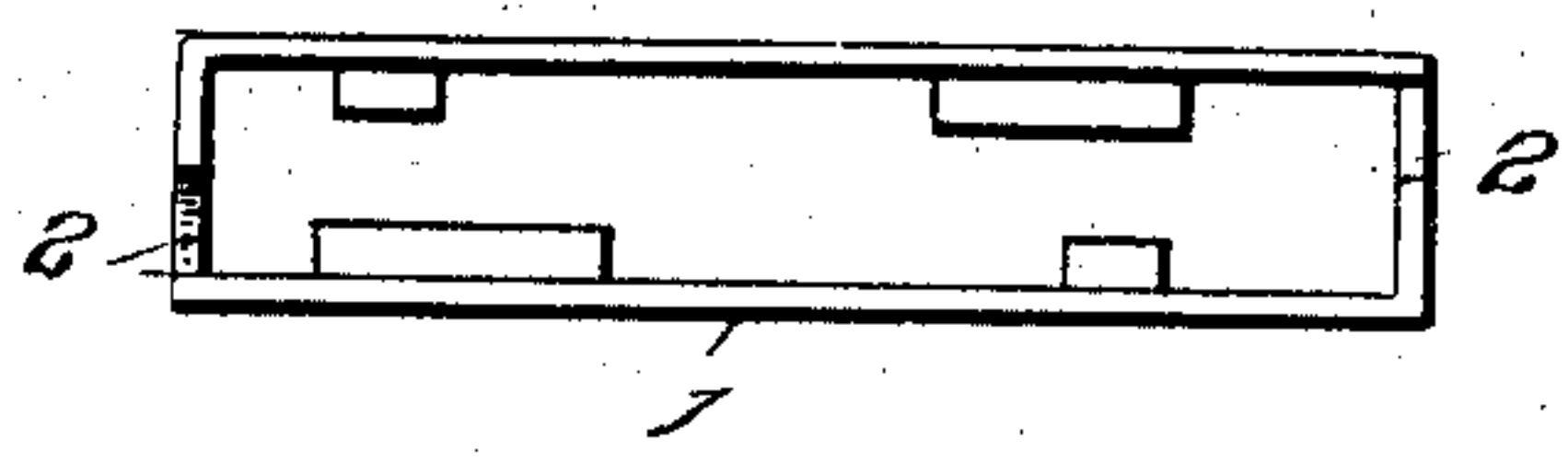


Fig. 5.

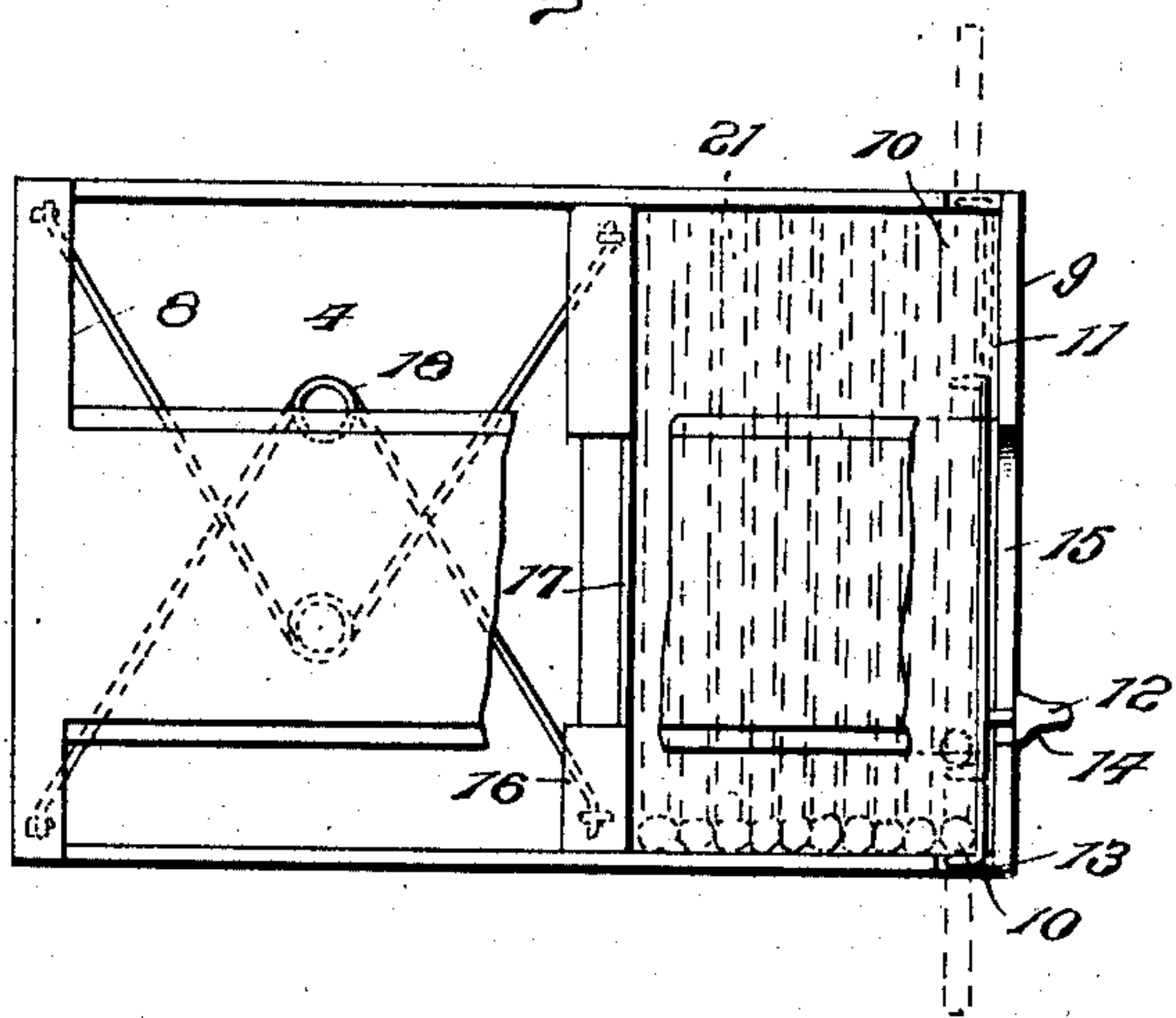
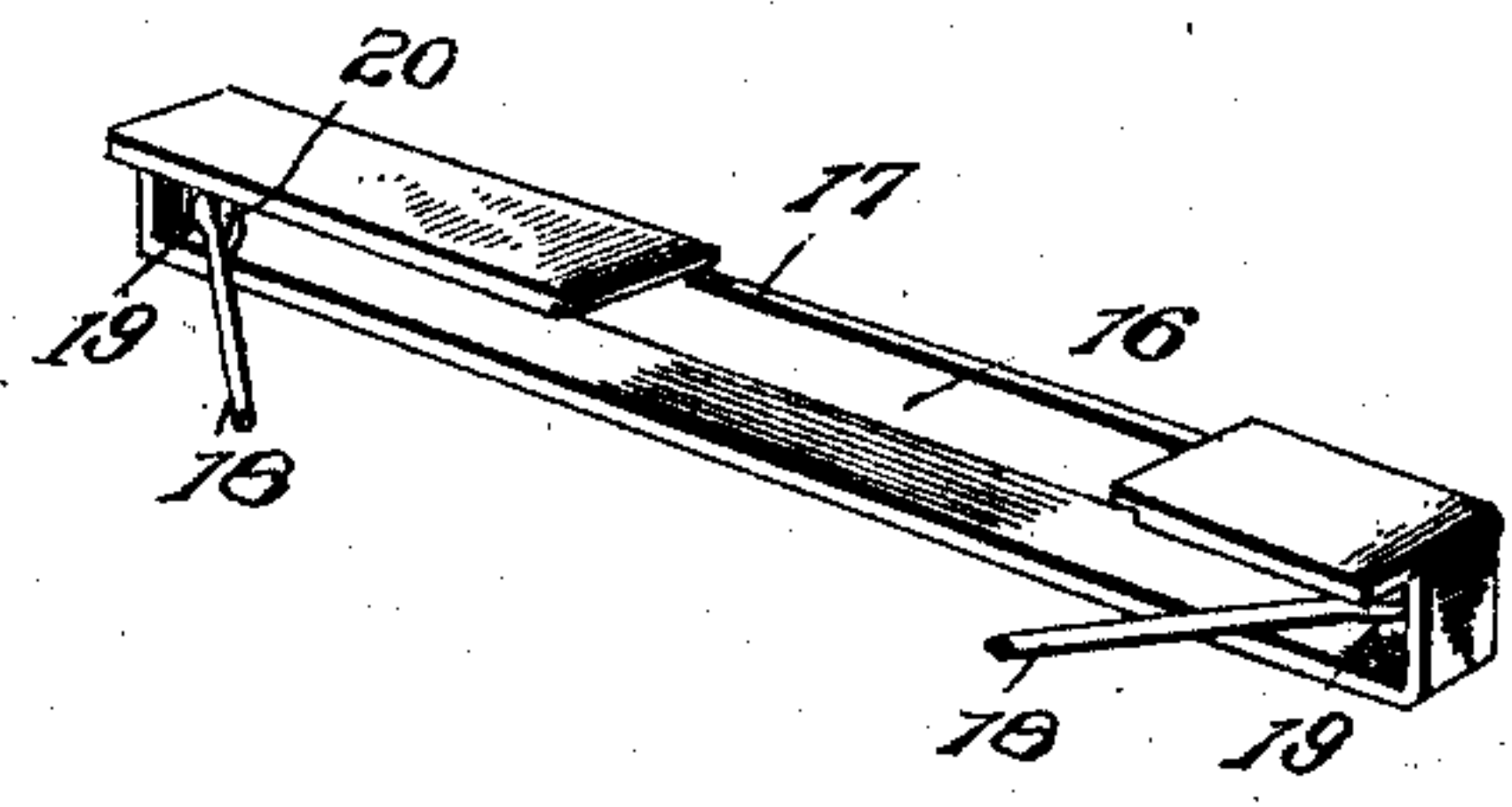


Fig. 7.



Witnesses

W. H. Johnson

Inventor

Gottfried Johnson.

By

H. A. Macey Attorneys

UNITED STATES PATENT OFFICE.

GOTTFRIED JOHNSON, OF ROXBURY, MASSACHUSETTS.

MATCH-BOX.

No. 907,243.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed September 18, 1907. Serial No. 393,542.

To all whom it may concern:

Be it known that I, GOTTFRIED JOHNSON, citizen of the United States, residing at Roxbury, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Match-Boxes, of which the following is a specification.

This invention provides a receptacle for conveniently and safely carrying matches in the pocket and to admit of one being obtained at a time, the device being of such construction as to prevent moisture reaching the match heads and from anything coming in contact with the matches to ignite the same.

The device comprises a casing in which is slidably fitted a magazine adapted to receive a number of matches, said magazine being equipped with a spring actuated follower to automatically feed matches and with an ejector to push the same into convenient position for withdrawal or to effect discharge thereof, one at a time.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a match safe embodying the invention. Fig. 2 is a perspective view of the match safe with the magazine partly withdrawn. Fig. 3 is a horizontal section of the match safe on the line $x-x$ of Fig. 1. Fig. 4 is a vertical transverse section of the match safe on the line $y-y$ of Fig. 1. Fig. 5 is a view in elevation of the magazine a portion of the outer plate being broken away, the dotted lines indicating the operation of the ejector in effecting a discharge of the matches. Fig. 6 is an end view of the casing. Fig. 7 is a detail perspective view of a spring actuated follower.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The match safe or receptacle comprises a casing 1 in which is slidably mounted a maga-

zine, the latter adapted to receive a number of matches and provided with means for feeding the matches to a position for discharging and with means for ejecting or effecting delivery of the matches as may be required. The casing 1 may be of any construction designed or embellishment and is preferably opened at opposite ends. Inasmuch as the magazine comprises duplicate parts so as to carry two piles of matches, one upon each side of a partition, the casing is provided at one end with two discharge openings 2, the latter being provided in the end portions of the edges and upon opposite sides of a medial plane. Lips 3 provided at the discharge end of the casing engage with the spring actuated followers and hold the same when the magazine is withdrawn to be supplied with matches as indicated most clearly in Fig. 2. The lips 3 may be provided in any manner and consist of extensions of the sides of the casing and opening inward so as to engage over the upper edges of the spring actuated followers.

The magazine is provided in duplicate each being of similar or like formation and embodying like parts. A plate 4 constitutes the inner wall of each magazine and being common to both forms a partition. Flanges 5 and 6 are provided at the vertical or longitudinal edges of the plate or partition 4 and engage with opposite ends of the matches to properly position the same. The flange 5 is narrow and is adapted to engage with the heads of the matches. The flange 6 is wide and engages with the stub ends of the matches. A plate 7 spaced from the plate or partition 4 constitutes the outer wall of the magazine and between these plates 4 and 7 is placed the pile of matches the same being aligned at their ends by the flanges 5 and 6. The plate 7 is set to one side of a central line and nearer the flange 6 so that ample space is provided between the flange 5 and the proximal edge of the plate 7 to admit of the matches being placed in the magazine when charging or filling the same. A flange 8 closes the space between the lower ends of the flanges 5 and 6 and comprises right angularly disposed wings, one wing being arranged at right angle to the plate or partition 4 and the other wing being parallel with said plate 4 and spaced therefrom. A cap piece 9 is fitted to the outer or projecting end of the plate or partition 4 and closes the upper end of the casing and overlaps the adjacent edges

of the walls thereof. The plate 7 has connection at its inner or lower end with the flange 8 and at its upper or outer end with the cap piece 9 leaving a space 10 for the delivery of the matches through the discharge opening 2. The flange 6 terminates a short distance from the cap piece to leave a space 11 for the engaging end of the match ejector to engage with the stub end of the match in position to be delivered at the openings 2 by operation of the ejector.

The match ejector 12 is arranged upon the under side of the cap piece 9 and consists of a strip of spring metal having one end bent as at 13 to engage with the stub end of the matches. The match ejector is operated by means of a finger piece 14 the same being located upon the top side of the cap piece 9 and connected with the match ejector through a longitudinal slot 15 formed in the cap piece 9, the length of the slot 15 determining the amplitude of movement of the match ejector. The match ejectors are arranged upon opposite sides of the plate or partition 4 and have connection with the same finger piece, hence as one ejector is moved to effect delivery of a match the other ejector is moved to a position to engage with the top match of the pile opposite to that from which delivery is being made. It will be understood from the foregoing that a match is delivered at each stroke of the ejector 12.

Each magazine or compartment thereof is provided with a spring actuated follower 16 which is arranged to operate in the space inclosed between the plates 4 and 7 and the flanges 5 and 6. The follower 16 is hollow and is arranged with the open side facing away from the delivery end of the magazine so as to receive the upper ends of the actuating springs, the outer flange or rim of the follower cut away at 17 to receive the plate 7 and admit of end portions of the follower coming close to the inner face of the adjacent side of the casing so that the lips 3 at the upper end of the side wall of the casing may engage over end portions of the follower to prevent withdrawal of the same from the casing when the magazine is drawn outward to a position to admit of charging or filling the same with matches. A pair of springs 18 is provided for each follower and each of said springs is approximately of V form and is provided at the angle with a spring coil to increase the resiliency of the spring. One end of the spring 18 is open to form a hook 19 to engage over a pin 20 at or near each end of the follower 16 so as to make positive engagement between the followers and the springs. In assembling the parts the magazine is slipped within the casing 1, the lips 3 engaging over end portions of the spring actuated follower 16.

When it is required to fill the magazine the latter is either drawn or pressed outward as

indicated in Fig. 2, the lips 3 preventing outward movement of the follower 16. The matches 21 are placed in the magazine and within the space between the cap piece 9 and the follower 16 after which the magazine is returned within the casing.

Upon sliding the finger piece 14 across the cap piece 9 over one edge of the casing to the other a match is delivered to an opening 2 and may be grasped and withdrawn. Upon moving the finger piece in the opposite direction a match is delivered from the opposite compartment of the magazine through the opposite edge of the casing. At each complete stroke of the ejector in one direction a match is delivered, one ejector serving to project a match while the other ejector is at the same time returned to a position to engage with a match in the opposite compartment to that from which delivery is effected, whereby upon the next movement of the finger piece a match will be discharged from the opposite edge of the safe or device.

The longitudinal flanges 5 and 6 serve to confine the matches and prevent endwise displacement thereof. The cap piece 9 forms in effect an end flange which serves to close the open end of the casing.

Having thus described the invention, what is claimed as new is:

1. In a match safe embodying delivery mechanism, the combination of a casing having an inner extension, a magazine slidable within the casing, a follower movable within the magazine and arranged to feed the matches forward, and prevented from outward displacement by the said extension, and a spring adapted to press the magazine within the casing when partly drawn out therefrom and the follower is in engagement with said extension, said spring also serving, when the magazine is charged with matches, to advance the matches as delivery thereof is effected.

2. In a match safe provided with a delivery mechanism, the combination of a casing, a magazine slidable within the casing and adapted to receive a quantity of matches, a follower arranged within the magazine to advance the matches, an extension projecting from the casing across the path of the follower to limit its outward movement when the magazine is partly withdrawn from the casing and a spring adapted to exert an outward pressure upon the said follower and an inward pressure upon the magazine.

3. In a match safe provided with delivery mechanism the combination of a casing, a magazine slidable within the open end of the casing and provided with a cap piece to close the same, a follower mounted within the magazine and adapted to advance the matches as delivery thereof is effected, means projected from the inner side of the casing at or near the delivery end thereof to

engage with the aforesaid follower to prevent withdrawal thereof from the casing when the magazine is pulled outward to receive a charge or supply of matches, and a spring confined between said follower and the inner or lower end of the magazine and adapted to advance the follower to feed the matches as the latter are delivered.

4. In a match safe provided with delivery mechanism the combination of a casing open at one end and having lips extended inwardly from the sides thereof at the open end, a magazine slidable within the casing and provided with a cap piece to close the open end thereof, a follower mounted within the magazine and adapted to engage with the aforesaid lips to prevent its outward displacement upon withdrawal of the magazine from the casing when it is required to fill or charge the same with matches, and a spring interposed between the said follower and inner or lower end of the magazine.

5. In a match safe, the combination of a casing, a partition parallel with and between the sides of the casing and subdividing the same into compartments, each compartment adapted to receive a quantity of matches, a spring actuated follower in each compartment, match ejectors arranged upon

opposite sides of said partition, one for each compartment, and a finger piece exterior to an end of the casing and connecting said match ejectors, the latter having match engaging portions at opposite ends so that when one ejector is effecting delivery of a match, the other ejector is moving to a position to engage with a match of the opposite pile preliminary to effecting delivery of the same at the next movement of the finger piece.

6. In a match safe the combination of a casing, a magazine movable therein comprising an inner wall and having retaining flanges at its four edges, a plate spaced from said wall and arranged to one side of the medial line to admit of charging the magazine with matches, a follower arranged to operate in the space inclosed between the confining walls of the magazine, and a spring normally exerting a pressure upon the follower to effect a feeding of the matches as the latter are delivered.

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

GOTTFRIED JOHNSON. [L. s.]

Witnesses:

ANS DAMSHKALN,
JOHN PASLLOD.