No. 731,785. PATENTED JUNE 23, 1903.

F. K. KENNEDY.

MATCH BOX.

APPLICATION FILED FEB. 26, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. I.

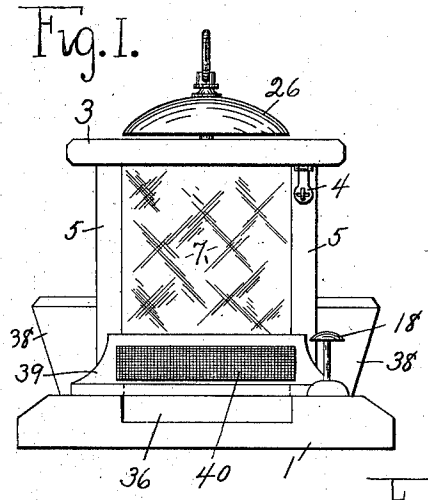


Fig. III.

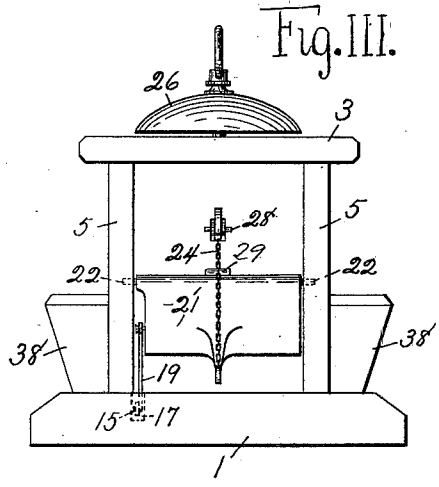
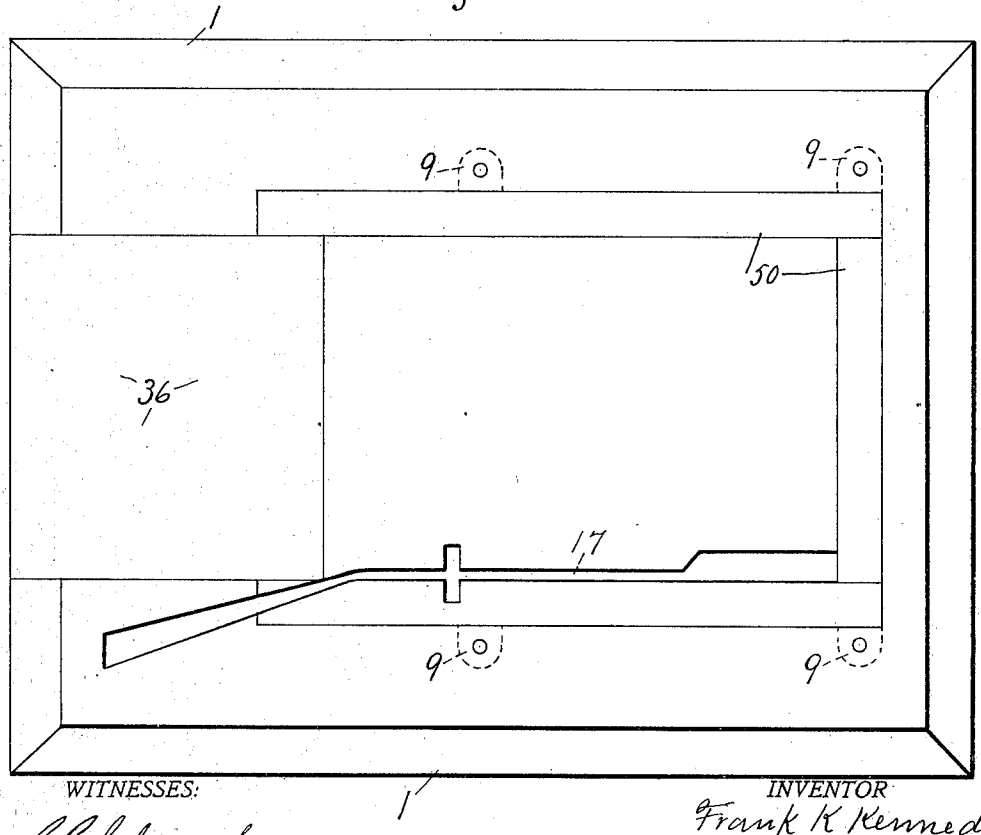


Fig. VI.



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Fig. II.

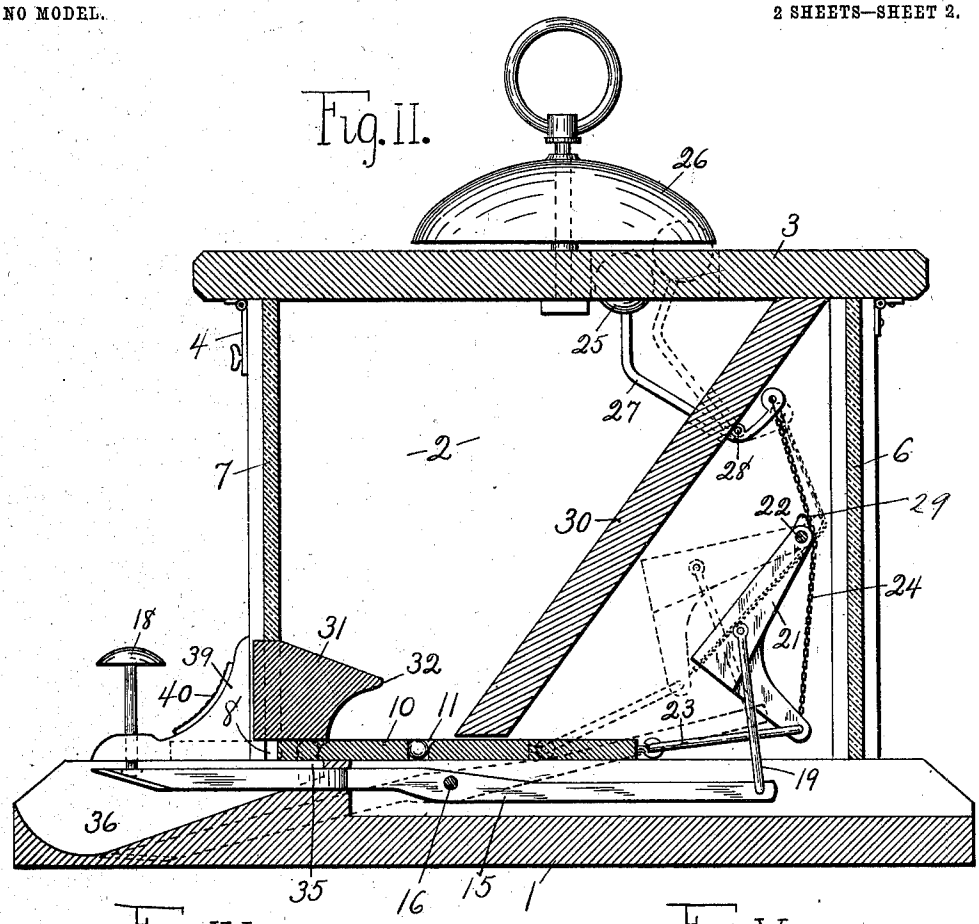


Fig. IV.

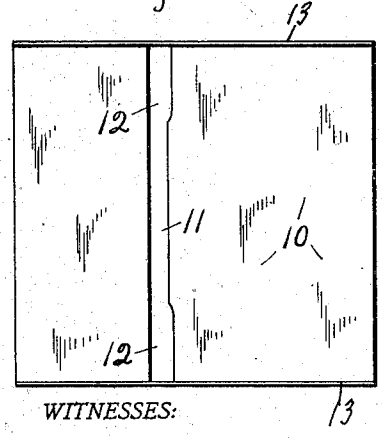


Fig. V.

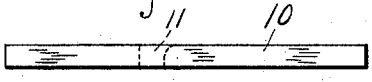
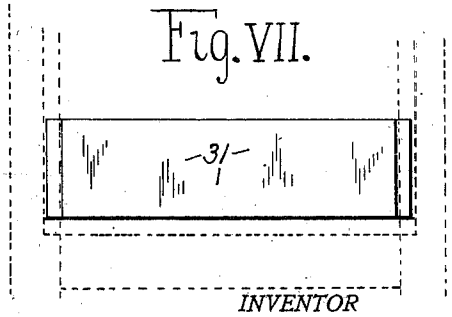


Fig. VII.



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No. 731,785. Patented June 23, 1903.

UNITED STATES PATENT OFFICE.

FRANK KNIGHT KENNEDY, OF NEW BRIGHTON, PENNSYLVANIA.

MATCH-BOX.

SPECIFICATION forming part of Letters Patent No. 731,785, dated June 23, 1903.

Application filed February 26, 1903. Serial No. 145,213. (No model.)

To all whom it may concern:

Be it known that I, FRANK KNIGHT KENNEDY, a citizen of the United States, residing at New Brighton, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Match-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a match-box, and has for its object to provide a box of strong, durable, and neat construction to deliver matches singly when the operative lever is pressed and at the same time to ring an alarm-bell, thus saving waste of matches and affording in shops, hotels, &c., an amusing toy for the patrons. Its essential features are a box or case to receive the matches preferably provided with a glass front and with a slide fitting the bottom of the box and having a cross-slot to receive a single match, means to deliver the matches to the slot, an outwardly-extending lever to operate the parts so that the slide will be moved over an external pocket into which the match will fall and at the same time the bell will be rung, and means, such as a weight or a spring, to return the parts to the first position when the lever is released.

My invention will be understood by reference to the drawings herewith, in which the reference-numerals of the specification indicate the same parts in all the figures.

Figure I is a front elevation of my box. Fig. II is an enlarged vertical section taken from front to rear of Fig. I. Fig. III is a rear elevation with plate 6 removed. Figs. IV and V are respectively a top plan and side elevation of the slide. Fig. VI is an enlarged plan of the base with the upper parts removed. Fig. VII is a front elevation of the guide, showing the position of the adjacent parts in dotted lines.

In the figures, 1 indicates a base of sufficient size and weight to maintain the entire device firmly in position, and 2 the case for the matches and for the operating parts, secured on the base and having the hinged top 3, provided with a lock or clamp 4, sides 5 5, rear 6, of glass, if desirable, and front 7, preferably formed of a single plate of glass fitted to the grooves 8 in the sides. The case is preferably secured to the base by means of the small metallic lugs 9, fitted with suitable screws, so the entire box is easily assembled and taken apart, and, if desirable, the base may be formed with groove 50, to receive lower margin of case, whether base be made of metal, cement, wood, or other material. In the bottom of the case is arranged the slide 10, fitting within the sides and provided with the groove 11, sufficiently large to receive a single match, preferably provided with the enlarged ends 12 12 to receive the match-heads and with the back edge beveled or rounded, as best shown in Figs. II and V, whereby the matches are easily delivered into the slot, whereas if this edge were made straight and square the matches would tend to catch on the ends and delivery would be uncertain. The slide may be finished on the edges with metallic strips 13 13.

15 is the lever, pivotally supported on its fulcrum 16 in a suitable slot 17, formed in the base and slightly bent to one side at its outer end, where it is provided with the thumb-piece or button 18. The rear end of the lever is connected by arm 19 to the elongated weight 21, preferably of heavy metal in the form of a bell-crank lever, hung at its upper end on integral pintles 22, fitted in the sides 5 5, having its lower end connected by link or links 23 to the rear of the slide. At any suitable part, as its lower end, is also attached the chain 24, extending over cam 29 at the upper end of the weight or over other suitable projection, and suitably connected to the hammer 25 of the bell 26—for instance, to the rear end of the hammer-lever 27, journaled at 28—so that as the thumb-piece is depressed and the slide moved forward the bell is rung by hammer projecting through suitable slot in the top.

30 is an incline extending within the case from side to side and downwardly from near the top and rear toward the front and terminating adjacent to the slide.

31 is a guide extending across the front and arranged in the grooves 8 under the glass, so that by the weight of the glass it is held firmly in position and rests on the slide 10 with suffi-

cient weight to maintain it in place without interfering with its reciprocating movement. This guide is provided on each side with the rearwardly-extending nose 32, having an inclined upper surface and preferably a curved lower surface which sustains a large portion of the weight of the matches in the box and at the same time coöperates with the incline 30 to guide the matches down to the slot.

The matches are first arranged in the case horizontally and extending across, and when the front end of the lever is depressed the slide is moved forward until it comes over the opening 35 in the bottom of the case over the pocket 36, formed substantially as here shown, down which the match drops convenient to the user, and at the same time, as aforesaid, the hammer strikes the bell, indicating that the machine has been used and a single match delivered. The thumb-piece being then released, the weight, which has been elevated, falls and returns the parts to their normal position to receive another match into the slot, and this movement of the slide causes the matches to lie straight and even.

38 represents side boxes or pockets for burned matches, toothpicks, &c., and 39 a front guide for a piece of sandpaper 40.

My box is simple and economical to construct and effective and certain in operation. The parts are all simple and strong, therefore easily cut from metal or other material, and not liable to break, bind, cramp, or otherwise get out of order.

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

1. In a match-box mechanism to deliver matches singly, the combination with the inclosing box for the matches, of a slide fitted to the bottom of the case and formed with a slot to receive a single match, of a lever suitably journaled in the bottom of the case and having an outwardly-extending end provided with a thumb-piece, a retracting-weight hung in the box and connected to the slide, and connections between the lever and the weight whereby when the front end of the lever is depressed the slide is moved forward to bring the slot over an opening in the bottom of the case, and when the front end is released the weight draws back the slide.

2. In a match-box to deliver matches singly, the combination with a suitable base, of an inclosing case supported thereon, a slide provided with a cross-slot arranged in the bottom of the case, a lever suitably journaled, a retracting-weight hung in the case, a connection between the lever and the slide, and a connection between the weight and the slide.

3. In a match-box to deliver matches singly, the combination with a base, of an inclosing case supported thereon for the matches, a slide provided with a cross-slot arranged in the bottom of the case, a lever journaled, an elongated weight hung in the case, a connection between the lever and the weight to swing the weight forward when the operative end of the lever is depressed, and a connection between the weight and the rear end of the slide.

4. In a match-box to deliver matches singly, the combination with a base, of a case for the matches fixed on the base, a slide provided with a cross-slot arranged in the bottom of the base, and adapted to move outwardly freely, a weight in the form of a bent arm hung in the rear of the case, a lever journaled in the base, a connecting-link between the lower end of the weight and the rear end of the slide, and a connecting-arm between the rear end of the lever and the weight whereby the weight is swung.

5. In a match-box mechanism adapted to deliver matches singly, the combination with a base, of a case thereon, a slide fitted within the bottom of the base and having a cross-slot to receive a single match and adapted to register with an opening in the bottom of the base when moved forward, a swinging weight connected to the slide, a lever journaled and provided with an operative handle at one end and a connection at the other end to the weight whereby the weight is swung and the slide is moved forward when the front end of the lever is depressed, and a guide arranged in the front of the case and having a nose on each side inwardly extending over the slide.

6. In a match-box mechanism adapted to deliver matches singly, the combination with a base, of a case thereon, a slide fitted within the bottom of the base and having a cross-slot to receive a single match and adapted to register with an opening in the bottom of the base when moved forward, a swinging weight connected to the slide, a lever journaled and provided with an operative handle at one end and a connection at the other end to the weight, whereby the weight is swung and the slide is moved forward when the front end of the lever is depressed, a guide arranged in the front of the case and having a nose on each side inwardly extending over the slide, and an incline extending from the upper rear portion of the case down toward the front adjacent to the slide and to the rear ends of the guide.

7. In a match-box to deliver matches singly, the combination with a base, of a case for the matches fixed on the base, lugs and screws securing the case to the base, a slide provided with a cross-slot arranged in the bottom of the base and having its front end fitting an opening so that it may be moved outwardly freely, a weight in the form of a bent arm hung in the rear of the case, a lever suitably journaled in the base, a connecting-link between the lower end of the weight and the rear end of the slide, a connecting-arm between the rear end of the lever and the weight whereby the weight is swung, a bell supported on the case, and a connection between the bell-hammer and the weight whereby the bell is rung at each forward movement of the slide.

8. In a match-box mechanism adapted to deliver matches singly, the combination with a

base, of a case thereon, lugs and screws for securing the case on the base, a slide fitted within the bottom of the base and having a cross-slot to receive a single match and to register with an opening in the bottom of the base when the slide is moved forward, a swinging weight connected to the slide, a lever journaled in the base and provided with an operative handle at one end, and a connection at the other end to the weight whereby the weight is swung and the slide is moved forward when the front end of the lever is depressed, a guide arranged in the front of the case and having a nose on each side inwardly extending over the slide, a bell suitably supported on the case, and a connection between the bell-hammer and the weight whereby the bell is rung at each forward movement of the slide.

9. In a match-box mechanism adapted to deliver matches singly, the combination with a base, of a case thereon, a slide fitted within the bottom of the case and having a cross-slot to receive a single match and adapted to register with a front opening in the bottom of the case when moved forward, a swinging weight connected to the slide, a lever journaled in the base and provided with an operative handle at one end and a connection at the other end to the weight, whereby the weight is swung and the slide is moved forward when the front end of the lever is depressed, a guide arranged in the front of the case and having a nose on each side inwardly extending over the slide, an incline extending from the upper rear portion of the case down toward the front adjacent to the slide and to the rear ends of the guide, a bell supported on the case, and a connection between the bell-hammer and the weight whereby the bell is rung at each forward movement of the slide.

10. In a match-box mechanism adapted to deliver matches singly, the combination with a base, of an inclosing case for the matches having solid sides and back, a top suitably hinged on the case, means to lock the top, a glass-front piece to the case fitted to grooves in the sides, a horizontal slide fitted within the bottom of the case and adapted to move forward freely and project through an opening at the front, said slide being formed with a cross-slot having enlarged ends adapted to receive a single match, a guide fitted to said grooves to support the glass front and rest on the slide, said guide having rearwardly-extending, downwardly-inclined noses with curved lower sides, a lever pivotally supported at about its center in a slot in the base near one side of the case and having its front end bent outwardly to one side, a thumb-piece on said front end, a weight of bell-crank form hung by its upper end above and adjacent to the rear end of the lever, a link connecting the lower end of the weight to the rear end of the slide, an arm connecting the weight to the rear end of the lever, a bell supported on the top of the case, a bell-hammer suitably journaled, a band connecting the bell-hammer to the weight to move the hammer against the bell when the bell is swung, a cam on the weight to engage with said band when the weight is swung, an inclined plane extending from the upper and rear portion of the case and downwardly adjacent to the slide at the rear of the slot when the slide is in normal position, a receiving-pocket suitably arranged at the front of the case under an opening formed across the case-bottom to register with the cross-slot when the slide is in front position, receiving-pockets secured to each side of the case near its front, and a curved support carrying a piece of sandpaper arranged near the front.

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

FRANK KNIGHT KENNEDY.

Witnesses:

W. B. KENNEDY,

WM. W. WILSON.