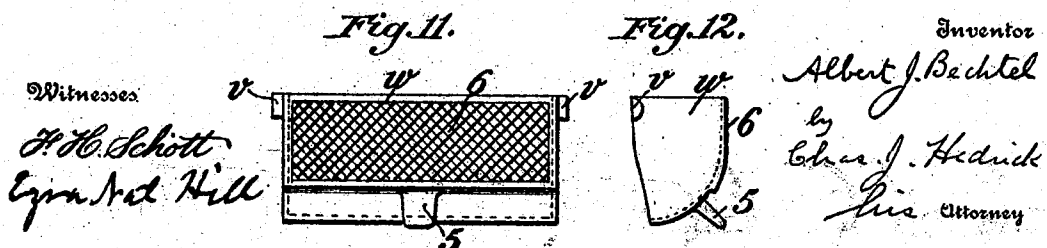
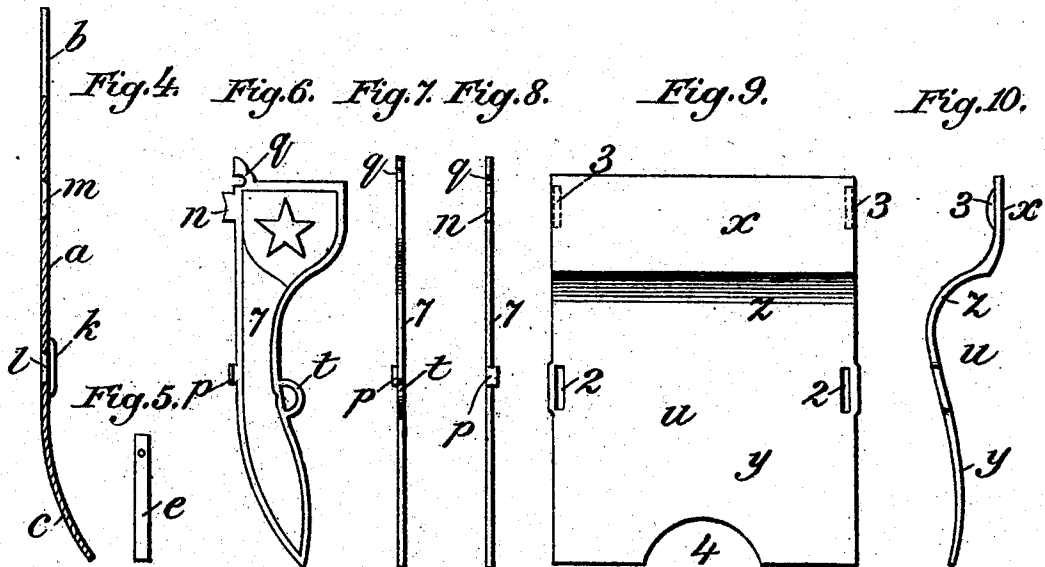
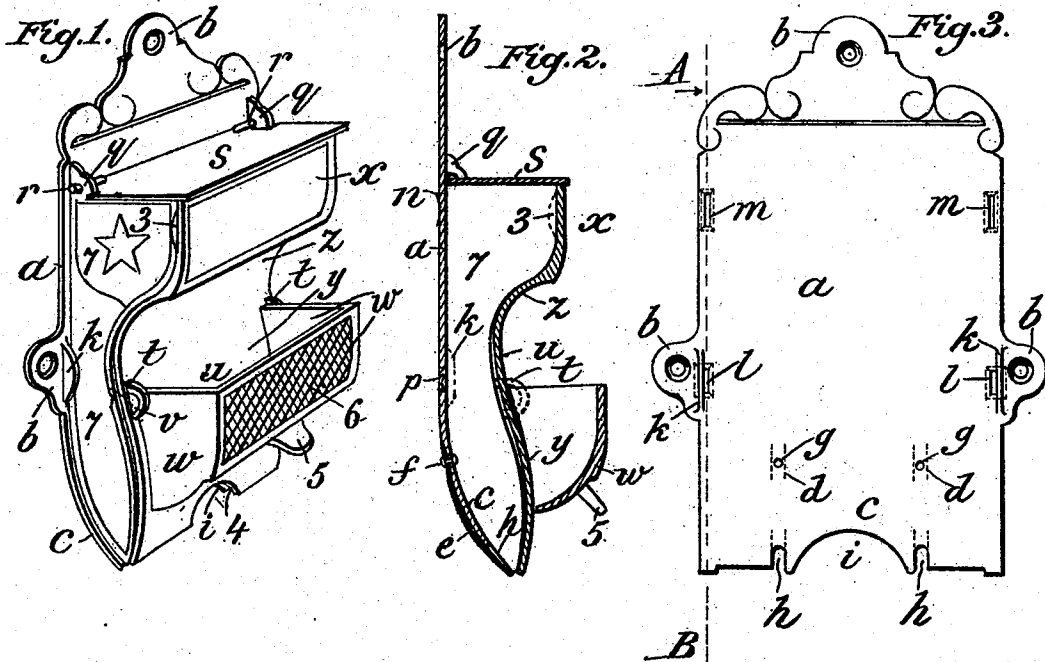


A. J. BECHTEL.
MATCH BOX.
APPLICATION FILED JULY 13, 1903.

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UNITED STATES PATENT OFFICE.

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MATCH-BOX.

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Specification of Letters Patent.

Patented Oct. 19, 1909.

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To all whom it may concern:

Be it known that I, ALBERT J. BECHTEL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Match-Boxes, of which the following is a specification.

This invention relates more particularly to boxes, to be fastened against a wall and to contain a supply of matches, for use as desired. It may be large enough to hold the entire contents of the receptacle in which matches are commonly sold. Such boxes, in addition to the match holder proper, commonly contain a burned match receiver.

The invention consists, first, in a match box of special new construction, adapted to hold a good supply of matches and to allow the latter to be withdrawn singly at the bottom of the box. The characteristic novelty of this construction resides in the shapes of the front and back plates; that is to say a back plate, which is flat to rest against the wall, except at the bottom, where it is curved forward to admit the insertion of one's fingers behind its lower edge, is combined with a front plate whose upper and lower portions are offset from one another opposite the flat part of the back plate and connected by a downwardly and backwardly sloping middle portion. Between the front and back plates are side pieces, which may be made and united to the front and back plates in any suitable way, so far as this first part of the invention is concerned. This construction of front and back plates gives a flat backed box with roomy top space overhanging a passage of less depth from front to back, which passage underlies the back half (more or less) of said top space. In terminates at the bottom in a slot about equal in width to the thickness of a match and in length to a match's length, across which slot springs project to uphold the matches and keep them from falling through said slot. By catching a match and pulling it downward, the springs yield to allow the match to be withdrawn and then replace themselves automatically to keep any more from coming out.

The invention secondly consists in providing a match box of the above general construction with a burned match receiver on the front plate below the overhanging top space mentioned.

It consists thirdly in uniting the side

pieces and front plate of a match box of the foregoing description, or it may be of any suitable construction, by the aid of perforated ears on the side pieces engaging the trunnions of a hinged tray in which the burned matches can be placed by the match users.

It consists fourthly in making the said tray open at the back and engaging the trunnions in the ears by springing them into the perforations therein.

It consists fifthly in the combination with a spring plate, and perforated ears for holding the same, of an open backed hinged tray having cam-shaped trunnions which engage said ears and are pressed upon by said spring plate.

The invention further comprises the other parts, improvements and combinations hereinafter set forth.

The accompanying drawings illustrate a match box embodying all the features of the invention, Figure 1 being a perspective and Fig. 2 a vertical section of the complete match box, and Figs. 3 to 12 being views of different detached parts. Fig. 4 is a section on line A—B of Fig. 3, which is a front view of the back plate.

The match box shown will now be described in detail; but it will be understood that omissions and modifications can be made indefinitely so long as the substance of any one or more of the hereinafter written claims is taken.

The back plate *a* is flat, except at the bottom, and has perforated ears *b* for securing it to a wall. At the bottom it is curved forward. In this curved portion *c* are shown seats *d* for the springs *e* which are held by rivets *f* engaging holes *g* in the back plate. The lower ends of the springs occupy the notches *h*. The bottom edge of the back plate is also recessed at *i*. At *k* are projections on the back plate and at *l* and *m* are holes therein; the purpose of these projections and holes is for the securing of the side pieces to the back plate, when these are made separately, as shown.

The side pieces *n* fit between the projections *k* and have tongues *o* at the back to enter the holes *m* and hooked tongues *p* enter the holes *l*. At the top of each side piece is shown a notched ear *q* for receiving the trunnion *r* of lid *s* for the match box. At the front edge of the side pieces are perfo-

rated ears *t* for holding in place the front plate *u* and for engaging the trunnions *v* of the hinged tray *w*, which constitutes a receiver for the burned matches.

5 The front plate *u* has its upper portion *x* and its lower portion *y* offset from each other opposite the flat part of the back plate *a* and connected with each other by a downwardly and backwardly sloping middle portion *z*. Below the offset are holes 2, which
10 receive the ears *t*. Near the top are projections 3 which fit over the outside of the side pieces. The bottom edge is recessed at 4 opposite the recess *i* in the back plate.

15 The tray *w* is without any back. When it lies against the front plate *u*, this latter acts as a back to the tray, and enables it to hold the burned matches. When it is turned up, the contents of the tray drop out. The
20 trunnions engage the ears *t* into which they are sprung. They are shown as cam-shaped, being in the form of segments of a cylinder; see Figs. 1, 11 and 12. The front plate *u* bears against the side pieces above and below the ears *p*; but a space is normally left
25 in the middle between the front plate *u* and the front edges of the side pieces (see Figs. 1 and 2). It thus forms an elastic plate, which can be pushed in by the action of the cam-shaped trunnions *v*, against the flat
30 sides of which the front plate bears and which tends to hold the bottom of the tray *w* against the front plate. At 5 is a handle for lifting the tray *w* and at 6 a rough surface for striking the matches.

35 The bottom edges of the back and front plates *a* and *u* approach each other but remain separated by about the thickness of a match, thus leaving a slot through which the
40 matches can be withdrawn from the bottom of the box. This withdrawal slot is closed by the springs *e* which cross the slot (or nearly so) as shown in Fig. 2.

45 The box can be made of malleable iron castings; or it can be made otherwise, if preferred.

To use the match box it is secured to a wall and is filled from the top, after raising the lid *s*. The lowermost match rests upon
50 the springs *e*, which prevent the matches from dropping out at the bottom of the box. A person desiring a match grasps the lowermost match in the middle where it can readily be taken hold of, the back and front
55 plates being recessed at *i* and 4 to enable this to be done. A pull downward withdraws the lowermost match; and its place is filled automatically by the match which lies next in order in the box. The person then strikes
60 the match on the surface 6 and when it has burned and has been extinguished, it is placed in tray *w*. When this is full, it is turned up and then all its contents drop out. In raising it, the cam-shaped trunnions *v* press in
65 the middle of the front plate and when the

tray is released, the elasticity of said plate moves it out and so aids gravity in returning the tray to its normal position, shown in Figs. 1 and 2.

I claim as my invention or discovery:— 70

1. A match box having a match receiving chamber at the top, a match withdrawing slot at the bottom, a long intermediate match holding and match feeding passage which is of a less depth than said match receiving
75 chamber from front to back, which underlies the back portion only of said match receiving chamber, which has its back wall flat except at the bottom where it is curved forward, and which has the exterior face of
80 its front wall as a whole brought in under said match receiving chamber so as to give an overhang to the latter at the front, and a burned match receiver exteriorly mounted on the front wall of said passage under the
85 overhanging portion of the said match receiving chamber, said passage, by reason of its smaller depth, serving to regulate the feeding of the matches from said match receiving chamber and, by reason of the length
90 and position of its front wall, furnishing an exterior space adapted for the reception of said burned match receiver under the overhanging front portion of said match receiving chamber, substantially as described. 95

2. A match box having side pieces located between the front and back of the box and provided with perforated ears, and also having a separate front plate located between
100 said ears, and a hinged tray whose trunnions engage said ears and so assist in uniting said front plate to said side pieces, substantially as described.

3. A match box having side pieces located between the front and back of the box and
105 provided with perforated ears, and also having a separate front plate located between said ears and a hinged tray which has an open back and whose trunnions are sprung into said ears and held in engagement therewith
110 by the elasticity of the material composing the said tray, substantially as described.

4. The combination with a spring plate, and perforated ears for holding the same, of means for supporting said ears, and an
115 open-backed hinged tray having cam-shaped trunnions which engage said ears and bear against said plate, so that the elastic pressure of the latter tends to return the tray when it has been turned to discharge its contents, substantially as described. 120

5. A match box having side pieces provided with perforated ears, and also having an elastic front plate suitably supported and located between said ears and an open-
125 backed hinged tray with cam-shaped trunnions which engage said ears, substantially as described.

6. A match box composed of a back plate which is flat except at the bottom where it 130

is curved forward, a front plate whose upper and lower portions are offset opposite the flat part of the back plate and are there connected by a downwardly and backwardly sloping middle portion, side pieces which unite said back and front plates and are provided with perforated ears projecting past the said front plate below the offset therein, and a hinged tray whose trunnions engage said ears, the said box having a spring closed slot at the bottom for withdrawal of matches, substantially as described.

7. A match box composed of a back plate which is flat except at the bottom where it is curved forward, a front plate whose upper and lower portions are offset opposite the flat part of the back plate and are there connected by a downwardly and backwardly sloping middle portion, side pieces which unite said back and front plates and are provided with perforated ears projecting past the said front plate below the offset therein, and a hinged tray with open back whose

trunnions engage said ears, the said box having a spring closed slot at the bottom for withdrawal of matches, substantially as described.

8. A match box composed of a back plate which is flat except at the bottom where it is curved forward, an elastic front plate whose upper and lower portions are offset opposite the flat part of the back plate and are there connected by a downwardly and backwardly sloping middle portion, and side pieces which unite the said back and front plates and are provided with perforated ears projecting past the said front plate below the offset therein, and an open backed hinged tray with cam-shaped trunnions which engage said ears and bear against said front plate, the said box having a spring closed slot at the bottom for withdrawal of matches, substantially as described.

ALBERT J. BECHTEL.

Witnesses:

SHERMAN ARTER,
OSCAR G. BECHTEL.