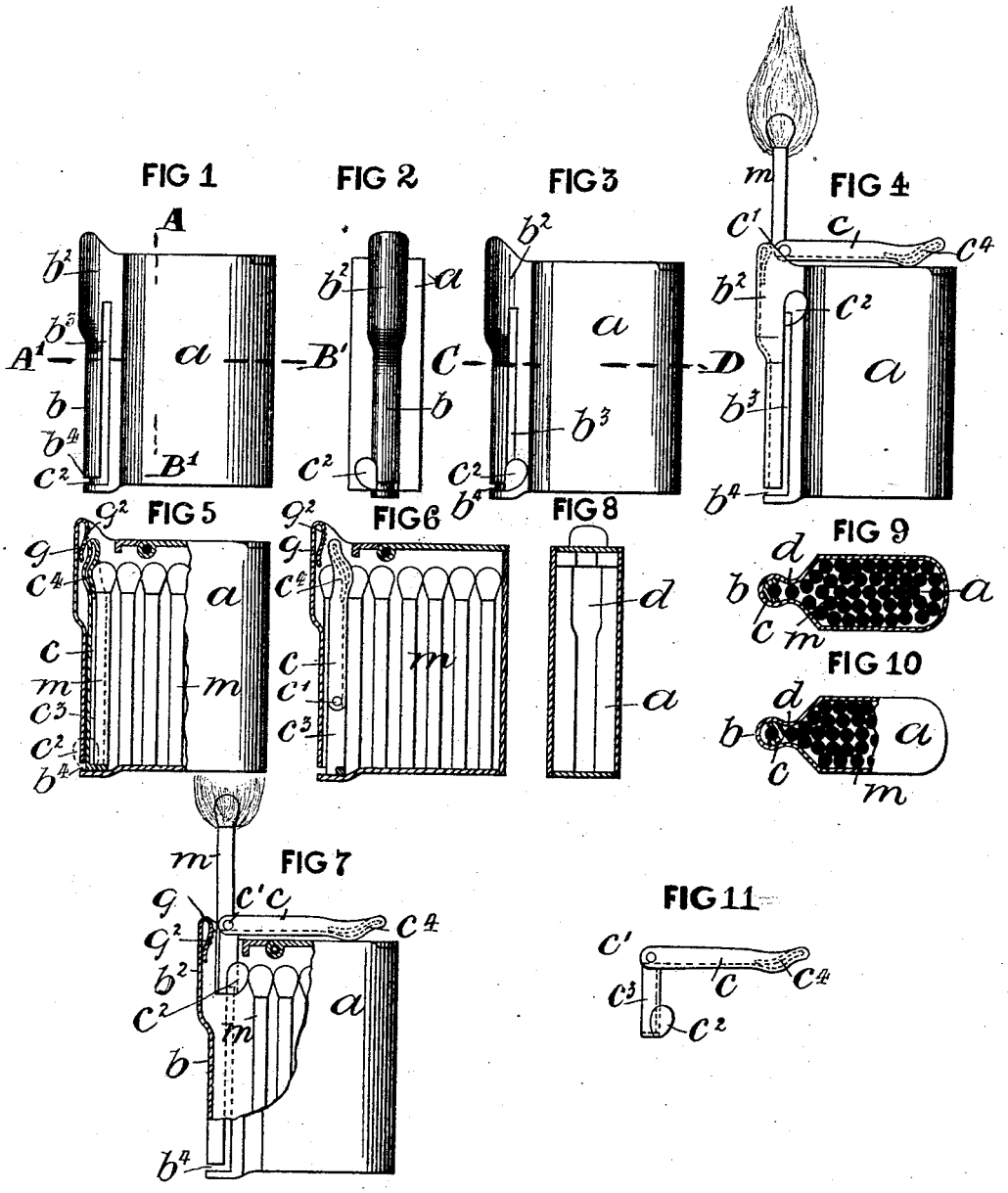
(No Model.)

B. MAY.

MATCH BOX.

No. 345,914. Patented July 20, 1886.



WITNESSES

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UNITED STATES PATENT OFFICE.

BENJAMIN MAY, OF MOSELEY, COUNTY OF WORCESTER, ASSIGNOR TO WALTER POWELL, OF BIRMINGHAM, ENGLAND.

MATCH-BOX.

SPECIFICATION forming part of Letters Patent No. 345,914, dated July 20, 1886.

Application filed April 12, 1886. Serial No. 198,609. (No model.) Patented in England March 3, 1884, No. 4,256.

To all whom it may concern:

Be it known that I, BENJAMIN MAY, a subject of the Queen of Great Britain, residing at Moseley, in the county of Worcester, have invented an Improvement in Match-Boxes, (for which I have applied for Letters Patent in Great Britain, dated March 3, 1884, and numbered 4,256,) of which the following is a specification.

My invention has relation to match-boxes, and has for its object the provision of means whereby the matches may be extracted from the box one at a time and ignited by the operation of forcing them from the box; and my invention consists in the novel construction, combination, and arrangement of parts hereinafter described, and specifically claimed.

In constructing a match-box according to my invention, I take, by preference, a flat rectangular box, and on one of the longer sides thereof a tubular chamber is situated, open at its upper end, in which a jointed half tube or trough slides and works therein, for the purpose hereinafter described. Connection between the box and the tubular chamber is effected by a longitudinal slit or passage having the breadth of a match through nearly the whole length of the chamber. A longitudinal slot is also situated on the outside of the tubular chamber described, of a suitable length to allow the jointed half-tube, hereinafter called the "match-carrier," to be moved up the said said chamber to the desired extent. The half-tube has a pusher-head upon its end. The stem of the pusher moves in the slot described. There is also a cross-gap at the bottom of the longitudinal slot, in which the neck of the pusher passes, for the purpose of rotating and determining the exact position of the open side of the match-carrier with respect to the slit or passage in the chamber leading to the box. The chamber has also near its upper end an enlarged part at a point where the head of the match is presented in passing the match longitudinally through the slit leading from the box to the chamber.

Figure 1 represents in front elevation a match-box provided with extracting and igniting mechanism constructed according to my invention. The match-carrier, by which the match is extracted through the open or top end of the match-carrier chamber, is in the position which it assumes when it is ready to receive a match from the box or store with which the chamber is in communication. Fig. 2 is an end elevation showing the position of the guiding-pin of the match-carrying slide. Fig. 3 shows the same view as Fig. 1, with the pin of the match-carrying slide opposite the guiding-slot. In Fig. 4 a match is shown having been withdrawn and ignited in the act of extracting it from the box, and also shows the match supported and held for use, so that after a match has been extracted and ignited, as represented in Fig. 4, the box forms a holder, by which the match is held for the lighting of a cigar or pipe. Fig. 5 is a longitudinal section of Fig. 1, and Fig. 6 is a longitudinal section of Fig. 3. Fig. 7 is a part vertical section of Fig. 4. Fig. 8 is a transverse vertical section on the dotted lines A B, Fig. 1; and Fig. 9 is a horizontal section of Fig. 1 on the dotted lines A′ B′, and Fig. 10 is also a horizontal section on the dotted lines C D, Fig. 3. Fig. 11 is the match-carrier or withdrawal-slide separately.

The same letters of reference indicate the same parts in the several figures of the drawings.

a is the match-box, which is preferably of a rectangular form of about the length of a single match.

b is the match-carrier tube or chamber, in which the match-carrier *c* slides.

d is is the slit or gap, through which a match passes longitudinally from the store or box chamber into the trough of the match-carrier.

c^2 is a pusher, to bring the open trough of the match-carrier in front of the slit *d*, and also for re-rotating the match-carrier, and also for pressing the match up the ignition-tube.

The said match chamber or barrel is made enlarged near its top end, and the enlargement is marked b^2, and in this enlargement the head of the match lies just before its extraction. The extreme open end of the said chamber *b* is provided upon its back side with a spring-tongue, *g*, roughened or serrated upon its inside, and marked g^2.

b^3 is the vertical guiding-slot, and b^4 the hori-

zontal slot for allowing the pusher c^2 to partially rotate the carrier.

c^3 is the end or socket into which the end of the match fits and seats itself. The match-carrier c is jointed at c^4 to the socket c^3, in order that it may turn or fall from the side of the match.

I will now describe the mode of extracting matches from the box, and at the same time effecting their ignition for use. The box a, Fig. 1, containing the matches m, is turned upon its side, when a match passes from the store lengthwise through the slit d into the open trough of the match-carrier c. The head of the match is presented to the open mouth of the chamber b. The match lying within the trough of the carrier c is partially rotated by means of the pusher or stud c^2 when said pusher is moved out of the cross-slot b^4 into the longitudinal slot b^3, thereby closing the slit or passage d, between the cylindrical chamber and box. The match-carrier c, when in this position forms an internal support for the match. By now pushing the pusher or neck c^2 up the longitudinal slot b^3, the head of the match m is forcibly impressed against the roughened or serrated surface g^2 on the inside of the turned-down tongue g, igniting the said match, and at the same forcing it through the open top of the chamber b. The upper part of the match-carrier c now falls upon its joint c', the ignited match being held and supported partly within the chamber by the lower part of the carrier, as seen in Figs. 4 and 7. The ignition of the match is assisted by a spring, c^4, which presses the head of the match against the roughened surface g^2, as described.

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

1. In a match-box, the combination, with the body a and the tubular chamber b, having the vertical slot b^3, and horizontal slot b^4, of the half-tube c, provided with the pusher or stud c^2, working in the slots b^3 b^4, the said half-tube being adapted to be rotated and projected out of the box, substantially as described.

2. In a match-box, the combination, with the body a and the tubular chamber b, having the slots b^3 b^4, of the match receiving and igniting mechanism comprising the jointed half-tube c c^3, the pusher c^2, working in the slots b^3 b^4, and the igniter g^2, all constructed and arranged substantially as described.

Signed this 27th day of February, 1886.

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Witnesses:
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