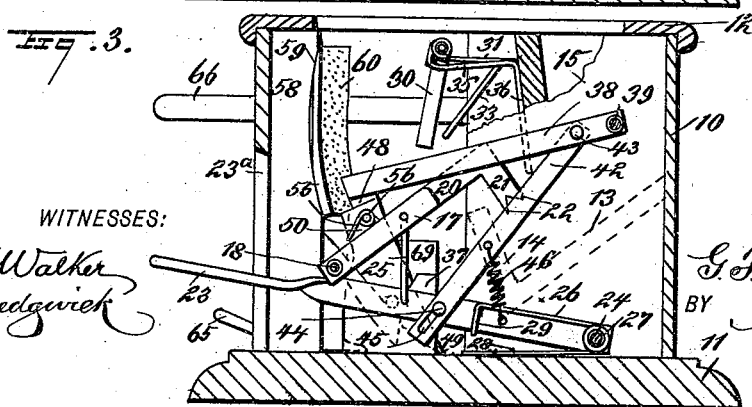
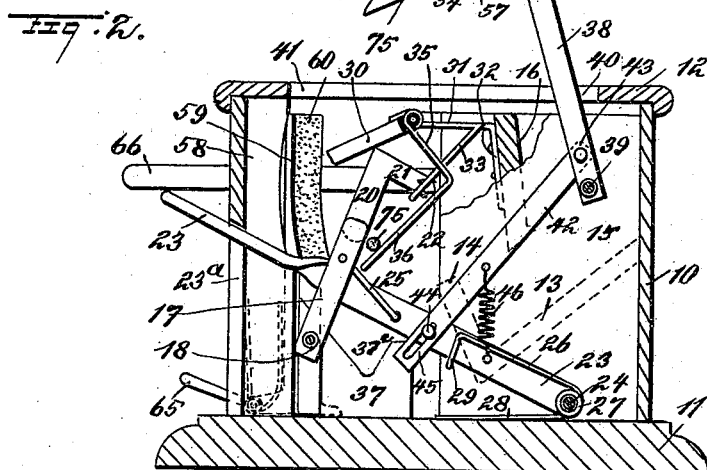
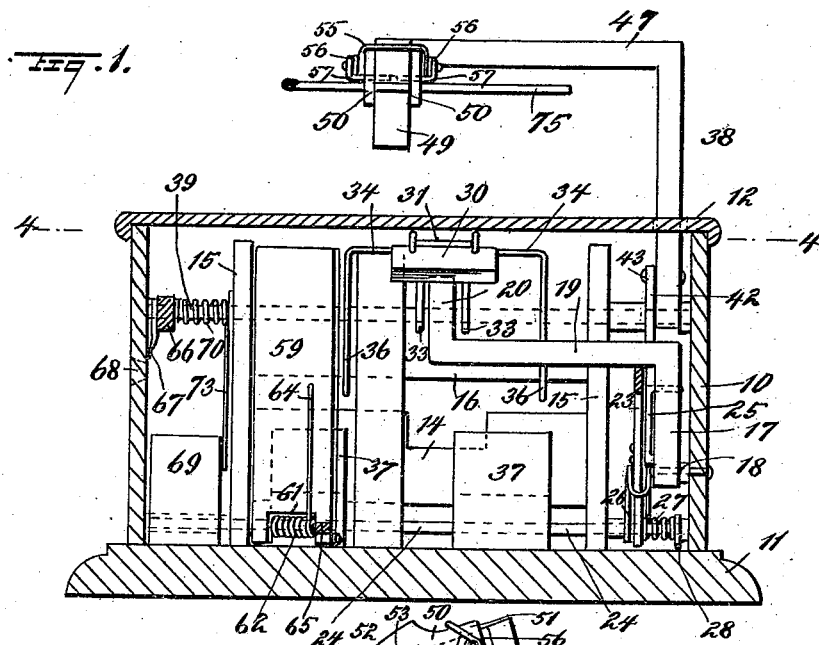


G. F. H. HICKS.
MATCH SAFE AND CIGAR CUTTER.

No. 491,841.

Patented Feb. 14, 1893.



WITNESSES:

H. Walker
C. Sedgwick

INVENTOR

G. F. H. Hicks

BY

Munn & Co

ATTORNEYS.

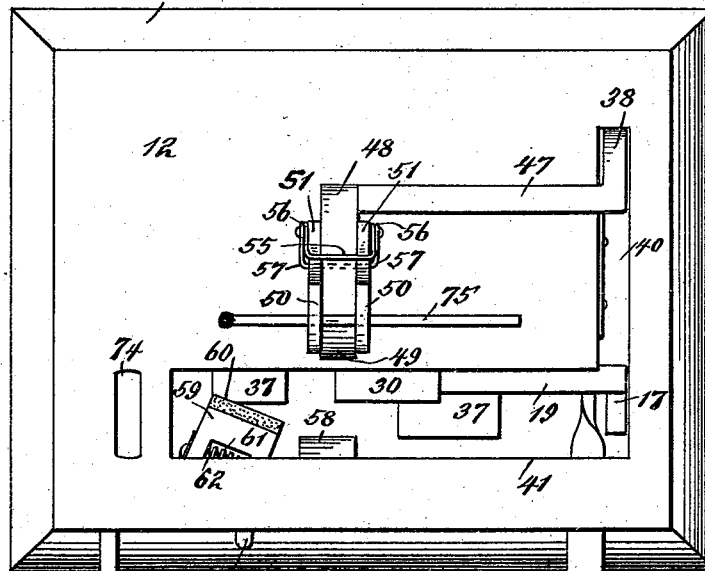
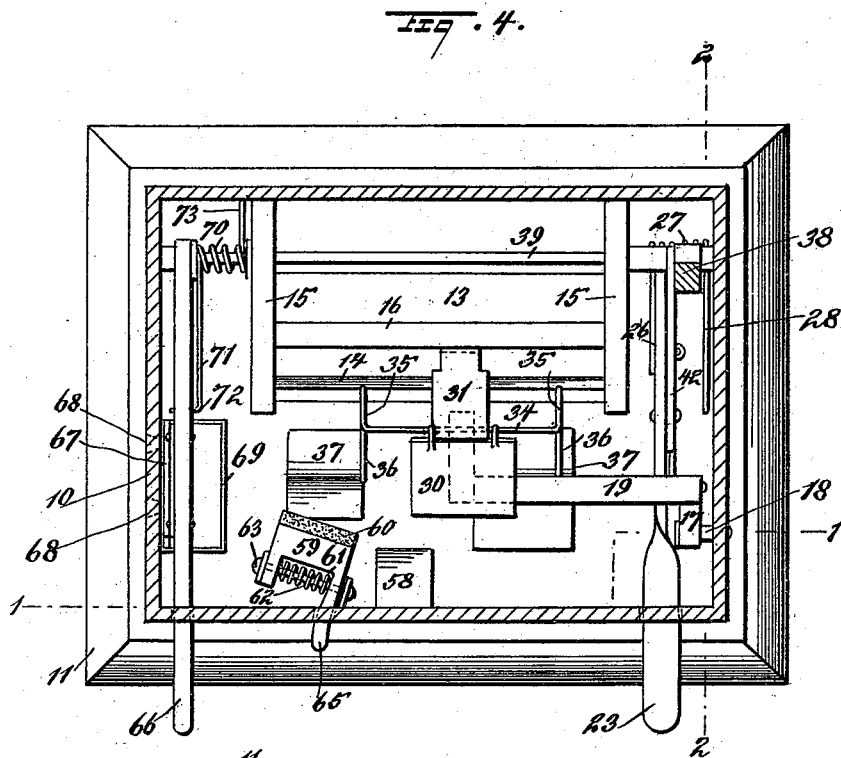
(No Model.)

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Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE F. H. HICKS, OF CHICAGO, ILLINOIS.

MATCH-SAFE AND CIGAR-CUTTER.

SPECIFICATION forming part of Letters Patent No. 491,841, dated February 14, 1893.

Application filed October 10, 1892. Serial No. 448,358. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. H. HICKS, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Match-Safe and Cigar-Cutter, of which the following is a full, clear, and exact description.

My invention relates to improvements in match safes and cigar cutters, and the object of my invention is to produce a convenient safe which has a cigar cutting attachment connected therewith, which carries the matches in such a way that they can only be taken one by one from the case, thus preventing people from carrying them off by the handful, as is frequently done when the safe is arranged in a public place, to construct and arrange a pick which will automatically lift a single match from the safe, to provide means for automatically striking the match as it is lifted from the safe so that it will be delivered in a lighted condition, to arrange the scratcher so that it may be thrown out of use and an unlighted match delivered if desired, and in general to produce a safe which is adapted to operate positively in the manner specified and which will not easily get out of order.

To this end my invention consists in certain features of construction and combinations of the same, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a sectional front elevation of the safe on the line 1—1 in Fig. 4; Fig. 2 is a sectional end view on the line 2—2 in Fig. 4, showing the match carrier and pick in an elevated position; Fig. 3 is a similar section to that shown in Fig. 2, but with the carrier and pick depressed; Fig. 4 is a sectional plan on the line 4—4 in Fig. 1; and Fig. 5 is a plan view of the safe.

The safe is provided with an inclosing case or box 10 which is preferably of rectangular shape and is held upon a suitable base 11, the box having its top closed by a detachable cover 12, which thus provides for reaching the interior of the box when necessary, and this cover may be hinged to the box if desired, and may also be provided with a lock so as to guard against the removal of matches in quan-

ties, or tampering with the safe. In the back portion of the safe is the match box proper, which has a forwardly-inclined floor 13 extending downward from the back of the case or box 10, and this floor merges in an upwardly extending shelf or ledge 14 which forms the lower front portion of the match box, and the match box is thus made to have a trough-like bottom in which the matches will collect, and the pick being arranged to strike in the center of the box, as hereinafter described, will thus be able to pick up the last match in the box. The upper front portion of the box is formed by a longitudinally and slightly rearwardly-inclined partition 16 which is held immediately beneath the cover 12 and is carried by the ends 15 of the match box. An opening is left between the upper edge of the lower front portion 14 of the box and the lower edge of the partition 16, through which opening the pick passes when swinging down or up. The pick 17 is pivoted on one end of the box, as shown at 18, and near the front portion of the box, the pick extending upward as shown best in Fig. 1, then extending laterally, parallel with the sides of the box, as shown at 19, and it is again bent upward and rearward at a right angle, as shown at 20, and is finally bent again at a right angle, as shown at 21 in Fig. 2, this terminal bend 21 serving as the pick proper and having diverging pointed jaws 22 which are adapted to stick into a match so as to enable it to be lifted from the match box.

The pick and the match carrier, which will be hereinafter described, are actuated by a vertically swinging handle 23 which moves in a slot 23^a in the front of the case 10, and the rear end of the handle is pivoted on a rod 24 which extends longitudinally through the case near the bottom. The handle 23 connects with the pick 17 by means of a link 25 which is pivoted to the handle and also to the pick. The handle is normally pressed upward, so as to hold the pick in a raised position, by a spring 26, which is formed into a coil 27 which encircles the shaft 24, and the lower end 28 of the spring—extends forward and lies against the bottom or base 11 of the box or case 10. The upper and free end of the spring is formed into a hook 29 in which the handle 23 rests, and when the handle is depressed

the tension of the spring will be increased and when the pressure is removed from the handle, the re-action of the spring throws the handle back to its former position.

5 Above the pick and in the path of the elbow formed at the junction of the parts 20 and 21, is a swinging plate or pawl 30, which is fulcrumed on the free edge of a bracket arm 31 which extends forward from the
10 bracket 32, the latter being secured to the partition 16, as shown best in Figs. 2 and 4. The bracket 32 has also parallel arms 33 which extend forward and downward and which operate to strike the match raised by the pick
15 and force it from the jaws of the pick so as to permit it to drop back in position to be received by the carrier, as hereinafter described. A rod 34 is carried at the upper edge of the swinging plate or pawl 30, the rod extending
20 outward from the ends of the pawl, as shown in Fig. 1, and the wire at its outer portions is bent downward and rearward, as shown at 35, and the free ends bent downward and forward, as shown at 36; these ends serving as guides
25 upon which a match runs and being adapted to deliver the match into the upper trough-like portions 37^a of the blocks 37, which blocks are secured to the base 11 of the machine, and the carrier which raises the match from the
30 blocks is adapted to move downward between them and grasp a match, as hereinafter described. This carrier is provided with a swinging arm 38 which swings on a shaft 39 extending longitudinally through the back
35 portion of the case 10 and the arm swings in a transverse slot 40 in the top or cover 12.

The slot 40 merges in a longitudinal slot 41 through which the carrier proper moves, as described below.

40 The carrier arm 38 is connected with the handle 23 by a connecting rod 42, the upper end of the rod being pivoted, as shown at 43, to the arm 38 near the pivoted end of the arm so as to give sufficient throw to it, and the
45 lower end of the rod 42 is connected with the handle 23 by a stud 44 which projects through a slot 45 in the rod. The slot 45 and stud 44 permit the handle to move slightly in relation to the connecting rod 42, so that when the
50 handle is depressed to pick up a match, the pick, when the match box is full, will strike a match, and the carrier at the same time will be pressed down as far as it will go, but if necessary, the handle may be pressed suffi-
55 ciently far down to carry the pick to the bottom of the box. The connecting rod is normally pulled downward, so that the stud 44 will be held in the upper portion of the slot 45, by a spring 46 which extends from the
60 handle to the connecting rod. The arm 38, after extending upward through the cover 12 is bent at a right angle, as shown at 47, this portion being parallel with the top of the case or cover, and at a point centrally above the
65 case the part 47 is bent forward at a right angle, as shown at 48, and the extremity of

this portion 48 is inclined on one side, as shown at 49, so that the incline will pass readily by the match in the blocks 37. On this forwardly-projecting portion 48 are pivoted
70 parallel jaws 50, these being arranged on opposite sides of the part 48, which part serves as a fixed jaw, and the jaws 50 have reduced rear ends 51 which enable them to be conveniently clasped by a spring. The lower faces
75 of the jaws are inclined near their free ends, as shown at 52 in Fig. 2, this inclination being opposite to the inclined surface 49 of the fixed jaw, so that a match may be wedged inward between the fixed and the movable
80 jaws. The jaws 50 have curved upwardly-extending recesses at the inner terminals of the inclined faces 52, these recesses being adapted to receive and carry a match, as shown clearly
85 in Figs. 1 and 2. The jaws 50 are pressed downward upon the fixed jaw by a spring 55 which extends above the shanks 51 of the jaws 50, and which is coiled around the pivots of the jaws, as shown at 56, and then extends downward on opposite sides of the jaws
90 and beneath the fixed jaw, as shown at 57. The downward movement of the movable jaws is limited by the stops 54, which are produced on the movable jaws and adapted to engage the fixed jaw.

95 It will be seen that when a match is raised by the carrier jaws the tendency would be for the scratcher to force it out, and this is obviated by an abutment 58 which is arranged vertically within the case 10 and next the front
100 wall of the case, and the inner surface of the abutment is curved to correspond approximately with the arc described by the carrier jaws.

The scratcher is arranged in the path of
105 the match heads and near one side of the abutment 58, this scratcher comprises a suitable back 59 and a rough scratching surface 60, which is arranged to strike the heads of the matches. The scratcher is arranged at
110 an angle to the matches, as best shown in Fig. 5, so that matches of different lengths may be ignited when raised by the carrier, the shorter matches striking its roughened surface near one edge and the longer matches extending
115 over at a point near the opposite end. The scratcher may be held rigidly in place, but it is preferably arranged so as to yield and so as to be tilted out of the way when necessary in order that an unlighted match may be de-
120 livered. To this end the back 59 is pivoted at the bottom and is recessed, as shown at 61, in which recess is held a spiral spring 62 which is coiled around the pivot 63 of the scratcher, and the spring has its free end 64
125 extended upward and held to press against the back 59, and its other end held against the case 10, so as to hold the scratcher in position to ignite a match. The lower end of the scratcher back has an outwardly-extending
130 handle 65, which moves in a slot in the case 10, and if an unlighted match is to be

delivered, the handle is depressed so as to swing the scratcher out of the path of the match.

The operation of the match-delivering and igniting mechanism is as follows: The matches are placed in the match box within the case 10, the heads of the matches being all one way and at the end of the box in which the scratcher is located. The handle 23 is depressed, and this causes the pick 17 to swing downward and the jaws of the pick to swing into the match box and engage a match; at the same time the connecting rod 42 pulls downward on the carrier arm 38 and causes the carrier to swing downward through the slot 41 and into the bottom of the match case 10. But at this first movement of the carrier there will be no match for it to receive. The handle 23 is then released and it is raised by the spring 26; this also swings up the pick 17 to its normal position, and the elbow of the pick, formed at the junction of the parts 20 and 21, (see Fig. 2) strikes the swinging plate or pawl 30 and swings the plate upward and forward, thus swinging forward the guide arms 36, as shown clearly in Fig. 2. Near the limit of its stroke the jaws of the pick pass between the arms 33 of the bracket 32, and these arms push the match from the jaws of the pick and the match rolls downward over the arms 36, and is dropped into the trough-like top 37^a of the blocks 37. The handle 23 is again depressed and the pick acts as before, lifting another match which is deposited in the blocks 37, but before said second match is deposited, the carrier will have swung downward and the jaws 48 and 50 will have grasped the first match which is held in the blocks 37. When the carrier moves downward over the match, the jaws are separated by the match 75 which slides into the recesses 53 of the jaws 50, being held therein by the pressure of the spring 55. When the handle 23 is released the pick and carrier both swing upward, the movement of the pick causing the second match to be deposited, as described above, and the upward movement of the carrier causing the match head to pass over the roughened surface of the scratcher, thus igniting the match which is delivered above the case ready for use. During the upward movement of the carrier, the match is prevented from being accidentally discharged from the jaws by the abutment 58 on which the movable jaws 50 slide. When the handle is pressed down, if the match box is full, the pick will strike as shown in Fig. 3, and the carrier will strike against the case bottom, so that it cannot go any further, but if the matches are low under the pick, the handle can be pressed down to the bottom of the box to pick the last match if necessary, as the stud 44 will slide through the slot 45 in the rod 42. The pressure of the spring 55, while being sufficiently strong to hold the match in place, is yet light enough, so that a person may grasp the match and easily pull it from between

the carrier jaws. It will be seen that after the first movement of the handle 23, a match will always be in place in the blocks 37, so that but one movement of the handle is necessary to deliver and ignite a match; two strokes being used in the first instance so as to get the machine loaded. In one end of the case 10 and in a compartment formed between the end wall of the case and one of the ends 15 of the match box, is a swinging handle 66, which is held to swing in a slot in the front of the case, and the inner end of the handle is journaled on the shaft or rod 39 which extends longitudinally through the case, as above described. The handle 66 carries a cutter 67, which is adapted to slide downward alongside of the end wall of the case and opposite the apertures 68 which are produced in the wall and which are adapted to receive the tip of a cigar. It will be seen then that by inserting the tip in one of the holes and then depressing the handle, the tip is cut off by the cutter, after which it drops into a box 69 which is arranged ready to receive it. A spring 70, similar to the spring 26 described above, is coiled around the shaft 39, the spring having one end 71 arranged to extend parallel with the handle and formed into a hook 72 which engages the under side of the handle, and the opposite end of the spring extends downward and abuts with the back wall of the case 10. It will be seen then that when the handle is depressed the spring will return it to its normal position after pressure on the handle is removed. The cover of the case 10 has a hole 74 in the top above the box 69, so that burned matches may be dropped through into the box if desired.

It will be understood that the match-delivering and igniting mechanism may be used independently of the cigar cutter, but the two devices are preferably combined, as a person usually desires to light a cigar at the same time he cuts off the tip.

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

1. A match safe, comprising an outer case, a match box arranged within the case, a swinging pick held to swing within the case and adapted to raise matches from the box, supports arranged beneath the pick and adapted to receive a match when dropped by the pick, a swinging carrier held to swing through a slot in the top of the case and adapted to engage and raise the match deposited by the pick, and a scratcher arranged within the case and in the path of the matches raised by the carrier, substantially as described.

2. A match safe, comprising an inclosing case, a match box arranged within the case and having an inclined bottom, a swinging pick pivoted within the case and adapted to enter the match box and lift a match therefrom, mechanism for pushing the match from the pick at the upward movement of the lat-

ter, a swinging carrier held to move through a slot in the case top and adapted to raise the match dropped by the pick, a scraper arranged in the path of the match raised by the carrier, and a handle adapted to simultaneously operate the pick and carrier, substantially as described.

3. A match safe, comprising an inclosing case having a slotted top, a match box arranged within the case and provided with an inclined bottom and a front opening, a swinging pick arranged to enter the opening in the box and having jaws to engage a match, push arms arranged above the box opening and adapted to push a match from the jaws, movable inclined guide arms adapted to extend above the box opening and prevent the return of a match, mechanism for moving the arms by the movement of the pick, receiving blocks arranged beneath the guide arms, a swinging carrier held to move through a slot in the case and adapted to pick a match from the receiving blocks, a scratcher arranged in the path of the match head raised by the carrier, and a handle adapted to simultaneously operate the carrier and pick, substantially as described.

4. In a match safe, the combination of the inclined match box having a front opening, the swinging pick having a bent free end with terminal jaws adapted to enter the opening and pick up a match, the push arms arranged in the path of the pick-raised match and adjacent to the jaws, a swinging plate or pawl arranged in front of and in the path of the pick, and guide arms carried by the pawl and adapted to swing in unison therewith so as to prevent the return of a match to the match box, substantially as described.

5. In a match safe, the combination of the match pick mechanism, mechanism for discharging the match, the spaced receiving blocks having trough-like upper portions adapted to receive the match from the discharging mechanism, and the swinging carrier adapted to move downward between the receiving blocks, the carrier having separable jaws adapted to clasp the match, substantially as described.

6. In a match safe, the combination of the match supporting blocks, mechanism for delivering the match into or upon the blocks, and a swinging carrier held to move downward between the blocks and upward above the match safe, the carrier having separable spring-pressed jaws with recesses to engage

and hold the match, substantially as described.

7. In a match safe, the combination of the match case having a slotted top, the match box arranged within the case, the swinging pick adapted to enter the box and raise a match, mechanism for discharging the match from the pick, carrying mechanism adapted to swing through the slotted case top and engage the match discharged from the pick, a swinging arm held to support the carrier, a spring-pressed handle pivotally and operatively connected with the pick, and a connecting rod extending from the handle to the carrier-arm, substantially as described.

8. In a match safe, the combination of the case having a slotted top, the swinging carrier held to move through the top and provided with separable match-holding jaws, and the abutment secured within the case and adapted to press against the carrier jaws, substantially as described.

9. In a match safe, the combination of the slotted topped case, having a match receptacle therein and the picker in the case to raise one match at a time from the receptacle and drop it in the case, with the swinging carrier held to move through the slot and adapted to raise a match from where it was dropped by the picker and carry to the outside of the case, and the scraper having an inclined roughened face adapted to engage the match head, substantially as described.

10. The combination of the case having a slotted top, a swinging match carrier adapted to swing through the slot in the case top, and having a fixed jaw and spring pressed jaws at opposite sides thereof and provided with match receiving recesses and the tilting spring-pressed scratcher adapted to engage a match head, substantially as described.

11. The combination of the main case, the match-carrying mechanism arranged therein and adapted to deliver a match from the case top, the inclined swinging scratcher held in the path of the match, and a handle produced on the scratcher and leading through a slot in the case, whereby to retract the scratcher out of the path of the match substantially as described.

GEORGE F. H. HICKS.

Witnesses:

WILLIAM J. CONLIN,
FRANK H. MAUS.