

W. MILBRATH.
DETACHABLE BOX COVER.
APPLICATION FILED DEC. 30, 1910.

1,055,483.

Patented Mar. 11, 1913.

3 SHEETS—SHEET 1.

Fig. 1.

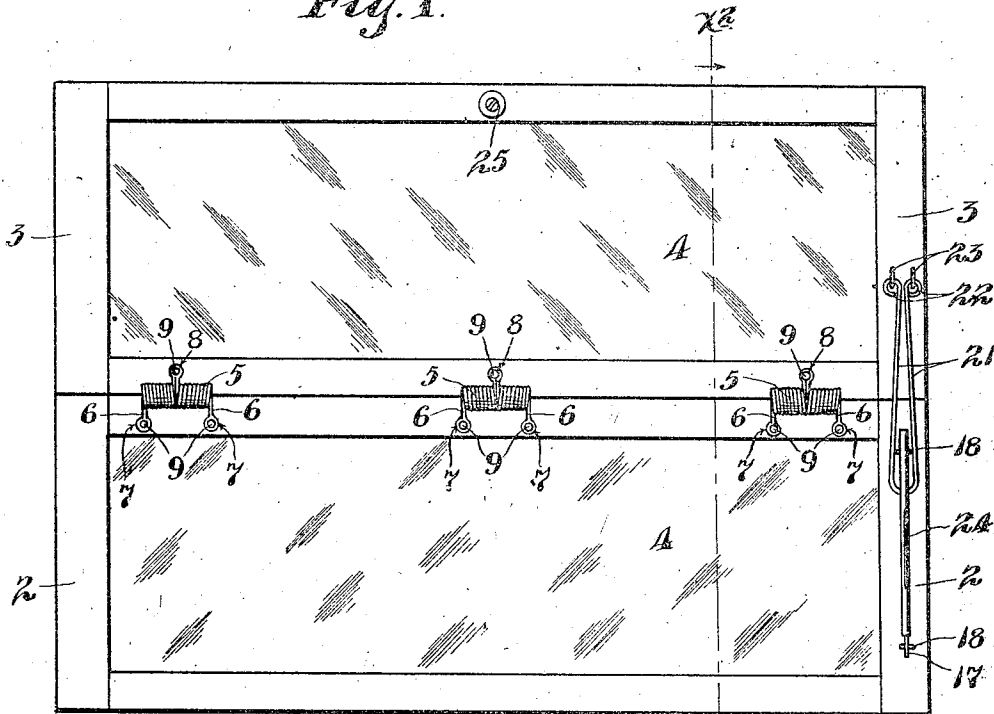
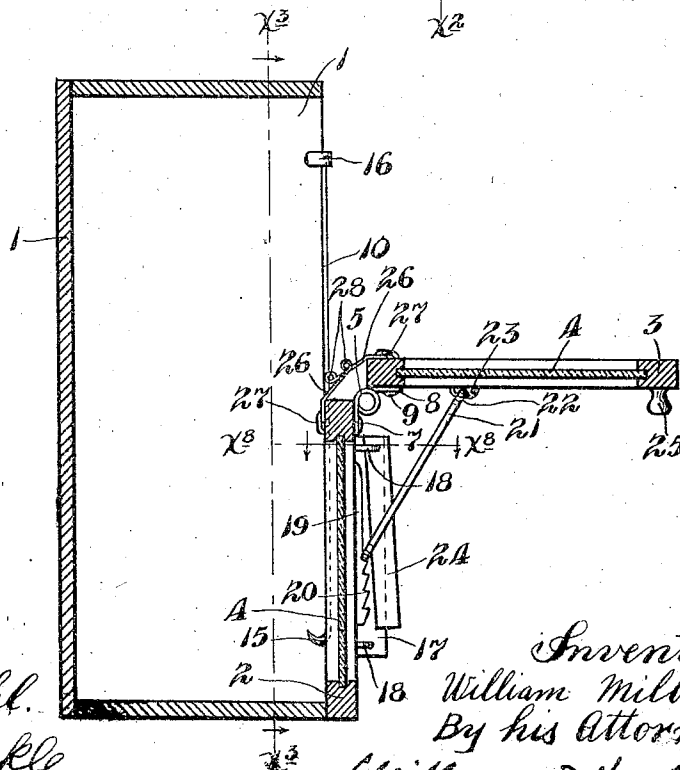


Fig. 2.



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3 SHEETS—SHEET 2.

Fig. 3.

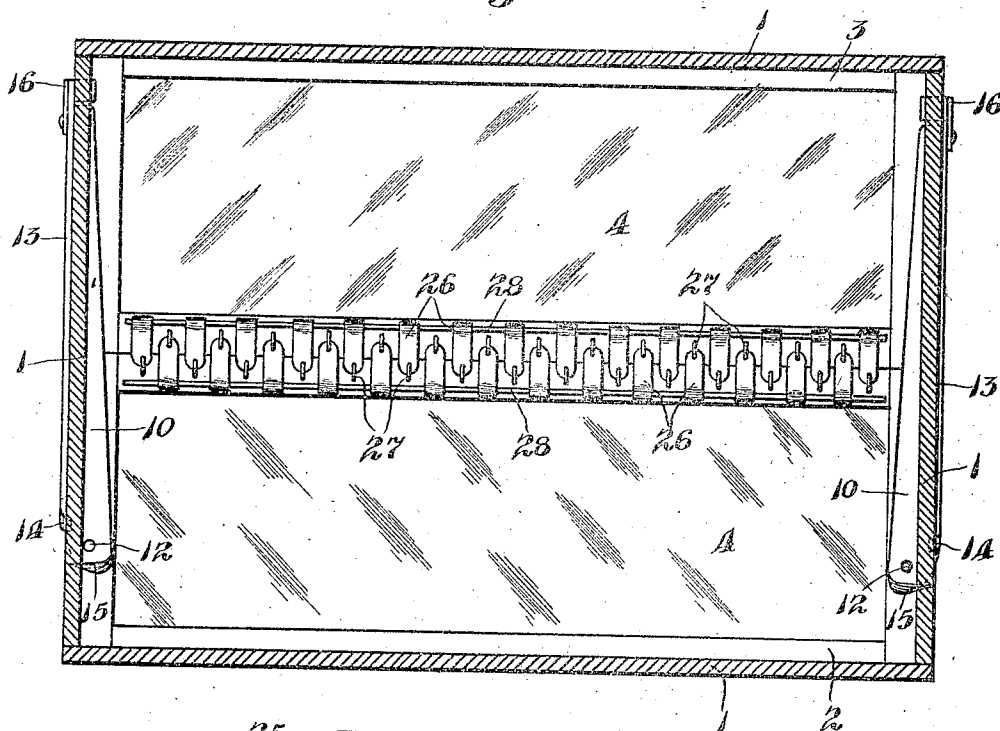
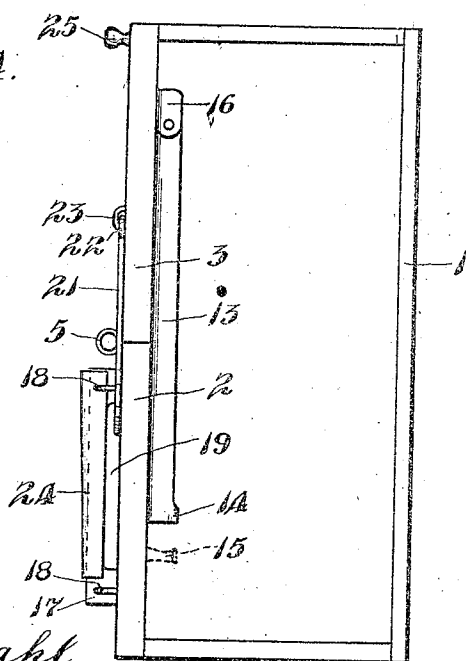


Fig. 4.



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3 SHEETS—SHEET 3.

Fig. 5.

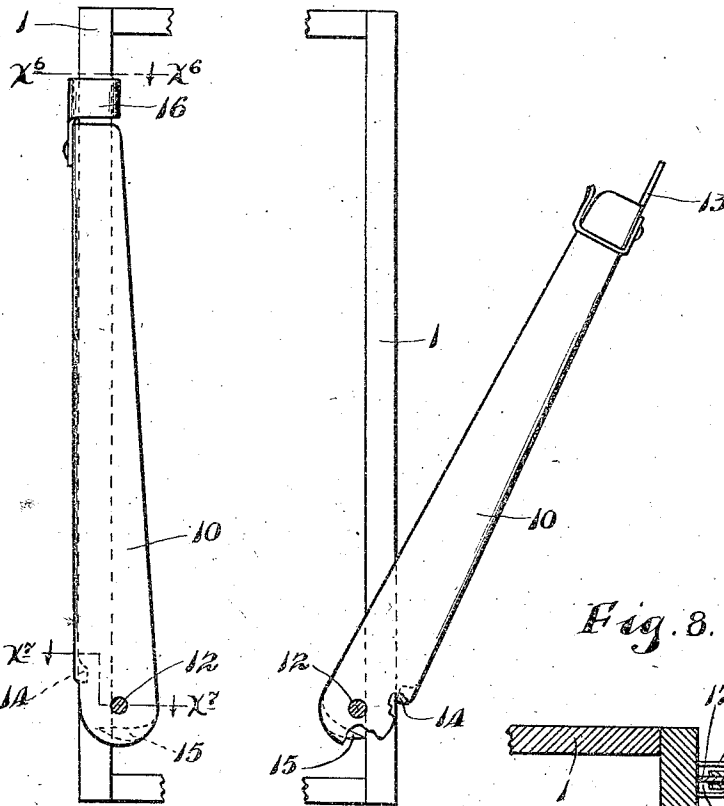


Fig. 6.

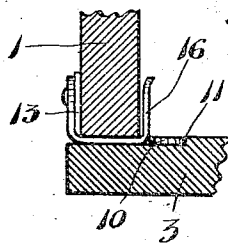


Fig. 7.

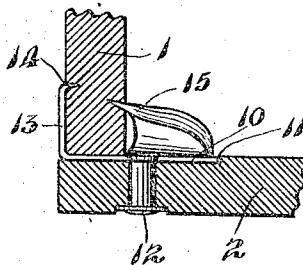
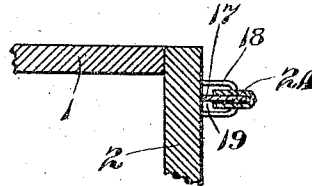


Fig. 8.



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BEST AVAILABLE COPY
UNITED STATES PATENT OFFICE.

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DETACHABLE BOX-COVER.

1,055,483.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed December 30, 1910. Serial No. 600,154.

To all whom it may concern:

Be it known that I, WILLIAM MILBRATH, a citizen of the United States, residing at Lakefield, in the county of Jackson and State of Minnesota, have invented certain new and useful Improvements in Detachable Box-Covers; 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 has for its object to provide an improved detachable cover for cracker boxes and boxes of a similar character, and to this end, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in front elevation showing the improved cover secured to a box; Fig. 2 is a transverse vertical section taken on the line x^x of Fig. 1, with the movable member of the cover shown in an open position; Fig. 3 is a longitudinal vertical section taken on the line x^x of Fig. 2; Fig. 4 is a right end elevation of the parts as shown in Fig. 1; Fig. 5 is a detail view on an enlarged scale showing one of the so-called lock levers, one of which is in a released position and the other thereof is in a locked position, with some parts broken away and other parts shown in section; Fig. 6 is a detail view, on an enlarged scale, in section, taken on the line x^x of Fig. 5; Fig. 7 is a detail view, on an enlarged scale, in section, taken on the irregular line x^x of Fig. 5; and Fig. 8 is a detail view, on an enlarged scale, in section, taken on the line x^x of Fig. 2.

The numeral 1 indicates an ordinary cracker box with its original cover removed therefrom, and having in place thereof, one of the improved detachable covers. The box 1 is so positioned that the improved cover secured thereon will constitute the front of the box for the purpose of displaying the contents within the box at a better advantage. The improved detachable cover comprises a pair of duplicate sections 2 and 3, each comprising a rectangular wooden frame and a glass panel 4. These two sections are connected by means of spring hinges 5, as

shown, three in number. Each hinge 5 is in the form of a single piece of spring wire coiled to form a pair of reversely wound spring coils 6. The ends of the spring wires which form the hinges 5 are looped at 7 and the intermediate portions thereof, between the spring coils 6, are looped at 8 and project in a reverse direction from the looped ends 7. The loops 7 are secured to the cover 2 and the loops 8 are secured to the cover section 3 by means of screws 9 passed there-through. These spring hinges 5 tend to yieldingly hold the cover section 2 in its closed position.

The cover section 2 is detachably secured to the box 1 by means of a pair of levers 10 mounted in open seats 11 formed in the underside of the vertical side member of the rectangular frame of the cover sections 2 and 3 and the levers 10 are pivotally secured in the seats 11 by means of pivot pins 12 passed through the rectangular frame of the section 2 and through the enlarged lower ends of the levers 10. The seats 11 are of a depth equal to the thickness of the levers 10 mounted therein so that the inner faces of the rectangular frames of the cover sections 2 and 3 will fit closely on to the edge of the box 1 and form a tight joint between the improved cover and the box 1. These levers 10 have their outer vertical edge portions bent laterally to form a stop flange 13 adapted to engage the outer faces of the ends of the box 1 to limit the inward swinging movement of the levers 10. Each lever 10 is provided, in the vicinity of its pivotal connection, with a barb 14 laterally and inwardly projecting from the stop flange 13, and each lever 10 is further provided with an intumed barb 15 projecting in the opposite direction from the barb 14. By reference to Fig. 5, it will be noted that the barbs 14 are located above the pivotal connection of the levers 10 and the barbs 15 are located below the same. The pivotal connections 12 of the levers 10 are so located with respect to the box 1 that when the levers 10 are turned into a position as indicated by the right hand lever 10 in Fig. 5, the barbs 14 and 15 will embrace the adjacent edge portion of the box 1 to permit the cover sections to be placed upon the box 1 and when the levers 10 are turned into a position as indicated by the lever 10 at the left hand in Fig. 5, the barbs 14 and 15 will

cut into opposite faces of the sides of the box 1 and detachably hold the cover section 3 on to the box 1. To hold the levers 10 in their closed position with the barbs 14 and 15 engaged with the box 1, each lever 10 is provided at its free end with a pivotally connected channel-shaped lock 16 adapted when turned into the same plane with the attached lever 10 to embrace the edge portion of the box 1 and thereby hold the levers 10 in a locked position, as best shown in Figs. 2, 5, and 6.

Means for holding the cover section 3 in different open positions is provided in the form of a vertically extended flat bar 17 secured edgewise to one side of the rectangular frame of the cover section 2 by means of a pair of staples 18. At its inner intermediate edge portion, the bar 17 is cut away, between the staples 18, to form an open space 19 between the bar 17 and the adjacent face of the cover section 2. The lower vertical cut away portion of the bar 17 is provided with a plurality of ratchet-like teeth 20. Coöperating with the teeth 20 is a link 21 formed from a single rod bent upon itself and with its free ends terminating in loops 22 pivotally connected to the cover section 3, directly above the loop bar 17, by means of a pair of staples 23. The intermediate portion of the link 21 works within the open space 19 and is adapted for engagement with the teeth 20 when the cover section 3 is in an open position, as best shown in Fig. 2. To release the link 21 from the teeth 20, a gravity positioned releasing lever 24 is pivotally connected at its upper end to the upper staple 18. This releasing lever 24 is preferably made channel-shaped in cross section and embraces the lock bar 17, as best shown in Fig. 8, and when in a normal position covers the sides of the teeth 20 of the bar 17. When the cover section 3 is in a closed position the intermediate portion of the link 21 will hang loose within the open space 19, but when the cover section 3 is opened by means of a knob 25 secured thereto, the link 21 will be guided downward by the open space 19 and engage one of the teeth 20 and thereby hold the cover section 3 in an open position against the tension of the spring hinges 5. At the same time, the link 21 engages the teeth 20, it will swing the releasing lever 24 past the teeth 20 into a set position, as best shown in Fig. 2. To close the cover section 3 under action of the spring hinges 5 all that is necessary is to press the free end of the releasing lever 24, as set by the link 21, inward by means of the knee or the hand and thereby force the link 21 out of engagement with the teeth 20.

To prevent crackers, and the like, from getting in between the adjacent edges of the cover sections 2 and 3 and thereby prevent the cover-section 3 from closing, a joint guard

is provided and is in the form of a multiplicity of interlocking fingers 26. These fingers 26 are, as shown in Figs. 3 and 4, preferably formed from thin metal strips alternately secured at their opposite ends by means of staples 27 driven into the horizontal members of the rectangular frames of the cover sections 2 and 3 to which the hinges 5 are secured. At their free ends the fingers 26 of each series are connected by means of a small rod 28.

What I claim is:

1. The combination with a box and a detachable cover therefor, of a lever pivotally connected to said cover and having a pair of reversely projecting barbs in the vicinity of its pivotal connection, said lever arranged to work between said box and cover, said barbs being arranged to embrace one of the sides of said box, when said lever is turned into one position and to be forced into the opposite faces of the embraced side of said box when said lever is turned into another position, substantially as described.

2. The combination with a box and a detachable cover therefor, of a pair of levers pivotally connected to said cover and each thereof having a pair of reversely projecting barbs in the vicinity of its pivotal connection, said levers arranged to work between said box and cover, said pairs of barbs being arranged to embrace the sides of said box when said levers are turned into one position and to be forced into opposite faces of the embraced sides of said box when said levers are turned into another position, substantially as described.

3. The combination with a box and a detachable cover therefor, of a pair of levers pivotally connected to said cover and each thereof having a pair of reversely projecting barbs in the vicinity of its pivotal connection, said levers arranged to work between said box and cover, said pairs of barbs being arranged to embrace the sides of said box when said levers are turned into one position and to be forced into opposite faces of the embraced sides of said box when said levers are turned into another position, and means for locking said levers to hold said barbs engaged with said box, substantially as described.

4. The combination with a box and a detachable cover therefor, comprising a pair of sections hinged one to the other, of a pair of levers pivotally connected to the under side of one of said cover sections and working over the upper edge of said box, each of said levers having a pair of barbs laterally and longitudinally spaced with respect to the pivotal connection of said lever, with their points projecting in opposite directions and arranged to embrace the sides of said box when said levers are moved into one position and to be forced into the opposite

faces of the embraced sides of said box when
said levers are moved into another position,
and locks pivotally connected to the free
ends of said levers and adapted to engage
5 the sides of said box to hold said barbs en-
gaged with said box, substantially as de-
scribed.

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

WILLIAM MILBRATH.

Witnesses:

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H. W. JONES.