May 13, 1952 M. IRELAND 2,596,243

TOASTER CRUMB TRAY LATCH

Original Filed Jan. 4, 1946

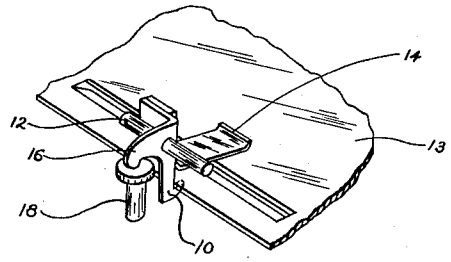


Fig-1

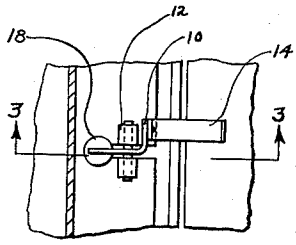


Fig-2

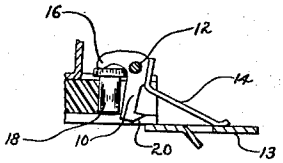


Fig-5

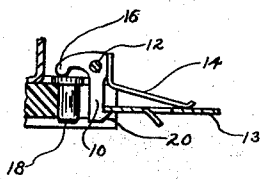


Fig-3

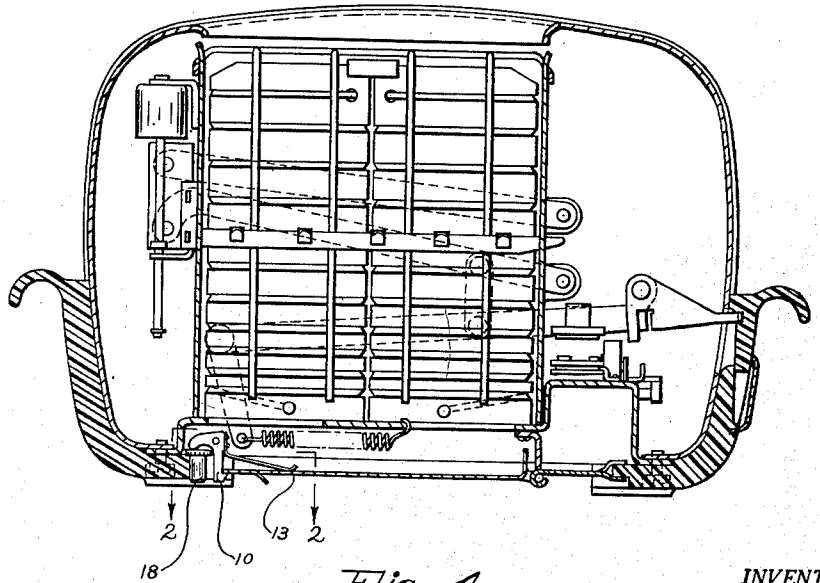


Fig-4

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TOASTER CRUMB TRAY LATCH

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Original application January 4, 1946, Serial No. 639,018. Divided and this application September 4, 1948, Serial No. 47,899

2 Claims. (Cl. 292—99)

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The present invention relates to latches for access doors and the like. This application constitutes a division of my co-pending application S. N. 639,018 filed January 4, 1946.

Objects of the present invention include the provision of an improved crumb tray for an electric toaster and latch therefor, the provision of an improved manually operable fastener and opening mechanism, and the provision of an improved latch and release mechanism for a door or the like. Other objects will be apparent from the following description of a specific embodiment which serves by way of example to illustrate the manner in which the invention may be put into practice. In the drawings,

Fig. 1 is a pictorial view of my improved latch and operating mechanism;

Fig. 2 is a plan view thereof, and constitutes a section taken on the line 2—2 of Fig. 4;

Fig. 3 is a sectional elevation taken on the line 3—3 of Fig. 2;

Fig. 4 is a sectional elevation of an automatic electric toaster in which my improved crumb tray and operating device therefor is included; and,

Fig. 5 is a view similar to Fig. 3 showing the relative positions of the parts as the door opens.

A hook or latch 10 is pivoted on shaft 12 and is adapted to hold a crumb tray or closure 13 in its closed position. A leaf spring 14 is rigidly fastened to the hook member 10 and in the closed position of the tray 13 in Figs. 1–4, bears there against in a direction tending to open it, that is forcing the tray against the holding surface of the hook. The hook 10 includes a bell-crank arm 16 which is adapted to be engaged by a plunger 18 for rotating the hook 10 clockwise about its shaft 12 for releasing the crumb tray 13.

As shown in Fig. 4 only the lower end of the plunger 18 and the lower end of hook 10 are exposed when the crumb tray 13 is latched in its closed position. The spring 14 bears against the tray 13 and holds it firmly against the latch to prevent rattling and the reaction of the spring pressure on the hook 10 is in the direction of holding it in engagement with the tray. Manual pressure on the end of plunger 18 for releasing the latch increases the pressure that the spring 14 exerts on the tray, and when the latch releases the tray the spring 14 snaps it open. The tray is reclosed simply by pushing it against the latch. It thereupon slides against the inclined face 20 of the latch to force it to the left as seen in Figs. 3 and 4. When the tray 13 is

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in its completely closed position, spring 14 pulls the latch into engagement.

My improved latch and tray are here shown on a toaster of the construction shown and described in the parent application already referred to, which need not be described in detail here.

Obviously my present invention may be employed on other kinds of devices, and numerous modifications and variations of the invention may be made within the scope of the appended claims.

Terms imparting direction such as front and back, and forward and backward, are used in the claims only in a relative sense for indicating relative directions, orientations, and the like.

I claim:

1. A closure latching device comprising a pivoted member, a latch hook adapted to releasably hold a closure in closed position, a spring arm adapted to tension the latch hook in holding engagement with the closure and adapted to urge the closure to open when released by the latch hook, the latch hook and spring arm being rigidly mounted on the pivoted member and projecting therefrom in spaced opposing relation to each other and transversely to the pivotal axis of the pivoted member, the latch hook being adapted to holding engagement with the outer face of the closure and the spring arm being adapted to tensioned engagement with the inner face of the closure whereby the closure is releasably held between the latch hook and spring arm in closed position.

2. A closure latching device comprising a pivoted bell-crank member, a latch hook adapted to releasably hold a closure in closed position, a spring arm adapted to tension the latch hook in holding engagement with the closure and adapted to urge the closure to open when released by the latch hook, the latch hook and spring arm being rigidly mounted on one arm of the bell-crank member and projecting therefrom in spaced opposing relation to each other and transversely to the pivotal axis of the bell-crank member, the latch hook being adapted to holding engagement with the outer face of the closure and the spring arm being adapted to tensioned engagement with the inner face of the closure, whereby the closure is releasably held between the latch hook and spring arm in closed position, and an actuating plunger engageable with the second arm of the bell-crank member to effect pivotal movement of the bell-

crank to release the latch hook from holding engagement with the closure.

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