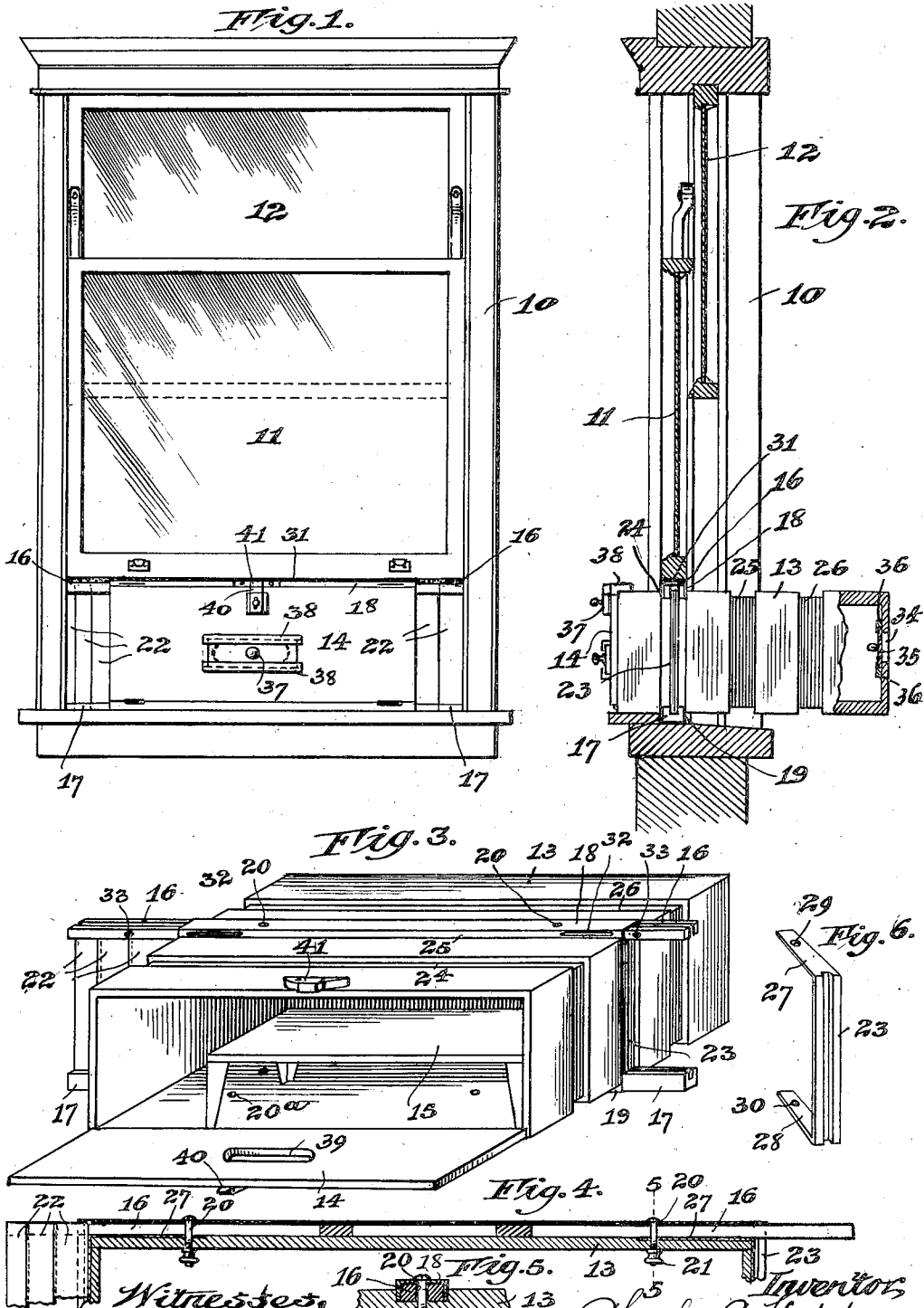


C. C. HATCHER.
WINDOW REFRIGERATOR.
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935,021.

Patented Sept. 28, 1909.



Witnesses,
S. Mann
S. H. Pond
Charles C. Hatcher
By Offield Towle & Luthien
Attys.

UNITED STATES PATENT OFFICE.

CHARLES C. HATCHER, OF CHICAGO, ILLINOIS.

WINDOW-REFRIGERATOR.

935,021.

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To all whom it may concern:

Be it known that I, CHARLES C. HATCHER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Window-Refrigerators, of which the following is a specification.

This invention relates to improvements in that class of refrigerators which are used in windows, and which utilize the low atmospheric temperatures of fall, winter and spring months for refrigeration for household and other uses, without the aid of ice or other artificial refrigerating agents.

Among the chief objects sought by the invention are, to provide a window refrigerator readily capable of application to windows of different widths without permitting the ingress of cold air resulting from variations in the width of the refrigerator box and window casing, to provide a window refrigerator which may be easily and snugly fitted between the raised sash and the window casing, without requiring any external supporting means for the rear or outer end of the refrigerator box, and to provide a window refrigerator which may be easily and quickly adjusted so as to extend to a greater or less extent outside the window, according to the temperature that may prevail outside at any given time.

To these and other minor ends, the invention consists in a window refrigerator having the novel features of construction and mode of use substantially as hereinafter described and more particularly pointed out in the claims.

My invention will be readily understood when considered in connection with the accompanying drawing which shows one practical mechanical embodiment thereof, and in which,—

Figure 1 is a front elevational view from the inner side of a window equipped with my improved refrigerator. Fig. 2 is a vertical transverse section through Fig. 1, showing the refrigerator partly in side elevation and partly in vertical section. Fig. 3 is a perspective elevation of the refrigerator. Fig. 4 is a vertical section, somewhat enlarged, through the top wall of the refrigerator box, in the plane of the transversely mounted slides which support the filling strips that close the openings between the sides of the refrigerator box and the adja-

cent sides of the window casing. Fig. 5 is a detail sectional view, further enlarged, on the line 5—5 of Fig. 4. Fig. 6 is a perspective detail of one of the joint strips that is applied to the side of the refrigerator box for the purpose of making a substantially air-tight joint between the latter and the filling strip or strips of the closure.

Referring to the drawing, 10 designates the casing, and 11 and 12 the lower and upper sashes, respectively, of an ordinary window.

13 designates as an entirety the refrigerator case, herein shown as consisting of a plain rectangular box having a closed outer end and open inner end provided with an ordinary hinged door 14 that is preferably arranged to open downwardly.

At 15 I have indicated a removable table or shelf that may be employed in the refrigerator box or omitted, as desired.

The refrigerator box is adapted to rest on the sill of the window casing and to be engaged on its upper side by the lower bar of the lower sash 11. To adapt the box to window openings of widths more or less exceeding the width of the box, I provide the latter with longitudinally adjustable wings which are designed to effect a snug and substantially air-tight closure for the opening or openings that would otherwise be present between one or both sides of the box and the adjacent side or sides of the window casing. In order to make these laterally extending wings readily extensible and contractible so as to be adjustable to openings of varying widths, I preferably construct them as follows.

16 and 17 designate a pair of slides that are mounted on and transversely of the top and bottom walls of the box 13. Preferably, and as shown, a pair of such slides is mounted on each side of the box in longitudinal alinement with each other. The upper slide 16 is slotted inwardly for the greater part of its length, while the upper face of the lower slide 17 is similarly grooved or channeled. The slides 16 and 17 operate in suitably bent sheet metal slideways 18 and 19, respectively, secured to the top and bottom walls of the box; and in order to secure the upper slide 16 in any adjusted position, a bolt 20 passes through a hole in the slideway 18 and a registering hole in the top of the box, said bolt engaging

the slot of the slide, as clearly shown in Fig. 5. On the lower threaded end of the bolt is a thumb-nut 21 (Fig. 5) by loosening and tightening which the slide 16 may be moved to any desired position and secured therein.

The projecting portions of the slides 16 and 17 constitute supports or holders for one or more filling strips 22, these latter consisting of plain upright strips which are held at their upper and lower ends in the grooves of the slides and preferably form lateral tongue and groove joints with each other. The outermost of these strips engages the sash guide-groove of the window casing, while the innermost engages the side wall of the box, to which latter is preferably secured a grooved joint strip, such as 23 (Fig. 6). The slides and slideways as described may be permanently mounted on the top and bottom walls of the box, if desired; but, in order to provide for the adjustment of the box so that the same will extend to a greater or less extent outside the window, I make the slideways 18 and 19 and the joint strips 23 readily detachable and adjustable. To this end I form in the outer sides of the top, bottom and side walls of the box in various vertical transverse planes thereof grooves or channels 24, 25 and 26 extending entirely around the box, the horizontal portions of said grooves accommodating the slideways and slides in the manner clearly shown in Figs. 3 and 5, while the vertical portions of said grooves accommodate the joint strips 23. The latter are conveniently secured in place by forming therewith inwardly turned horizontal arms 27 and 28 that lie in the countersunk end portions of the horizontal members of the box grooves, as shown in Fig. 4, and are suitably apertured as at 29 and 30. The aperture 29 in the upper arm of the joint-strip is engaged by the bolt 20, while the aperture 30 in the lower arm is engaged by a screw 20^a passed through the bottom wall of the box, the lower end of the screw projecting into the channel or groove of the lower slide 17.

To fit the box to a window, the lower sash is raised and the box laid on the sill thereof, the slides and slideways having been previously fitted to one of the several grooves 24, 25 and 26, according to the amount of refrigeration desired, the slides 16 and 17 are then extended until their ends engage the bottoms of the sash guiding grooves of the window casing, and the filling strips 22 are then inserted through the slotted slides 16, resting at their lower ends in the grooves of the slides 17. By making the filling strips 22 in a variety of widths, practically any width of closure required is readily obtainable. The sash is then lowered until its lower edge engages the top of the slideway 18; and to insure an air-tight joint,

a felt or similar packing strip 31 is applied to the top of the slideway 18 and the projecting portions of the strips 16.

It will be observed that by reason of the engagement of the ends of the slides 16 and 17 with the sash guide grooves of the window casing, the box is supported in horizontal position without the necessity of employing any external supports for the outer end of the box.

To facilitate the withdrawal of the slides from the slideways when the former are completely telescoped into the latter, I may provide slots 32 in the front sides of the slideways, through which any pointed tool may be inserted to engage holes 33 formed in the adjacent edges of the slide, so that by a side thrust the outer end of the slide is easily projected sufficiently to enable it to be grasped by the thumb and finger of the operator and withdrawn the rest of the way as far as necessary.

The regulation of the temperature is secured chiefly by the means described for adjusting the extent to which the box projects out of the window. If desired, however, I may also employ a combined ventilating and temperature-regulating device, preferably located in the outer vertical wall of the box, consisting of an opening 34 formed in the latter and a manually operable slide 35 mounted in slideways 36 whereby said opening may be wholly closed or wholly or partially opened, as desired. In very cold weather it may also be desirable to moderate the temperature existing in the refrigerator by the admission of more or less relatively warm air from the inside of the room; and for this purpose the door 14 may also be provided with a ventilator similar to that applied to the outer wall of the box, as represented by the slide 37 mounted in slideways 38 on the door 14 and controlling a slot 39 formed in the latter.

The door is provided on its upper edge with an ordinary spring-actuated latch cooperating with a keeper 41 on the upper inner edge of the box.

From the foregoing it will be seen that my invention provides a convenient and inexpensive refrigerator of the class described which is capable of application to windows of considerably varying widths, while affording a complete closure for such parts of the opening necessitated thereby as are not occupied by the box itself. The box is preferably equipped, as shown, with one of the extensible and contractible wings forming a closure on each side thereof, but, of course, this may be employed on one side only, if desired, without involving any departure from the spirit or principle of the invention. The invention may also be modified as to its details of construction in other

respects without involving any departure therefrom or sacrificing any of the benefits and advantages secured thereby. Hence, I do not limit the invention to the particular construction disclosed, except to the extent clearly indicated in specific claims.

I claim:

1. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing and having fixed side walls, of a laterally extending wing on a side wall of said box adapted to close the window-opening between said side wall of the box and the adjacent side of the window casing, substantially as described.

2. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a laterally extending wing on said box adapted to close the window-opening between a side of the box and the adjacent side of the window-casing, said wing being adjustable to variations in the distance between said box and window-casing, substantially as described.

3. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of laterally extending wings on the respective sides of said box adapted to close the openings between the sides of said box and the adjacent sides of the window-casing, substantially as described.

4. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of laterally extending wings on the respective sides of said box, said wings being extensible and contractible to fit varying distances between the sides of the box and the adjacent sides of the window-casing, substantially as described.

5. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of slides mounted on and transversely of the top and bottom walls of said box, and a plurality of filling-strips between and held by the projecting portions of said slides and unitedly constituting a closure for the opening between a side of the box and the adjacent side of the window casing, substantially as described.

6. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of slides mounted on and transversely of the top and bottom walls of said box, and a plurality of filling-strips of varying widths between and held by the projecting portions of said slides and unitedly constituting a closure for the opening between a side of the box and the adjacent side of the window-casing, substantially as described.

7. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of slide-ways secured to the top and bottom walls of said box transversely thereof, longitudinally grooved slides mounted in said slide-ways, and a plurality of filling-strips removably engaging the projecting portions of said slides and unitedly constituting a closure for the opening between a side of said box and the adjacent side of the window-casing, substantially as described.

8. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of slides mounted on and transversely of the top and bottom walls of said box, a joint-strip secured to the side of said box between said slides, and a plurality of filling-strips mounted at their upper and lower ends in said slides between the side of the box and the adjacent sash-guiding groove of the window-casing, said filling-strips having tongue-and-groove joints with each other and with said joint-strip, substantially as described.

9. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing, of a pair of slides, means for detachably mounting said slides on and transversely of the top and bottom walls of the box at any of a plurality of different points between the front and rear of the box, and a closure mounted in the projecting portions of said slides, substantially as described.

10. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing and provided with a plurality of grooves disposed at intervals transversely of its top and bottom walls, of upper and lower slides and means for securing the same in vertically aligned pairs of said grooves, and a closure mounted in the projecting portions of said slides, substantially as described.

11. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing and provided with a plurality of grooves disposed at intervals transversely of its top and bottom walls, of upper and lower slideways removably mounted in vertically aligned pairs of grooves, slides in said slideways, means for detachably securing said slides and slideways in said grooves, and a closure mounted in the projecting portions of said slides, substantially as described.

12. In a window refrigerator, the combination with a box adapted to rest on the sill of a window-casing and provided with a plurality of grooves disposed at intervals between the front and rear ends of said box

and extending entirely therearound, of upper and lower slideways, slides mounted in said slideways, vertically disposed joint-strips, means for detachably securing said slideways, slides and joint-strips interchangeably in any of said grooves, and a plurality of filling strips mounted in the

projecting portions of said slides between said joint-strips and the adjacent sash guide grooves, substantially as described.

CHARLES C. HATCHER.

Witnesses:

SAMUEL N. POND,

FREDERICK C. GOODWIN.