Mar. 3 1925. 1,528,599

L. A. BELVILLE

HINGE

Filed Jan. 8, 1924

Fig. 1.

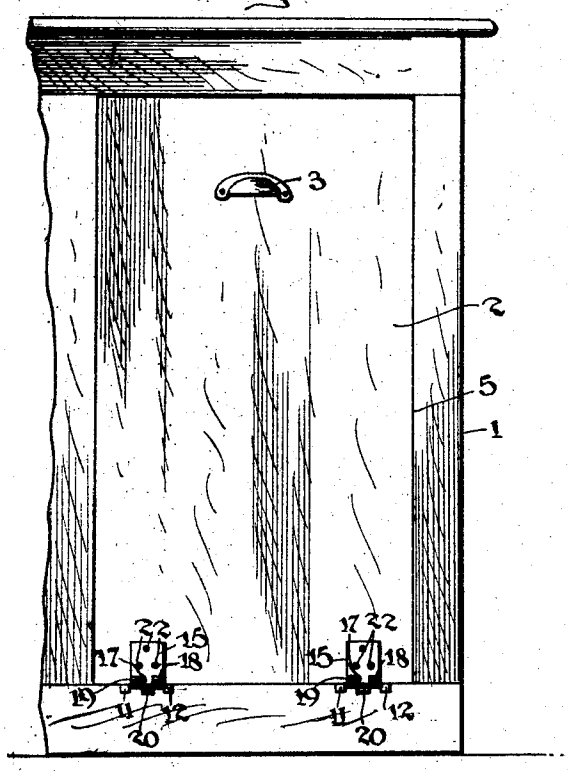


Fig. 2.

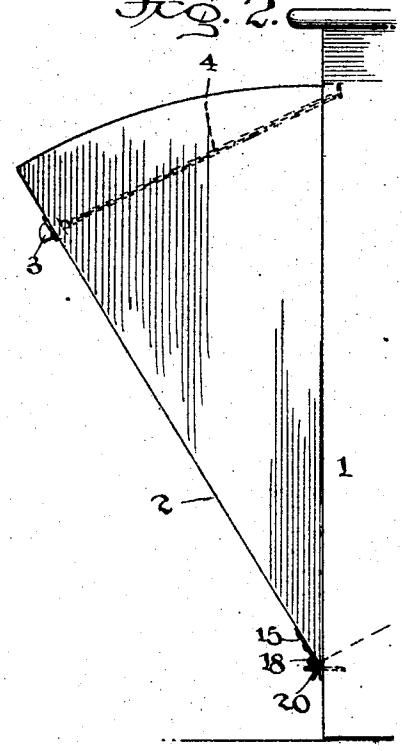
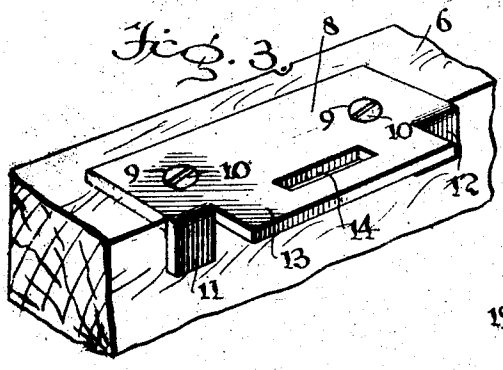


Fig. 3.



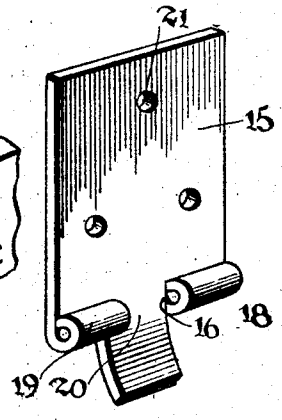


Fig. 4.

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UNITED STATES PATENT OFFICE.

LONNIE A. BELVILLE, OF GRAND ISLAND, NEBRASKA.

HINGE.

Application filed January 8, 1924. Serial No. 685,015.

To all whom it may concern:

Be it known that I, LONNIE A. BELVILLE, a citizen of the United States, residing at Grand Island, in the county of Hall and State of Nebraska, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to a hinge, designed primarily for use in connection with tiltable bins of kitchen or other cabinets, but it is to be understood that a hinge in accordance with this invention can be employed for any purposes for which it is found applicable, and the invention has for its object to provide, in a manner as hereinafter set forth, a hinge formed of a pair of sections inter-engaging with each other, and so constructed as to enable a bin or other object secured to one of the sections of the hinge to be conveniently lifted from the other of the sections when occasion requires.

A further object of the invention is to provide, in a manner as hereinafter set forth, a hinge formed of a fixed and a shiftable section inter-engaging and detachably connected with each other, and whereby the fixed section is provided with means to constitute a bearing for the fulcrums of the shiftable section when the latter is tilted upon the former.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a hinge which is simple in its construction and arrangement, strong, durable, thoroughly efficient in its use, readily set up with respect to the tiltable bin or object, and inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is a front elevation of a tiltable bin, showing the adaptation therewith of a hinge in accordance with this invention.

Figure 2 is a side elevation of a bin in tilted position and further showing in connection therewith a hinge in accordance with this invention.

Figure 3 is a fragmentary view in perspective, showing the manner of positioning the stationary or fixed section of the hinge.

Figure 4 is a perspective view of the shiftable section of the hinge.

Referring to the drawings in detail, 1 denotes a cabinet or counter, which is shown by way of example, and can be the upper portion of a kitchen cabinet, and in which is arranged a tiltable bin 2 of known construction, and the bin 2 has the front wall thereof provided with a hand-hold or grip 3. The ordinary construction of tiltable bins includes a flexible member 4 for limiting the outward movement of the bin, and this member is usually in the form of a chain.

The cabinet or counter 1, is provided with a compartment 5, adapted to house the bin 2, and when the latter is in tilted position, it projects outwardly from the compartment 5 at an inclination substantially in the manner as shown in Figure 2 and with the outward movement of the bin arrested by the flexible member 4.

The bottom wall or sill of the compartment 5 is indicated at 6 and has its upper face mortised at two points when a pair of hinges is employed in connection with the bin 2, but it is obvious that the number of hinges can be increased or but a single hinge employed. The mortise is indicated at 7 and which extends inwardly from the outer face of the counter or cabinet 1, and is of substantial width and of a length corresponding to the length of the stationary or fixed section of the hinge which snugly fits in the mortise. The stationary or fixed section of the hinge comprises a rectangular body portion 8 formed with a plurality of openings 9 for the passage of hold-fast devices 10, to fixedly secure the body portion 8 in the mortise 7. The body portion 8 projects outwardly from the counter or cabinet 1 and is formed with a pair of transversely extending slits of substantial length, and each slit is arranged between the transverse center and an end of the body portion 8. The material freed by the slits, that is to say the portions of material of the body portion 8 arranged outwardly with respect to the slits, is bent downwardly to provide a pair of depending lugs 11 and 12 which abut

against the outer face of the counter or cabinet 1, to arrest inward movement of the body portion, and the material of the body portion 8 which is arranged between the lugs 11 and 12 provides an extension 13 of a materially greater length than the width of either of the lugs 11 or 12, and which projects outwardly with respect to the cabinet or counter 1. The extension 13 is formed with a lengthwise extending rectangular slot 14 of substantial width, and which is arranged inwardly with respect to the longitudinal center of the extension 13.

The shiftable section of the hinge comprises a rectangular body portion 15, which when the hinge is set up, is disposed at right angles with respect to the body portion 8, and the said body portion 15 has the lower part thereof formed with a pair of slits 16, 17, and the material freed by the slits 16 and 17 is bent to overlap in a rounded manner to form a pair of fulcrums 18 and 19, positioned above the lower termini of the body portion 15. That part of the body portion 15, which is arranged between the fulcrums 18 and 19, projects downwardly from these latter in a curvilinear manner and constitutes a coupling projection 20 which extends through the slot 14 for the purpose of connecting the shiftable section to the stationary section of the hinge, or in other words, the projection 20, in connection with the slot 14, provides for the inter-engaging of the sections of the hinge, and furthermore the inter-engagement is such as to enable convenient separation of the shiftable section from the stationary section when desired.

The body portion 15 is provided with a series of openings 21, for the passage of hold-fast devices 22, to fixedly secure the shiftable section of the hinge to the outer face of the bin 2 at the bottom thereof.

The upper face of the extension 13 constitutes a bearing support for the fulcrums 19, when the bin is shifted to and from tilted position, and owing to the manner of connecting the shiftable section to the fixed section of the hinge, the bin can be conveniently lifted from out of the compartment 5 to enable the dumping thereof, or for the purpose of cleaning the bin or the compartment in which the bin is housed.

Although the preferred construction of a hinge in accordance with this invention is as illustrated and described, yet it is to be understood that changes in the details of construction can be had which fall within the light of the invention as claimed.

What I claim is:—

1. A hinge comprising a stationary lower section formed of a flat rectangular body portion and a shiftable upper section angularly disposed with respect to the lower section, said lower section having its body portion at its outer side provided with a flat rectangular extension formed with a rectangular slot having its ends terminating a substantial distance from the ends of the extension, said upper section having its lower end provided with a pair of spaced fulcrums seating on the upper face of said extension adjacent the ends of said slot, and the said upper section further provided at its lower end with a depending rectangular projection positioned between said fulcrums and extending through said slot for detachably connecting the sections together.

2. A hinge comprising a stationary lower section formed of a flat rectangular body portion and a shiftable upper section angularly disposed with respect to the lower section, said lower section having its body portion at its outer side provided with a flat rectangular extension formed with a rectangular slot having its ends terminating a substantial distance from the ends of the extension, said upper section having its lower end provided with a pair of spaced fulcrums seating on the upper face of said extension adjacent the ends of said slot, and the said upper section further provided at its lower end with a depending rectangular projection positioned between said fulcrums and extending through said slot for detachably connecting the sections together, said projection curved forwardly throughout in the direction of its length.

3. A hinge comprising a stationary lower section formed of a flat rectangular body portion and a shiftable upper section angularly disposed with respect to the lower section, said lower section having its body portion at its outer side provided with a flat rectangular extension formed with a rectangular slot having its ends terminating a substantial distance from the ends of the extension, said upper section having its lower end provided with a pair of spaced fulcrums seating on the upper face of said extension adjacent the ends of said slot, the said upper section further provided at its lower end with a depending rectangular projection positioned between said fulcrums and extending through said slot for detachably connecting the sections together, and said lower section having the front of its body portion provided with a pair of depending lugs, each of said lugs positioned inwardly with respect to the forward edge of the extension and further adjacent an end of the extension and extending at right angles with respect thereto.

4. A hinge comprising a stationary lower section formed of a flat rectangular body portion and a shiftable upper section angularly disposed with respect to the lower section, said lower section having its body portion at its outer side provided with a flat rectangular extension formed with a rec-

tangular slot having its ends terminating a substantial distance from the ends of the extension, said upper section having its lower end provided with a pair of spaced fulcrums seating on the upper face of said extension adjacent the ends of said slot, the said upper section further provided at its lower end with a depending rectangular projection positioned between said fulcrums and extending through said slot for detachably connecting the sections together, said projection curved forwardly throughout in the direction of its length, and said projection curving forwardly throughout in the direction of its length.

In testimony whereof, I affix my signature hereto.

LONNIE A. BELVILLE.