No. 779,789. PATENTED JAN. 10, 1905.

N. LEIGHTON.

REFRIGERATOR FASTENING.

APPLICATION FILED DEC. 16, 1903.

Fig. 2.

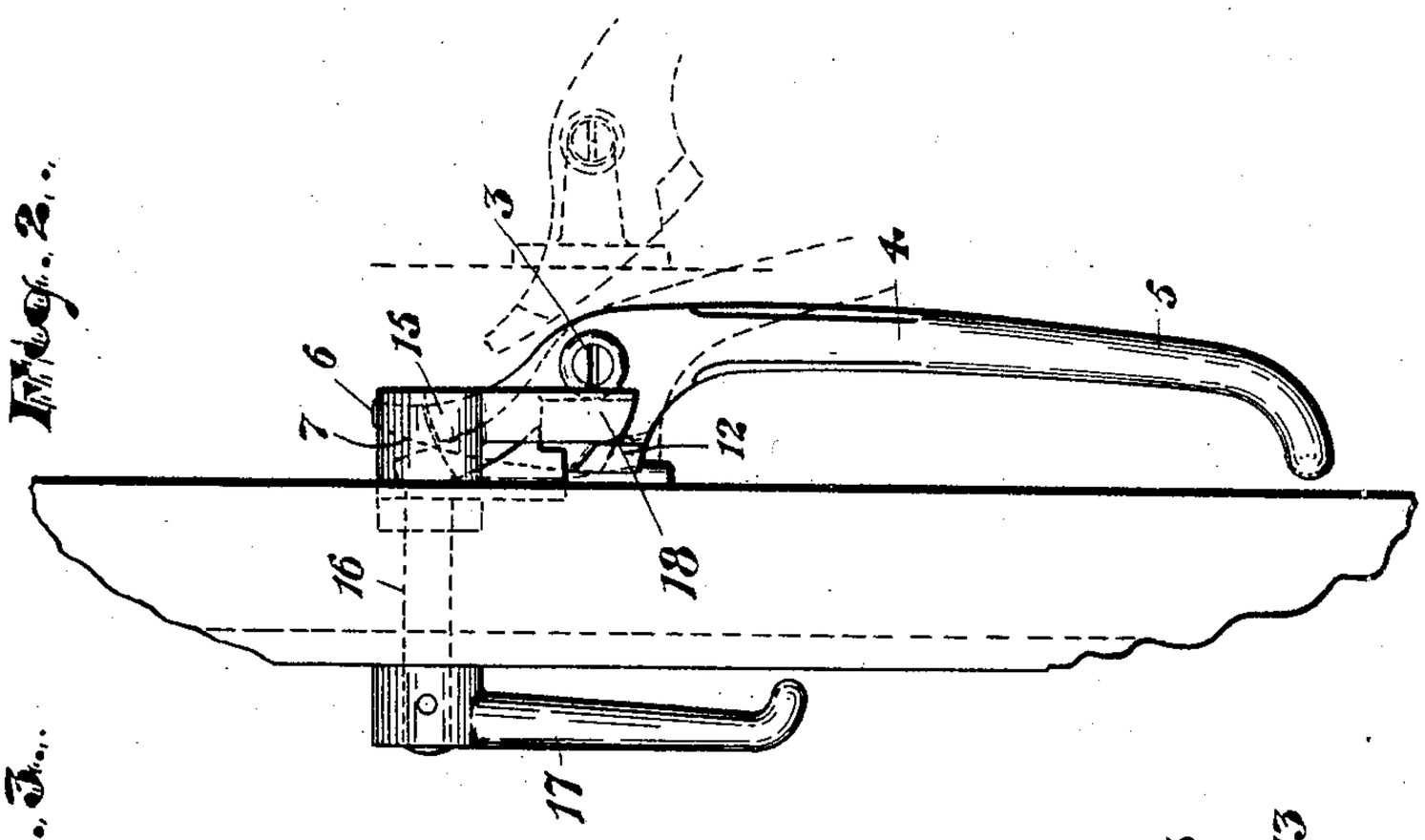


Fig. 3.

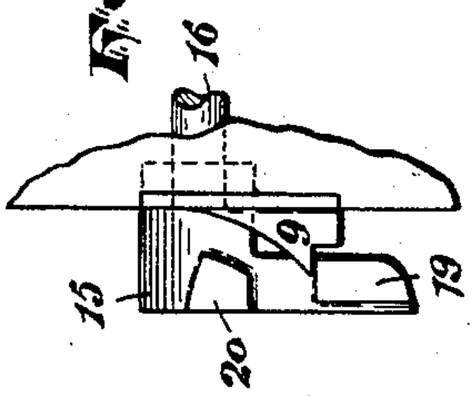


Fig. 4.

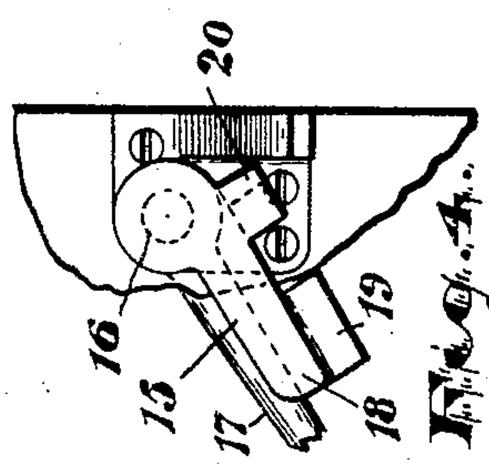


Fig. 5.

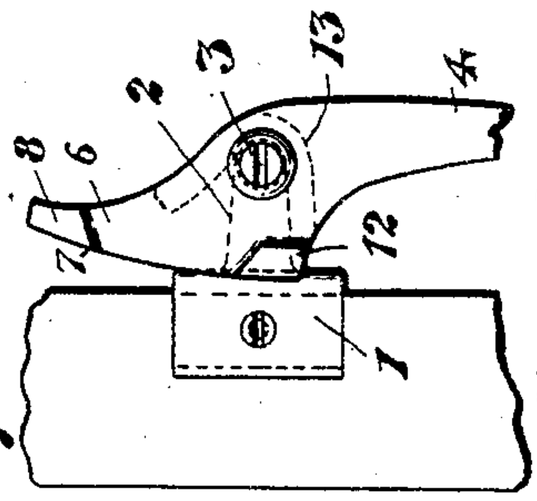
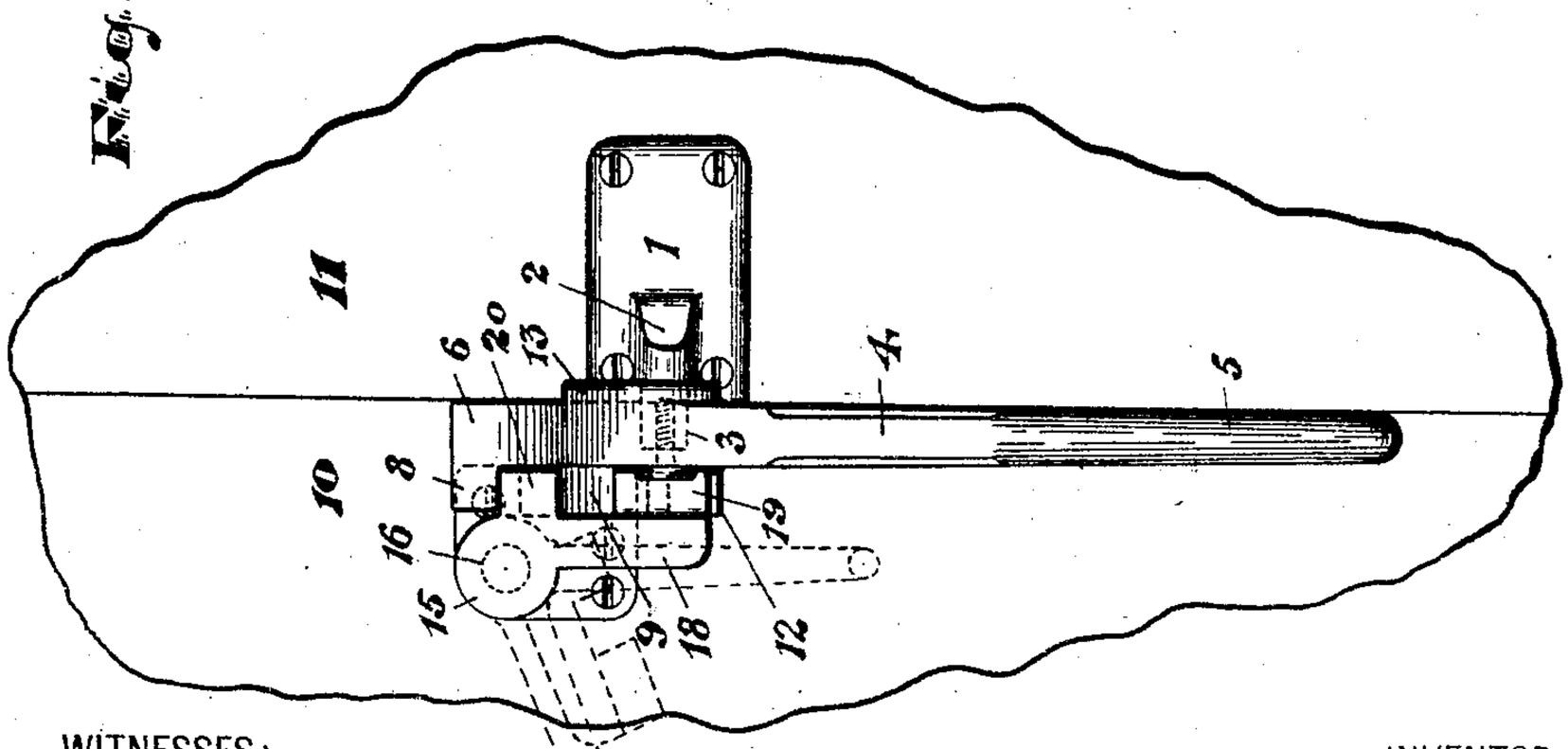


Fig. 1.



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UNITED STATES PATENT OFFICE.

NELSON LEIGHTON, OF NEWARK, NEW JERSEY.

REFRIGERATOR-FASTENING.

SPECIFICATION forming part of Letters Patent No. 779,789, dated January 10, 1905.

Application filed December 16, 1903. Serial No. 185,439.

To all whom it may concern:

Be it known that I, NELSON LEIGHTON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Refrigerator-Fastenings; 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, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

The objects of this invention are to facilitate the operation of opening and closing meat-refrigerators, to enable the same to be opened from the inside as well as from the outside, to secure a more perfect closing of the door under certain conditions, and to obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved refrigerator-fastening and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a front elevation of the improved fastener applied to a refrigerator. Fig. 2 is a side elevation of the same. Fig. 3 is a detail view showing certain of the parts in side elevation and at the side opposite that shown in Fig. 2. Fig. 4 is a detail front view of certain parts, showing the same in inclined position. Fig. 5 is a detail view of the opening-lever, the locking means being removed.

In said drawings, 1 indicates a bracket or base-plate applied to the outside of the door 11 of the refrigerator, at or near the free vertical edge of said door, the said plate having at one end thereof a forwardly-projecting stud 2, having at its projecting end a fulcrumal pin 3, extending in a direction parallel with the outer face of the door. On said pin 3 is fulcrumed the outside lever 4. Said lever comprises a long casting which at its lower end provides a more or less weighty curved handle 5, adapted to normally drop to a vertical position or one in which the general longitudinal line of the long lever-handle lies parallel with the vertical outer or front face of the refrigerator-casing, as shown in Fig. 2. At the upper end of said lever, or the end lying uppermost when said lever is in its normal position of Fig. 2, the said lever extends beyond the fulcrum 3 in a line lying parallel with the general line of the handle of said lever, but lying nearer to the front face of the refrigerator than said general line of the handle. The inner or rearward face of the upper extension of said lever is curved, as at 7, Fig. 5, and lies quite close to the face of the refrigerator to bear against the same immediately upon pulling the handle 5 forward. The forward pull and engagement of the curved bearing with the front face of the refrigerator, or the concavously-curved projection 9 thereof, while the handle is yet in an approximately vertical position enables a great leverage to be obtained, by means of which the door may be forced open with comparative ease even when fast because of the expansion of the wood of said door.

The convex curvature of the rear face of the upper lever extension and the concave curvature of the forward projection 9 serve to give easy movements to the lever, and the projection tends to increase the length of lever action, as will be obvious, the said projection taking the leverage after the door has started in its opening movements, the lever at its upper end being provided with a lateral projection 8, Figs. 1 and 5, which rides up the concave face of the projection as the door opens and the lever turns on its fulcrum. The concave projection is preferably of metal formed on a plate applied to the refrigerator in any suitable manner.

Below the lateral projection 8 at the inner part of the lever is another projection, 12, adapted to coöperate in locking the door, as hereinafter described.

On the opposite side of the lever from that having the projections 8 and 12 is a curved rib 13, which extends around the outer end

of the stud 2, the inner ends of said rib serving as stops to engage the plate or bed 1 and prevent the lever from moving unduly in either direction and in opening the door enabling the lever to stop at a desired limit, so that it can afterward be employed in pulling open the door, as will be understood. Between the limiting-stops the rib serves to increase the bearing-surface on the stud 2. The limiting-stops of the rib 13 serve, further, to hold the lever and its projections in position to enable the latter to enter into and pass from engagement with certain lugs or projections of the locking-lever without interference.

At one side of the lever 4 upon the casing 10 is arranged a lock 15 upon the fulcrum bolt or shaft 16, said bolt being adapted to extend through the refrigerator, the said bolt at the inner side of the refrigerator having a handle 17 rigidly secured thereon, as shown in Fig. 2, whereby the outside lock may be turned with the bolt.

The lock 15 is rigidly secured on the outer end of said shaft or bolt and is thus adapted to be turned pivotally when turning the handle 17 from the inside of the refrigerator. The said lock is provided with a downward extension 18, having at its free extremity a lug or extension 19, adapted to extend over the projection 12 of the outside lever 4, so that the door of the refrigerator will be closely locked when the said extension 19 is turned to overlie the said extension 12 or the lock being in its locking position when the lever 4 and its projections or lugs are brought into locking relation therewith. The lock is also provided, near the fulcrum 16 thereof, with another projection, 20, which is adapted when the said lock is turned to its locking position to enter beneath the projection 8 of the lever when the latter stands in its normal position, as shown in Figs. 1 and 2. Pressure upon the door from the inside is resisted by the lock when the same is in its locking position; but when the said lock is turned laterally away from the lever 4 then the said door can be pushed open from the inside or be prevented from opening outward automatically if the door be a loose fit in its frame; but the said lock is so arranged and the parts thereof are so disposed as to permit an opening of the door notwithstanding said lock when outward draft is brought upon the lower end of the lever 4. The pivotal action of the lever 4 on its fulcrum causes the projections 8 20 of the said lever and lock to pass out of locking engagement. To enable the lock to be unlocked from the inside, the lever 17 is simply turned, as indicated in Fig. 4 and in outline in Fig. 1.

Having thus described the invention, what I claim as new is—

1. The combination with the bracket adapted to be applied to a refrigerator-door and having a forwardly-projecting stud and a pin projecting laterally from the forward end of said stud and adapted to overlie the front face of the refrigerator-casing, of an outside lever, comprising a long, handled casting fulcrumed on said laterally-projecting pin and having an upper part extending in a line parallel with the general longitudinal line of the handle, said upper part having a curved inward or rearward surface adapted to engage the front of the refrigerator immediately upon pulling the vertically-disposed handle forward, the upper end of said part being provided with a lateral projection, and a concave projection, adapted to be applied to the front of the refrigerator and be engaged by said lateral projection, substantially as set forth.

2. The combination with the bracket adapted to be applied to a refrigerator-door and having a forwardly-projecting stud and a pin projecting laterally from the forward end of said stud and adapted to overlie the front face of the refrigerator-casing, of an outside lever, comprising a long, handled casting fulcrumed on said laterally-projecting pin and having an upper part extending in a line parallel with the general longitudinal line of the handle, said upper part having a curved inward or rearward surface adapted to engage the front of the refrigerator immediately upon pulling the vertically-disposed handle forward, the upper end of said upper part being provided with a lateral projection, and a concavous projection adapted to be applied to the front of the refrigerator and be engaged by said lateral projection, and a lock adapted to be pivoted on said refrigerator near the upper part of said lever and having a handle adapted to be operated from the inside to turn said lock on its pivot and at its outer end adapted to be turned into engagement with said lever to prevent an opening of the refrigerator-door, substantially as set forth.

3. The combination with the bracket having the post, pin extending laterally therefrom and a lever fulcrumed on said pin, said lever having a handle extending downward from said pin and having a short upward extension with a curved rearward bearing adapted to engage the face of the refrigerator-casing, the said upward extension lying in a line parallel with the general line of the handle and having at its upper end a lateral projection and at its lower end another lateral projection, a concavous projection adapted to be applied to the front of said casing to receive the lateral projection at the upper end of said upper lever extension, and a lock adapted to be pivoted near the upper part of the lever, said lock having a handle adapted to lie on the inside of the refrigerator and at its outer end having an extension adapted to overlie the projection at the lower end of the upper extension of the lever, substantially as set forth.

4. The combination with the bracket having the post, pin extending laterally therefrom

and a lever fulcrumed on said pin, said lever having a handle extending downward from said pin and having a short upward extension with a curved back surface adapted to engage the face of said casing, said extension having a lateral projection at its upper end adapted to ride up a concavous projection on the refrigerator-casing, said concavous projection adapted to be secured on said casing, said lever also having a lateral projection to receive a lock, said lock having pivotal bearing and projections adapted to be set against those on the lever to lock the same and a handle connected with the lock and adapted to turn the same from the inside, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of November, 1903.

NELSON LEIGHTON.

Witnesses:

CHARLES H. PELL,

RUSSELL M. EVERETT.