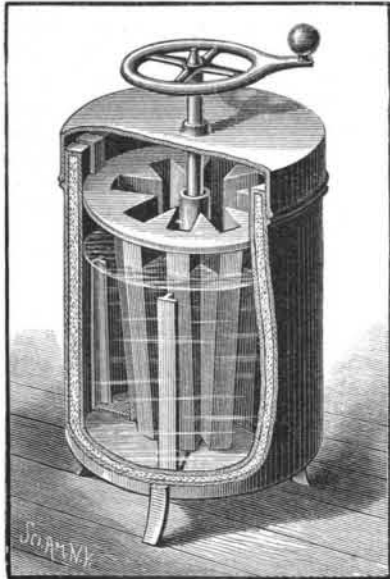


A SIMPLE HOUSEHOLD FREEZER.

An improved freezer, specially adapted for making ice in small quantities for household use, or for cooling bottles of wine or other substances, is illustrated herewith, and has been patented by Mr. Theodore L. Delpy, of Paris, France. It consists of a receptacle adapted to hold a freezing liquid, and having double walls filled with a non-conducting material, an upwardly projecting pin in the bottom of the receptacle being fitted with a sleeve secured to a vertical shaft, the upper end of which passes through a suitable bearing in the cover. The outer end of the shaft has a hand wheel, and from the sleeve at its bottom extend radial arms provided with upright T-shaped beaters. Centrally in the receptacle is held a vessel, preferably star-shaped in cross



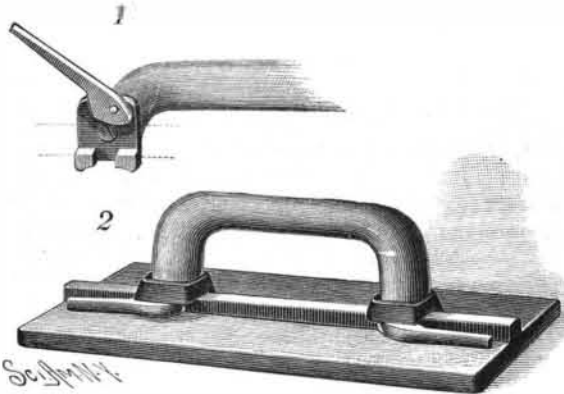
DELPY'S FREEZER.

section, the vessel being supported by L-shaped arms resting on the top edge of the receptacle. In the central vessel is held a tube, through which passes the sleeve and vertical shaft, so that the latter can revolve without revolving the vessel. The outer receptacle being supplied with a proper quantity of any suitable freezing liquid, such as sulphate of soda and hydrochloric acid, or other mixture, and the inner vessel holding the water or other liquid to be frozen, the operator turns the hand wheel, whereby the freezing mixture is agitated by the beaters and exerts its freezing power on the inner vessel.

For further information relative to this invention address Mr. L. Dermigny, No. 126 West 25th Street, New York City.

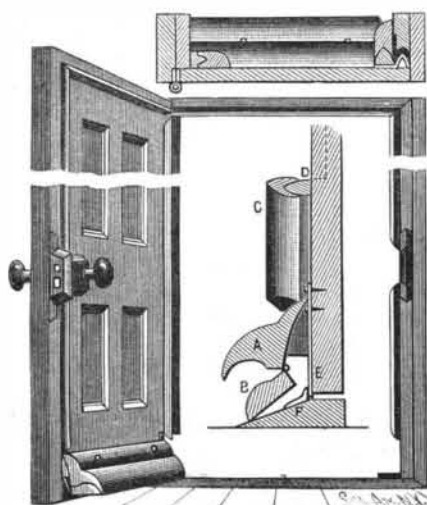
AN IMPROVED MASON'S FLOAT.

A mason's float and handle so made that they can be easily and quickly put together and taken apart, the



KAUTZ'S MASON'S FLOAT.

blade being held firmly by the handle without the use of nails, is illustrated herewith, and has been patented by Mr. George Kautz, of No. 236 Central Avenue, Albany, N. Y. A central longitudinal ridge is formed on the blade of the float. To each end of the handle a cap is rigidly secured by a screw, each cap having two foot lugs on one side, as shown in Fig. 1, and on the other side a screw or pin for pivotally connecting a cam lever to the cap. There is a space between each cam and the lugs, forming a recess for the reception of the longitudinal ridge formed on the blade of the float,



BURCAW'S WEATHER STRIP.

the latter being firmly secured to the handle by turning the levers to the position shown in Fig. 2. The arrangement of the parts prevents any strain on the blade of the float, which is thereby prevented from warping, and may be used until worn out, when the handle may be used on another float of similar construction.

Alaska.

Governor Swineford, in his report, states that the coast line of Alaska, 18,211 miles, is nearly twice the combined Atlantic and Pacific coast lines of the United States. The market value of the Alaska fisheries for last year is estimated at \$3,000,000. A thousand salmon, averaging ten pounds each, have been taken in Sitka Bay in a single haul. The seal fisheries yield to the government \$317,500 annually, or enough to pay 4 per cent on the amount paid Russia for the country. A single island is said to be practically a mountain of ore, and to contain mineral wealth enough to pay off the whole of our national debt.

The fish commission steamer Albatross sailed into Puget Sound early last month, after an interesting cruise in Alaskan waters. Deep-sea soundings were made to verify those made by Commodore Belknap in the Tuscarora while locating a line for a Japanese cable in 1874. Capt. Tanner found even greater depths in short distances than the Belknap soundings. At one point 3,800 fathoms was reported. In three miles the ocean bottom was found to sink from 40 to 1,100 fathoms, and in twenty miles at another point from 500 to 2,100 fathoms, the ocean cañon being long and deep. Several new varieties of fish were brought to the surface by trawls and by hook and line from these ocean depths. One had a head like a shark, with large teeth, but a body like an eel or a snake, tapering to a point as fine as a knitting needle. Some fine specimens of shrimps were secured at points near the coast. A quantity of fine clams, which are used for bait by fishermen, were planted in a small inlet west of Oonalaska. From this port the Albatross sailed back east of the Aleutian Island group and down toward Kodiak. Soundings and dredgings were made all along, and the 100 fathom curve located. Great numbers of codfish were secured. The waters in that region are filled with cod, those at a distance from the coast being much the best. Some investigation of Puget Sound fish will, it is understood, be made by the Albatross, and then the plan is to pass the winter months off the Santa Barbara Islands and the coast of Lower California.

AN IMPROVED WEATHER STRIP.

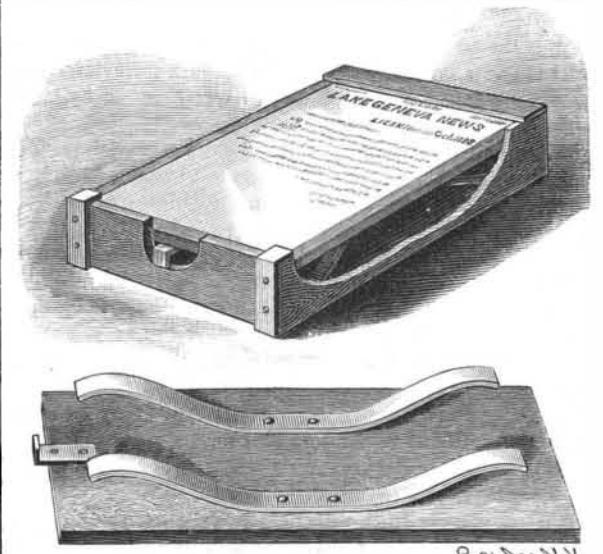
A weather strip especially designed to prevent draught all around a door is illustrated herewith, and has been patented by Mr. Franklin P. Burcaw, of Hazleton, Pa. The door is provided at the bottom with a fixed moulding, A, having a groove in its bottom, in which fits a corresponding strip, B, hinged in a recess in the inner edge of the moulding, a fibrous or leather strip being secured to the approaching edges, A and B, to close the air space between the hinges. A spring, E, is secured at one end of the door, projecting downward at its free end, and adapted to hold the strip, B, in the bottom of the moulding, A; but when the door is closed, an arm of this spring strikes against the lug, F, pressing the spring toward the door, so that the strip, B, swings downward until it rests on the bottom of the door casing, preventing any draught from entering the door. Two strips of moulding, C and D, are used on the edge of the door and on the casing, a central offset or tongue of one strip fitting snugly into a correspondingly shaped groove in the other strip. A metallic V-shaped strip is secured by its flange to the door casing near the lock, a corresponding strip secured to the door fitting thereto, these strips forming a continuation of the mouldings, C and D. The side and top draughts are thus prevented by the mouldings of the casing fitting into the corresponding mouldings on the door, and when the door is closed, the bottom draught is prevented by the hinged strip, B.

AN IMPROVED RAILROAD TIE.

A metallic railroad tie, recessed near its ends to receive the base portions of the rails, together with locking blocks or keys to hold the rails both sidewise and downward to their places, is illustrated herewith, and has been patented by Mr. Israel G. Howell, of Hope-well, N. J. In addition to the central transverse recess in each end of the tie, to receive the base portion of the rail, there is a further extension of such recess to be filled by a locking wedge or block on each side of the rail, this locking wedge being entered within an overlapping lip at each end of the main recess. These locking blocks bear upon or over the lower flanges of the rails and up against their webs. To prevent the locking blocks from working loose, saddles are fitted over them, lying in grooves in the upper faces of the blocks, the saddles being held in place by pins passed through the ties, as shown in the sectional view. With this tie the rails can be readily taken up and replaced, and independent chairs may be dispensed with.

AN IMPROVED BINDER.

A binder for temporarily holding a number of sheets of paper in the form of a pad is illustrated herewith, and has been patented by Mr. Asa K. Owen, of Lake Geneva, Wis. A shallow box forms the body of the binder, a ledge projecting inwardly over one end of the box, and right-angled plates attached to the box pro-

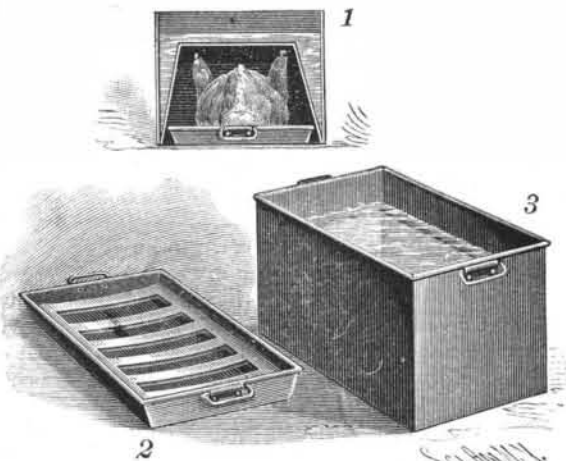


OWEN'S BINDER.

jecting inwardly over its other end. To the inner surface of a smooth-faced support fitting within the box, and adapted to move freely up and down, two bow springs are attached, which rest upon the bottom of the box and press the support upward. To the under surface of the support, at one end, is attached a finger piece, which extends through a semicircular notch in the end of the box. The sheets of paper are placed between the ledge and the support at one end of the box, by simply pressing down upon the support, the springs clamping the paper in position, after which the opposite end is depressed and the other end of the paper similarly placed. Depressing the lower end of the support by means of the finger piece facilitates the removal of the sheets of paper as desired.

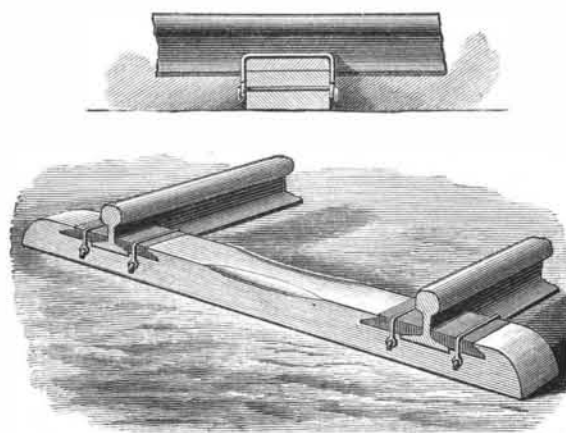
AN IMPROVED BAKE PAN.

A pan for use in baking, in the use of which the



BICKNELL'S BAKE PAN.

article to be cooked will be suitably supported on a rack and practically inclosed by water, is illustrated herewith, and has been patented by Miss Bettie H. Bicknell, of Loudon, Tenn. In a shallow pan, as shown in Fig. 2, is placed a wire or other suitable iron frame, held up sufficiently to allow the bottom of the pan to be covered with water. The cover is shown in Fig. 3, being formed of a deep inverted pan or box, tapered toward its upper end, and with an open top, forming a large water space, as shown in section in Fig. 1. This invention is designed to obviate the necessity of boiling meats or fowls before baking them, thus shortening the process of cooking and fully retaining the juices and flavors of the articles cooked.



HOWELL'S RAILROAD TIE.