WARDWELL'S ADJUSTABLE BENCH JACK.

Carpenters, cabinet makers, and other workers in wood are, by the invention herewith illustrated, supplied with a convenient and novel form of bench jack, intended for use in connection with the common screw vise, and which may be readily adjusted to hold boards of any width or thickness, while the same are being jointed. Our engravings represent the apparatus as applied to the bench, both in perspective (Fig. 1), and in section (Fig. 2).

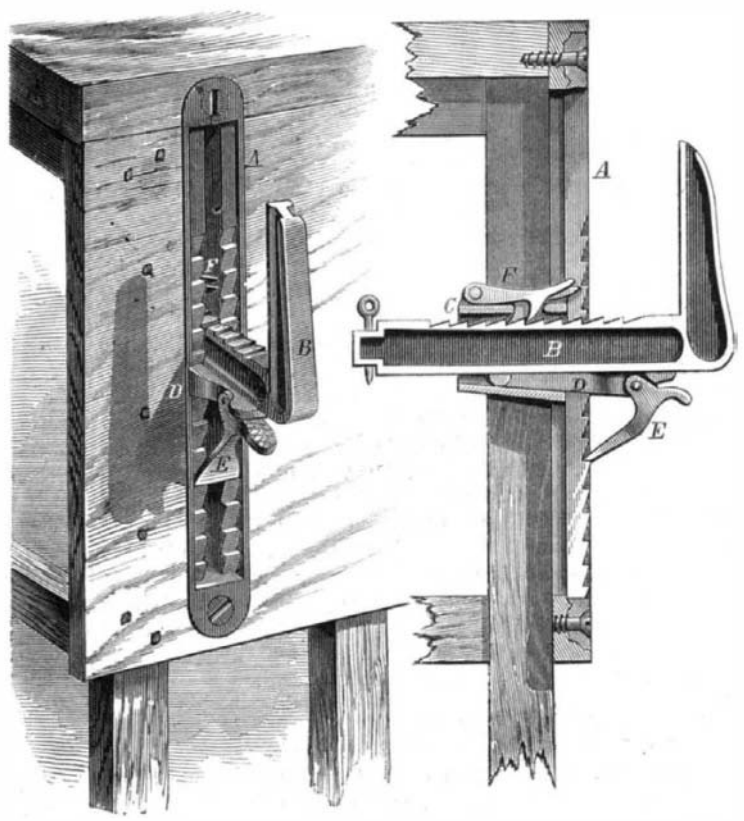
A is a metal bar, slotted longitudinally, and provided with ratchet teeth on its forward side, which is let into and secured to the front part of the bench. Projecting at right angles to and passing through the slot in this bar is the jaw B, on the upper side of which ratchet teeth are also formed. The shank of the jaw enters the frame or spider, C, the forward end of which is so constructed as to slide upon ways formed upon the rear side of bar, A. D is a rest which has shoulders on its forward part to take against the front side of the bar, A, and a crosshead on its rear extremity, which is received in a transverse notch on the lower side of the spider, C. The shank of the jaw, B, therefore, holds the piece, D, in place, and also rests thereon, while the piece, D, in turn, secures the frame or spider in proper position in rear of the bar, A. Pivoted to the forward end of the rest, D, is a pawl, E, which is so formed that its own weight may hold its lower or engaging end against the ratchet teeth in A, so as thereby to support the rest, spider, and jaw in any position in which they may be adjusted, the parts of course all moving together. Upon the top of the spider, C, and pivoted in lugs, are two hook pawls, F, so set that the hook of one is in advance of that of the other by a distance equal to about half that included between two of the ratchet teeth on the jaw, B, in which they engage. By this means the jaw may, it is claimed, be accurately adjusted in accordance with the thickness of the board to be held. The forward extremities of these pawls project into the slot in A, so as to be conveniently accessible for adjustment.

In practice, the bar, A, is fastened to the bench at a suitable distance from the vise; and the jaw, B, by means of the pawl, E, is quickly set at the proper hight to receive the board. The latter is then inserted, and the jaw is pushed in, when the pawls, F, engaging in the ratchet teeth, hold it firmly in place.

When desired, two or more of the jacks may be attached to the bench at different distances from the vise, so as to accommodate long or short work. But a single set of the smaller working portions need, in this case, be employed, as they can be readily removed and shifted from one bar to the other, and when out of use may be laid away in the tool chest.

For further particulars address the inventor, Mr. J. B. Wardwell, Box G, Lawrence, Mass.

Fig. 1 Fig. 2

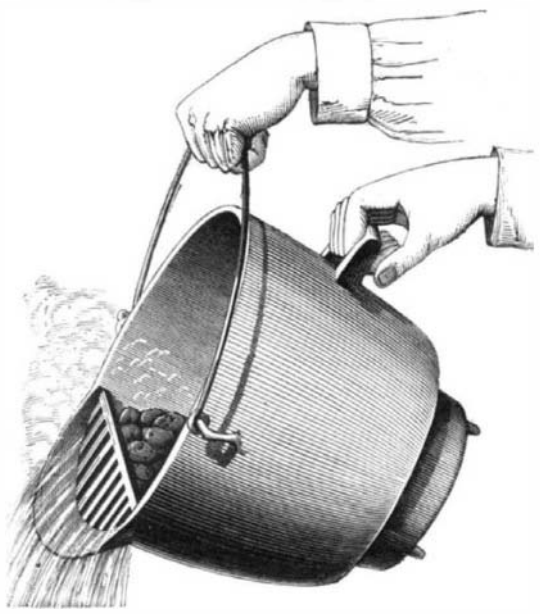


WARDWELL'S ADJUSTABLE BENCH JACK.

IMPROVED COOKING VESSEL.

Messrs. L. P. and J. S. Bodkin, of Brooklyn, N. Y., have recently patented an improved cooking vessel, herewith illustrated, which is so constructed that its liquid contents may be readily poured off while the solid material is retained.

The device consists of a lip, formed upon one side of a boiler, to guide the fluid into a receiving vessel, and also of a grate formed upon the inner side of the edge of the forward part of the receptacle, the bars of which are connected with



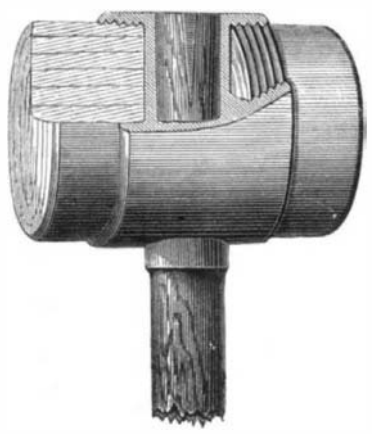
each other at their inner ends. These bars are made in triangular form, and, while offering the least possible obstruction to the escaping liquid, serve to hold the cooked substance within the pot. A handle is provided on the rear side for convenience in tipping. In other respects, the vessel is of the ordinary description in common use.

Yankee Notions.

Incited thereto by certain domestic annoyances, classed here under the generic title of "servant-galism," the inventive faculties of our American kinsmen have developed many curious and useful household implements. The SCIENTIFIC AMERICAN recently gave a description and engraving of a "combination corn sheller, bootjack, hammer, hook claw, tack drawer, pot lifter, and wrench," which, it is suggested in another transatlantic journal, is open to improvement, so as to serve also as a toothpick, corkscrew, pocket pistol, baby rattle, and hypodermic syringe. This, however, and every other similar specimen of Yankee ingenuity, except, perhaps, that wonderful pig-killing machine into which the unclean animals were driven in herds and taken out at the other end as bacon and sausages, are eclipsed by a baby washer, just patented, and thus described by its inventor: "You simply insert the begrimed and molasses-coated infant in an orifice which can be made any required size by turning for ten minutes a cog wheel with electric attachments. The child glides gently down a highly polished inclined plane; his lips are met at its terminance by an india rubber tube, from which the infant can draw lacteal nourishment of the purest and most invigorating character, secured for the special purpose, at great expense, from a choice breed of Alderney kine, raised on the estate of Her Majesty Queen Victoria, in the Isle of Wight. While in this compartment, which is lined with plate glass mirrors, the perturbed spirits of the infant are soothed by its frantic efforts to demolish its own image, reflected in the glass, with a nickel-plated combined tooth cutter, nail knife, rattle, and tack hammer, which is thrust into the baby's hand by an automaton monkey. Fatigued by its destructive efforts, the infant falls to sleep, while the organ attachment plays softly the ravishing melody of 'Put me in my little bed.' Then it slips into the third compartment. Here the baby is washed. Another small tube administers a dose of soothing syrup, and the infant glides from the machine, its nails pared, its hair combed, if it has any, ready for the habiliments rendered necessary by the fall of our first parents." Truly, there can be no better labor savers than Yankee inventors!—*Iron.*

IMPROVED MALLET.

Machinists will be interested in the improved form of rawhide mallet, herewith illustrated, and recently patented by Mr. Albert Holbrook, of Providence, R. I. The body is of metal and solid, and the handle is secured in the ordinary manner. In each end of the body is a recess which receives a head made of rawhide, coiled up and dried and then turned to the desired size and shape. The heads are secured in the socket by means of a screw therein, as shown in the engraving.



Blows given with this mallet are said to leave no dents on metallic surfaces, so that it will doubtless prove a convenient tool for putting together wrought iron, steel, and brass work, driving keys, and for all purposes where it is desirable to avoid the marks of a hammer.

Skampfjelding.

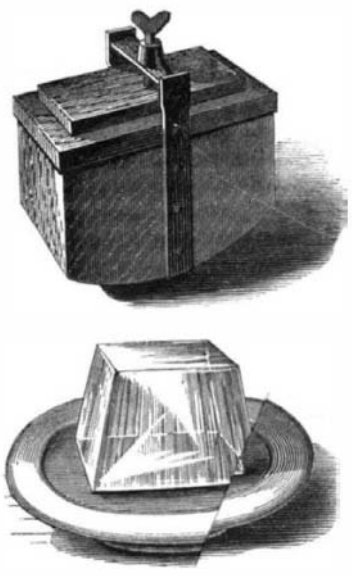
A rule, or custom, obtains on board Norwegian ships, known as skamfjelding, which is simply this: Every morning at daylight, as soon as the decks are washed down, the officer in charge details each individual of his watch to some particular part of the ship, skampfjelding: Johannis goes over the mainmast and yards, from the truck to the topmast head; Jem takes the main topsail yard and topmast; Tellog takes the main yard, top, and lower rigging, and so on. Thus the whole ship is parcelled out, each man takes a few rope yarns, or "Spanish foxes," and spends the next twenty minutes or half hour in examining the part allotted to him; every seizing, splice, iron, bolt, rope, mat, even the stitching of the sails and condition of the paint, come under his consideration. A slight matter he repairs at once; anything for which he is not then prepared is, on returning to the deck, reported fully to the officer, and, if needing immediate attention, men and material are at once sent to the spot: in many cases the officer goes himself, or sends his second in command, to superintend the work. Things not requiring such immediate attention are noted; and when the other watch comes on deck, after breakfast, they are detailed to repair what has been reported, before commencing the day's work. In this way B repairs what A reported, and gives a look for himself, in going and coming. Again, if anything breaks during the day, the captain asks: "Who went there skamptjelding this morning?" He is known and asked why he did not report; in some cases he gets a disagreeable job as punishment, while each man feels a personal responsibility and interest in giving an accurate report lest he lose his character for seamanship, which requires not only the knowledge of how to do things, but also good judgment in regard to materials.

This custom is not found in American or English ships, but could be copied there with good effect. And a similar system, applied to engineers, oilers, and firemen, would save more boilers and machinery than an army of government inspectors. Very little machinery breaks without some warning, very few pieces of modern work are equal to the wonderful one horse shay, and a little of the care mentioned is never wasted. Railroads have attempted something of the kind, but the same man, running the same engine day in and day out, will, in time, take risks that he would not if another man were to take the machine the next day. So of track inspectors, train starters, and the whole host of workmen; rotation in office, with a regular system by which each inspector's location for each day would be always known at headquarters, would here find its true place.

The real value of such a custom lies in the fact that it would beget habits of thought that would make every man an inspector of what is near him, thoughtful not merely for his own safety, but for others also; thus the bridge may be perfectly safe on the footway where he passes, but that rotten plank in the roadway may break a horse's leg; he reports it, or marks it at once. But perhaps the greatest recommendation of such a habit to the American mind, albeit an unworthy one, is that while it would save much it would not cost a dollar.—*Engineering and Mining Journal.*

A SIMPLE FREEZING MACHINE.

This is an apparatus designed for producing ice in small



quantities. It consists, simply, of a hollow sided receptacle, having a rounded bottom, so that it can be easily rocked to and fro. In the sides is placed any suitable freezing mixture, and, in the inner space water. The covers are then secured by the set screw, as shown, and the machine oscillated until freezing takes place, an operation requiring, it is said, about ten minutes. The chief recommendation of the ice is its purity, suitability for the dessert table or sick room, and the ornamental form of the block. Ice cream can easily be made by the apparatus. The blocks of ice are hollow, of about one fourth of an inch in thickness, and weigh some six ounces.