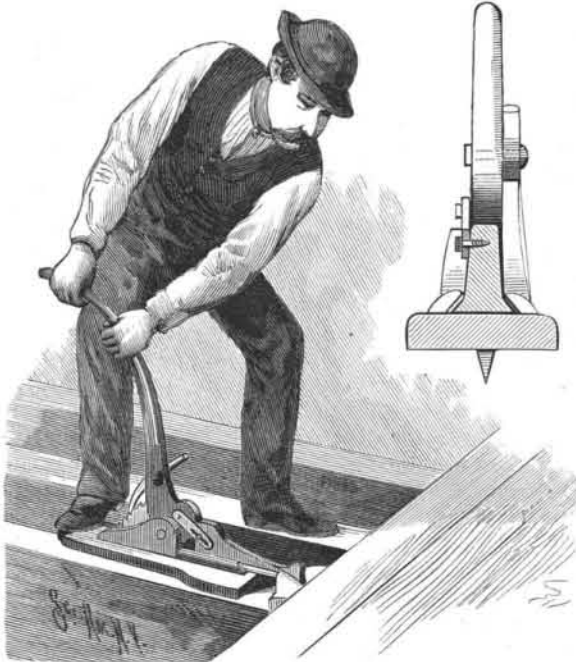


panying illustration, and forms the subject of a patent issued to Mr. Thomas Sheehan, of No. 374 East Main Street, Louisville, Ky. The relative position of the burners beneath the shade is indicated in the drawing, it being considered that the best effects will be obtained in ordinary practice when the two ignited jets overlap about a quarter of an inch, this being effected by turning the gas on or off until the ignited jets are of the re-

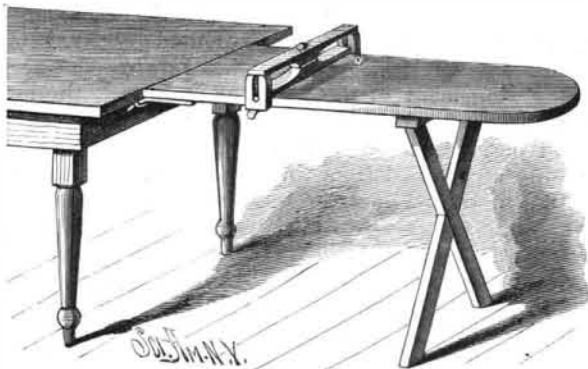


BAYER'S FLOOR CRAMP.

quired size. These burners are designed to prevent the production of any smoke or the giving off of any unconsumed particles, thereby yielding more light for a given amount of gas consumed.

AN IMPROVED IRONING BOARD.

A simple form of ironing board, having a readily adjustable clamp, whereby shirts or other articles may be firmly held while being ironed, is shown in the accompanying illustration. The board has a cleat or cross bar on its under side, near one end, to which are hinged crossed legs, while at the other end are two bent prongs or bars that may be readily inserted in apertures formed on the under side of one end of a table of



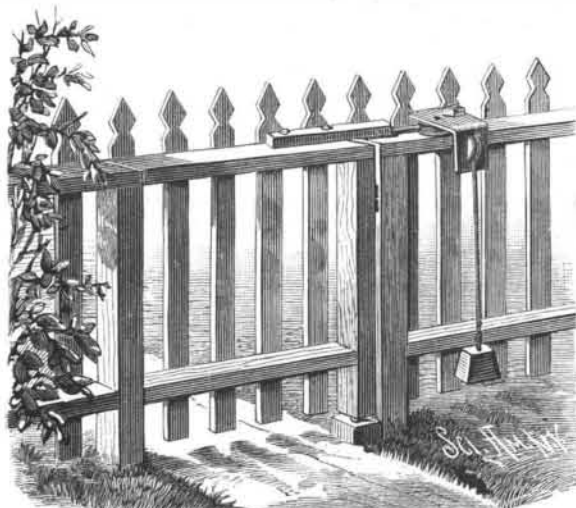
McCORMICK'S IRONING BOARD.

any ordinary form, in connection with which the ironing board may be set up. The clamp consists of slotted end blocks and upper and lower spring bars, extensions of which ride in the slots of the end blocks, turn buttons being secured to the lower faces of the end blocks. When the clamp is placed upon the article to be ironed, the turn buttons are moved so that one end of each button will extend beneath the table, and the article will be firmly held.

This invention has been patented by Mr. Robert E. McCormick, of New London, Huron County, Ohio.

AN IMPROVED DEVICE FOR CLOSING GATES.

The accompanying illustration represents an exceedingly simple and readily applicable device for closing



RIGG'S DEVICE FOR CLOSING GATES.

gates, which has been patented by Mr. James W. Rigg, of Mount Carmel, Ill. Upon the inner or hinged end of the top of the gate frame is fastened a bar, which projects beyond the gate, over the top horizontal beam of the fence. At the rear of this bar an angular frame is secured upon the top beam of the fence, and in this frame are journaled two pulleys, one in a horizontal and the other in a vertical position, the latter projecting through a slot in the frame. A cord attached to the end of the bar upon the gate passes around the horizontal pulley and then over the vertical pulley, through the slot in the frame, a weight being attached to the other end of the cord, near the ground. It will be seen that, when the gate is opened, the bar projecting beyond its hinged end operates as a lever, raising the weight, and when the gate is not held open, the weight will automatically close it.

A FLOOR CRAMP FOR CARPENTERS, JOINERS, ETC.

The manner of operating a simple, handy, and inexpensive implement for tightly closing up the joints of flooring boards and deck planks, prior to nailing or otherwise securing them, is shown in the accompanying illustration, the small figure being a vertical cross section of the tool. The device consists of an elongated bed plate having backwardly projecting spurs on its bottom, and an upright hand lever carrying a pawl at the base of its arm. This lever is made with a cam head embraced by and turning between a toothed rack and a supporting flange rising from the bed plate, a push bar sliding in parallel bearings on the bed plate, made with a cross head and connected by a slotted link to the cam of the lever. The tool is very powerful, and is designed to cramp from eight to ten boards at a time if desired, the pawl engaging the rack teeth to hold the boards tightly in position when the hand is removed from the operating lever. The device may also be used for cramping the wainscoting of a room, for clamping doors together, and for a variety of similar work.

This invention has been patented by Mr. Alexander S. Bayer, and further information relative thereto may be obtained of Mr. Charles F. Mott, No. 90 Argyle Street, Halifax, N. S., Canada.

AN IMPROVED SURGICAL INSTRUMENT HOLDER.

An improved device, whereby various implements, such as scissors, hooks, saws, lancets, or various forms of blades, may be readily and quickly inserted alternately in one handle, and held firmly therein, is shown in the accompanying illustration. It has been recently patented by Mr. Leonhard Schwab, of No. 102 Graham Avenue, Brooklyn, E. D., N. Y. The handle has a vertically slotted head, with a recess on one side of the base of the slot, in which a thumb wheel is held upon a threaded pin projecting through the handle from side to side. In one edge of the handle is a concave surface whereby the milled periphery of the thumb wheel may be readily engaged by the operator, and projecting through the handle above the thumb wheel is a rivet. The shank of the instrument, as shown in the detail views, is made flat, of a width equal to that of the handle; it has a central longitudinal slot, and aligning semicircular recesses on each side. When the shank of the instrument is inserted in the handle, the slot in the shank passes over the rivet and the threaded pin, the shank coming in contact with and resting upon the bottom of the handle slot, when a slight turn of the thumb wheel fixes the tool firmly in the handle. With this construction one handle will answer for a great many tools.

AN IMPROVED METHOD OF RAISING BREAD, ETC.

An invention which has for its object the protecting of dough, etc., from currents of air while being prepared for baking, keeping its surface in a moist condition, and retaining the heat of fermentation, is illustrated herewith. It forms the subject of a patent recently issued to Mr. Joseph D. Cox, of Rochester, N. Y. One of the figures shows a convenient form of vessel to serve both purposes of mixing and raising, and the other is a more desirable form of chamber for the second raising, when the dough is made into loaves, and placed in pans or tins, according to the course ordinarily followed by housekeepers.

In both cases the down-projecting rim of the cover sits into an annular channel or trough, filled with water or other liquid, preventing the inward passage of air, but permitting the escape through the water of gases and vapors generated by the fermentation within. The length of time the dough is left in the two vessels varies according to the temperature, but the periods are about the same as ordinarily occupied, the mixing pan, for instance, being employed to keep the dough in over night, and the other vessel, placed in a warm situation, for the second raising during an hour or two in the morning. By thus keeping the surface of the dough moist, while facilitating the escape of the gases of fermentation, it is sought to prevent the forming of a tough, hard upper crust, while making the bread more palatable and digestible.

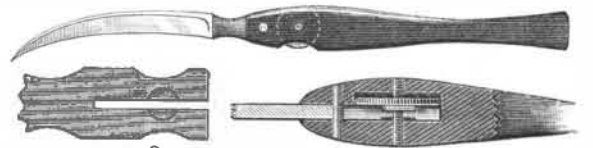
AN IMPROVED SCAFFOLD BRACKET.

A bracket designed to be cheap, durable and efficient, and that is adapted to serve a variety of uses, is shown in the accompanying illustration. It forms the subject of a patent issued to Mr. William H. Higgins, of Forest City, Pa. The parts are so made that the platform-supporting arms of the bracket may be adjusted to a horizontal plane, and the bracket may be attached to



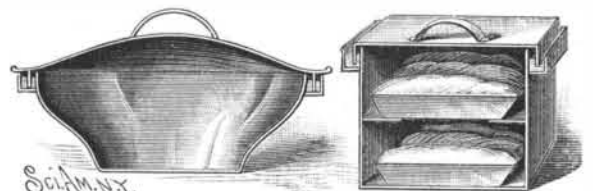
HIGGINS' SCAFFOLD BRACKET.

a roof or to the upper or under side of a ladder. In connection with a ladder the bracket may be used as an entirety, or may be separated into three distinct parts, which, with the aid of double hooks, may each be secured to the ladder. The side bars used in this bracket are formed with peculiar shaped, flattened, hooked ends, the ends of the hooks extending outward at an angle from the bars, and having spurs extending



SCHWAB'S SURGICAL BLADE AND HANDLE.

outward from the hooks, the bars having elongated slots in connection with these hooked ends, in which are pivotally mounted S hooks, the latter carrying adjustable leaves, with sleeves rigidly fixed thereto to slide on the hooks. The illustration shows only a few of the many uses to which this bracket may be applied, the small figure indicating the form of a slotted extension for a foot for the bottom of the ladder, to secure

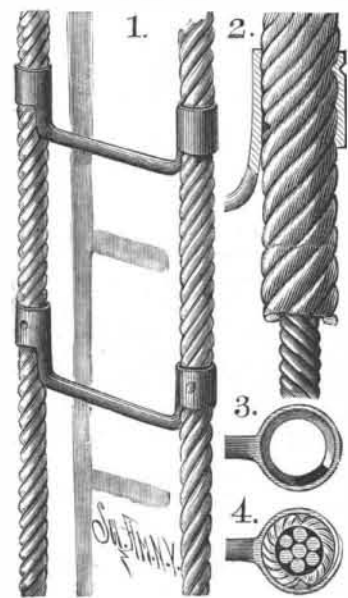


COX'S BREAD RAISER.

a firm and even foothold for the ladder upon uneven ground.

AN IMPROVED ROPE LADDER.

A rope ladder with peculiarly constructed rungs, and ropes of metallic cable covered with fibrous strands, making an article especially adapted for fire escapes, is shown in the accompanying illustration, and has been patented by Mr. Harlow French, of No. 340 West Fortieth Street, New York City. The rungs



FRENCH'S ROPE LADDER.