

IMPROVED PLANE GUIDE.

The invention herewith illustrated is an improved plane guide, by which the plane is steadied in squaring or beveling to any desired angle without the use of either try square or bevel. It is claimed that, with the aid of the device, any beginner or inexperienced workman can do better work and in less time than the ablest hand in the ordinary way without the attachment. Our engravings represent the apparatus applied to the plane, Fig. 1, and also separately, Fig. 2.

The yoke, A, is attached to the plane by means of a clamp screw, B, at one side, and a flanged extension at the other, C is the guide strip, which is applied to a connecting piece, D, which, by its semicircular portion, is pivoted to the outward projecting end of the yoke, A. The semicircular and straight portion of D is cast in a single piece, and the former part is beveled along its circumference, and divided into degrees. It may be rigidly set at any angle to the plane by a curved wedge piece, E, which is tightly secured, by a set screw between D and a small beveled projection on the yoke, at the outer end of the latter. The piece, D, extending from its semicircular portion, is slotted, and slides in a recess of the guide strip, C, so that the latter may be carried up to the base of the plane and firmly secured by the set screw and washer, F. A small projection on the yoke serves as an index to the degrees marked on the semicircular portion of D.

When the plane is to be used with the guide, for squaring, beveling, or jointing boards, veneers, etc., the yoke is firmly arranged in such a position that the center of the semicircular part shall be slightly below the base of the plane. The set screw at the edge of the arc is then loosened, which allows the swinging of the guide strip to any desired angle. If the latter is oblique, the set screw, in the slotted part of D, is loosened to give greater play to the guide. When the guide is in position, the set screw and wedge at the arc are tightened, and the guide is raised up until it touches the base of the plane. The set screw of the guide is then tightened, and the apparatus is ready for work.

Fig. 1

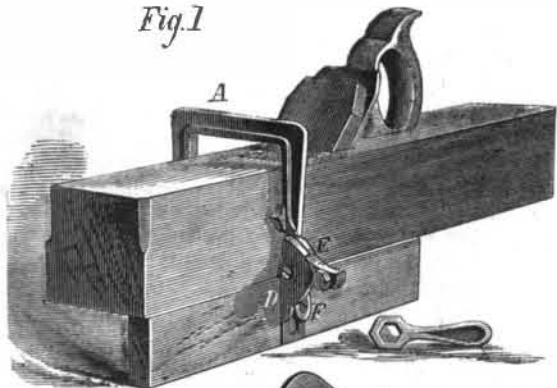
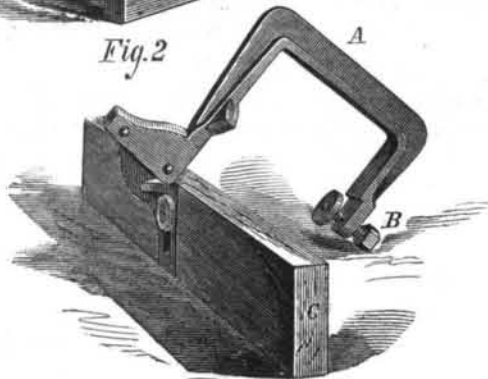


Fig. 2



By fixing the plane (with guide attached) in the vise, small work can, it is stated, be squared or beveled without the annoyance of frequently picking up and laying down a heavy plane, try square, or bevel, several times for each piece, and the trouble of fastening each piece in the vise. This work can be done perfectly, with the attachment, where the light would be insufficient for the ordinary mode of operation.

Having an equal pressure on both sides of the board, long and thin stuff, we are informed, can be beveled without the board springing from the bit and riding the ends of the plane.

Patented through the Scientific American Patent Agency, January 6, 1874. For further particulars address Walter S. Shipe, Minerva, Stark county, Ohio.

A Hill Full of Pyrites and a Widow Thrown in.

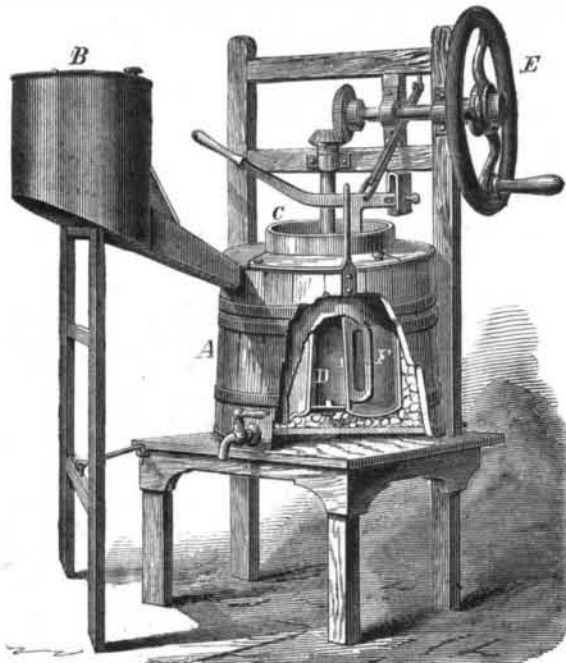
An extremely sharp and intelligent American gentleman from the West once walked into the office of Dr. C. T. Jackson, the chemist. "Dr. Jackson, I presume?" "Yes, sir." "May I lock the door?" And he did so. Then having looked behind the sofa, and satisfied himself that no one else was in the room, he placed a large bundle, done up in a yellow handkerchief, on the table, and opened it. "There, doctor, look at that!" "Well," said the doctor, "I see it." "What do you call that, doctor?" "I call it iron pyrites." "What!" said the man; "isn't that stuff gold?" "No," said the doctor, "it's good for nothing: it's pyrites." And putting some over the fire in a shovel, it soon evaporated up the chimney. "Well" said the gentlemanly man, with a woe-begone look, "there's a widow up in our town has a whole hill full of that, and I've been and married her."

[It is almost a daily occurrence at this office to receive specimens of the substance which was brought to Dr. Jackson. We have not heard that any of our correspondents have suffered to the degree of chagrin or from the cause as did the interviewer of the above distinguished chemist; but we have observed great disappointment upon the countenances of some persons,

who have brought their specimens to us from a long distance, on being told that their gold was worthless pyrites. —Eds.]

LUCETTI'S ITALIAN ICE CREAM FREEZER.

Confectioners, and others whose business includes the manufacture of large quantities of ice cream, water ice, and



similar delicacies, will doubtless find, in the device represented in our engraving, a convenient and timely apparatus for use during the coming summer months. It is said to freeze the cream with great rapidity, and to require much less labor in its manipulation than the machinery commonly employed. It is constructed as follows:

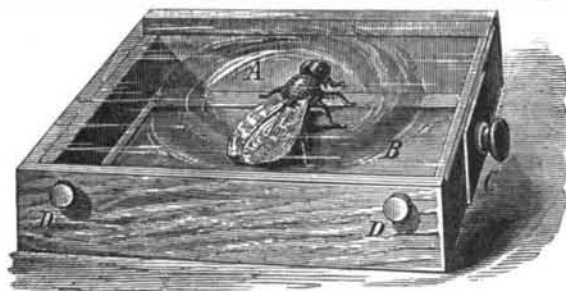
The tub, A, of the freezer, connects with a reservoir, B, which is kept filled with ice. A suitable gate is arranged in the spout, forming the two receptacles by which supply can be admitted to the former from the latter at will. The cream receiver, C, is constructed of such dimensions as to afford sufficient space for the freezing materials between its outer surface and the tub, A; and it incloses a tube, D, which is open at the bottom, and passes up through its center. The object of this last mentioned portion is to allow the cold air from the ice to pass to the middle part of the receiver so as to freeze the adjoining portion of the cream as quickly as the outer parts. Bars cross the lower end of the tube, D, and carry a pivot, which, setting in a socket in the tube, A, serves as a support for the receiver. The upper extremity of the same tube is secured to a vertical shaft which carries on its top a bevel pinion, forming a portion of a bevel gear by which motion is communicated to the shaft, and thence to the receiver by the crank wheel, E. The tub, A, is provided with a ring cover. The receiver has also a cover which has a hole in its center for the passage of the shaft, and a slot to receive a spatula, F. The construction of the lower part of the latter is clearly shown in the engraving, and it is operated so as to scrape against either the tube or the inner surface of the receiver by means of simple detachable mechanism, the operation of which needs no special explanation.

In using the freezer, the receiver is rotated by turning the crank, E, with the right hand, while the spatula is controlled by the left. The apparatus is also so arranged that the gate for admitting the ice is readily governed by the left hand of the operator.

Patented through the Scientific American Patent Agency, July 22, 1873. For further particulars regarding sale of rights, etc., address the inventor, Mr. Antonio Lucetti, at 125 White street, near Center, New York city, where the device may be seen.

MAGNIFYING INSECT CASE.

This is a simple device, by means of which living insects can be conveniently disposed under a lens, and thus kept for a lengthened period for purposes of examination. In entomological studies, the invention might be found quite a useful auxiliary, and would doubtless prove interesting and instructive considered merely as a source of amusement. It consists of a shallow tray of suitable dimensions, having its



longitudinal sides higher than its transverse ones, in order to receive a glass cover. The center of the latter is thickened into lenticular form at A, in order to afford the necessary magnifying power. B is a small platform, which is provided with a front piece set at right angles, and a knob, by which it may be pushed in and out of the box through a

square aperture at C, in the same manner as a drawer. On this the insect is placed. The glass is firmly held by two small set screws or bolts at D.

Patented through the Scientific American Patent Agency, February 17, 1874. The inventor desires to sell the patent to the highest bidder. Further particulars may be obtained by addressing G. N., Box 73, Station D, New York city.

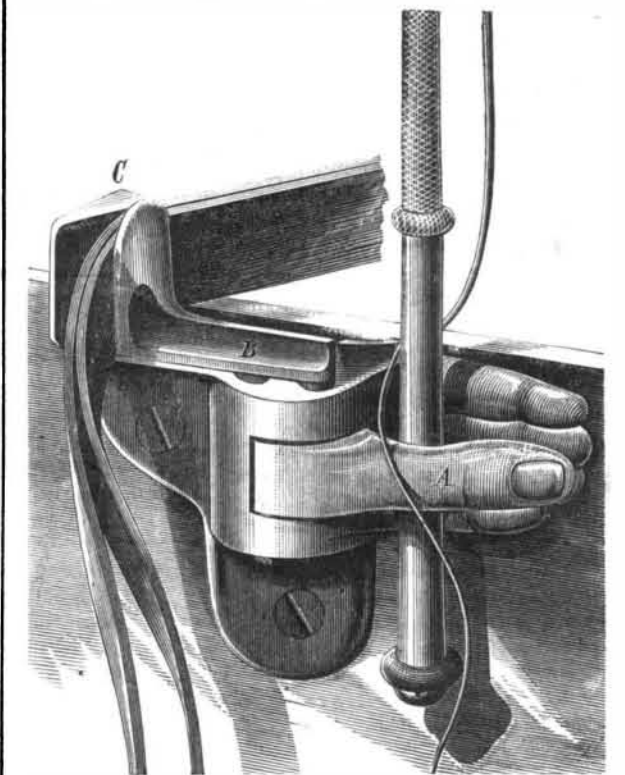
An Odd Use for Hammers.

"I remember," says a correspondent of the *Medical and Surgical Journal*, "that when I was very young, they used to raise blisters with boiled hammers. Old Dr. Twitchell of Keene (peace to his ashes!) once wanted to blister some one in a farm house, far from home. He had nothing with him to do it with. He asked the wife to find him a hammer. The article was brought out, put in a tea kettle over the fire, and, after the water steamed and bubbled well, he lifted it out and gently touched it to his patient, in half a dozen spots, over the seat of pain, with very positive effect. Boiled hammers were, for many years, used in that neighborhood for pleurisy: and every old lady knew nothing was equal to a hammer; and there was a long dispute whether it should be a claw hammer or not. I think the yeas finally conquered."

MATSON'S SAFETY COMBINED WHIP AND REIN HOLDER.

This is a useful device, simple in construction and readily applied to any carriage. Its object, as indicated by its title, is to hold the whip or the reins, and to this end it is attached to any convenient place on the dash board.

As shown in the annexed engraving, it consists of a metal box provided with flanges for the securing screws. In the enlarged circular portion, it carries the shafts of two arms, one of which, A, is made thumb-shaped, and grasps the whip, while the other, B, in connection with a projection, C, firmly holds the reins. Both arms are provided with strong springs inside the box, which cause them, after they are drawn back and the whip or reins inserted, to clutch the same tightly. In inserting the reins, the driver drops them between the jaws from above, and pulls them back as far as he chooses. They are immediately securely held, as any



dragging upon them by the horse only wedges the clutch tighter. The apparatus is made of malleable iron, is quite strong and durable, and, it is claimed, cannot become out of order.

Patented through the Scientific American Patent Agency. Messrs. Matson & Brothers, of Moline, Rock Island county Ill., are the inventors and manufacturers, of whom inquire for further particulars regarding sale of rights, etc.

Gain in Weight by Combustion.

At a recent lecture before the Franklin Institute, Mr. Theodore D. Rand showed a simple and satisfactory experiment to demonstrate the increase in weight of burning bodies, caused by their absorption of oxygen. About an ounce of fine turnings of zinc, produced in the spinning of that metal, were loosely wrapped with iron wire and suspended from the arm of a balance. The pan on the other arm having been weighed to counterbalance the zinc, the latter was ignited with a match. At first the combustion was rapid, and much oxide escaped in fumes, causing the zinc end of the balance to rise. Soon, however, the combustion became a mere glow, the absorption of oxygen taking place without fumes. In a minute the beam began to descend and soon very decidedly outweighed the counterbalance.

The only precaution necessary is to have the zinc moderately but not too compact. If too loose, it burns too rapidly; if too compact, it will not burn.

SOMEWHAT CONDENSED.—A French chemist is said to have condensed the body of his wife into the space of an ordinary seal, and had her highly polished and set in a ring. He made a nice income by betting, with lapidaries and others, that they could not tell the material of the set in three guesses, and, after pocketing the money, would burst into tears, and say: "It is my dear, dead wife. I wear her on my finger to keep alive pleasant remembrances of her."