

**IMPROVED BENCH CLAMP.**

The bench clamp shown in the annexed engraving is designed for the use of carpenters, sash, door, and cabinet makers, and is to be attached to the ordinary bench by means of a downwardly projecting foot which enters one of the several sockets formed in the bench top. The upper surface of the foot is inclined and serrated, as shown in Fig. 2. The general arrangement of the clamp is shown in the perspective view, Fig. 1. The nut formed on the base plate receives a screw having at one end a foot lower which presses the work, and at the other end a ratchet wheel whose teeth are engaged by a projection formed on the ratchet lever, which swings on the head of the screw and has sufficient longitudinal motion to permit of bringing it into engagement with the teeth of the wheel or of inserting it into the deeper notches formed in diametrically opposite sides.

The clamp may be placed in any desired position on the bench, and may be brought to bear upon the side or end of work whose opposite side or end is supported by the ordinary bench pin.

This device can be applied to great advantage in both wood working and iron work, and it will be found useful in marble and stone cutting. It replaces the cumbersome clamps in common use, and may be applied to a number of purposes which we need not enumerate. This invention was recently patented by Mr. James Murphy, of San Antonio, Tex.

**IMPROVED EXTENSION TABLE.**

We give herewith an engraving of an improved extension table, in which the extending sections are contained in the table and are automatically placed when the table is pulled out or extended.

Fig. 1 is a perspective view of the table showing one half closed while the other half is being extended. Fig. 2 is a perspective view of the under side, showing the mechanism which sustains and operates the extension sections. Lazytongs connect the legs at the ends of the table with the legs in the middle, and the extension sections, which drop and are covered by the other sections as the table is closed, are raised into their places by the lazytongs at the instant the table top is drawn out sufficiently to admit of it. The lower terminals of the lazytongs slide in slotted plates, D, attached to the legs, and when near the upper portion of the slot they strike brackets which support the movable end sections of each half of the table top. The permanent sections of the table top, that is, the sections which always lie in the same horizontal plane, alternate with the vertically movable sections, and are attached to and supported by alternate sections or links of the tongs.

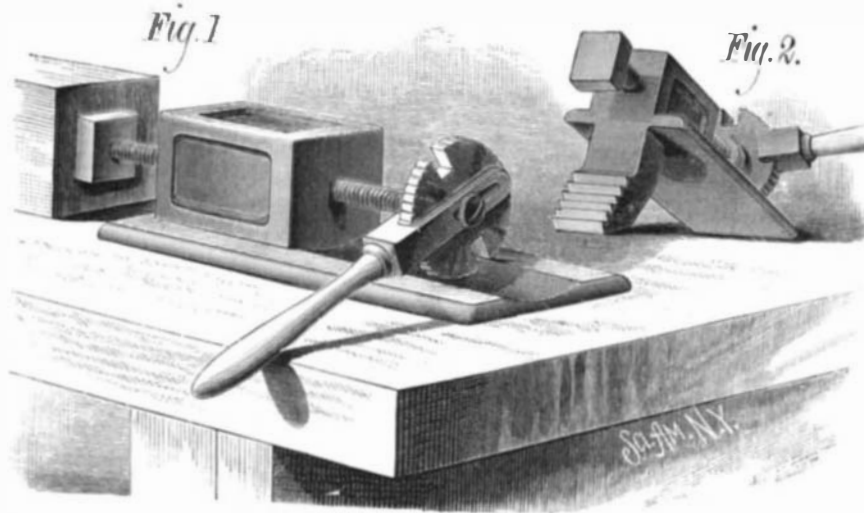
The extending sections are mounted on uprights, B, which extend downward and are slotted to receive the pivot of the upper joint of the lazytongs sections; these uprights are also connected by a sliding connection with the lower joint of the section. The parts are arranged so that the movable sections always maintain a central position in relation to the permanent ones; and when the permanent sections are sufficiently separated, the rising of the lower joint then carries the intermediate movable sections upward into place and sustains them in that position.

The table is locked in an extended or closed position by pressing a button. A lady or child may readily open and close the table, so small is the force required, as the pivoted trusses, C, are balanced and the table works almost as easily as a door turns on its hinges. The table top, whether drawn out or closed, is always supported by trusses, which give it great strength and rigidity, and there is no doubt of the superiority of the table in point of durability. It is a most desirable improvement.

The advantages of a table of this construction will be apparent to any one having had even a slight experience with extension tables of the common form. The extra leaves are always in place and properly stored, and all that is required to lengthen the table is to release the retaining rod and draw it out, and to shorten it when lengthened is simply the reverse of

this operation. This useful invention was recently patented in this and several foreign countries by Mr. J. D. Brasington, 256 West 28th street, New York city.

The patentee will be pleased to correspond with parties wishing to purchase the patent, or to obtain license to work the invention in the United States, Great Britain, or Canada.

**MURPHY'S BENCH CLAMP.****NEW INVENTIONS.**

An improvement in tool handles, patented by Mr. John Gearon, of Beloit, Iowa, provides a new method of attaching handles to axes, adzes, hammers, etc. Instead of the usual eye for receiving the handle the tool has dovetail recesses on opposite sides, into which metal bars are inserted, which are concave on their interior surfaces below the tool for the reception of the handle, and are also provided with a recess for the reception of shoulders on the handles. The exterior of the lower part of the bars is screw threaded for

jacking wheel for vehicles, which can be applied in case a loaded truck or other vehicle breaks a wheel or axle. By means of clamps and braces this wheel, which is small, can be readily applied, and by a screw the vehicle can be jacked up for immediate removal. The device is portable.

Mr. Edward N. Oualline, of Hockley, Texas, has patented an improved wheel hub, which permits the taking out of a broken spoke and the insertion of a new one without the removal of the wheel tire. The hub is sectional, and provided with spokesockets having open sides, which are closed by a plate held by bolts which pass between the spokes.

An improved copybook, patented by Mr. Elmer P. Newton, of Dimondale, Mich., is claimed to be more convenient in use and less expensive than those heretofore used. The copies are printed in rows on a few pages of the book, the rows being easily separated by perforated lines. Each copy may be torn off, and by means of a copy holder attached to any of the pages where required. A saving in the cost of printing is thus effected.

Mr. George Blair, of Prescott, Ontario, Canada, has patented an improvement in stovepipe collars. It is formed by curving laterally a ribbon of metal into a circular form, at the same time forming therein radial corrugations or flutes which are deepest near the interior border of the collar. This collar will fit stovepipes of different sizes, and of course will allow expansion or contraction.

The whole is made integral by joining the ends of the ribbon by a tongue and slot joint.

Mr. John D. Sanders, of Lone Oak, Texas, has patented an open link for connecting trace chains to whiffletrees and other purposes, so constructed that it can readily be attached or detached without the use of tools, is fastened automatically when closed, and is not liable to become accidentally detached.

Mr. Laurids J. M. Mortenson has patented a wagon bound brace holder or post, by which the hounds and circle are firmly held together, and by use of which the brace, instead of being weakened, as it is by some forms of brace holders, is strengthened.

A bottle filler, patented by Mr. Emile Kleiber, of New Orleans, La., supplies a machine for filling bottles with viscid oils and other viscid liquids, by which the oil or other liquid is forced out by air pressure, and the cocks are opened by the rise of the bottles to be filled. The arrangement is very ingenious, and will greatly facilitate the bottling of this class of liquids.

Mr. Alexander C. Bell, of New Alexandria, Pa., has patented an improved cider mill and wine press. The fruit is first placed in a hopper and ground. It is then passed between compression rollers to extract the juice, and the pomace is then dropped on an endless belt, which carries it out of the mill. The compression rollers are covered with rubber. These rollers compact together so closely as to prevent the passage of the juice between them, while their elastic quality permits

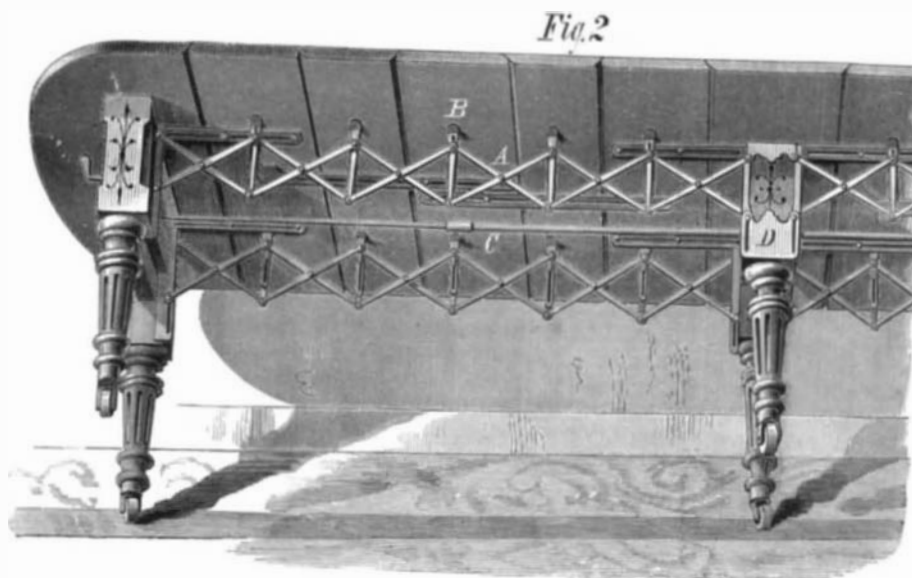
the pomace to pass. The juice flows from their upper surfaces as from a trough, and is received into a conductor, through which it flows out of the mill.

Mr. Charles W. Millsbaugh, of Rowton, Conn., has patented an improved music holder. It is a horizontal bar provided with two sliding blocks, carrying clamping springs which press upon the leaves on each side of a music book.

An indicator, designed more especially for attachment to boxes or drawers which contain boots and shoes, but which

may be employed for other purposes, has been patented by Mr. C. Friedrich A. Bultmann, of Sumter, S. C. It not only indicates the kind of merchandise contained in the drawer or box, but also the number of articles.

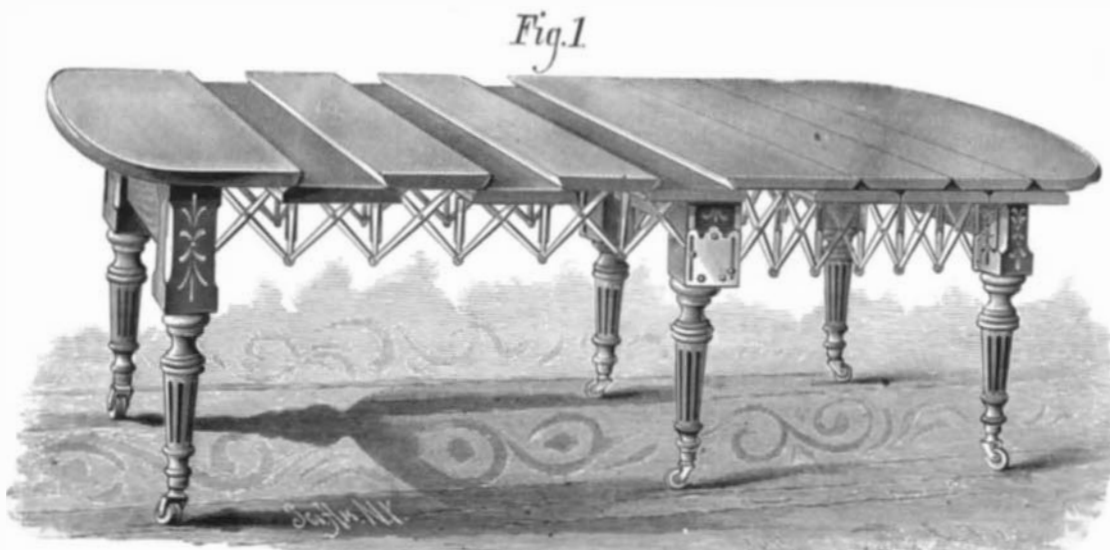
A band cutter for thrashing machines, patented by Messrs. John Alexander and William Alexander, of Hazelrigg, Ind., is so constructed as to cut the bands as the bundles are fed to the band table, and to present the grain to the feeder in better condition than when the bands are cut by hand, economizing labor, and preventing all danger of the feeder's hands being cut by the band cutter. The construction of the device is simple, and its action effective.

**BRASSINGTON'S EXTENSION TABLE.**

ring nuts, which clamp the bars upon the handle, forming a secure attachment.

Mr. Aaron M. Sidwell, of Girard, Kansas, has patented a transplanter so constructed that plants can be readily removed from the ground without disturbing the soil around their roots, and holes made in the ground of exactly the shape and size of the soil raised with the plants. A very convenient implement.

Mr. Emil Schuhardt, of New York city, has patented a

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