(No Model.)

D. FRASER.

RAPPING PLATE FOR WOODEN PATTERNS.

No. 457,991. Patented Aug. 18, 1891.

Fig. 1

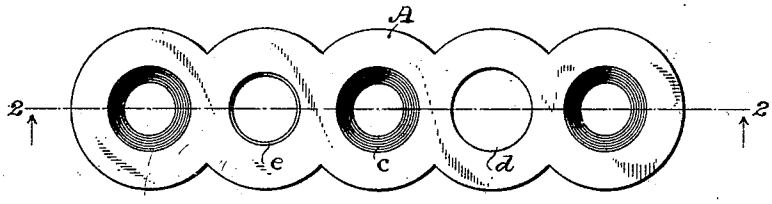


Fig. 2.



Fig. 4.

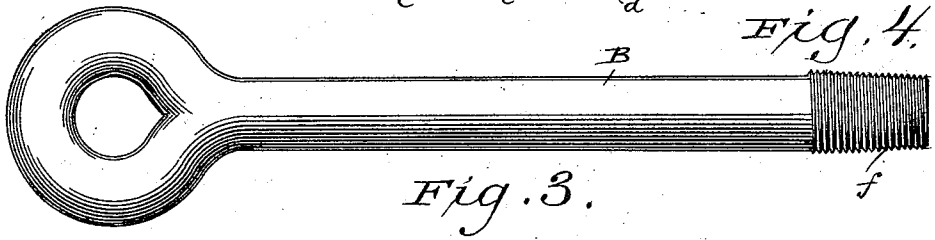
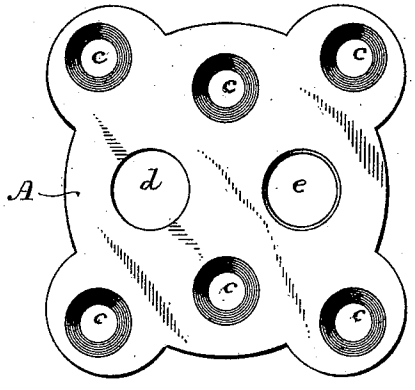


Fig. 3.



Witnesses
Geo. W. Young,
N. E. Oliphant

Inventor
Donald Fraser
By H. G. Underwood
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DONALD FRASER, OF MILWAUKEE, WISCONSIN.

RAPPING-PLATE FOR WOODEN PATTERNS.

SPECIFICATION forming part of Letters Patent No. 457,991, dated August 18, 1891.

Application filed August 7, 1890. Serial No. 361,309. (No model.)

To all whom it may concern:

Be it known that I, DONALD FRASER, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Rapping-Plates for Wooden Patterns; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to rapping-plates for wooden patterns, and it will be hereinafter more fully described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a plan view of one style of rapping-plate; Fig. 2, a longitudinal section taken on line 2 2 of Fig. 1, and Fig. 3 a plan view of another style of rapping-plate. Fig. 4 represents a peculiar form of draw-bar.

Referring by letter to the drawings, A represents a rapping-plate made from malleable iron, cast-steel, or other elastic metal. The edges of the plate are preferably beveled from top to bottom, and are also corrugated.

When the edges of the plates are beveled, the under side of each corrugation has a radius equal to that of a standard bit; but owing to said bevel the radius of the upper side of said corrugation is slightly greater. All the corrugations may have an equal radius, as shown by Fig. 1, or the radii of said corrugations may be varied, as shown by Fig. 3.

The plates A are formed with countersunk openings *c* for the heads of the screws by which said plates are secured to the wooden patterns. The plates are also provided with an opening *d*, in which to insert a rapping-pin, and another opening *e*, that is tapped to engage a screw-threaded bar such as is usually employed as a handle by which to draw a wooden pattern from the sand.

The rapping-plates are made in various sizes, according to the patterns on which they are to be employed.

The sockets for the plates are made by boring into the wooden patterns with bits of the standard gage, and thus said sockets can be very readily shaped and said plates fitted in position for use.

By having the edges of the plates corrugated I obtain a better hold for said plates in the wood, and there is less liability for the patterns splitting when the rapping takes place, and by beveling said edges I obtain a still better hold, because of the wedging action of the bevel.

Heretofore it has been customary to make the rapping-plates from wrought-iron hammered into the desired shape; but plates made in this manner are expensive and add materially to the cost of the patterns. My plates are cast in the desired shape, and consequently they require no hand-work except the tapping of the draw-holes, and should a plate be broken it can be readily replaced by a new one at a small cost.

The plates above described are cast in various sizes and shapes to suit the trade, and the draw-holes being tapped said plates are put in lots for the market, thus forming an improved article of manufacture and creating a new industry.

As a matter of fact, patterns are usually required in the foundry as soon as finished, and rapping-plates are seldom thought of until the last moment. Therefore it follows that, because of the time required to fashion such plates, the latter are omitted and the patterns hurried to the foundry and soon returned for more or less expensive repairs. My rapping-plates being standard articles, to be carried in stock, are always ready, and can be very quickly attached to the patterns, whereby vexatious delays and expense are saved.

The bar B (shown in Fig. 4) is provided with a tapered screw-point *f* of standard size at the extremity, the increasing diameter serving to take up wear in the tapped openings of the rapping-plates, whereby a rigid connection is always possible between said bar and a plate, this being essential to successful drawing of a pattern.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

As an improved article of manufacture, a rapping-plate having corrugated edges beveled inward from its upper face and formed with a series of countersunk openings therein, a threaded opening, and a rapping-pin opening, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

DONALD FRASER.

Witnesses:
N. E. OLIPHANT,
WM. KLUG.