IMPROVED EXPANDING AUGER.
Every wheelwright is aware of the trouble attending the use of the common hollow augerfor boring the tenons on spokes; often the hollow auger that bores the tenons and the bit that bores the round mortise in the felloes do not correspond, and the consequence is that the spoke and the felloe do not fit; again, even if the bit and stock correspond they wear with use, the hollow auger becoming larger and the bit wearing smaller, so that they soon cease to fit with that accuracy so necessary to make a perfect wheel. It is also frequently desirable to alter the size of the tenons, which cannot be done without changing the auger, and there are sizes of tenons not provided for by the present hollow auger, as for example the nine-sixteenths, eleven-sixteenths, thirteensixteenths and fifteen-sixteenths of an inch. All these difflculties are overcome by the invention of C.J.L. Meyer, of Newark, N. J., which was patented March 29, 1859. This implement will cut tenons from $\frac{1}{2}$ to 1 inch,
rable, the sections F and G , and the scroll-plate D all being case-hardened; every wheelwright and mechanic shotild possess themselves of one, as it will prove a very useful tool in any shop where wood-working is carried on.
Any further information can be obtained from the inventor at Wright's Machinery Depot, 30 Market-street, Newark, N. J., where the tools can be seen and rights negotiated.

## LACES AND EMBROIDERIES.

In no one article, perhaps, is female extravagance in dress carried to a greater length than in the use of elegant and costly laces and embroideries. Almost fabulous prices are sometimes paid for them. The rich laces in this country are imported principally from France and Belgium. The costliest specimens of lace are easily disposed of. Lace at twenty shillings (\$5) a yard-and that but one-tenth of a yard wide-finds ready purchasers. The demand for rich laces is constantly increasing,


## MEYER'S IMPROVED EXPANDING AUGER.

and admits of being adjusted in a moment to any size between those so as to make a perfect fit to any bit.
Fig. 1 is a perspective view of the whole implement, A being the handle of an ordinary bit, and $B$ the cylinder of the cutting tool, which is secured to the handle, but may be obtained separate if desired. D is a ring which has a thread or worm cut inside, so that it fits in notches on the inside of the pieces that have the cutters attached and in wilar notches in the other pieces which are movable in the tool. This screw is seen at $J$, in the detached view of the ring, Fig.2. A ring, C, behind D secures it in its proper position on the cylinder or barrel, B. E is a solid segment to the face of which the cutter, F , is properly secured. This is seen separate in Fig. 4, $c$, being the notches by which it is adjusted by D. G is an adjustable blank or surface that gives a bearing to the wood while being cut, it is seen separate in Fig. 3, a, being the notches on it to render it capable of proper adjustment. H, Fig.5, is a key for moving the rings $\mathbf{C}$ and D , and so causing the cutters and the blanks to come closer together or go further apart to make a tenon of the desired size. The tenon is shown in dotted lines, the end of the spoke being placed against the face of the tool and the tool rotated, the tenon passes inside as it is cut and the tool is self-centering. It does not take the power of the common tool to work, as the tenon on the spoke is only held on four lines instead of all around, and consequently the resistance from the friction of the tool itself is lessened. Such an implement has long been a desideratum and many attempts have been made to produce one, but each has had either the serious fault of difficulty of use or complexity of construction. This tool as is seen is simple, strong and du-
outrunning the supply, thus appreciating the prices; and consequently the genuine article can only be worn by the wealthy.
Belgium supplies us with more laces than all the countries of Europe together, and laces of the rarest kind, finest quality and most artistic design. In fact, lace is indigenous to Belgium, and has been so for generations. In some parts of Belgium the flowers are made separately, and then worked into the ground, while others carry on the pattern and the design together. The division of labor is very great.
The labor of washing lace is almost an art, and only the most skillful in that line are engaged in it. After washing, lace is spread out to dry on a cushioned table, and pins of a peculiar shape are run through each hole to prevent it from slrinking. When very fine, or the pattern intricate, an entire day will be spent upon one yard of lace. "Mechlin" was formerly the "queen of lace," but Point de Venise antique now occupies the first place. It is a rare old lace, light and open, raised in some parts like embossed work, and has an air of antiquity that ishighly prized. The manufacture of it is said to be entirely abandoned, and it is only found now as heirlooms in families, except when a stray specimen finds its way into market, in which case there is a great competition for its possession. The Point de Venise antique is more frequently seen in Italy than in any other country, for the high dignitaries of the Catholic Church have their official robes trimmed with flounces of this costly material. It finds its way into England chiefly through the medium of travelers, who seize upon every opportunity to obtain these relics of ancient fashion.
Next in value is Point d'Alengon. It has a dingy hue,
and the first idea connected with it by unsophisticated minds is that it wants washing. Fashion, however, corrects this notion. Point de glaze is as fine as a spider's web, and as light as thistle down. Brassels point d'applique ranks very high. It is formed by sewing sprigs of the real point upon illusion or any other kind of plain lace. It is very much used for flounces, and costs from six to eight pounds per yard, five-eighths wide. It is very pure in color, which is owing to a white powder with which it is saturated, and which it continues to retain, and obviates the necessity of washing.
Honiton lace'came into fashion in 1842, and owes its present position to Queen Victoria. Cominisserating the miserable condition of the lace-workers of Devon, she determined to assist them by bringing their manufacture into fashion, and in furtherance of this laudable purpose had her wedding dress made of it. Honiton at once became the rage, and has continued popular and expensive ever since, although, previously, purchasers could hardly be found for it. Chantilly lace is alway black, is excepdingly fine, and is much used for veils and flounces.
Our supply of the more elaborate specimens of embroideries is derived from France and Switzerland. Although the Swiss are really superior to the French, yet so despotically do French fabrics rule the fashionable world, that the former are obliged to be sold as French. Sharpe's London Magazine.

## IMPROVED HOOP-LOCK.

This invention is intended to secure together the ends ot bale hoops, and is so designed that it can be quickly and securely fastened or unfastened by a laborer or other person but is not likely to become loose from the ordinary handling of a bale or the exigencies of transportation.


Figs. 1 and 2 show one form of the invention, Fig. 1 being a section and Frg. 2 e top Hewr. A and $\mathbf{B}$ are the ends of the hoop having their extreme ends at $a$, and $b$, turned inwards to form a sort of loop; a socket of metal $d$, is open at the top and has dovetail slotsin its upright sides so that the top, $c$, which has angular edges can be slid in the grooves, when $a$, and $b$, have been placed in $d$, and hold both the ends of the bale hoog perfectly secure.


Figs. 3 and 4, a section and top view, show another form of the invention where the socket is divided into two parts, $c^{\prime}$, and $d^{\prime}$, both of which slide over the loops $a$, and $b$, and $c$, has a tongue that fits into a dovetailed groove in $d^{\prime}$, as in the other form.
The inventor of this simple little device is Edward Davidson, of Batesville, Ark., and he will be happy to give any further information upon being addressed. The patent is granted this week, and the claim will be found on another page.

Flying Machine.-The Mansfield (Ohio) Herald is informed that a gentleman residing near that city, Mr. D. M. Cook, well known as the inventor of the popular Sorgum Evaporator extensively sold throughout the West, is now engaged in the construction of a flying machine. Mr. C. is quite sanguine of success. We are ignorant of the details on which his air-ship is to be built, but we understand that, while a balloon is to be used for elevation, steam is to be the motive power. The inventor is quite sanguine that he has discovered the proper machinery whereby the air may be navigated at will. He has built, or is about to build, a house for the purpose of containing his labor without being annoyed by the curious.

