No. 776,040. PATENTED NOV. 29, 1904.

C. C. VILAS.

HOLDER FOR LACEWORK.

APPLICATION FILED NOV. 16, 1903.

NO MODEL.

Fig. 1.

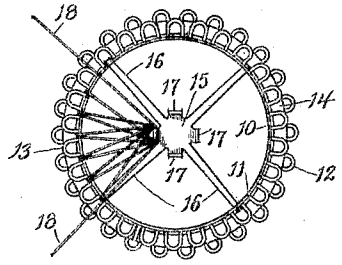


Fig. 2.

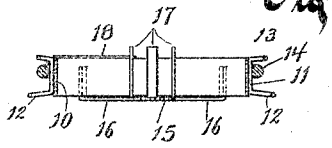


Fig. 3.

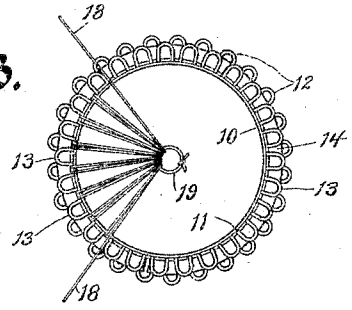


Fig. 4.

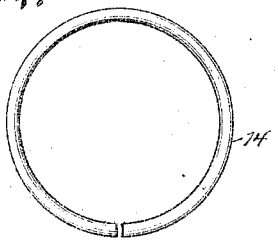


Fig. 5.

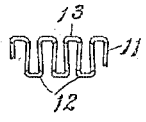
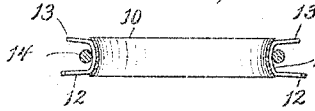


Fig. 6.



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No. 776,040. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

CHARLOTTE C. VILAS, OF MILWAUKEE, WISCONSIN.

HOLDER FOR LACEWORK.

SPECIFICATION forming part of Letters Patent No. 776,040, dated November 29, 1904.

Application filed November 16, 1903. Serial No. 181,372. (No model.)

To all whom it may concern:

Be it known that I, CHARLOTTE C. VILAS, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Holders for Lacework, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to certain new and useful improvements in holders for lacework, and has for its object to simplify the construction of such a device and render it more efficient.

One of the objects of this invention is to provide a connected series of rounded radial thread-engaging teeth firmly secured to the frame, but capable of being detached therefrom.

A further object of this invention is to provide a holder for lacework with an internal loop-engaging means adapted to hold the loops during formation until they can be gathered by suitable means.

With the above primary and other incidental objects in view the invention consists of the devices and parts or their equivalents, as hereinafter more fully set forth.

Referring to the accompanying drawings, in which like characters of reference indicate same parts in the several views, Figure 1 is a plan view of a holder for lacework embodying my invention and provided with the internal loop-engaging means. Fig. 2 is a central section thereof. Fig. 3 is a plan view of the holder shown in Fig. 1 with the tie-band in place after the internal loop-engaging means has been removed. Fig. 4 is a plan view of the spring-ring. Fig. 5 is a plan view of a section of the wire finger-strip, and Fig. 6 is a central section of a holder of a modified form.

In the figures, 10 represents a frame-ring preferably of sheet metal, which may be of any desirable material and which in the form shown is continuous or unbroken and straight in cross-section. Surrounding the frame-ring 10 is a strip 11 of bent-wire loop-engaging fingers formed by first bending the wire back and forth in regular reverse bends and then bending up the fingers formed at both edges of the strip, so the cross-section of the strip is of a U shape. The fingers 12 of one edge of the strip are bent farther from their ends than the fingers 13 of the other edge, causing the U-shaped cross-section of the strip to show one of its legs longer than the other. The strip 11 bends around the frame-ring 10, with its fingers projecting outwardly, and around the strip 11, between the rows of fingers thereof, extends a ring 14, preferably of large spring-wire, round in cross-section and split at one point to enable it to tightly hug the strip 11 against the outside of ring 10 and keep it in place. These parts, as shown and described, may be assembled by placing the strip 11 in position within the spring-ring 14 and forcing ring 10 into the same, which will slightly wedge outwardly against the spring-ring 14, and so tightly clamp strip 11 in place. The finger-strip 11 constitutes a body provided with projections adjacent to its edge in the form of the shorter fingers 13, and the round-wire ring 14 forms a guard extending along said edge at about the level of the free ends of said projections, whereby the thread being worked is prevented from accidentally catching in the projections or fingers 13.

An internal loop-engaging means 15 has radial spider-legs 16 with bent-up ends to be engaged between the two rings 10 and 14, holding the body portion thereof in the center of the holder, as shown. The loop-engaging means 15 may be slipped into position by forcing the ends of its spider-legs between the rings 10 and 14 from the reverse side of the holder or that side on which the longer fingers 12 are located. Around its body portion and between legs 16 are upstanding arms 17, which extend slightly above the plane of the face of the holder.

In the type of holder shown in Fig. 6 the ring 10 is formed with a curved cross-section, and the inner portion of the finger-strip 11 is correspondingly curved to prevent the possibility of the ring 10 accidentally slipping out of place.

In operation the loop-engaging means 15 is placed in position, and the thread 18 is looped back and forth around one of the arms 17 and the successive short fingers 13 of the strip 11.

Each arm 17 is adapted to support its share of the loops, and, as shown in the drawings, the loops of only one of the fingers have been strung. When all of the loops have been completed and the ends of the thread joined, the several groups or clusters of loops supported by the fingers 17 are successively gathered on a tie-band 19 by slipping said tie-band through said loops along the outside surface of the arms 15, and said loop-engaging means is then withdrawn from the holder and the tie-band tightened and knotted to tightly draw the loops into their true radial positions. In Fig. 3 the tie-band 19 is shown applied to the loops of one arm 17 only for the sake of clearness; but it is to be understood that such tie-band is intended to pass through the loops of all of the arms 17 before the loop-engaging means 15 is removed, and not until all of the loops are engaged by it is it to be tied. The skeleton wheel or body-work produced by the loops, as above described, is free from the objectionable irregular enlarged lump which is usually formed by diametrical loops overlapping at the center of the frame and is adapted to have the lace figures worked therein by weaving between the loops as warp-threads in the usual manner. When the lacework is complete, it may be removed from the holder by withdrawing the frame-ring 10 at the back of the holder and then springing the strip 11 from the ring 14 and disengaging the loops of the work from fingers 13.

The object in forming fingers 12 longer than fingers 13 is to enable the holder to be held by said fingers 12 in one hand of the operator while the other hand performs the loop-stringing operation on fingers 13, the long fingers 12 keeping the hand-holding device at a distance from the short fingers 13, so as not to interfere with such loop-stringing operation.

While I have shown and described particular details of construction, it is obvious that many changes may be made therefrom without departing from my invention, such as by substituting for the tie-band a ring to be supported by the arm 17 at the beginning and through which the loops may be drawn instead of passing around said arms 17. Another obvious change contemplated by this invention is the making of the rings 10 and 14 either split or continuous and of any shape so long as they coact to retain the finger-strip between them.

The term "finger-strip" as herein used is intended to comprehend a strip having loop-engaging fingers or projections and is not intended to limit me to the particular structure of the finger-strip 11, as it is obvious that other finger-strips may be employed instead of strip 11 without departing from the spirit or scope of my invention.

What I claim as my invention is—

1. In a holder for lacework, a pair of rings fitting together, and a thread-engaging finger-strip secured therebetween.

2. In a holder for lacework, a pair of rings having a telescoping fit, and a thread-engaging finger-strip secured therebetween.

3. In a holder for lacework, a pair of rings fitting together, one of said rings being spring-acting, and a thread-engaging finger-strip held therebetween by the spring action of said ring.

4. In a holder for lacework, a frame, a thread-engaging finger-strip, and a spring member for holding said thread-engaging finger-strip on the frame.

5. In a holder for lacework, a rigid frame, a thread-engaging finger-strip mounted thereon, and a spring member holding the thread-engaging finger-strip to the frame.

6. In a holder for lacework, a wire finger-strip comprising a wire bent in reverse curves to produce fingers, said fingers on one edge of the finger-strip being bent at an angle.

7. In a holder for lacework, a wire finger-strip comprising a wire bent in reverse curves to produce fingers, said finger-strips being bent to a **U** shape in cross-section.

8. In a holder for lacework, a wire finger-strip comprising a wire bent in reverse curves to produce fingers, said fingers on both edges of the strip being bent up to give the strip a **U** shape in cross-section, the fingers on one edge of the strip being longer than the other fingers.

9. In a holder for lacework, a pair of rings fitting together, and a thread-engaging finger-strip held therebetween, said thread-engaging finger-strip having its thread-engaging fingers bent up at an angle.

10. In a holder for lacework, a frame, a finger-strip mounted thereon comprising a wire bent in reverse curves to produce fingers, said fingers being bent up on both edges of the finger-strip to make said finger-strip **U**-shaped in cross-section, and a spring member seated in the depression of the finger-strip.

11. In a holder for lacework, a frame, a finger-strip mounted thereon comprising a wire bent in reverse curves to produce fingers, said fingers being bent up on both edges of the finger-strip to make said finger-strip **U**-shaped in cross-section, the fingers of one edge of the finger-strip being shorter than the other fingers, and a spring member seated in the depression of the finger-strip.

12. In a holder for lacework, a ring-frame concavo-convex in cross-section, a finger-strip mounted thereon and being shaped to fit the curvature of the frame, and a spring member holding the finger-strip on the frame.

13. In a holder for lacework, a frame having loop-engaging fingers, and an internal loop-engaging means comprising an arm for holding the loops and means for supporting said arm in position.

14. In a holder for lacework, a ring-frame,

loop-engaging fingers carried thereby, a spring member on the frame, and an internal loop-engaging means having legs engaged by the spring member and arms for holding the loops.

15. In a holder for lacework, a ring-frame, loop-engaging fingers carried thereby, a spring member on the frame, and an internal loop-engaging means comprising a body having radial legs with their ends held between the spring member and the ring-frame and upwardly-extending loop-holding arms.

16. In a holder for lacework, a loop-engaging means comprising a body portion with radial legs having upwardly-bent ends, and upwardly-extending loop-holding arms on said body portion.

17. A holder for lacework, comprising a body provided with projections adjacent to its edge, and a guard extending along said edge at about the level of the free ends of said projections.

18. A holder for lacework, comprising a circular body provided with radial thread-engaging fingers adjacent to its edge, and a guard extending around said body close to the thread-engaging fingers at about the same distance from the body as the ends of the thread-engaging fingers and adapted to protect said thread-engaging fingers from accidentally engaging the working thread.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLOTTE C. VILAS.

Witnesses:

ANNA F. SCHMIDTBAUER,

ALMA KLUG.