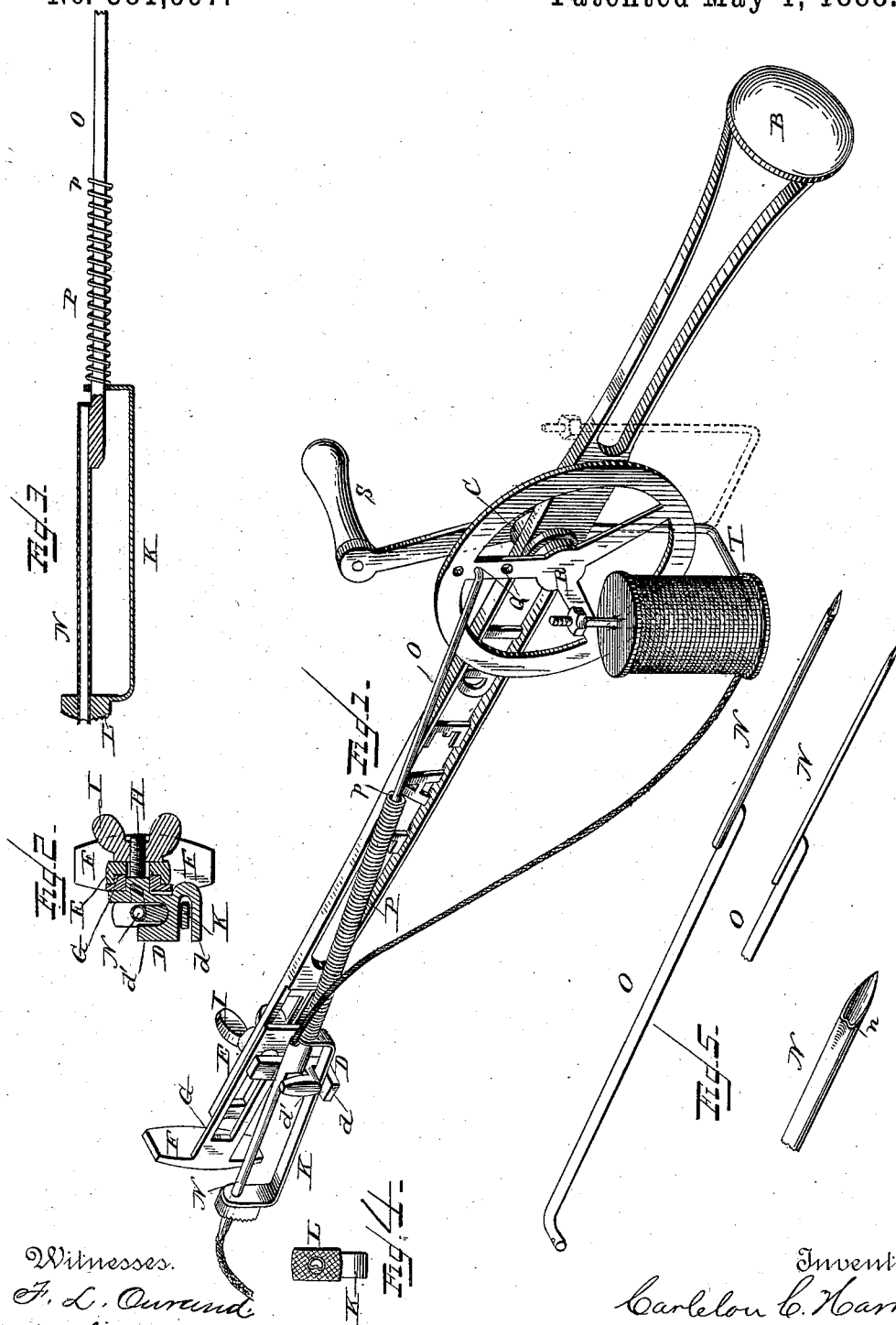


(No Model.)

C. C. HARRIS.
FABRIC TURFING IMPLEMENT.

No. 381,997.

Patented May 1, 1888.



Witnesses.
J. L. O'Connell,
M. L. Williams,

Inventor,
Carlton C. Harris.
By his Attorney,
Wallace A. Barrett.

UNITED STATES PATENT OFFICE.

CARLETON C. HARRIS, OF ROCHESTER, NEW YORK.

FABRIC-TURFING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 381,997, dated May 1, 1888.

Application filed May 2, 1887. Serial No. 236,833. (No model.)

To all whom it may concern:

Be it known that I, CARLETON C. HARRIS, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Fabric-Turfing Implements, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to machines for embroidery and fancy work.

The object of the invention is to produce a hand-machine whereby ornamental fancy stitching can be performed much more rapidly and with greater regularity than by hand.

The invention consists in the construction and combination of parts constituting the machine, all substantially as hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the machine. Fig. 2 is a cross-section through the clamping device. Fig. 3 is a central longitudinal section of the needle, needle-bar, and spring, part of the needle being broken away. Fig. 4 is an end view of the needle and spring presser-foot. Fig. 5 shows in elevation the needle and needle-bar.

The frame A is a mere skeleton bar having a handle, B, a bearing, C, for the shaft, and a guideway, E, for the clasp D, which holds and guides the needle-bar, and also holds the rest F, which bears on the fabric or material to be ornamented. The foot F has a frame, G, having bars corresponding to those of the guideway E of the frame A. The clasp D has a set-screw, H, and nut I, which draw the body of the clasp firmly against the bars of frame G, so that this frame and foot F may be extended to any desirable length beyond the end of frame A and firmly secured by the set-screw and nut. The clasp D terminates in two projections, *d* and *d'*, which form hooks or retaining-loops for yoke K, which is a bent strap having a hole at each end for the passage of the needle and needle-bar. The yoke K bears a roughened presser-foot, L, at its lower or outer end.

The needle N forms a continuation of needle-bar O, to which it is firmly attached, but from which it is preferably slightly offset. The needle passes through a hole in the presser-foot L. Its inner end, where it is attached to bar O, forms a shoulder against which the upper intumed end of the yoke K rests, this

end of yoke K being pressed toward the shoulder by spiral spring P, which surrounds the needle-bar O and has its upper or inner end secured thereto at *p*.

The upper or driving end of needle-bar O is turned in and forms a crank which connects with one of several apertures, Q, in the wheel R, which wheel has a shaft in bearing C and is driven by crank S.

A pivoted spool-holder consists of a rod having the spool-holding end substantially parallel to the end which is swiveled to the frame, as illustrated. The swiveled end enters a socket or seat in the frame about at a right angle to the axis of the frame. The spool-holder T is attached to frame A near the bearing of the wheel. This spool-holder may be swung around against the frame A when the spool is removed for facility in packing. (See dotted lines.)

The parts being connected, as shown in Fig. 1, the foot F can be adjusted to any desirable length by means of clasp D. The needle-bar and yoke K both find rests in the loops or hooks in said clasp. The foot L will be nearly alongside of foot F, but will be pressed forward by spring P. The needle is hollow from end to end, and the thread or yarn used in embroidery passes through it. The point of the needle is shaped something like a pen-point, being at one side of the tube forming the needle-body. Opposite this point the edge of the tube is depressed, as shown at *n*, insuring a more ready passage of the needle through a fabric, and also serving to retain the thread more securely in the needle. The fabric to be worked or stitched is stretched on a frame. The needle having been threaded by drawing the thread through with a hooked wire, the machine is grasped by the handle B in the left hand and the foot F placed against the fabric. When the crank is turned by the right hand, the needle will be alternately advanced and retracted, the point at the same time having a swinging or rocking movement about the clasp D. The yoke K, which bears foot L, will also have a rocking movement about the same center, and this rocking of foot L serves to feed the fabric of the machine along. By adjusting the clasp D to different distances from the foot F of the machine the feed may be regulated. By placing the needle-bar O in different holes in the

wheel R the length of throw of the needle may be regulated.

The machine will have a number of needles N of different sizes, and as this attachment of the machine is not expensive I prefer to furnish each needle N with a needle-bar O and a yoke K and spring P. A needle and its yoke and bar may thus be changed for another in a moment.

The foot F should be adjusted so that the point of the needle in its upward movement will rise slightly above said foot.

The thread or yarn can be used from a common spool, which is held on the spool-holder T by a nut, t, engaging a screw-thread on said spool-holder.

The stitch made by the machine is the well-known chain-stitch. With a little experience the operator will learn to follow any desired pattern or marking on a fabric stretched in a frame. The needles are made coarse enough to carry yarn or zephyr, such as is used in stitching burlaps, and fine enough to carry fine silk through a close fabric without injury thereto.

I claim—

1. The frame having a handle attached thereto, the driving-wheel journaled in said frame, a needle and needle-bar having crank-connection with the wheel, the presser-foot supported by the needle and bar, a spring on the bar by which said foot is pressed toward the point of the needle, and the clasp on the frame, serving as guide and fulcrum for the needle and bar, all in combination, substantially as described.

2. The combination, with the frame and its adjustable rest or foot, of a needle and needle-bar and operating mechanism, substantially as

described, and the clasp separate from the frame and foot, but secured to the frame by a set-screw, and serving as a guide to said needle and bar and as a clamp to retain the adjustable rest or foot in position, substantially as shown and set forth.

3. The combination, with the frame, of the rest attached thereto, the driving-wheel carried by the frame, the needle and bar rigidly connected, said bar having crank-connection with the driving-wheel, and a guide for the needle and bar longitudinally adjustable on the frame, substantially as set forth.

4. The combination, with the needle and bar, of the presser-foot carried by said needle and bar and the spring secured on the needle-bar and bearing said foot forward toward the point of the needle.

5. The combination, with the needle and bar, said needle being rigidly attached to but offset from said bar, of a yoke having one end surrounding the needle-bar and the other end surrounding the needle, a presser-foot on the needle end of the yoke, and a spring on the needle-bar pressing the yoke toward the needle-point, the offset of the needle serving as a stop for said yoke, substantially as set forth.

6. The hollow cylindrical needle having a point at one side and an inward projection of the wall of the tube at the heel or side opposite said point, substantially as set forth.

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

CARLETON C. HARRIS.

Witnesses:

W. A. BARTLETT,
M. L. WILLIAMS.