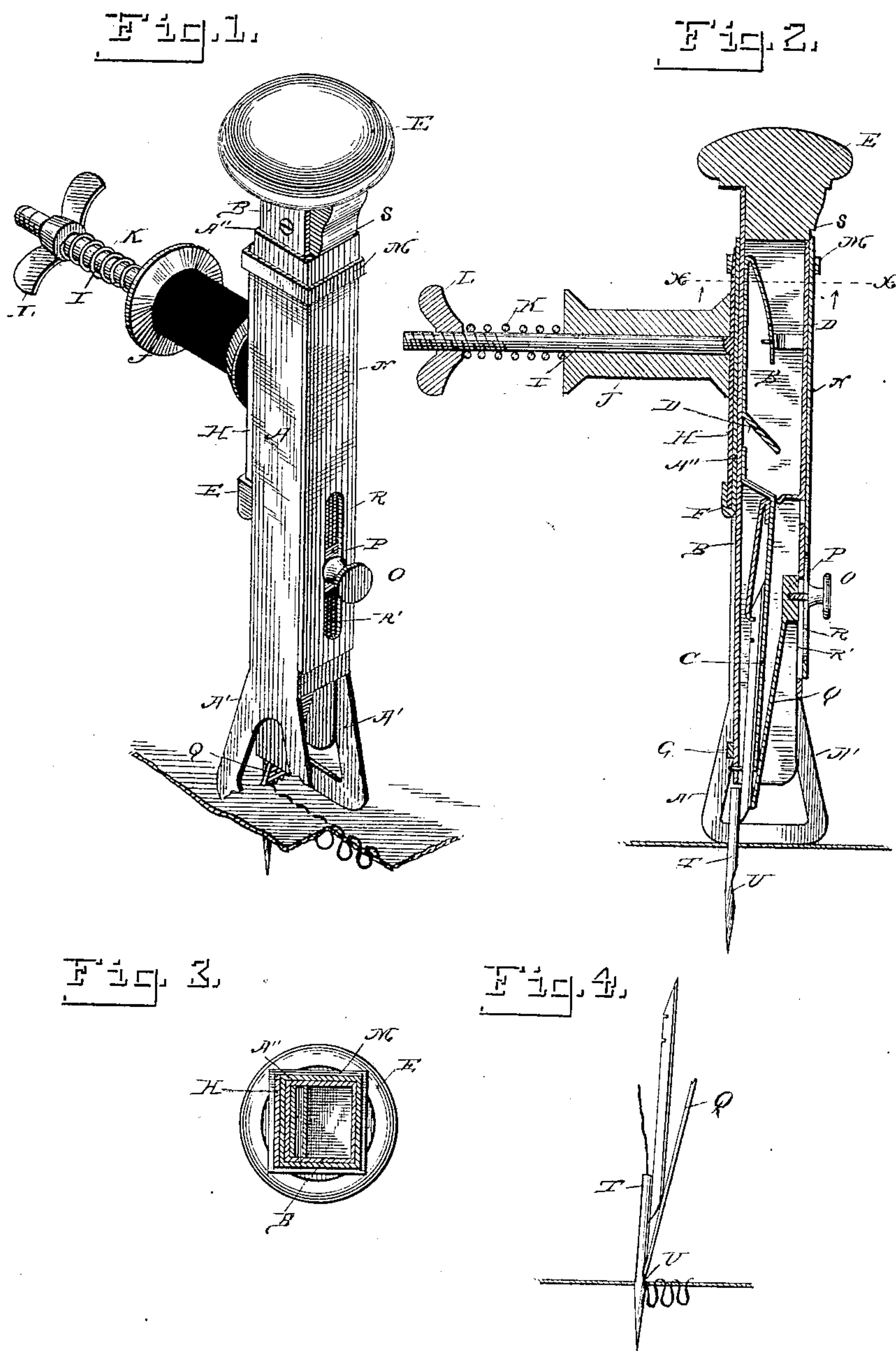


(No Model.)

W. H. SMITH.
FABRIC TURFING IMPLEMENT.

No. 389,333.

Patented Sept. 11, 1888.



Witnesses,
H. S. Rohrer,
T. R. Stuart,

Inventor,
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UNITED STATES PATENT OFFICE.

WILLIAM HAWLEY SMITH, OF RICHWOODS, ILLINOIS.

FABRIC-TURFING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 389,333, dated September 11, 1888.

Application filed May 15, 1888. Serial No. 274,000. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HAWLEY SMITH, a resident of Richwoods, in the county of Peoria and State of Illinois, have invented
5 certain new and useful Improvements in Fabric-Turfing Implements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention is in turfing-instruments of the class in which the hand carries the needle and its bar bodily back and forth, and is in general features similar to certain instruments
15 heretofore patented.

The improvements consist, particularly, in certain changes in the form of the thread-carrier, in means for imparting tension to the thread, and in means for regulating the length
20 of the loops of thread left projecting from the surface of the fabric operated upon.

These improvements are illustrated in the accompanying drawings, wherein Figure 1 shows the instrument in operation upon the
25 fabric. Fig. 2 is a central vertical section of the instrument. Fig. 3 is an enlarged section on the line *x y*, Fig. 2. Fig. 4 is an enlarged view of the thread-carrier or needle.

The fabric to be embroidered is strained in
30 any suitable manner, and the instrument is then applied as shown in Fig. 1, wherein, as in all the drawings where the parts appear, A is a sheath or sleeve inclosing the principal working parts of the instrument, and is provided
35 with parallel supports A', which rest upon the fabric when the apparatus is in use. Within this sleeve slides a closely-fitting trough-like bar, B, having within its cavity an oscillating needle-retaining plate, C, and a plate-regulating device, D, which present no novelty, and
40 at its upper end a knob, E, to afford a convenient hold for the hand. The side A" of the sleeve is bent outward and upward upon itself at F, forming at the same time a stop for a projection, G, upon the bar B and an outer pocket
45 upon the sleeve. This stop fixes the limit of the bar's upward movement in the sleeve and the pocket receives the lower end of the tension-plate H. Rigidly connected with this
50 plate is a gudgeon, I, for receiving a spool, J, to which tension is applied by a coiled spring,

K, inclosing the outer end of the gudgeon, and a wing-nut, L, working upon the gudgeon's threaded free end. The upper end of the tension-plate H is wedge-shaped, and over this
55 end slides a clip, M, passing entirely around the upper end of the sleeve. By means of this clip and the pocket at F the tension device is rigidly but removably retained in position. Upon the opposite face of the sleeve is a bar,
60 N, for determining positively the distance to which the needle shall pass downward through the fabric without varying the distance to which the point rises above the fabric when withdrawn, the latter being fixed by the stop
65 F and projection G.

The bar N is adjustably secured in place by a set-screw, O, which engages a block, P, within the sleeve and passes through slots R R' in both bar and sleeve. Now when the bar N is so
70 fixed upon the sleeve that its upper end projects beyond the sleeve it acts as a stop, meeting a shoulder, S, upon the knob E, and arresting the downward movement of the needle, and since the bar is slotted at R it may evi-
75 dently be set at any desired point, where it is held by the set-screw and also by the clip M, which presses it firmly against the sleeve at the upper end.

To the block P is also secured a flat spring, 80 Q, provided at its lower end with a series of points, which the elastic force of the spring presses constantly against the needle T, and which engage the thread as the eye of the needle passes upward past them, and thus prevent
85 the withdrawal of the loop from the fabric. This engagement is rendered certain by providing the needle with a plane incline, U, at the point where the thread is to be caught, and thus certain flattened threads, which cannot be
90 used with other instruments and machines for this purpose, are caught with the same certainty as others.

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

1. In a turfing implement, a tubular needle perforated upon one side to form an eye, flattened immediately below said eye and terminating in a solid conical point below said flattened portion and in the longitudinal axis of
100 the tubular portion, combined with a spring-detainer having a serrated end, and means for

pressing the same against the flattened side of the needle.

2. In a turving-instrument, the combination, with a reciprocating needle-carrying bar moving in a stationary sleeve, of a stop permanently fixed upon the sleeve and limiting the upward movement of the bar, and an independent stop adjustably fixed upon said sleeve and limiting the downward movement of the bar.

3. In an instrument of the class described, the combination of the sleeve A, the needle-carrying bar sliding therein and provided with

the needle flattened below the eye, a serrated spring secured to said sleeve and pressing obliquely against said flattened surface at one point in the needle's path, and the adjustable bar N, secured to the sleeve in the path of the knob E.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses:

WM. HAWLEY SMITH.

Witnesses:

HARRY S. ROBINS,
ROBINSON WHITE.