

No. 836,623.

PATENTED NOV. 20, 1906.

J. BERCHA.
TURFING IMPLEMENT.
APPLICATION FILED AUG. 22, 1905.

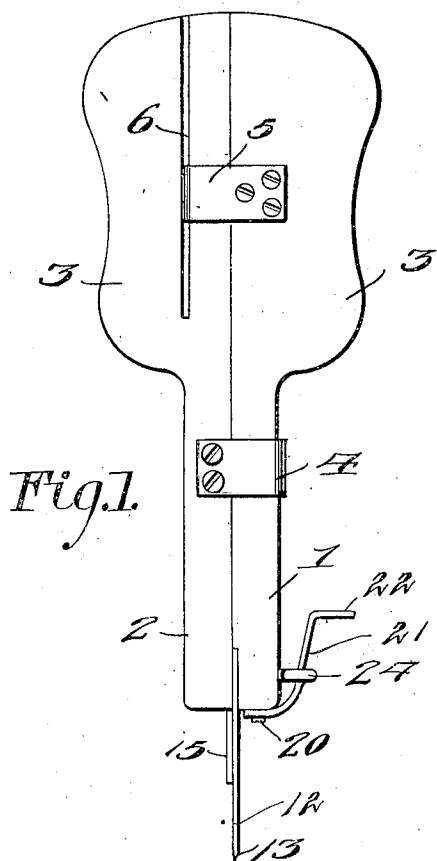


Fig. 1.

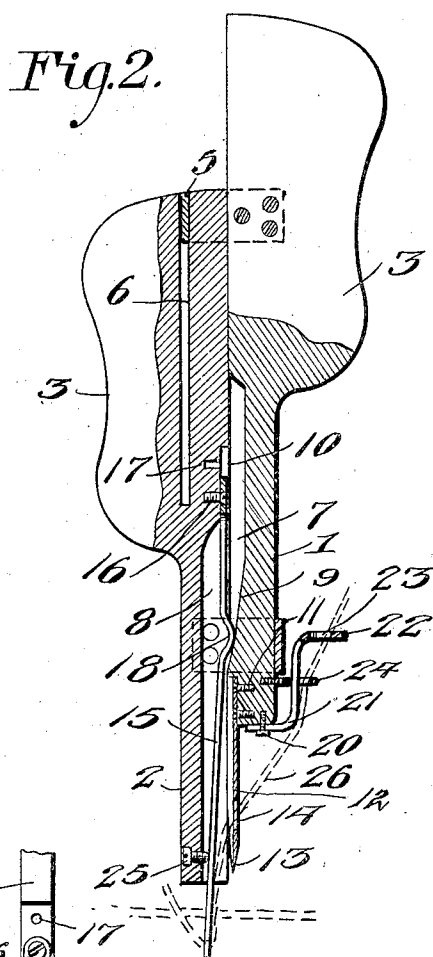


Fig. 2.

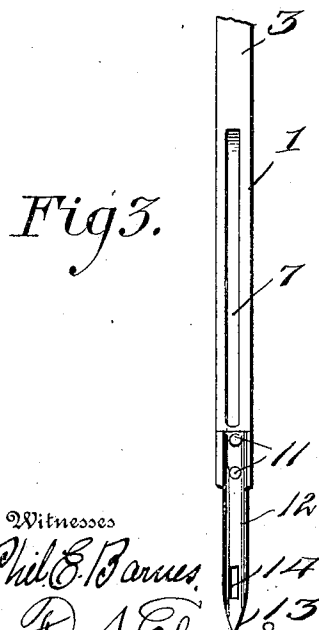
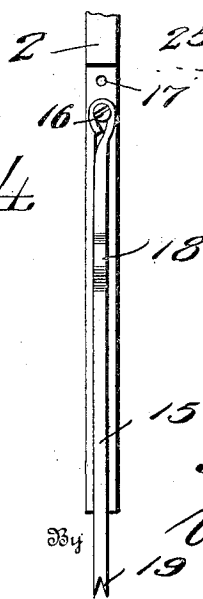


Fig. 3.

Fig. 4.



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TURFING IMPLEMENT.

No. 836,623.

Specification of Letters Patent.

Patented Nov. 20, 1906.

Application filed August 22, 1905. Serial No. 275,306.

To all whom it may concern:

Be it known that I, JOSEPH BERCHA, a citizen of the United States, residing at Atkinson, in the county of Holt and State of Nebraska, have invented new and useful Improvements in Turfing Implements, of which the following is a specification.

This invention relates to turfing implements of the type employed in the manufacture of rugs, and has for its objects to produce a comparatively simple inexpensive device of this character in which the needle-bar will be automatically advanced in forming the stitches or loops, one wherein the parts may be readily adjusted for varying the length of the stitches, and one in which the thread will be properly tensioned during operation of the implement.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of an implement embodying the invention. Fig. 2 is a similar view partly in longitudinal section and showing the needle-bar retracted. Fig. 3 is an inner face view of the needle-bar. Fig. 4 is a similar view of the looper-bar.

Referring to the drawings, it will be seen that the implement comprises a needle-bar 1 and a looper-bar 2, these bars being provided with rear end enlargements or handpieces 3 and connected for relative longitudinal movement by means of a forward strap or clip 4, attached to the bar 2 and embracing bar 1, and a rear strap or clip 5, attached to the handpiece of bar 1 and engaging the bar 2, the handpiece 3 of which is slotted longitudinally, as at 6, for the accommodation of the clip. The bars have their inner opposed faces provided, respectively, with longitudinally-extending slots or recesses 7 and 8, of which the recess 7 terminates at its forward end in an inclined or cam face 9, while the slot 8 communicates at its rear end with a seat or depression 10 for a purpose which will presently appear.

Attached on the inner face of the needle-bar 1 and at its forward end by means of fastening members or screws 11 is a forwardly-projecting needle 12, provided adjacent its forward rounded end 13 with an eye 14, while the bar 2 carries a spring-metal looper member 15, disposed longitudinally of the recess 8 and attached at its rear end in the seat

or depression 10 by means of a fastening member or screw 16, adapted for entrance into any one of a plurality of relatively spaced screw-holes 17, the looper 15, which projects beyond the forward end of bar 2, being suitably bent at a point between its ends to present an outwardly and laterally projecting cam 18 and at its forward end with a thread-receiving notch or recess 19.

Fixed at the forward end of bar 1, by means of a screw 20, is a spring-tensioning member 21, having at its free end an angular portion 22, provided with a guide-opening 23, said tensioning member being entered between its ends through a thread-guide 24 in the form of a screw-eye engaged with and projecting transversely from the bar 1, while tapped transversely through the bar 2 adjacent its forward end is an adjusting member or screw 25, designed to contact at its inner end with the looping member 15.

In practice the bars 1 and 2 are reciprocated relatively, as usual, whereby the turfing-thread 26 is carried by the needle 12 through the material being turfed and thereafter engaged and held by the looper 15 during withdrawal of the needle and for forming the loop, it being understood, of course, that the looper in entering the fabric lies flush with the inner face of needle 12 and passes through the opening formed by the latter. Upon the bar 1 reaching the terminal of its outstroke in withdrawing the needle the inclined cam-face 9 rides over the cam portion 18, formed in the looper 15, thus springing the outer end of the latter, which is for the time being engaged with the fabric rearward, as illustrated in Fig. 2, thus advancing the needle 12 a distance equaling the length of one stitch, it being apparent that under this action the length of the stitches may be regulated by proper manipulation of the adjusting-screw 25. The thread 26 is fed to the needle 12 through the opening 23 in the tensioning-spring and between the latter and outer wall of the thread-guide 24, whereby the thread is held yieldably between the guide and spring and is thus properly tensioned by the latter.

It is to be observed that the looper 15 may be adjusted longitudinally of the bar 2 for varying the length or size of the loops formed by changing the attaching-screw 16 from one to another of the holes 17.

From the foregoing it is apparent that I produce a simple and inexpensive device ad-

mirably adapted for the attainment of the ends in view, it being understood that minor changes in the details herein set forth may be resorted to without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a turfing implement, a pair of bars connected for relative movement, a looper carried by one of said bars and bent between its ends to provide a cam portion, and a needle carried by the other bar, said needle-carrying bar being provided with a cam-face designed to act upon said cam portion for advancing the needle relative to the looper.

2. In a turfing implement, a pair of bars connected for relative movement, a looper connected for longitudinal adjustment on one of the bars and provided between its ends with a cam portion, and a needle carried by the other bar, said needle-carrying bar being

provided with a cam-face adapted to act upon said cam portion for advancing the needle relative to the looper.

3. In a turfing implement, a pair of bars connected for relative, longitudinal movement and having their meeting faces provided with longitudinal recesses, a looper connected for longitudinal adjustment in the recess of one of the bars and bent between its ends to provide a cam portion, and a needle carried by the other bar, said needle-carrying bar being provided at one terminal of its recess with a cam-face adapted to act upon said cam portion for advancing the needle relative to the looper.

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

JOSEPH BERCHA.

Witnesses:

A. S. MERRIN,
FRED H. SWINGLEY.