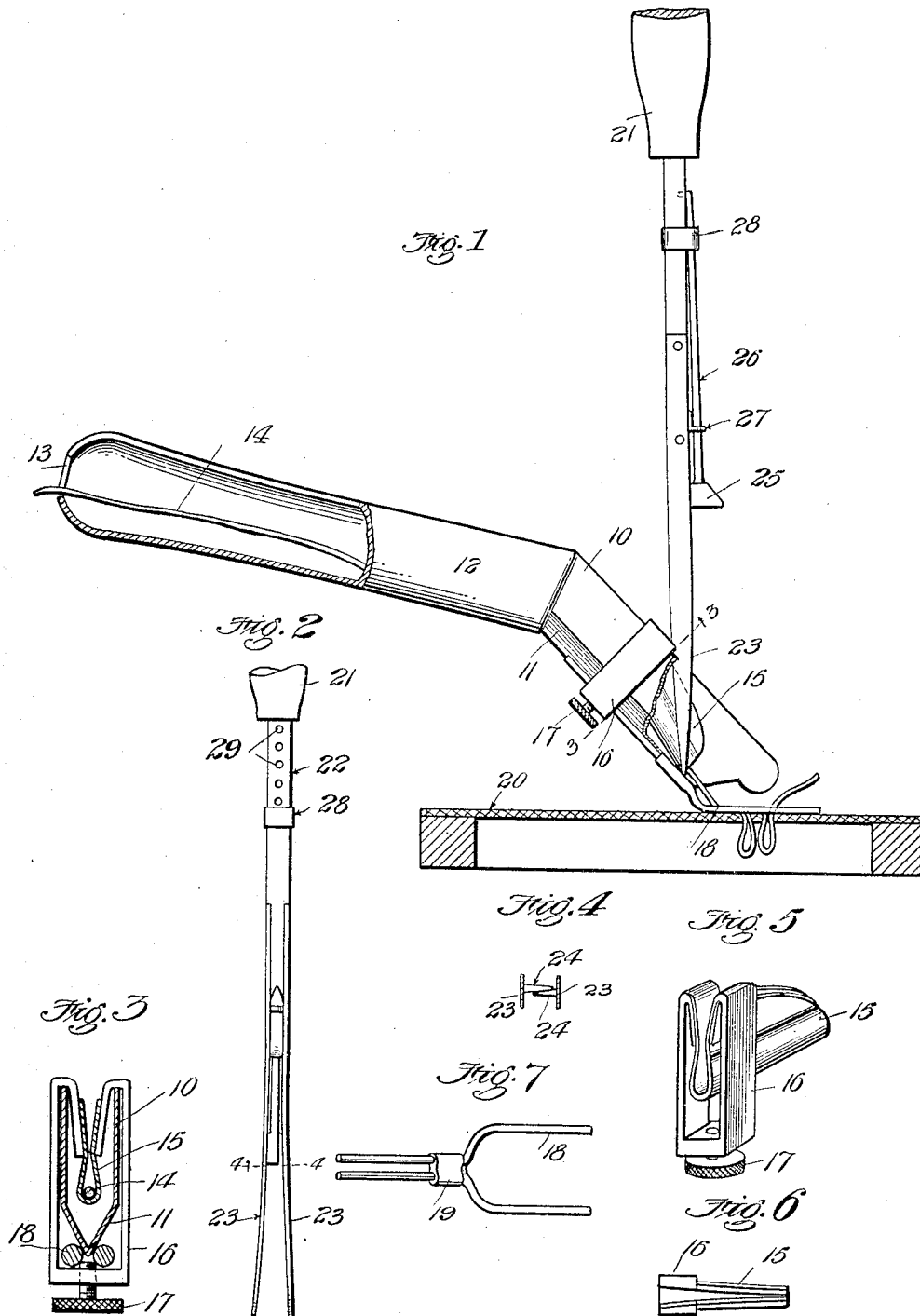


No. 869,407.

PATENTED OCT. 29, 1907.

J. J. BAIRD.
RUG TURFING MACHINE.
APPLICATION FILED MAR. 22, 1906.



Witnesses
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JAMES J. BAIRD, OF LOS ANGELES, CALIFORNIA.

RUG-TURFING MACHINE.

No. 869,407.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed March 22, 1906. Serial No. 307,529.

To all whom it may concern:

Be it known that I, JAMES J. BAIRD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Rug-Turfing Machines, of which the following is a specification.

My invention relates to a machine operatable by hand and consisting of two parts which are operated by the different hands of the operator in which thread, cord, or narrow strips of cloth may be turfed into loosely woven fabric and the object thereof is to produce a machine of simple construction for that purpose which may be said to be self-threading. This machine consists of a bifurcated or pronged needle operating through a stitching tube, which is so shaped as to clamp the two points of the prongs of the needle together, when they are thrust down and through the tube far enough to penetrate the fabric, so that they unitedly pierce the fabric like a solid pointed needle, which is more fully shown by the mechanism described herein and illustrated in the accompanying drawings in which:—

Figure 1.—is a side elevation partly broken away showing my machine in position ready to begin the formation of a new stitch of turfing. Fig. 2.—is a front elevation of that part of my machine which I denominate the needle with the stitch gage removed. Fig. 3.—is a section on the line 3—3 of Fig. 1. Fig. 4.—is a section on the line 4—4 of Fig. 2. Fig. 5.—is a perspective view of the thread guide and attaching yoke. Fig. 6.—is a plan of the thread guide and yoke. Fig. 7.—is a plan of the foot rest.

In the drawings 10 is the stitching tube which is open at the top and has a V-shaped bottom 11 as best shown in Fig. 3. A hollow handle 12 is secured to the upper end of the stitching tube at an angle thereto as best shown in Fig. 1. The handle has an opening 13 in the rear end thereof through which the thread 14 passes. The handle is preferably composed of thin resilient metal which is bent into shape and the abutting edges come together at the top so that the thread may be drawn into the handle between the abutting edges. A thread guide or holder 15 is secured within the stitching tube by means of a yoke 16 which surrounds the stitching tube and has the upper ends turned downwardly so that they pass within the body of the stitching tube and provide means for the attachment thereto of the thread guide. A thumb screw 17 passes in threaded engagement through the end of the yoke so as to adjustably secure the thread guide at any desired point in the stitching tube. The thread guide is composed of thin resilient metal which is bent to form a spout shaped tube at the front end with the walls projecting upwardly and sloping backwardly which walls come together at the front end and separate toward the rear end so that the thread or other material being used in turfing may be slipped down between the walls into the bot-

tom or tube of the thread guide. The purpose of the tube at the bottom is that the thread or other material shall have free movement through the guide, and the near approach of the walls at the front is to prevent the thread from accidentally coming out of the thread guide. A foot rest 18 composed of wire bent to the form shown in Figs. 1 and 7 held together by a binding clamp 19 which is preferably soldered to the wires may be slipped into the yoke as shown in Figs. 1 and 3 so as to hold the stitching tube at any desired distance from the fabric 20 which is being turfed. The device, however, may be used without the rest. The needle is composed of the handle 21 to which is secured the shank 22 and the flexible prongs 23 which are secured at their upper ends to the shank, and the thread moving blades 24 which are secured at their lower ends to the prongs, the upper ends of the blades being free from the prongs and preferably slightly separated therefrom so that the lower ends of the prongs may spring apart to easily straddle the thread guide as shown in Fig. 2. Each prong is provided with a blade which projects from the inner surface thereof toward the other prong and the blades adjoin and overlap each other to prevent thread from wedging between the blades as best shown in Figs. 2 and 4. The lower ends of these blades have a blunt edge so as not to cut the material used in turfing. The prongs are of thin resilient metal and taper to a point. Normally the lower ends of the prongs are separated as shown in Fig. 2 and the blades are secured to the prongs about their center. A depth gage 25 is provided with a shank 26 which passes through a guide lug 27 secured to shank 22. The upper end of shank 26 is bent at right angles and passes into one of the apertures 29 which are formed in the shank 22 of the needle and is held therein by a sleeve 28 which can be slid down upon the shank to hold the shank of the depth gage in place in the aperture in the needle shank. The depth gage can be adjusted upon the shank of the handle to regulate the depth of penetration of the prongs into the fabric, thereby regulating the length of the turfing.

In the operation of my device the material used for turfing which may be thread, cord, or narrow strips of cloth are threaded through the handle and into the thread guide with the end projecting out of the stitching tube. The handle of the stitch tube is grasped in the left hand and the handle of the needle is seized by the right hand of the operator, if the operator is right-handed, and the prongs of the needle with the depth gage outward are inserted in the stitching tube so as to straddle the thread guide as shown in Fig. 1. The operator pushes down upon the needle handle thereby sliding the prongs past the thread guide. As the walls of the stitching tube form a V at the bottom thereof the ends of the prongs are forced together upon the thread as soon as they get past the end of the thread guide and they thus feed the thread or carry it until they reach

the lower end of the tube when the points of the prongs in passing through the narrow part of the V-shaped opening unitedly form a single point and enter the fabric, the thread remaining upon the top of the fabric until it is caught by the blades which carry it into the fabric through the hole made therein by the prongs. When the depth gage reaches the fabric the downward movement of the needle is stopped, the thread is thus drawn taut when the stitch is finished. The needle is then withdrawn from the fabric leaving the turfing material projecting therethrough as shown in Fig. 1. This operation is repeated until the work is finished. By the use of resilient metal for the handle of the stitch tube, and the thread holder, the turfing material can be quickly changed so that the patterns of different colored material may be quickly and easily worked. As the point of the needle enters the fabric at the small end of, or bottom of the V of the stitching tube, and as the larger portion of the needle with the thread follows through, the stitching tube is pushed forward until when the stitch is completed it is in position to form the next stitch. As there is no eye in the needle to interfere with the free passage of the thread, knots in the thread do not interfere with the passage of the thread therethrough.

Having described my invention what I claim is:—

1. A turfing machine comprising a stitching tube with an open top and a V-shaped bottom; a thread holder and guide in said stitching tube in combination with a needle composed of two tapered resilient prongs having blades secured to their opposing surfaces, said blades having their lower ends overlapping and brought to blunt edges.
2. A turfing machine comprising a stitching tube with an open top and a V-shaped bottom; a hollow handle secured to said stitching tube, said handle having an aper-

ture at the outer end and a slit in the top thereof; an adjustable thread holder and guide in said stitching tube; in combination with a needle composed of two tapered resilient prongs having blades secured to their opposing surfaces, said blades having their lower ends overlapping and brought to blunt edges; and a stitch gage adjustably secured to said needle.

3. In a turfing machine the combination of an eyeless needle comprising a shank having two prongs secured to the lower end thereof, said prongs having blades secured thereto; with a stitching tube having an aperture at the lower end adapted to clamp the points of the needle together when they are thrust down through the tube.

4. In a turfing machine a combination of an eyeless needle comprising two prongs having blades secured thereto; with a stitching tube having an aperture at the lower end adapted to clamp the points of the needle together when they are thrust down through the tube; and means secured within said tube for holding and guiding the thread therein.

5. In a turfing machine an eyeless needle comprising a shank; two prongs secured to the lower end thereof, said prongs being composed of thin resilient metal and the lower part thereof tapered to a point and blades secured to said prongs on their opposing faces, said blades overlapping and having their lower ends brought to a blunt edge.

6. In a turfing machine, an eyeless needle comprising a shank having a handle secured thereto; two prongs secured to the lower end of said shank, said prongs being composed of thin resilient metal and the lower part thereof tapered to a point; blades secured to said prongs on their opposing faces, said blades overlapping and having their lower ends brought to a blunt edge; and a depth gage adjustably secured to said needle.

In witness that I claim the foregoing I have hereunto subscribed my name this 15th day of March, 1906.

JAMES J. BAIRD.

Witnesses:

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