

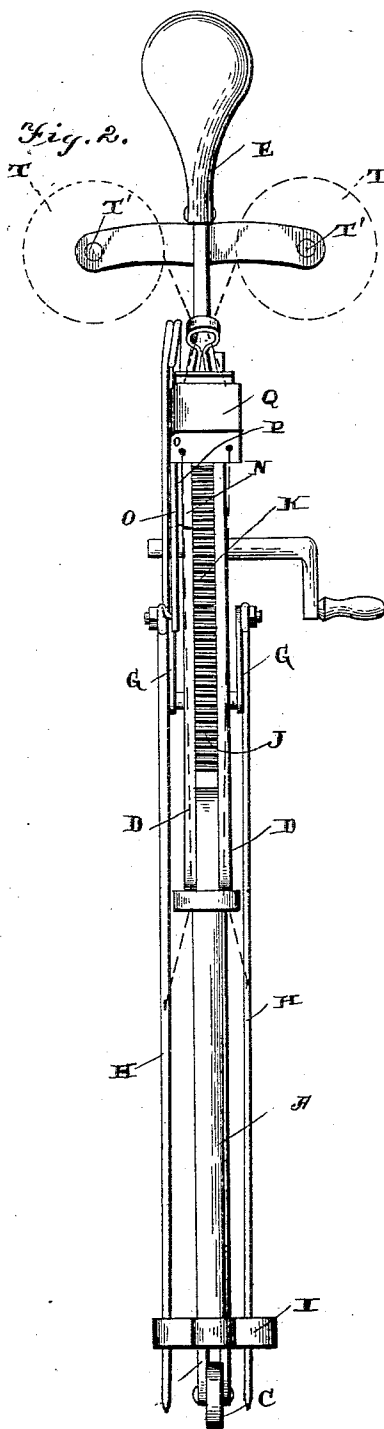
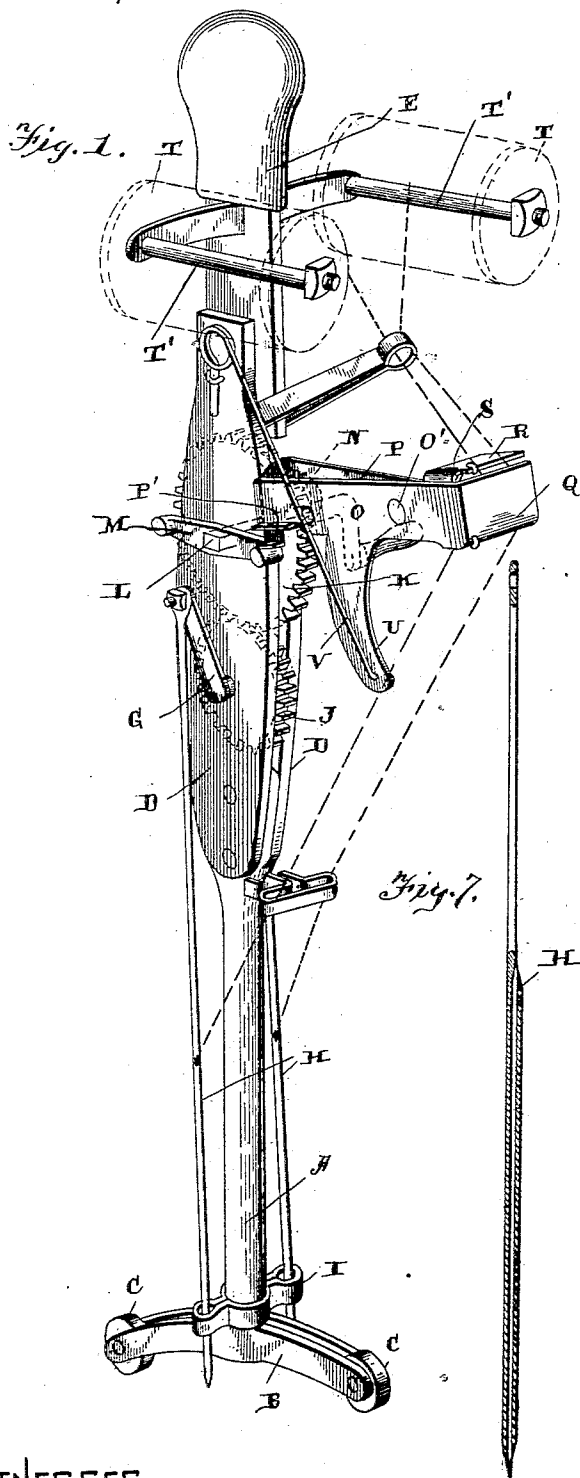
(No Model.)

2 Sheets—Sheet 1.

J. C. GREENFIELD.
TURFING IMPLEMENT.

No. 504,577.

Patented Sept. 5, 1893.



WITNESSES.

Geo. C. Frick.

Robt. Fitzgerald.

INVENTOR.

John C. Greenfield,
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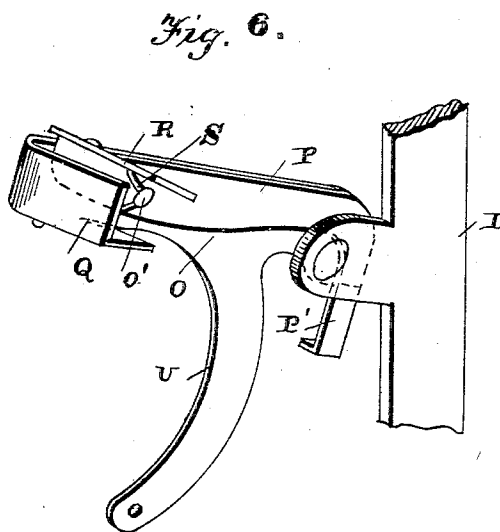
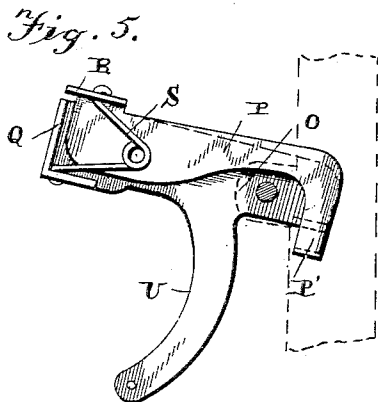
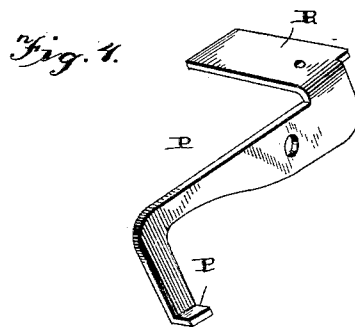
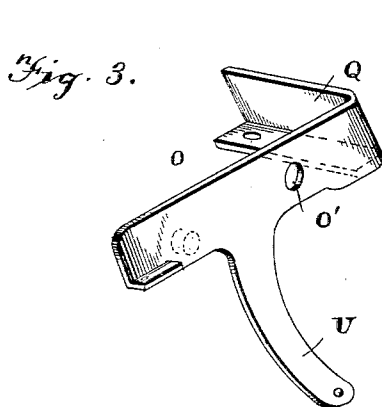
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2 Sheets—Sheet 2.

J. C. GREENFIELD.
TURFING IMPLEMENT.

No. 504,577.

Patented Sept. 5, 1893.



WITNESSES.
Geo. C. French.
Roll. Fitzgerald.

INVENTOR.
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UNITED STATES PATENT OFFICE.

JOHN C. GREENFIELD, OF FORRESTON, ILLINOIS.

TURFING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 504,577, dated September 5, 1893.

Application filed November 11, 1892. Serial No. 451,677. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. GREENFIELD, of Forreston, in the county of Ogle and State of Illinois, have invented certain new and useful
5 Improvements in 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 it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in turfing implements; and it consists in the novel combination and arrangement of parts
15 which will be fully described hereinafter, and more particularly referred to in the claims.

The object of my invention is to construct an improved implement for use in making rugs of that class in which the surface of the
20 fabric forming the body of the rug is covered with projecting loops of thread, cord, tape and the like, whereby the desired work may be accomplished very rapidly and with precision.

Referring to the accompanying drawings,—
25 Figure 1 is a perspective view of my improved implement. Fig. 2 is a front elevation of the same. Figs. 3 and 4 are enlarged detached views of the feeder. Figs. 5 and 6, are similar views showing the pivotal connection
30 between the feeder and frame. Fig. 7, is an enlarged view of one of the needles shown partly in section.

A, designates a vertical standard upon the lower end of which is the foot B, moving on
35 rollers C, which form the support for the machine. Extending upward from opposite sides of the upper end of the standard A, are the frame sides D, and secured between the upper ends of these sides is the handle or
40 pressure knob E.

Journaled in the sides D, near their lower ends is the double crank shaft G and loosely connected to the cranks of this shaft are the depending needles H which reciprocate
45 through the guide I, near the lower end of the standard A. Secured on the shaft G, between the sides D, is the pinion J, which meshes with the gear wheel K, located immediately above it on the operating shaft L, provided with a crank as shown. Upon the op-
50 posite end of the shaft L, from the crank is

the wiper M, for the purpose presently to be stated.

N, designates a lug projecting from one of the sides D for the purpose of supporting the
55 thread or cord feeder. The latter consists of the plates O, and P, the former being constructed with the transversely extending angular arm Q, while the plate P, is constructed with the similarly formed flat arm R. The
60 plates O, and P, are pivoted together at O', while the rearwardly extending portion of the plate O, is pivotally secured to the lug N. The rear end of the plate P, is turned down below the similar end of the plate O, as shown
65 at P', while both of these rearwardly projecting plate ends extend into the path traveled by the wiper M, when the shaft upon which the latter is mounted is revolved. The outer
70 edge of the arm R, extends slightly over the vertical edge of the angular arm Q, thus forming a stop when plate P is turned on its pivot. Confined between the arms Q, and R, is the
75 spring S, which holds the same normally apart and with a space between the engaging edges of the arms Q, R, above referred to. The thread or cord is passed downward from the spools T, on the supports T', to the feeder
80 where it enters the same through the open space between the arms Q, and R, of the plates O, and P. The thread then passes downward through perforations in the horizontal plate of the arm Q, as shown and from thence down-
85 ward to the needles. The spools are confined on said supports by nuts or heads on the ends of the latter as shown. Projecting downward from the plate O, is the arm U, to the lower
90 end of which is secured the depending end of the spring V, supported by the frame side D. This spring normally extends forward or outward from the frame so that when the feeder is turned on its supporting pivot, the said
95 spring yields to its movement but when the feeder is freed it returns the latter to its normal position. This spring governs the position of the whole feeder while the spring S, serves to hold the arms Q, and R, apart.

In operation when the needles are raised by revolving the gear wheels one end of the wiper M, engages the depending end P', of
100 the plate P, carrying the said end upward and the outer end of the said plate and arm R, down-

ward compressing the spring S, so that the arms Q, and R, are in engagement thus binding the cord which passes between them to the needles. In this way a secure grip is obtained on the cord and the feeder being turned bodily on its supporting pivot, by the continued movement of the wiper M, draws the cord downward toward the needles. When the wiper M, has been revolved sufficiently far to disengage the said end the spring V, returns the feeder to its normal position while the spring S, immediately separates clamping arms Q, R and thus releases the feeder from its hold on the cord or thread. The outer end of the feeder is turned downward by this operation as will be understood drawing downward toward the needles a sufficient amount of thread to supply one stitch or loop for each needle. The downward movement of the needles is not simultaneous with the vibration of the feeder but rather follows the movement of the latter so that for each stroke of the needles a supply of thread or cord has been drawn down by the feeder. The needle upon its downward course through the material carries with it the thread or cord. When the needle begins to retract, the cord forms into a bow or loop, the springy tendency of the same when turned into a U serving to draw it through the needle, or rather allow the needle to slip upward thereon, thus leaving the loop upon the under side of the material and accomplishing the desired result.

By employing two needles the work may be accomplished very rapidly as two rows of loops or stitches are placed at the same time.

It is my purpose to provide each implement with two or more feeders varying in size to accommodate and feed carpet rag material or fine cord, and as the feeder is removable from

the frame the change can be effected with very little trouble.

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

1. In a turving implement, the combination of a frame, a needle, a shaft for actuating the same an operating shaft which imparts motion to the first named shaft, a wiper secured to the operating shaft, a spring retracted thread feeder pivoted between its ends to the frame and intermittently engaged at its rear end by the wiper whereby the same is oscillated, substantially as shown and described.

2. In a turving implement, the combination of a frame, a needle, a means for actuating the same, a spring retracted feeder pivotally secured to the frame consisting of two plates pivoted together, laterally extending arms on their ends, a spring for holding the said arms normally apart, and means closing the arms together and oscillating the feeder, substantially as shown and described.

3. In a turving implement, the combination of a frame, a needle, a wiper and a means for actuating them, plate O pivoted to the frame, spring V engaging the same, plate P pivotally secured to plate O having depending end P', laterally extending arms Q, R, and a spring interposed between the same for holding them normally separated, the plate being oscillated and the arms closed together against said spring by the said wiper, substantially as shown and described.

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

JOHN C. GREENFIELD.

Witnesses:

FRED J. DEUTH,
UBBO GREENFIELD.