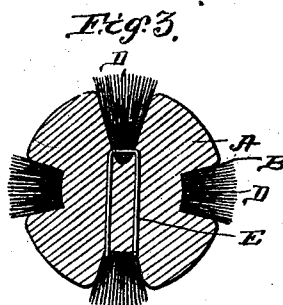
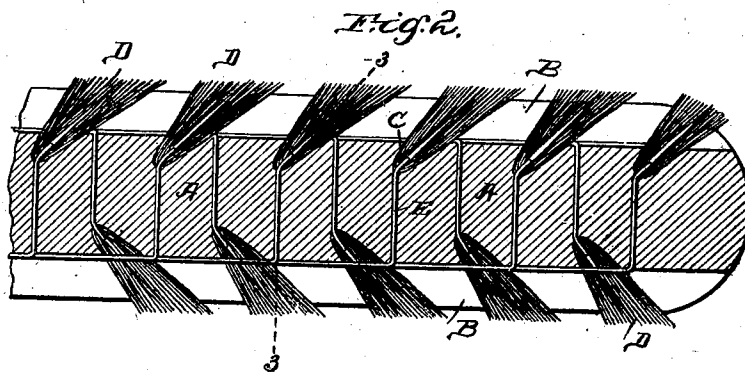
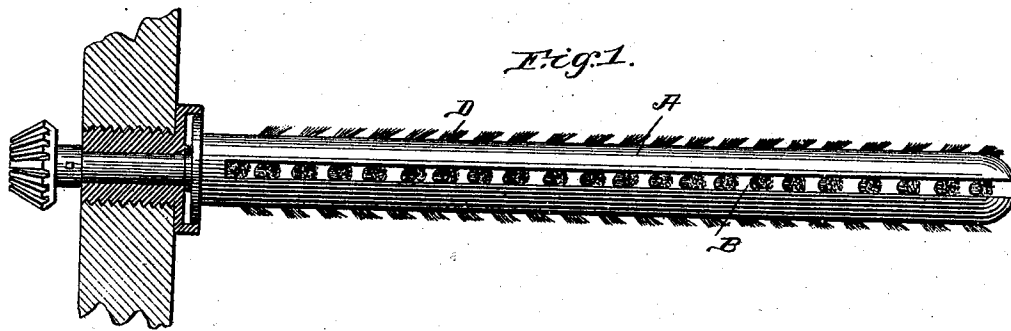


(No Model.)

G. N. TODD.
PICKER STEM.

No. 502,241.

Patented July 25, 1893.



Witnesses.

W. M. Rheem.
J. R. Andrews.

Inventor.

George N. Todd
By Elliott & Quinlan.
Atty's

UNITED STATES PATENT OFFICE.

GEORGE N. TODD, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GEORGE N. TODD, TRUSTEE, OF NEW YORK, N. Y.

PICKER-STEM.

SPECIFICATION forming part of Letters Patent No. 502,241, dated July 25, 1893.

Application filed December 17, 1889. Serial No. 334,129. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. TODD, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Picker-Stems for Cotton-Harvesters, of which the following is a specification.

This invention relates to improvements to that class of picker stems for cotton harvesters, in which a bristle like picking surface is secured to the body of the stem in such manner that the free ends of the bristles, or their equivalent emerge from openings in the stem enlarged at the perimeter thereof and lie in a plane with, or project slightly beyond the surface of the stem, which construction is claimed broadly in my application filed December 13, 1887, Serial No. 257,765.

The object of this invention is to have the bristles or their equivalent secured to the stem in a new and novel manner, and in such position as to incline or point toward the outer or entering end of the stem, whereby the gathering effect of the stem will be materially promoted. This object is attained by the devices illustrated in the accompanying drawings, in which—

Figure 1, represents a side elevation of a picker stem complete, embodying my invention, showing the journal and support therefor, and also the gear on the inner end of the stem journal, by means of which a rotary motion may be imparted to the stem; Fig. 2, an enlarged central longitudinal section through a portion of the stem body, and Fig. 3, a transverse vertical section thereof on the line 3, 3 of Fig. 2.

Similar letters of reference indicate the same parts in the several figures of the drawings.

Referring by letter to the accompanying drawings, A, indicates the body portion of the stem provided with a series of longitudinal grooves B, extending from end to end thereof, and preferably angular, or with inclined walls, in the bottoms of which at intervals, is formed a series of recesses C, preferably tapering toward the bottom, with the walls thereof inclined so as to form a continuation of the

walls of the grooves in the stem. These recesses, or sockets are formed at an oblique angle to the axis of the stem inclining from their bottom outwardly toward the outer or entering end of the stem, and have secured therein, a flexible or elastic material such as hair, filament, wire or fibrous material, the outer or free end of which lies in a plane with, or projects slightly beyond the periphery of the stem so as to constitute a picking surface therefor. This surface, however, is preferably composed of the bristles D, bent at about their center of length, with the bent portion confined in the recesses or sockets C, and secured therein by means of wires E, threaded back and forth through the body of the stem, and lying across the bristles at the bend thereof so as to firmly secure them in the socket. Obviously, however, these bristles might be secured in position by means of tar cement, or other adhesive material such as is commonly employed for this purpose. By this arrangement the ends of the bristles are left free and uncompressed in the grooves lying in a plane with, or projecting slightly beyond the periphery of the stem pointing in the direction of the outer or entering end of the stem and those portions of the stem body lying between the bristles constitute guards therefor to prevent the cotton from matting down into the bristles. Obviously these bristles or their equivalent may be arranged in separate bunches as shown, or they may be arranged so close together as to form a practically continuous line of picking surface; so, also, may any desired number of grooves be employed and arranged longitudinally or otherwise upon the stem.

The advantages of arranging the bristles so as to point toward the outer end or entering point of the stem, are three-fold, for by such arrangement the bristles are rendered more flexible, the stem engages the cotton more readily, and the stem may be more easily cleaned of the cotton gathered thereby. The first of these advantages is obvious from the fact, that with the bristles inclined from their point of attachment to the stem, they are necessarily longer than if radiating from the stem at right angles instead of at an oblique angle

to the axis of the stem, and are therefore more flexible. As to the second advantage, it is common to have the stems supported upon a rotating support, and consequently they are introduced into the cotton plants outer end first, and as the bristles incline or point toward this end they will better engage the cotton than if radiating in a plane at right angles to the axis of the stem or toward the butt of the stem. The third advantage results from the fact that stems so operated when brought into contact with the cleaning device, whether rotatable or otherwise, approaches the same with the butt end of the stem foremost, and hence the cleaning or stripping device operates from the butt toward the point of the stem or in a direction approaching the direction in which the bristles point, and consequently, the cotton will be more easily disengaged from the bristles than if they pointed in any other direction.

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

1. A picker stem comprising a body portion and bristles secured thereto, the free ends of which lie in a plane with, or project slightly beyond the periphery of said body, said bristles being arranged to point toward the outer or entering ends of the body, substantially as described.

2. A picker stem comprising a body portion, provided with longitudinal grooves and bris-

gles secured therein, with their free ends lying in a plane with, or projecting slightly beyond the periphery of said body, said bristles being arranged to point toward the outer or entering end of the stem body, substantially as described.

3. A picker stem comprising a body portion provided with longitudinal grooves, angular recesses or sockets in the bottom of said grooves, and bristles secured in said recesses with their points lying in a plane with, or projecting slightly beyond the periphery of said body, said bristles pointing toward the outer or entering end of the stem body, substantially as described.

4. A picker stem comprising a body portion provided with longitudinal grooves, recesses or sockets in the bottoms of said grooves, bristles bent at their center of length, and the bent portion confined in said recesses, and wires passing through said body portion, and over the bent portions of the bristles so as to secure the same in the recesses, the said bristles pointing toward the outer or entering end of the stem body, substantially as described.

5. A picker stem having a plurality of longitudinally arranged guards between which are arranged inclined bristles, substantially as set forth.

GEORGE N. TODD.

Witnesses:

R. C. OMOHUNDRO,
W. R. OMOHUNDRO.