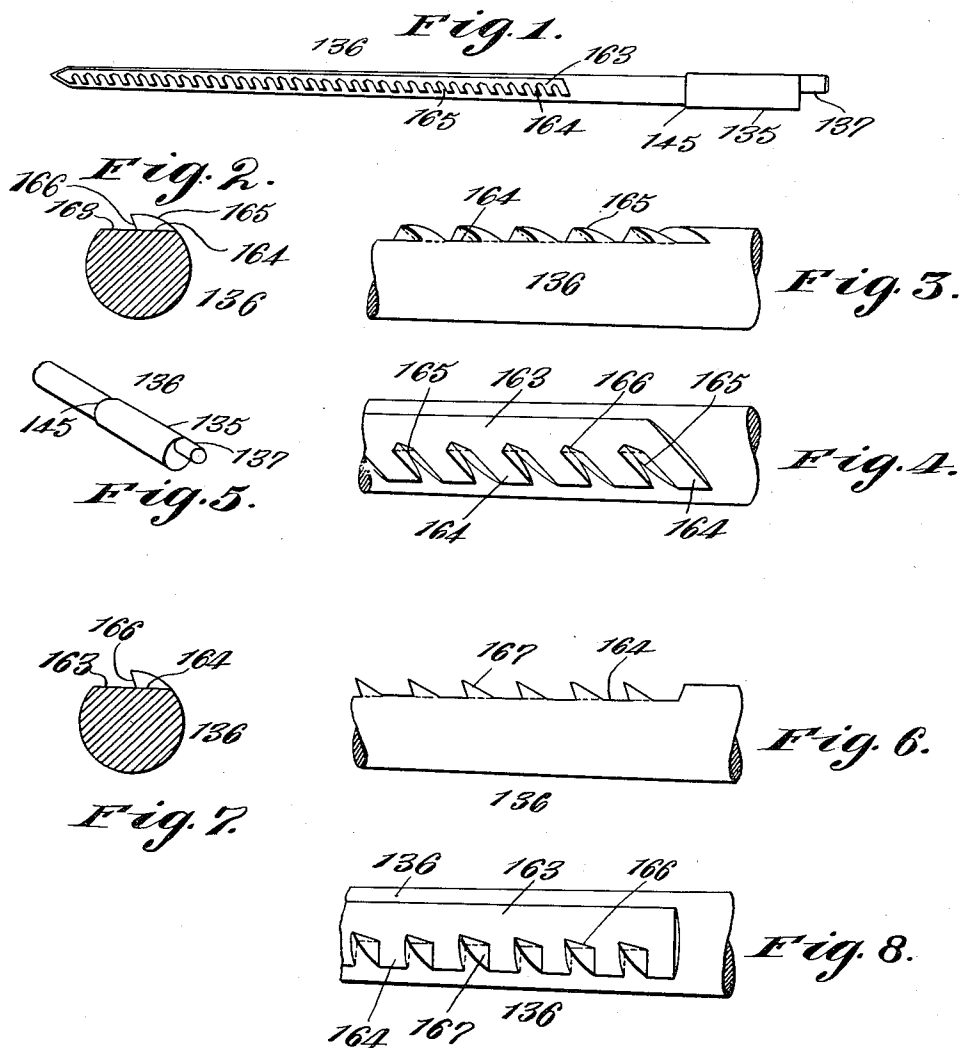


B. C. WHITE.
COTTON PICKER FINGER.
APPLICATION FILED JAN. 10, 1911.

1,008,230.
MODEL.

Patented Nov. 7, 1911.



Witnesses:
Hampel Kibig
J. E. Nares.

B. C. White Inventor
By his Attorney
Edward S. Beach

UNITED STATES PATENT OFFICE.

BRUCE CLARK WHITE, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR TO PRICE-CAMPBELL COTTON PICKER CORPORATION, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE.

COTTON-PICKER FINGER.

1,008,230.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Original application filed January 18, 1909, Serial No. 472,908. Divided and this application filed January 10, 1911. Serial No. 601,913. (Model.)

to all whom it may concern:

Be it known that I, BRUCE CLARK WHITE, citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Cotton-Picker Fingers, of which the following is a specification, reference being had therein to the accompanying drawings.

This application is a division of my application Serial No. 472,908, filed January 18, 1909, for cotton pickers.

The present invention relates to cotton picker fingers, which are illustrated in the accompanying drawings forming a part hereof and in which—

Figure 1 is a side elevation of a picker finger embodying the present invention; Fig. 2 is a transverse section of the finger, between its teeth; Fig. 3 is an enlarged view of a part of the body of the finger showing a rear view of the teeth; Fig. 4 is an enlarged view of part of the body of the finger showing a plan view of the teeth; Fig. 5 is a detail view, in perspective, of the driven end of the finger, and Figs. 6, 7 and 8 are, respectively, a side view, a section, and a plan view of a portion of the finger showing an alternative form or design of the teeth.

In the accompanying drawings, the picker finger is indicated by 136. One of its novel features lies in the fact that the depth of the longitudinal V-shaped groove 163 is just equal to the depth of the lateral grooves 164, between the teeth, whereby the bottoms of the grooves form a continuous plane or flat surface extending to the periphery of the circle of the section. The finger may be described as a round, tapered bar, flattened along one side and having raised or formed upon such flat surface and extending halfway across it, crosswise pointed teeth. The crosswise grooves 164 are of such form that the metal left between them forms ridge-like teeth 165, the points of said teeth being adjacent to the longitudinal groove 163. The section of the latter is such that the ends of the teeth 165 are under-cut at 166, thus giving the teeth-points a sharp or acute angle, as shown in Fig. 2. The purpose of thus forming the points of the teeth is that they may engage minute strands or fiber of

cotton with which they may come in contact, and while rotating will wind upon themselves such strand or fiber, and with it other cotton adhering thereto. The teeth 165 are shown as diagonal, or inclined toward the finger point. This inclination, together with the tapered form of the finger (the finger tapers from its butt or driven end to its free end,) facilitates the stripping or endwise removal of the cotton wound upon the finger as the latter is pulled through between the metallic edges of the stripping device with which the cotton-picking machines in which the fingers are installed are provided.

It will be understood that in operation the frequent contact of the revolving fingers with the stalks or branches of the cotton plant is apt to cause sap to adhere to the fingers, and especially in the grooves thereof. Brushes in the path of the fingers are provided in cotton picker machines to remove this sap.

All the fingers have their teeth in the same angular relation to the eccentric butt end extensions 137, the butt end extensions 137 being socketed, in use, in eccentric recesses in the butt ends of rotary bushings with which the finger carrier and rotating mechanisms are provided. The cylindrical butt end portion 135 of the finger is a sliding fit in such a bushing, and the shoulder at the inner end of the cylindrical portion 135 is engaged by a nut which holds the finger in place when it is in use; and the construction shown is such that when the fingers are in use, their flat-bottomed grooves will be presented to brushes in the machine in the most effective manner. Such brushes have their bristles or wires so as to contact with the flat surfaces of the grooves 164 between the teeth and across the flat surface of the longitudinal groove 163, thereby cleaning every part thereof thoroughly.

In Figs. 1 and 5, the enlarged cylindrical portion 135 practically insures breakage of the finger, in case of accident, at a point removed toward the free end of the finger, from the shoulder 145; that is, at a point outside of the finger-holding mechanism. If the finger were not enlarged at 135, where it is mainly held in the finger-receiving mechanism, then the finger might break

within the finger-holding mechanism, with the consequence of some danger of injuring the parts holding the finger, and with the disadvantage of leaving the broken butt end
 5 portion of the finger-holding mechanism so as to make removal of the broken butt end portion difficult. It is to be understood that in the operation of cotton-picking machines there is almost inevitably a considerable de-
 10 gree of finger breakage.

In Figs. 6, 7 and 8, I illustrate an alternative form of teeth, in which the finger and the longitudinal groove 163 with its flat surface is similar to that shown in the
 15 other figures. The teeth, however, instead of being cut diagonally are cut squarely across the finger, whereby exceedingly sharp, needle-like points are given to the teeth, as shown in Fig. 6.

Facility for readily stripping the cotton from the finger teeth is afforded by the flat incline of the surfaces 167 of the teeth. In the form shown in Figs. 6, 7 and 8, it will be noted that the flat surfaces 163 and 164,
 20 forming the bottom of the longitudinal and crosswise grooves, are continuous, as in the other figures, for the ready removal of sap therefrom.

I have not herein illustrated the mechanism for holding the fingers, as one form of such mechanism is illustrated in Figs. 35, 36,
 30 37 and 42 of my said parent application.

The butt end eccentric extension 137 is a kind of terminal key device, and the finger referred to is adapted for rotation when in
 35 use.

What I claim is:—

1. A rotatable cotton picking finger for use in cotton picking machines, said finger having a terminal key portion that is an-
 40 nular in cross-section and disposed eccentrically of its longitudinal axis; said terminal portion being at the butt end of the finger and adapted for engagement with mechanism for rotating the finger. 45

2. A rotatable finger for cotton picking machines, consisting of a tapered bar circular in cross-section and provided with a row of teeth the ends of which point toward the smaller end of the tapered finger, and
 50 formed with a flat surface which extends lengthwise of the toothed portion of the finger and transversely between the teeth, the teeth overhanging said longitudinal flat surface and the points of the teeth being
 55 within the circle of the cylindrical body of the finger.

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

BRUCE CLARK WHITE.

Witnesses:

EDWARD S. BEACH,
 F. E. NARES.