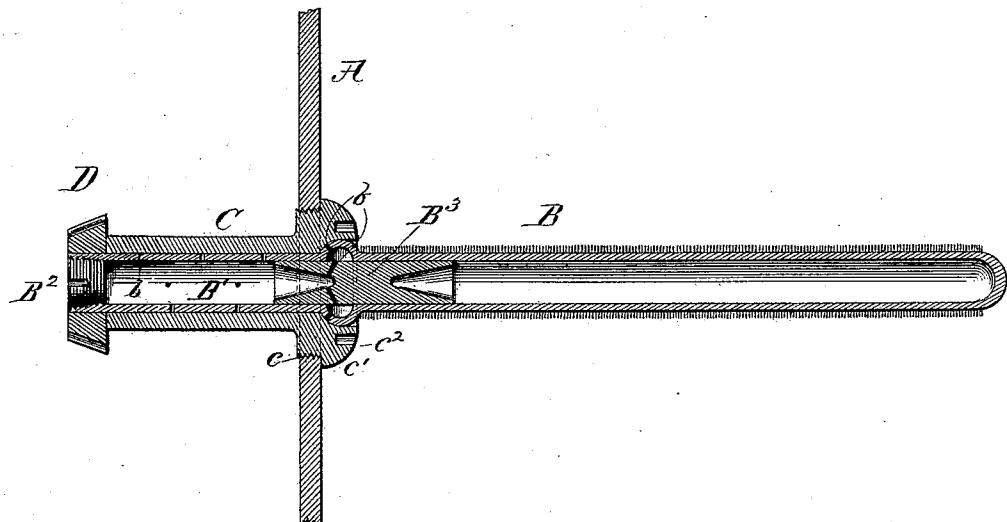


(No Model.)

A. LEVEDAHL.  
COTTON PICKER.

No. 525,911.

Patented Sept. 11, 1894.



Witnesses:

Louis M. Whitehead.

Samuel F. Ed.

Inventor:  
Axel Levedahl.

By Dayton, Pool & Brown.  
his Attorneys

# UNITED STATES PATENT OFFICE.

AXEL LEVEDAHL, OF AURORA, ILLINOIS, ASSIGNOR TO THE GARDNER SEWING MACHINE COMPANY, OF SAME PLACE.

## COTTON-PICKER.

SPECIFICATION forming part of Letters Patent No. 525,911, dated September 11, 1894.

Application filed March 8, 1892. Serial No. 424,181. (No model.)

*To all whom it may concern:*

Be it known that I, AXEL LEVEDAHL, of Aurora, in the county of Kane and State of Illinois, have invented certain new and useful 5 Improvements in Cotton-Pickers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, 10 which form a part of this specification.

This invention relates to the "fingers" or "stems" of cotton picking machines and consists in the construction hereinafter described and pointed out in the claims. As is well 15 known, the rotating fingers or stems of the approved form of cotton picking machines project radially from a hollow drum and sometimes number as high as six hundred in a single machine. These stems rotate in bearings 20 in the wall of the drum and are necessarily rather close to each other, being driven through the medium of pinions placed on their inner ends within the drum and engaged with beveled wheels mounted on an upright shaft 25 occupying the axis of the drum. It is therefore very difficult to get at the journals of the stems for the purpose of oiling them by ordinary means and their successful lubrication has not heretofore been practicable. To ob- 30 viate these objections is one object of the present invention, and to this end said invention consists in providing the journal of each stem with an interior chamber for the reception of a considerable quantity of lubricant, 35 said chamber having suitable communication with the bearing through one or more holes. The stem bearing is removable with the stem itself from the drum and the recess for the lubricant is accessible at the inner end of the 40 journal where it is stopped or closed by means of a screw plug. In view of the large number of "fingers" employed in this class of cotton picking machines it is a matter of great importance, both to the desired light- 45 ness of the machine and to its reasonable cost, that the fingers shall be individually light and inexpensive. To this end these fingers have been made hollow; but it is a fault of hollow fingers that they are relatively weak 50 at their inner ends and either bind or break at this point under the lateral strains to which

they are subject in use. To obviate this difficulty I provide a stiffening plug at the point referred to, preferably forming said plug with conical recesses in its ends to lighten it while 55 retaining its strength.

Both features of my invention, though adapted to be used independently of each other, are herein shown in the same structure.

Referring to the accompanying drawing, A 60 represents the drum in vertical section; B, a revolving picker stem or finger; C, the bearing within which the inner end of said stem rotates, and D a beveled pinion fixed to the inner extremity of the stem to receive the ro- 65 tating force. The bearing C, whether of the exact form shown or not, is removably secured to the drum A by means of relatively large screw-threaded portion c just inside the outer flange c', the hole in the drum to receive the 70 screw-thread c being larger in diameter than the pinion D. The flange or head c' is pro- 75 vided with holes or notches c<sup>2</sup> to receive a spanner wrench, so that, by unscrewing the bush or bearing C from the wall of the drum, 80 the stem together with its bearing and pinion, may, without separation from each other, be bodily removed from the drum. Within the portion of the stem D which runs in the bearing C is formed a chamber B' for the lubri- 85 cant, said chamber being closed by a tapering screw-plug B<sup>2</sup>. Through the walls of the chamber B' are provided any desired number of holes b by which the lubricant placed within the chamber B' may reach the bearing sur- 90 faces of the stem D and bush C. It is found in practice that enough lubricant may be stored in the chamber B' to supply the bearing for a year or for a season's work, so that the danger of injury to the bearing from de- 95 fective lubrication and the labor of frequently attempting to lubricate the same are avoided.

The finger B is illustrated as being of the tubular form hereinbefore referred to and as having a shoulder at the outer end of the 95 bush or bearing C formed by outwardly swag- 100 ing or otherwise forming the tube at this point. Being of the tubular construction throughout its length, its weak point as against lateral strain is obviously just out- side the bearing. To strengthen the tube at said point the reinforce B<sup>3</sup> is closely fitted

therein and made to extend a suitable distance in both directions from said point. When used for the sole purpose of strengthening the finger said reinforce may itself be 5 of tubular form, but when it is also to serve as a plug to form the bottom of the oil chamber B' it has a diaphragm and is preferably a section of solid rod axially recessed at its ends for lightness, as shown.

10. I claim as my invention—

1. In a cotton picker, the combination, with a drum, of a rotating picker finger removably journaled at one of its ends in the drum, said finger having a chamber within its journaled 15 portion provided with a plugged feed-opening at its free extremity which affords the only means of filling the same, and also provided with one or more lateral passages for the delivery of the lubricant from the chamber to the bearing surfaces.

2. The combination with the drum of a cotton picker, of a rotating picker finger, a bearing for said finger removably connected with the drum, the finger being provided with an 25 interior chamber communicating with the bearing and having its supply opening at its inner end, said opening being closed by a stopper.

3. The combination with the drum of a cotton picker, of a finger bearing removably secured in an opening of said drum, a finger fitted to said bearing and provided with an interior chamber for a lubricant, said chamber having its supply opening at the inner extremity of the finger, said opening being 35 closed by a plug, and a pinion on the finger of less diameter than the before mentioned opening in the drum.

4. A tubular picker finger provided with an interior strengthening piece extending both 40 ways from the point of junction of the bearing and protruding portions of the finger, said piece being in form a plug wholly closing the tube at that end of the bearing, in combination with a removable plug at the 45 opposite end of the bearing, the chamber thus inclosed having communication with the bearing surfaces and being thereby adapted to store a lubricant for said bearing.

In testimony that I claim the foregoing as 50 my invention I affix my signature in presence of two witnesses.

AXEL LEVEDAHL.

Witnesses:

M. E. DAYTON,  
TAYLOR E. BROWN.