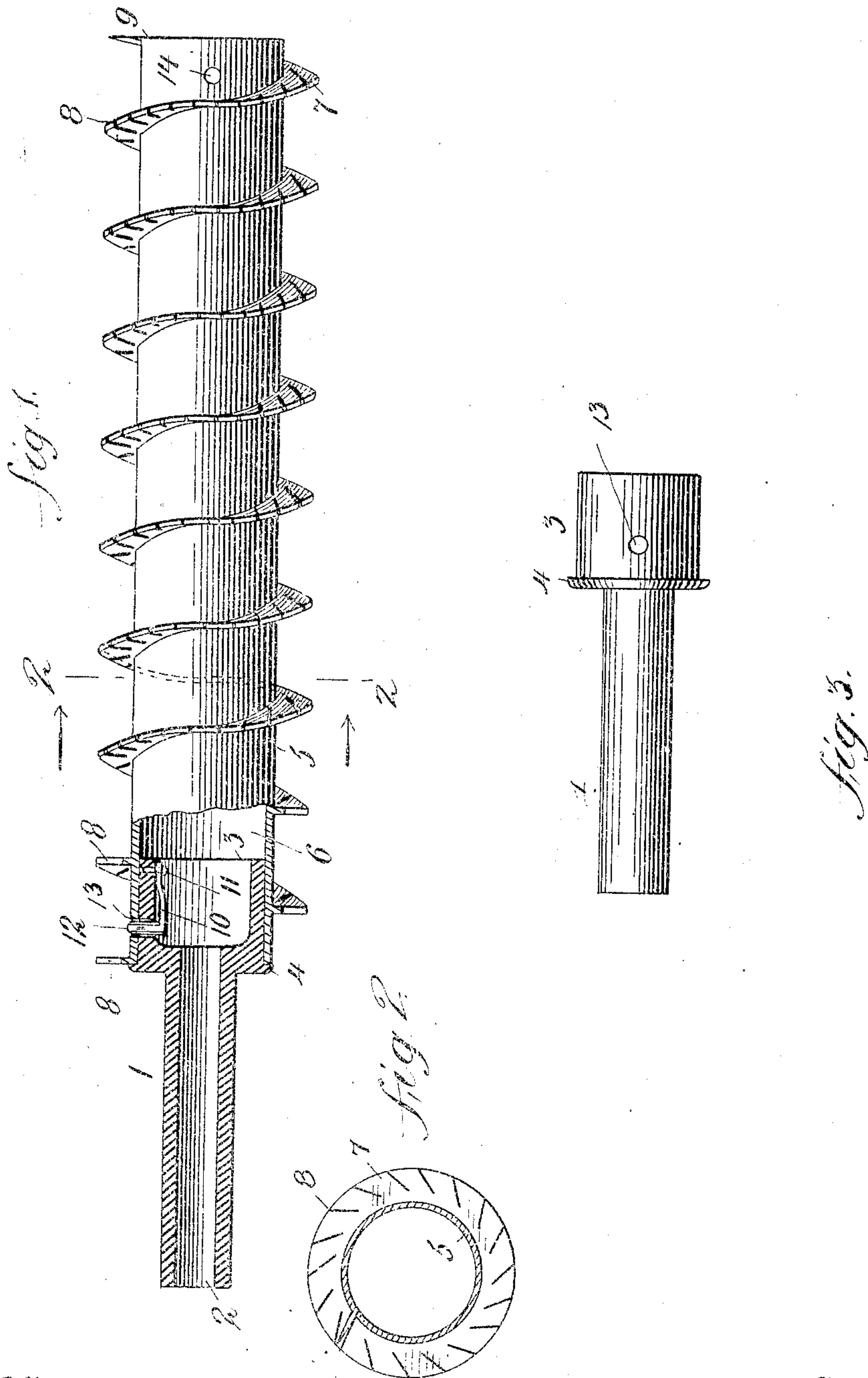


No. 860,142.

PATENTED JULY 16, 1907

G. LISPENARD.
PICKER STEM FOR COTTON HARVESTERS.
APPLICATION FILED JAN. 5, 1907.



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UNITED STATES PATENT OFFICE.

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PICKER-STEM FOR COTTON-HARVESTERS.

No. 860,142.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed January 5, 1907. Serial No. 350,800.

To all whom it may concern:

Be it known that I, GEORGE LISPENARD, a citizen of the United States, and a resident of the city of New York, county of Kings, and State of New York, have
5 invented certain new and useful Improvements in Picker-Stems for Cotton-Harvesters, of which the following is a specification.

My invention relates to a stem for cotton pickers, and it is particularly adapted for machines of the kind
10 illustrated in my United States Patent No. 783792, dated Feby 28—1905, and also for machines shown in my co-pending application Serial No. 334092. As all parts of the complete cotton harvester are shown in the above cases, it will be only necessary to illustrate in
15 this application a particular form of picker stem which forms the subject matter of the claims in this case.

The object of my invention is to provide a picker with a cylindrical stem having an exterior blade disposed preferably in a spiral form along its length so that
20 as the stem revolves, none of the cotton bolls escape the action of the picker.

In the forms illustrated in my cases above referred to, it is possible for part of the boll to lie between parallel blades and thereby escape the action of the
25 picker. In the present case, the blade will act without fail on every cotton boll within the length of the picker. Another result following from the use of a spiral blade is that the boll is drawn toward one end of the picker, depending, of course, upon the direction
30 in which the stem is revolving so that the action assists in drawing the boll from the stalk.

My preferred form comprises a single complete spiral blade extending from one end of the stem to the other, but in its broadest aspect consists of pitching the blade
35 or blades so that there will be no space longitudinal of the stem when the latter revolves whereby the boll can escape the action of the blade.

Other features of the invention reside in the reversibility of the stem on the shaft and means for securing it
40 whereby the picker may be secured at either end to the shaft so that it is thus made reversible.

In the drawings forming part of this application Figure 1 is an elevation of a picker stem and shaft with parts broken away. Fig. 2 is a cross-section on the line
45 2—2 of Fig. 1, and Fig. 3 is an elevation of the end of the shaft which carries the picker.

In the drawings I have shown a hollow shaft 1 which is secured to the cotton picking machine in the desired way so as to be revolved by any mechanical
50 means, such as is shown in the cases referred to, and which is preferably provided with a hollow core 2. The shaft has an enlarged end 3 which is provided with

a flange 4 which serves as a shoulder for the picker. The picker proper consists of a cylindrical tube 5 having a center core 6, and made of sufficient length and
55 diameter to correspond to the machine to which it is applied. The core of the cylinder is made to correspond with the exterior dimensions of the end 3 of the shaft over which it is adapted to fit and rest against the flange 4. On the exterior of the cylindrical stem, I
60 provide a spirally disposed blade 7 which has a number of slits 8 terminating at its exterior edge which are arranged at an angle to the diameter of the picker and adapted to shred the bolls from the stalks. The spiral extends from the further end 9 of the cylinder to the
65 opposite end.

Means are provided for securing the cylinder to the shaft head which in this case consists of a spring 10 secured in the interior of the shaft head by a pin 11, and it is provided on its free end with a pin 12 which passes
70 through an aperture 13 of the shaft head, and through a corresponding aperture 14 in the end of the cylinder, and thus prevents longitudinal disengagement from the end of the shaft; and when it is desired to remove the
75 picker, it is only necessary to press in the pin 12 when it will disengage the stem and allow the latter to be withdrawn from the shaft. If it is desired to reverse the picker, this may be done as both ends are made alike and both have the apertures 14.

From this it will be seen that as the picker is revolved by the action of the shaft, the blade owing to
80 its being spirally disposed upon the cylinder, will come in contact with and remove all of the cotton bolls along the length of the picker, so that none of the bolls will lie between blades, as has hitherto happened, and
85 at the same time secure all the advantages of the circular parallel blades heretofore used.

When the picker is revolved in the direction of the slots 8, taking their inner ends as their commencement, the stems of the bolls will engage in these slots and the
90 bolls will be removed. When it is desired to remove any of the boll which is on the picker stem, it is only necessary to revolve the latter in a reverse direction, when the centrifugal force will remove anything held by the slots, because of the direction of the latter.
95

Having described my invention, what I claim is:

1. A picker for cotton harvesters, comprising a revoluble member provided with an exterior blade or blades extending spirally along the picker, whereby there will be no
100 intermission which will allow the bolls to escape the action of the blade or blades when the picker revolves.
2. A picker for cotton harvesters composed of a revoluble member, having a spirally disposed exterior blade provided with a plurality of slots terminating at the outer
105 edge of the blade.
3. A picker stem for cotton harvesters composed of a

revoluble member, having a spirally disposed exterior blade provided with a plurality of slots terminating at the outer edge of the blade and disposed at an angle to the diameter of the picker.

- 5 4. A picker for cotton harvesters comprising a stem having an exterior blade, a shaft for the stem, and means whereby either end of the stem may be secured to the shaft so as to be reversible.

5. A picker for cotton harvesters, comprising a stem

having an exterior blade, a shaft for the stem adapted to be inserted therein and a spring in the shaft provided with a projection adapted to engage an aperture in the picker stem.

Signed this 2nd day of January, 1907.

GEORGE LISPENARD.

Witnesses:

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