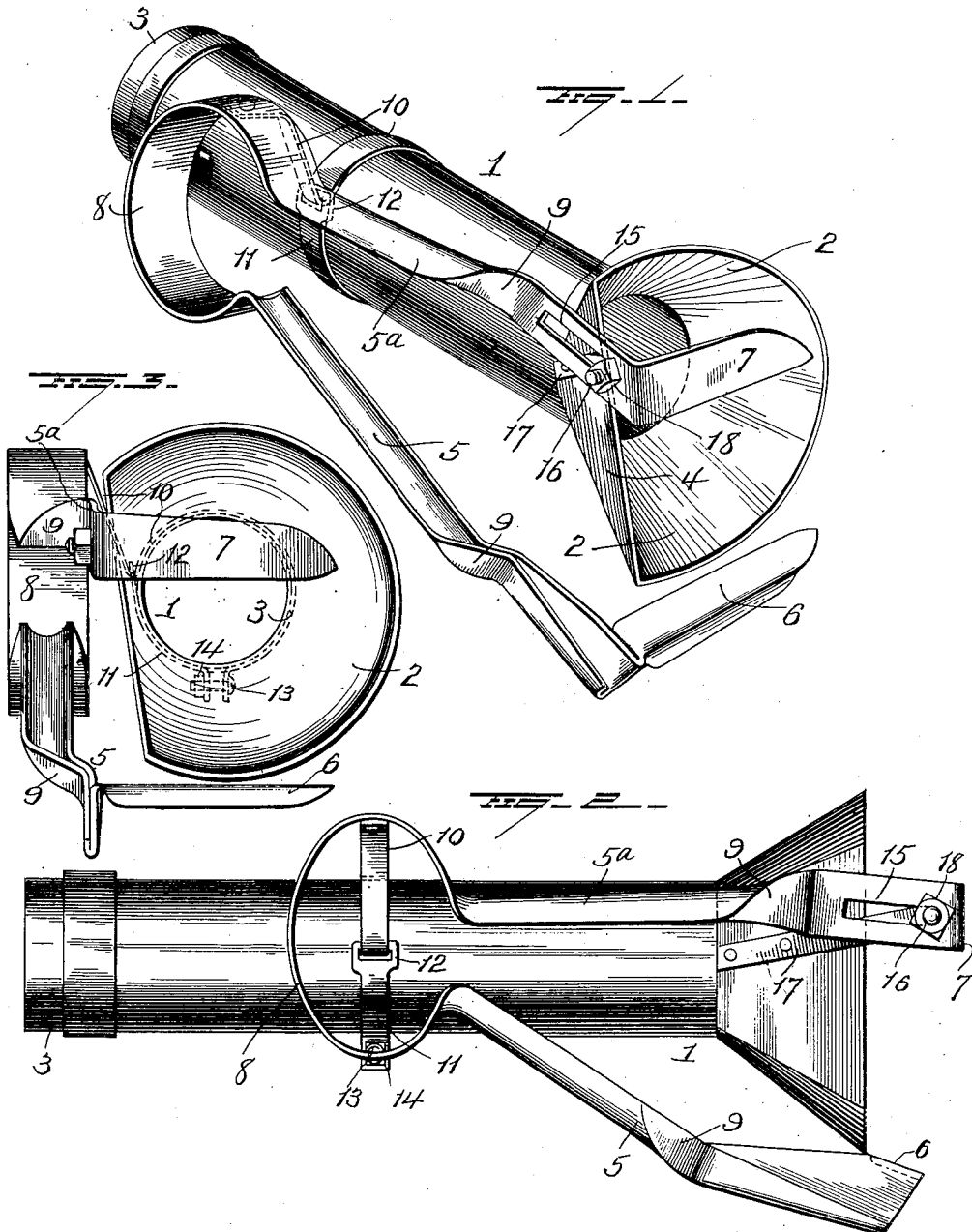


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 NOZZLE FOR PNEUMATIC COTTON PICKERS.
 APPLICATION FILED AUG. 2, 1919.

1,328,386.

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NOZZLE FOR PNEUMATIC COTTON-PICKERS.

1,328,386.

Specification of Letters Patent.

Patented Jan. 20, 1920.

Application filed August 2, 1919. Serial No. 314,972.

To all whom it may concern:

Be it known that I, CONRAD S. MATTHIESSEN, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Nozzles for Pneumatic Cotton-Pickers; 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 appertains to make and use the same.

My invention relates to an improvement in nozzles for pneumatic cotton pickers and it consists in a tapering nozzle having means for forcibly removing the cotton from the pod and holding it in a position where it will be drawn into the nozzle by the pneumatic or suction device.

It further consists in details of construction and combination of parts as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved nozzle; Fig. 2 is a view in side elevation of the same, and Fig. 3 is a front end view.

1 represents the nozzle having an outwardly tapering or flaring front end 2, and a cylindrical rear end 3, which latter is designed to be connected by a flexible hose, with a suitable suction device, such for instance as shown in my pending application No. 256,407, filed October 1st, 1918. One side of the tapering end 2 is flattened as at 4, to permit the levers 5 and 5^a carrying the jaws 6 and 7 to be located close up to the nozzle and also to avoid the use of unnecessarily long jaws.

The levers 5 and 5^a and the jaws 6 and 7 are preferably made in one piece of flat strip metal as shown, their rear ends being connected by the bent section 8 preferably integral with the levers and constituting a spring which normally holds the jaws 6 and 7 separated as shown in Fig. 1.

The jaws 6 and 7 are preferably integral with the levers and are formed by bending the free ends of the latter at right angles so as to extend across the open end of the tapering nozzle 2. The lower jaw 6 is constructed to present a flat side or seat for engagement with the cotton boll or pod, while the upper jaw 7 presents a narrow edge, approximately the thickness of the metal strip, which coacting with the flat jaw 6 operates by a slight

pull to loosen the cotton from the pod, thus leaving the cotton free to be drawn into the nozzle by the suction.

While I have shown the jaws 6 and 7, integral with the levers and formed by bending the free ends of the latter at right angles, it is clearly evident that they may be made separate from the levers and secured to the latter. The portions of the levers 5 and 5^a adjacent the jaws are bent inwardly as shown at 9 toward the nozzle for shortening the jaws and at the same time leaving sufficient space between the levers and the nozzle for the free manipulation of levers by the hand. The handle portions of the levers are preferably rounded as shown to permit them to be conveniently manipulated.

The levers are secured at their rear ends to the nozzle by the metal straps 10 and 11, the former of which passes over the top of the nozzle and down and through a loop 12 in one end of the strap 11 and is secured to the spring member 8 adjacent lever 5^a. The strap 11 embraces the lower side of the nozzle and is secured at its free end to the free end of the strap 10 by the screw 13 and nut 14.

The upper lever is provided adjacent its outer end, with the elongated slot 15 to receive the bolt 16 carried by the arm 17 rigidly secured to the flattened face 4 of the tapering end 2 of the nozzle, the lever being held in place thereon by the nut 18. By means of the strap connections 10 and 11 and the slot for the bolt 16, the levers may be adjusted to carry the jaws toward or away from the open end of the nozzle as may be desired.

As before stated the nozzle is attached at its rear end 3 to a flexible tube connected with suction apparatus, and is carried by the operator who grasps the levers 5 and 5^a with his right hand the flat movable jaw 6 being at the underside. The jaws are normally separated sufficiently for the free entrance between them of the largest cotton boll and after the cotton has been entered between the jaws, the flat upper jaw is forced downwardly thus clamping the cotton between the flat upper jaw and the comparatively thin edge of the lower jaw. A slight pull on the cotton detaches it from the pod and the loose cotton is then drawn by the suction into the nozzle and through the flexible pipe to the container.

It is evident that many slight changes in

the details of construction may be resorted to without departing from the spirit of my invention, hence I would have it understood that I do not confine my invention to the
5 details shown but consider myself at liberty to make such changes as may come within the spirit of my invention and the terms of the claims.

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

1. In a cotton picker, the combination of a suction nozzle, levers at one side thereof, each lever having a jaw located in advance
15 of the open end of the nozzle, one of said jaws being fixed and the other movable, and a spring for holding the levers and the jaws normally separated.

2. In a cotton picker, the combination of
20 a suction nozzle, levers at one side thereof each lever having a jaw located in advance of the open end of the nozzle, one of said jaws being wider than the other, the wider jaw being fixed and the other jaw movable

toward and away from the fixed jaw, and a 25 spring for normally holding the levers and jaws separated.

3. In a cotton picker, the combination of a suction nozzle, levers adjustably mounted on said nozzle, each lever having a jaw ex- 30 tending across the open end of the nozzle and a spring for normally holding the levers and jaws in open or separated position.

4. In a cotton picker, the combination of 35 a suction nozzle, levers adjustably carried by said nozzle, one of said levers being fixed and the other movable, and each lever having a jaw extending across the open end of the nozzle and a spring for holding the le- 40 vers and jaws normally separated.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CONRAD S. MATTHIESSEN.

Witnesses:

HARRISON Y. STOVER,
HOWARD S. IRONS.