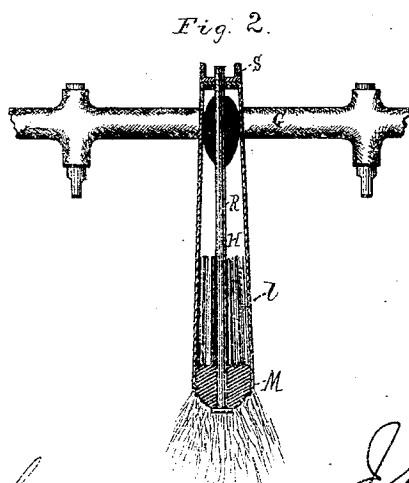
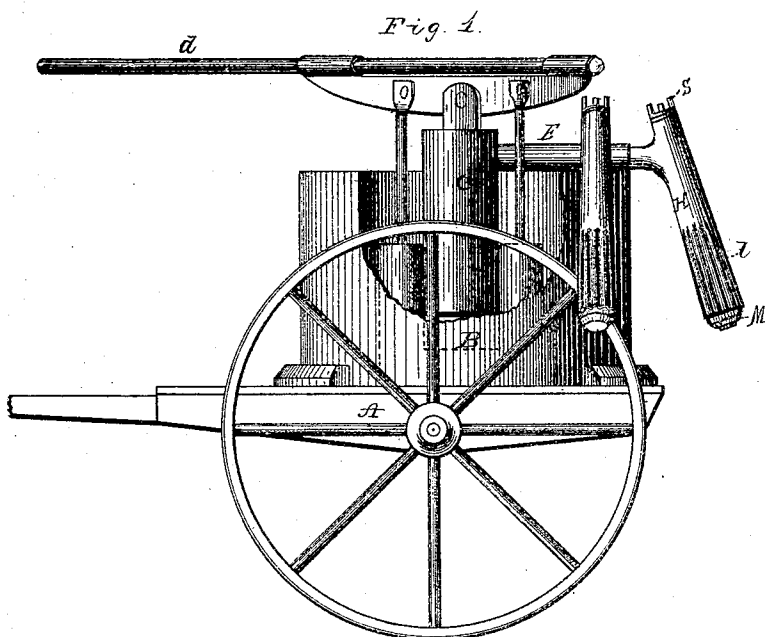


J. W. JOHNSON.
Cotton-Worm Destroyers.

No. 145,571.

Patented Dec. 16, 1873.



WITNESSES.

Wm. H. DuRoi
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UNITED STATES PATENT OFFICE.

JEHU W. JOHNSON, OF COLUMBUS, TEXAS.

IMPROVEMENT IN COTTON-WORM DESTROYERS.

Specification forming part of Letters Patent No. **145,571**, dated December 16, 1873; application filed August 21, 1873.

To all whom it may concern:

Be it known that I, JEHU W. JOHNSON, of Columbus, Colorado county, Texas, have invented a certain Improved Apparatus for Exterminating Cotton-Worms, of which the following is a specification:

This invention relates to an apparatus for exterminating cotton-worms by ejecting liquid poison upon the cotton-plants. The invention consists in a tank provided with a double-acting force-pump connecting with a pipe having branches extending therefrom, said branch pipes having their outer ends crimped or corrugated and provided with elastic plugs, so arranged that they may be tightened or loosened by means of screw-rods and nuts, whereby the liquid is ejected in the form of spray, the apparatus being of such construction and dimensions that it may be readily placed upon an ordinary cart or wagon.

In the accompanying drawing, Figure 1 is a side view of my improved apparatus, having a portion of the tank broken away. Fig. 2 is a longitudinal sectional view of one of the branch pipes.

A represents the cart or wagon upon which the apparatus rests. Said vehicle may be made for the purpose, or it may be of any ordinary suitable construction. B represents a tank for holding the liquid compound. In this tank is secured a double-acting force-pump, C, of any suitable construction, provided with a handle, *d*, so arranged as to be within convenient reach of the driver. Extending from the chamber of the force-pump is a pipe, E, the outer end of which connects with a pipe, G, which runs transversely across the rear of the apparatus.

H represents one of a series of branch pipes, any desirable number of which may be attached to the pipe G. The pipe H consists of a tube with a short connecting-pipe near its upper end for the purpose of connecting it with the pipe G by means of a screw-joint, or in any other suitable manner. The lower end of the tube H is crimped or corrugated so as to form internal grooves *l*, as shown. In this lower end is inserted a plug, M, which is made of rubber, cork, or any other suitable elastic material. A rod, R, extends from the plug M to the upper end of the tube H, where it engages with a nut, S, by which means it may be tightened or loosened.

It will be seen that any liquid passing through the lower end of the tube H must escape by way of the grooves *l* and assume the form of spray; and that by tightening or loosening the plug M the dimensions of the grooves *l* are increased or diminished.

What I claim as new, and desire to secure by Letters Patent, is—

1. The tube H, having its lower end crimped, corrugated, or grooved, and provided with an elastic plug adjusted by means of a screw-rod and nut, substantially as and for the purpose shown and described.

2. The combination, in an apparatus for destroying cotton-worms, of the tank, force-pump, and pipes with the tubes H hereinbefore described, substantially as set forth, all arranged and operating to shower a spray evenly and thoroughly over the rows of cotton-plants.

Witnesses:

J. W. JOHNSON.

J. JAY HARCOURT,

D. W. HARCOURT.