

# B. G. Shields, Cotton Harvester.

No. 15746

Patented. Sep 16. 1856

Fig. 1.

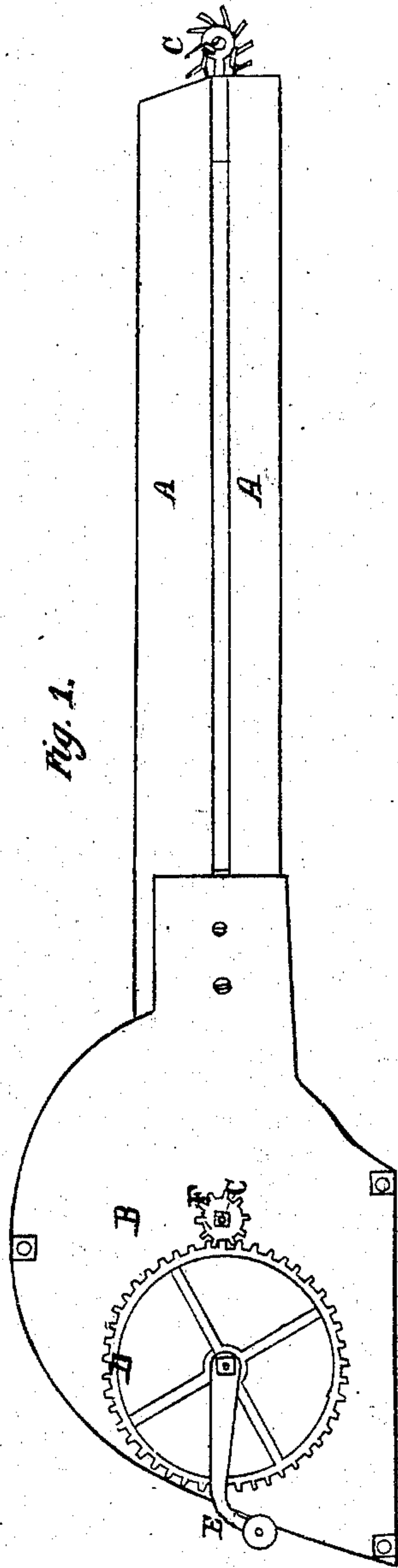


Fig. 2.

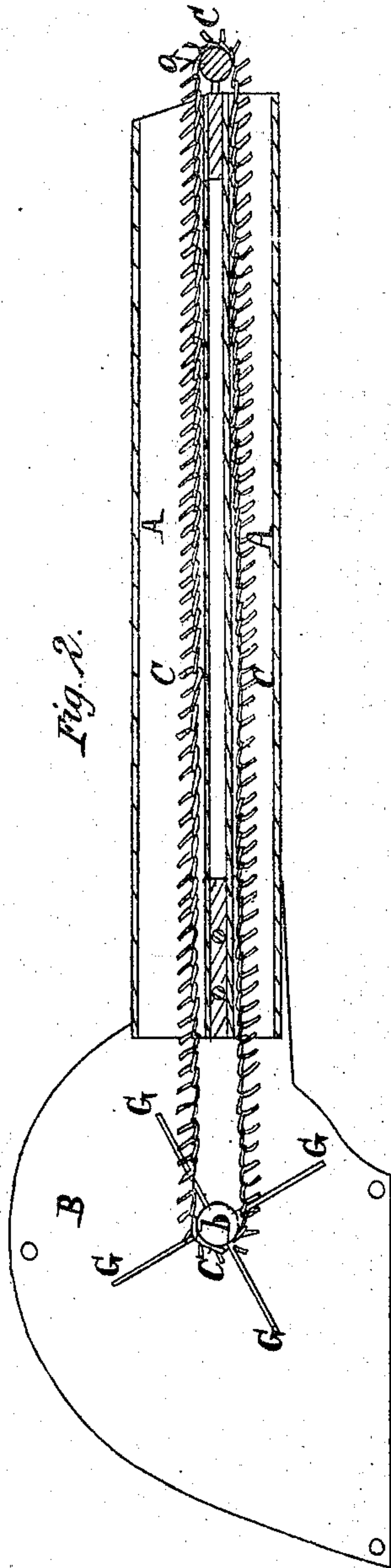
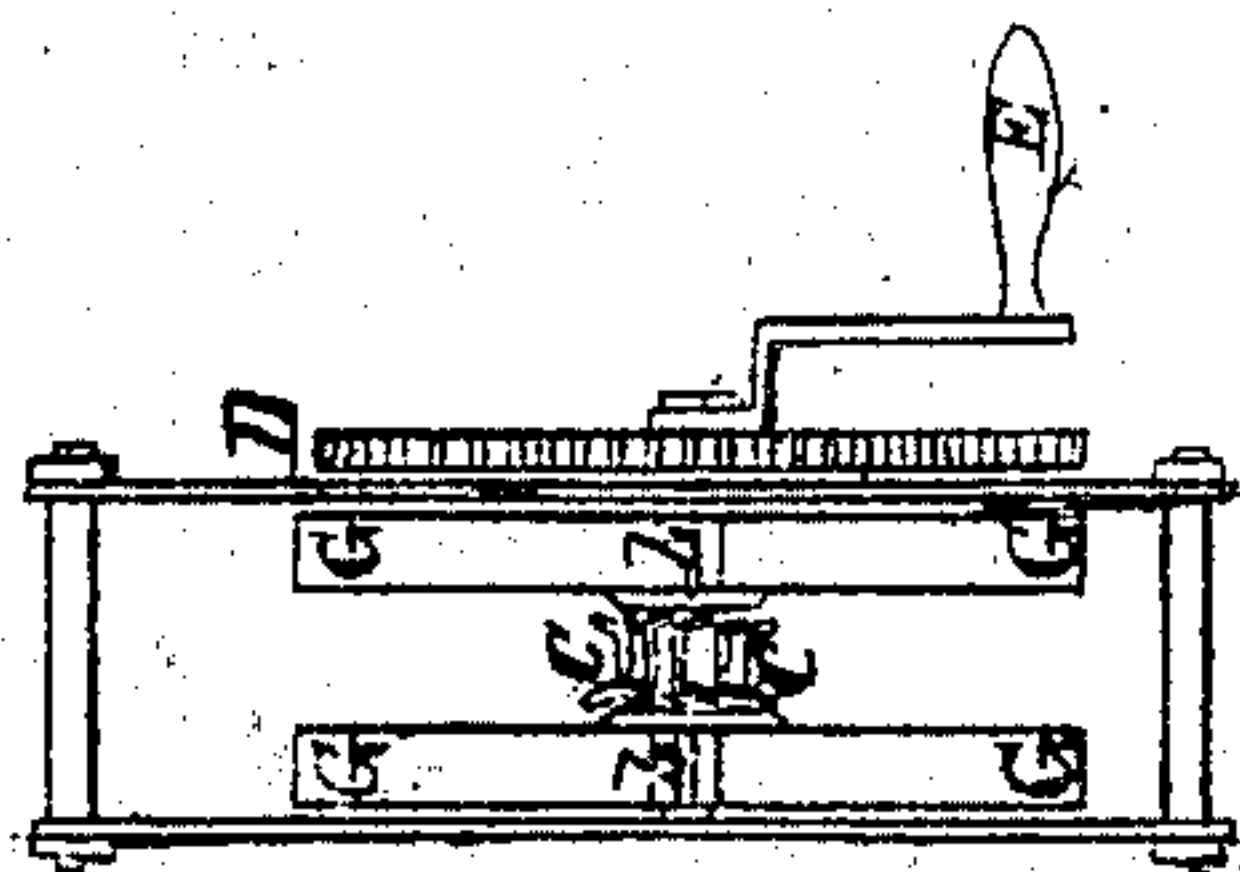


Fig. 3.



# UNITED STATES PATENT OFFICE.

B. G. SHIELDS, OF MARLIN, TEXAS.

## IMPROVEMENT IN COTTON-PICKERS.

Specification forming part of Letters Patent No. 15,746, dated September 16, 1856.

*To all whom it may concern:*

Be it known that I, BENJAMIN G. SHIELDS, of Marlin, in the county of Falls and State of Texas, have invented certain new and useful Improvements in Hand-Machines for Gathering Cotton in the Field; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part thereof, in which—

Figure 1 represents a side view of the machine. Fig. 2 represents a vertical central and longitudinal section through the same.

Where similar letters of reference occur in the separate figures they denote the same parts of the machine.

Letters Patent of the United States were granted to George A. Howe on the 4th day of December, 1855, for a hand-machine for picking cotton in the field. In actual practice Howe's machine fails, to certain extent, to take the cotton from the gathering-chain. His stripper was designed to knock the cotton from the teeth of the chain, but in doing this the stripper itself becomes entangled with the fiber, and the machine clogs up.

My invention aims at overcoming this defect in Howe's machine, and I have successfully accomplished it by the hereinafter-described means.

The nature of my invention consists in the use of a fan wheel or wheels in connection with a gathering-chain for taking the fiber from the teeth of the chain.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A A represent two metallic or other tubes, arranged one over the other, and united at their rear ends by a metallic case, B. In front of the tubes a small pulley, *a*, is arranged, and within the case B another pulley or drum, *b*, is so fixed as that an endless gathering-chain, C, shall run over said pulleys and pass through the tubes A.

On the outside of the case B is placed a

cogged wheel, D, having a crank, E, affixed to it. This cogged wheel D takes into and turns a pinion, F, arranged on the axis *c* of the drum of the pulley-shaft *b*, so as to rotate said drum or pulley. The periphery of the pulley *b* is armed with teeth which take into the links of the chain C, and cause it to run steadily without slipping. Upon the pulley-shaft *b* are also placed two sets of broad arms or fan-wheels, G, (one on each side of the chain, one only being seen in the section,) which rotate in the direction of the motion of the chain and create a blast of air that blows the fiber from the teeth of the gathering-chain. The blast created by the fan-blowers is in the direction of the inclination of the teeth of the chain, and as the locks of cotton approach on the chain the arms of the blower knock it off by a blow from behind, and the blast facilitates and completes the delivery.

It is obvious that the machine can be duplicated without changing its character, each additional chain, after the first one, only requiring one additional fan, and the fans, instead of being on the shaft *b*, may be above, below, or behind it, and driven by the chain or by another gear, pinion, or belt; but these modifications are obvious, and I would consider any machine that takes the fiber from the teeth by a fan arranged at or near the point of delivery as involving my invention or improvement.

A bag or receiver of any kind may be attached to the rear of the machine to receive the gathered cotton.

Having thus fully described the nature of my invention, what I claim as an improvement on the patent of George A. Howe of the 4th of December, 1855, is—

The application of a fan or fans to the gathering-chain as a means of removing the gathered cotton from said chain; and this I claim whether said fans be used as herein set forth or in any other way substantially the same.

BENJAMIN G. SHIELDS.

Witnesses:

A. B. STOUGHTON,  
G. W. FOTHURST.