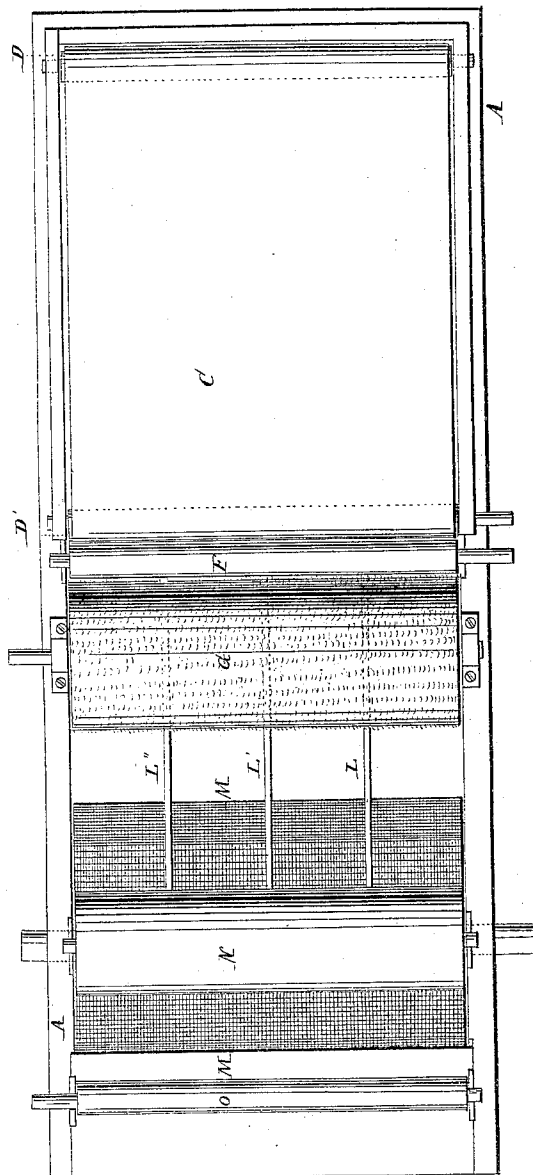
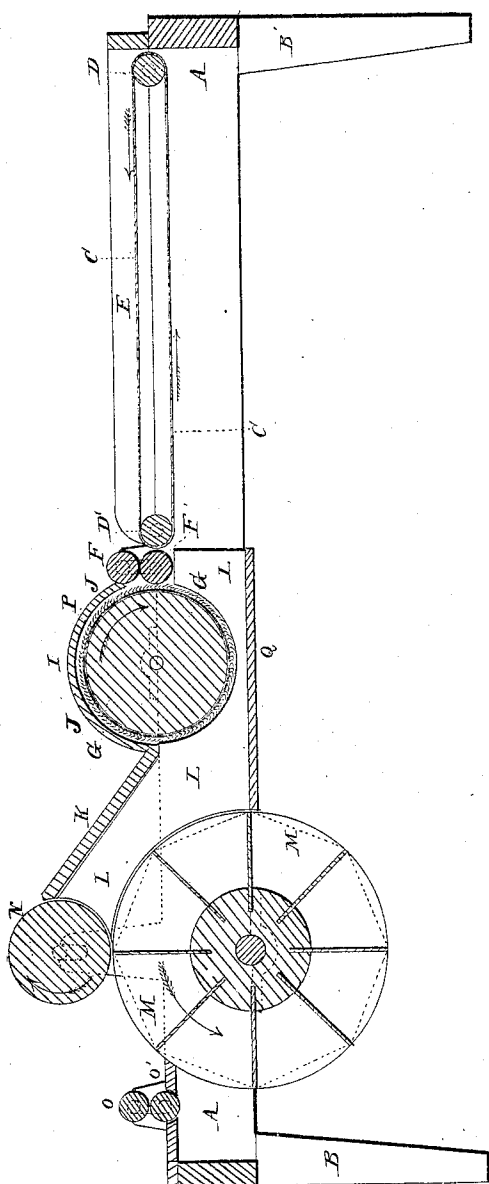


*S. Boxendale.*  
*Picking Mach.*

*N<sup>o</sup> 58,711.*

*Patented Oct. 9, 1866.*



WITNESSES:

*Franklin Hunt*  
*Eben T. Gray*

INVENTOR:

*Samuel Boxendale*

# UNITED STATES PATENT OFFICE.

SAMUEL BAXENDALE, OF BOSTON, ASSIGNOR TO HIMSELF, THOMAS H. DUNHAM, OF BOSTON, AND SAML. B. THAXTER, OF ABINGTON, MASS.

## IMPROVEMENT IN MACHINES FOR PICKING AND OPENING FIBROUS MATERIAL.

Specification forming part of Letters Patent No. **58,711**, dated October 9, 1866; antedated September 23, 1866.

*To all whom it may concern:*

Be it known that I, SAMUEL BAXENDALE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Picking-Machines; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters and figures marked thereon.

Figure I is a side elevation. Fig. II is a top view.

My improvement in picking machinery, used for opening and separating cotton, hemp, jute, wool, or other fibrous substances, relates, chiefly, to the mode of applying the fiber while floating in the air to the "cage" or revolving wire-cloth cylinder.

The fiber after it leaves the beater or the revolving teeth is usually carried forward in a close box or tube by a rapid current of air and strikes upon the revolving wire cage throughout its entire length, thus forming a bat or sheet of fiber of nearly the same width as the length of the cylinder or cage.

By the use of my improvement any required number of narrow sheets or bats may be taken off from the wire cage, suitable for being drawn, twisted, or otherwise prepared for the manufacture of wick-yarn and similar articles. The narrow strips thus produced correspond to the sliver or roving heretofore made upon cards and upon drawing-frames.

The cotton or other fiber, having been previously opened upon a willow or other suitable machine, is spread evenly upon the endless apron C, which is moved by the rollers D D' in the direction of the arrows. The narrow raised side E, placed near the edges of the apron, keeps the fiber in place. From the apron the cotton is led through the feeding-rollers F F', from which it is drawn by the coarse card-teeth P, with which the cylinder G is covered.

In some cases beaters having radial arms and attached cross-bars are used instead of the card-cylinder G. Around this picking-cylinder there is a small space, I, bounded at the top by the curved bonnet or cover J and at the bottom by the guides L. The fibers of cotton with which this space is filled are carried forward between the divisions or parti-

tions L L' L'', and being prevented from escaping by the cover K, (which is a continuation of the bonnet J,) it strikes the wire cage M, which revolves slowly and carries the several bats or slivers under the pressure-roller N, where they are slightly condensed, and then pass on to the delivery-rolls O O', from which they are taken by any convenient machine ready for twisting, drawing, or other further manipulations.

The partitions L L', &c., are thin and smooth, and may be placed at any convenient distance apart, the space between each partition being greater or less, according to the required size of the sliver and consequent fineness or "number" of the article that is to be manufactured.

When the current of air caused by the revolution of the cylinder G is not sufficient to carry the flying fibers of cotton forward to the cage a fan-blower having its outlet in the guides L may be used.

Each partition L L' must conform to the curvature of the cylinders G, M, and N, and approach them as nearly as possible without being in actual contact.

When the cotton is weighed in the usual manner and spread evenly upon the apron the size of the fillets or slivers that are delivered from the machine are very uniform, care being taken that the draft of air is not greater at one end of the wire cage than at the other.

The partitions L L' L'' pass under the cylinder G and approach as near as possible to the feeding-rollers F F', in order that the fibers may take the right direction as soon as the picking, beating, or separating is effected.

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

A series of divisions or partitions so placed as to form passages or channels leading to the wire cage of a picking, blowing, or separating machine, and causing the floating fibers to be deposited upon the cage in separate slivers or fillets, substantially as herein described, and for the purpose specified.

SAMUEL BAXENDALE. [L. s.]

In presence of—

FRANKLIN HUNT,  
EBEN T. GRAY.