2 Sheets—Sheet 1.

J. BATTY.

ARRANGEMENT OF LAPPING MACHINE.

No. 188,495. Patented March 20, 1877.

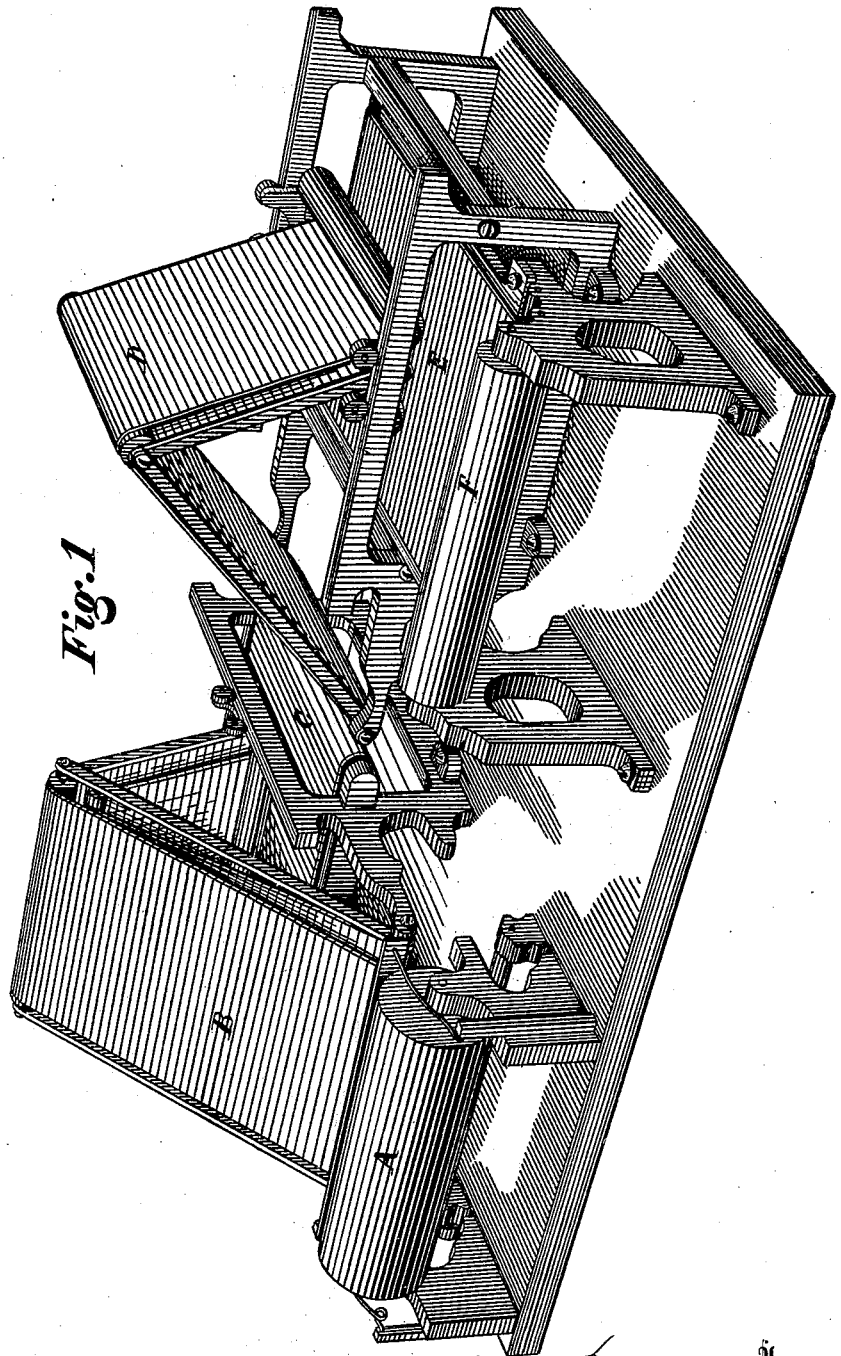

Fig. 1

Witnesses

W. R. Wright.

Albert E. Jacherle

Job Batty Inventor

By George D. Buckley

Attorney.

2 Sheets—Sheet 2.

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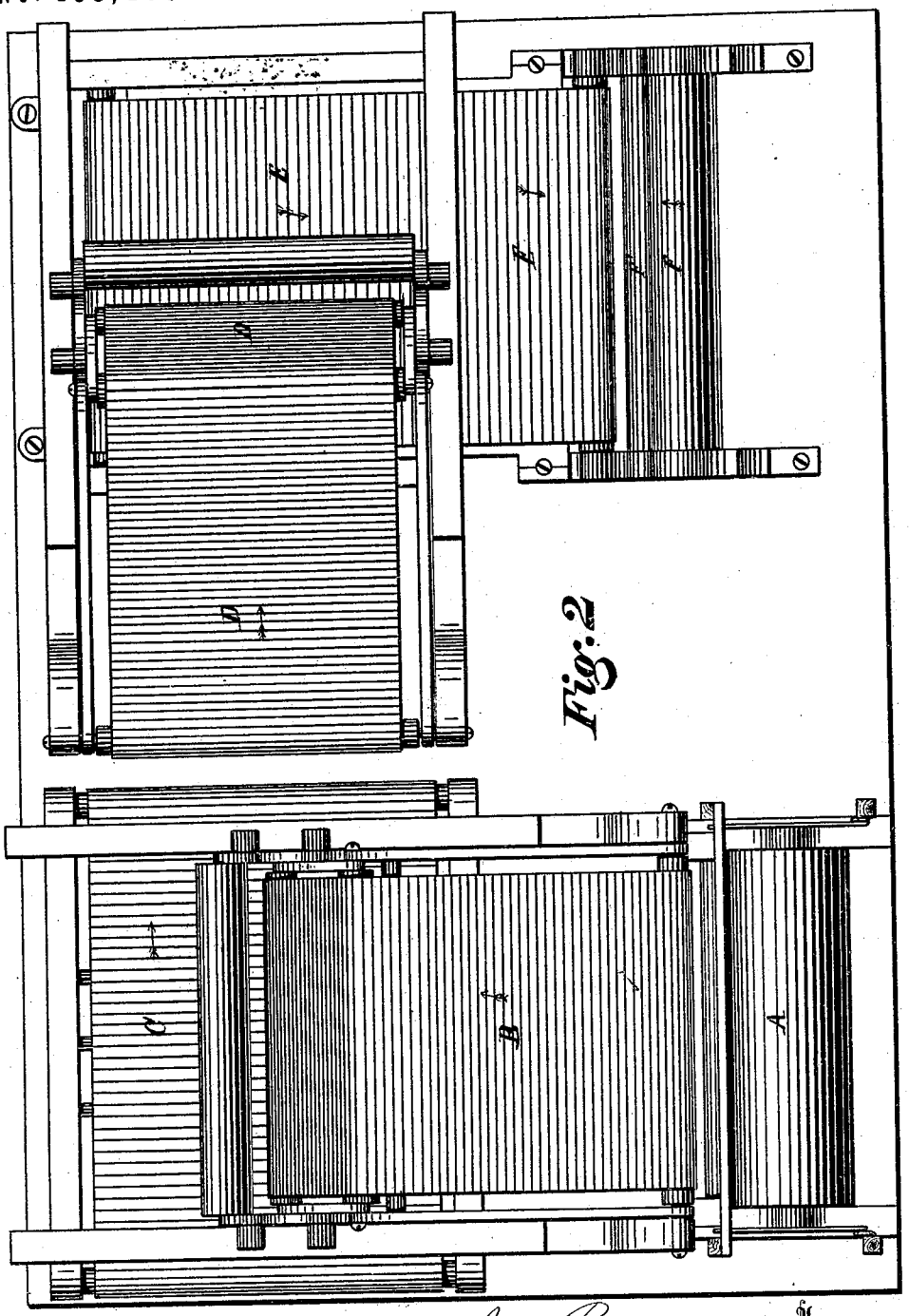

Fig: 2

Witnesses

W. R. Wright.

Albert E. Zacherle

Job Batty Inventor

By George E. Buckley

Attorney

UNITED STATES PATENT OFFICE.

JOB BATTY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO ALBERT BATTY, OF SAME PLACE.

IMPROVEMENT IN THE ARRANGEMENT OF LAPPING-MACHINES.

Specification forming part of Letters Patent No. **188,495**, dated March 20, 1877; application filed September 28, 1876.

To all whom it may concern:

Be it known that I, JOB BATTY, of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machinery for Making Yarn; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part hereof.

My invention refers to that class of machines known in the arts as "lap-machines," which receive the lap, say, of wool, from a breaking carding-engine, and, after lapping or doubling it several times in such a way as to make an even lap, deliver it to a condensing or finishing carding-engine, the operation being continuous; and the design of this invention is to deliver the lap, after doubling, into the condenser, with the fibers composing it, endwise to said condenser, to make better—that is, more even, finer, and stronger—yarn.

My invention consists of the combination, with a breaker and finisher card, of a series of aprons and doublers, arranged substantially as described, whereby the fibers composing the lap are taken from the doffer of the breaker endwise, doubled and redoubled, and then fed to the finisher in a continuous sheet, with the fibers entering the finisher endwise, as and for the purpose set forth in the following description:

In the drawings, A represents the doffer of a first card. B and C are endless slat-aprons upon the first lap-machine. D and E are endless slat-aprons upon the second lap-machine. F F′ are the receiving or feed rolls of the second card.

The operation is as follows: A carding-machine, called a breaker, is located at A. The apron B receives the lap from doffer A and slowly carries it forward and deposits it layer upon layer backward and forward upon the apron C. As the lap comes from the doffer A, its fibers are endwise; they consequently lie sidewise to the direction of the motion of apron C when deposited there. This apron C then carries the lap forward and delivers it, with its fibers still sidewise, upon apron D, which, in turn, deposits it upon apron E, with its fibers pointing toward card or condenser F. F F′ are the two feed-rolls of the condenser-card.

The lap and carding machines used by me are the well-known endless lap and carding machines in common use, and I do not claim to have made any improvement in their construction. Two breaker-cards may be used instead of a breaker and a condenser card.

The object of my invention is to get all the evenness of lap, which is attained by passing the lap from the breaker through two lap-machines, and, at the same time, secure the advantage of delivering it to the receiving-card, with the fibers composing it, endwise, so that the yarn drawn from it may, through its fibers being lengthwise, be stronger. In this way I obtain a very strong and even yarn from very short fiber, and a better yarn, at all times, than when the fibers of the lap enter the second card, be it breaker or condenser, sidewise. The aprons B and D may be denominated doublers, for the sake of distinction.

The special construction and operation of these machines are well known to all skilled in the arts in which they are used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with a breaker and finisher card, of a series of endless aprons and doublers, arranged substantially as described, whereby the fibers composing the lap are taken from the doffer of the breaker endwise, doubled and redoubled, and then fed to the finisher in a continuous sheet, with the fibers entering the finisher endwise, as and for the purpose set forth.

JOB BATTY.

Witnesses:

GEORGE E. BUCKLEY,

ALBERT E. ZACHERLE.