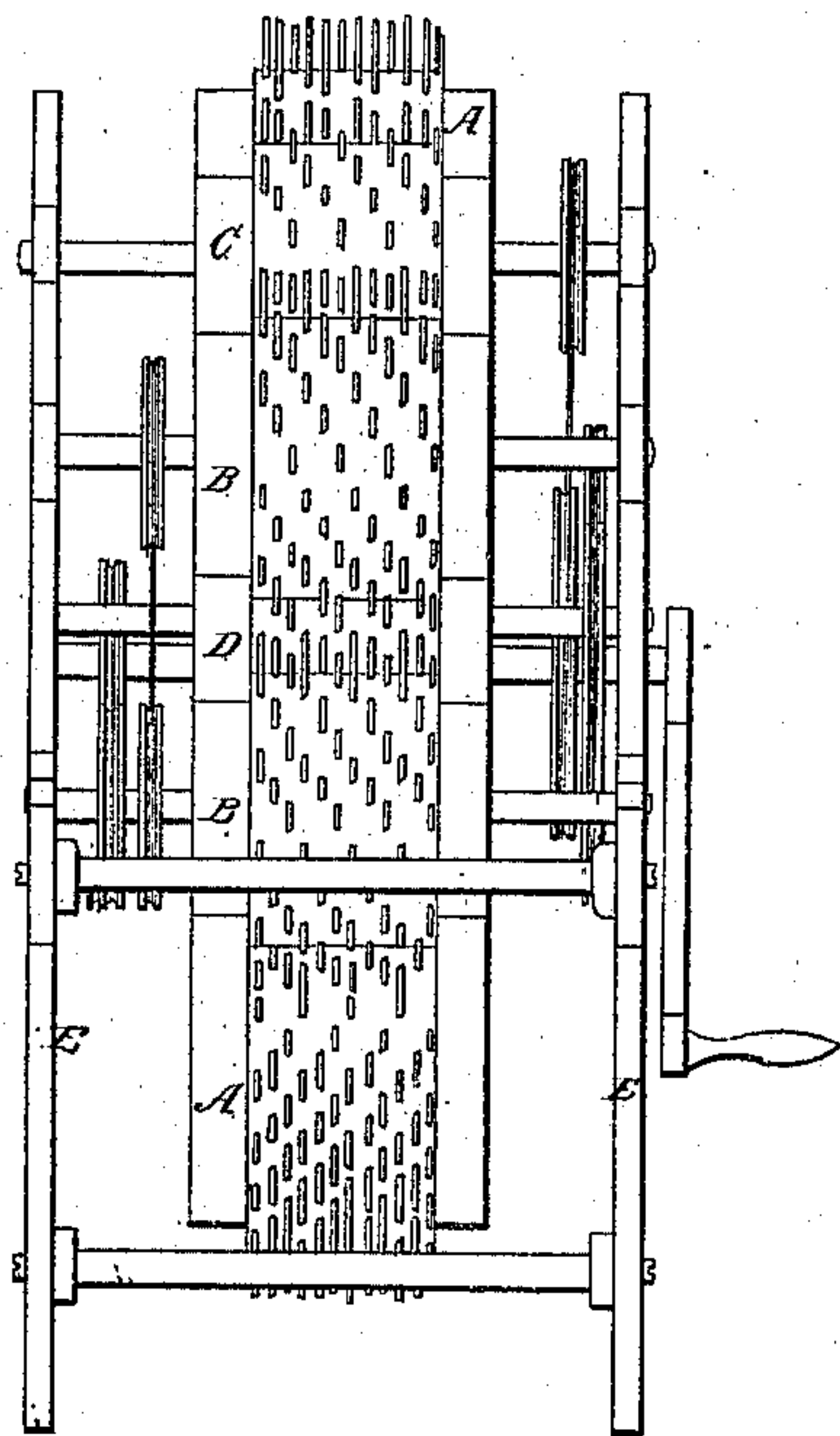
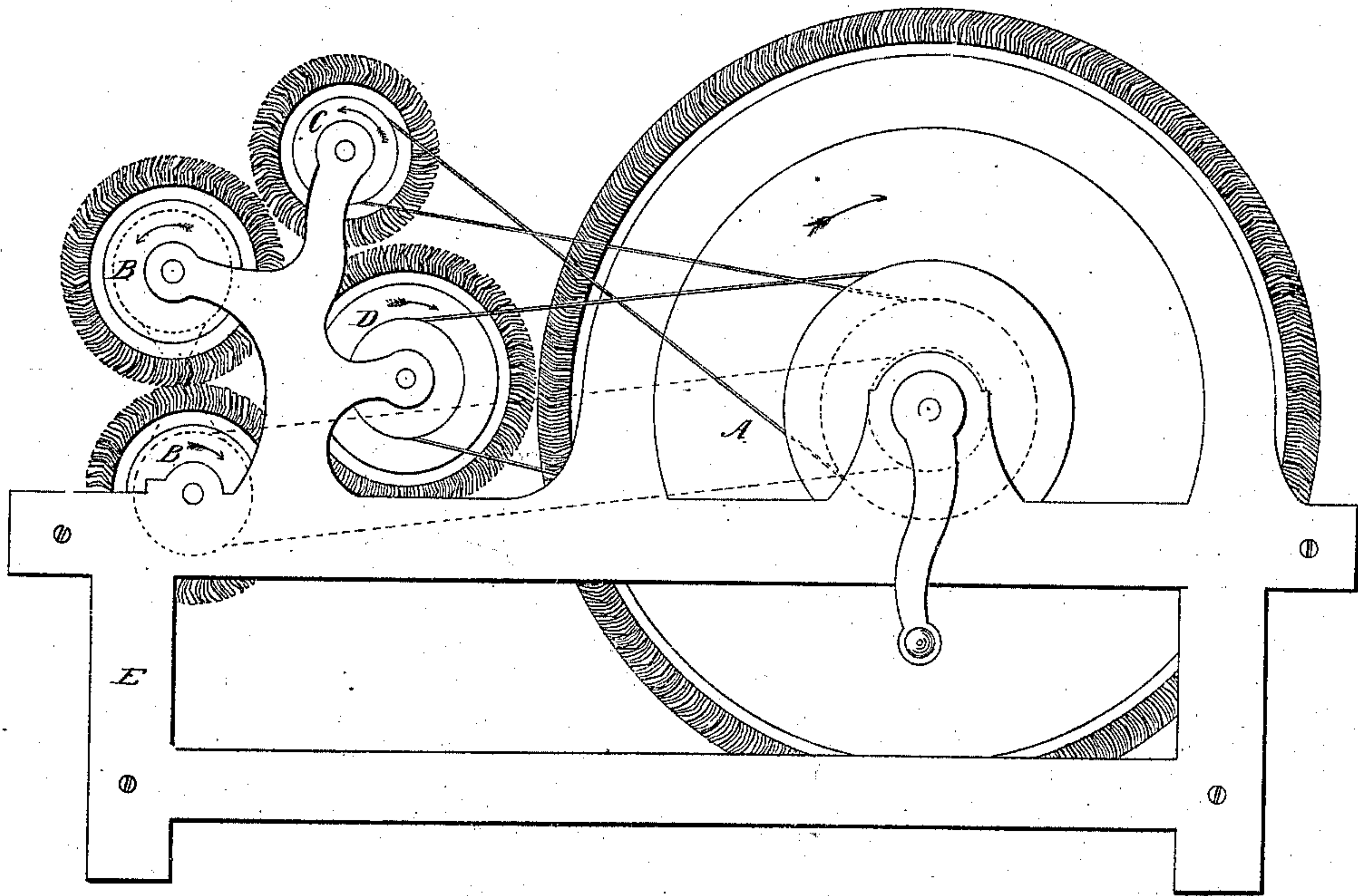


H. Houghton.
Carding Mach.

N^o 17,094.

Patented Apr. 21, 1857.



UNITED STATES PATENT OFFICE.

HIRAM HOUGHTON, OF SOMERS, CONNECTICUT.

IMPROVEMENT IN CARDING-MACHINES.

Specification forming part of Letters Patent No. **17,094**, dated April 21, 1857.

To all whom it may concern:

Be it known that I, HIRAM HOUGHTON, of Somers, county of Tolland, and State of Connecticut, have invented a new and useful Improvement in Carding-Machines; and I do hereby declare that the same is described and represented in the following specification and drawings clear and plain; to enable others skilled in the art to make and use it, I will proceed to describe the construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of my improvement consists in the arrangement of a third roll with the feed-rolls and licker-in, for the purpose of preventing the fillet of the feed-rolls from filling up.

In the accompanying drawings, Figure 1 shows a side view, and Fig. 2 shows an end view, of my improvement.

E is the frame-work designed to represent the ordinary methods of constructing the frame on which the work is placed.

B B are the feed-rolls, and represented nearly the full size in which they are used on the working-machine.

C is the third or the additional roll, and from which is derived the great advantage of my improvement; D, the tumbler or first cylinder; A, the main cylinder of the machine.

F are the pulleys or gearing by which the power is applied, and the proper speed is given to each and all of the parts in the ordinary way. The darts indicate the direction of the roll's or cylinder's movement. On the

feed-rolls B B it will be noticed that the card-fillet is secured in such a manner that the teeth will more readily yield and without injury to the fillet, and as it passes on is taken and worked by the cylinder D and the roll C, which at the same time strips the feed-rolls B B, and is taken thence forward in the usual manner by the main cylinder. The addition of the third roll is of slight expense compared with the advantage derived therefrom, and can easily be attached to the machines now in use.

The value and importance of this improvement will be seen more clearly when its merits and advantages are more fully understood. In the old way there are only two rolls used, and the tumbler acts as stripper upon both; hence the liability of the fillet filling up, making it necessary to stop the machine and strip the fillet, and otherwise receiving injury from the introduction of foreign substance. Thus it will be seen that the same machine, having this improvement added, will keep clean, and with the same amount of labor will produce a much greater amount of work far better, and is not as liable to get out of order.

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

The combination of the third roll C with the feed-rolls and licker-in, arranged substantially as described, for the purpose specified.

HIRAM HOUGHTON. [L. S.]

Witnesses:

JOEL S. WEBBER,
E. D. HOUGHTON.