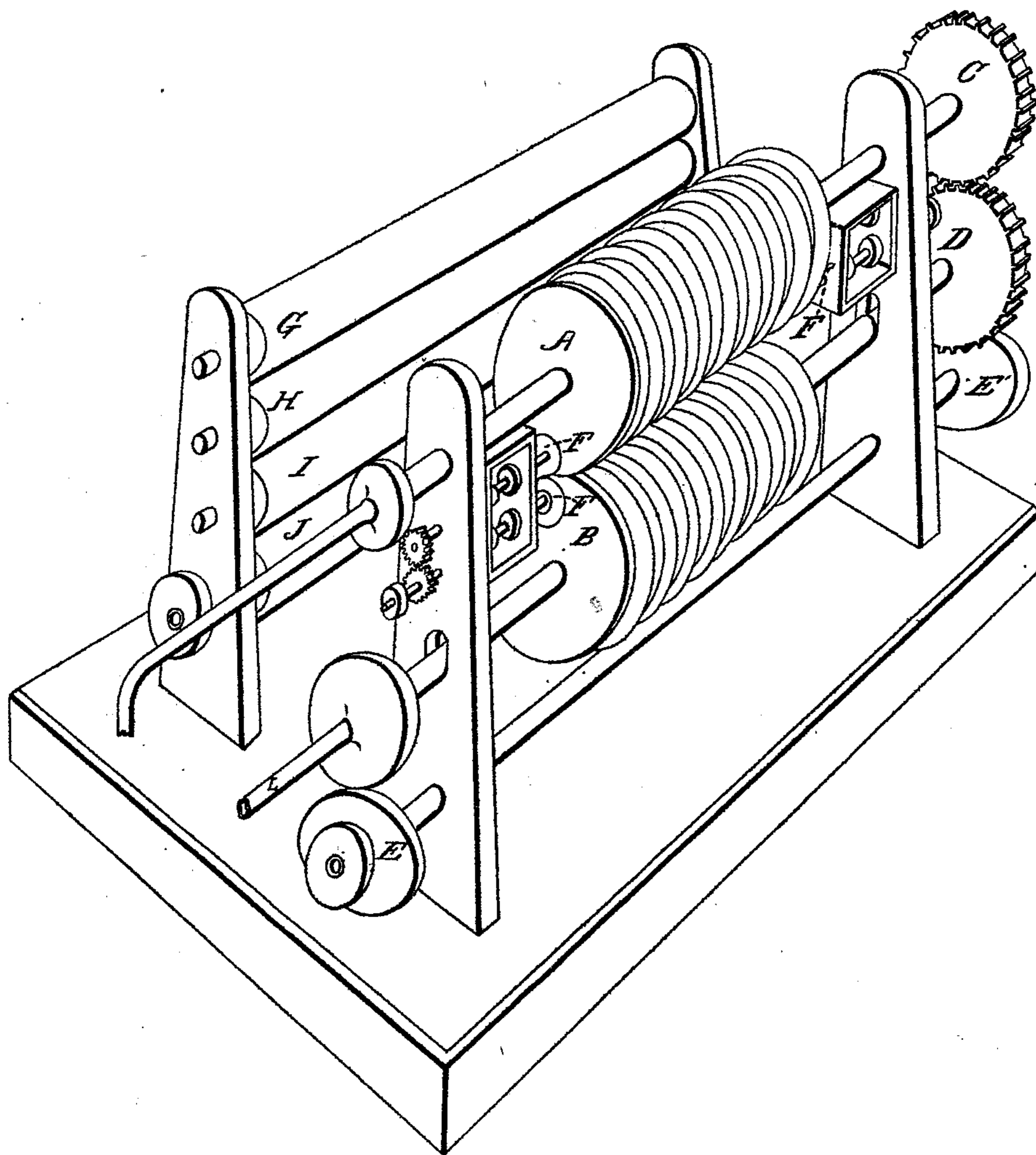


W. E. Farrell

Paper Calendering & Polishing Mach.
N^o 91,220. Patented Jun. 15, 1869.



Witnesses:

George E. Buckley
Wm. J. Burns.

Inventor:

W. E. Farrell

UNITED STATES PATENT OFFICE.

W. E. FARRELL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED PAPER FOR THE MANUFACTURE OF PAPER BAGS.

Specification forming part of Letters Patent No. **91,220**, dated June 15, 1869; antedated June 4, 1869.

To all whom it may concern:

Be it known that I, W. E. FARRELL, of the city of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Paper for Making Paper Bags; and I do hereby declare the following to be a full and exact description of the same, reference being had to the annexed drawings, in which a perspective view of my improvement is shown, together with a view of the paper product.

My improvement consists of a new article of manufacture—viz., paper of uneven widths, made in sheets or rolls, and intended to be used in the manufacture of paper bags of funnel-shaped mouths.

Figure 1 represents a machine for making the paper of the desired form.

A and B in figure represent a pair of corrugated rolls, driven by cog-wheels C and D at their extremity. The oval wheels E E' are so arranged that during a part of their revolution they elevate and sustain the lower corrugated roller in contact with the upper, and during the remainder of their revolution the lower roller B, which has been so elevated, falls, and is not in contact. At each end of the rolls is a pair of revolving cutters, F, for trimming the edges of the sheet or web of paper. G H I J are the ordinary rolls attached to a paper-machine.

Steam may be admitted into the interior of the rolls by the pipes K L attached to the ends of the shafts, by which the rolls are revolved

by a stuffing-box or other convenient arrangement, so that, though the shaft revolves, the pipes K L remain stationary.

The apparatus above described is interposed in the course of an ordinary paper-machine just in front of the cutters, and as the endless sheet of newly-formed paper is passing on it enters between the pair of corrugated rolls and is gathered up or fluted while they revolve in contact, and when the rolls are separated the paper passes on without being gathered.

The cog-wheels C and D and the oval wheels E E' are so arranged that, as the sheet of paper passes on continuously, it is gathered while being trimmed by the revolving cutters F at intervals, and at intervals is trimmed without being gathered, so that when it is cut into sheets of regular length one-half of the length of the sheet will be wider than the other half, and when this sheet of paper is made into a bag the bag will be funnel-mouthed.

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

Paper in sheets or rolls of unequal widths, alternately fluted and calendered smooth, to be used in the manufacture of funnel-mouth bags.

W. E. FARRELL.

Witnesses:

GEORGE E. BUCKLEY,
W. A. A. MCKINLEY.