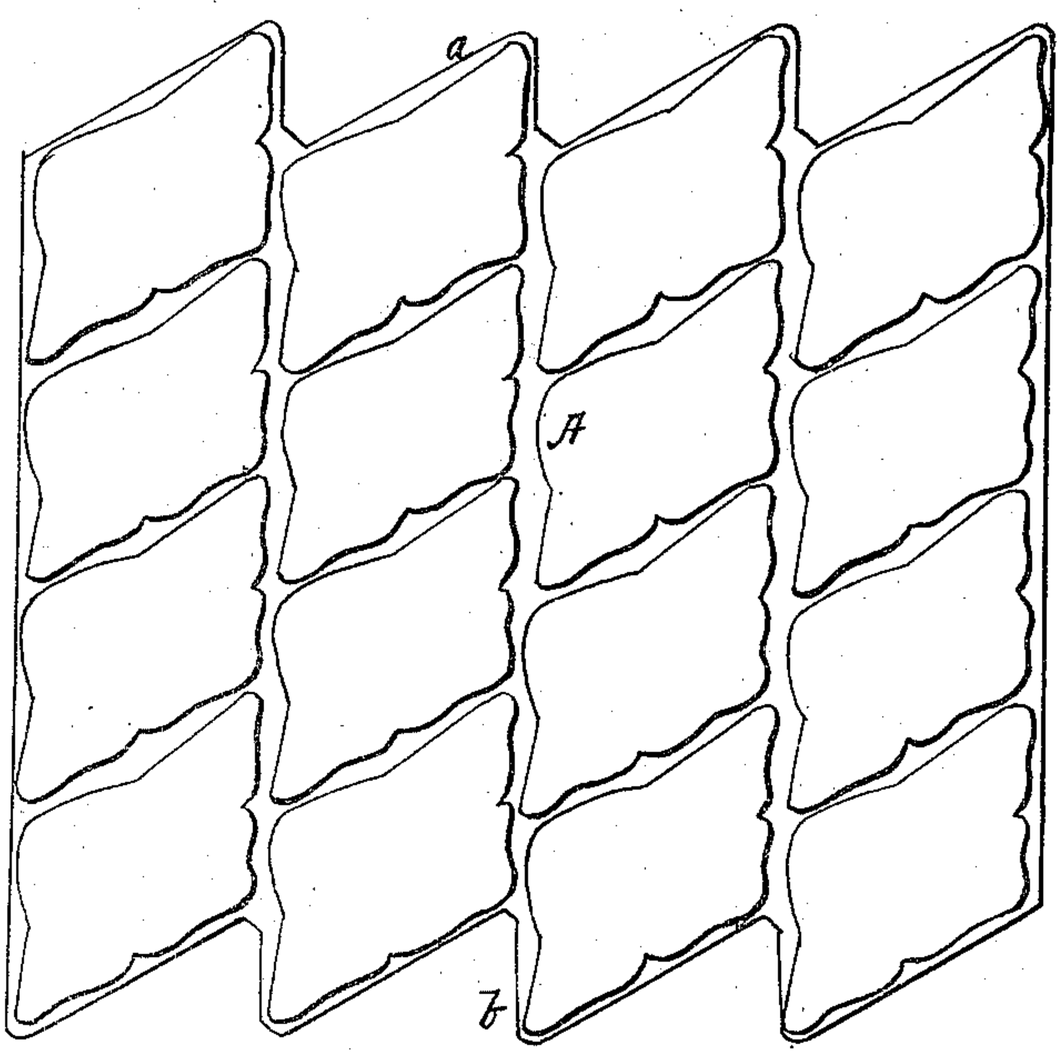
No. 106,451.

PATENTED AUG. 16, 1870.

J. BALL.

MANUFACTURING ENVELOPS.



Witnesses.

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Letters Patent No. 106,451, *dated August* 16, 1870.

IMPROVEMENT IN MANUFACTURING ENVELOPES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES BALL, of the city, county, and State of New York, have invented a new and improved Sheet for Cutting out Envelopes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, which drawing represents a plan or face view of a sheet of paper cut out according to this invention.

In cutting out envelopes the first operation usually is to cut a roll of paper up into sheets, each sheet large enough for sixteen, more or less, envelope blanks.

The form of these sheets is either square or diamond-shape, but in all cases known to me the edges of the sheets have been rectilinear, and I have found that by cutting the sheets with recessed or pectinated ends or edges, a great saving of paper can be effected.

If the sheets are cut with square edges it requires under the best possible management, thirty inches in length (the width of the sheet being that of the roll from which the sheets are cut) for sixteen envelope-blanks of ordinary letter size, but by cutting the sheets with pectinated or scalloped edges according to my invention, only twenty-seven inches in length are required for sixteen envelopes of the same size, and consequently a very material saving of paper is effected.

In the drawing—

The letter A designates a sheet of paper cut out with scalloped ends *a b*, the scallops being composed of angular recesses formed in succession across the sheet, those of the edge *a* being reverse to those of the edge *b*, so that no paper is wasted.

My invention is here illustrated in connection with rhomb-shaped blanks, and on a sheet of this kind the pattern for an envelope-blank can be so adjusted that sixteen rhomb-shaped envelopes can be cut out from the same, and I have found that I can save three inches of paper on each sheet of sixteen envelopes, as compared with the old method of cutting.

The amount of paper saved by my invention of course varies according to the size of the envelopes to be cut out, but my experience shows that in the factory where I am employed, and where we have cut up for successive days as much as forty-five thousand yards of paper per day, I have been enabled to effect a saving of four thousand five hundred yards per day, since forty thousand five hundred yards of paper when cut according to my invention, will produce as many envelopes as forty-five thousand yards cut in the old way.

In order to cut out my sheets with the requisite accuracy and despatch, I have constructed a cutting-machine, by means of which sheets with scalloped edges can be cut with great facility, but I do not restrict myself to any mode of forming such edges or ends of the sheets.

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

The sheet A for envelope-blanks, formed with scalloped ends *a* and *b*, the scallops made with angular recesses in succession across the sheet, when those of the edge *a* are reverse to those of the edge *b*, substantially as herein shown and described.

JAMES BALL.

Witnesses:

W. HAUFF,

C. WAHLERS.