F. E. GRADY.

DEVICE FOR ORNAMENTING THE EDGES OF BOOKS.

No. 185,743. Patented Dec. 26, 1876.

Fig. 1.

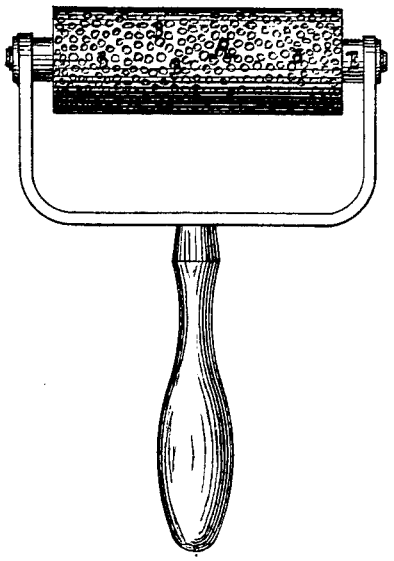

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

FRANCIS EDMUND GRADY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN DEVICES FOR ORNAMENTING THE EDGES OF BOOKS.

Specification forming part of Letters Patent No. **185,743**, dated December 26, 1876; application filed June 22, 1876.

To all whom it may concern:

Be it known that I, FRANCIS EDMUND GRADY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Device for Ornamenting the Edges of Books and for other purposes, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is an outside view of a cylinder for ornamenting the edges of books, made according to my invention. Fig. 2 is a sectional view of a segment of a mold, by aid of which the cylinder is produced.

Similar letters indicate corresponding parts.

The object of my invention is to provide more efficient means than have heretofore been known for ornamenting the edges of books, such, for instance, as blank-books for commercial purposes, and other books whose edges are ornamented. One kind of ornamentation of such books is commonly known as "wax edge," and the method commonly used for producing it consists in sprinkling melted wax on the edge, so that it is covered here and there with drops of wax, and then painting the edge with paint or coloring matter. When the coloring matter is dry the drops of wax are knocked off, leaving plain spots at the places which were covered by the wax. This method has several disadvantages. For example, the wax is liable to work in on the leaves, obliging the workman to look the leaves over, so as to clean off any wax that may have worked in; the wax is liable to grease the paper, and it is difficult for an accountant to keep his books in a nice condition when there are such grease-spots on any of the leaves; the odor of the melting wax is disagreeable; and, lastly, it takes a man about an hour to wax the edge of a single book, whereas by means of my invention a boy can be instructed so as to ornament it in the same style in about five minutes.

My invention consists in an ornamenting surface or tool, made from the composition used for making printers' rollers, and perforated or punctured with numerous holes in such a manner than when color is applied to its surface, and it is rolled over or brought in contact with the edge of a closed book, the edge of the book will be colored here and there, leaving uncolored spots here and there corresponding with the perforations or punctures in the surface of the implement, thus producing the same effects in ornamentation as are attempted in the waxing process, but in a better manner and more expeditiously.

In carrying out my invention I take a roller or cylinder, A, of the composition used for printers' inking-rollers, preferring that known as Francis and Loutrels, and puncture it with a suitable instrument so as to produce upon its surface a number of holes, B, of similar or of various sizes; or I form the holes in casting the cylinder, in which case I make a mold, C, whose interior is studded with fine pins D, that project inwardly from the inner surface of the mold, so that, on pouring in the melted composition into the mold, the cylinder formed therein will have a perforated surface, the plastic composition conforming to the inner surface of the mold and entering the interstices between the projecting pins so that the surface of the cylinder is formed with fine holes at the places where the pins project. In order to produce this result by casting, I make the mold in narrow, longitudinal sections, like that shown in Fig. 2, so as to be able to withdraw the pins from the surface of the cylinder without tearing it.

The perforated cylinder is applied to the book-edge in the following manner: The cylinder is inked or colored on a color-table in the usual way of taking up and distributing color on an inking or coloring roller, and is then rolled over the edge of the book, the result being that the book-edge will be marked or ornamented corresponding to the surface of the cylinder, the unpunctured places being supplied with color and communicating color to the book-edge, while the punctured places are void of color and cause blank spots to be left on the book-edge corresponding to the punctured portions of the cylinder.

When I make the implement in the form of a cylinder I place a shaft, E, in the mold, so that the cylinder will be cast around the shaft, and on the ends of the shaft E I arrange a frame with a handle in the usual mode of making a hand inking-roller. In this manner I produce an implement having a perforated

elastic surface, and one which will take and impart color without injury to the article on which it is used.

My improvement is also applicable to the production of what is known as the "sawdust" edge, and to the production of various ornamentations of the edges of books.

My improved device can be made in different forms, if desired, and it is not necessary to adhere to the cylindrical form.

I hereby disclaim the inventions described in Letters Patent of the United States, granted June 28, 1864, to Stephen Wiggin, No. 43,359, for improvements in graining, and in Letters Patent of the United States, granted February 12, 1867, to L. R. Witherell, No. 62,104, for improvements in hand-stamps, and in English Letters Patent No. 1,587, granted to John Leighton, and dated May 31, 1870.

What I claim as my invention, and desire to secure by Letters Patent, subject to the above disclaimer, is—

The roller or implement A, for ornamenting books, made in the manner substantially as above shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 19th day of June, 1876.

FRANCIS EDMUND GRADY. [L. S.]

Witnesses:

E. F. KASTENHUBER,

W. HAUFF.