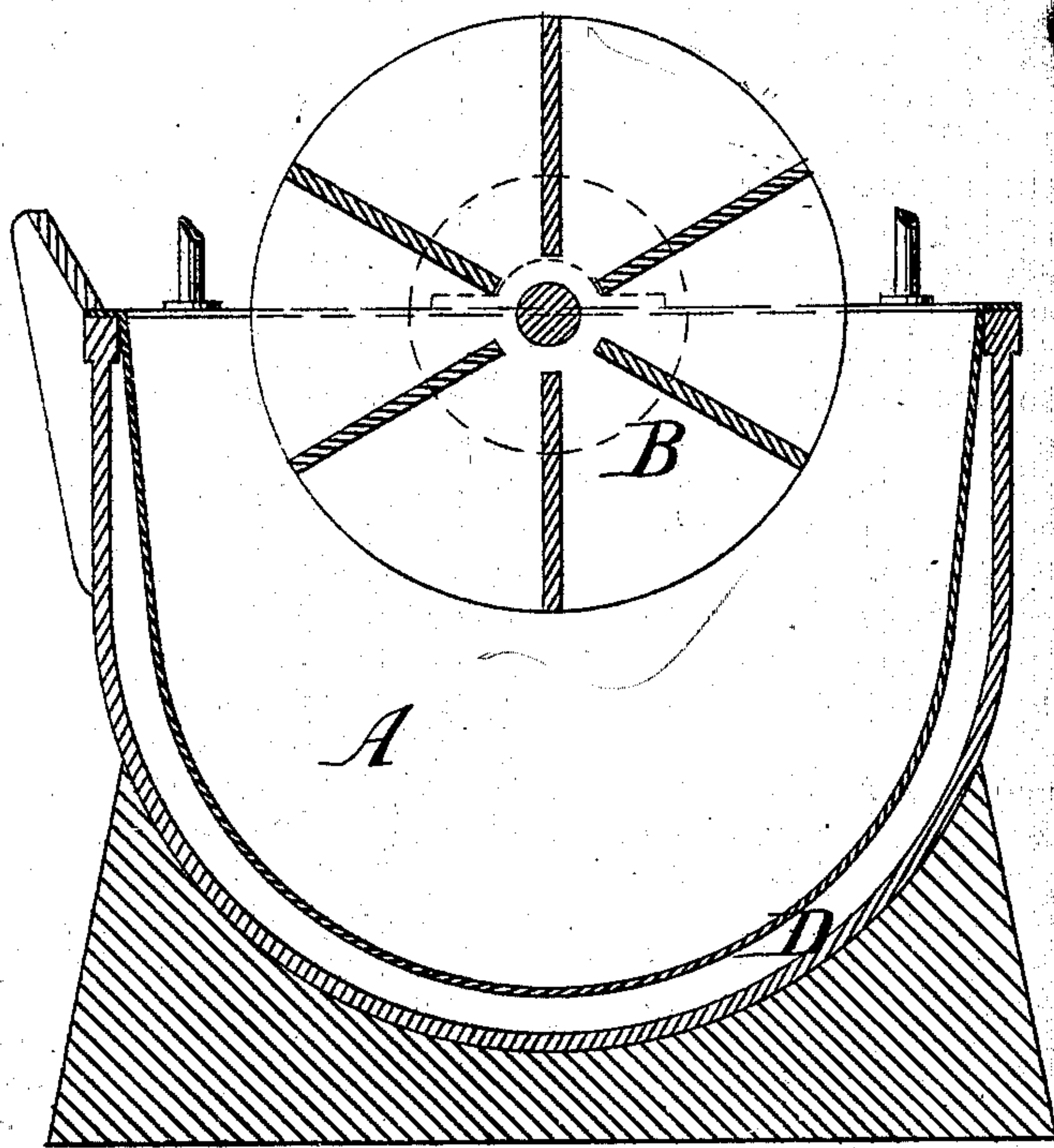


N. MARY.

Dyeing Morocco and Other Leather.

No. 146,769.

Patented Jan. 27, 1874.



Witnesses.

Ernst Bilhuber

W. C. Hauff

Inventor.

Nicholas Mary

*per
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Attys*

UNITED STATES PATENT OFFICE.

NICHOLAS MARY, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND GEORGE G. GUION, OF SAME PLACE.

IMPROVEMENT IN DYEING MOROCCO AND OTHER LEATHER.

Specification forming part of Letters Patent No. **146,769**, dated January 27, 1874; application filed July 17, 1873.

To all whom it may concern:

Be it known that I, NICHOLAS MARY, of the city, county, and State of New York, have invented a new and useful Improvement in Process for Dyeing Morocco and other Leather; 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 vertical section of an apparatus used by me in carrying out my invention.

This invention relates to dyeing Morocco and other leather; and consists in an improved process or method whereby greater uniformity is attained in the shade or color imparted to the articles, and the expense is greatly reduced, as compared to the old method of dyeing such articles.

In carrying out my process, I provide a tub or vat of convenient size, according to the number of skins to be dyed at one time, and arrange a wheel with radial arms or blades—six or more in number—to revolve therein. The coloring-liquor is put into the vat, and heated by steam or other means to the requisite temperature. The skins being introduced into the vat, the wheel is put in motion, and the coloring-liquid composing the bath kept thereby in constant motion, and the skins also kept separate and in an open state, so as to expose their surfaces to constant and intimate contact with the coloring-liquid composing the bath.

The letter A designates a tub or vat, and B a paddle-wheel revolving therein, which I employ in my process. The tub is made with a rounded bottom, and the wheel is set therein, with its ends or journals resting in journal-boxes at the ends of the tub, and the apparatus is so constructed and arranged with suitable gearing, or belt and pulleys, that the wheel can be kept constantly rotating while the process of dyeing is going on. The paddles of the wheel may be of six or any desired number, and should be set down far

enough in the tub to impart motion to the bath or coloring-liquid placed therein, and to stir up the skins which are being dyed in the bath, and open and separate them from each other from time to time. The bath or coloring-liquid in the tub is heated to the proper temperature by means of steam passed through the hollow space D in the bottom, sides, and ends of the tub, or steam may be introduced directly into the bath, if desired. The skins to be dyed being placed in the bath in the tub, the paddle-wheel is rotated, and the skins subjected to the process once or oftener and for varying periods, according to the colors or dyes used—as, for example, in using simple colors the skins are subjected to a single bath for about from thirty to sixty minutes. Where compound colors are used the skins are subjected to two baths in succession for a little longer time; and, in the case of shades requiring the use of iron, the skins are subjected to three baths, and for about half an hour longer time.

By this method of dyeing morocco or other skins a more uniform shade is imparted to the entire quantity dyed together than can be obtained by the old hand process, particularly in shades for which iron is used.

My process greatly diminishes the labor of dyeing these articles in comparison with the old method, one workman, by my process, being able to dye about ten dozen skins of the same shade per day, and with the help of two other men he can manage four tubs, and dye as many as forty dozen per day.

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

The above-described process of dyeing morocco and other leather or skins, substantially as described.

This specification signed by me this 12th day of July, 1873.

NICHOLAS MARY.

Witnesses:

J. VAN SANTVOORD,
E. F. KASTENHUBER.