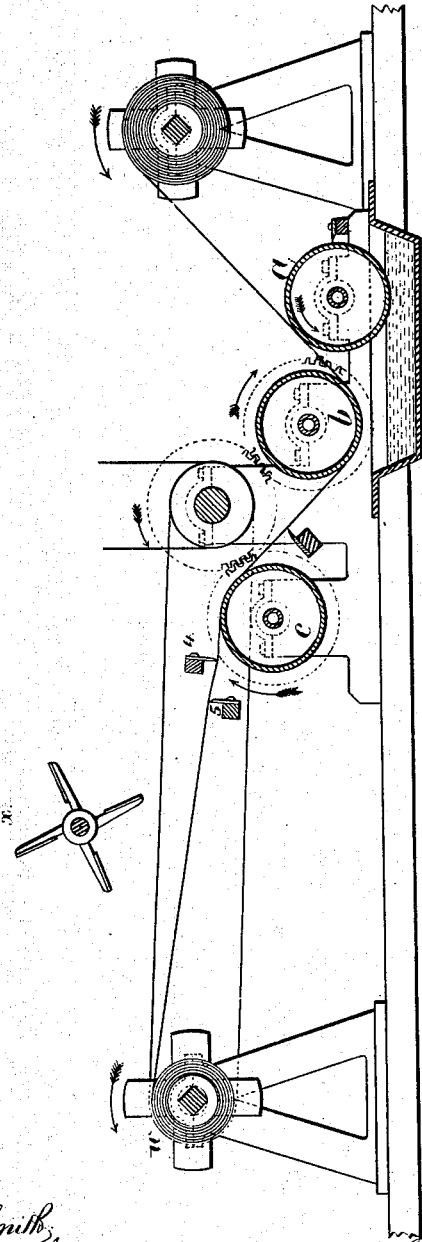


S. HAMMERSCHLAG.
Waxing Paper.

No. 209,393.

Patented Oct. 29, 1878.



Witnesses
Chas. H. Smith
Geo. J. Pinckney

Inventor
Siegfried Hammerschlag
per Lemuel W. Lovell
att'y

UNITED STATES PATENT OFFICE.

SIEGFRIED HAMMERSCHLAG, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN WAXING PAPER.

Specification forming part of Letters Patent No. 209,393, dated October 29, 1878; application filed October 3, 1878.

To all whom it may concern:

Be it known that I, SIEGFRIED HAMMERSCHLAG, of Jersey City, in the State of New Jersey, have invented an Improvement in Waxing Paper, of which the following is a specification.

In Letters Patent No. 193,867, granted to me August 7, 1877, a mechanism for waxing paper is represented, and the present is an improvement thereon, and a reference is hereby made to the same for a description of the construction and operation of the parts, except so far as the present features of improvement.

In the drawing the improvement is illustrated by a vertical section.

The roller or cylinder *a*, revolving in the trough *n*, is heated by steam introduced into the interior or otherwise, and the cylinder *a* is located in relation to the cylinder *b* and roll of paper in such a manner that the roll of paper is in contact with its periphery for a space of two or three inches (more or less) in width, and the speed of the paper is different to that of the surface of roller *a*, in order that, where the paper moves faster than the surface of the roller *a*, the roller *a* will spread the paraffine wax in a thin layer upon the paper, because the heated wax is maintained in a fluid condition by the heat of the roller, and the thickness of the layer of wax on the paper to that on the cylinder will be in proportion to the relative speeds of the paper and the roller *a*; and if the wax is to be applied in greater quantities, the surface speed of the roller *a* is increased, so as to be greater than that of the roll of paper, and a thicker layer of wax is applied to the sheet of paper.

I also make use of a fan to direct a current of air upon the paper and cool the same after the wax has been incorporated into the paper. This fan is shown at *x* as agitating the air and

cooling the paper after it passes from the cylinder *c* and before it is wound upon the reel *w*.

I apply two scrapers, 4 and 5, at opposite sides of the sheet, near the cylinder *c*, so as to remove any traces of wax upon the surface, and apply a final smoothing previous to delivery in the market.

I claim as my invention—

1. The method herein specified of waxing paper, consisting in drawing the paper over the surface of a cylinder coated with melted wax at a speed different to the movement of the surface of the cylinder, so as to regulate the thickness of the layer of wax by the relative speed of the paper to that of the surface of the waxed cylinder, substantially as set forth.

2. The combination, in a machine for waxing paper, of a trough for the wax, a heated cylinder for transferring the wax to the paper, and mechanism for moving the waxing-cylinder at a different speed of surface from that of the paper with which it is in contact, substantially as specified.

3. The method herein specified of preparing waxed paper, consisting in transferring the wax to the paper, heating the same to cause its incorporation with the paper, removing the surplus wax, and cooling the paper by a current of air before winding the same on a reel, substantially as set forth.

4. In a machine for applying wax to the surface of paper, the scrapers 4 and 5 at opposite sides of the web, in combination with the cylinder *c* and winding-reel *w*, substantially as and for the purposes specified.

Signed by me this 1st day of October, A. D. 1878.

SIEGFRIED HAMMERSCHLAG.

Witnesses:

GEO. T. PINCKNEY,

WILLIAM G. MOTT.