

S. HAMMERSCHLAG.
Waxing Paper.

No. 217,280.

Patented July 8, 1879.

Fig. 1.

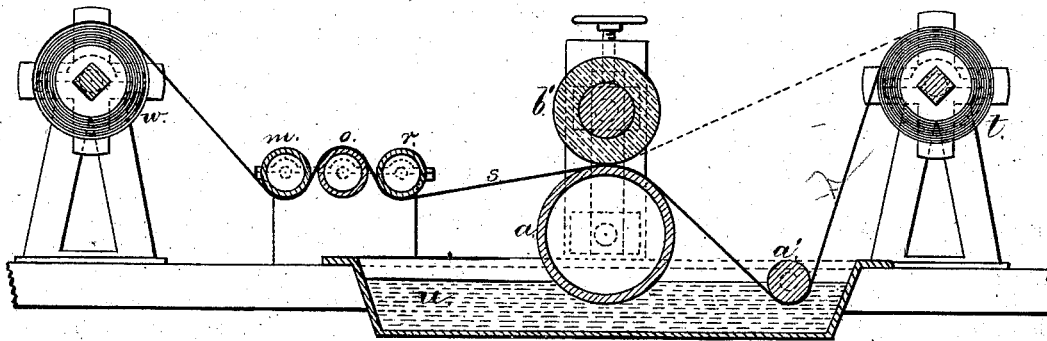
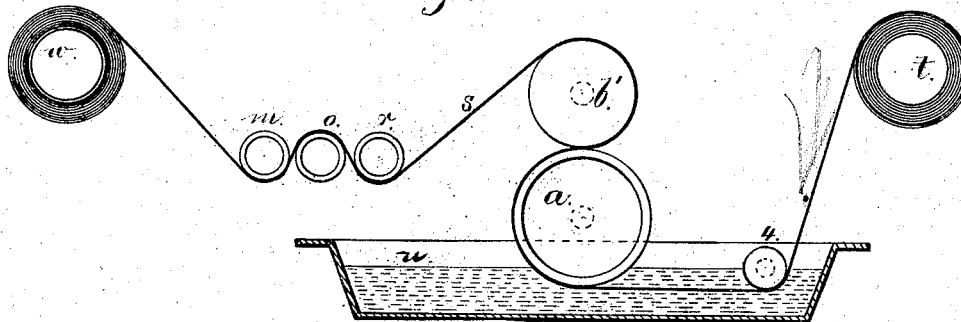


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

SIEGFRIED HAMMERSCHLAG, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN WAXING PAPER.

Specification forming part of Letters Patent No. **217,280**, dated July 8, 1879; application filed June 2, 1879.

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 Nos. 193,867 and 209,393, heretofore granted to me, devices for coating paper with paraffine or other wax are set forth.

My present invention is a modification of an improvement upon the said devices, whereby the quantity of wax applied to the paper may be regulated as desired.

In the drawings, Figure 1 represents my apparatus by a sectional view; and Fig. 2 represents the same apparatus with the paper led in a different direction, so as to vary the quantity of wax applied to the same.

The trough *u* for the melted wax and the hollow heated roller *a* are similar to these parts shown in my aforesaid patents. The paper is upon the reel *t*, and after being waxed is wound upon the roller *w*.

I apply a pressure-roller, *b'*, to the roller *a*. Such pressure-roller *b'* is of india-rubber, wood, or other suitable material; and the journal-boxes for the shaft of such rollers *b'* are in slides, and provided with screws 3 or weighted levers, by which the pressure of the roller *b'* upon the paper *s*, as it passes through between the rollers *a* and *b'*, may be varied as required.

The paper, as it passes from the roll *t*, may go directly through between the rollers *a* and *b'*, and receive a coating of wax on one side only from contact with the surface of the roller *a* as it revolves in the paraffine; or the paper may be led down beneath the roller *a'* and up between the rollers, as shown in Fig. 1, so that one side of the paper may remain in the melted wax while passing beneath the roller *a*; or the paper may pass beneath the roller *a*, thence along through the paraffine, and up between the rollers *a* and *b'*, as shown in Fig. 2. In either instance the surplus par-

affine-wax will be squeezed off the paper by the pressure of the roller *b'*, and according to the pressure so there will be more or less paraffine remaining in the paper.

I also remark that the devices I have described enable me to employ various thicknesses of paper, and to spread the wax upon one or both sides of the paper, and to press out of the paper more or less of the wax, according to the use for which the paper is intended.

I also employ the polished pipes *m o r*, over and under which the paper passes. These pipes are heated by steam or otherwise to such a temperature that the paraffine-wax is rendered sufficiently liquid by the heat to spread itself throughout the paper with uniformity, and the said pipes also act to iron and smooth the paper as it passes over their surfaces.

I claim as my invention—

1. The combination, with the trough for containing wax, of the roller *a*, pressure-roller *b'*, and paper-reel *t*, substantially as set forth.
2. The pressure-rollers *a* and *b'*, in combination with the trough *u*, containing melted wax, and the roller *a*, beneath which the paper is passed, substantially as set forth.
3. In combination with the trough containing melted wax, the heated pipes *m o r*, beneath and above which the waxed paper is drawn, substantially as set forth.
4. The combination, in an apparatus for waxing paper, of a trough for the melted wax, a pair of pressure-rollers between which the paper is passed, and heated pipes over which the waxed paper is drawn, substantially as set forth.

Signed by me this 28th day of May, A. D. 1879.

SIEGFRIED HAMMERSCHLAG.

Witnesses:

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CHS. A. FIERS.

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