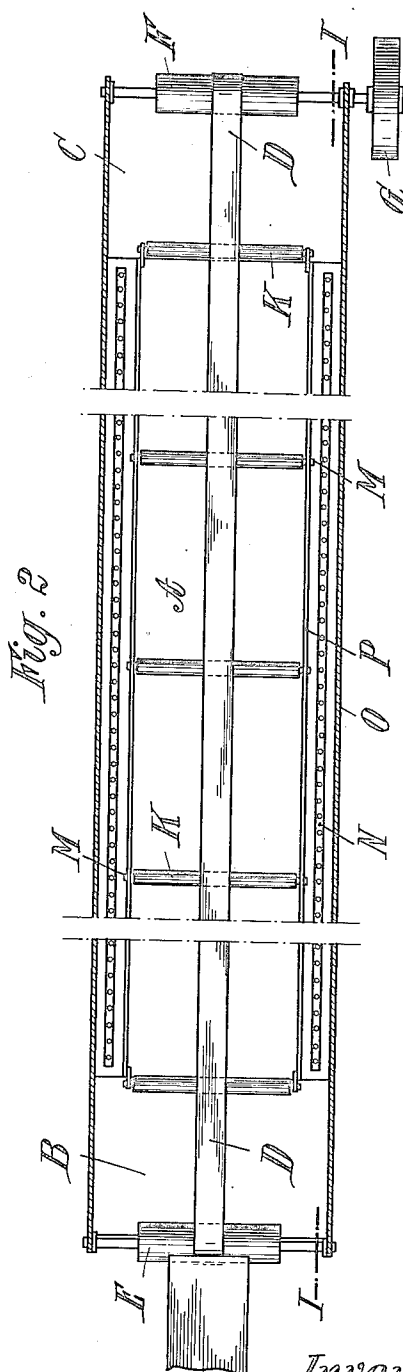
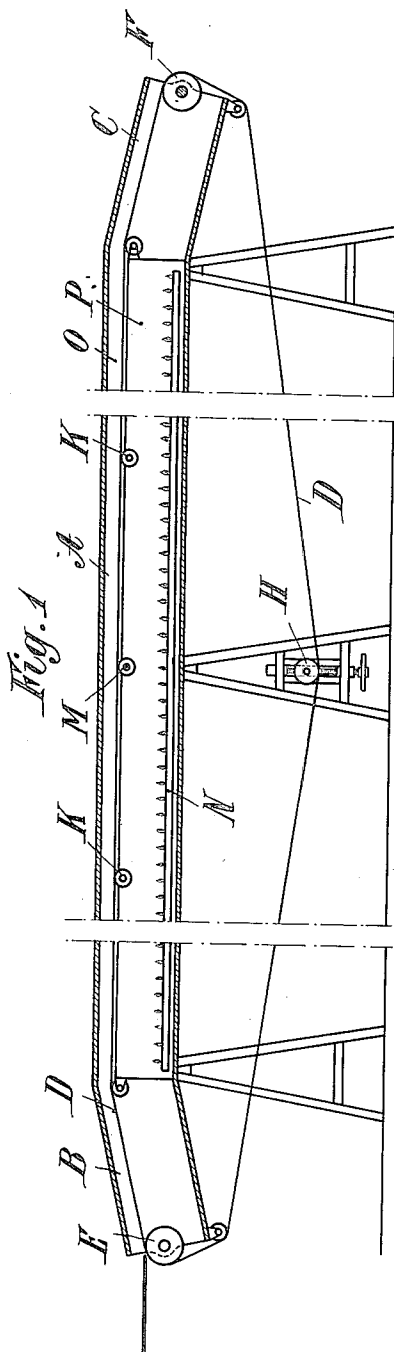


Feb. 6, 1923.

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O. POEPEL.
METHOD OF PREPARING PAPER FOR WINDOW ENVELOPES.
FILED Aug. 17, 1921.



Inventor:
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UNITED STATES PATENT OFFICE.

OTTO POEPEL, OF ESSLINGEN, GERMANY.

METHOD OF PREPARING PAPER FOR WINDOW ENVELOPES.

Application filed August 17, 1921. Serial No. 493,079.

To all whom it may concern:

Be it known that I, OTTO POEPEL, citizen of the State of Wurttemberg, German Republic, residing at Esslingen a. N., Alte Stuttgarterstr. 77, have invented certain new and useful Improvements in Method of Preparing Paper for Window Envelopes, for which I have filed application in Germany, July 27, 1920, and of which the following is a specification.

This invention relates to a device for melting lacquer that has been applied in a thin layer to paper with the object of making the paper transparent at the places where the lacquer has been applied, as for instance in the manufacture of so-called window letter envelopes. The invention is carried out by means of a housing having a horizontal channel of a suitable length which is heated and through which the upper half of a conveyor belt travels. This belt carries the paper to be treated through the channel. The invention particularly consists in the provision of a housing having inclined or sloping ends so that only the part between the sloping or inclined ends is in a horizontal position and the central portion will be in a higher plane than the ends of the channel. It will thus be seen that the heated air will be retained in the horizontal channel part.

In the accompanying drawing:—

Fig. 1 shows a longitudinal vertical section of a preferred form taken on line 1—1 of Fig. 2; and

Fig. 2 is a part sectional plan view.

The device is approximately 40 meters long and consists of a channel or heating chamber A. At each end of chamber A are downwardly projecting or inclined ends B and C integral with the chamber and may be of the same size. In the heating chamber are mounted rods M in the inner walls P upon which are rotatably mounted rollers K. These rollers are adapted to carry a conveyor belt D upon which the paper to be treated is placed and thus carried through the apparatus. At each end of the device

are driving rollers E and F, the roller F having a driving pulley G for driving the belt. Any suitable means may be employed for heating the chamber, as for instance rows of gas jets N mounted between the inner walls P and the outer walls O. In order to adjust the conveyor belt an adjustable roller H is mounted under the chamber A.

The operation of the device is as follows: The paper which has been treated with lacquer is placed by any suitable means, not shown, on the conveyor belt which by its slow motion carries it into the chamber A. The heat in said chamber A acts upon the lacquer in such a way that the paper becomes impregnated therewith in its slow and rather long travel through the device, the heat being readily retained in the chamber due to the inclined ends B and C. After passing through the heating chamber the paper is carried down the inclined end C and may be stacked since the lacquered portions are no longer adhesive after being thus treated.

It will thus be seen that a paper or a portion of paper may be rendered transparent in a very efficient and economical manner.

I claim as my invention:

1. A method for preparing paper for window envelopes, which consists in coating paper with lacquer at predetermined points and then passing said paper into a heating chamber to be heated while in motion, whereby the lacquer will impregnate the paper and thereby render it transparent.

2. A method for preparing paper for window envelopes which consists in coating paper with lacquer at definite points and then passing said paper on a conveyor into a chamber to be heated while in motion; whereby the lacquer due to the heat will melt and impregnate the paper and thereby render it transparent.

In testimony whereof I have affixed my signature.

OTTO POEPEL.