A. & J. FUNKE.

METHOD OF CRAPING PAPER.

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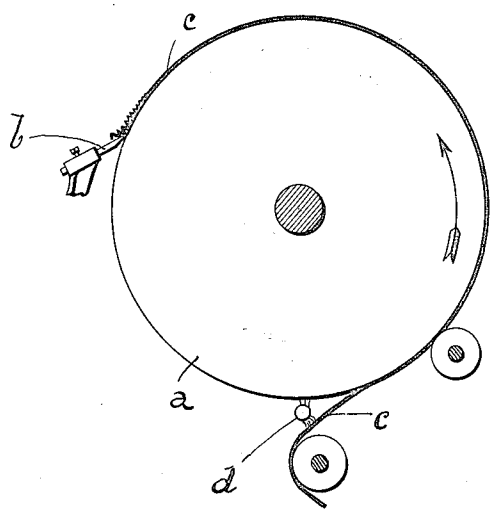
962,505.

Patented June 28, 1910.



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UNITED STATES PATENT OFFICE.

ANTON FUNKE AND JOSEF FUNKE, OF NEW YORK, N. Y., ASSIGNORS TO THE PAPYRUS ARTIFICIAL PAPER MANUFACTURING COMPANY, OF HOBOKEN, NEW JERSEY.

METHOD OF CRAPING PAPER.

962,505. Specification of Letters Patent. Patented June 28, 1910.

Application filed July 13, 1909. Serial No. 507,327.

To all whom it may concern:

Be it known that we, ANTON FUNKE and JOSEF FUNKE, both subjects of the German Emperor, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Craping Paper, of which the following is a specification.

The present invention pertains to a method of craping paper.

The simple or weak craping of paper is well known and its method consists in that the wet paper pulp sheet is conveyed over the heated drying cylinder and crimpled on said cylinder and removed therefrom by means of a scraper. A more abundant or strong craping particularly with thick so-called water-proof paper has hitherto been extremely difficult as it requires a special treatment of the paper material and the establishment of a peculiar relation between the degree of humidity of the paper pulp sheet on one hand and the temperature of the drying cylinder on the other hand, which relation has to be specially determined for each case.

The present invention has for its object to obviate all such difficulties, and is based on the principle that the craping of paper is the more abundant, the stronger can be the action of the scraper, *i. e.*, the more intimately the smooth paper pulp sheet adheres to the drying cylinder.

Our method of craping may be applied either in the process of manufacturing the paper or after the paper is ready.

Our method consists in applying an adhesive substance as for instance, a dextrin solution or the like between the paper sheet and the drying cylinder and immediately before the paper sheet passes into the heated cylinder thereby causing the paper sheet to intimately adhere to the surface of the drying cylinder. The application of the adhesive substance may be effected by causing the same sprayed in a suitable manner both onto the surface of the paper sheet directed toward the cylinder and onto the surface of the latter or upon either of these surfaces. The scraper in acting against the revolving cylinder will then abundantly crimple the paper and cause its detachment from the cylinder.

The adhesive substance may have added to it a suitable liquid as sugar water, glycerin, starch or the like in order to impart to the paper coloring effects, brilliancy or to maintain the softness or stiffness of the paper, as the case may be. To make the paper adhere more strongly to the cylinder, the former may in addition be specially pressed to the cylinder.

To make our invention more clear the same is illustrated in the accompanying drawing in which similar reference letters denote corresponding parts.

a denotes the heated drying cylinder or the cylinder on which the paper is craped and *b* the scraper.

c denotes the paper sheet to be craped. In case the craping is to be carried out during the process of manufacturing the paper *c* would be the paper pulp sheet which in order to be dried is conveyed over the cylinder *a*.

At *d* in any suitable manner as for instance by means of a sprayer or the like adhesive substance is caused to be sprayed both onto the surface of the paper directed toward the cylinder and the latter, or onto either of them so that in course of rotation of the cylinder the paper becomes intimately united with the cylinder. The scraper *b* in acting against the cylinder crimples the paper and detaches it from the cylinder.

What we claim and desire to secure by Letters Patent is—

A method of craping or corrugating paper, consisting in conveying the paper over a revolving cylinder, causing an adhesive substance being applied between the surfaces of the paper and cylinder immediately before the passage of the former onto the latter and in causing the paper being crimpled during its detachment from the cylinder.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTON FUNKE.
JOSEF FUNKE.

Witnesses:
ELLIS V. LEVY,
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