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PROCESS OF PRODUCING PAPERS HAVING A GLOSSY SURFACE.

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The present invention relates to the manufacture of paper with a glossy surface.

We have found, that papers with a glossy surface can be made by uniting paper with sheets of regenerated cellulose, for instance of the cellulose material known under the trade-name "cellophane".

The process of uniting the said two materials can be carried out in different manners, for instance by unrolling simultaneously a roll of a cellophane-film and a roll of paper and pressing both materials upon each other by means of cylinders, either in a moist or dry state or, for instance, while the film is in a moist condition and the paper in a dry condition or reversely. This may be operated in the cold or in the heat or first in the cold and then in the heat. The material may be moistened either by spraying between the paper-band and cellulose band, preferably shortly before the materials are united, a liquid for instance water, or by passing the cellulose band and the paper band over cylinders which are continuously kept moist, or finally by passing the two bands through water baths, the excess of moisture being, if required, removed from the material by means of squeezing-rollers. As, thus, a perfect cohesion of the two materials is attained the use of an agglutinant may be despensed with when the finished paper is to be used for certain purposes. For other purposes, an agglutinant may be employed such as for instance, starch, glue, solutions of cellulose derivatives or the like. The two materials may also be united with each other by using instead of the finished cellulose pellicles which are in a swollen and still moist state. Moreover, the cellulose xanthogenate solution may be applied as such directly to the paper-band and precipitated thereon.

Into the cellulose xanthogenate solution as well as into the finished cellulose pellicle there may be incorporated in a suitable manner any substances intended to produce a particular hardness or softness or any other property of the cellulose layer.

The paper thus obtained can be used for a variety of purposes, all the more so as their surface can be provided with variegated effects, for instance with color-prints, embossings or the like.

The following example serves to illustrate the invention, but we do not intend to limit it thereto.

There is produced on an ordinary endless wire (Fourdrinier) paper-machine a continuous paper-web. On the top of the wet (seeve) part of the machine a roll of a cellulose band in a moist and still undried state is mounted on a shaft. From this roll the cellulose band runs, at the same speed at which the paper-web moves on, over a guide- and calender roller on to the paper-band which is still wet and the two bands, after being thus united, pass through the parts of the machine containing the dandy- and calender roll. If required, there may be sprayed between the cellulose- and paper bands, preferably shortly before they are united, a solution of one of the known adhesive substances.

The cellulose- and paper bands may be united in the above described manner in any other part of the paper-machine, also on cylinder-paper machines or on card board-machines.

We claim:

1. The process of producing papers having a glossy surface, which consists in uniting paper with a film of regenerated cellulose.

2. The process of producing papers having a glossy surface, which consists in uniting paper with a film of regenerated cellulose in moist state.

3. The process of producing papers having a glossy surface, which consists in uniting paper with a film of regenerated cellulose by means of an agglutinant.

4. The process of producing papers having a glossy surface, which consists in uniting paper with a film of regenerated cellulose in a moist state by means of an agglutinant.

5. The process of producing papers having a glossy surface, which consists in uniting on a paper machine the paper-web with an undried regenerated cellulose film.

6. The process of producing papers having a glossy surface, which consists in uniting

on a paper machine the paper-web with an undried regenerated cellulose film by means of an agglutinant.

7. The process of producing papers having a glossy surface, which consists in applying a moist film of a regenerated cellulose on a paper web running on a paper machine at the same speed as the cellulose film, pressing the two materials upon each other and passing the thus pressed and united material through the machine.

In testimony whereof, we affix our signatures.

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