

ALIEN PROPERTY CUSTODIAN

LACTO-BUTYRIC AND CELLULOSOLYTIC FERMENTATION OF LIQUORS RESIDUAL IN THE MANUFACTURE OF PAPER PASTE

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The present invention relates to the realization of various organic substances present in the liquors residual in the manufacture of the paper paste whatever may be the treatment (by soda, in sulfite or any other) by the lacto-butyric and cel-
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lulosolytic fermentation of said liquors.

It is known, in fact, that these liquors contain, besides mineral substances, important quantities of organic products of which a great part is fer-
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mentable according to the methods described in the French Patent Applications No. 11,722, filed January 16, 1941, No. 12,726 filed January 17, 1941 and No. 12,730 of January 20, 1941.

Thus, for example, by the method with soda, by about 100 kgs of wood 500 litres of liquor are ob-
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tained, containing 20 to 25 kgs of combined soda or in excess about 70 kgs of organic substances.

These organic substances are constituted by the lignin, divers glucids, resins, etc.

The sulphitic liquors on the other side, contain
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by litre:

	Gr.
Lignin	80
Divers organic substances.....	70
Combined sulphuric acids.....	31
Combined lime.....	13

These organic substances are fermentable in the presence of lacto-butyric and cellosolytic ferment substances according to the methods de-
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scribed in the already cited French Patent Ap- plications No. 12,722, 12,726 and 12,730 and trans- formed to volatil fatty acids, these letters can give cetones by known methods.

The operating method consists essentially in transforming the solution to the desired pH either by acidification in the case of alkaline liquors or by alcalinisation in the case of sulphitic liquors, or still by diluting the solution until to the desired pH and adding fermentable substances coming from another source in a quantity sufficient for bringing the solution to the concentration opti-
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mum in fermentable substances.

By way of example, a ton of wood having fur- nished to the paper industry 450 kgs of cellulose, gives 3600 litres of residual sulphitic liquors of the composition given above. Subjected to the fer-
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mentation by the process and the later cetonisa- tion these liquors furnish 60 litres of cetons, whilst the ethylic fermentation of sulphitic liquors gives only about 36 litres of alcohol.

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