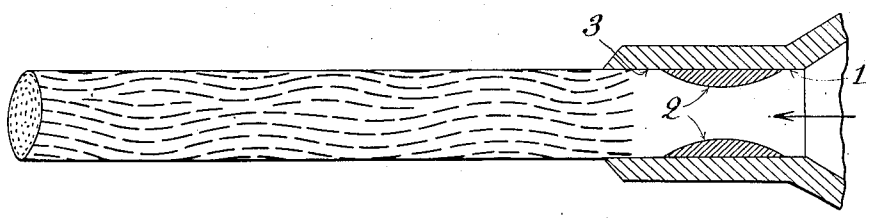
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PROCESS AND APPARATUS FOR PRODUCTION OF A SUBSTANCE HAVING A NACREOUS AND CHATOYANT ASPECT

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PROCESS AND APPARATUS FOR PRODUCTION OF A SUBSTANCE HAVING A NACREOUS AND CHATOYANT ASPECT.

Original application filed November 19, 1926, Serial No. 149,444, and in France November 21, 1925. Divided and this application filed March 22, 1928. Serial No. 263,948.

The present invention relates to a process and apparatus for the obtainment of nacreous and chatoyant substances and is a division of my application Serial No. 149,444, filed November 19, 1926.

The said process is based upon the use of a transparent plastic mass such as celluloid, acetate of cellulose, casein, and the like, into which are incorporated by the kneading and mixing process certain brilliant particles such as metallic particles, mica, various metallic salts, pearl essence, or the like.

According to known practice, if a plastic mass of this kind while still soft is forced through a nozzle this will afford at the discharge end of the nozzle strips in which the brilliant particles will all be parallel with the surface of the said strips.

For this reason, the strips have a uniform smooth and brilliant aspect, and their appearance and lustre, in the case of pearl essence, resembles the real pearl rather than the mother of pearl, due to the absence of all streaks.

The present invention is based upon the fact that if there is an obstacle in the nozzle which hinders the issue of the said plastic mass, this obstacle will cause eddies or whirls in the said mass which will subsist for a certain time and will cause a partial confusion of the said particles. The particles whereof the direction is changed, and which have now become more or less oblique to the surface of the strip, will reflect the light indifferent directions and will give to the eye the impression of streaks, so that the surface of the resulting pearly substance, will not appear smooth, but will be irregular and cockled, and I may take advantage of this fact to obtain various decorative effects.

Based on the above data, the invention comprises in principle a suitable press in which the plastic mass containing brilliant particles may be raised to the softening temperature by proper means. The said press operates in connection with a special nozzle whose width will depend upon the conditions of manufacture, and whose thickness may attain one or two centimeters or more, whereby I am enabled to provide strips of a rather considerable thickness.

The appended drawings show by way of example a nozzle according to the invention.

The said nozzle is characterized in that on a part of its length comprised between the ends I provide the projecting part 2 whereby an irregular surface is formed. The smooth intake part of the nozzle polarizes the brilliant particles, and the length of this should be such that this result will be attained.

The irregular part following the said portion comprises suitable projections in calculated size and number whereby the desired regions of confusion will be obtained. Each of the said projections has preferably an outline which diminishes towards the front, and which is sufficiently abrupt at the rear to produce the desired result.

The nozzle thus formed is adapted for different uses. If the cross section of the nozzle is circular or rectangular, it can be used for the manufacture of round or square rods of a pearly nature which can be used after drying.

Should it be desired to obtain sheets of pearly substance by cutting up a block which is manufactured by the known process, I employ a nozzle of larger size whose width at least equals the width of the block press.

With the use of a nozzle of such size, the plastic substance issues in the form of a thick band of 1 or 2 centimeters thickness. This band is cut up, as fast as formed, into sheets having the size of the block press in use.

The pieces thus obtained are piled up in the block press, after which they are formed into a compact mass by heat and pressure by the known methods, thus producing a block which may be cut into sheets of the desired thickness.

Having thus described my process and apparatus what I claim as new therein, and my own invention, is:

1. A process for the obtainment of objects of a nacreous and chatoyant aspect, in which a soft plastic substance containing brillinat particles is forced through a nozzle, an obstacle being placed in the said nozzle of such nature as to change the direction of the said brilliant particles.

2. An apparatus for the obtainment of objects of a nacreous and chatoyant aspect by the use of a soft plastic substance containing brilliant particles, said apparatus comprising a nozzle having at least one inwardly extending projection disposed between the inlet and the outlet of said nozzle, said projection being adapted to form eddies in the stream of the plastic substance in circulation.

3. An apparatus for the obtainment of a nacreous and chatoyant aspect by the use of a soft plastic substance containing brilliant particles, said apparatus comprising a nozzle in which a portion of the length between its ends is provided with projections.

4. An apparatus for the obtainment of a nacreous and chatoyant aspect by the use of a soft plastic substance containing brilliant particles, said apparatus comprising a nozzle having projections on its lower portion adapted to produce eddies in the circulating substance, said portion commencing at a certain distance from the intake end of the nozzle and ending at a certain distance from the outlet, which latter distance is sufficiently small to prevent all destruction of the eddies, substantially as described.

In testimony whereof I have hereunto affixed my signature.

JEAN PAISSEAU.