By using ammoniacal aqueous solutions of alkaloids and chloroform as the extraction medium, satisfactory results were obtained by this method.

CONTRIBUTION FROM THE
LABORATORY OF MICRO ANALYSIS
DEPARTMENT OF CHEMISTRY
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RECEIVED AUGUST 17, 1928
PUBLISHED FEBRUARY 5, 1929

A Brine Circulator for Cooling Condensers.—In working with low-boiling compounds it has been found advisable at times to circulate cold brine through the jackets of the condensers. Such circulation may be made continuous by the use of a simple modification of the "air lift" pump used in some sulfuric acid plants. The system gives excellent cooling and requires no attention.

The pump consists of an old condenser jacket with the lower side arm plugged up. A piece of glass tubing of about 6 mm. diameter is passed through the stopper in the top of the jacket and reaches almost to the bottom. Through the stopper in the bottom of the jacket a piece of small glass tubing of such size that it will not plug up the 6-mm. tube is passed and reaches about 2 centimeters into the 6-mm. tube. This small tube is connected to an air blast tap by a rubber tube C with a pinchcock on it to regulate the flow of air. The top side arm of the jacket is connected by rubber tubing B to the outlet of the condenser to be cooled, and the 6-mm. tube is connected by a rubber tube D to a piece of bent glass tubing hooked over the edge of a pail. This tube D should be vertical or nearly so throughout its length. The pail is filled with concentrated brine and ice and the siphon A is connected to the inlet of the condenser to be cooled. The height of the water level in the pail should be about four feet above the bottom of the pump, which may be suspended vertically over the edge of the laboratory bench.

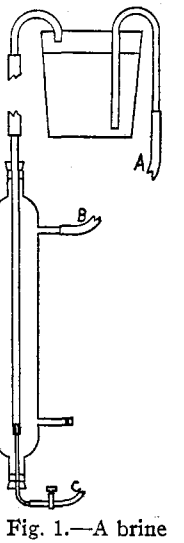

Fig. 1.—A brine circulator for condensers.

In order to start the circulation of the brine both the condenser to be cooled and the pump are filled with brine and the air is then regulated so that a steady stream of bubbles passes up the tube. The condenser jacket can be kept below zero in this manner without any difficulty whatsoever.

CONTRIBUTION FROM THE
DEPARTMENT OF CHEMISTRY OF THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS
HAROLD T. GERRY

RECEIVED SEPTEMBER 5, 1928
PUBLISHED FEBRUARY 5, 1929