PURIFIFCATION OF SEWAGE BY AERATION IN THE PRESENCE OF ACTIVATED SLUDGE

EDWARD BARTOW, SANITATION SERVICE, FRANCE

ABSTRACT

By blowing air into sewage, then allowing the suspended matter to settle and decanting the supernatant liquid, adding fresh sewage and repeating the operation, there is accumulated sludge which has the property of purifying sewage in the presence of air in from four to five hours. The sludge obtained contains more nitrogen than sludge obtained by any other method of sewage purification. It has been shown by analyses and by experiments with growing plants that it is valuable as a fertilizer. By the process bacterial reduction of 95 to 99 per cent is affected. The cost of the process depends upon the cost of producing air. It has been estimated that it will be the most effective and most economical method of sewage purification. This will be especially true if the sludge can be readily recovered and disposed of for use as a fertilizer. Plants of considerable size have been constructed at Milwaukee, Cleveland and Champaign, and the process will be given a thorough trial.

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