Three years ago, A. G. Lowndes published a very beautiful method for obtaining the volume of living marine organisms, estimating by titration the amount of chlorides in a specific gravity bottle filled with sea water and comparing it with the amount in the same bottle filled with sea water containing a Nereis: the difference gives the amount of chlorides displaced by the Nereis and hence the volume of sea water displaced. The filled specific gravity bottle in each case was weighed, and the difference between the weights is the difference between the weights of that volume of sea water and that volume of Nereis.

Since then, Mr. Lowndes has been kind enough to show me, from time to time, the results of similar measurements in which I was interested. They are remarkably consistent and in his hands the method seems very perfect.

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NATURE, FEB. 14, 1941.

Staining of Bacteria and Certain Fungi

The usual method for staining bacterial and yeast spores requires three operations: the staining of both spores and vegetative cells by applying heat to the slide bearing the dye; the removal of stain from the vegetative cells with a decolorizing agent; and counterstaining the vegetative cells with a dye of a different colour. The same treatment is used to differentiate acid-fast bacteria from others.

A solution has been developed for staining spores and vegetative cells differentially in one operation. Fixed films of bacteria or yeasts are stained for one minute over steam with a solution consisting of malachite green 0.5 per cent, basic fuchsin 0.5 per cent, in distilled water; the film is then washed and dried. Spores are stained greenish-blue, other cells violet or, in older cultures, pink. Acid-fast bacteria retain the greenish-blue tinge, and may show the presence of violet granules; all non-acid-fast bacteria so far tested are stained violet.

A saline dilution of the staining solution has been developed especially for differentiating the hyphae and conidia of certain fungi in agar plate cultures. A paper giving other details will shortly appear in the Canadian Journal of Research.

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Jan. 17.

An American Message

The Editor and staff of Bell Laboratories Record present their compliments to the Editors of Nature and congratulate them on the continued regularity and high quality of the publication, under extraordinary difficulties. They are happy to report the strong public sentiment here, as to aid for Britain.

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Jan. 27.