

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT

BULLETIN No 306

PEROXIDE OF HYDROGEN

OTTAWA, Feb. 27, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you a report of work done upon thirty-seven (37) samples of what is generally called Peroxide of Hydrogen. The article in question is really a solution of the per oxide (H_2O_2) and is known in the British Pharmacopoeia as *Liquor Hydrogenii Peroxidi*, and in the United States Pharmacopoeia as *Aqua Hydrogenii Dioxidi*.

These solutions are practically identical, and are required to contain about three per cent (3 per cent) of true Hydrogen Peroxide, corresponding to an available Oxygen content of about ten volumes.

The British Pharmacopoeia permits a marginal allowance of one per cent available oxygen in either direction, so that the article meets pharmacopoeal requirements when its available oxygen content lies between nine and eleven volumes (9–11).

It will be noted that most of the samples examined give results that fall within the specified limits; whilst those which indicate a slightly higher strength cannot be held to be in any sense objectionable for the purposes to which peroxide of hydrogen is usually applied (as an antiseptic wash, a hair bleach, or as a gargle.) Only one sample falls below legal strength, a fact which indicates care in preparation by the manufacturer, and in storage by the dispenser, since this article is very prone to decomposition and loss of strength.

It is usual to add a trace of phosphoric acid or of acetanilide, in order to give better keeping properties to the solution. Acetanilide is added in the proportion of 3/16 grain per ounce of solution; and is declared on the label when present.

Since this solution is a pharmacopoeal preparation, it is of course impossible that it should be made proprietary. Two samples (63561 and 63583) are named as Dioxogen