



FRANK RATTRAY LILLIE

Scientist, Executive, Publisher

The recent retirement of Doctor Lillie as director of the marine biological laboratory at Woods Hole after eighteen years of service brought attention again to the new type of leaders which the past few decades have developed: men who combine the keenness and enthusiasm of research workers with executive capacity equal to that found in the commanders of large commercial enterprises. For by the coldest of all measurements, the cash criterion, the Woods Hole station is a large enterprise; it represents, in plant and investment, something like two million dollars. Its value in terms of benefits conferred on hundreds of biologists from all parts of this country and from all other countries of the world is of course beyond calculation.

Like many other able executives, Doctor Lillie has known how to hold down more than one job at once. He has been a teacher, mostly at his *alma mater*, the University of Chicago, ever since he received his doctor's degree there in 1894, and since 1906 he has been chairman of his department, that of embryology. In addition to his executive work he has kept up incessant research in some of the more difficult reaches of the embryological field, and has found time to edit three important scientific journals.

With Mrs. Lillie, he has given to the University of Chicago a magnificent new laboratory building for the new school of medicine, which he has dedicated to the memory of his old friend and colleague, Doctor Whitman.

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The Chemist and Poison Alcohol

By H. E. Howe

Dr. Howe as editor of *Industrial and Engineering Chemistry* is in a position to state the chemical attitude toward the "poison" alcohol controversy now before the public.

Professionally the scientist is interested in but two sorts of alcohol. He requires the purest of alcohol, whether it be methanol, ethyl or grain alcohol, or one of the so-called higher alcohols for his research work. This in educational institutions can be obtained tax-free in accordance with established regulations. If he is connected with the industries, he recognizes that alcohol is second only to water in its importance as a solvent, and he requires large quantities at a low price for manufacturing purposes. Twenty years ago laws were passed to encourage industry by providing for denatured alcohol which could be sold tax-free, after having been rendered unfit for drinking by the addition of methanol or wood alcohol, pyridine, benzol, and a large number of other substances. These substances were chosen with a view to rendering the alcohol unfit for drinking without interfering with the industrial applications intended, and many chemists cooperated in devising the formulas which at one time or another have been approved by the Treasury Department.

The layman has little appreciation of the wide use of industrial alcohol and the fact that many materials cannot be made without it. Literally hundreds of thousands of dollars have been spent in an effort to find satisfactory substitutes for alcohol in the industry, since obviously no manufacturer would submit to present-day regulations on a basic raw material if he could use something else.

The practice followed by the federal authorities in denaturing alcohol is not materially different from that approved by many other countries; and indeed methanol, against which attacks have been launched in the past several months, is used in much larger quantities abroad than in alcohol denatured under the regulations of the United States Government. The industries have no objection to methanol and complaint comes either from those who desire to unravel denatured alcohol in order to divert it into beverage channels, or from the group who are opposed to prohibition and who have apparently decided to harass all and sundry to the point where they fancy some united de-

mand may be made for the repeal of prohibition. Whatever the individual views may be concerning prohibition, industrial chemists are united in opposition to the tactics being employed, which if continued in the press and by politicians may lead to a situation where industry will find it necessary to fight for a raw material that has become essential.

Care is taken to market completely denatured alcohol under poison labels. The material as it leaves the hands of the denaturer is not potable, and yet those who would criminally manipulate this material seek to charge the government with death which may occur from the illegitimate manipulation and use of this chemical compound. Industry finds it necessary to continue under existing conditions, while at the same time seeking the ideal denaturant which thus far no one has discovered. The alcohol producers have established a fellowship at Mellon Institute and have taken other steps to cooperate in this search.

If those who are so largely protesting the use of methanol do so in good faith, an equal amount of energy contributed to the effort to find an ideal denaturant would be far more constructive and much more in line with the interests of the industry as well as of the people at large.

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ENTOMOLOGY

New Cotton Pest Coming

A new enemy is at the gates of the burdened American cotton planters. Only two hundred miles south of the Arizona border Dr. A. W. Morrill of Los Angeles, California, has discovered a new species of cotton pest that is raising considerable havoc with cotton fields in northwestern Mexico. In areas where there is only an average infestation, the worms are causing twenty per cent. damage to the crop. The new pest shows an appetite for American uplands and Egyptian cultivated cottons, and for several species of Mexican wild cotton. Should it be carried into Arizona and California by winds the cotton boll weevil in this country would have an able assistant in his frustrated efforts at raising the price of cotton.

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Intelligence tests given to convicts in American prisons showed their average mentality to be higher than that of the guards.