

cost areas that Congress might now set aside for that purpose for nothing?

Nothing could be more satisfactory to those wishing to exploit for their own benefit the resources of the public lands than to have the public imagine that the development of our national park system has almost reached its desirable or practicable limits. That is very far from being true, but unfortunately the Forest Service, which does not wish to give up lands to the parks, and the National Park Service, which desires not the enlargement of the park system but the development of the road and hotel systems of the present parks to improve them as business propositions, are doing their best to encourage such a belief.

At a recent hearing before a Congressional committee the representative of a well-known organization who appeared in opposition to adding a certain area to the park system proved to have no information as to what was on the area in question and could give no reason for opposing its addition other than that certain government officials did not wish it included.

It is a matter of record, which any one so disposed may verify, that the same bureaus and organizations that are now so exercised over the possible lowering of the standard of the parks by making a few small additions to them are the ones who initiated and promoted the legislation in 1921-1923 to lower the standard of the Sequoia Park by eliminating half the park (containing at least two thirds of the sequoia trees the park was established to protect) and opening the area up to commercial use. They have never protested at, or given publicity to, the lowering of the standard of the Yosemite Park, which has been going on for years through the logging and railroad building operations of a big lumber company that have wiped out practically all the finest parts of its forests and ruined from a scenic standpoint two of its three sequoia groves. Publicity would have ended that vandalism. In 1925 and 1926 they initiated legislation to lower the standard of the Rocky Mountain Park by excluding most of the best timbered parts of it. Can they now venture to deny that trimming Crater Lake Park for the elimination of the splendid forests in its southern part is on the program of the government bureaus?

It is not the addition of attractive, even if not extraordinary, areas to the park system that lowers its standard. It is logging, railroad and reservoir building and other commercial developments and also "boundary adjustments" to legislate out timber or other resources desired for exploitation that are lowering the standard of the parks, and doing it in a way that no future regrets or efforts can remedy.

WILLARD G. VAN NAME

NEW YORK

DICTION IN SCIENTIFIC WRITINGS

Now that the pronunciation of "research" is cleared up, perhaps some one can illuminate an obscurity occurring in the writings of even the best scientists. I read that something is "1,000 times larger" than something else. Does he really mean that, or does he mean "1,000 times as large?" The difference in this case is not particularly significant, but becomes so if, for example, the thing compared is "three times larger." I would be inclined to take his statement at its face value until I see that something else is "100 times smaller" than the thing with which it is compared. Now how can anything be more than once smaller than anything else? Would it be any harder to say "one hundredth as large" if that is what is meant?

R. L. EDWARDS

MIAMI UNIVERSITY

A SUBSTITUTE FOR "BELIEVE"

DR. MILLER has suggested that there is an ambiguity in the use of the word "believe" in scientific articles and called for a substitute. Perhaps the word "opine" might do. This word is defined as follows in Webster's New International dictionary:

opine:—to have, express, form, or hold, an opinion; to give out formally as one's opinion, or to give a formal opinion; to judge; think; suppose.

ELLIS I. FULMER

IOWA STATE COLLEGE

QUOTATIONS

THE USE OF LEAD TETRA-ETHYL

ETHYL has stood her trial, and the jury have returned a Scottish verdict of *Not Proven*. That is the sum and substance of the unanimous report of the Departmental Committee appointed last April to inquire into

the possible dangers to health resulting from the use of motor spirit containing lead tetra-ethyl or similar lead-containing compounds, and to report what precautions, if any, are desirable for the protection of the public or of individuals in connection with the use or handling of such motor spirit.

The appointment of the committee was the result of a good deal of discussion, both in the press and in Parliament, following the announcement that the Anglo-American Oil Company had produced Pratt's ethyl petrol for ordinary motorists' use with the

object of eliminating or substantially reducing the knocking of engines, and thus of adding to their efficiency. Our motoring correspondent explained at the time that the ethyl brand of anti-knock compound contained tetra-ethyl lead, ethylene dibromide, halowax oil and red aniline dye. The first ingredient was said to eliminate knocking; the second prevented the formation of lead oxide during combustion; the halowax oil served as a lubricant; and the red dye was for the purpose of identification. The compound had been used for racing and for aeroplane engines—about one teaspoonful of the liquid being added to a gallon of petrol; but otherwise its use in this country had been very limited, though it had been extensively used in the United States for some years. There seems no doubt that insufficient precautions in manufacture and handling tetra-ethyl had in fact led to deaths in the United States in 1924, and it was largely due to these unfortunate occurrences that the introduction of ethyl petrol for general use in this country was vigorously opposed until this distinguished committee of inquiry, under the chairmanship of Sir Frederick Willis, was appointed by the Minister of Health.

The committee found at once that the American government had already made a very thorough investigation of the same problem, and Surgeon-General Cumming not only placed at the disposal of the British committee the information obtained at the American inquiry, but also arranged for Dr. Leake, who conducted it, to come to London to give evidence. Without going into the technical aspects of the proceedings, it is sufficient to say here that the United States committee had followed up the few reported cases of injury to health which might have been due to the use of ethyl petrol; that they had satisfied themselves that these cases afforded no evidence of harmful effects attributable to the use of this material; and that at the time of the American report there were no good grounds for prohibiting the use of ethyl petrol, of the composition specified as motor fuel, so long as its distribution and use were controlled by proper regulations. Prohibition of the use of the fuel had been removed in all parts of the country—in New York as recently as June, 1928—and Dr. Leake said that, in spite of the wide publicity that the matter had received, no instances of injury had been found. Sir Frederick Willis's committee now declare that the findings of the American committee were justified. They say that there is no evidence to show that the use of ethyl petrol as a motor fuel involves more dangers to health than the use of ordinary petrol; but for the time being they think that the precautions indicated in the American report are desirable. In other words ethyl should be used as a

motor fuel only, and not for such purposes as cooking or cleaning. No regulations have actually been made in the United States as regards the distribution of this petrol, but it is stated that careful observance of the regulations recommended—*e.g.*, in regard to notices to the public, the labelling of cans and pumps, the distribution of leaflets and the dyeing of the substance red as an additional check against its use otherwise than as a motor fuel—has been secured by the terms of the contracts between the proprietors of the fuel and the retailers. Sales in this country are governed in the same way, and the report does not recommend any legislative action so long as the terms of the contract are maintained. Further investigations are to be made, but there is no reason to suppose that the committee will find it necessary to modify the views they have now expressed. It is of course common knowledge that empyreumatic fumes are unpleasant and sometimes dangerous, and that the adequate ventilation of garages is very important whether ethyl petrol is used or not. But the report makes it clear that the danger is not from lead poisoning but from carbon-monoxide.—*The Times, London.*

THE BAKING POWDER CONTROVERSY

FOREWORD

For forty years the discussion of the use of alum in baking powder has been going on in this country almost continuously. At times it has become bitter in its terms. It has secured the opinions of perhaps two hundred experts, most of whom are of high character and standing. It never had been prominently brought before the courts until the last few years. Manufacturers of alum baking powders objected to a manufacturer of tartrate baking powders using the phrase, "no alum." They induced the Federal Trade Commission to issue a complaint against the Royal Baking Powder Company, charging the company with unfair competition. Voluminous evidence was taken in the case, and finally the Federal Trade Commission, after receiving the report of the examiner in the case, ordered the complaint which they had brought against the company dismissed.

The above order was issued on the 23rd day of March, 1926. The commission partly opened up the subject again for further evidence in an order issued on July 7, 1926. One of the commissioners was gravely in doubt of the legality of reopening a case which had once been settled by the dismissal of the complaint. This legality has already been challenged in the supreme court of the District of Columbia but not yet decided therein. In many respects this con-