

to take advantage of the openings that public policy seemed to offer?

We were informed on the highest authority that British effort, in the universities and in technical works, overtook and far out-distanced that long start that German military chemists possessed as regards noxious gases and other agents of chemical warfare. Has that superiority now disappeared, and why? One may even ask, judging from public pronouncements, is the same the case with our war-time superiority in aircraft and the relative scientific problems? Or is it that these things are now back under official control, with copious production of Blue-books?

A dozen years ago my duties threw me in the way of observing some of the great German university chemists who developed into chemical engineers on the grand scale and founded the German industry. While struck by their quiet capacity and apparent friendliness, it did not appear for a moment that they rated themselves higher than their British colleagues who had never had the same opportunities.

#### AGRICULTURE AND WIRELESS TELEPHONY IN FRANCE

AN editorial article in the *London Times* says:

WHILE England has been considering France has acted and has arranged to bring wireless telephony to the assistance of agriculture. A generous extension of the telephone system to rural districts has long been urged on our own General Post Office. It would help to redress the isolation of the country and it would confer the special benefit of prompt knowledge of approaching meteorological changes. Farmers and gardeners, who are at the mercy of vagaries of the weather, could do much to arrange their work or even to protect their crops were they in possession of weather bulletins such as are posted at harbors for the benefit of fishermen and mariners. But the cost of telephone cables has retarded the progress of extensions, and would, indeed, prohibit even the ultimate completion of a sufficient network. According to a message from our Paris correspondent, printed in our columns last Wednesday, France has overcome the difficulties of cost and distance by a prompt application of wireless telephony. The ministers of air and of agriculture, acting in concert, have arranged that the National Meteorological Office shall "broadcast" a weather bulletin twice daily. Every commune will have a receiving station in the parish school or police station, where the mes-

sages will be received and posted. It is proposed, further, that the peasants shall be warned of any sudden storm by ringing the village bell. Such an organization is well suited to rural France, where, for the most part, the owners are the actual cultivators and live in villages from which they sally forth to their fields. It would require modification in this country, where the isolated farm rather than the village is the center which would have to be reached. But messages issued by the Meteorological Office, now under the Air Ministry, could be received at suitably chosen towns, from which they would be redistributed not only to villages, but to farms in possession of the cheap wireless receivers already at the disposal of the general community.

#### THE MOUNT EVEREST EXPEDITION

At a recent meeting of the Royal Geographical Society Sir Francis Younghusband, the president, made the following announcement in regard to the Mount Everest Expedition:

As this is the last meeting of the session and consequently the last occasion on which I shall have the honor of addressing you as your president, perhaps you will allow me to summarize the results of the Mount Everest Expedition, so far as we at present know them. The climbers were on June 6 to have made a final effort to reach the summit—or rather the real attempt, for the previous efforts were more in the nature of reconnaissances. But we know that the monsoon broke on June 3 and we fear that this will have definitely frustrated any further effort.

But the expedition has, in spite of terrific weather, already accomplished much. As you know, they have reached 26,800 feet without oxygen and 27,300 feet with its aid. And in accomplishing these great feats they have gained much experience for future use. They have ascertained that the mountain itself at the highest points reached is, in Mallory's words, "not difficult," and Finch and Bruce were able to proceed along the north face without ropes. Mallory was convinced, too, that with favorable weather the porters could have carried a camp to 26,000 feet and so brought the climbers within reach of the summit. And Finch's experience was that by a moderate use of oxygen in camp both sleep and hunger were induced. So that, even if the final climbers did not carry oxygen on them, they might start from their high camp refreshed by its use.

The experience gained this year also shows that skilled mountaineers are able to take those un-

skilled in high mountain craft to the highest altitudes. Geoffrey Bruce had never climbed a snow and ice mountain before. Yet under Finch's skilled leadership he was able to attain a height of 27,300 feet. And the Sherpa porters, though they were practically untrained to snow and ice work, were able, under General Bruce's stimulating influence—and we must gratefully acknowledge that it was he who originated and carried out the idea of forming a corps of these men—to carry loads up to 25,500 feet, some of them making the journey four times and so earning the unstinted praise of the best mountaineers.

So by careful organization and combination of effort, by using experience to guide inexperience, and by the display of indomitable pluck on the part of the highest climbers, the expedition has at a bound brought the record up from 24,600 feet to 27,300 feet, and thus left only 1,700 feet to be climbed before the crowning summit is reached.

The standard of human achievement has thereby been sensibly raised. And many another climber, many another traveler, and many another struggler upward in every walk of life and in every country will be braced and heartened in remembering what Finch and Mallory, Somervell, Norton and Bruce have this year accomplished on Mount Everest. And this, to my mind, is incomparably the most valuable result of the expedition—and a result which makes their efforts in the highest degree worth while.

In conclusion may I quote from an article on mountaineering I have just read? "Mountaineering proper is not necessarily rashness, but is entirely a question of prudence and of courage, of strength and steadiness, and of a feeling for nature and her most hidden beauties, which are often awe-inspiring, but for that reason the more sublime and to a contemplative spirit the more suggestive." These words were written thirty-three years ago by an Italian Alpine climber, a certain Father Ratti. That mountaineer has now become Pope Pius XI and his words exactly express the sentiment which has animated all those connected with the Mount Everest Expedition, whether in its initiation or in its execution—and which will continue to animate them till the final goal is reached.

The *Public Ledger*, in a cable dispatch, announces that the expedition to climb Mount Everest has been abandoned as a result of an avalanche in which seven porters were killed. Three members of the expedition, C. L. Mallory, T. H. Somervell and C. A. Crawford, had

narrow escapes. The dispatch said the final attempt to scale Mount Everest had been made on June 7.

## ENGINEERS AND AN AMERICAN UNIVERSITY IN EUROPE

ESTABLISHMENT in Central Europe of a great American university and library is urged by Dr. B. Stepanek, minister to the United States from Czechoslovakia, who, to advance international peace, calls upon the engineers of this and other countries for united participation in world affairs. Dr. Stepanek makes an appeal for the formation of a world federation of engineers, and for an international engineering conference to deal constructively with the problems of civilization.

Dr. Stepanek's views, made public by the American Society of Mechanical Engineers, which, through its official journal, stresses the need of engineering solidarity among the leading nations, are regarded by engineers as a significant diplomatic utterance supporting the efforts now being made in America, Great Britain, France and Italy to bring about closer relations among engineers.

Award of the John Fritz medal to Senator Guglielmo Marconi has aroused fresh interest in the idea of a world union of engineers. Marconi's expressed hope of promoting peace through science coincides, it was said, with action to devise a working plan of international cooperation between the engineers of America and Italy.

John W. Lieb, vice-president of the New York Edison Company, has reported, after a trip to Italy, that Italian engineers are ready to form such an alliance. Herbert Hoover, Professor Comfort A. Adams, of Harvard University, Eugene Schneider, of Paris, and Sir Robert A. Hadfield, of London, are others who favored advancement of world peace through the united action of men of science. Actively backing the project also are the presidents of the American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, American Institute of Electrical Engineers and the Federated American Engineering Societies.

Alfred D. Flinn, secretary of the Engineering Foundation, and chairman of the Engineer-