

low pressure maintained for about 15 minutes. This treatment has been found to be insufficient in practice to obtain complete penetration and good absorption, even in the perishable sapwood, of some species, and it is certainly not sufficient to obtain complete penetration and adequate absorption in the heartwood of several perishable woods. Other new factors, some of which are mentioned in the withdrawal note, have also come to light as the result of experience. These new factors were not known when the *Ascu Record* was published, but the North Indian pole failures brought out the fact that they might be serious. They are not connected solely with inadequate treatment, but concern such features as the possible existence in India of arsenic- and copper-resisting fungi, the possible adverse effects of certain soil conditions on *Ascu*, and the chemical changes of the toxic constituents of *Ascu* which may take place when it comes in contact with other chemicals present in certain species of wood.

Finally, allow me to make it quite clear that this Institute has not condemned *Ascu* or discarded it as worthless. This will be evident from the note, which is sent out to all enquirers who ask for information on *Ascu*. In the Forest Research Institute's opinion, *Ascu* is an interesting preservative which has certain features not always found in other preservatives, but it is a comparatively new preservative which is continually presenting fresh difficulties, and until these difficulties have been studied and are more fully understood, the Forest Research Institute cannot endorse its use indiscriminately. As soon as it was realised that some of these new factors might be dangerous, and as they were not known at the time the *Ascu Record* was written, it was considered advisable to withdraw the *Record*, and to issue it later in revised form, so as to avoid repetitions of large-scale failures such as those encountered in Northern India.

L. MASON.

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March 17, 1940.

A National Research Council for India

THERE can be no two opinions about the need for a National Research Council but in a large country like ours, such a Council cannot function properly unless different Provinces and States (or some other composite units) also effectively organise and co-ordinate their research work and give it a bias towards the applied side. With the organisation of the University of Travancore, the various Scientific Units in the State, which were formerly under the control of different departments such as Education, Public Health, Industries, Agriculture, Public Works, Observatory, have been brought together in the form of a Central Research Institute under the University. A Council of Research has also been formed in which substantial representation has been given to the Development Departments of the State. Research Scholars and Fellows are appointed to investigate problems of direct value to the industry, agriculture and public health of the State. Thus the resources and the talent of the educational institutions are being harnessed for applied Research in collaboration with specialists in Applied Sciences. Sachivothama Sir C. P. Ramaswamy Iyer, the Dewan of Travancore, and the Vice-Chancellor of the University, is the Chairman of the Council of Research.

As long as the relationship between the all-India finances and the Provincial and State finances are in a state of adjustment, it will be better, in the first instance, to concentrate on provincial co-ordination of applied research so that some start is made immediately. The agency or Council which does so, will have to look to provincial finances for support and will concentrate on specific service for provincial interests. These provincial units can be later co-ordinated under a national organisation in course of time.

Institutions like the *Indian Institute of Science* can play a very important part. They should develop the "cell" system of research and investigate utility problems on the requisition of industrialists and various Provincial or State Governments.

An *All-India Council of Research* should be our aim but to achieve this object, expediency demands that we should organise the units in the Provinces and States, and on their co-ordinated strength, build the national organisation.

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Trivandrum,
March 25, 1940.

devote particular attention to making India self-sufficient. The first step should be to develop the production of power, and the manufacture of machinery and chemicals. These are the prime factors of national existence and progress.

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March 15, 1940.

THE National Research Council should be formed immediately on the lines laid down for such bodies by other civilised countries. Its constitution should be left elastic in the beginning, so that it might be altered later in the light of experience. India cannot wait indefinitely for an all-round agreement, which would perhaps never be achieved.

It should be an autonomous department of the Ministry of Education. Scientific bodies of an all-India character should be represented on the Council. It should be financed by the Central Government, and should be subsidised by the Provinces and the States. It should place its services at the disposal of all.

It should give a direction to research from the national point of view. For instance, it can publish from time to time a list of research problems of vital importance to the nation for the consideration of research workers all over the country.

It should not interfere with pure research (knowledge for its own sake) which should be left to the universities and learned bodies. It should, however, collaborate with the latter.

The Council should set up various centres of Industrial and Technical Research at suitable places. It should see, however, that duplication resulting in the wastage of national resources is avoided.

The frequent recurrence of war in other countries makes it imperative that India should produce all the possible requisites of modern civilised life. Most of the necessary raw materials are abundantly available in the country. The National Research Council should

The Rights of Man

THE important leading article on this subject in the last issue of *Current Science* calls for comment and discussion. Such discussion if it is not to be futile must needs soon get down to fundamentals.

In the first place as in every debate we must be clear about our definitions. Mr. Wells is apt to confuse "Homo Sapiens" with "probably arboreal", much as the Psalmist in one mood speaks of man as being evanescent as the "flower of the field" and in another as being "little lower than the angels". The difference surely depends on how far enlightenment has risen in the consciousness of the immediate manifestation of "Man".

"Probably arboreal" voyaging in fear, astride of a log, could have built the "Queen Mary" had he known enough. All the principles of engineering, physics and chemistry involved were available, but the sun of enlightenment had only faintly appeared above the horizon of his consciousness.

"Progress" is the revelation of ever present Truth. Because the sun is temporarily behind a cloud it does not mean that darkness must prevail. Twice two remains four.

As has been previously remarked, it seems a pity that H. G. Wells chose for his intellectual discipline the subjects of Geology and Biology rather than the more exact experimental sciences of Chemistry and Physics.

He would then perhaps have seen rather further than he seems willing now to permit himself. Granting his great virtue of honesty, which may protect him from final disaster, it