

complete and rigorous as the 'Celestial Mechanics' of La Place, and this will necessarily be a treatise on the application to the atmosphere of the general laws of force, or what is technically known as the dynamics and thermo-dynamics of gases and vapors. Such a work cannot be written now, nor when written can it be studied successfully unless accompanied by an introductory 'Laboratory manual of physics and hydro-dynamics.'

But the preparation of this latter work demands appropriate laboratory arrangements. I will, therefore, invert the order and say that further progress in meteorology demands a laboratory and the consecration of the physicist and the mathematician to this science. Something like this was started in 1881, by General Hazen, in establishing a 'Study Room,' but it was ruled out by the report of a committee of Congress, and since that day meteorology has more than ever looked to the universities for its higher development. The applications of climatology to geology, physiography, hygiene, irrigation and other matters have been developed, but meteorology itself, the most important and the most complex of all the physical sciences, still remains to be provided for.

The crying need of this science is a *home*, a domicile, a meteorological laboratory, and full recognition as a course in university study.

Without experimentation there is no true progress in the physical sciences.

CLEVELAND ABBE.

WASHINGTON.

#### CORRESPONDENCE.

#### A CARD CATALOGUE OF SCIENTIFIC LITERATURE.

EDITOR OF SCIENCE, *Dear Sir*: The efforts which students of the Natural Sciences are constantly making to provide themselves with more complete summaries of the

literature of their various departments all testify to the existence of a wide-spread feeling of dissatisfaction with the existing methods of cataloguing scientific papers and reporting upon the results of scientific research. That this dissatisfaction is felt by none more keenly than by those engaged in the work is shown by the appeal made last spring by the Royal Society to various universities and learned societies for advice as to the feasibility of maintaining by international coöperation a complete catalogue of current scientific literature.

The following circular of the Society, together with the reply of Harvard University to the same, will doubtless be of interest to your readers, and by opening the columns of your journal to a discussion of the subject you will not fail to elicit valuable suggestions with regard to the details of the plan.

In adopting the recommendations of the committee as printed below, the University Council voted "that the Secretary of the Council be instructed to transmit to the Royal Society a letter stating the opinion of this Council, that the expression 'scientific literature' as used in the above recommendation ought to receive a very broad interpretation."

Yours very truly,

H. P. BOWDITCH.

#### LETTER FROM THE SECRETARIES OF THE ROYAL SOCIETY.

THE ROYAL SOCIETY,  
Burlington House, March 22, 1894.

SIR: The Royal Society of London, as you are probably aware, has published nine quarto volumes of 'The Catalogue of Scientific Papers,' the first volume of the decade 1874-83 having been issued last year.

This Catalogue is limited to periodical scientific literature, *i. e.*, to papers published in the Transactions, etc., of Societies, and in Journals; it takes no account whatever of