

*Recit de la Grande Expérience de l'Equilibre des Liqueurs.*  
By Blaise Pascal. (Berlin: A. Asher and Co., 1893.)

THIS work forms No. 2 of the new series of publications of old books relating to meteorology and terrestrial magnetism, issued in facsimile by Prof. G. Hellmann, and was first printed in Paris in 1648. There is no copy of the work in the British Museum, and Dr. Hellmann has only been able to trace three copies, two of which are in Paris, and one in Breslau. This little work is of the greatest importance to the history of physics, to meteorology, and physical geography; it gives the first conclusive proof of the pressure of the atmosphere, and puts an end to the doctrine of the *horror vacui*. This famous experiment was made at Clermont Ferrand, and on the Puy de Dôme, on September 19, 1648, so that Pascal lost no time in making his discovery public, but it is not generally known that any account had been issued prior to the publication of the *Traitez de l'Equilibre*, printed in 1663. The work is prefaced by an interesting introduction by Prof. Hellmann, in which he refers to the doubt which exists whether the idea of the experiment was taken from Descartes. The latter has expressly asserted this to be the case, in two letters (dated June 11 and August 17, 1649), addressed to Carcavi, and the fact that Pascal never replied in any way to the letters in question, has induced many writers to adopt this view.

#### LETTERS TO THE EDITOR.

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#### The Organisation of Scientific Literature.

I HAVE followed the correspondence in your columns on the question of the organisation of scientific literature with very keen interest, and should esteem it a favour to be allowed to add a few remarks to what has been said. There are two ways in which the present disorganisation might be dealt with. The first is exemplified in Prof. Bonney's "Year-book of Science"; that is to attempt to provide a key to the present complex state of affairs in the form of yearly abstracts. But even supposing this year-book (invaluable as it is) were comprehensive, which it admittedly is not, of what use would it be to the many workers who have neither the time nor the opportunity to spend hours in first-class libraries, nor the means to buy even a tolerable number of the innumerable magazines, journals, reports, &c., dealing with their special subject.

This infinite multiplicity of publication is the root of all the evil, and "Free Lance" strikes at it hard and well in his pamphlet on the organisation of science.

This brings us to the second method. As pointed out by "Free Lance," the only true solution of the difficulty is that in each country each subdivision of science should have its one central and accredited journal in which all papers on that subject worthy of publication should be published. In fact, a centralisation of publishing, with as much decentralisation of scientific meeting as the intellectual wants of the country may need.

Were this condition of things realised, then by consulting one or two journals in each country a specialist might easily, and comparatively cheaply, keep himself abreast of current work. In addition, an annual index or indexes of the books published in the various departments of science and in various countries, would render very great service.

Briefly, and in conclusion, my view of an ideal organisation of scientific literature is somewhat as follows:—

(1) In each country one central and accredited journal for each branch or subdivision of science.

(2) An international bureau working somewhat as follows:—  
(a) In each country the (a) papers (b) books and pamphlets, published in that country to be abstracted or indexed by well-paid men. (b) The several countries to exchange abstracts. (c) Finally, each country to translate the other abstracts and indexes into its own language, and publish these along with its

own abstracts in, say, quarterly or monthly volumes, classified and subdivided for each science and branch of science.

In the case of such an international bureau proving impracticable, then each journal might abstract the work done in its department in other countries, after the admirable manner of the Chemical Society.

It is to be hoped that the British Association this year will take up the question seriously and in its widest aspect. There is no use organising one portion of science and leaving the remainder in disorder.

F. G. DONNAN.

Ardmore Terrace, Holywood, Co. Down, August 28.

SEVERAL of your correspondents have called attention to the importance of distributing copies of papers in quarters where they are likely to be read. It may therefore be well to emphasise the fact that the *Philosophical Magazine* refuses to supply *gratuitous* copies. When this fact is appreciated, I think most persons will see that it is rather an unbusinesslike proceeding to pay the *Philosophical Magazine* for separate copies, when they can be obtained for nothing by communicating the paper to a society.

The "full publication of . . . papers of the societies, &c.," as recommended by Mr. Trotter, would be an infringement of copyright, and would lead to the Physical Society becoming more closely acquainted with the mysteries of the Chancery Division than its members would probably desire.

The Physical Society is a young and precocious one, and, in conjunction with its partner, the *Philosophical Magazine*, would doubtless like to obtain a monopoly of all mathematical papers except those strictly denominated *pure*, which it does not care about. But its legitimate sphere of action is *experimental and applied science*, and if it shows a disposition to poach upon the preserves of its neighbours it cannot fail to excite hostility.

I do not see any objection to the word "physicist," the literal meaning of which is "naturalist"; but is not the word "scientific" more appropriate to this discussion than "physical"?

A. B. BASSET.

Hotel de Russie, Ems, Germany, September 3.

#### Drought and Heat at Shirenewton Hall in 1893.

##### Rain.

Month.	1893.		Average.	Excess or defect in 1893.	Most rain in a day.	Number of rainy days in 1893.	Number of days with at least a quarter of an inch.
	Inches.	Inches.					
March ... ..	0·4	2·7	-2·3	0·170	5	0	
April ... ..	0·2	2·1	-1·9	0·091	4	0	
May ... ..	2·6	3·1	-0·5	0·880	9	3	
June ... ..	1·8	2·6	-0·8	1·010	10	1	
July ... ..	2·9	3·7	-0·8	0·660	12	4	
August (to 17th)	1·8	2·1	-0·3	0·660	8	2	
Total ... ..	9·7	16·3	-6·3	1·010	48	10	

Since March 1, 122 days without rain.

##### Heat in Shade, 1893.

Month.	Number of days the heat was above		
	60°	70°	80°
April ... ..	25	9	2
May ... ..	28	15	1
June ... ..	30	21	6
July ... ..	31	21	5
August (to 17th) ...	17	17	8