

size is to be applied to the yarn ; to what diseases or modes of decomposition it is liable ; and how it may be preserved from mildew or mischievous changes. The book has every right to be regarded as the only important treatise on the subject which has yet appeared, and, as such, we would recommend it to all who are interested in the production of one of our chief staples. T.

OUR BOOK SHELF

Physiological Tables for the Use of Students. Compiled by Edward B. Aveling, D.Sc., F.L.S. (London : Hamilton, Adams, and Co.)

WE are at a loss to find any excuse for the publication of these tables, which no one, we presume, would attempt to justify except on the plea that they may be useful in cramming students so as to pass the multifarious superficial examinations which are a blot upon our educational system.

They are unphilosophical in their plan, and altogether unreliable in their details. Some idea of the nature and value of the information which is here put up, as it were, into separate pigeon-holes for the use of the unwary, may be gathered from the following quotations. Nervous tissue, we are told, contains 15 per cent. of fats, thus classified :—

Fats, 15 per cent. in white, { Oleo-phosphoric acid.
5 per cent. in gray. { Olein ; margarin ; palmitin.
Cholesterin.

Would Dr. Aveling like to write a short essay upon oleo-phosphoric acid? Has he never heard of such bodies as glycerin-phosphoric acid and its derivative lecithin?

Or to quote from Table IV., where Dr. Aveling writes on the causes of the circulation :—

CAUSES OF CIRCULATION.	Capillary Force. Proofs.	{	Impulse of heart.	{	1. Alterations in diameter of capillaries.
			Elasticity of arteries.		2. Alterations of velocity of blood flowing through them
					3. Movement of blood after excision of heart in cold-blooded animals.
					4. Emptying of arteries after death.
					5. Secretion after death.
					6. First movement of blood in embryo towards, not from, the heart.
					7. Fœtus without heart has organs developed.
					8. Degeneration of heart during life without much alteration in the circulation.
					9. Heart working well, and yet circulation through some part ceases.
					10. Asphyxia.
			Muscular pressure on veins.		

Would it not be an admirable exercise to set the above lines to intending candidates in physiology and ask them to criticise them? Our readers will do so for themselves.

In the table referring to the sense organs we are confidently told that the nerve centres for the special sense of touch are the *thalami optici*, that the centres of the special sense of smell are the olfactory lobes, that the centres of sight are the corpora quadrigemina, the corpora geniculata, and the thalami optici.

But the above examples are more than sufficient to prove how dangerous a catalogue of mistakes Dr. Aveling has presented us with.

If science is to be used as a discipline in education, let it be fully and accurately taught ; let us not imitate the old scholastic routine which forced unpalatable jargon in the form of "*propria quæ maribus*," &c., upon the unwilling student, and refuse to follow it in that which is its merit—its accuracy. A. G.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications. The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

Indium in British Blendes

IT will be a matter of some interest to English mineralogists and chemists to know that certain blendes of Durham and, I believe, of Cumberland contain Indium in appreciable quantities. This fact has been made out by a very skilfully-conducted analysis by Dr. Flight in the laboratory attached to this department.

The work in the laboratory has, through the past two years, been almost exclusively devoted to the analysis of minerals selected from the division of the collection which is in process of being catalogued, and for which the crystallographic work has long been in progress.

When I gave the particular blendes in question to Dr. Flight for analysis, the grounds for their selection were that they were British, and that one of them in particular resembled certain foreign blendes which contain the rare metals found in association with this mineral.

The object of this letter is to secure a prompt announcement of Dr. Flight's having found Indium in the blende in question. He will in due time communicate further details of the analysis of the blende and of an elegant process by which he at once separates the Indium Sulphide from the blende.

NEVIL STORY MASKELYNE
Mineral Department, British Museum, October 30

The Radiometer and its Lessons

WILL you allow me to make a few remarks in reply to Dr. Carpenter's letter on "The Radiometer and its Lessons," published in the last number of NATURE, and to try to show that I had good grounds for the opinion I expressed at the late meeting of the British Association in reference to his article on the same subject in the *Nineteenth Century*?

Nearly the whole of the first three columns of Dr. Carpenter's letter is devoted to proving that he "was not influenced, when writing on the radiometer, by any *animus* arising from [his] personal antagonism to Mr. Crookes on another subject." As I never in any way charged him with being thus influenced, I do not think that this part of his letter calls for any further remark on my part than an expression of my sincere regret that it should have been possible for him to think that I intended to make such a charge.

Dr. Carpenter devotes the rest of his letter to showing that he had "adequate justification" for "making it appear that Mr. Crookes had put a wrong interpretation on his own results," and thus proves very conclusively that I had "adequate justification" for supposing it possible that he may have intended to make this appear in his article in the *Nineteenth Century*.

In order to make out his "justification," Dr. Carpenter sets himself to prove (1) that Mr. Crookes puts forward the "direct impact of the waves" as affording "a definite interpretation" of the motion of the radiometer, and (2) that he claimed "the discovery of a 'new force' or 'a new mode of force.'"

With regard to the first of these points, I think that few persons can have read or heard Mr. Crookes's accounts of his investigations without having observed how careful he was to reserve his judgment as to the cause of the remarkable effects he had discovered, and neither to give out as conclusive any explanation of his own, nor to adopt any of those suggested by others until, chiefly through his own further experiments, one of them had been shown to rest on sufficient evidence. It is true that on one occasion he uses the following words (quoted by Dr. Carpenter) :—"My own impression is that the repulsion accompanying radiation is directly due to the impact of the waves on the surface of the moving mass, and not secondarily through the intervention of air-currents, electricity, or evaporation and condensation," and that, in several places in his earlier papers, he shows a leaning towards the same hypothesis ; but this is a very different thing from having adopted this view as a "definite interpretation" of the phenomena. Even Dr. Carpenter does not attempt to show that Mr. Crookes ever, in so many words, committed himself to this theory, but concludes that he held it