gists. The present report, although smaller than some of its predecessors, contains the usual array of important articles, the most interesting of which are the account of *Phora agaraci*, a little fly which damages mushrooms, and which is largely the cause of the impracticability of mushroom cultivation during the summer months; an account of the 1894 occurrence of the seventeen-year locust in New York State, and of the grasshopper plague in western New York. The present report contains a valuable appendix in the shape of an article on scorpion flies, by Dr. Lintner's assistant, Dr. E. P. Felt, who describes the heretofore unknown larvæ of *Panorpa rufescens*. The report also contains an elaborate index to Reports I. to X., which renders at once available nearly all of the results of Dr. Lintner's able work since he has held the position of State Entomologist of New York. This general index means more than appears at first glance, on account of the custom which Dr. Lintner has followed of late of publishing full bibliographies of the insects treated. Thus it becomes an easy matter for a person possessing the ten reports to familiarize himself to a very considerable degree with the literature of a very large number of species.

L. O. H.

La psychologie des sentiments. By TH. RIBOT. Paris, Alcan. Pp. xi+443.

The indefatigable Th. Ribot has given us in his last work, *La Psychologie des Sentiments*, a clear, forcible and succinct summary, professedly from the James-Lange point of view. However, this interpretation is not adhered to very rigorously, and sometimes, indeed, seems directly contradicted (see p. 383 and compare pp. 108 and 187). Yet M. Ribot's main position undoubtedly is that all feeling is a reflex, or, as he would prefer to state it, an aspect of organic changes. But this constant reference to the nature and constitution of the nervous system, or otherwise set forth as tendency, instinct, need, impulse, seems to us highly unsatisfactory explanation. To explain mental forms as knowing and egoism by intuitive fixed tendencies thereto (*e. g.*, p. 192 ff.) appears to us quite on a par with the old intuitive psychology, and not far removed from the much derided metaphysics that explains lion by leoninity. It appears to us that the word 'tendency', whether interpreted physiologically or psychically, is like the word 'chance' in physics and biology, a mere expression to cover ignorance. And it does not better things to assume that physiological and mental are only modes of an unknown something. To explain the known by the unknown may be good metaphysics, but it is certainly bad science. Further, when M. Ribot endorses Spinoza's *dictum* that desire and appetite are the bases of all emotion, we must ask what is desire but an emotion, and what is appetite but pure pain mingled with a feeling toward an unrecognized objectivity?

However, we fully recognize the value of a physiology of feeling, and of a physics and chemistry as well, and we wish that M. Ribot had adhered rigidly to this interpretation, but he often encroaches on psychology where his descriptions are only of the most general and obvious sort and his analyses (*e. g.*, jealousy, p. 264) are greatly lacking in accuracy and thoroughness.

M. Ribot regards fear, anger and sympathy as the universal primitive emotions, closely followed by the self-feeling and sexual feeling, which five are basal, all other emotions being derived by evolution, by arrest of development and by composition. We do not think that the author has here made clear how hate is arrested anger, or how platonic love is arrest of sexual. As to the latter, indeed, he at one place (p. 18) assigns it a rank as culmination of sexual evolution. But, however, this may be, it certainly seems contrary to the first principle of evolution, that any high and late form can be explained as arrest of development of an early form. The whole treatment of this and other principles is far too slight.

M. Ribot touches upon the curious pleasurable pain and painful pleasure, but the treatment is rather unsatisfactory. The taking a pleasure in a pain or *vice versa* is, we think, not uncommon, and merely shows that emotion can develop upon any subject. The child in taking a certain pleasure in picking its own sores has a relief from *ennui* and an emotion of effective activity. The desire to feel, to do, to know, help explain this pleasure. Alphonse Daudet

is said to take great pleasure in his fear experiences, but this may be a case of mere reaction from over-refined emotion, or it may be artistic emotion. The whole subject demands a large and detailed treatment.

This volume adds little to our knowledge. M. Ribot refers the very highest emotions to the James-Lange theory, but only in a very general way. Chapter XI. is an original study of affective memory and contains some interesting matter. I incline to believe that the memory of feeling is a far more general fact than M. Ribot makes it, and that, since the interesting is the rememberable, it is the core of all memory. All living in the past is filled with resuscitated feelings, both recalled and recurrent, and both associated with images and with correlated feelings. The difficulty in the study of affective memory is to discriminate between the new and the old, between the anger resuscitated with the thought of the insult and the anger provoked by the thought.

Æsthetic feeling is, as usual, referred to superfluity of energy. However, this theory must explain why great artists and poets are so often starvelings. The truth is, superfluity expends itself in the easiest channel for the individual, which for most men is apt to be hunting or fishing, or fighting. Superfluity may be one condition of rise and progress of æsthetic, just as there must be a certain fund of available energy for the rise of any higher emotion, but it cannot in itself explain æstheticism.

On the whole, while we can commend M. Ribot's work as a useful summary, we can not speak highly of its originality, its thoroughness or its fairness of tone. It is often narrow and dogmatic, and though the author is sufficiently eclectic in his field it is an eclecticism little vindicated. Hiram M. Stanley.

SCIENTIFIC JOURNALS.

AMERICAN CHEMICAL JOURNAL, JULY.

Oxidation of Sodium Sulphide and Hydrosulphide to the Sulphate by Electrolysis: By F. W. Durkee. Sodium sulphide and hydrosulphide are completely oxidized to sulphate when a current is passed through the solution. When carbon or copper electrodes were used, no oxidation took place; but when platinum ones were substituted, the formation of sulphate was quite rapid. When the current is first passed through, considerable hydrogen is set free at the negative electrode; but very little oxygen escapes at the positive electrode. The oxygen is used up in oxidizing some of the sulphide to thiosulphate, and this in turn to sulphate, setting sulphur free. This free sulphur, which separates as a white cloud, is partly dissolved in the sulphides forming polysulphides, which color the solution yellow. These polysulphides are in turn oxidized, and so it continues until all has been oxidized to sulphate, which point is reached when no further separation of sulphur takes place. The presence of these different products was shown by quantitative determinations of the substances present at different stages of the oxidation. Both direct and alternating currents were used, but the former were found more suitable for the purpose.

A Method for Obtaining Crystalline Silicon: By G. De Chalmot. By heating a mixture of silica, carbon and oxides of metals in an electric furnace, crystals of silicon can be obtained. These can be obtained in almost pure condition by treating the product with hydrochloric and hydrofluoric acids. When oxide of manganese is used, a manganese silicide having the composition $MnSi_2$ is formed.

On Some Mercury Salts of the Anilides: By H. L. Wheeler and B. W. McFarland. So little attention had been given to the methods of formation and reactions of these compounds that no conclusions could be drawn as to their structure. In this paper the authors give the results of their work and conclude that the metal is joined to the nitrogen and not to the oxygen, as has been suggested. When formanilide is treated with mercuric bromide, a mercuric formanilide is formed; and when this is treated with benzoyl chloride, halogen mercury compounds are formed, which are undoubtedly nitrogen derivatives. Nitrogen substituted anilides, whose reactions can only be explained on the supposition that the metal is joined to nitrogen, are also formed.

On the use of Antimony Trichloride in the Synthesis of Aromatic Ketones: By W. J. Comstock. In some cases antimony trichloride is preferable, as