difficulties of the problem, and is guilty of the weakness of going "very near to supposing a new force in the universe other than evolution," Dr. Walker Kidd inquires triumphantly: "Is there a grain of truth in this theory?" Professor Huxley merely attempted to solve from an evolutionary point of view the problem which Zoroaster avoided under a poetic fiction—the problem which, with all his mastery of philosophy and his unrivalled skill as a dialectician, Bossuet abandoned as inexplicable, the problem which Christianity explains (so far as good and evil affect man) by the very obscure doctrine of atonement. Evolution has its metaphysics like every other system.

Dr. Campbell and Mr. Roger Williams have very ably exposed the "views of those members of the medical profession who have paid the greatest attention to the subject" in question; and Dr. Campbell is probably right in supposing that these members "will endorse the opinion of the professed biologist." Many of them will "see nothing but what is beautiful in Herbert Spencer's ethical code," and less in this code to weaken the "sanctions of morality" than in what was written "long before the theory of evolution was seriously contemplated." Has Dr. Kidd read Spinoza? "In the eyes of God each thing is what it has the means of being. There is no rebellion against him, and no resistance of his will; in truth, therefore, there neither is, nor can be, such a thing as a bad action in the common sense of the word. Actions are good or bad, not in themselves, but as compared with the nature of the agent. What we censure in men we tolerate, or even admire, in animals, and as soon as we are aware of our mistake in assigning to man a power of free volition our notion of evil as a positive thing will cease to exist." "The brains that are so marvellously forwarding medicine and surgery" are "busy" precisely because they have received the powerful stimulus of Darwin's biological teachings. Would there have been a Pasteur or a Lister without Darwin? What is it that constitutes a *primâ-facie* argument in favour of the truth of the parasitic origin of disease? The idea that man has not yet emerged from the struggle for existence against inferior forms of life; as his palæolithic ancestor fought against the sabre-toothed lion with sharpened vision that detected the tracks of his enemy, and the flint celt or pointed arrow, so modern man, subjected to the dangerous surroundings inseparable from civilised conditions of life, struggles against enemies that he detects by the microscope and overcomes by the weapons of hygiene. I hardly know where to place Mr. Samuel Laing amongst the formidable category that are expected to protest against the teachings of "transcendental specialism," but is he likely to object to the attractive accession to his theories provided for the next edition of a modern Zoroastrian by the recent discovery of antitoxin? Would Max Müller hesitate to affirm under the influence of what theory he conceived his lectures on the Science and Stratification of Language, or on the Science of Religion? Does Lord Kelvin find his faith shaken because the disproportion between his chronological estimates and the time exacted by Sir C. Lyell and Geikie for the evolution of geology is as damaging as the discrepancies in chronology between the views of Archbishop Usher and those of any modern theologian?

Similar queries might be addressed to the representatives of other sciences—to the historian, for instance; for surely the presumption that they are entering the lists against the theory of evolution is delusive? Unless, indeed, Dr. Kidd means the mere annalist, who was by turns the delight or bane of our boyish days. The true historian is a student of sociology, and the great exponent of this science tells us that "sociology is the study of evolution in its most complex form." Even where writers like Froude and Kingsley demur to Herbert Spencer's position that there is "natural causation throughout the actions of incorporated humanity," their method of treating history is in tacit agreement with this view. Finally, so far as the archaeologists are concerned, I might consult our authority here on the subject, Dr. Sturge; but if he were asked whether the few missing links in his beautiful collection of implements, that illustrate the evolution of the axe from the rude palæolithic celt to the keen instrument of the modern American backwoodsman, had led him to believe any less firmly in the truth of the theory of transformism I am sure his answer would scarcely be favourable to the position assumed by Dr. Kidd. I remain, Sirs, yours faithfully,

Nice, Dec. 1st, 1894.

A. W. GILCHRIST.

"DEATH UNDER CHLOROFORM IN A DENTAL SURGERY."

To the Editors of THE LANCET.

SIRS,—Knowing nothing of the case beyond what I have read in the annotation under the above title in THE LANCET of Dec. 1st, I make no comment on this the latest fatality from chloroform in the dentist's chair, nor would I suggest that the employment of the chosen anæsthetic was not fully justified by special circumstances which may have existed; but after an experience of over a quarter of a century in hospital and private practice I do venture most emphatically to affirm that the cases of dental operation in which chloroform or ether can be considered indispensable are so rare that practically it may be said the use of these always dangerous agents in ordinary dental surgery is unjustifiable. Nitrous oxide gas is *par excellence* the dental anæsthetic. The cases in which it does not in every way suffice are highly exceptional, and much more can be done with it than seems commonly supposed. In the few instances in which a large number of teeth need to be extracted—teeth beyond the reach of conservative treatment, which nowadays is able to save so many—it is, as a rule, not necessary to remove all at one sitting. There is, moreover, no difficulty in giving gas on one occasion repeatedly, or at least two or three times in rapid succession. In many cases, a few teeth or stumps having been drawn and the effect of the anæsthetic passing off, the inhaler can be reapplied, anæsthesia again induced, and more extractions can be performed without the patient regaining consciousness. In cases where the jaws are closed in consequence of inflammation extending from around molars or "impacted" wisdom teeth, and gas anæsthesia would not afford time to force the jaws apart and remove the offending teeth, the operation may be divided into two parts. The mouth may be first opened by the screw gag, and then the gas may be given again for the extraction. In most cases the second administration may be begun before the effect of the first has entirely passed off, and the patient may be as effectually spared both terror and pain as with any other agent. In the very few dental cases where chloroform is really called for it ought never to be given in a chair. The patient should always be recumbent, undressed, and prepared in the way usual when surgical operations are contemplated. The patient may recline on an ordinary couch, with the shoulders raised on pillows and the head thrown slightly back, the dentist standing either on the patient's right or behind the head. In one or other of these positions the operator can conveniently deal with any tooth in either jaw. I remain, Sirs, your obedient servant,

3 Cavendish-square, Dec. 1st, 1894.

HENRY SEWILL.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

To the Editors of THE LANCET.

SIRS,—With many others I anxiously hoped that in antitoxin we had found, if not an antidote to diphtheria, a useful adjuvant to the treatment of that disease. Personally, I have been disappointed, and I give below the results of my experience with "Aronson's" preparation. My first case this autumn was that of a boy aged eight years who showed membrane covering both tonsils, uvula, and soft palate. The case was a severe one, but fortunately confined to the faucial region. Treated with iron, sulphurous acid spray, and good feeding the initial stage was passed through. Paralysis set in, but eventually recovery took place, and the boy is now well. A month afterwards his cousin, aged seven years, living in another neighbourhood, was taken ill with croupy cough; his tonsils showed patches of membrane, which had obviously invaded the larynx. Twenty minims of antitoxin were injected, with marked temporary recession of fever and acute symptoms; the respiration being impeded tracheotomy was performed, but the child, a very strong one, died of cardiac failure four days after the injection. In this case the rapid shedding of membrane was a grave source of danger, as the wind-pipe was constantly blocked, and was obliged to be cleared with laryngeal forceps. The patient had begun to recover from the membranous stage when he suddenly died. My third case, which I only mention because it infected the fourth, occurred in the Isle of Man. The true nature of the disease was, I think, overlooked, but I found, when first