

There was an amendment on the paper to omit the penalty as to practice.

The SOLICITOR-GENERAL: On that point you are satisfied with the Bill as it stands?

Dr. HELME replied in the affirmative, and added that the third point to which he wished to direct attention was the need for the insertion of a statutory penalty for malpractice and misconduct, including in the term misconduct the omission to send for the aid of a medical practitioner in case of abnormality or illness in the mother or child. The absence of such a penalty would result in this, that the midwife would, in the hope that something would happen to relieve the difficulty, defer sending for a medical man until the damage was done. If fever ensued, the midwife might likewise temporise until the evil was irreparable.

The SOLICITOR-GENERAL said that from what took place in the Committee he had the impression that this point also might be dealt with by rules made by the Central Midwives Board. Removal from the roll would be a very considerable penalty.

Dr. HELME observed that removal would have to be carried out by the Midwives Board, and not by the local supervising authority, so that a wretched midwife would have to be prosecuted before the Central Board for what might be a comparative trifling failure in her duty. He agreed with Dr. Woodcock that the representation of the medical profession on the Midwives Board should be so provided that the different districts of the country were represented. The last point with which he would deal was the absolute necessity for direct medical supervision of the midwives locally. Under the Bill the county council would be the local supervising authority, but might delegate its powers to a district council, which again might delegate them to a committee. But there was no provision that there should be a strong medical voice on such local committee, so that the midwives in a district would be under no sort of medical control, for they would not be compelled to send for a medical man. As an example of one of the directions in which control was needed, he observed that in Germany and in Austria the midwives were compelled to carry with them certain instruments, which they were required to submit to inspection. In order to carry out local medical supervision it was considered necessary that there should be either a special medical officer or a committee of, say, three medical men acting under the local supervising authority, and responsible for the proper working of midwives, to whom any laxity on the part of the midwife could be reported by the husband or friends of the lying-in woman, and the matter dealt with quickly, without the necessity of appealing to a central Board in London.

Mr. VICTOR HORSLEY said that as a member of the Committee of the British Medical Association which had drafted the Bill, which would be forwarded to the Solicitor-General, he would touch upon two points. The first was one which he already had had the honour of bringing to the notice of the Solicitor-General when he had addressed him as a member of a deputation from another body. As a consequence of what had then taken place he had already forwarded to the Solicitor-General a copy of the clause of the Bill of the British Medical Association which dealt with the question of character. The members of the Association felt very strongly that no woman should be able to obtain the entry of her name on the Midwives' Roll to be formed under the Bill unless she produced evidence not only of a certain efficiency, but also of good character. The Association did not consider that the Obstetrical Society should find a place in the statute, because it was merely a private society and was not recognised by the medical profession as a proper body to be given statutory authority. Again, the Royal College of Physicians of Ireland, which was also mentioned in the Bill as a body whose certificates were to be recognised by the Midwives Board, has ceased to grant its certificates. The mention of these two bodies was therefore not only undesirable, but inappropriate. With regard to the definition of midwife, he was aware of the difficulty of drafting a satisfactory definition. He gathered that Mr. Heywood Johnstone, the promoter of the Bill, had promulgated what might be called the last definition, in order that the Bill might not interfere with the duties of "monthly nurses;" he thought that Mr. Johnstone had fallen into an error as to the use of the word "attend."

Medically it had a fairly specific meaning: it meant that the person who "attended" in illness was taking over the responsibility of the medical care of that illness. This was not what a monthly nurse professed to do. She professed only to wait upon a woman who was attended by a medical man. Mr. Johnstone had thus raised a bogey which could very easily be disposed of, but not in the way proposed by the definition in the Bill. That definition, if it meant anything at all, meant that a midwife was a person capable of practising midwifery, which implied the practice also of medicine and surgery to a certain degree, without any control from a responsible medical practitioner, and without, as a matter of fact, any help from him. The British Medical Association felt further that nowhere in the Bill was there any statutory prohibition of the midwife continuing to take charge of a case after she herself had recognised that a difficulty or danger had arisen. While the Bill was in the Standing Committee it was said that this matter might be provided for by rules made by the Midwives Board. The deputation desired to point out on behalf of the British Medical Association that the rules of the Board might be one thing, but to compel the Board to carry out the rules might be quite another. It was submitted that no Board would care to assume authority not specifically laid down in the statute in a definite way. This was really a very critical point. The General Medical Council had experienced an analogous difficulty in the administration of the Medical Acts. The only punishment which the Midwives Board could inflict would be removal from the Roll; this was a Draconian punishment which the Board would hesitate to enforce. If a midwife accepted responsibility which she ought not to accept she ought to be suspended, and upon a serious question of this kind the Board ought to have behind it a specific provision in the statute as a reason justifying them in taking a step which would hinder a woman in gaining her livelihood. It was with the view of strengthening the hands of the Board that this point was pressed, and it was hoped that it would be adopted in the form indicated in the draft Bill which the Association had constructed.

The SOLICITOR-GENERAL: Gentlemen, I will only express the pleasure I have had in seeing you, and of hearing your views on the very important matters connected with this Bill to which you wish the attention of the Government to be directed. I shall be very glad indeed to have a copy of the Bill, with the amendments which you consider desirable, and I shall be very pleased if that can be accompanied by a memorandum setting out, tersely, the reasons in support of each amendment which the Council would most desire to urge. I can only say that what you have said, and the representations which I will see in writing, will have the full consideration of the Government before they take any action with regard to this Bill.

Dr. FARQUHARSON having thanked the Solicitor-General the deputation withdrew.

THE UTILITY AND THE ETHICS OF EXPERIMENTS ON ANIMALS.

WE have received the following letter from Mr. Stephen Coleridge, Honorary Secretary and Treasurer of the National Antivivisection Society, Victoria Street, S.W.:

SIR,—Your reviewer, being faced with clear evidence from the *Journal of Physiology* that animals are dissected alive under curare alone, is forced either to admit that animals are dreadfully tortured or to assert that to the best of his belief curare is an anæsthetic, and he chooses the latter horn of the dilemma.

My reply is clear. We say that, after all the evidence on the matter was recorded in a Royal Commission, Parliament enacted that curare was not to be considered an anæsthetic (39 and 40 Vict., c. 77, Sec. IV), and that therefore, by the law of England, to dissect a dog alive under curare alone is to torture it. I enclose a copy of my Bill, which if passed would make all torture illegal, and provide proper means to prevent its occurrence in laboratories. Your reviewer seems to endorse Lord Lister's Liverpool statement that torture is unnecessary, and I shall therefore be glad to know upon what ground he and you and some of the medical profession oppose such a measure.

As to Sir J. Burdon Sanderson's words at the Middlesex Hospital, I think it is your reviewer and not I who has endeavoured "to put a gloss upon them." The words as the Professor used them meant exactly what I originally took them to mean; and when your reviewer endeavoured to put a gloss on them, I was quite justified in pointing to this Professor's actual performances to dissipate that gloss; and I may add that as, according to the heading of this controversy, we are discussing the ethics of experiments on animals, it is interesting to observe the silence of your reviewer on the moral aspect of causing dogs to breathe the same air in and out of india-rubber bags until they slowly die of suffocation. To do such things does not strike some of us as very manly, though it may be wonderfully scientific; and it would be refreshing and would allay much of the bitterness of controversy if your reviewer and other humane medical men would candidly condemn such acts.

Let there be no mistake as to what those acts are. I referred your reviewer to the page of Sir J. Burdon Sanderson's book where he would find the horrible torture of dogs by slow suffocation. The passage begins thus:

"Asphyxia by slow suffocation. When an animal is allowed to breathe the same quantity of air repeatedly and continuously out of a bag, the process being of much longer duration" (than in the case of simply plugging up the windpipe previously described) "the phenomena can be studied with greater facility, etc."

I will not quote further, as to copy out the details of such cruelties really makes me sick; yet with this reference before him your reviewer says that he has "never yet seen an animal tortured, nor any evidence of such a thing." He cannot say that this is not torturing dogs; then let us hear whether he will do us the justice to condemn Sir J. Burdon Sanderson for what he has inflicted without pity and recorded without remorse.

We have been frequently told before by vivisectors that they have never seen any cruelties take place in laboratories. This may be true. There are many policemen who have never witnessed the torture of a child, but I do not therefore doubt that children are tortured. Also I may say that, as the annals of our courts show that persons of all classes from the highest to the lowest have been found guilty of torturing children, I see no reasonable ground for supposing that vivisectors, who by profession must necessarily have peculiar opportunities for cruelty, are exempt as a class from an emotion that has dominated a percentage of mankind since the world began.

As to your reviewer's hypothetical case, I really have no desire to evade any legitimate issue. In effect he asks me whether if I had a daughter she would like cheese. I reply that I have no daughter, which is a perfectly justifiable reply. It is not so long ago that I seem to remember hearing of the marvellous efficacy of a germicide spray in assisting the healing of wounds, and I have an impression that its inventor received a splendid reward for his gift to suffering humanity. What has become of that germicide spray? Its sad fate may soon be shared by the serum syringe. In the meanwhile we shall surely be well advised to decline both spray and serum for ourselves and our families. The hypothetical father was right, and that is my answer; what is wrong is the assertion that the child died for lack of a serum syringe, whose value for diphtheria is entirely hypothetical, and whose effects upon the patient in other ways can hardly be claimed to be beneficial.

As Mr. Paget mentions me in his letter to your paper, I must say a word in reply. With his quotations from the *Zoophilist* I have no personal concern. I am not the editor. When a counsel attacks his opponent's attorney it is accepted as an indication that he has no case. Mr. Paget, despairing of finding any inaccuracies in my criticisms of his book, searches the files of the *Zoophilist* for instances of folly or bad style. I certainly decline to follow him by tediously collecting specimens of abuse of antivivisectors from the medical journals. Apparently, when the *Zoophilist* complies with the recommendation of his friend, Dr. Donkin, and fights with the gloves off, Mr. Paget does not like it. Mr. Paget, however, quotes two sentences out of my own review of his book, and apparently suggests that there is something the matter with them. I must ask him to formulate his complaint and I will then reply to it. His alluding to the leaflet, "M. Pasteur's Hecatomb," as "notorious," does not invalidate its statements, nor does the astonishment he affects that I should

quote it as evidence of the number of deaths avail him as an argument. I suppose what really has astonished Mr. Paget is the evidence there accumulated of the terrible number of persons who have died of hydrophobia after receiving Pasteur's treatment.

Mr. Paget complains that I quote "the death-rate of diphtheria (1897) without giving the case mortality." Will he kindly inform me upon what page of the Registrar-General's returns I shall find the case mortality?—I am, etc.,

Victoria Street, S.W., April 30th.

STEPHEN COLERIDGE.

We have referred Mr. Coleridge's letter to our reviewer, who writes:

The first paragraph in Mr. Coleridge's reply is to be regretted; if he will re-peruse my articles I think he will find that I have expressed my opinions freely and candidly throughout, under no pressure whatever; and the expressions to the contrary in this paragraph should be withdrawn. As to the matter of it, if it be assumed for purposes of argument that curare paralyses the animal without depriving it of consciousness (a point on which my testimony is of as little value as that of Mr. Coleridge) I grant at once that its use would be unjustifiable. The second paragraph of Mr. Coleridge, if free from offence, is, as concerns myself, inaccurate; I have never opposed his Bill; such indeed is my ignorance of current politics that I had never heard of it. I am much obliged to him for sending it to me; but as hitherto we have been studying matters of principle I trust I may put it on one side for the present.

In Mr. Coleridge's first reference to Sir John Burdon Sanderson he was understood by myself and others to adduce a certain speech of his to prove, or to indicate, that Sir John countenances, or would countenance, experiments of an improper kind on the patients of a hospital. I was not and am not of opinion that his words indicated such countenance. It is difficult to go farther without thrusting upon Sir John Burdon Sanderson a championship which he has not sought, does not need, and probably does not desire.

Mr. Coleridge proceeds in unqualified language to describe the "horrible torture" of dogs by Sir John Burdon Sanderson who, as it appears, caused them to breathe the same air in and out of bags until they "slowly" died of suffocation; he adds that the reviewer cannot say that this was not torturing dogs. Well, I do not know offhand what I can assert or deny herein; but in order to come to a provisional opinion I must turn for help to Mr. Coleridge's definition of torture as "shocking and horrible agony." Now I suppose that the animals in the bags suffered as Mr. Coleridge and I suffer when in a railway carriage full of passengers who by tenaciously guarding the closed windows "slowly suffocate" us and themselves. The sufferings of these passengers at the end of a long journey are visible enough in languid limbs and livid cheeks; yet anaesthetised in the process they even angrily resent any mitigation of it. Or, if the dogs were not suffocated quite so slowly as this, the process may be likened to that of the dentist who makes us breathe in and out of bags till we are lost to all things. Such an anaesthetic is carbonic acid; the professor's dogs were not garrotted, but, so far as is apparent in the quotation, were carried painlessly into their endless sleep.

Once more Mr. Coleridge has dealt with my hypothetical case, and I have read his words three or four times over, but without enlightenment; they do not seem to be helpful, and they do seem rather flippant. In my original review I set forth this hypothetical case, and stated that I had put it as a test of principle. to the authors of a pamphlet which I shortly described as emanating from the Society of Friends. I added that the subscribers to this pamphlet had not answered me, and I did so under the impression that an answer had been evaded by silence. I desire to withdraw this suggestion; the long delay turns out to have been due to ordinary business causes, and a few days ago I received an answer, the chief part of which had been written before the writer had seen my reflection on the delay. Much to my regret I am unable to make any public use of it, for it is an answer which I have read with much sympathy and interest. Thoughtfully and faithfully the writer deals with my test case, and faces the difficulties which it uncovers without reserve; that his conclusions are not, in all respects at any rate, such as I can personally accept is true, but they are nevertheless the opinions of a candid and penetrating mind.

Mr. Coleridge would seem to think that I had invented this case to tease him or entrap him, and that he is justified therefore in evading it. This is far from my purpose. The test case lies near the root of the problems involved in experiments on animals, and, as it will not be necessary for me to return to the matter, I would seriously invite all persons utterly opposed to these experiments to address themselves to the considerations it introduces. If serious persons, such as my correspondent on behalf of the Society of Friends, will join us in defining the grounds on which to join issue, we shall win our way nearer the truth, or the agreement which we both desire. Experiment upon animals brings us face to face with many grave matters of science and of ethics which cannot be unravelled by the brisk interchange of attack and repartee, by tilting at each other with an eye to immediate victory. I admire the dash of the awless Dr. Donkin, with his sure opinions and invincible pen, and I admire the spirited combat between him and his undaunted opponent; yet when the scrimmage is over and I turn my eyes back to the scene of it, and in my purblind way endeavour, with the aid of Mr. Coleridge, to find again the tracks of the light foot of Nature which unhappily to me are at all times very hard to find, and very uncertain when found, I discover with dismay that they are all trampled out in the fray, and the search must begin over again. Baffled but not disheartened, we try once more to set out some bearings for our guidance; otherwise, like wandering beggars who, having no home, can never be said to be on their way, we may fare far and be no nearer where we would be. Let us thus set out some such lines as these:

1. By one method only have the foundations of any science been laid and its structure carried upward; namely, by the experimental method.

2. The experimental method consists in verification, and the more complex the phenomena the more the need of verification, that is, of experiment; experiment, therefore, if useful in physics and chemistry is still indispensable in biology.

3. By a knowledge of the laws of life—by the study of biology in a word—and by this knowledge only, can we hope to manage living function and to prevent disease, whether in individuals or communities.

4. As a matter of history, during the interval between Galen and Harvey, when verification was neglected, medicine fell into utter degradation, and instead of a solace became a curse to mankind.

In the seventeenth century the experimental method was applied to physiology and with brilliant success; it will not be asserted by the hardiest sceptic that the achievements of the last two hundred years in this science are but moonshine.

Now let us look again where we are: The next step seems to be to prove that this brilliant illumination of the laws of living function has, as applied science, been prolific in the protection and increase of public health, and in remedies for bodily suffering, whether of man or animal; but before taking this pains the previous question is raised, and properly raised—nay, I will go so far as to say that it is an honour to our country that it has been raised—namely, Are we justified on ethical grounds in pursuing this method, fraught with whatsoever rewards? Until this point is settled, all argument as to the successes of practice is premature, if not irrelevant. This is the meaning of my test case; granting the remedy, granting the protection, are we morally justified in the pursuit? If we are not, the advantages, small or great, must be forgone. Now, I think that Mr. Joseph Fry and his co-signatories answer this question in the affirmative, if I may judge from the private letter I have received from one of them, anxiously as they have weighed the gravity of the issue. Whether Mr. Coleridge has categorically made the same statement or would make it, I cannot say, as he declines to reply to my test of his opinion; probably he shrinks from so grave a decision. Inferentially, he seems to admit that experiment on living animals is justified, as he argues that the rewards are, as yet at any rate, disappointing. With him then the propriety of such experiment would seem to be a matter of how much can be got out of it for the use of man; that if this advantage prove after all to be considerable, the method must go on,

the animals so used being preserved as far as may be from possible abuses in the laboratory. If this be not his opinion, why bewilder himself and his lay readers with arguments on pathological appreciations which, extremely complex and deceptive even to professors of the subject, cannot be dealt with by the inexpert, even tentatively, without instant confusion; as witness the crude example of the suffocated dogs?

If it be said that physiologists are likely on their side to exaggerate the value of their own discoveries, the physicians who use their results, not being physiologists, being, indeed, like all English practical men, even too mistrustful of science, will, we may be sure, take down the conceit of extravagant professors. Yet who, taking a broad view of the advance of our knowledge of the laws of life, can be so profoundly faithless as to anticipate no advantage from it in dealing with the perturbations of life? Sir John Burdon Sanderson was pioneer of those who have revealed the intimate nature of tuberculosis in man and animals. Upon experiment on animals the discovery of the intimate nature of cancer is now depending, and may soon by it be brought to light; and so forth concerning a score of diseases, plagues of man and animal alike: the vast uses of such knowledge leap instantly to light: if not in cure in prevention, which is far more than cure. Now is the ethical sanction such as to forbid us to experiment on animals, however considerably, or, born, as are we all, man and animal alike, in a world of pain and death, shall we by some sacrifice make the inevitable toll to fall as lightly as possible?

One more reflection I must make and I have done; but in making it I wish to disavow any thought of Mr. Coleridge: is there not in the untempered and rather fantastic language used about physiologists to be detected some of the grudge which Englishmen, alone in the civilised world, cherish against all science and the professors of it? Not only is the ordinary Englishman (I purposely exclude the Scotchman and the Irishman) averse from science, but he "bites his thumb" at it; he dislikes it sullenly with the moroseness of the undisciplined classes for the civil order. This is, indeed, strange in a nation which can show so great a roll as hers of philosophers and men of science from the time of Alfred to the present day. This wilfulness of the untrained intelligence, contrary as it is to the spirit of France, Germany, or the United States, is probably due to the scantiness of university training in England. Until our own day Oxford and Cambridge not only stood alone, but even they took no pains to reach the middle classes. A better state of things is arising, has arisen, and this jealousy of science will be mitigated; there will be, I trust, no less difference among men, but their arguments will be more urbane, and what is better, more to the points. As regards Mr. Coleridge let me repeat, lest I be misunderstood, that I have to thank him for the courtesy with which he has treated my opinions, but that I do not propose to continue this correspondence.

THE REVIEWER.

TUBERCULOSIS IN GREECE.—According to the bills of mortality published every month under the auspices of the Greek Ministry of the Interior, the disease which claims the largest number of victims in the towns of that country is tuberculosis. Of 261 deaths recorded in Athens in December, 1899, 33 were due to tuberculosis. Another noteworthy point in the mortality of Greek towns of more than 10,000 inhabitants is the great disproportion between the number of male and that of female deaths. Thus, at Athens, of the 261 deaths in the month referred to, only 94 were those of women; of 71 persons who died at Corfu, 31 were women; of 41 at Syria, 25 were men; of 36 at Pyrgos, 21 were men. In only one town—namely, Larissa, did the number of women who died exceed that of the men; there out of a total of 43 deaths 24 were of women.

BEQUEST.—Mrs. Isabella Lewis, of East Farleigh, Kent, who died on January 4th last, has devised real estate in trust to University College Hospital and to the London Fever Hospital. She has also bequeathed £10,000 in trust for the London Hospital and for St. Mary's Hospital, Paddington, subject to the payment of its interest to her survivors. The ultimate residue of her estate is left to the latter hospitals. The estate has been valued at £178,325 gross.