

THE RESEARCH DEFENCE SOCIETY
AND THE
NURSING PROFESSION.

By

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OF all the marvellous changes wrought by the application of scientific methods of study to the practical problems of life, there is none which has been more remarkable than the change which has been wrought in the sphere of Human and Veterinary Medicine, through the knowledge of the functions of the various organs of the body, and of the diseases affecting them, obtained by observations carried out on animals. Harvey's classic discovery of the circulation of the blood, made by means of such experiments, was followed by a long series of patient investigations, which have given us our present accurate knowledge of the details of the circulatory system, the ways in which diseases influence it and the action of the various drugs which can be used to prolong the life or to relieve the sufferings of those afflicted with cardiac diseases.

In the same way in the case of each of the other systems of the body, the experimental method of research has given us a valuable insight into the functions of its different parts, and has made really rational methods of treatment of disease possible. Actions of drugs, at which our predecessors could only roughly guess, have been precisely ascertained, and valuable indications for their practical use have been obtained. A vast number of newly-discovered chemical substances have been tested as regards their physiological action, and, every here and there, some one has been found to possess properties the discovery of which has given it a place in the list of our modern remedies. The newer and safer hypnotics, for example, many of which have been found so invaluable in asylum practice, have all been brought to light in this way. Samples of new consignments of the more important alkaloids, received by the larger firms of manufacturing chemists, are regularly tested on animals to ascertain whether they are active or not, before they are accepted.

In the great field of abdominal and pelvic surgery, undeveloped until recent times, because of our ignorance as to what the results of operative interference with particular organs would be, the surgeon has felt his way by means of experiments on animals. That great modern series of "otomies" and "ectomies," that have meant the restoration to active life and vigour of so many useful men and women, who were otherwise doomed either to death or to chronic invalidism,

has been led up to by pioneer operations performed on animals. Similarly, in another field of surgery, experiments which have revealed the functions of different parts of the brain, have rendered it possible accurately to locate the position of a hæmorrhage or a tumour by observing the symptoms it causes, and to operate with an exact knowledge of where to trephine, undreamed of by the "human carpenter" of former days, however skilled he was. Researches upon the functions of the spinal cord, too, have revealed to us what can and what cannot be done in cases of broken back, to relieve the symptoms of that condition, so trying to treat and to nurse. One might fill pages with accounts of what Experimental Science has done for Surgery, Clinical as well as Operative, without exhausting the record.

The immortal researches of Pasteur, one of the earliest results of which was the introduction of Antiseptic Surgery, founded the science of Bacteriology. It has led to the discovery of prophylactic inoculations, such as those for Plague and Anthrax, of curative antitoxins, such as those for Diphtheria and various forms of suppuration, and of the vaccine treatments for tubercle of various organs and joints, for boils, for bronchitis and for various other conditions. Those anti-bacterial agents may be called the weed-killers of the body, but their discovery could no more have been worked out without the aid of animal tissues to experiment on, than the invention of a weed-killer could have been worked out without soil.

One most gratifying fact about the use we have to make of the lower animals for the advancement of Medicine and Surgery, is that the animal suffering it entails is so very small compared with what has to be inflicted in many other pursuits involving animal suffering, and can be subjected to so many artificial restrictions not practicable elsewhere. The Act regulating experiments on animals in Great Britain restricts experimentation absolutely to qualified persons, obliges those who apply for licenses to state the purpose to be served by their experiments, forbids any operation involving pain to be done without an anæsthetic, lays it down that unless a special license is held, the animal must be killed without being allowed to recover from the anæsthetic, provides for the animal being destroyed if suppuration or other painful condition results from an operation, and has special clauses limiting experiments on dogs and cats to those which cannot be carried out on any other animal.

It may safely be said that not only does no animal in a British laboratory have to undergo anything that human beings have not to undergo any day, but that the artificial restrictions on what the animals may suffer put them at a distinct advantage as compared both with sick animals and sick men in the world of Nature, where disease may be, not a matter of days or weeks, but of months or years.

And, unlike human beings, the animals know nothing of fear for the operation that is to be to-morrow, nothing of anxiety for loved ones, nor of haunting cares for the future. The kindly hand that ends their limited sufferings, when those have served their turn, can never be stretched out to put the cancer-stricken man or woman out of pain. Looking back on all he has seen as a student, in the laboratory and in the hospital, how fervently can a medical man exclaim, "The animals have the best of it."

Again, it would be the gravest mistake to think that it is respect for the law alone that prompts the considerate handling of the subjects of experiment. Observations made on animals living under unhealthy or uncomfortable conditions would not yield accurate results, and physiological experiments made on organs that are under the influence of the emotions, the digestive organs, for example, would be spoilt if the animal's mental equilibrium were in any way disturbed. Many an overfed dyspeptic lap-dog, many a dirtily-housed "pet" guinea-pig, might envy the comfort of the occupants of the laboratory.

And, to go further afield, to where animals have admittedly to suffer for man's profit or man's pleasure, what of the cargo of a South American cattle-boat that has been dashed about in an Atlantic storm, of the badly-winged grouse that the dogs have not found, lying on the moor with the cold night-air biting at the ends of its shattered bone, of the rabbit that writhes in anguish in the jaws of the trap, of the crow that expiates its offence against the gamekeeper, in the agonies of strychnine poisoning? The pain they must endure is such as no animal in any laboratory over the whole of Great Britain ever has to suffer.

And yet people, to whom their fate is an every-day matter, something that is a pity, but that cannot be helped, subscribe enthusiastically to societies for the abolition of "vivisection," a term so inapplicable to modern research work on animals, and learn from them to speak of medical scientists as if they were fiends! What is the reason of this strange inconsistency, which has always been such a puzzle to the medical profession?

The main reason probably is that the sufferings outside the laboratory, though far greater than any endured within it, are such as can be fairly definitely judged of without special knowledge, and are not surrounded with that air of mystery which has hung over the subject of possible sufferings inside it. It must be remembered that, until quite recently, there was no regular means by which a "layman," who wished to know anything of how experiments are conducted, could obtain information from persons actually conversant with laboratory work. This has had much to do with the misunderstanding and prejudice that have gathered round the subject of research.

The Research Defence Society was founded in London in 1908 to make known the facts as to experiments on animals in Great Britain, the immense importance to Medical and Veterinary Science of such experiments, and the great saving of life and health directly attributable to them. The Society gives popular lectures on the subject of medical research, publishes literature dealing with it, and gives facilities to those who wish to make enquiries about experiments on animals. The subscription for members is from five shillings, and for associates one shilling a year.

As the work of the Society has extended, branches have been founded in various places in England, Scotland and Ireland. The membership, medical and lay, is steadily increasing, and already includes over 3,500 ladies and gentlemen. It is becoming more and more evident what a real want it was that the Society is now filling.

As an example of the literature sent out by the "anti-vivisection" societies, and of the one-sided view of science which the R. D. S. exists to correct, may be taken a leaflet that has had a wide circulation at the hands of lady collectors. On one side, under the heading "How dogs treat us," is a picture of a fine mastiff that has saved a child from drowning. On the other side, under the heading "How we treat dogs," is a reproduction of an illustration from the *Journal of Pathology*, showing a dog in an extreme state of emaciation, with a cutting from the letter-press of the *Journal*, stating that the dog had been inoculated with "trypanosomes."

Now what has been omitted from this leaflet? Just this, that trypanosomes are the cause of Sleeping Sickness, Nagana, and others of a class of diseases, the scourge of Africa, from which hundreds of thousands of human beings, and millions of animals have died, and death from which is waiting for millions more. The animals, no less than human beings, have a heavy stake in the success of scientific investigations into this class of disease, such as that in which this animal was inoculated, and which have already begun to bear practical fruit, thanks to the labours of the Sleeping Sickness Commission.

Similarly, by the method of scissors and paste, other facts connected with experiments are constantly being isolated from the context that would explain them, and put together to form one long indictment of Medical Science. This is why the literature of the "anti-vivisection" societies gives so distorted a view of research on animals, a view the unfairness of which, one is bound to say, is probably never realised by those who are employed to present it.

One freely admits, too, that if there are any who have participated in the "anti-vivisectionist" movement from interested motives, this, at any rate, cannot be said of the ladies who form the great majority of the

subscribers to its finances. As one who has read much of the literature of different societies, and who has lost no opportunity of conversing with "anti-vivisectionists" he has met, in order to be able to understand their point of view, the writer is prepared most heartily to allow that it is their kind-heartedness that has led those ladies to be attracted into enlisting in this movement, that has so much the appearance of being a humanitarian one. But they cannot escape the responsibility of having caused thousands of pounds a year, that might have gone to charities for men and animals, to be wasted on a crusade for which not one single sick or suffering creature is at this movement one bit the better. Nor can they escape the responsibility of having allowed a habit of credulous readiness to think evil of others to grow upon them, that has given their sex a reputation that it does not deserve, with a profession that has many reasons deeply to respect it.

The members of the nursing profession are particularly well fitted to take a share in removing this reproach. Their training makes them able, much more easily than other ladies, to understand how necessary scientific investigation into disease is, and how perfectly compatible it is with careful and considerate treatment of the animals that have to be used in those investigations. They have none of that vague distrust of the medical profession that people are apt to have who are little in touch with members of it, and which is so easily played upon by the pseudo-humanitarian, yet they frequently meet and talk with those who are affected by it. If not many nurses can afford to become members of the R. D. S., the associateship is within the reach of all, and provides for whatever is required from among the society's publications. It is not the intention of the writer to suggest what particular nurses can do in the way of assisting the cause the Society has taken up; he must leave them to suggest that for themselves, but he is confident that at least none will say that the defence of medical research, and of the honour of those engaged in it, is a matter in which they are not interested.

Miss Dock writes to thank all those who have sent material about Indian Nursing for the 3rd volume of "The History of Nursing" which she and Miss Nutting are publishing.--Ed.
