

Friends of animals : an address delivered at North Berwick, East Lothian, on March 19th, 1910 / by J.L. Marjoribanks.

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RESEARCH DEFENCE SOCIETY.



Friends of Animals.

AN ADDRESS

Delivered at North Berwick, East Lothian,

On March 19th, 1910.

BY

Major J. L. MARJORIBANKS, M.D.,

INDIAN MEDICAL SERVICE.

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Founded in January, 1908, to make generally known the facts about experiments on animals in this country, and the regulations under which they are conducted; the immense importance of such experiments to the welfare of mankind; and the great saving of human and animal life and health which is already due to them.

The Society gives information to all who desire to examine the arguments on behalf of experiments on animals; makes all necessary arrangements for lectures and debates; and publishes and distributes literature. Its present membership (May, 1911) is above 4,000. It also has about 350 Associates.

The minimum subscription, for working expenses, is five shillings,—but undergraduates and students of medicine are eligible for membership at an annual subscription of half-a-crown. Larger subscriptions, or donations, will be gladly received. Associates pay a subscription of one shilling. A donation of £10 constitutes life-membership.

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Friends of Animals.

LADIES AND GENTLEMEN,

I think I have hardly ever made a speech in my life. I certainly have never delivered an address before to any audience; and you may believe me when I assure you that I should have been very glad to go back to India without volunteering to give an address on what is to some people rather a sore subject, if I had not felt that I had something to say which I was qualified to say, and which wanted saying very badly indeed.

Now, there is an old maxim that tells people that if there are subjects on which they might perhaps disagree, the best thing for them to do is to find something to speak of first, which they are sure to have in common.

Well, if that is so, let me say that I hope that at least a good many of my audience are fond of animals, for I shall be with them there. Of course, we are not all so fond of one animal as of another; but at any rate so far as dogs and cats are concerned there is no one who has more reason to be fond of those animals than a man like myself, who knows what it is to have travelled about from strange place to strange place without having seen a white face for sometimes months at a time. When you do that, you learn to appreciate what a companion in loneliness a good dog or cat is.

Even in this country, and especially now that there are such exquisite breeds of dogs and cats, there is a temptation which is apt to assail one, the temptation to think more of one's dog or one's cat than of some human beings. Well if there is anyone who is exposed to that temptation it is an Indian district officer. When you have been surrounded all day by strange natives, natives who want to get something out of you, natives whom you want to get to do something that they don't want to do, and when you sit down alone in your tent after dinner, you are very apt to stroke the head of your dog or your cat and to say "I think a sight more of you than I do of all those human beings."

There is another subject on which I might touch, and perhaps find less unanimity in my audience, the subject of sport. Now, I say nothing against sport. "Nimrod was a mighty hunter before the Lord," and there are mighty hunters before the Lord to-day. Some men in my own profession are sportsmen. But there are some members of it, and I am one of them, who do not shoot just because our work makes us realize a little too well what pain means; it spoils the fun of shooting.

Now, I make no virtue of the fact that I prefer to see the birds and beasts enjoying themselves. But as I do miss a good deal of fun, because I am too apt to look at sport from the point of view of the

animals, I think I have as good a right as anyone to claim to be able to look at the matter of experiments also from the point of view of the animals. For years I have been a member of a Society for the Prevention of Cruelty to Animals, and I can assure you that if there were any real foundations for the cruelties alleged, against men of science, by those who are opposed to experiments on animals, I would never have had anything to do with the Research Defence Society.

Though I have never done any experiments on animals myself, I am quite familiar with the experiments that are carried out in laboratories, and it seemed to me that if so many lovers of animals, who have never been inside a laboratory in their lives, are so ready to describe what goes on in them, there should be room for something to be said on the matter by a lover of animals who knows about it at first hand. So that is why I have asked to be allowed to come here to speak for the Research Defence Society.

Seeing that there are so many societies to be counsel for the prosecution, so to speak, it was thought by those who really know personally how experiments are conducted, and what the practical results of them have been, that it would be a good thing to found one Society that could lay the facts in a really accurate way before the public, so as to dispel the mistaken ideas that have grown up round a subject that is apt to be regarded as very mysterious.

As you have been informed, the objects of the Research Defence Society are to make known the facts about experiments on animals and the regulations under which they are conducted in this country; and to insist upon the importance of such experiments in connection with the study and cure of disease, and the consequent saving of life and suffering both of men and of animals. The Society has nothing whatever to do with conducting experiments, or even with encouraging them; not a single extra experiment is done because of its existence. It only asks for fair play for those who are doing the experiments.

The opponents of research on animals have gained two entirely erroneous ideas, that these experiments involve cruelty to animals, and that they are useless, leading to nothing. I have devoted a good deal of time to the study of the literature of the anti-vivisection societies, and I regularly take in one of their periodicals. I find that these two erroneous ideas are largely the result of a misuse on their part—how far an unconscious misuse it is impossible for me to say—of the practice of press cutting. The whole of literature, medical and non-medical, is swept for cuttings consisting of paragraphs, sentences, or in some cases single words, which, when pieced together, can be used to support one or both of these two ideas, that experiments involve cruelty, and that they are useless. It does not seem to be realized that this scissors-and-paste method of building up a case does indeed make a very strong case, but not a fair case; for it is all one-sided, and is mechanically prevented from being otherwise. The effect of the system upon the minds of the editors of anti-vivisectionist periodicals and leaflets is as deceptive as the effect upon the minds of the readers. I want to emphasize this point, because I am not here to make any

charge of wilful misrepresentation against any particular person who is opposed to experiments on animals.

The extent to which this misunderstanding of scientific work has gone is extraordinary. Scientists who are engaged as truly in works of mercy as any practitioner at the bedside, men whom one knows to be as gentle as their neighbours, scientists whose work in experimenting on animals often spoils them for being sportsmen for just the same reason that the practice of operative surgery often spoils a man for being a sportsman—because the one, just like the other, develops a positive instinct never to do any injury to living tissues that can possibly be avoided—these scientists are held up to execration, and are constantly told by good and pious ladies where they will go to in the next world; and all through this scissors-and-paste view of one of the walks of life, a walk of life in which the total suffering caused is the veriest trifle compared to what is inflicted on animals in plenty of everyday occupations; and would still be comparatively trifling, even if anæsthetics were not used, as they are, wherever they can be of any service.

In the "Publications of the Research Defence Society," of which every member receives a copy on joining, and also published separately for distribution, you will find papers giving details regarding the working of the Act, that regulates experiments on animals, the administration of anæsthetics, the reason why particular animals have to be used for particular experiments, the drugs whose properties have been discovered through experiments, and the diseases over which we have acquired control as a result of experiments.

Science is applied to everything now-a-days, from gold-mining to market-gardening, and makes all the difference between the old-fashioned haphazard way of doing things, and the new. Your modern engineer has studied the laws of physics, and not only can build you a better bridge than his predecessors, but can tell you to a ton how much weight it will safely bear.

In the same way your modern physician has studied physiology. He is no longer pouring drugs of which he knows little into a body of which he knows less, for experiments on animals have revealed the exact properties of his drugs to him, and experiments on animals have shown him the function of every organ in the body.

In India, the practitioners of the old Hindu medicine are still practising it. But it is all simply tradition *plus* bedside experience with them, and they know just as much, and just as little, as their ancestors did one or two thousand years ago; they still use the same old Sanscrit books.

We need not laugh at these Hindu physicians of to-day, with their newt's eyes, hare's fur, drops of dog's blood, amulets and charms. Let anyone read an account of how poor King Charles II. was treated by his physicians as he lay dying; nay, let anyone read an account of social life in Scotland in the eighteenth century, and he will realize how it is not so long ago that our medical knowledge was traditional too.

For illustration, let us take one system of the body, the circulation. Harvey discovered, by the help of experiments on animals, the circulation of the blood, and laid the foundation for the long series of experiments that have made possible our present accurate knowledge of the circulation; which from its sudden variations of pressure, and other causes, is a much more difficult thing to study than any engineer's system of water pipes. Those experiments have also made possible our present accurate knowledge of the drugs and other influences which affect the circulation.

That knowledge renders it possible to diagnose heart disease accurately now-a-days, to foresee its results, and to treat it in a really rational manner. Many persons who, in the course of nature, would have died of heart disease, are enabled not only to see their children grow up, but to take their grand-children on their knees. I grant you that it is only partial health that many of these people enjoy; but, if you were to go round and ask them, I am sure that most of them would tell you that they prefer to be still above ground.

It is the same with other systems of the body, the digestive system, the lymphatic system, the nervous system; knowledge of their functions means power to set things right when they go wrong.

That is an example of what science has done for medicine. Let us take an example of what has been done for surgery. There were diseases of particular organs of the body, well recognised. Generations of surgeons longed to operate for those diseases, but could not, because they did not know what the result of meddling with those organs would be, so they just looked wise and did nothing.

But at last some of the bolder spirits of the nineteenth century faced the difficulty, and did experimental operations on those organs in animals. In the case of some of these operations on particular organs the animal recovered completely from the operation. In others, though the wound healed nicely, the animal pined away, and it was shown that it did not do to take away a particular part of a particular organ; the animal could not live without it.

Then the surgeons knew what they could do and what they could not, and went ahead. The result has been that operations, which would have been quite unjustifiable forty years ago, are to-day regarded as everyday matters.

Let us take just one instance; I choose it because an Edinburgh surgeon was in this case one of the pioneers. There is a disease of the abdomen called ovarian tumour, from which women used to be allowed to die by inches. When Dr. Thomas Keith, of Edinburgh, began to do the operation for the disease it caused intense interest, and made his name famous, but it is regarded as quite an everyday operation now-a-days; I have often seen it done.

But when it first began to be the fashion to repeat those second-hand phrases about the "uselessness of vivisection," Dr. Keith was still alive, and he wrote to the *Scotsman*, reminding the good people of Edinburgh that he never could have carried out this early abdominal operation unless he had done abdominal operations on animals first, and seen how they stood them.

What are people with ovarian tumour saved from by the operation? None of us can tell you personally, because women do not need to die of ovarian tumour now-a-days. But let me read to you a description of a woman dying of ovarian tumour, written by one of the older surgeons; remember, that what I am going to read was written in the days before the operation was ever thought possible:--

"We have symptoms of the same kind as we see towards the close of every lingering disease, betokening the gradual failure, first of one power, then of another; the flickering of the taper, which, as all can see, must soon go out. The appetite becomes more capricious, and at last no ingenuity of culinary skill can tempt it, while digestion fails even more rapidly, and the wasting body tells but too plainly how the little food nourishes still less and less. The pulse grows feebler, and the strength diminishes every day, and one by one each customary exertion is abandoned. At first the efforts made for the sake of the change which the sick so crave-for are given up; then those for cleanliness, and lastly those for comfort, till at length one position is maintained all day in spite of the cracking of the tender skin, it sufficing for the patient that respiration can go on quietly, and she can suffer undisturbed.

"We come to the sick chamber day by day to be idle spectators of a sad ceremony, and leave it humbled by the consciousness of the narrow limits which circumscribe the resources of our art."

An American surgeon put this matter rather well the other day: "How many rabbits do you think your husband, or your wife, or your child is worth?"

Then there is the quite modern science of bacteriology, which has all along needed a certain amount of experiments on animals. It has given us the key to our knowledge of how infections are carried, what the causes are of consumption, diphtheria, cholera, typhoid, plague, and a host of other diseases. It has shown us how animals naturally recover from an infectious disease, and the result has been the successful serum treatments for epidemic meningitis (a form of brain fever), diphtheria, and erysipelas, preventive inoculations against typhoid and plague, and latest of all, the vaccine treatments for tuberculosis, and for other diseases.

Step by step these wonderful discoveries have needed experiments on animals; step by step their practical use has been stubbornly denied by the leaders of the anti-vivisectionist societies, who protect themselves from having to believe in the successes of science by means of the method of press cutting of which I have spoken, by which every possible argument against the reality or utility of a given discovery is collected from here and from there, and pieced together for their benefit, just as the supposed proofs of cruelty are sifted out, collected, and put together.

There is another modern science which needs experiments on animals, a science still newer than bacteriology, the science of parasitology, the study of how parasites carry about diseases from animal to animal. Thus the flea carries the infection of plague from rat to rat, and from rat to man. One kind of tsetse fly carries the infection

of sleeping sickness from man to man. Half-a-million at least of human beings in different parts of Africa are known to have been killed by it. Another tsetse fly carries nagana, which has wiped out the cattle altogether from great tracts of Africa, and makes certain the death of any horse that is brought to those parts. Other diseases, such as redwater fever in cattle, heartwater fever in sheep and goats, and malignant jaundice in dogs, are carried from animal to animal by ticks of different species. All these diseases need experiments on animals for their study; let me give you an instance of the class of work that is being done.

There is a disease, now happily rare in Great Britain, but common enough in India in bad times, called relapsing or famine fever. It is called relapsing fever because just when the sufferer thinks he is going to get better, he has a relapse, and the fever comes back, exhausting him more and more each time. It is called famine fever because it most readily attacks those who are weakened by starvation, and its high mortality is due to the fact that those people are so badly fitted to resist it.

For years it had been known that relapsing or famine fever is caused by a micro-organism called a spirillum, because of its spiral shape. This microbe was discovered years ago in the blood of patients suffering from relapsing fever. A great advance was made in our knowledge of the disease when it was *proved* that this microbe is the cause of the disease, by injecting it into the bodies of animals, which developed the disease. But, before we could make practical use of this knowledge, another discovery had to be made. "How has the microbe got from the blood of one patient into the blood of another, *i.e.*, how is the infection carried?" When first I saw a case of the disease this was not known. But in process of time it came to be suspected that the body louse, which is often found in swarms on the bodies of the sort of people who get the disease, might be the carrier of the microbe from one person's blood to another person's blood, as it bites first one person and then another. Lice were accordingly taken from the persons of patients, and dissected under the microscope. Sure enough, inside them the microbes were discovered. I have myself seen the stomachs of the dissected lice under the microscope, and the microbes inside them.

The chain of evidence was finally completed by an experiment on an animal. An emulsion of the bodies of lice from relapsing fever patients was made, and injected into the animal. It developed relapsing fever. It thus was definitely proved how the disease was carried.

What is the practical use of this discovery? Simply this, that the subject of relapsing fever has been lifted from the sphere of curative medicine into the far higher sphere of preventive medicine. Formerly all we could do was to send our native assistants into infected villages with febrifuges and other paraphernalia of curative medicine. But now we can strike at the disease at the root, and, by destroying the lice on the bodies of patients, prevent its spread. The details of the campaign have still to be worked out. My own suggestion to village officers so far has been that a cauldron should be set up in each infected village,

and the clothes of the patients boiled in it to destroy the lice. The natives who suffer from relapsing fever are seldom of the higher castes, so there is not likely to be any objection to the procedure, from the point of view of the lice! Other methods will suggest themselves as we gain experience; this is a bit of preventive medicine in the making.

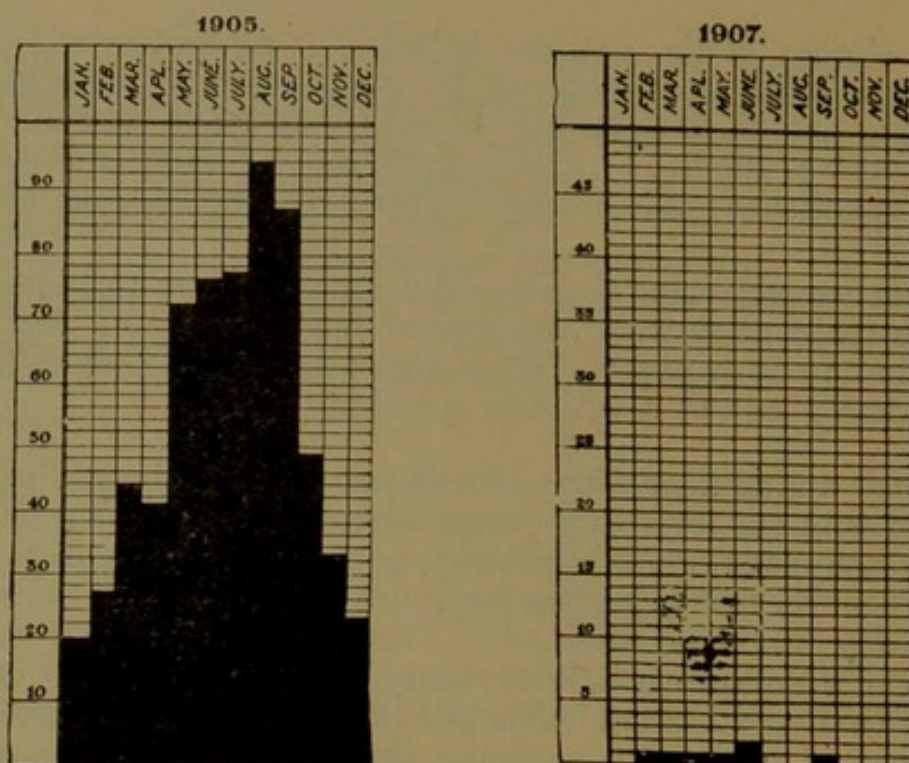
What does relapsing or famine fever mean to the anti-vivisectionist, when he looks at it with the eye of his memory? Just a phrase written in a book or paper. What does relapsing or famine fever mean to me, when I look at it with the eye of my memory?

India; a mud floor with a lot of wee brown bairns lying about on it, racked with the fever that comes again and again, suffering the fate of the mouse that the cat lets away, only to pounce upon it again and again, whenever it is beginning to think that perhaps it is really going to get away this time after all. Those little children I am looking back upon were low-caste, dirty, lousy. But they were made in the image of God, and I stand before you to-day to plead for the future of the science of preventive medicine, that has placed a weapon in the hands of men such as myself, with which we may be able to save other bairns from a fate like theirs.

Let us take an instance of one of the successes of bacteriology nearer home. You will find in one of the papers of the Research Defence Society an account of the successful investigations that have been made into the cause of Mediterranean or Malta fever, a long-continued, exhausting and dangerous disease from which our troops had for many years been suffering in the garrisons of Malta. This investigation was made by the Royal Society, by request of the British Government. It had been found out by experiments on animals that this disease was caused by a particular microbe, which was called *micrococcus melitensis*. You will find it described how the Commission followed up all the possible clues to the discovery of how the microbe was carried, how they at last found by feeding experiments that an animal could be infected through food, how the milk of the Maltese goat was found to be the carrier of the bacteria and, how examination of the goats of Malta finally showed that thousands of these animals were acting as carriers, and were many of them shedding the bacteria in their milk. You will also see it mentioned how sailors on a ship with a cargo of Maltese goats on board were attacked by Malta fever; this accidental experiment on human beings confirming the discovery made by experiments on animals.

What was done? Goat's milk was banished from the dietary of our soldiers in Malta, and Malta fever practically disappeared from among them, though it still occurs among the inhabitants of different parts of the island, who still insist on drinking goat's milk.

I show you these two diagrams; the one indicates the sickness in Malta among the troops, from Malta fever, in 1905, before the use of goats' milk was prohibited, and the other the amount of sickness in 1907, after its use had ceased. The disease had been practically stamped out.



"Well," some of you may say, "surely such a triumph should convince the most determined disbelievers in experimental science that good can come out of experiments on animals." No, it does not convince them. One must remember that this idea, that no good can come out of experiments on animals, is a very old one, and has become a sort of cult; and that some of the leaders of the anti-vivisection societies are elderly men, men whose ideas on the subject had become fixed many years before bacteriology had developed in these wonderful ways. As one can see by a survey of their literature, their way of disposing of each fresh discovery is either to refuse to believe in its value, or to deny the share that experiments had in the discovery, whichever position seems the less untenable.

Seeing how skilfully these gentlemen had disposed of one scientific discovery after another, to their own personal satisfaction, I hunted, out of curiosity, in their literature, to see how they would get over the fact of the extinction of Malta fever. I found their explanation of its extinction in the literature of an anti-vivisectionist society which collects, by the way in this county. The improved sanitation in the harbour of Valetta!

It was nothing to them that the Royal Society had had at its command the best scientific intellect in the country, from which to choose the Commission that had done the work; it was nothing to them that Malta fever is worse inland, in villages that are miles away from the harbour of Valetta, as pointed out by the Commission long before it traced the infection to the goats of the island. The disease had been stamped out, but this could not have had anything to do with experiments on animals.

It is hardly credible, but it is a fact, that this dogma about the uselessness of experiments on animals is so firmly held, that a member of the House of Commons rose in the House, and actually asked the Secretary of State for War to order the re-issue of the goat's milk to our soldiers!

Now, ladies and gentlemen, I suppose some of you are Liberals and some of you are Unionists; I am not allowed to have any politics at all, being in the King's service. But I could not help feeling proud of the Member for East Lothian when he stood up in his place and replied that no responsible Minister who did not wish to be regarded as weak and incompetent would venture to remove the prohibition of the use of goat's milk by the garrison.

You all know the Edinburgh Royal Infirmary, the infirmary where the physician worked who gave the world chloroform; the infirmary where the surgeon worked who gave the world antiseptics. Go up to that vast hospital on a Saturday afternoon, and mingle with the crowd of patients' friends at the East Gate. When you are in a crowd of people who are all thinking one thing the air seems filled with that thought; you can almost feel it in the air around you. Those people, fathers, mothers, brothers, sisters, husbands, wives, are all thinking the same thought, "How is he?" "Has she had her operation yet?" "What did the professor say about him?" Go back to the Infirmary when the physicians and surgeons are there, on whose wisdom and skill those poor people are placing their trust. Ask each surgeon and physician the same question. "I have been told that experiments on animals are necessary in order that Medicine and Surgery may progress. Is it true?" There is not one of those physicians and surgeons who will not give you the same answer, whatever words he may put it in. "They are necessary. Every day in this place lives are saved and pain is relieved that never could have been but for the knowledge gained at one time or another by scientists through experiments. Every year brings us some new discovery, or some new application of a discovery made years ago. There is every reason to believe that there are just as wonderful things ahead of us in the future as we have been given in the past." That is what you would hear from every one.

Now I do not say that that fact proves anything mathematically. But I tell it you just to let you feel something of the weight of that responsibility that lies on those who finance societies for the abolition of "vivisection."

All the anti-vivisection societies are for the *total* abolition of vivisection, though some want to have that all at once, and others consider that they are more likely to get it in instalments, or by the exemption of first one animal and then another. How exactly one particular society or another would define vivisection is not a very important point. What is important is that in their literature all the societies do the same thing; they take up every discovery due to experiments on animals, and treat it in the same way as another, denying the value of the discovery, or denying the share experiments on animals had in it. If anyone wishes to discuss with me the actual statements and proposals of any particular society, I shall be glad to do so with him or her afterwards. It is well to keep this in mind, about all the anti-vivisection societies being abolitionist.

People sometimes tell one that they support anti-vivisection societies because they think there are not enough inspectors. If that is all any particular person wants, he may be easy in his mind. There being nothing to conceal, nothing to be ashamed of, the profession has no

objection to an increase of the number of inspectors, if it is needed for the satisfaction of the public. But anything like a rule that no physiological operation may take place unless a Government inspector is able to be present would have three distinct drawbacks. It would hamper the work of investigation, which no proposed legislation should be meant to do ; it would imply a system of shadowing like that of criminals ; and, worst of all, it would destroy all sense of responsibility on the part of the operator ; that sense of responsibility on the part of the medical profession which is a better protection to men and women in sick-chambers and operating rooms, and to animals in laboratories, than the presence of a legion of inspectors could ever be.

In reviewing the progress of medical science within the last generation or two, nothing strikes one more than the benefits veterinary medicine has gained, for all time, through the knowledge obtained by experiments. I have myself a considerable sympathy for a veterinary surgeon's difficulties in examining a sick animal ; for in our hospitals in India, where many of our patients belong to very unintelligent classes, and, moreover, speak country dialects that even our native assistants have often a difficulty in understanding, many of us get into the habit of doing very little talking and of more or less just "vetting" our hospital patients.

Surely, if a thorough knowledge of bodily functions is necessary in enabling us to make a diagnosis in the case of an intelligent human being, who can tell us his symptoms, it is no less necessary in the case of the animals, who cannot tell us what they feel.

Much of what I said about the application of physiology to human medicine and surgery, is also true of veterinary work. But it is in the realm of bacteriology that the greatest achievements have been made in the reduction of disease and suffering among animals.

Take the serum preventive treatment of rinderpest. The bacteriologist sent out to Egypt to fight rinderpest was so successful with the serum that the Government had to find some other bacteriological work for him ; there was so little left to do. This preventive treatment has been such a success in India that the Government laboratory at Muktesar cannot turn out serum fast enough to supply the demand from infected districts.

At the time when Pasteur discovered that a culture of the microbes of anthrax, grown so as to attenuate their virulence, would protect an animal from the disease if injected into it, ten per cent. of the sheep and five per cent. of the cattle of France suffered from anthrax, a disease characterized by bloody discharges from the nose, mouth and bowels, and by progressive emaciation, ending in death. Not only is the disease kept under in France now-a-days, but this method of vaccination has been most useful in India, and whole herds on the Pampas in South America are vaccinated against the disease at the cost of a penny a head to the stock-breeders.

Glanders can be diagnosed by an injection of mallein, the product of the bacillus of glanders, and the infected horse destroyed before it can infect other horses or its groom, and before its own sufferings have reached the most distressing stage.

The use of tuberculine, to detect and weed out tuberculous beasts from among a herd of cattle, not only protects the children who depend on them for their milk, but involves an eventual diminution of suffering, as the generations go on among the animals themselves.

As a member of a society for the prevention of cruelty to animals I am bound to admit that while prevention of animal-suffering is done, one may say, retail by the societies for the prevention of cruelty to animals, it is done wholesale by science, though in such a very unpicturesque way.

There is a disease of dogs, called malignant jaundice, which renders it almost impossible to keep a dog in some parts of South Africa and other warm countries. Only last year a doctor and a veterinary surgeon, working at Cambridge, discovered by means of experiments that the disease which is caused by a minute parasite, called a piroplasma, in the blood, can be prevented or cured, as the case may be, by the administration of a drug known as trypanblau.

You cannot make an omelette without breaking eggs. I grant you that, in order to study the disease, dogs had to be infected with it artificially. But they suffered no more than thousands of other dogs who were naturally ill of the disease in different countries at the same moment; indeed, they suffered less, for they could be put out of pain, and need suffer no lingering death; moreover, they suffered for a good purpose, and not uselessly, like the rest.

Scientists are to-day working hard, by means of experiments, to discover the nature of distemper in cats and dogs, and the cure for it. I do not want to be intolerant towards those who differ from me, but I cannot help thinking that those scientists have a far better right to be called the friends of animals than the tender-hearted people who are trying to have legislation passed that would make all such investigations illegal in this country.

To any anti-vivisectionist who tells me that he or she looks at an experiment from the animal's point of view, I say "So do I. But I put the apostrophe in a different place. I look at it from the animals' point of view. I think that is the broader way to look at it."

Until the Research Defence Society was formed, the anti-vivisectionist societies formed the only side that was represented before the public. The Research Defence Society has already a membership of over three thousand, and, using the word in the best sense of the term, the quality of its membership is good. The societies that oppose the scientific work I have spoken of have some of them hundreds, and one of them thousands a year of income; a lady left one of them £5,000 only the other day. Every five shillings the Research Defence Society receives has to counterbalance many pounds given to the other side, but five shillings is none the less worth giving all the same.

Well, ladies and gentlemen, I have done. I am ready to shake hands with any anti-vivisectionist on the strength of what we have in common, our desire to save animals as much suffering as possible: and I do not want to force my opinions down the throat of anyone. I leave it to you to make up your own minds which of the two positions is, from the point of view of men and of animals, the wiser, the more far-seeing, and, in the long run, the kinder.

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