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With the kind permission of the distinguished English medical journal, *The Lancet*, the following article from the February 25, 1961 issue is reprinted.

**EXPERIMENT ON ANIMALS
IN THE UNITED STATES**

A bill "to provide for the humane treatment of animals used in experiment" was introduced in the United States Senate last year by Senator Cooper and others and in the House of Representatives by the Hon. Martha Griffiths. It is based on British law and practice, with simplification of the procedure for granting licences and some modifications necessitated by the difference between the American and British constitutions. The problem of States rights has been circumvented by simply providing that no individual or institution experimenting on animals shall be licensed to receive a grant from Federal funds unless he or it has received from the Secretary of Health, Education, and Welfare a "certificate of compliance" with the requirements of the Act. These requirements relate, among other things, to the housing and husbandry of the animals, a pain rule, records, the suitability of an applicant for a licence, and the filing of a "project plan" setting out the methods and procedures to be used. The applicant's plan may be disallowed, but he must be given a reasonable opportunity to justify it.

An important difference from British practice is necessitated, no doubt, by the difficulty of introducing restrictions all at once into a vast research machine which is in full operation. In Britain permission must be given *before* an experimenter can use procedures of the kind or kinds which he specifies (with greater or less precision as the case may require) in his application for certificates. But when or if the Cooper Bill comes into operation as an Act, time will be needed to scrutinise all the project plans, which will have to be filed; and meanwhile research must go on, including perhaps some procedures which may have to be discontinued on later consideration. Presumably, while some procedures which are clearly unethical might be disallowed at once, most plans would have to be allowed provisionally pending review.

It would be unrealistic to hope that in every laboratory throughout the United States the treatment of animals can be brought overnight into conformity with the practice of the best American laboratories. Precedents will have to be created and standards agreed upon, and, although British experience may be found helpful, all this will take time. We may hope, however, that cruel procedures will be gradually eliminated, and also that the standard of husbandry in the least advanced American research establishments will be gradually raised towards that of the most advanced; and that the right to experiment will from an early stage be restricted to persons who are qualified to make proper use of it. These would surely not include schoolchildren, who at present are being encouraged in some quarters to repeat injurious experiments on animals.

The Bill is being somewhat fiercely assailed on one side by antivivisectionists and on the other by their more extreme opponents. The latter have represented British medical science as of inferior quality through a supposed frustration of medical research by Home Office control. For instance, an assertion which is widely current is to the effect that the British Act requires a separate document to be filed in respect of every individual animal used. In view of such allegations, the Universities Federation for Animal Welfare sent a questionnaire to all biological fellows of the Royal Society, and the replies have shown an overwhelming consensus in favour of Home Office control. As one of them says, "the Act of 1876 stops the frivolous but not the responsible worker".

America's example in the treatment of laboratory animals will have widespread effects in other countries; the fate of the Cooper Bill will therefore be watched attentively.

**UNJUST ATTACK ON BILLS FOR
HUMANE TREATMENT OF ANIMALS**

In response to the article in the March, 1961 *Reader's Digest*, "Vivisection — An Explosive Issue Again," Henry Beetle Hough, distinguished author and Editor of the *Vineyard Gazette*, wrote:

Vineyard Gazette
Edgartown, Mass.
February 23, 1961

Editors,
Reader's Digest
Pleasantville, N. Y.
Gentlemen,—

The article "Vivisection — An Explosive Issue Again" in your March issue is open to serious challenge on the ground of honesty and accuracy. With the characterizations of the anti-vivisectionists it is likely that any well informed and objective reader will agree. But the writer, J. D. Ratcliff, proceeds to strong condemnation of the Cooper Bill and of the Society for Animal Protective Legislation without allowing his readers to know that the anti-vivisectionists are at war with both.

Objectively, one may conclude reasonably that the Cooper Bill, if it can be enacted, will do more to protect medical research from the anti-vivisectionists than anything else that can be proposed.

Mr. Ratcliff refers to "the well-meaning but misguided efforts of the Animal Welfare Institute". The phrases are obviously chosen for the purpose of discrediting the Animal Welfare Institute and those who support it. Yet this is the organization primarily responsible for enactment of the humane slaughter bill which has, at long last, introduced a great measure of humanity into the slaughtering industry. It may be noted that the United States was far behind the countries of Europe in civilized usages, and that special pleaders for the American meat industry used the same specious arguments against the Animal Welfare Institute that are now applied by Mr. Ratcliff. Yet the humane slaughter legislation proved entirely practical and certainly was not misguided.

The medical profession is by no means as united against the Cooper Bill as Mr. Ratcliff suggests. I have before me a clipping from the *New York Times* in which Dr. Herbert Rackow, assistant professor of anesthesiology at the College of Physicians and Surgeons of Columbia University, defends the bill in realistic terms and disposes of the objections.

There is abundant evidence that the medical profession is too careless or indifferent or pre-occupied to safeguard the care of animals undergoing or about to undergo experimentation. Here in Massachusetts, during debate on the so-called animal seizure bill, the profession gave unqualified assurances that seized animals would be humanely cared for. Within a matter of weeks after passage of the bill, animals kept for the use of one of the best known clinics in America were found being kept under atrocious conditions in a state of semi-starvation and cruelty.

As in the slaughtering industry, the United States in animal experimentation lacks the humane safeguards which have been adopted elsewhere, in Great Britain for instance, without detriment to research. There was available to Mr. Ratcliff, had he been interested, a complete body of information as to the program of the Animal Welfare Institute, stating clearly the ways in which care is being taken to protect animal research under all reasonable conditions.

I think it is unfortunate for the reputation for fairness enjoyed by the *Reader's Digest* that Mr. Ratcliff was chosen to denounce a cause advocated by so many informed and able people. It is unfortunate because Mr. Ratcliff is a medical writer deeply committed to the case he espouses, even in advance of investigation. He is a special pleader with an interest in one side of the discussion.

The opposition of the anti-vivisectionists to the purposes and work of the Animal Welfare Institute is well-documented. As a newspaper, we have received many evidences of it. The reasons for the opposition are obvious, for if proper safeguards are provided for animal experimentation, safeguards now completely lacking, the anti-vivisectionists will have no further chance of prevailing in the court of public opinion.

Yours very truly,
(signed)
HENRY BEETLE HOUGH

To Mr. Hough's clear analysis of the matter as a whole should be added correction of misleading information on the provisions and effects of the legislation as described in the *Digest* article. First, the statement in the article that the bill introduced last year by Senator Cooper (and this year, with small modifications, by Representative Martha Griffiths) "provides that animals subject to experimental surgery 'shall be killed without being allowed to recover consciousness,'" has misled readers. This provision applies to work by students in practice surgery

(Continued on next page)

classes where they are learning skill and dexterity. It does not apply to experimental operations by experienced research men in which new techniques are being tried out.

The article suggests that keeping of exact records on animals such as the two million mice being used for the federal cancer-screening program would be a ridiculous burden needlessly imposed on scientists by the bill. It ignores the fact that detailed records on these animals are already required, by the Cancer Chemotherapy National Service Center, of each contractor under the program. The Center's demands on reporting are far more extensive than any provision under the Cooper and Griffiths bills. For example, no less than thirty copies of final reports are required by the Center.

The article goes on to complain about filing of project plans because, it says, researchers, like gold prospectors, don't know in advance where their search will lead them. But all grants from the federal government require advance planning and submission to the granting agencies. If they did not, the tax-payer would have every right to complain that his money was spent at random.

The unsupported allegations by Dr. Frederick Phillips that the bill "would waste at least ten percent of the researchers' time and cost the government at least ten percent more money for the same research" are intended to frighten tax-payers. They have no basis whatever in fact. On the contrary, reduction of the waste of animal life through improper care and treatment could be expected to save very substantial sums in laboratories now operating under sub-standard conditions. Confusion of experimental results, which comes about when animals sicken and die from unexplained causes, would be substantially reduced.

These remarks of Dr. Phillips first appeared in the *New York Herald Tribune*, July 31, 1960. A further quotation from this article may help in assessing the general quality of Dr. Phillips' powers of observation and judgment: "To charges that beagles have been kept for years in small cages without exercise, Dr. Phillips said: 'There is no evidence that dogs in cages are less healthy or happy or in more pain than if roaming free.'"

Statements like this from scientists who hold important positions have alarming implications. So do statements by established medical writers like Mr. Ratcliff which indicate flat disregard of fact as when, for example, he states about laboratory animal rooms: "Without exception, conditions are much better than those provided most home pets — steam-sterilized pens, balanced rations, maximum care and consideration." Or, again, when he seeks to misinform the twelve million readers of the *Digest* about vitamin D testing. The exact quotation: "Is it kinder, more moral, as the AV's profess, to gas a pup to death in a city pound than to permit its use in testing vitamin D— which prevents children's bones from being twisted by rickets?" As readers of the Information Report know (see Vol. 9 No. 1) the Food and Drug Administration has reported that the testing of vitamin D for human consumption no longer requires the use of any animal. Prior to the discovery of chemical methods of testing, there was never a question of getting pups out of pounds in order to carry on the bioassays, for the animals used have been small, easily bred ones such as chicks and rats. Why, then, does a professional medical writer who states that he has visited hundreds of laboratories introduce this false hysteria?

Why does he make such statements as "for the millions of mice and other animals used to test anti-cancer and other drugs, pain is limited to the jab of a hypodermic" when any experienced medical writer must surely know that toxicological studies are frequently agonizing, particularly when they require, as the Cancer Chemotherapy National Service Center does, that the highest dose of the drug should produce at least 50 percent mortality among the animals tested?

Why, in seeking to prevent passage of the bills introduced by Senator Cooper and Representative Griffiths, is such a desperate effort exerted to make them appear to be anti-vivisection legislation (the sub-title of the *Digest* article actually calls the measure "an innocent looking

anti-vivisection bill")?

It seems right to bring to mind again the statement made at the annual meeting of the Federation of American Societies for Experimental Biology in 1952 by Dr. Robert Gesell who told the members of the American Physiological Society, "The National Society for Medical Research would have us believe that there is an important issue in vivisection versus anti-vivisection. To a physiologist there can be no issue on vivisection per se. The real and urgent issue is humanity versus inhumanity in the use of experimental animals. But the N.S.M.R. attaches a stigma of anti-vivisection to any semblance of humanity. Anti-vivisection is their indispensable bogie which must be kept before the public at any cost. It is their only avenue towards unlimited procurement of animals for unlimited and uncontrolled experimentation. The N.S.M.R. has had but one idea since its organization, namely — to provide an inexhaustible number of animals to an ever growing crowd of career scientists with but little biological background and scant interest in the future of man."

MATERIALS AVAILABLE FROM THE ANIMAL WELFARE INSTITUTE

Readers of the Information Report are cordially invited to order the items listed below which are of special interest to them.

GENERAL

Aims of The Animal Welfare Institute.

Booklet outlining objectives of the Institute. 8 pages..... Free

Annual Reports of The Animal Welfare Institute Free
The Neighbors.

Anthology of animal poems. Illustrated by Fougasse. 117 pages. Published for The Universities Federation for Animal Welfare by Methuen & Co., Ltd. \$1.10

The Status of Animals in the Christian Religion.

By Major C. W. Hume, M.C., B.Sc. Lond. Illustrated by Fougasse. 100 pages. UFAW. \$1.25

The Scientific Basis of Kindness To Animals.

By John R. Baker, M.D., D. Phil., D.Sc. 11 pages. UFAW. Free

PROTECTION OF LABORATORY ANIMALS

Opinions of British Scientists on Home Office

Control of Experiments on Animals. Free

How To Befriend Laboratory Animals.

By Major C. W. Hume, M.C., B.Sc. Lond. 16 pages. UFAW. Free

The Vivisection Controversy in Britain.

By Major C. W. Hume, 8 pages. Free

The Ethics of Animal Experimentation.

By Major C. W. Hume. Article reprinted from *British Nature*, Feb. 10, 1951. 6 pages. Free

The Case For Humane Vivisection.

By Paul W. Kearney. Article reprinted from *Coronet Magazine*, Nov. 1957. One copy free

CARE AND USE OF LABORATORY ANIMALS IN SCIENTIFIC INSTITUTIONS

Basic Care of Experimental Animals.

Revised edition. Written simply, designed for animal room personnel, 68 pages, illustrated. Animal Welfare Institute. Free upon request ONLY to persons employed in scientific institutions.

Comfortable Quarters for Laboratory Animals.

Loose-leaf manual, designed for those planning to build, remodel or re-equip animal quarters. 77 pages, illustrated including floor plans. Animal Welfare Institute. One copy free on request ONLY to scientific institutions or architects.

UFAW Handbook on the Care and Management of Laboratory Animals.

Edited by A. N. Worden and W. Lane-Petter. 88 contributors. 951 pages, illustrated. UFAW. \$9.80

An Introduction to the Anesthesia of

Laboratory Animals.
By Phyllis Croft, Ph.D., M.R.C.V.S. 32 pages. UFAW

50¢

Handling Laboratory Animals.

16 mm. sound film showing proper handling of 12 common species of laboratory animals. Produced by MacQueen Films with cooperation of National Institute for Medical Research, London, England. Available at cost price; for purchase \$65; for one week's rental \$3.

The Strategy and Tactics of Experimentation.
By Major C. W. Hume. Reprint of article from the
Lancet Nov. 23, 1957. 11 pages. Free

HUMANE EDUCATION

Humane Biology Projects.

Animal Welfare Institute, 14 contributors, 41 pages, illustrated. Designed for use in secondary schools. One copy free upon request to teachers, librarians, humane societies; to others 25¢

First Aid and Care of Small Animals.

By Ernest P. Walker. Designed for use in primary and secondary schools. 46 pages, illustrated. Animal Welfare Institute. One copy free upon request to teachers, librarians, scout leaders, humane societies; to others 35¢

Good Kind Lion.

For primary grades. 4 pages. UFAW. Free

You and Your Dog.

For primary grades. 16 pages with pictures suitable for coloring. Humane Society of Washtenaw County. 10¢

Kittens and Cats.

For primary grades. 12 pages with pictures suitable for coloring. Humane Society of Washtenaw County. 10¢

"A Question of Value"

By Dorothy Thompson, reprint from "Ladies Home Journal." Free

"Cruelty Goes to School"

By Ella H. Pope, reprint from "Popular Dogs" Free

"The Abuse of Animals in the Class Room and How It Can Be Avoided".

Animal Welfare Institute, reprint from "American Biology Teacher." Free

"The Importance of Humane Biology Teaching"

Animal Welfare Institute, 1-page leaflet. Free to teachers

SHELTER CONSTRUCTION

Towards the Ideal in an Animal Shelter.

Reprint of article from *Gaines Dog Research Progress*, describing animal shelter of Humane Society of Washtenaw County (Michigan). Illustrated. Free

HUMANE TRAPPING

Facts About Furs.

By Dr. F. Jean Vinter. 42 pages. UFAW. 50¢

Revolutionary New Trap.

By Eric Collier. Reprint of article from "Outdoor Life", Sept. and Oct. 1957, regarding new humane Conibear Trap. Free

HUMANE SLAUGHTER

Uniform State Humane Slaughter Bill.

By Council of State Governments. American Humane Association. Free

Manufacturers' leaflets concerning available equipment

for rendering animals unconscious painlessly. Free

Editorials in favor of humane slaughter legislation

throughout the nation. Free

"Let Us Have Mercy on These Dumb Animals"

By Paul Kearney & Richard Dempewolf. Reprint from "Readers' Digest" Free

PROTECTION OF WILDLIFE

Uncontrollable "Control"

By Marguerite Angelo Smelser. Reprint of article concerning poisons from *Nature Magazine* Jan. 1959. 9 pages. Free

"Predator Control — An Unsavory Mess"

By Marguerite Angelo Smelser. Reprint of article from "National Wildlands News". Free

Oil Pollution of Sea and River Birds

By R. C. G. Hancock, B.Sc., M.R.C.V.S. 8 pages. Royal SPCA. Free

Filthy Oil on the Waters

Reprint of editorial from *London Times* July 25, 1958. Free

IMPROVED HANDLING FOR KOSHER CATTLE

A second device for humane handling of cattle prior to kosher slaughter has recently been patented.* According to the *National Provisioner* (January 28, 1961): "The unit has been approved as humane by the orthodox division of the Canadian Jewish Congress, humane societies and the

*For a description of the first such device, see Information Report Vol. 9 No. 4.

veterinary director general of the Canada Department of Agriculture. Operated by one man who moves the animal into position and controls the neck extending frame, the unit reportedly restrains up to 75 head per hour for the schochet."

The existence of two practical, humane methods for handling large numbers of cattle in large packing plants where these animals are slaughtered by the kosher method eliminates the basis for objection to state humane slaughter bills that prohibit the shackling and hoisting of conscious animals.

The developers of the device (Freezmart Co., Ltd., Toronto) point out that it can be attached to a knocking pen in about eight hours, that it requires only one operator whose job is no longer a physically dangerous one, and that it allows the packer to shift from kosher to non-kosher operations in the same plant as desired.

Following is the description given in the *National Provisioner* of the technical operation of the device: "The unit is a holding frame shaped like a farm stanchion to fit the contour of an animal's head. The frame is split, with the upper section moving out of the way when the animal is driven into position. When in position, the animal's shoulders touch the frame, with its head and neck protruding beyond the frame. By means of hydraulic controls, the upper section is lowered to constrict the animal's head. This powering is varied to adapt to the physique of the animal. At the same time, a shaped steel rod moves up under the animal's neck, lifting the head upward. The frame is contoured to accommodate the animal's neck. The upper frame has a shaped steel rod which comes down over the back of the animal's neck and a restraining plate against which its head is positioned by the lower rod frame."

The animal's head is thus held immobile with the head in position for the kosher cut to be made with precision and expedition. This is a vast improvement over the present method whereby a heavy steer must be hauled off the floor by a chain around one hind leg and, while dangling from the ceiling, struggle against a man who is trying to drag the animal's head back to expose his neck sufficiently for the kosher cut to be made.

Slaughterers who desire further information concerning this new development may obtain it by writing William R. Perrin, Ltd. (530 King Street East, Toronto 2, Canada), the firm which is handling its sale and distribution.

Pending State Bills

State humane slaughter bills, designed to protect those food animals not covered by the Federal Humane Slaughter Act which went into effect August 30, 1960,* have been introduced and are now awaiting legislative action in at least 13 States. Nearly all the pending measures are modelled on the Uniform State Slaughter Bill prepared by the Council of State Governments and approved by the national humane organizations.

The States in which such bills have been introduced and are now awaiting action are: New York, New Jersey, Connecticut, Michigan, Ohio, Missouri, Nebraska, Indiana, Maine, Oklahoma, Kansas, Tennessee and Rhode Island. It is expected that bills will soon be introduced also, if they have not already been, in Florida, Pennsylvania and Colorado.

FARMERS URGE HUMANE LAW

(A note from the *National Provisioner*)

A resolution adopted at the recent New Jersey state agricultural convention in Trenton urged the state agriculture secretary to seek passage of humane slaughter legislation. The delegates represented county boards of agriculture, Pomona granges and state breed and commodity organizations.

*The U.S. Department of Agriculture estimates that 87% of all food animals slaughtered in plants under federal inspection are now killed humanely as a result of the federal law.

CURB IN RESEARCH DENIED BY BRITONS

Biologists Find No Handicap in Government Rules on Use of Living Animals

By JOHN HILLABY

Special to The New York Times.

LONDON, Jan. 28 — British biologists are indignant about suggestions made by some medical-protection societies in the United States that medical research in Britain is hampered by Government control over experiments on living animals.

A seven-page statement embodying the views of eighty-eight British biologists, most of them fellows of the Royal Society, was released today.

It will be sent to the Animal Welfare Institute of New York in support of a bill introduced in the United States Senate last year. The bill's thirteen sponsors included Senators John Sherman Cooper of Kentucky, Mike Mansfield of Montana, Estes Kefauver of Tennessee and Wayne Morse of Oregon. It will be reintroduced soon by Representative Martha W. Griffiths of Michigan.

The bill provides for the "humane treatment of animals used in experiment."

In essentials, the Cooper bill is based on British practice. It includes a clause providing that no grant of Federal funds will be made to any person experimenting on animals unless a certificate of "compliance with the act" is obtained from the Secretary of Health, Education and Welfare.

According to Maj. C. W. Hume, secretary-general of the British Universities Federation for Animal Welfare, this clause has been used by opponents of the bill in Congress, particularly the National Society for Medical Research. These opponents, he said, have tried to show that medical research in Britain is backward because it is frustrated by the effects of British law and practice on the governmental supervision over experiments on animals.

In a recent survey, the eighty-eight British scientists were asked the following questions:

Do you consider that in consequence of the system of licensing and inspection administered by the Home Office, medical research of the highest quality cannot be carried out in Britain?

Would you prefer Home Office control to be abolished so that persons without scientific training would be permitted to experiment on animals with supervision?

Have you in your experience found that the British system seriously frustrates legitimate research?

Only One Feels Frustrated

Only one of the eighty-eight scientists approached said he felt frustrated by Home Office control. This was an unnamed experimenter on the brain who considered that knowledge in his field could not be obtained if a section of the Act of 1876, dealing with the minimizing of pain, was strictly enforced.

Twenty-one scientists answered "no" to each question. Sixty-six answered "no" and added comments. Most of the remarks expressed strong support for the British system, although there were a few minor criticisms on matters of detail.

Major Hume summed up by saying:

"Certain minor amendments of our law and practice, not involving questions of principle and not relevant to the Cooper bill, might be desirable, but there can be no doubt that Home Office control is a great success."

Group Explains Aims

The Animal Welfare Institute of 22 East Seventeenth Street reported yesterday that it seeks to obtain better living conditions for all animals, especially those in laboratories.

Mrs. Christine Stevens, the president, said the so-called Cooper Bill was patterned after a British regulation.

The basic aim of the American bill is to provide control over the housing care and treatment of animals in those laboratories receiving Federal grants.

Mrs. Stevens said these conditions were often deplorable.

Her organization, which was founded nine years ago and has 500 members through the country, takes no position on the merits or lack of them in vivisection.

"We are interested," she said, "in establishing humane standards in those laboratories receiving Federal funds."

She said the bill provided that such laboratories receive certificates of compliance from the Secretary of the Department of Health, Education and Welfare, that records be maintained, that scientists be licensed by the secretary, that animals subjected to prolonged suffering be killed and that work of students be not painful to animals.

She said principal objections to the bill had been expressed by anti-vivisectionists and the National Society for Medical Research. Mrs. Stevens said she was much pleased by the report from London that biologists there had found their research was not hampered by Government regulation.

FEBRUARY 3, 1961.

Letters to The Times

Using Laboratory Animals

Cooper-Griffiths Bill Is Declared Restrictive to Research

The writer of the following letter is Assistant Professor of Pharmacology at New York University College of Medicine.

TO THE EDITOR OF THE NEW YORK TIMES:

In a Jan. 29 dispatch, reference was made to the Cooper-Griffiths bill which will shortly be reintroduced before Congress. The aims of this bill are stated in phrases which are surely noble and universally appealing; for example, "to provide for the humane treatment of animals used in medical experiments * * * by recipients of grants from the United States."

Enforcement of the bill would rely on police inspection of laboratories by persons who are presumably kinder, wiser and more knowledgeable of scientific principles than are university presidents, deans, academic department heads and scientists who have spent many years training for their profession. Furthermore, detailed project plans describing in advance all experimental procedures would have to be submitted to and approved by the Secretary of Health, Education and Welfare.

Non-scientists should realize that the procedure of a research problem develops gradually as the work progresses, that some approaches must be abandoned after many weeks or months of effort and that hunches or sudden insights play as big a role in science as they do in other fields of creative arts. The United States Public Health Service is currently aware of this problem and is, therefore, very flexible in its requirements concerning the form of application for Federal research grants and of progress reports based on Government-supported research.

There are many features of the Cooper-Griffiths bill which are enormously restrictive to medical research, but the important point is this: the bill offers no constructive provisions for improving laboratory animal care, only harassment and stringent regulation.

Useful Measures

Biological and medical scientists desire governmental aid to develop the techniques, train the personnel, and build the facilities needed for the most advanced and perfect conduct of animal research. If this was also meant to be the aim of the bill "for humane treatment of animals," then measures should have been devised along these useful lines rather than the punitive and regulatory ones now written.

Finally, virtually all of us engaged in medical research are as desirous of eliminating the few and isolated instances of improper animal treatment now existing as are the sponsors of the bill; but surely this does not require the elaborate and all-embracing proposals now being considered.

The English system for regulation of animal research arose out of a relentless and uncompromising movement against animal experiments which existed throughout Europe during the last half of the nineteenth century. Although partly inspired by anti-vivisectionists, the movement was predominantly the result of a popular anti-scientific attitude.

There is no doubt that British biological and medical scientists have contributed enormously to progress in their fields. But who can say what might have been in the absence of the English laws?

Confronted with the prospect of almost complete abolition of animal experimentation in the Eighteen Eighties, eminent British scientists spent much of their time defending the principle that such experimentation is a requisite to progress in biology and medicine. It seems odd that even today in our own country scientists must again divert time and energy from important research in order to prevent the encroachment of government bureaucracy and regimentation into the research laboratory. ALBERT S. KUPERMAN.

New York, Jan. 31, 1961.

Letters to The Times

To Protect Animals

Bill Providing Humane Treatment in Laboratories Supported

TO THE EDITOR OF THE NEW YORK TIMES:

In a letter published Feb. 3 Albert S. Kuperman gave several reasons for his disapproval of the Cooper-Griffiths bill which aims "to provide for the humane treatment of animals * * * by recipients of grants from the United States."

His first objection to the bill is that enforcement of humane regulations would be by personnel of the National Institutes of Health rather than by the present voluntary efforts of university presidents, deans, academic department heads and scientists. Without going into the quality of present voluntary rules of conduct for scientists toward animals, Dr. Kuperman must realize that without enforcement even the best laws are ineffectual and worthless.

Furthermore, it should be beneath Dr. Kuperman to imply that since the inspector may not have the wisdom of the university president, dean or scientist, the enforcement of the bill will therefore be bad. I'm sure that average, intelligent traffic policemen enforce speed laws quite nicely, even for above-average, super-intelligent wise men.

Dr. Kuperman objects to being required to plan ahead and submit all experimental procedures involving animals for approval by the Secretary of Health, Education and Welfare. I suppose this requirement would slow down some types of research—especially the inadequately prepared, poorly thought-out, spur-of-the-moment kind. It might even reduce the remarkable number of poor papers that clutter up the literature, which would indeed be a blessing.

Dr. Kuperman admits that "British biological and medical scientists have contributed enormously to progress in their fields." Since it seems highly unlikely that our British scientific colleagues are any better or worse than we are, the criticism that they might have contributed more without their humane law is a rather meager one.

The eminent English scientists of the late nineteenth century were themselves responsible for the passage of their own humane law, which provides for adequate enforcement by the Government. Today the English scientists are still satisfied with the same law and the same enforcement. Those scientists still produce good work. The Cooper-Griffiths bill is patterned after that law and it ought to be supported by our own scientists.

HERBERT RACKOW, M. D., Assistant Professor of Anesthesiology, Columbia University, College of Physicians and Surgeons, Whitestone, N. Y., Feb. 4, 1961.

*This letter expresses the personal views of Dr. Herbert Rackow and not the official viewpoint of the Department.

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REP. GRIFFITHS' HUMANE BILL OPPOSED BY ANTI-REFORMISTS

At the Atlantic City meetings of the Federation of American Societies for Experimental Biology, April 10-15, the National Society for Medical Research was active in opposition to the legislation proposed by the Hon. Martha Griffiths, H.R. 1937, for the humane treatment of experimental animals. Two documents were widely distributed: "Federal Regulation of Animal Experimentation, A Report to Federation Members," by Dr. C. C. Pfeiffer, and a news release from the new "National Committee for Progress in Medical Research" whose address is given as the NSMR headquarters in Chicago. Dr. Robert A. Moore, Chairman of this Committee, and new to NSMR euphemisms, privately stated that he was the chairman of "the committee to fight the Cooper bill." The American Medical Association and the Pharmaceutical Manufacturers Association are among the sixteen organizations which reportedly have representation on Dr. Moore's Committee,

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TEEN-AGE SURGERY, CANCER INDUCTION, LETHAL IRRADIATION AND POISONING

Experiments that cause suffering and death to animals ought not to be conducted at the high school level. Nevertheless, such activities continue to receive active promotion in some quarters through glamorization in the press, the awarding of prizes and money, encouragement by some scientists, technicians and their institutions, and, in some cases, through the application of the most extreme type of progressive educational theory.

Examples will help to make clear what is happening. Over the caption "Youthful Surgeon" in the March 6, 1961 issue of the *Cleveland Press* is the photograph of a fifteen-year-old. The headline reads YOUTH SEWS WINDOWS IN ABDOMENS OF 3 RATS, and the article reports that he "has inserted clear plastic windows in the abdomens of three white rats. Through the windows he can watch development of babies in the two rats who are expectant mothers. The 10th grader has already won a first-prize blue ribbon with the rats at Lutheran High-East's science fair. Aided by his mother, Mrs. Walter Cooper, the youth put the animals to sleep with ether soaked cotton pads. Using sterilized instruments obtained from a veterinarian, Wally removed a one by one-and-a-half inch piece of skin from the stomach of each rat. Then he stitched in a piece of clear Saran plastic . . ."

BUSY, 'BEAT' COED, 15, SEEKS CANCER CURE is a headline in the August 2, 1960 issue of the *New York World-Telegram & Sun*. The first paragraph will give a fair sampling of the tone of the article: "Vivacious, curvaceous Judy Sorkin, 15, triple dates, ran for a high school office last year on a Beatnik campaign—and lost—wants more than anything else to marry and have a big family and is currently doing research on DNA, deoxyribonucleic acid, the hottest thing in modern biology."

Angelo Patri, noted writer and educator, states: "I was distressed to learn that children in secondary schools are being allowed to experiment with live creatures. I am sorry that this should be practiced in any school below college level. The secondary pupil is emotionally immature and his character still unstable and he should not be exposed to such experiences. Children and the adolescents are unaware of cruelty, have not developed judgment, are,

(Continued on Page 2)

INTERIM REPORT ON THE FDA BEAGLES

Action Needed

Readers who have followed developments on the housing of the test beagles of the Food and Drug Administration are aware that hundreds of members of this breed (which was bred for an active life chasing rabbits) are shut in cages 30" x 36" in the sub-basement of the South Agriculture Building and never let out of these cages for exercise as long as they live (two to seven years).

The last Congress appropriated funds for planning a combination pharmacological laboratory and kennel building where the dogs could occupy kennel-runways. Architectural plans have been made by the Food and Drug Administration, which is anxious to get the dogs out of their present grim confinement. The next step necessary is the approval of the appropriation for the laboratory-kennel building by the relevant subcommittees and committees of Congress. Hearings were held on the House side on April 19th before Congressman Fogarty's sub-committee. They have not yet been scheduled on the Senate side.

In the course of the planning work, an economic analysis was made by the Food and Drug Administration on the actual cash value of a dog on one of these tests. It will be of interest to scientists and animal welfare workers and is reprinted in full below.

January 16, 1961

Value of a Dog

The normal pattern of undertaking a test feeding project using dogs requires a minimum allotment of 24 animals: 6 of which are in the control group; 6 fed at a significant level of the substances to be tested in the food; 6 fed at double this amount; and 6 fed at four times the first level. These feeding experiments are used by FDA in its work related to evaluating the safety of food additives (with all their ramifications—whether they are used as stabilizers, emulsifiers, etc.), colors, pesticides, and drugs. In some instances, feeding experiments are used for validating consumer complaints.

While the initial investment for 24 dogs would probably not exceed \$720, it is quite obvious that from the time the feeding experiment begins to the end of the first year many services—some very expensive—have been devoted to this group of animals. These services include special care, scientific control and observation, and the gathering of important statistics which are used throughout the life of the project. (Such a project normally runs up to 7 years.)

Ordinarily, for four 24-dog groups, 4 custodians are required as animal caretakers. At the same time, this same group of 96 animals requires the full-time services of a scientist (veterinarian or pharmacologist) with the technical assistance of 4 technicians and a clerk. At the end of the first year there is represented a basic investment of approximately \$15,000 to \$20,000 for each 24-dog group. The scientific value, like the good-will in business, is extremely difficult to evaluate, but it is obvious that this is beginning to become very substantial by the end of the first year.

As the experiment develops and these dogs become older, new and even more valuable scientific data are acquired from their study. The basic cost runs about the same each year, but the scientific value obviously increases beyond the geometric proportions of the time and funds represented in the experiment. It is quite certain that, at the end of three years, the experiment could be many

(Continued on Page 3)

TEEN-AGE CRUELTY (Cont'd)

as I have said, too immature for this sort of work."

Mr. Patri's sound judgment is not shared, however, by Mr. George C. Turner of the Orange County State College in California who, in an article entitled "Outline for a High School Second Year Biology Course" (*American Biology Teacher*, January, 1961), includes the following: "A. Basic procedures of surgical techniques discussed and demonstrated. 1. Examples: splenectomy, adrenalectomy, transplantation of tissues, B. Various elementary operations performed by students on laboratory animals. 1. Entire class organized to perform duties necessary during operations."

Mr. Turner explains the teacher's role in the development of this biology course as follows: "... the teacher's role could be described as: innocent bystander, arbitrator, interpreter of rules and limitations, resource person, and 'general flunkie' for an inspired group of people." He comments on the "remarkably enthusiastic help extended by medical doctors, veterinarians, laboratory technicians and college professors."

On the East Coast, a high school biology teacher included demonstrations of the effects of such substances as curari and strychnine and inspired an exceedingly active interest on the part of some of the students. The *Long Island Press* reported, February 9, 1961: 2 BOYS HELD IN THEFT OF DEADLY DRUGS. The report read in part: "Police told this story: the boys — one wants to be an embalmer, the other a veterinarian — carried on extensive experiments with animals in a basement lab at the Camp home. It was during biology class that they learned about the use of deadly drugs, and decided to use some for their experiments. Sometime after 1 a.m. Saturday they headed for school on Marcellus Road, climbed to the roof and kicked in a second-floor window. They made a bee-line for the locked storeroom on the third floor where they remembered seeing the teacher store the drugs after each class. They also took about 20 vials of less harmful drugs together with a collection of bone-saws, needles, thermometers and dissecting kits."

The two boys are tenth graders, and the fifteen-year-old's name was quite properly withheld from publication. What of the other fifteen-year-olds who are praised, publicized and given prizes for animal experiments?

Another young student wrote to the Animal Welfare Institute stating: "In our science class recently we talked about cruelty to animals. We are having a Science Fair at our school soon and I was wondering if it would be okay to put a window in a live chicken to see some of the organs. First I would put the chicken to sleep then pluck the feathers in a small area and cut a hole in the skin. Then I would burn the cut with a hot needle so it wouldn't bleed. Then I would cut one or two ribs out and screw two round pieces of aluminum with plastic in between them on to the skin (see diagram below). My science teacher explained how to do this to me. Please answer soon."

Other children apparently have never even heard any question raised on cruelty to animals. For example, a recent report in the *Miami News* stated, "Dade school officials said today that some school children are operating on live animals for the 'science fair' projects even though such operations violate the rules. A 15-year-old boy in a public junior high injected cancer cells under the skins of 'about 30' mice, waited for the tumors to grow 'sometimes half as big as the mouse' and operated to remove the tumors. A 12-year-old boy in a private school took for his physics project the transplanting of corneas (the transparent surface of the eyeball) on monkeys. . . . The 15-year-old boy who conducted the experiment with mice and cancer cells, in talking with a reporter, seemed unaware that there could be any objection to such an experiment. He calmly discussed the fact that tumors grow 'about half the size of the mouse.' Asked whether the mice survive the operations, he indicated that it didn't matter. Many don't, he said. His primary interest was in getting the tumors to examine under a microscope."

The news story quoted local education and science fair authorities as firmly opposing this type of work. "Science fair rules say: 'No experiment shall be conducted on living animals that involves infection with pathogenic organisms or any type of surgical procedure.'"

At another recent science fair, a seventh grader submitted a report on a project entitled "Genetic Effect of Gamma Radiation on White Rats," the stated purpose "to determine if mutations occur." A sampling of the notations follows: "One of the male irradiated rats died. . . . The irradiated rats are turning yellow and are sluggish. . . . The controlled (sic) rats are white and lively. . . . two females that were irradiated dies. . . . Other male irradiated rat died slowly. . . . We make a trip to the reactor and was given a white female rat who has been mated. . . . a male irradiated rat died this weekend. . . . a baby rat died (Non-irradiated). . . . The mother rat (Nina) ate three babies. They were separated today. Regina was irradiated with 125 rep Cobalt 60. . . . Another baby rat of Nina died today. This was the one which froze to death. . . . Nina is mating again because there is only one left of her batch. . . . Nina had a litter of 11 today. She is not irradiated."

This pathetic report also indicates that some of the little girls took certain of the rats home over weekends probably in the hope of saving their lives since so many had died. What conceivable purpose can be served by having these children, barely out of elementary school, exposed to needless and prolonged suffering and death of captive animals placed in their care? In checking the definitions of "science" in Webster's dictionary, none appear which have any relationship to the type of activity described above. There is another word, however, which does: "Scientistic. Devoted or pretending to the methods of scientists. Professedly scientific."

The United States needs to develop capable, serious scientists, not fads for play-acting with the trappings of biological research. We need to develop scientists with sound, moral principles, not children led by their earliest experiences with science teaching to equate the infliction of sufferings on animals with experimental biology in general. It is time that scientific leaders throughout the country spoke out in unambiguous terms. Two simple rules are all that are needed:

- 1) Animals being observed by students must always be maintained in the maximum possible condition of health, comfort and well-being.
- 2) No vertebrate animal used for primary or secondary school teaching may be subjected to any experiment or procedure which interferes with its normal health or causes it pain or distress.

With the kind permission of Mrs. Eleanor Roosevelt, we quote below a fine letter which she has just written to the President of the National P.T.A. Congress, Mrs. James C. Parker, on the subject of humane education and experimentation by children.

"Dear Mrs. Parker:

"In view of the forthcoming convention of the P.T.A., I would like to join all those who sympathize with the principles of humane education and urge you, as President of the National P.T.A. Congress, to include a discussion on this vital matter and reinstate humane education on the program of the P.T.A. It seems to me of great importance to teach our children respect for life. Towards this end, experiments on living animals in classrooms should be stopped. To encourage cruelty — in the name of science — can only destroy the finer emotions of affection and sympathy and breed an unfeeling callousness in the young towards suffering in all living creatures.

"With best wishes,

Very sincerely yours,
ELEANOR ROOSEVELT"

HUMANE BILL OPPOSED (Cont'd)

so it can be expected to be well financed. The other organizations are: American Association for the Advancement of Science, American Association of Anatomists, Association of American Medical Colleges, American Cancer Society, American Dental Association, American College of Surgeons, American Heart Association, American Hospital Association, American Institute of Biological Sciences, Animal Care Panel, Association of Land Grant Colleges, American Psychological Association, American Veterinary Medical Association, Federation of American Societies for Experimental Biology.

What conclusion is to be drawn from the fact that of 6,497 experimental biologists who are members of the Federation, the one selected to represent them all on the committee to fight the bill is Dr. C. C. Pfeiffer, a man known to advocate painful animal experiments at the high school level?

The action Dr. Pfeiffer seeks through issuance of his Report is letters to Congressmen against two bills which he does as little as possible to differentiate although Congresswoman Martha Griffiths' H.R. 1937 is a moderate proposal soundly based on 85 years of experience in Great Britain, whereas the other bill, H.R. 3556, contains some provisions which could create serious problems in the conduct of some types of animal experimentation. (The most striking of these provisions is that calling for a veterinarian or medical doctor qualified in anesthesiology to anesthetize animals. Since the vast majority of mice undergoing anesthesia are anesthetized by technicians who hold neither an M.D. nor a D.V.M. degree, and since properly trained technicians can properly anesthetize these animals for the short periods generally required, this provision would not be necessary for the prevention of animal suffering, and it would be very difficult indeed to comply with.)

The Animal Welfare Institute supports H.R. 1937, introduced by Representative Griffiths. It does not support H.R. 3556 as written because it does not support provisions which could be classed by an honest and thoroughly informed person as obstructing research instead of seeking prevention of needless animal suffering.

Dr. Pfeiffer tells Federation members that under both bills "Government approval would be required before changes could be made" in experimental procedures. This is not true of Representative Griffiths' bill. This bill makes provision for disapproval of an experimental plan on humane grounds by the Secretary of Health, Education and Welfare should he find this necessary. There is no requirement in the bill whereby the scientist must wait for approval.

Dr. Pfeiffer alleges that "elaborate record-keeping and reports would be required." This is untrue. H.R. 1937 asks for a minimum of paper work — far less than is required to obtain a grant or to carry out a contract under the Cancer Chemotherapy National Service Center. The records are of a nature that responsible scientists and laboratories need to keep if the work is to have scientific value. The mailing to the Secretary of the procedures to be used with respect to animals and of confirmation at the end of the year hardly seems worth the outcry that has been made. It is inconceivable that it would be made by the average scientist unless he had been misled.

Dr. Pfeiffer next repeats the erroneous statement about "plans outlined and approved in advance" and claims that "government inspectors would be authorized to stop research and destroy animals if in the judgment of the inspectors" these plans had not been followed accurately. The provision in H.R. 1937 whereby severely suffering animals may be killed or required to be killed is a sound provision, long tested in Britain. It is a humane provision to end excessive suffering, not a means of punishment for failure to fill out forms correctly, as Dr. Pfeiffer would have his readers believe.

Not content with opposing humane regulation of animal experimentation, Dr. Moore and Dr. Pfeiffer suggest that public concern aroused by the debate over the proposed

legislation be utilized to procure multi-million dollar grants for such items as "Research in laboratory animal husbandry", "Communication of the latest information about animal care methods" etc. It is a sorry commentary that legislation which the major American medical societies now fight with untrue allegations won the enthusiastic support of the major British medical and scientific societies in 1876 when it was passed in England.

INTERIM REPORT (Cont'd)

times more valuable than at the end of the first year; and at its completion—possibly five years later—the value of this particular test undoubtedly has grown beyond five times the first-year value, for the simple reason that scientists have reached the point where conclusions can be reached as to the effect of the chemical upon the organs of the dogs.

It is necessary that the animals used for these tests be housed in a fashion permitting precise and accurate records to be kept on their day-to-day feeding, as well as providing a minimum number of variables allowing clear indications of reactions resulting from the quantity of test substances they are consuming in relation to their total dietary intake. Such high-grade housing and care are important for still another reason, however, and that is to provide conditions promoting longevity. Since each dog becomes more and more valuable to the experiment as time goes on, the death of these animals prior to completion of the project means substantial losses in terms of investments already committed to the experiment. A project of this type can suffer seriously from the loss of animals, especially if the dogs die two or more years after initiation of the project. Proper environmental conditions reducing the mortality rate to a minimum, therefore, is a most significant requirement for such tests, producing better scientific results and permitting greater returns from investments made in the project.

In summary, the value of an experiment breaks into two parts — funds for support, and the intangible factor of scientific results. It is safe to assume that a 5-year experiment would be worth \$100,000 in cost alone, and many times that in scientific value. An experimental investigation which results in data affording a safe tolerance level of a pesticide or food additive may affect an industry worth millions of dollars. On the other hand, studies which reveal a hazard in the chronic consumption of a dye for instance, might obviate serious diseases in a large portion of the population. Assuming only a five-fold increase in the value of the experiment over the actual cost (then) each surviving dog would be worth \$25,000 to \$30,000 at the end of five years, taking into account allowances for natural mortality.

Testimony Before House Committee

At the April 19th hearings before the Hon. John E. Fogarty's subcommittee of the House Appropriations Committee, Mrs. Paul Kiernan of Washington presented the Animal Welfare Institute testimony supporting the Food and Drug Administration's request for funds to construct the proposed laboratory-kennel building where the test beagles could be decently housed. Text of the testimony follows.

"The Animal Welfare Institute supports the request for funds necessary to provide adequate space for humane housing of dogs used for testing by the Food and Drug Administration.

"Not long ago this Administration made a fine forward step by discovering means whereby vitamin D can be tested for human use without using animals at all. We hope that more such discoveries will be made in order to reduce the numbers of animals which must be confined and subjected to procedures which, in some cases, cause suffering. Until that time comes, however, the Food and Drug Administration must test substances on animals in order to protect the public from dangerously toxic substances.

"Animals used for protecting our health deserve decent treatment. All of us must hang our heads in shame when

we consider the present housing of the friendly little beagles imprisoned for life in the sub-basement of the South Agriculture Building. These creatures get no chance to stretch their legs and run, as every beagle wants to do. They never see the light of day. This extreme deprivation has no scientific merit; on the contrary, so unnatural a mode of dog housing is likely to result in wrong conclusions from the tests. Dog metabolism has been shown by Professor A. N. Worden to change under close confinement. Dr. Michael Chance has shown in other species that uniformity of results is increased when test animals are kept under optimum conditions.

"Thus there is every reason, whether one's primary concern is humanitarian or scientific, that these beagles which are kept over long periods, ranging from two to seven years, should have reasonable space for exercise.

"The question of expense has been raised. If we are going to test additives, colorings, pesticide residues, and other types of chemicals now being ingested by the human population, and if we are going to use animals to test them, then those animals should be humanely and properly housed. The present situation is intolerable. It is an appalling reflection upon our nation—the richest on earth—that our government should be responsible for needlessly incarcerating defenseless dogs and making their life a torment for the sole purpose of saving money. If we were not using these dogs for our benefit, they could be comfortably housed for three or four dollars—or for nothing at all if they lived in someone's house. But since we have decided they are to be used for testing potentially poisonous substances, we are obligated to provide humane and scientifically acceptable conditions for their use.

"On behalf of the Animal Welfare Institute, I urge Congress to appropriate the necessary funds for this purpose."

HUMANE SLAUGHTER BILLS PASSED

Kansas, Rhode Island and Maine have passed humane slaughter bills this year, making a total of nine States that have adopted legislation to protect from cruelty the food animals not covered by the Federal Humane Slaughter Act which went into effect in 1960. During 1959 and 1960, State legislation was adopted in New Hampshire, Massachusetts, Washington, California, Minnesota and Wisconsin, and it is expected that several other States will follow suit during 1961.

WATER POLLUTED BY INSECTICIDES KILLS BIRDS

Rachel Carson calls attention to the pollution of lakes with the powerful insecticides, aldrin, toxaphene and DDD and the resulting sickness and death of the birds that frequent them. Commenting on the Department of the Interior release on conditions at Tule Lake last summer, Miss Carson points out that this has great significance because it is one of the major refuges for waterfowl.

The release states: "During the last week of May a die-off of fish-eating birds occurred on the Tule Lake and Lower Klamath National Wildlife Refuges. Between May

22 and June 2 a total of 307 dead and sick birds, whose diet normally contains a goodly share of small fishes, were picked up on the two refuges by refuge personnel with the aid of airboats. Principal species affected were: White Pelicans, American Egrets, Ring-billed and California gulls, Black-crowned Night Herons and Western Grebes. A few Double Crested Cormorants, Great Blue Herons and Snowy Egrets also succumbed.

"Birds which had recently died of the malady were quick frozen and shipped air freight to the California Fish and Game Department Laboratories and the Bureau of Sport Fisheries and Wildlife, Wildlife Research Center at Denver, Colorado for analysis in an attempt to determine the cause of the malady. Samples of the small minnows inhabiting refuge waters which make up a part of the diet of the bird species affected were also collected and forwarded for analysis. Preliminary reports from the two laboratories revealed the presence of several of the chlorinated hydrocarbon insecticides in the minnows and in the internal organs of bird specimens analyzed. Additional specimen material has been forwarded for analysis, and investigations are continuing."

Miss Carson reports that further studies have been made and that insecticides, including toxaphene and DDD, have been found in most organisms tested from the lakes involved.

The insecticides apparently find their way into the Tule Lake sump and Lower Klamath pools via return irrigation flow. The water supply originates in Upper Klamath Lake from which it goes into irrigation ditches. It is then pumped to Tule Lake and Lower Klamath.

Miss Carson also draws attention to a talk by Robert B. Finley, Jr. of the Denver Wildlife Research Center in which he stated: "Some pesticide problems are not the result of approved spray programs but result from special local conditions that may require correction. Such a condition exists at the Rocky Mountain Arsenal northeast of Denver, where three small industrial lakes have been polluted with aldrin that has escaped from an insecticide plant of the Shell Chemical Company. Each winter and early spring large numbers of ducks die there when the lakes are at low water level.

"Investigation of the problem by personnel of the Wildlife Research Center showed that mud from the Lake and inlet canal contained aldrin and dieldrin ranging as high as 480 parts per million, that living algae contained up to 79 ppm, and live aquatic snails had up to 88 ppm. Dead ducks analyzed have contained from 30 to 64 parts per million of dieldrin.

"We have yet to determine what the dieldrin residue levels may be in live, apparently healthy ducks killed over the lakes by members of the local rod and gun club. The tolerances set by the Food and Drug Administration for aldrin and dieldrin in meat are zero. In other words, any detectable amount whatever is not permissible. We suspect that thousands of ducks using the lakes have acquired less than lethal doses of dieldrin and flown on to their nesting grounds in other parts of the mid-continent region. Efforts are being made to get corrective action by the Army Chemical Corps and the Shell Chemical Company."

ANIMAL WELFARE INSTITUTE

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REPORT

ANIMAL WELFARE INSTITUTE

22 EAST 17th STREET, NEW YORK 3, N. Y.

May-June, 1961

Vol. 10 No. 3

A LETTER FROM THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

Opponents of H.R. 1937 for the humane treatment of experimental animals, recognizing that the bill is based on the thorough experience with similar legislation in Britain, have recently fallen upon the expedient of attempting to belittle British scientific work in general and surgery in particular, suggesting that the British Act of 1876 hampers those who work under its provisions. Accordingly, Major C. W. Hume, Secretary-General of the Universities Federation for Animal Welfare, sought the opinion of Sir Arthur Porritt, K.C.M.G., K.C.V.O., C.B.E., F.R.C.S., Legion of Merit (U.S.A.), President of the Royal College of Surgeons of England. His reply is published in the interest of providing American scientists with information they need in order to form a sound judgment.

Royal College of Surgeons of England
Lincoln's Inn Fields
London W.C. 2

24th May 1961

Office of the President

"Dear Major Hume,

"I must apologise for having been so long in answering your letter of the 2nd May but I have felt the subject was of so much importance that I would like to give you a well thought out reply. I have spoken to a number of my colleagues here about the matter you brought up, particularly Sir Stanford Cade who is very knowledgeable on these subjects, and whilst I am sure you will understand that we as a College would not wish in any way to interfere with procedure in the States, either parliamentary or professional, I feel that some statement is called for. I

(Continued on Page 4)

HON. ADLAI E. STEVENSON ADDRESSES ANIMAL WELFARE INSTITUTE MEETING

Members of the Animal Welfare Institute were greatly honored by the presence of Ambassador Adlai E. Stevenson, United States Representative to the United Nations, at the Institute's annual meeting held in New York May 26. All humanitarians who heard him were cheered and heartened in their efforts.

Ambassador Stevenson's stalwart support of humane slaughter legislation and the moral leadership which he gave to the successful struggle for the mandatory federal law did much to establish the ethical climate in which that major reform could be made. His direct sympathy and his understanding of animals as individuals are well exemplified in the famous message he sent to the Illinois legislature when, in 1949 while he was Governor, he vetoed a bill which would have required the licensing of cats. The veto message, first reprinted in *Harper's* magazine and later in the journals of humane organizations, combines humane-ness, wit and solid good sense to a matchless degree.

In introducing Ambassador Stevenson to the meeting, Mr. Michael Rennie, distinguished stage and television performer and friend of animals, read the message and it is reprinted below:

"To the Honorable, the Members of the Senate of the 66th General Assembly:

"I herewith return, without my approval, Senate Bill No. 93 entitled 'An Act to Provide Protection to Insectivorous Birds by Restraining Cats'. This is the so-called 'Cat Bill'. I veto and withhold my approval from this Bill for the following reasons:

"It would impose fines on owners or keepers who permitted their cats to run at large off their premises. It

(Continued on Page 3)

The following letter received just before going to press calls attention to the wide gap between the representations being made about the British Act by opponents of H.R. 1937, and the true facts about the Act. Dr. Bernstein's experience will be helpful to all open-minded scientists.

The Secretary, Animal Welfare Institute
22 East 17th Street, New York, N. Y.

31st May, 1961

Sir:

"I feel that I must write to congratulate the Institute on the sensible, well-balanced arguments that it advances in favour of the Griffiths bill (HR 1937) for the regulation of experiments on animals.

"I am a physiologist, trained in Gt. Britain; for 18 years I taught physiology to medical students, and, both for this and for my own researches, performed experiments on living animals. I was licensed under the British law regulating such experiments. I can think of no other licensing law, either in Britain or in the U.S.A., that is administered with greater understanding of the problems of the licensee, or with greater concern to assist him and to relieve him of 'paper work'. The formalities involved are trivial; I do not recall that in my own case they ever occupied more than one minute of my time for each experiment I performed, and perhaps thirty minutes for the completion of the annual report.

"Reading some of the propagandist literature circulated to me recently by the scientific societies of which I am a member, I have had a feeling of unreality about the whole affair, engendered by my inability to recognize, in their descriptions of the restrictions and burdens under which their British colleagues labour, the system under which I worked for so many years; sometimes, I have wondered what cloud-cuckoo land they have confused with Gt. Britain.

"It is distressing to see what we usually think of as the unprincipled methods of politicians and demagogues—the half-truths, the downright misrepresentation and misquotation, the things taken out of context, the repetition of traveller's tales, and the assertion of hypotheses as though they were established fact—being used by scientific societies to obstruct legislation that would certainly not be against the interests of their members.

I am, Sir,
Yours very truly,
LEON BERNSTEIN

B.Sc., Ph.D., M.R.C.S., L.R.C.P.
Asst. Prof., Dept. of Environmental Medicine
School of Hygiene, Johns Hopkins University"

UNITED STATES RATIFIES OIL POLLUTION CONVENTION

The United States Senate on May 16 ratified the International Convention for the Prevention of Pollution of the Sea By Oil. Countries representing nearly half the world's tanker shipping already have adhered to this Convention, and it is expected that others will now follow. This action will be of great importance in preventing the death by starvation of hundreds of thousands of sea birds. Starvation results when their feathers are soaked with oil so they cannot fly and their food supply is destroyed by waste oil floating on the seas. The Senate Foreign Relations Committee held a hearing on the Convention on April 25, at which conservation groups as well as representatives of the United States State Department gave supporting testimony; in its report to the Senate, the Committee stated that no unfavorable comments whatever had been received.

Following the ratification of the Convention, Senator Saltonstall of Massachusetts commented: "We need this convention to prevent ships from pumping oil into the waters off our shores. . . . Massachusetts is in the flight lane of many migratory birds. Her shores are visited at this time of year and again in the fall on their way south. Many of these birds stay with us throughout the year and a great many more spend their summers along our shores, and we have set aside many refuges for them. This dumped oil slick destroys the food sources of these birds and destroys their ability to fly by coating their feathers."

Comment by Representative to the IMCO

Mr. Lester A. Giles, Jr., Director of Education of the American Humane Education Society, has just returned from London where he attended the Second General Assembly of the International Maritime Consultative Organization in April. Following is the statement he prepared for publication in this Information Report on the current status of the prevention of pollution of the sea by oil:

"By a vote of ninety-two to nothing the Senate has put the United States into the oil pollution problem as a full partner with other nations under the 1954 London Convention.

"Many countries will look upon this action as concrete evidence that the United States is acting in good faith in its dealings at the sessions of the International Maritime Consultative Organization where the practical aspects of preventing pollution by oil will be worked out.

"The next step is domestic enabling legislation which will provide a working relationship with the terms of the treaty and existing United States laws and institutions. The bill for this purpose has already been drafted and presented for Congressional consideration.

"The next major event will be a full diplomatic meeting in London in 1962 where proposed changes in the treaty will be acted upon. Our own National Committee on Oil Pollution is at present hard at work on the position the United States will assume at that meeting. There are several provisions of the treaty that need better definition in order that the treaty be more easily administered by the various countries committed to its provisions. There are some provisions of the treaty that could well be strengthened now in the light of progress in improved national laws of various signatory nations.

"The important first step just now taken by the Senate in ratifying the treaty has opened the way for effective, more rapid cooperative action through the facilities of the United Nations and its agency, IMCO. This truly international situation has threatened the extinction of some of our wildlife resources at sea and shore. The benefit of the combined experience and intellect of the shipping and conservation interests of the world can now be unified in solving this problem. Unilateral action on the part of any single nation has in the past proved fruitless. The new concerted effort should prove effective in the long run and comes none too soon if some species of birds are to be relieved of the tremendous annual losses that have occurred in recent years.

"Continued interest and support of conservationists in this problem are a necessity if the battle to alleviate the problems of oil pollution are to be won and wildlife resources protected from the terrible annual loss that now faces us.

"The American Humane Education Society will continue to operate its Oil Pollution Survey floating laboratory off the coasts of New England, thus adding to the accumulated data regarding effects on sea and shore life and the persistence of oil under existing conditions of weather in the area. This operation will also serve as a constant check on the effectiveness of measures instituted to prevent pollution."

IMMEDIATE PROTECTION NEEDED FOR POLAR BEARS, WALRUS AND SEA OTTERS

Congressional hearings on H.R. 777 to protect marine mammals on the high seas were held on May 9-11 before the subcommittee of the House Committee on Merchant Marine and Fisheries headed by Hon. Frank W. Boykin of Alabama. It is hoped that the full Committee, under the chairmanship of the Hon. Herbert C. Bonner of North Carolina, will issue an early favorable report, so that the bill may be brought to a vote by the House of Representatives.

Congressman John P. Saylor of Pennsylvania, who is the sponsor of H.R. 777 and who sponsored a similar measure in the previous Congress, spoke eloquently in behalf of the bill at the recent hearings. Part of his testimony is reprinted below:

"Many years ago, when I began to read of the accounts of what was happening to our polar bear and to our walrus and the sea otter under the guise of sportsmanship, I became gravely concerned because all of the information that was made available to me indicated that it was not sportsmanship but in a sense ruthless slaughter. I was brought up by a father who believed that his sons should be taught to hunt and fish, and also brought up with the idea that, if you hunted and fished, it was to your advantage to match your skills against nature and, being given the undue advantage of having a gun or the latest in fishing equipment, you should more than be able to match your skills against nature.

"Finding out that many people were going hunting polar bears by ruthlessly killing them from the air with rifles and never attempting to go back and pick up the carcass except to write and say that they had flown 130 miles out over the ice barrier north of Alaska, that they had succeeded in killing two or three polar bear or at least left trails of blood and finding that on many occasions people went out in the same plane or in another plane and reported back that they had killed several walrus and made no attempt whatsoever to recover them, this under the guise of sportsmanship, bothered me and many years before Alaska became a State I took the matter up with the Department of Fish and Wildlife downtown and had them draft a bill to protect in some way these marine animals which are rapidly disappearing. . . .

"A primary consideration of the drafting of this legislation is the international character of these three marine mammals, especially the polar bear and the walrus. The range of the polar bear, for example, encompass hundreds of thousands of square miles of the north polar basin. The animals contribute to the existence of native villages, and they are taken by either or both natives and sports hunters in Canada, Russia, United States, Norway, Denmark (Greenland) and Sweden.

"The Pacific walrus migrates in and out of the territorial waters of the United States and Russia and the high seas. Polar bears wander all over the international ice fields. . . .

"Many conservationists throughout the circumpolar region share my conviction that an essential first step toward providing protection for polar bears and walrus rests on the provision of international protection such as suggested by H.R. 777.

"These are changing times, Mr. Chairman and members of the committee, and it is not appropriate, in my thinking, that any past inequities of Federal control of these resources, or the limited purview and financial means of the new State of Alaska, should be cited as a means of discounting the advisability of enacting H.R. 777. These marine mammals are in remote international waters where only the conscience of man stands between their preservation or extinction. Little is known about their basic biology, their needs, and the total numbers of the animals from which these kills are being made. Steps must be taken so that the subsistence and economy of dependent Alaskans can be protected. . . .

"If we have erred in the management of these valuable resources in the past, and that is what most persons believe is the case, the blame can be placed on the fact that the United States has put off this vital decision for too long. I propose that we take this necessary first step now, for the benefit of both the marine mammal resources and for the interest of all the people of the United States and for the people of the world who are interested in conserving these species.

"I might say, Mr. Chairman and members of the committee, that, as controversial as this legislation might become, I am happy to report that since the original bill was drafted a favorable report was received from the Department of the Interior and the other departments of Government and that not only the past administration but the present administration has reported that they are in favor of the enactment of this legislation. . . ."

STEVENSON

(Continued from Page 1)

would permit any person to capture, or call upon the police to pick up and imprison, cats at large. . . . This legislation has been introduced in the past several sessions of the legislature and it has over the years been the source of much comment—not all of which has been in a serious vein. . . . I cannot believe there is a widespread public demand for this law or that it could, as a practical matter, be enforced.

"Furthermore, I cannot agree that it should be the declared public policy of Illinois that a cat visiting a neighbor's yard or crossing the highway is a public nuisance. It is in the nature of cats to do a certain amount of unescorted roaming. . . . Also consider the owner's dilemma: To escort a cat abroad on a leash is against the nature of the cat and to permit it to venture forth for exercise unattended into a night of new dangers is against the nature of the owner. Moreover, cats perform useful service, particularly in rural areas, in combatting rodents—work they necessarily perform alone and without regard to property lines. . . .

"The problem of cat versus bird is as old as time. If we attempt to resolve it by legislation, who knows but what we may be called upon to take sides as well in the age-old problem of dog versus cat, bird versus bird, or even bird versus worm. In my opinion, the State of Illinois and its local governing bodies already have enough to do without trying to control feline delinquency.

"For these reasons and not because I love birds the less or cats the more, I veto and withhold my approval from Senate Bill No. 93.

Respectfully,

Adlai E. Stevenson, Governor"

Address by Ambassador Stevenson

"I am indebted to Mr. Rennie for refreshing my memory concerning my veto message of so many years ago. I had great satisfaction in writing it; I remember vividly that as I was writing it, I turned around in the middle of the night in my study in the Executive Mansion and on the window sill behind me, marching up and down, with a watchful and an attentive look in its eye, was a large and unknown cat. Subsequently I have had more and more sympathy for that message and since I have come to live in New York, on the 42nd story, shuttling through tunnels and corridors, to and from my office, I have concluded that there are certain other animals that should be entitled to some unescorted roaming.

"I am proud indeed to collaborate with Christine Stevens, and was glad to help her in her long struggle for the humane slaughter bill several years ago.

"How fitting it is that the Animal Welfare Institute has awarded its Schweitzer Medal to an African this year.

"How fitting, I say, because this is truly Africa's year—the year of that vast, rich, continent's formal emergence into the world community. And like most first emergences it has been accompanied by acute distress in some places and more to follow.

"Africa's sudden appearance on the world scene has shattered many stock concepts and images that were once held about the nature of its people. The caricature of the safari porter has been swept aside by the real life image of strong African leaders, just as many other unrealistic concepts about African primitiveness have been dissipated. And if disorder in the Congo and elsewhere disturbs us, let us remember that for every community engaged in tribal warfare and conflict, there are dozens of others in Africa whose citizens live a peaceful, quiet and orderly existence.

"I think the great changes that have come over Africa in recent years were delightfully illustrated in a cartoon I just saw. The drawing showed two lions—a male and a female—caged in the Bronx zoo. The male lay slumped in a corner of the cage with a terribly forlorn, homesick, expression on his face, while his mate said to him: 'Stop moping. Even if you were *back* in Africa you wouldn't recognize it.'

"The awarding to Chief Fundikira of Tanganyika of the Albert Schweitzer Medal has been another step in the direction of dispelling mythical notions about Africans.

"Even I, after traveling widely throughout Africa, was surprised to learn that the Chief's Royal Society for the Prevention of Cruelty to Animals has some 40,000 members in Tanganyika alone.

"Nor did I realize that there is a long list of African men waiting impatiently to be employed by the Society, men who do not regard animals as things to hunt down and kill, but as beautiful life forms to treasure and preserve.

"It has been said that the African has a natural propensity for wild life because of his close and constant contact with its many forms. This is undoubtedly true. And how ingratiating it is that he should feel such affection for his neighbors although they represent a lower and sometimes hostile form of life.

"By comparison, is it not disturbing that some members of our supposedly civilized western society find it impossible to love or even tolerate their animal neighbors, although they are equals and not in the least predatory.

"While thinking over this talk, it occurred to me that if Chief Fundikira was happy to receive the society's award, how equally happy must have been the great humanitarian gentleman in whose name it was given.

"Dr. Schweitzer has always loved the people of Africa and all its animals, too. What a joy it must have been for him to learn that one was being recognized for the kindness and humanity shown to the other.

"I have known Dr. Albert Schweitzer for many years and have been in almost constant correspondence with him, and I have always acknowledged my great good fortune in having him as a friend.

"On a trip to Africa several years ago I visited the good doctor at his brave, little hospital in Lambaréné, and spent many memorable hours following his brilliant mind through its lofty wanderings—or trying to! I have also marvelled at the circumstances of his life in that primitive place. There was an antelope, for instance, in his tiny bedroom; monkeys and birds and small animals were always all about. Speaking of small animals, I have often told the story about standing with him in a hot sun one day in front of the leper hospital compound and seeing on his white shirt a mosquito. Instinctively I reached over and whisked it off with my hand. He looked at me very stricken and hesitated for a moment, and then said, 'It was *my* mosquito and you had no right.' But I still think it was better to protect Dr. Schweitzer from the possibility of malaria.

"We talked of many things, his work, politics, Africa and, of course, philosophy and ethics.

So fascinated did I become with his concept of a 'Reverence for Life' that I pursued his thinking more fully through his writings.

"One paragraph summed up for me the essence of his views. It read:

"Thought cannot avoid the ethic of reverence and love for all life. It will abandon the old confined system of ethics and be forced to recognize the ethics that knows no bounds.

"But on the other hand, those who believe in love for all creation must realize clearly the difficulties involved in

the problem of a boundless ethic, and must be resolved not to veil from man the conflicts in which this ethic will involve him but allow him really to experience them.

"To think out in every implication the ethic of love for all creation—this is the difficult task which confronts our age."

"It is more than evident that Dr. Schweitzer has thought about that ethic in all its implications and has found a very satisfying way to live with it.

"I might add that the intensity of his love for all living things is so contagious that had I not been so far away from home I might well have left Lambaréné with a pelican, a muskrat, a forest antelope or even a chimpanzee in my suitcase.

"From all I have been able to gather, your society's humane and practical efforts in Africa are now confined to Tanganyika.

"I think it would be a wonderful thing for Africans and for the superb wild life of that great continent if the Society established affiliates in other African countries.

"With its magnificent record in Tanganyika I would think that all African governments interested in fostering animal welfare and preserving this priceless heritage would be delighted to see a chapter of the Society established in their territories.

"Finally, to Chief Fundikira and Mrs. Isobel Slater, the Society's founder and co-recipient of the Schweitzer Medal, I wish every success in their glorious crusade for the preservation and humane treatment of all living things."

LETTER

(Continued from Page 1)

think one can fairly say that very considerable advances in medical and scientific knowledge have been made in this country during the last fifty years. Many of these necessitated experiments on animals, but I am sure it is true to say that no research requiring animal experimentation has been abandoned, remained incomplete or not been undertaken because of existing Home Office regulations. I think all of us have found the Home Office Inspectors not only courteous but helpful, and we feel that the regulations have in fact been an advantage as the antivivisectionist does not get the support of the majority of people.

"The other side of the picture, i.e. the training of students in operative surgery, shows up a different method of approach in the two countries and we still feel that the best method is by student apprenticeship to mature surgeons rather than the repetitive performance of operations on animals. In the exceptional cases where experience in technique can only be legitimately acquired by previous

animal work, the animals concerned are destroyed as soon after the procedure as the experiment permits. This, I may say, was the case in a great deal of the preparatory work for recent advances in connection with cardiac surgery (e.g. the extracorporeal circulation and the artificial kidney). If criticisms have been made in the past that legitimate animal experiments could not be carried out, this was not due to Home Office regulations but to lack of facilities in the particular hospital, university or college concerned. I think it would be right to say that we feel it is essential to ensure humane consideration for laboratory animals and that this is better achieved under some authority than if left to the individual.

"I trust these remarks may be of some value to you.

Yours sincerely,

ARTHUR PORRITT
President"

DAYLIGHT BREAKING THROUGH FOR TEST BEAGLES

Major progress has been made in obtaining the release of the hundreds of test beagles of the Food and Drug Administration from the all-metal cages in a sub-basement where these animals have been housed for the whole of their lives without even being given exercise outside the cages.

First, Congressman John E. Fogarty's subcommittee, then the full House Appropriations Committee of which Congressman Clarence Cannon is Chairman, and finally the whole House of Representatives voted favorably for the necessary appropriation for the proposed laboratory-kennel building where the beagles can run in and out of roomy kennels into connecting outside runways. Plans have already been drawn for the building (see Information Report Vol. 10 No. 2) and action must now be taken by the Senate.

Senator Lister Hill, Chairman of the subcommittee before which the matter is pending in the Senate, has written the Institute as follows:

"Last year the Senate Appropriations Subcommittee, of which I am chairman, added to the Labor - Health, Education and Welfare Appropriations Bill funds for planning a new Food and Drug Administration laboratory building in a rural setting with adequate and comfortable animal quarters. We took this action even though no budget request for the funds was presented to the Committee. You may be sure I am doing all in my power to win appropriation this year of the funds for construction of the facility with the comfortable housing for the laboratory animals. I think I can assure you we will get the funds."

ANIMAL WELFARE INSTITUTE

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September-October 1961

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SCIENTISTS DEBATE LEGISLATION FOR PROTECTION OF EXPERIMENTAL ANIMALS

A series of letters in the British journal, *The New Scientist*, was initiated by Dr. Dietrich C. Smith of the Maryland Society for Medical Research. Dr. Smith took exception to a short article published February 2, 1961 entitled "Biologists Back British Vivisection Practice" which gave an account of the survey conducted by the Universities Federation for Animal Welfare on the British Home Office control of experiments on animals.

Following is the correspondence, given in full, which appeared in *The New Scientist*:

BIOLOGISTS AND VIVISECTION

27 April, 1961

Sir,—If the National Society for Medical Research has taken the line attributed to it in your recent note, *Biologists back British vivisection practice (Notes and Comments, 2 February)*, it is because your own physiologists, pharmacologists and surgeons who have been coming to our shores in increasing numbers during the past 15 years have created such an impression among us. Whether they speak with more authority on this matter than the 88 research workers, "most of them biological Fellows of the Royal Society", is not for me to say. I wonder, by the way, how many of those 88 were surgeons or physiologists? The record, however, is crystal clear that the remarkable strides made in thoracic and open heart surgery by American surgeons has been made possible only through the use of dogs for experimental purposes. To learn these techniques as developed in our own surgical research laboratories, British surgeons have come to this country in increasing numbers in past years. They come, they tell us, because to practise such operations on dogs is impossible in Britain because of restrictive legislation. These surgeons are most welcome, but perhaps it is a little ungracious of you not to acknowledge the fact that British subjects suffering from disorders of the heart and lungs correctable by modern surgery enjoy these benefits because of the training received in the United States by your own surgeons. If I am wrong about this I would very much like to be corrected.

Secondly, we have been told that British medical students cannot perform certain experiments which we consider basic and essential to the correct understanding of the mechanics of the circulation and other life processes unless they are done on decapitated mammals, since British law forbids such experiments by students on intact animals. Thus the effect of the brain, one of the most important of the body's control centres, cannot be studied. In American medical schools such experiments are routinely done by all students as a part of their training in physiology and pharmacology. I can assure you, if such assurance is needed, that the mammals used for such experiments are thoroughly completely anaesthetized and are killed at the conclusion of the experiment.

By all this I do not mean to denigrate the contributions of British medical science. Since I am a physiologist myself, I am well aware of the work of Starling, Sherrington and Bayliss, to name but three Britishers to whom we all make humble and grateful acknowledgment. However, when the Animal Welfare Institute tries to impose on us legislation we consider restrictive on the grounds that this is the way they do it in England, naturally we react. It is bluntly stated in your article that the poll of British scientists will be used to influence public opinion—and by that presumably legislation—in the United States where, as you so succinctly put it, "experiments are virtually uncontrolled". This is simply not so and sounds to me like AWI

propaganda. I suspect that the delicate touch of the UFAW has slipped for once.

DIETRICH C. SMITH, Secretary

Maryland Society for Medical Research, Inc.
522 W. Lombard Street,
Baltimore 1, Maryland, USA

* * *

4 May, 1961

Sir,—Anglo-American friendship is a very robust reality. It can even survive Dr. Dietrich C. Smith's letter (*Letters, 27 April*) which caused me astonishment but only fleeting resentment.

British surgeons can and do carry out experimental surgery on dogs, quite legally, in Great Britain. But dogs are not easily procured in this country (for reasons unconnected with our law about experiments), and it was natural that the American emphasis on the development of heart surgery should attract visitors from overseas. Yet the work itself would not have been possible without the basic physiological knowledge to which men of many other nations had contributed. Is Dr. Smith serious in demanding explicit gratitude from British beneficiaries of American surgical advances? The knowledge of the benefits these advances have conferred on cardiac cripples is surely reward enough. Perhaps the rest of us should also be grateful that Dr. Smith does "not mean to denigrate the contributions of British medical science."

The use of living animals by medical students is another matter. Our law prohibits such use by *anyone* for the purpose of attaining manual skill. I have never met a surgical teacher in this country who wished to teach students human surgery by the use of dogs, and this represents an important difference in teaching methods between our two countries. But it is a little disingenuous for American opponents of the Cooper-Griffiths Bill to state that British surgeons are forced to carry out their first operation on human patients: about as misleading as saying that American surgeons learn their technique on dogs and then have to relearn it on human beings. Both statements score slick debating points: both carry unworthy slurs.

It would be quite improper for scientists in this country to seek entry into the controversy over the Cooper-Griffiths Bill. It is, I think, equally so for Dr. Smith to imply that the "88 research workers" who were canvassed in this country by UFAW were ill-qualified to give an opinion on the *British Act*. But one of Dr. Smith's colleagues also carried out a canvass of British scientists; it would be interesting to know how much this differed in substance from the UFAW canvass. If our law works, so much the better, although it may not be for export. Can we not leave the matter there, and express the friendly and sincere wish that our American colleagues will also find a satisfactory solution to their present problem?

W. LANE-PETTER, Hon. Secretary.

Research Defence Society,
11 Chandos Street,
Cavendish Square,
London w1

* * *

18 May, 1961

Sir,—On 27 April you published a letter in which Dr. Dietrich C. Smith of Maryland criticized my report of the opinions of a number of British scientists on Home Office control of experiments on animals. I am grateful to you because Dr. Smith's letter will give your readers some idea of what our friends the Animal Welfare Institute in New York are up against; especially when I add that Dr. Smith's society is a good deal less callous about animals than are

most of its allies. Although it gives animals to children to experiment upon, it does advise against inflicting pain; though how far that advice is taken can only be guessed.

In the USA schoolchildren and other persons devoid of scientific qualifications are free to do any experiments they like on animals, with or without anaesthetics. There is no hing to stop them. Moreover in some medical schools the animal husbandry and laboratory practice are open to criticism on humanitarian grounds; and meanwhile the example of the USA is important in countries like Japan and the South American states, where there is little compassion for animals.

In dealing with these problems the Animal Welfare Institute, which was founded by a distinguished physiologist, the late Professor Robert Gesell, of the University of Michigan, has relied on the only relevant experience which is available, namely that of Great Britain. As a result the vested interests affected, led by the National Anti-Vivisection Society on one side and the National Society for Medical Research on the other, are conducting a campaign to belittle British biology. A typical example of the controversial technique employed by them will be found in an article on "Vivisection" contributed by one of Dr. Smith's allies to the 14th edition of the *Encyclopaedia Britannica*. This stated that in a research entailing 12,500 observations on fish, a separate form had to be filed at the Home Office for each observation, 12,500 forms in all! This kind of propoganda is being broadcast extensively and, believe it or not, is being successful in deceiving American scientists.

The British law has some minor defects, but these have been omitted from the AWI Bill. Moreover it has successfully fostered a humane tradition wherewith British biologists have set an example to the world by their humane consideration for the animals they use. If this restraint has really impaired the quality of British research it does seem odd that *in proportion to population* more Nobel Prizes for physiology and medicine have been awarded to British scientists than to those of any other nation.

Because the AWI Bill is based on British experience, the fight over it has turned into a fight over the merits of British science. This fact, and the world-wide influence of the example set by the USA, throw on British scientists a weight of responsibility in the matter. It is no secret that American surgeons asked the Royal College of Surgeons to support their opposition to reform and that the request was not granted. I would urge all your readers to undeceive their American contacts by telling them privately what the truth is: *viz*, that British research workers, as specialists in research techniques, collaborate in a friendly way with the Home Office Inspectors, as specialists in research ethics, in a continuous endeavor to combine first-class research with humane consideration for the animals used.

C. W. HUME, Secretary-General

The Universities Federation for Animal Welfare,
7A Lamb's Conduit Passage,
London, WC1.

* * *

18 May, 1961

Sir,—Your readers may easily have got a wrong impression from the letter in your issue of 27 April from Dietrich C. Smith. Dr. Smith seems to believe that heart and lung surgery are entirely of American origin and development and that British surgeons have to go there to learn about them. This is very far from the truth. In fact, in heart surgery in particular, international communication and cooperation have been splendid and no national group of surgeons would dream of claiming pre-eminence.

The earliest attempts at thoracic surgery were made by such men as Sir William Macewen, of Glasgow, and Tuffier, in France, and the fathers of modern chest surgery include Sauerbruch, a German, Tudor Edwards and Roberts, who were British, and Evarts Graham, of America, closely followed by many others, including Carl Semb, of Norway.

The earliest attempts to operate for the relief of heart disease were made by Sir Henry Souttar, of the London

Hospital, and the first practical developments came from Craafurd, of Sweden; Bailey, Blaylock and Gross, of America, and Sir Russell Brock, in Britain.

A machine to take over the functions of the heart and lungs during cardiac surgery seems to have been developed first in Moscow, but the earliest successful use of a mechanical blood pump and oxygenator to facilitate operation on the open heart of a human subject was with the Gibbon machine in America, and almost simultaneously with the Melrose pump in England. The surgeon in the latter instance was Mr. William Cleland, who is of Australian origin.

A recent important advance has been the development of a safe method of stilling the heart during operation. This is entirely British, having originated from Melrose in London.

H. DAINTREE JOHNSON

Department of Surgery
Royal Free Hospital
London WC1

* * *

20 July, 1961

Sir,—On 18 May you published a letter in which I wrote that if our American critics are right in supposing our restriction on cruel experiments to have impaired the quality of British research "it does seem odd that *in proportion to population* more Nobel prizes for physiology and medicine have been awarded to British scientists than to those of any other nation".

Dr. Pauling, of the California Institute of Technology, has pointed out to me that in the case of Denmark, Sweden and Switzerland (and I may add Belgium) this is incorrect. Sweden and Belgium have 2 awards each, Denmark and Switzerland have 4, as against Britain's 11, but their relatively small populations make my statement inaccurate. Whether or not these numbers are statistically significant, I cannot help mentioning that all four of these small but progressive nations have laws regulating experiments on animals.

C. W. HUME

The Universities Federation
for Animal Welfare,
7a Lamb's Conduit Passage,
London, WC1

Permission to reprint the above correspondence was granted by all concerned, Dr. Smith requesting that the following two sentences, which were not printed in *The New Scientist*, be published by the Animal Welfare Institute:

"So far as the Cooper Bill is concerned, the Association of American Medical Colleges, the American Medical Association, The Animal Care Panel, The American Veterinary Medical Association and the American Hospital Association have joined forces to see to it that the bill is roundly and thoroughly defeated if and when it comes up for consideration by Congress. I would suggest that you ask your American correspondent, John Lear who has done excellent work for your magazine in explaining to your readers what goes on in science on this side of the Atlantic, to look into this matter and give your readers an unbiased account of the status of the so called Cooper Bill and the attitude of American scientists toward it."

MARINE MAMMALS BILL PASSED BY HOUSE OF REPRESENTATIVES

The cruel gunning from planes of polar bear, walrus and sea otter will soon be outlawed if the Senate follows the House lead in enacting Representative John P. Saylor's Marine Mammals bill. The bill, H.R. 777, (see Information Report Vol. 10, No. 3) was reported out of Committee with minor amendments as H.R. 7490, and passed by the full House of Representatives on August 21st.

In the Senate it has been referred to the Interstate and Foreign Commerce Committee of which Senator Warren G. Magnuson (D., Wash.) is Chairman.

Representative Saylor deserves thanks from all humanitarians and conservationists for his determined efforts to prevent needless suffering and destruction of these intelligent and unique creatures. His bill should be enacted into law.

CANADIAN MEDICAL GROUP ENCOURAGES ANIMAL WELFARE

The Canadian Medical Association, British Columbia Division, has given praiseworthy assistance to the work of the Japan Animal Welfare Society by publishing in the January, 1961 issue of *The British Columbia Medical Journal* a short article on the efforts of the Society to prevent needless suffering in Japanese laboratories. A foreword by Dr. J. F. McCreary, Dean of the Faculty of Medicine, University of British Columbia, encourages the support of medical men.

Such support is invited from research workers and humanitarians in the United States as well, and it is suggested by representatives of J.A.W.S. that Oriental medical visitors, both students and professionals, be offered materials and information on humane animal care and housing and be invited to discuss means for adapting local materials and methods to provide good animal husbandry. The Animal Welfare Institute manual, "Basic Care of Experimental Animals", has been translated and published in Japanese, and a limited number of copies is available free on request from the Institute.

Following is the article from *The British Columbia Medical Journal*:

ANIMAL EXPERIMENTATION IN JAPAN

Foreword

"To all who are interested in medical research, care provided to experimental animals is a matter of great import. Unless the animals are protected against disease and other influences, research is likely to be of little value. The work of the Japanese Animal Welfare Society is, therefore, of interest to all of us who are concerned with medicine.

J. F. MCCREARY,
Dean, Faculty of Medicine,
University of British Columbia

"This is to bring to the sympathetic attention of doctors and research scientists the work of the Japan Animal Welfare Society in Tokyo, Japan.

"In 1957 the Society was founded to help improve laboratory conditions where animals were used. In Tokyo alone over 40 centres function, but funds, when allocated at all, were entirely inadequate — housing, anaesthetics, food and even water were lacking. Further, the handlers or kennelmen were entirely untrained and unsupervised. The vast numbers of animals used — over one thousand dogs per month in Tokyo alone for example — made for gross overcrowding and bad husbandry.

"The immediate need being for funds the Society has raised over three thousand pounds sterling in U.K. and further sums in U.S.A. and Canada, and with this has supplied free (1) anaesthetics (2) new housing (3) food, water and utensils (4) the services of a Japanese veterinarian and (5) in some cases a trained and supervised kennel worker. The Society paid all expenses for a Japanese scientist to visit Britain to study laboratory husbandry and techniques. It also translates and distributes appropriate literature.

"The response has been promising — requests for anaesthetics and literature having come from many parts of Japan but, owing to limited funds, so far essential rebuilding and/or equipment have only been possible in 12 of the 40 odd institutions in Tokyo alone though everywhere conditions cry for correction. In some cases an institution has covered half the outlay where the Society raised half.

"A recent report given by a Japanese scientist on behalf of UNESCO (International survey on the supply, quality and use of laboratory animals) emphasized the lack of funds, poor husbandry and need for trained handlers in his country.

"The need is very urgent. Where the value of good laboratory conditions and improved techniques are made apparent the scientists and doctors respond.

"Should any reader be willing to help, contributions may be sent direct to J.A.W.S. Central P.O. Box 1481, Tokyo,

or through the writer and Society's representative - F. MacGregor - P.O. Box 874 - Station A, Vancouver, B.C.

"The Society's current Report will gladly be mailed upon request."

DOMESTIC LEGISLATION AGAINST OIL POLLUTION ENACTED

A report on the long-awaited ratification by the United States of the International Convention for the Prevention of Pollution of the Sea by Oil was published in the last Information Report. The need for domestic enabling legislation "which will provide a working relationship with the terms of the treaty and existing United States laws" was noted by Lester Giles, of the American Humane Education Society. With praiseworthy promptness, this legislation has been passed by Congress and signed into law by the President.

The Secretary of the Army is responsible for enforcement of the Act, which prohibits the discharge of oil in specified zones. It is now unlawful to discharge oil within 20 miles of the shore, or in some areas up to 100 miles. The licenses of masters or other licensed officers of ships may be suspended or revoked for violations, and there is also provision for enforcement by fines.

Two years ago, an article by the Secretary of the International Council for Bird Preservation, Phyllis Barclay-Smith, published in the Information Report (Vol. 8 No. 4), gave some idea of the vast needless suffering caused by oil pollution. Referring to "the appalling loss of birds by slow and terrible death", the figures of 20,000 to 50,000 birds killed annually in the Netherlands alone were given.

The Audubon Society states that oil pollution has been the most important single factor behind the widely observed decrease of all auks (the family Alcidae of marine birds) in the present century, and that "the year 1961 will long be recalled as important in international conservation because it was the year in which the United States assumed its full share in preventing oil pollution of the seas".

WILDERNESS BILL PASSED BY SENATE

Another important conservation measure which was approved by one of the houses of Congress at the session which ended in September is the Wilderness Bill (S. 174), which places approximately 6.7 million acres immediately in a National Wilderness Preservation System and provides for the review of another 60 million acres for possible inclusion. The bill was passed by the Senate on September 6, by a vote of 78 to 8, after two days of debate. It carefully restricts the use of lands in the System; road construction is prohibited, as is motor travel including aircraft and motorboats. All the land proposed for inclusion in the Wilderness System is already federally owned and now under the jurisdiction of the Interior and Agriculture Departments. The bill now awaits action by the House Committee on Interior and Insular Affairs, of which Rep. Wayne N. Aspinall (Colo.) is Chairman. Field hearings in Idaho, Colorado and California will be held this Fall.

KENNELS WITH INDIVIDUAL OUTSIDE RUNWAYS WILL BE BUILT FOR FDA BEAGLES

On September 22, 1961, President Kennedy signed the appropriation bill which includes the necessary funds for construction of a laboratory-kennel building for the Food and Drug Administration, where hundreds of test beagles who have not seen the light of day for years will be housed. The Senate passed the bill on August 2; House passage took place this Spring.

Few people have cared to go to the sub-basement of the South Agriculture Building where the dogs are still incarcerated and examine them individually, hear their desperate and deafening barking, see those whose sensitive natures have been completely broken by prolonged imprisonment cowering in the backs of their cages, or see a dog whose feet have not touched the ground for years creep cringing under the stacked cages. Scientific personnel state that it is impossible to say whether some of the

"nervous symptoms" originate with the test substance fed an individual dog or with the deleterious effects of permanent caging.

Resistance encountered by representatives of the Animal Welfare Institute in early conferences with Food and Drug Administration scientists no longer exists. Much credit is deserved by Mr. Leo Miller, Head of Administrative Management for F.D.A., who worked hard from the beginning to bring about release of the beagles.

Now that the Congress has so clearly expressed itself in favor of providing reasonable amounts of space and opportunity for outdoor exercise for research dogs, it is to be hoped that other institutions which still cling to the cruel system of permanent caging of dogs will turn over a new leaf. The F.D.A. beagles should lead the way for other thousands of caged dogs in medical schools, hospitals and other scientific institutions to receive reasonable exercise and comfortable rest. These animals give much, ask little, and, in too many cases, get less.

BEST HOUSING FOR LABORATORY DOGS

The Animal Welfare Institute is grateful for the inclusion in the newly revised pamphlet, "The Dog in Medical Research", of AWI recommendations on the provision of exercise for laboratory dogs. "The Dog in Medical Research" is a 15-page publication of the U.S. Department of Health, Education and Welfare, Public Health Service. The revised edition is by Keith S. Grimson, M.D., Chairman, Committee on Revision, Surgery Study Section, Division of Research Grants, National Institutes of Health.

On Page 8, it states: "A statement from the Animal Welfare Institute is of interest here: 'Inside kennels connecting with individual outside runways provide the best housing for laboratory dogs. Such kennel-runway units may be used for one dog, two compatible dogs, or a litter. They may vary in size from 4- by 6-foot inside with 4- by 10-foot outside runways to the type provided at the animal hospital of the National Institutes of Health where runways measure 25 feet in length. Some laboratories use communal runways, but this requires more labor both in cleaning to keep the floor free of parasites, fungi, and bacteria, and in supervision to avoid dogfights. Should there be communicable disease in the colony, its spread would be facilitated by direct contact of sick and well animals. For these reasons, individual runways or runways shared by a definitely limited small number of dogs, are greatly to be preferred.'"

* * *

Another firm statement on the provision of outdoor runs for dogs is contained in a 12-page memorandum distributed by the Institute of Laboratory Animal Resources, which gives the recommendations of the Statewide Animal Care Committee of the University of California. It states that for dogs, monkeys and such farm animals as sheep and goats, "outdoor run facilities should be provided."

INSTITUTIONS INVITED TO CONTRIBUTE NEW MATERIAL FOR "COMFORTABLE QUARTERS FOR LABORATORY ANIMALS"

A new group of photographs and plans of animal quarters designed with consideration for the comfort and well-being of the animal occupants is being collected by the Animal Welfare Institute. A selection of the best designs will be reproduced and sent to users of the manual, "Comfortable Quarters for Laboratory Animals", and to others who are planning new animal quarters or the rehabilitation of old ones.

All readers of the Information Report who know of

good animal quarters or of special equipment which makes for better animal housing and care are invited to communicate with the Institute. By making the best examples available without charge to all who are responsible for the housing of laboratory animals, the Institute hopes to help prevent purchase of cramped, uncomfortable cages designed without reference to the needs of the occupants and to encourage construction of intelligently and humanely planned quarters and equipment.

A POPULARIZED ACCOUNT OF INTENSE PAIN-INFLECTION

A biologist recently telephoned the Institute to draw attention to the cruel treatment of animals described in "Man and Dolphin" by John C. Lilly. He said he found it impossible to finish reading it for this reason.

A few quotations, from many which might be selected, explain why. Dr. Lilly tells of certain experiments which prove that "electrical stimuli placed by means of fine wires in specific portions of the brain can cause either intense rewarding or intense punishing experiences in a particular animal and in humans. This has been demonstrated in rats, cats, monkeys, and in later years, dolphins." One method is described as follows: "The crescendo-stimulus method was worked out with the macaque (monkey). One puts in a train of stimuli that starts at zero intensity and during the next fifteen seconds is gradually built up beyond the level at which the animal can stand it. A sophisticated animal will push the switch in order to stop the gradually increasing stimuli before they reach an unbearable level. . . A monkey will miss and allow crescendo to go through its peak until he is so strongly stimulated that he is in a state of panic, when he cannot possibly shut the current off." Telling of this type of experiment with dolphins, Dr. Lilly says, "We discovered during the course of the stimulation experiments that when we put the electrodes into an area that apparently caused pain (to stimulate the same area in the human causes very intense pain, the so-called 'thalamic pain') the only vocal responses we were able to obtain were distress calls." The dolphin's distress call "stereotyped, repetitive, and at times piercing" is often sounded in this book. The many sentimental passages may sugarcoat the pill of suffering for the reader but not for the dolphin.

Science reviews two books on dolphins in its September 29, 1961 issue, "Porpoise and Sonar" by Winthrop N. Kellogg, and "Man and Dolphin". The review states in part: "Lilly's book is as revealing about man — not any man, but one man, John C. Lilly — as about dolphin. It is undoubtedly one of the frankest and most egotistical accounts of a research project ever placed before a sensation-loving public. Many of his numerous photographs seem more suited to the family album than to an account of scientific discovery. But these personal idiosyncrasies do not hide a great deal of valuable behavioral observation, psychological insight, surgical competence, and complex experimentation based on already well-established techniques, including cerebral probing. Yet in being so frank about his early failures, his treatment of the dolphins and his personal sacrifices, it may be questioned whether he has not done his cause a disservice. It may be noted that Kellogg has deliberately eschewed vivisection with his dolphins, preferring to work with the whole animal." Space limitation prevents publication of the entire review which is worth reading in full.

* * *

The Tenth Annual Report of the Animal Welfare Institute is now available, free upon request to readers of the Information Report.

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FOOD AND DRUG ADMINISTRATION ESTABLISHES HUMANE REGULATIONS

In conjunction with the planning of the new animal quarters for test beagles used by the Food and Drug Administration, a policy statement issued by the FDA on August 28, 1961, made some important humane restrictions on the use of the animals and on their treatment at times when suffering can be prevented or reduced.

The dogs in the main body of the kennel-runway areas will generally be in a reasonably good state of health. Out of every group of 24 dogs, five or six will eventually have to be taken to the Terminal Toxicity Wards. These dogs will not, however, be permitted to die an agonizing death. The FDA statement makes clear that "no dog will be allowed to reach a state wherein he would be too weak to perform his normal functions, such as standing and eating, or permitted to remain in obvious pain. FDA's policy has been and will continue to be to put away painlessly animals in such condition." This is an extremely important proviso which should serve as a model for other institutions using animals.

Under the Surgical Ward heading, the following appears: "Upon arrival in the Surgical Ward, the great majority of the animals will be under anesthesia. Every effort will be made to maintain body warmth. Coverings will be provided, and, where necessary, electrical heating pads will be available. Sedative drugs, tranquilizers, and antibiotics will be used whenever necessary to promote recovery." Again, this policy should be copied elsewhere. All too often, even in large, wealthy institutions, dogs are carried straight from the operating room to an all-metal cage in the communal dog room and left to recover as best they can.

Readers of the Information Report are urged to check the policies of the institutions with which they are associated professionally or which may be located in their immediate vicinity.

U.S.D.A. REPORTS HUMANE SLAUGHTER PROGRESS

The revolution in slaughtering methods which took place after passage of P.L. 85-765, the Federal Humane Slaughter Act, represents the most massive short-term change ever accomplished in the treatment of animals by human beings. Methods causing fear and pain have been eliminated in the slaughtering of the large majority of food animals in our country. There is still considerable work to be done before all food animals are killed without the infliction of needless suffering, but the progress is enormous.

The United States Department of Agriculture issued, in September, an informative leaflet, "Humane Slaughter, A Progress Report," the first four paragraphs of which are reprinted below.

"As the first full year of operation under the National Humane Slaughter Law came to a close in August 1961, an estimated 100 million food animals had been dispatched in packing plants using humane methods of slaughter.

"Under the new law, meat packers who wish to sell products to agencies of the Federal Government must use methods of slaughter declared by the Secretary of Agriculture as humane. Actually, hundreds of slaughtering establishments, representing a vast portion of the industry and capable of meeting the needs of Federal agencies many times over, have installed humane slaughtering equipment.

"More than 480 of the 534 Federally inspected slaughtering plants were using the humane methods as the first year ended. Latest figures for a single month's operation in the Federally inspected segment of the industry showed that, of 9 million animals slaughtered, 8.5 million were dispatched in plants using humane methods.

"In addition, many non-Federally inspected establishments slaughtering thousands of animals installed humane slaughtering equipment during the year. Many did so to conform to State humane slaughter laws patterned after the national law. Others recognized that humane slaughter of livestock represents an ever-growing trend in the meat industry, reflecting the wishes of the public."

TWO SIMPLE WAYS TO PREVENT SUFFERING OF LABORATORY ANIMALS

Failure to make reasonable provision for the comfort of experimental animals is often said to be due to a lack of sufficient funds for the purpose. Representatives of the Animal Welfare Institute have been given this stock explanation in virtually every institution where bad conditions exist. Comments on the recent survey by the Animal Care Panel indicate that the visiting veterinarians who looked over animal facilities at many institutions throughout the country were often told the same thing under similar circumstances.

The simplest answer to shortage of funds for animal care is to use fewer animals. If there is just enough space and enough money to provide good care for 500 experimental animals, why try to keep 1,000 instead? As was pointed out at the last Animal Care Panel meeting, "Nature abhors a crowd." Overcrowding is a major cause of distress and disease in animal colonies, and it creates a vicious circle as, for example, in experiments where twice the necessary number of animals is used to try to make up by quantity what should have been solved by quality.

Another wholly inexcusable cause of animal suffering is failure to provide water. Every biologist knows that water is the most basic need of living creatures. Our bodies and those of the animals used in laboratories are mostly water. Our experience with the anti-water biologists, nevertheless, is long. The first laboratory officially visited by representatives of the AWI a decade ago maintained that rabbits should not drink water. In Japan, representatives of the Japan Animal Welfare Society were told flatly by the doctor in charge of one of the big laboratories, "Japanese dogs do not drink water." This year, through repeated visits and admonitions, AWI representatives have succeeded in obtaining water for guinea pigs in one New York hospital and water for cats in another, but in both institutions there was long-drawn-out resistance. The great eagerness with which these animals drink when at last given the opportunity cannot fail to convince anyone who puts the evidence of his own eyes ahead of unsupported dogmatic statements.

As long ago as 1952* the AWI published a table showing the amounts of drinking water consumed by eight species of laboratory animals. The table was reprinted from a paper by H. M. Bruce in the Journal of the Animal Technicians Association and it showed daily water requirements varying from 250 to 80 grams per kilogram of body weight in small animals.

The AWI manual "Basic Care of Experimental Animals" emphasizes the need for fresh water to be kept before all animals at all times. This manual, more than 10,000 copies of which have been sent on request to institutions using animals, is well-known in most laboratories in our experience. Both the New York hospitals, referred to above, for example, had copies.

There has been an attempt to attribute admittedly bad conditions in laboratories to ignorance. But how can any trained biological scientist be ignorant of the fact that though life can be sustained for considerable periods without food, it cannot be without water?

Ignorance and lack of funds are subsidiary among the causes of needless animal suffering in laboratories. The great reason is the lack of will, the absence of any firm determination to put an end to useless suffering among the animals used. It is evident that those who set policy for organized science in this country do not consider the moral question worth troubling themselves with and do not have a real grasp of the accompanying scientific question. It is up to scientists and medical men who have an interest in animal welfare, and to the general public, to provide the necessary incentive through legislation to bring about the needed reforms in treatment of American laboratory animals.

*Information Report Vol. 1, No. 5

NEEDLESS AND COSTLY SUFFERING IN LIVESTOCK TRANSPORT

An investigation is currently being conducted by the United States Department of Agriculture concerning the death of over 600 pigs sent from the Middle West to New York. It is reported that only two pigs survived the trip and that many of the bodies were decaying by the time the freight car doors were opened September fourth.

This is an unusually severe example of transportation cruelty, and it is punishable under the "28-hour law" which provides that livestock shipped by rail must be unloaded for feeding and watering once every 28 hours. This law, passed in 1906, contains a provision whereby the shipper may extend the period to 36 hours, however. Furthermore, the law does not apply to trucks.

Information acquired during the course of a series of thorough studies over the past six years has been summarized in an important publication of the U.S. Department of Agriculture, Farmer Cooperative Service, under the title "Loss and Damage in Handling and Transporting Hogs," by Joseph F. Rickenbacker (January, 1961). Undertaken with a view to reducing the twenty-two and a half million dollar annual loss associated with handling and transportation of hogs, it contains sections under the heading "Factors Affecting Loss" as follows: Length of Haul, Weather, Type of Carrier, Shrink and Yield, Handling Conditions and Practices, Classifying Shipments, Handling Abuse, Hazardous Facilities and Equipment.

The publication is recommended to all who are interested in the prevention of cruelty to food animals. It may be obtained by writing to Farmer Cooperative Service, U.S. Department of Agriculture, Washington 25, D.C. Some of the contents are quoted below.

"Since losses were higher in loads moved to market by motortruck than in shipments moving by rail, a second study surveyed conditions and practices in trucking livestock to market. This study, conducted at 8 major public markets, involved the observation of some 6,400 loads of livestock during unloading. Obvious overcrowding, improper bedding, inadequate or improper ventilation, excessive use of persuaders, and failure to use partitions where needed were established as definite loss associated conditions, which occurred in those trucks containing dead or crippled animals or both. . . .

"Possibility of death in transit was far greater by truck than by rail. This was true, regardless of distance shipped, but was especially true where shipments moved really long distances. Death loss was a much more significant factor during the extreme seasons of summer and winter.

"As pneumonia condemnations were quite high for long distance rail shipments during the winter, protection against extreme cold during rail movement should be a matter of concern for railway livestock departments. . . .

"In the case of truck shipments moving short distances—such as the local control loads slaughtered in the Midwest—careful attention should be directed toward the assembly and handling of hogs to reduce high incidence of carcass damage from the bruising apparent in these shipments. . . .

". . . There is every reason to believe that changes and improvements in procedures can result in the elimination or substantial lessening of these critical areas. . . ."

The 28-Hour Law

Concerning the 28-hour law, the report has this to say, "Animals shipped by rail are subject to the so-called

'Twenty-Eight Hour Law' which requires that they be unloaded at a point enroute after 28 hours in transit, unless the consignor signs a release. Then the animals may remain on the cars a total of 36 hours. In almost all instances, the release is obtained, so, for all practical purposes, 36 rather than 28 hours is the usual maximum time in transit without unloading.

"All of the rail shipments involved in this study that moved distances greater than 1,000 miles were unloaded at least once and sometimes twice. During such stopovers, the animals were given feed and water. In addition, feed was usually spread over the floors of the rail cars, both at point of origin and at the stop enroute.

"Only one truck shipment moving a long distance was unloaded for rest enroute. In only a limited number of cases was feed placed in the truck before loading. Truck shipments are not subject to the legislation mentioned above, and stops enroute for feed, water and rest are discretionary. In general, the average haul is within the 36 hour limit usually applied on rail shipments and where longer, the shipper often requests they be omitted in the belief that the consequent lessening of total time in transit compensates for any adverse factors. . . ."

Handling practices are often very bad despite the fact that reasonable consideration for animals has been scientifically proved to be of very substantial economic advantage. ". . . severe application of persuaders, kicking, falling, and so forth were proved to be a cause of carcass bruise injury in laboratory research conducted by the Ohio State University, under contract with the FCS, the results of which have been previously published."*

The men conducting the research kept a detailed record of handling and condition of equipment affecting each of the test shipments. They made two classifications on the basis of these records, the first, generally safe and well-handled, the second, the reverse. "Using these standards in classifying the test shipments, on the basis of the two categories indicated we found that approximately 50 percent of all test loads fell into class 2—that is, roughly half of the total shipments were deemed to have been subjected to handling conditions and practices likely to result in injury or subjected to hazardous facilities and equipment. A comparison of rail and truck shipments showed that 46 percent of the former and 80 percent of the latter were classified in the 'potential loss' category. . . .

Abusive Use of Persuaders

"Table 9 shows that the abusive use of persuaders was the most common and frequent form of mishandling. This abuse occurred primarily during the loading of animals into vehicles for transportation. . . .

"Electric prods (hot shots), canes, sorting poles, canvas slappers and whips were all observed during this study, but the electric prod and the slappers were used most frequently. By abusive use, we mean application of the persuader to the animal with extreme force or in such a way as to cause the animal, as a result, to sustain strong impact against some part of the facility or equipment, particularly rough corners, door jams, or partially opened gates.

"Where the application of the persuader was less severe but was of a virtually continuous nature, so animals became overly excited, use of the persuader was also considered abusive. This latter use of persuaders was classified as abusive on the basis of the Ohio State research, which clearly indicated that highly excited animals were not only

*Rickenbacker, Joseph E., Biochemical Problems in Determining the Age of Bruised Animal Tissue, Service Report 42, Farmer Cooperative Service, U.S. Dept. of Agr., Feb. 1959.

more susceptible to carcass damage due to bruising, but also that bruises incurred were likely to be of greater severity. . . .

"Since one does not normally think of the human foot as a persuader, kicking animals by handlers was listed separately. In nine test loads observers noted handlers engaged in this practice. The same standards in determining abusiveness were used as in the case of bona fide persuaders. In several cases, kicking was accompanied by other intemperate actions on the part of the handler. Kicking can have the same damaging effect as the injudicious use of a sorting pole or cane. It can be especially damaging if the handler is wearing safety shoes which have steel toes. These were not uncommon, particularly in packing houses.

"Hogs forced to jump from upper decks or elevated ramps or chutes or those falling from such heights, due to rough or careless handling, are especially vulnerable to severe injury. If they happen to land in a certain way, they may 'spread' which results in a most severe form of carcass damage. If this occurs at the beginning of a journey, they may well die enroute, or may have to be destroyed at the outset. If they escape this fate, the impact sustained from the fall can result in severe bruising. . . .

Need for Patience

"Rushing and hurrying the hogs were also major causes of overcrowding and piling up in chutes and passage-ways. While it may be that the animals did not suffer severe injury there can be little doubt that they were injured by the abusive tactics often employed by handlers in attempting to break the bottleneck or unscramble the pile. On occasions such as these the foot was apt to become a persuader and bona fide persuaders were apt to be used in an intemperate manner.

"Certainly much of the loss related to the conditions just described can be eliminated by exercising patience. If the handling is careful, orderly and unhurried slips and falls are unlikely and pileups and overcrowding can be avoided. . . ."

The report concludes with the encouraging thought that there is no need for large sums of money to correct these costly abuses. "All of the loss figures developed in this study indicated that loss and damage associated with transportation and handling was higher than it had generally been assumed by most of the industry. Controlling these losses is not an insurmountable problem. Not one of the abuses or hazards listed requires the expenditure of large sums of money to correct, although many will take time. The most difficult job is convincing livestock handlers of their importance in loss control and in not only educating them, but creating in them a genuine desire to accord their livestock charges friendly, careful handling. . . ."

This is the basic problem in all animal protective work.

1961 SCHWEITZER AWARD TO NEW YORK COLUMNIST

The 1961 Albert Schweitzer Medal of the Animal Welfare Institute has been awarded to William H. A. Carr, reporter and columnist for the *New York Post*, for his outstanding articles opposing cruelty and callousness toward animals. Presentation of the medal will be made at the annual meeting of the Institute on December 15.

The Albert Schweitzer Medal was created by the Institute in 1954, at which time a gold replica was presented to Dr. Schweitzer; it is presented annually in recognition of a distinguished contribution to the welfare of animals.

A REMINDER

The Institute wishes to remind scientists that the 16 mm, 20-minute sound film, "Handling Laboratory Animals", is available for rental or purchase from the Institute. Sufficient rental copies are now in stock so that there is no waiting period after receipt of request; the rental charge is \$3.00 for one week or less. (For those who wish to purchase, a free preview showing can be arranged, and a new print shipped on order. The purchase price is \$65.00.)

Produced in Great Britain with the cooperation of the National Institute for Medical Research, London, by MacQueen Films, Bromley, Kent, the film shows correct methods of handling twelve common experimental animals. Concise, direct and explicit, it serves a useful purpose in the instruction of animal room personnel, staff members, and others who handle or supervise the handling of animals. It has also been widely used in Schools of Medicine, Dentistry and Pharmacy, in classroom demonstration work; many educators have requested annual showings.

Since "Handling Laboratory Animals" first became available in this country in 1956, laboratories in 42 States, the District of Columbia and Canada have rented copies, and many favorable reports have been received. For example, a Professor of Animal Nutrition wrote: "I found it to be extremely useful and will plan to present it to my class, probably on a yearly basis sometime during early February. . . . I was extremely well impressed with their approach to the problem and found that it would be quite useful in demonstrating the proper handling techniques." Several institutions have purchased the film.

Scientific institutions which use animals, may also be interested in obtaining from the Institute the following publications:

The revised "UFAW Handbook on the Care and Management of Laboratory Animals", a 951-page illustrated book published in England by the Universities Federation for Animal Welfare, which gives full technical information on care, housing and breeding of laboratory animals. Cost \$9.80.

* * *

"An Introduction to the Anesthesia of Laboratory Animals" by Phyllis Croft, Ph.D., M.R.C.V.S., published by UFAW. A useful supplement to the UFAW Handbook, treating in more detail specific problems which may arise in the anesthetization of small animals; recommended for the training of technicians and as a reference book. Cost 50¢.

* * *

"Basic Care of Experimental Animals", prepared by the Institute, designed for animal room personnel, 68 pages, illustrated, and written in simple language. Chapters on animals most commonly used in laboratories, and appendices on nutrition and transportation. Copies available free upon request in sufficient number so that every person employed in the care of animals and every medical or veterinary medical student may have an individual copy.

* * *

"Comfortable Quarters for Laboratory Animals", prepared by the Institute, a 74-page loose-leaf publication, containing floor plans, construction details, etc., designed to guide institutions in remodelling their animal quarters or designing new ones. One copy provided to each institution without charge. Copies also sent upon request to architectural firms planning animal quarters.

ARGENTINE MINISTRY OF EDUCATION AND JUSTICE ADVANCES HUMANE EDUCATION

Humane education is being advanced in Argentina by the Ministry of Education and Justice, which has issued an excellent statement on the importance of kindness to animals. This statement is read during Animal Week in April in all secondary schools in the country, to all classes.

The statement was called to the Institute's attention by Sra. Albina Semino Costa, President of the Society in Buenos Aires which is working actively to prevent cruelty to animals in all fields, the Fundacion Miguel T. Ballesteros pro Redencion de los Animales. The complete text is as follows:

"MESSAGE TO STUDENTS

"Be compassionate to animals." *Sarmiento*

"The culture of a nation is not measured by the vastness of its territory nor the number of its inhabitants, but by kindness, decency and justice in action. And those moral forces must be manifested in every moment and at every opportunity, with the innocent and defenseless animals. The State, by means of its legislative power, has given us Law No. 14.346 which protects them and provides punishment of up to one year in prison for mistreatment of animals. We urge young students to help — to the best of their abilities — every animal in trouble, sick, hurt, old, abandoned or in urgent need of assistance.

"The civilization of a people is determined by the manner in which it treats its animals."
Humboldt.

The Society is to be congratulated upon its good work in behalf of animals. Those wishing to communicate with the Fundacion may address it at: Balcarce 961, Primer Piso, Buenos Aires, Argentina.

INTERNATIONAL SYMPOSIUM ON PAIN

An International Symposium on the Assessment of Pain in Man and Animals organized by UFAW (Universities Federation for Animal Welfare) was held at the Middlesex Hospital Medical School, London on July 26-28, 1961. In his opening address, the humanitarian aspect was emphasized by the President, Sir Russell Brain, F.R.S., who is editor of *Brain* and President of the Royal College of Physicians. The main topic was discussed under four sub-headings: 1, Peripheral and central mechanisms; 2, Assessment of pain in man; 3, Assessment of pain in animals; 4, Some practical applications.

Participants included: Mme. D. Albe-Fessard (Paris); Dr. D. Armstrong (London); Dr. W. A. Bain (London); Dr. H. K. Beecher (Boston, U.S.A.); Dr. D. Bonnycastle (Jersey City, U.S.A.); Dr. D. Bowsher (Liverpool); Mr. D. M. Brown (London); Dr. E. A. Carmichael (London); Dr. M. R. A. Chance (Birmingham); Dr. H. O. J. Collier (London); Dr. P. G. Croft (London); Dr. V. Eisen (London); Dr. R. Engelhorn (Biberach an der Riss, Germany); Professor J. A. B. Gray (London); Dr. J. Gruner (Strasbourg, France); Professor A. Hadow (London); Mr. J. Hankinson (Newcastle-on-Tyne); Dr. J. D. Hardy (New Haven, U.S.A.); Professor H. Hensel (Marburg, Germany); Dr. R. Henson (London); Dr. E. Hindle (London); Professor D. Hill (London); Dr. R. W. Houde (New York); Major C. W. Hume (London); Dr. A. Iggo (Edinburgh); Dr. J. Jacob (Paris); Professor C. A. Keele (London); Dr. K. D. Keele (London); Dr. G. L. Kidd (Liverpool); Professor R. L. Kitchell (Minnesota, U.S.A.); Dr. W. Koll (Göttingen, Germany); Mr. J. Mackintosh (Birmingham); Dr. A. J. McComas (London); Professor M. Monnier (Basle, Switzerland); Dr. P. W. Nathan (London); Mlle. Gl. Nosal (Geneva); Dr. C. Radouco-Thomas (Geneva); Professor J. Scherrer (Paris); Dr. K. Soehring (Hamburg, Germany); Dr. R. Smith (London); Dr. D. Taverner (Leeds); Dr. A. G. M. Weddell (Oxford); Dr. C. Wilson (Liverpool); Professor O. L. Zangwill (Cambridge); Professor Y. Zotterman (Stockholm).

The symposium will be published by UFAW early in 1962.

KRUTCH ON HUMANISM

Joseph Wood Krutch, the major American philosopher of the humane movement, has just produced a lively and fascinating new book, "The World of Animals,"* in which some hundred odd writers, chosen from a period 2500 years in length, express a variety of human attitudes towards animals. Dr. Krutch comments on each and writes in the introduction, "It is a remarkable fact, illustrated by the chronological arrangement within the different categories, that almost every major attitude and activity which has ever existed still exists today even though, as I believe, there has been a drift in certain directions." He says further, "I am not neutral, and this anthology is to some extent 'loaded.' I have tried to represent fairly the hunter and the sportsman as well as the 'objective scientist,' but my own sympathies lie with those to whom the animal world is, first of all, something to be loved and learned from rather than merely to be studied or exploited."

Quoting John Ray, the seventeenth century naturalist, followed by Alexander Pope's famous

"Know, Nature's children all divide her care;
The fur that warms a monarch, warm'd a bear.
While Man exclaims, 'See, all things for my use!'
'See man for mine!' replies a pamper'd goose:
And just as short of reason he must fall,
Who thinks all made for one, not one for all,"

Dr. Krutch continues, "Thus what I chose to call the humanistic attitude as opposed to either the theological or the purely scientific was first clearly stated by a biological scientist who was, as is not always the case, a humanist also.

"In history, the conflict between humanistic and anti-humanistic biology began almost as soon as the humanistic attitude was clearly defined. The major villain, curiously enough, was that great mathematician and philosopher, Descartes, who possessed one of the most astonishing minds in all history. He was, however, the victim of one great and fatal aberration for, to put it as simply as possible, he maintained that, all appearance to the contrary, men and other living creatures are absolutely and totally different. Animals are only machines. They seem to enjoy or to suffer, but that is only an illusion. They have no souls; they are therefore not even conscious. . . .

"No one would, I suppose, today call himself a Cartesian. But the tendency to move in that direction is always present. In its mildest form it is the tendency to regard animals as so nearly machines that any attempt to consider their mental or emotional life is dismissed as mere sentimentality or anthropomorphism. In its technical aspect, it is the father of behaviorism, the attempt to reduce all animal behavior to instinct and the conditioned reflex. Nor do those to whom this seems at least a useful method always remember the corollary that man also is an animal, therefore also a machine, and hence to be studied as such by biologists and psychologists, to be manipulated by propagandists and advertisers, but never to be considered a sentient, self-directed human creature."

In concluding, Dr. Krutch writes, "Just as individual men cannot live successfully unless they live for something more than merely making a living, so, too, we must regard the earth on which we live as something more than merely that which furnishes us with a living. We should gladly assume—whatever words we use—that 'Nature's children all divide her care' and that they are all demonstrations of 'the wisdom of God.'"

*Simon and Schuster, New York, 1961

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