

fear of physiologists losing sight of the duty of vivisection, not merely for the discovery of truth, but for its demonstration to students of physiology.

Meanwhile I (for one) who, not being an expert in any branch of physiological science, have been educated to set the highest value on its conquests, cannot concede to the physiologists the principle which has been somewhat arrogantly put forth in recent discussions, that research for the purpose of acquiring new facts in physiology necessitates and justifies vivisection. On the contrary, I cannot admit that to ascertain the order of Nature is so high an end in itself as to render superfluous or irrelevant the preliminary question, Whether the means to be employed for that object are right or wrong? We have no need to discuss the rights of the lower orders of sentient beings; it is sufficient that we should recognise the fact that they have been endowed with organisms of exquisite sensibility, not for the purpose of affording man a ready means of experiment, but for the fulfilment of their own functions. To overlook this, to exercise the law of the strong over the weak, and to accustom ourselves to the conscious and deliberate infliction of pain on those beings, with no other object than to satisfy a rational curiosity, must recoil on the operator, and do violence to his moral nature.

When I see acts of wanton cruelty I am revolted, but I have hope; for I trust to the ameliorating effect of education to eradicate the propensity to cruelty. But when I learn that acts of deliberate cruelty are done by "worthy and humane" men, I am revolted without hope. Convince me that the cultivation of physical science culminates in making men so "worthy and humane" that they can practise the vivisection of an animal (to quote Isaac Walton's words) "as if he loved him," and you convince me of the mischievous tendency of such an education.

One word more: if there were a race of intelligents as much superior to man as man is to the dog, and certain investigators of that race were to capture men and women, and subject them to vivisection, in order to advance a knowledge which is beyond the faculties of man, what should we do? Submit, of course; but should we bow with resignation to our lot, and think our pains well spent, if our wretched tortured bodies did thereby add one jot to the scientific capital of our captors? Or, should we not protest to the God of Heaven (if we happened to believe in Him) against the monstrous and enormous injustice of which we should be the victims? Surely there is the same injustice in the abuse of animal organisms (*i.e.*, the use of them against their nature) for the purpose of scientific exploration.

Valentine House, Ilford, Jan. 18

C. M. INGLEBY

#### Instinct of Monkeys

HAVING read the letters of Dr. Gulliver and G. J. R. in NATURE, vol. viii. pp. 103 and 163, in which the affection of monkeys for their dead is discussed, I think that I may perhaps be permitted to record my experience in regard to a certain class of monkeys that I have peculiar facilities for observing, which is not in accordance with the observation of Mr. Forbes or G. J. R.

I keep, in my garden, a number of Gibbon apes (*Hyllobates agilis*); they live quite free from all restraint in the trees, merely coming when called to be fed. One of these, a young male, on one occasion fell from a tree and dislocated its wrist; it received the greatest attention from the others, especially from an old female, who, however, was no relation; she used, before eating her own plaintains, to take up the first that were offered to her every day and give them to the cripple, who was living in the eaves of a wooden house; and I have frequently noticed that a cry of fright, pain, or distress from one would bring all the others at once to the complainer, and they would then condole with him and fold him in their arms.

But one morning one of the flock was found hanging dead in the fork of a tree, his comrades took no notice whatever of him, and were playing and singing their peculiar song as usual close to him; on the body being removed they took no notice whatever.

A neighbour of mine who keeps a pair of these apes, informs me that the male lately came home after an absence of two days very sick; the female, who had theretofore been very affectionate, carefully avoided him, and on his death a few days after showed the most thorough indifference. Very possibly the alleged affection for their dead may exist among some families of monkeys, and not among others. Though my apes live in complete freedom, they have never shown any disposition to breed, though I have had some of them over two and a half years.

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#### VIVISECTION

AS public attention has again been directed to this question, we think it convenient to reproduce the report of a Committee of the British Association on the subject.

The committee consisted of ten individuals, appointed at the meeting of the British Association, held at Liverpool in the year 1870, to consider the subject of Physiological Experimentation, in accordance with a resolution of the General Committee hereto annexed. The following report was drawn up and signed by seven members of the Committee:—

- i. No experiment which can be performed under the influence of an anæsthetic ought to be done without it.
- ii. No painful experiment is justifiable for the mere purpose of illustrating a law or fact already demonstrated; in other words, experimentation without the employment of anæsthetics is not a fitting exhibition for teaching purposes.
- iii. Whenever, for the investigation of new truth, it is necessary to make a painful experiment, every effort should be made to ensure success, in order that the suffering inflicted may not be wasted. For this reason, no painful experiment ought to be performed by an unskilled person with insufficient instruments and assistance, or in places not suitable to the purpose, that is to say, anywhere except in physiological and pathological laboratories, under proper regulations.
- iv. In the scientific preparation for veterinary practice, operations ought not to be performed upon living animals for the mere purpose of obtaining greater operative dexterity.

Signed by:—M. A. LAWSON, Oxford. G. M. HUMPHRY, Cambridge. JOHN H. BALFOUR, ARTHUR GAMGEE, Edinburgh. WILLIAM FLOWER, Royal College of Surgeons, London. J. BURDON SANDERSON, London. GEORGE ROLLESTON, Secretary, Oxford.

#### Resolutions referred to in the Report.

That the Committee of Section D (Biology) be requested to draw up a statement of their views upon Physiological Experiments in their various bearings, and that this document be circulated among the Members of the Association.

That the said Committee be further requested to consider from time to time whether any steps can be taken by them, or by the Association, which will tend to reduce to its minimum the suffering entailed by legitimate physiological inquiries; or any which will have the effect of employing the influence of this Association in the discouragement of experiments which are not clearly legitimate on live animals.

The following resolution, subsequently passed by the Committee of Section D (Biology), was adopted by the General Committee:—

"That the following gentlemen be appointed a Committee for the purpose of carrying out the suggestion on the question of Physiological Experiments made by the General Committee:—Prof. Rolleston, Prof. Lawson, Prof. Balfour, Dr. Gamgee, Prof. M. Foster, Prof. Humphry, Prof. W. H. Flower, Prof. Sanderson, Prof. Macalister, and Prof. Redfern; that Prof. Rolleston be the Secretary, and that they be requested to report to the General Committee."

#### AMERICAN SCIENTIFIC ENTERPRISE

THE magnificent Free Museum and Menagerie already established in the Central Park, New York, will ever stand as noble monuments of their founder's munificence, and it is now proposed to add to these a third source of benefit to science, and of recreation and instruction to the commonwealth at large. The scheme now in contemplation is the erection in the same Park of a Marine and Fresh-water Aquarium on the most approved system, and of greater magnitude than anything of the kind hitherto attempted. Following a similar principle, it is likewise intended to raise the funds requisite for establishing this aquarium through appeals to the public spirit, and proverbial liberality of New York's more wealthy citizens, as also hereafter to endow the institution, and throw the same freely open to all comers.

The credit of starting this praiseworthy enterprise is due to the Messrs. Appleton, the proprietors of *Appleton's Journal*, a house well-known for their zeal and energy in