

from the peritoneum assures an admiring audience that no discovery in medicine has ever been aided by vivisection.

Most medical men are aware that digitalis went not very long ago by the misnomer of "the opium of the heart," showing the utter ignorance that prevailed as to its true action. Used blindly it killed as often as it cured, till men set it aside as almost too dangerous for common use. When a tyro screws down the safety valve no wonder the boiler bursts, and it was only when its physiological action had been ascertained by experiments on animals that digitalis could take its proper place in the *Pharmacopœia*. How many drugs could we use with any degree of accuracy but for these experiments? "Even the action of our simple purgatives," writes Dr. Wm. Murrell, "has been worked out on the lower animals."

To those who harp upon the uselessness of vivisection I commend the following by Dr. Wilks. "I would ask the reader to picture to himself a platform on which Pasteur and Virchow, Owen and Huxley, Humphry and Foster, Simon and Fraser, unite in the statement that the remarkable advance in Medical Science and Art during the last twenty years is due to experiments upon the lower animals; and immediately after a sincere rural dean and a conscientious auctioneer unite with equal solemnity in stating *their* opinion 'that experiments upon animals have led to no useful result. I do not doubt their sincerity, or their modesty, or their good faith; they only lack a sense of the ludicrous'" (*XIX Cent.*, Dec., 1881); but if further proof were wanting we could find it in the very camp of the enemy. Mr. Hutton, one of the champions of the opposing party, in an article in the *Contemporary Review*, April, 1882, admitted the utility of these experiments whilst opposing them on moral grounds, whilst another champion, Lord Coleridge, bears testimony as follows: "I do not say that vivisection is useless, and I am sure I never have said so." Such admissions must be thorns in the flesh of the more fervid members of the party like Cardinal Manning, Miss Cobbe, and Mr. Lawson Tait. And here follows another curious point—Mr. Lawson Tait denies the utility of vivisection, but does not seem to have many qualms about its morality: "Certainly anything and everything ought to be done to convict a poisoner, and if nothing short of that would do I would advocate the performance of a hecatomb rather than that such a scoundrel as Lamson should escape."

In short, the justice admits proof of utility but throws out the Bill on moral grounds, whilst the surgeon is prepared to admit the morality if the utility could be proved. A bad day truly it would be for the Anti-Vivisection Society if these gentlemen met on the same platform to advance their diametrically opposed views.

If we take this question of utility out of the arena where the scientist meets the ultra-philanthropist and submit it to the cold impartial scrutiny of the cautious man of business, we find that the insurance companies of France refuse to accept cattle that have not undergone Pasteur's protective treatment against anthrax.

Let our opponents revel in the failure of Koch's treatment if they will, but let them not forget that the open and above-board work of British laboratories is a very different thing from the secret experiments which afford no opportunity of confirmation or expansion.

Upon the question of utility hangs the moral aspect of vivisection. No one contends that it can be lawful and right to inflict needless pain on the lower animals, any more than it would be justifiable to amputate human limbs where there was no hope of cure. But the position of those who would prohibit experiments on animals, even whilst they admit their value, is hard to understand. Suppose one of these sensitive gentlemen, on a lonely Scotch moor, had the misfortune to shatter his own leg instead of a grouse's, would he object to the messenger for medical aid lashing and spurring his horse up hill and down at a frantic pace? And if the animal dropped dead at the doctor's door, I suspect he would consider the animal's sufferings of less moment than his own. From all time man has made use of the lower animals for his own ends, and we recognize no *cruelty* nor immorality in depriving a horse of his freedom and of his sex in breaking the spirit Nature has endowed him with, and then setting him to drudge day after day, thereby shortening his life one-half. We do not blame a man for whipping on a lazy beast, nor for thrashing the dog that stole the family joint, and I have yet to hear of an anti-vivisection mouse-trap that chloroforms its victim before crushing its life out; and if this is looked on as a natural and proper thing, by what logic is the physiologist condemned who seeks to save life and alleviate suffering at the cost of a few pangs to the lower animals? To argue that they suffer in the same degree as we do is absurd. I remember long ago setting the broken leg of a favorite cat, and the animal purring during the operation. On another occasion a rabbit, from whose head I removed a large tumor, munch-ed lettuce heartily immediately after.

The solo sung by a human being during the setting of a fracture is in quite another key, nor would one be ready for a salad immediately after being trephined. Even savages do not suffer in the same degree as civilized men. The fact that the more developed and highly strung a nervous system is the more acutely does its possessor feel pain has totally escaped the notice of the anti-vivisectionist.

If high and low suffered alike, the boiling of a