

taining opinions as to the results, let us see what are the processes by which the results are arrived at; for, as our author observes, "it is well that non-professional readers should know what kind of experiments are made by men high in science, and so understand that it is no groundless prejudice which holds up their researches to reprobation."

"Dr. George Hoggan published in the newspapers, and in 'Fraser's Magazine' for April, 1875, a little of his own experience, gained as an assistant in the laboratory of one of the best known experimental physiologists. He refers, it is assumed, to the laboratory of a Parisian professor, M. Bernard, but his evidence may serve as a warning as to what is possible in England, and we may add Canada also, if a check is not put upon the practice. "In that laboratory we sacrificed daily from one to three dogs, besides rabbits and other animals, and, after four months experience, I am of opinion that not one of these experiments on animals was justified or necessary. The idea of the good of humanity was simply out of the question, and would have been laughed at, the great aim being to keep up with, or get ahead of one's contemporaries in science, even at the price of an incalculable amount of torture, needlessly and iniquitously inflicted on the poor animals. During three campaigns I have witnessed many harsh sights, but I think the saddest sight I ever witnessed was when the dogs were brought up from the cellar to the laboratory for sacrifice. Instead of appearing pleased with the change from darkness to light, they seemed seized with horror as soon as they smelt the air of the place, divining apparently their approaching fate. They would make friendly advances to each of the three or four persons present, and, as far as eyes, ears, and tail could make a mute appeal for mercy eloquent, they tried it in vain. Even when roughly grasped and thrown on the torture-trough, a low complaining whine at such treatment would be all the protest made, and they would continue to lick the hand which bound them till their mouths were fixed in the gag, and they could only flap their tail in the trough as their last means of exciting compassion. Often, when convulsed by the pain of their torture, this would be renewed, and they would be soothed instantly on receiving a few gentle taps. It was all the aid or comfort I could give them, and I gave it often. They seemed to take it as an earnest of fellow-feeling that would cause their torture to come to an end—an end only brought by death. Were the feelings of experimental physiologists not blunted, they could not long continue the practice of vivisection. They are always ready to repudiate any implied want of tender feeling, but I must say that they seldom show much pity, on the contrary, in practice they frequently show the reverse. Hundreds of times I have seen when an animal writhed with pain, and thereby deranged the tissues, during a delicate dissection, instead of being soothed it would receive a slap and an angry order to be quiet and behave itself. At other times when an animal had endured great pain for hours without struggling or giving more than an occasional low whine, instead of letting the poor mangled wretch loose to crawl painfully about the place in reserve for another day's torture, it would receive pity so far that it would be said to have behaved well enough to merit death; and, as a reward, would be killed at once by breaking up the medulla with a needle, or "pitching," as this operation is called. I have often heard the professor say, when one side of an animal had been so mangled and the tissues so obscured by clotted blood, that it was

difficult to find the part searched for. "Why don't you begin on the other side?" or, "Why don't you take another dog? What is the use of being so economical?" One of the most revolting features in the laboratory was the custom of giving an animal on which the professor had completed his experiment, and which had still some life left, to the assistants, to practice the finding of arteries, nerves, etc., in the living animal, or for performing what are called fundamental experiments upon it—in other words, repeating those which are recommended in the laboratory handbooks." (pp. 127—129.)

Here is another example, "The narrator in this instance was M. Boulland, a man of high scientific name, and one of the most conspicuous physicians in the Medical School of Paris. His mode of procedure in investigating the functions of the brain, was to injure or remove various portions of the cerebral substance in different animals, and then to watch and note the effects as long as they survived. The account of the eleventh experiment begins thus: "I made an opening on each side of the forehead of a young dog, and forced a red-hot iron into each of the interior lobes of the brain. Immediately afterwards the animal, after howling violently, lay down as if to sleep. On urging it, it walked or even ran for a considerable space; it did not know how to avoid obstacles placed in its way, and on encountering them groaned, or even howled violently. Deprived of the knowledge of external objects, it no longer made any movements, either to avoid or approach them. But it still could perform such motions as are called instinctive; it withdrew its feet when they were pinched, and shook itself when water was poured upon it. It turned incessantly in the cage as if to get out, and became impatient of the restraint thus imposed." After noting many revolting details, he says "It slept occasionally for a short time, and on awakening began its mournful cries. We tried to keep it quiet by beating it, but it only cried more loudly: it did not understand the lesson; it was incorrigible." Some days elapsed and the journal continues: "Its fore-legs are now half paralyzed, in walking, or rather dragging itself along, it rests upon the back of its foot bent upon the leg. No change has taken place in respect to its intellectual power; as its irrepressible cries disturbed the neighbourhood I was obliged to kill it," (pp. 183 184.)

Mr. Fleming, Veterinary Surgeon of the 8rd Hussars, who in 1864, gained the first prize of £50 offered by the Royal Society for the prevention of Cruelty to Animals, for the best Essay upon Vivisection, gives "an account of the operations performed by the students at the principal school in France, the College at Alfort, and the description would be hardly credited except on the testimony of an eye-witness. "In a building or shed, open to the air on one side, lay six or seven living horses, fixed by every possible mechanical contrivance by the head and feet to pillars, to prevent their struggling, and upon each horse were six or seven pupils employed in performing different surgical operations. The sight was truly horrible. The operators had begun early in the forenoon; it was nearly three o'clock when we entered the place, so that the poor wretches, as may be supposed, had ceased being able to make any violent struggles, but the deep heaving of the still panting chest, and the horrible look of the eyes—when such were remaining in the head—while the head was lashed to a pillar, were harrowing beyond endurance. The students had begun their day's work in the least vital parts of the animals: the trunks were there, but they

had lost their tails, ears, and hoofs and the operatives were now engaged in performing the more important operations." pp. 116-117.

But enough of such ghastly details, the sickening horrors of which are practised under the name and pretence of science—practices which are a disgrace to our age, and which degrade the brutes who operate below the level of the poor helpless writhing creatures upon whom they experiment. All honour to the Medical School of Trinity College, Dublin, whose programme of the Course for 1895 states. "N. B.—Vivisections are absolutely prohibited."

A "Society for the total abolition of Vivisection" has been formed in England, and it has our most cordial wishes for its success in suppressing cruelties, from the mere mention of which every mind influenced by the Gospel of mercy must recoil with horror.

#### CALENDAR.

Dec. 31st.—Sunday after Christmas.  
Sylvester, B.  
Isa. lxx. 3; Rev. xxi. 15-xxii. 6.  
" lxvi; Rev. xxii. 6.

1877.

Jan. 1st.—Circumcision.  
Gen. xvii. 9; Rom. ii. 17.  
Deut. x. 12; Col. ii. 8-18.  
" 2nd.—Gen. i. 1-20; St. Matt. i. 18.  
" i. 20-ii. 4; Acts i.  
" 3rd.—" ii. 4; St. Matt. ii.  
" iii. 1-20; Acts ii. 1-22.  
" 4th.—" iii. 20-iv. 16; St. Matt. iii.  
" iv. 16; Acts ii. 22.  
" 5th.—" v. 1-28; St. Matt. iv.  
1-23.  
" v. 28-vi. 9; Acts iii.  
" 6th.—Epiphany.  
Isa. lx. 1; St. Luke iii. 15-23.  
" xlix. 13-24; St. John ii.  
1-12

To CORRESPONDENTS.—Received—"Parochial Mission, No. 9;"—"City News."

CORRECTION.—In our issue of Sept. 7th, we gave an item from an English correspondent in reference to the so-called Popish ceremonies at the opening of Mr. Newman Hall's chapel; when the six preachers, including Morley Punshon, were arrayed in surplices. We have just learned from our correspondent that he has received a communication from Mr. Punshon stating that he "was prevented by indisposition from fulfilling the promise which he had made to Mr. Newman Hall, to assist in the services." In every other respect the account appears to have been correct.

#### MONTREAL.

(FROM OUR OWN CORRESPONDENT.)

MONTREAL.—The Rev. Canon Dufresne, who was lately taken suddenly ill at the Bishop's Palace, is reported to be recovering.

WATERLOO.—The Rev. D. Lindsay, Rector, is said to have obtained leave of absence for three months and intends going to England. The death of his brother causes him to go. We wish him a safe return.

ERRATUM.—In your issue of last week (Dec. 14th) it is stated that Rev. Chas. Bancroft, of Knowlton, is going south for his health. It should be Dr. C. Bancroft, of Trinity Church, Montreal, the father of the clergyman at Knowlton.

WATERLOO.—The funeral service of the late Mrs. Hezekiah Robinson, aged seventy-