

tures, and hurry into action based on such unverified suppositions. Science, on the other hand, can wait and demand again and again the testing and verification of guesses before they are admitted as established truths, fitted to be used in the testing of new guesses and the building up of scientific doctrine."

In applying the foregoing considerations to medicine we may say *en passant* that the history of the healing art may be divided into (1) ancient medicine, (2) modern medicine. Ancient medicine was almost purely empirical. Modern medicine deserves to be regarded as scientific. Modern medicine is by no means like modern history—coeval with Christianity—but had its rise probably with the Renaissance, and, like religion, had to struggle against the accumulated errors of ages; nor can it be even yet considered free from the crude unverified theories and superstition of the past. The weakness of ancient medicine and the barrier to progress was a slavish adherence to authority. To doubt the dicta of Hippocrates, Galen or Cullen was rank heresy, and ruined the unfortunate sceptic. The present time may be considered the high tide of modern or scientific medicine.

Science, as defined by Dr. Lankaster, is the guiding light of medical investigation. A deep, earnest desire—I might say, a passion—has taken possession of the best men in the profession to use to the fullest extent that—shall I say, divine—faculty of guessing; not mere idle guessing, but scientific guessing, followed up by patient, laborious and painstaking verification. Our best workers are the least impatient for results, and prefer to await the gradual process of thought evolution, rather than snatch a premature notoriety, which too often ends in discredit to the profession and mortification to the impatient investigator.

In reviewing the whole field of medicine, who will say that we have not made the most marvellous progress within the last quarter of a century? The scientific guesses of Lister have robbed surgery of its terrors. The almost infallible hypothesis of Pasteur will, in the near future, tend to equal success in the treatment of diseases depending on micro-organisms and the poisons generated by them. Prophylaxis and hygiene are now so thoroughly understood as to produce a sense of security of human life never felt before. By an intelligent and energetic guardianship of the public health, we can now laugh at cholera and small-pox; and the denizens of our cities feel as secure as those who live in healthy rural districts. Science is even teaching us that many of the phenomena of disease which were formerly looked upon as enemies to be combated by the most powerful weapons of the armamentarium of the *materia medica* are, in reality, salutary; and the phenomena of disease are simply the operation of cause and effect, in other words, *vis medicatrix naturæ* of our forefathers. The limited time at my disposal for the reading of this paper necessarily prevents me from alluding to many other considerations of the highest interest in connection with the subject of "Science in Medicine." On some future occasion I hope to do more justice to a subject which would require a volume instead of a ten minutes' essay.