the 'composition,' as it may well be called. She is kneeling with one knee on the patient's knees; and her Derby hat, French shoes, train dress, and extraordinary coiffure and earrings would proclaim her rather a devotee of fashion than of science. The assistant, whose left arm is apparently dislocated, and the cheering relics of former patients displayed on the top shelf of the showcase, complete a picture that is unique in medical illustrations, so far as we are familiar with them.

Dr. Mildred M. Philips, in a communication to the Alumnae association of the college, gives a translation of the character seen in the cut, a part of which is as follows: —

"A knowledge of the *Rhyming medical adviser* is considered a sufficient qualification to be a practising physician. Such ignoramuses [as those thus qualified] recklessly prescribe for disease, and ignorantly trifle with men's lives. If a patient dies, it is charged to his fate, and the doctor is not held responsible by the law. If a patient survives, he praises the skill of the doctor."

The article in the pamphlet from which the cut is taken gives a short account of the operation, and then adds, "If this disease had not met with this doctor, it could hardly have been relieved. If this doctor had not met with this disease, who could have known any thing of such divine skill?

"When Chinese doctors hear of this, their tongues will become immovable, and their heads will hang down."

DOCTORS AND THEIR WORK.

ENGLISH medical annals contain many names both familiar and honored the world over. It has not been a difficult matter, therefore, for Mr. Bettany to prepare a fair history[1] of the progress of medical science in England during the past three hundred years. Beginning with Harvey and Sydenham, and ending with Sir James Paget and Sir Joseph Lister, the author has sketched the lives of a succession of scientific men, eminent in the various departments of medicine and surgery, of whom any country may well be proud. It is, perhaps, from such memoirs as these that the history of progress in medicine can be most pleasantly traced. The personal element in science is often neglected, but always repays investigation. And nothing is more entertaining than to notice how the pure scientific spirit in search of facts

[1] *Eminent doctors.* Their lives and their work. By G. T. BETTANY. London, *Hogg*, 1885. 8°.

displayed by one, the clear reasoning powers of another, and the practical mind of a third, all have their place, and combine to produce a result which no one genius alone could have reached. Harvey and Hunter may be selected as types of the first class mentioned, as they were among the earliest to make evident the necessity of an accurate knowledge of the structure of the body as a foundation for all further progress. In the museum which bears Hunter's name is to be found a lasting monument of his influence in impressing upon his contemporaries and successors the need of a wide collection of data for scientific induction. With him may be classed Charles Bell and Marshall Hall, whose careful physiological experiments furnished many of the facts upon which modern theories are based. The reasoning mind which advances from facts to conclusions is exemplified by such men as Bright and Addison and Holland. To put facts together, to balance their comparative importance, to eliminate the non-essential, and thus to reach a logical conclusion, is the work of the diagnostician, — a work which may not bring lasting fame, since it is concerned with individual cases only, but which is none the less important in increasing the sum of general knowledge. It is, perhaps, in the practical application of facts and theories that the English school has been pre-eminent. The names of Astley Cooper, Syme, Jenner, and Lister, will occur naturally in this connection. To Jenner and Lister the race owes a tremendous debt. They have saved, and are to-day saving, the lives of thousands. And it is not only for the methods of vaccination and antiseptic surgery that science is indebted to them: it is for the principle involved in these methods, — the principle of preventive medicine. To cure an individual case may be gratifying, to discover a remedy for a single disease may be beneficial; but to find a means of making the entire race exempt from certain dangerous affections is indeed a triumph. Under Lister's method of antiseptic surgery, operations are daily performed which the boldest of all the surgeons in this list of eminent men would never have ventured to undertake. The history of Lister's discovery is interesting. In 1860 he was put in charge of a new hospital in Glasgow, and, although the most approved principles were employed in its construction, it proved extremely unhealthy. Pyaemia, erysipelas, and hospital gangrene showed themselves, affecting most severely those patients in the wards nearest the ground. Lister noticed, that, when nearly all the beds contained patients with open sores, the diseases which result from hospital atmosphere were sure to be present in an aggravated form; whereas, when a large proportion of the cases had no external wound, these evils were greatly mitigated or entirely absent. He had also been struck with an account of the remarkable effects produced by carbolic acid upon the sewage of the town of Carlisle; the admixture of a very small proportion not only preventing all odor from the lands irrigated with the refuse material, but also destroying the entozoa which usually infest cattle fed upon such pastures. These facts, taken in connection with others which he had ascertained in experiments concerned in proving the germ theory of disease of Pasteur, led him to the idea that if a wound could be closed to the entrance of air, or be kept from all obnoxious influences in the air by the use of carbolic acid, the conditions for rapid healing without the complication of hospital diseases might be fulfilled. From this idea was developed the entire system of antiseptic dressings which bears the name of Lister. From the first experiments in the use of these dressings, a change in surgical procedure began; and now, under their use, wounds which never healed formerly under three or four weeks, are completely healed in six days. Operations which were followed by days of fever and distress are now succeeded by rapid recovery without any surgical fever. Various procedures are daily undertaken which formerly would have been unhesitatingly declared impossible, and pyaemia and hospital gangrene have been almost banished from wards where the system is properly carried out (ii. 141–147).

It would have added to the interest of this book if a large number of details had been given regarding the personal characteristics of the physicians whose lives are sketched. Even without these, however, the book will prove of interest both to those in the medical profession who wish to know something of their English predecessors and contemporaries, and to those outside of the profession who are interested in the history of the progress of science. M. A. S.

Dr. A. B. Griffiths, of the Manchester technical school, has published the following account of an assay of gold ore from the vicinity of Constantinople: "The gold is disseminated in very small pieces here and there through a quartz and earthy matrix. The ore comes from mines which have not been worked for several centuries, and were thought to be exhausted of gold. The assay, both by dry and wet methods (of a carefully selected sample), gave 3 oz. 14 dwt. of gold per ton of ore. The gold in the ore contains iron and copper, and a very small quantity of silver. The matrix is composed chiefly of quartz, but contains calcium carbonate, ferric oxide, alumina, and lime."