Alexandrian school. “ His surgical writings are copious and valuable. His opinions were guided by experience, and his methods of management and cure are characterised by much caution and discrimination. We find a variety of surgical queries and suggestions which had escaped Celsus and Galen, as well as the description of several diseases which have been omitted by Paulus Ægineta. He recom­mended and practised scarification of the legs in anasarca, and made free use of both the actual and potential caute­ries ; he cut out hæmorrhoidal tumours ; operated for aneu­rism ; tried to dissolve urinary calculi by the administration of internal remedies ; and has given a series of interesting chapters on inflammation of the intestines followed by ab­scess, on encysted tumours, on the varieties of hernia, on diseases of the testicle and castration, on the pricks of the nerves and tendons, and in fact on almost every important branch of surgical knowledge. If, mixed up with these, we find some things which the matured experience of ages has abolished, it is less to be marvelled at, than that surgery was already enriched with so many valuable facts and ob­servations.” He makes no reference to the reduction of fractures and dislocations, whence it has been plausibly inferred, “ that in all likelihood quacks were at that time in complete possession of this branch of practice. Better were it for society that it was quite out of their hands now !” He seems to have been the first to open up a field of me­dical inquiry, which has since been so successfully culti­vated,—the nature and composition of urinary calculi. He appears also to have turned much of his attention to dis­eases of the eye, and is the first who speaks of the dracun­culus or Guinea-worm. Alexander of Trallis, a famous physician in the time of Justinian, about the middle of the sixth century, was an author of more originality than either Oribasiusor Aëtius. He wrote on diseases of the eye, and on fractures ; but both treatises have been lost, which is the more to be regretted, as, with this exception, he con­fined himself entirely to internal disease. The celebrated Paulus Ægineta, also of the Alexandrian school, lived about the middle of the seventh century, and made both large and valuable contributions to surgery. He frequently per­formed the operations which he describes, and abandoned the labours of the mere theorist, for the more valuable re­sults of practical observation and experience. “ His sixth book has been considered by many, and not without rea­son, as the best body of surgical knowledge, previous to the revival of letters.” He recommended bleeding from the immediate neighbourhood of the part affected, in prefer­ence to general blood-letting, because more effectual ; and, for the like reason, opened the temporal artery in cases of very severe ophthalmia. He had recourse to copious ve­nesection, with the view of accelerating painful descent of calculus in the ureter. He opened internal abscesses by caustics, and defined the points at which he thought it advisable to perform paracentesis in the different alleged species of ascites. In lithotomy, having first endeavoured to ascertain the situation of the calculus by the rectum, he made his incision, not in the centre of the perineum, as re­commended by Celsus, but to one side of the raphe, as is now practised. Of the impropriety of extensive incision of the bladder he seems to have been well aware, directing that the external wound should be much freer than the in­ternal, and that the latter should be in extent merely suf­ficient to admit of the passage of the stone. While Celsus limited the operation to patients between nine and fourteen

years of age, he sanctions its performance after the age of puberty, but admits that the chances of success increase with the youth of the patient. He described more than one variety of aneurism, pointing out those cases in which he thought it advisable to attempt a cure by operation ; and extended this to the aneurisms of the head and joints, excepting only those of the groin, arm-pit, and neck, in­stead of confining it to the tumours of the arm alone, as had been done by Aëtius. All aneurisms, excepting aneu­rism by anastomosis, which he clearly and accurately dis­tinguished, he conceived to originate in rupture of the coats of the artery. He performed extirpation of the mam­ma by crucial incision, and practised both laryngotomy and tracheotomy. He is the first who seems to have performed the latter operation as a means of carrying on respiration during occlusion of the larynx, but naturally enough falls into the error of transverse instead of longitudinal incision. He describes different species of hernia, and did not hesi­tate to operate when the tumour became strangulated. He is also the first who treats of fracture of the patella. He was pre-eminent as an accoucheur, and was the originator of the obstetric operation of embryotomy.1 From the time of Paulus, we find no Greek or Roman surgeon of note, until the appearance of Actuarius, a Greek, who practised with great distinction at Constantinople, probably about the beginning of the twelfth century, but at what exact period it is impossible to ascertain. Among his writings are found several surgical treatises, which however possess no greater merit than as compilations from previous authors.

Having thus traced surgery from its origin, through the Egyptian, Greek, and Roman dynasties, we come to notice the prolongation of its feeble existence in Arabia.@@1 From Alexandria, captured by the Saracens under Amrou in 640, knowledge was gradually communicated to Arabia. Its people became acquainted with medicine through the medium of translations of the Greek authors; and the “ seat of learn­ing was transferred, for a time, from beneath the shadow of the cross to the empire of the crescent ; from the classic shores of Italy and Greece, to the warlike followers of Ma­homet, and the fiery descendants of Ishmael.” Many va­luable manuscripts, rescued from the savage destruction of the Alexandrian library, were carefully transcribed, or trans­lated into the Syriac or Arabic languages, and dispersed in various directions. The first Arabic translation was made about the year 683, by Maserjawaihus, a native of Syria ; but the most eminent in this labour was Honain, called, by way of eminence, “ the translator,” a Christian, born at Hira in 764. Towards the end of the eighth century, a college was founded at Bagdat by the Caliph Almanzor; and there medicine obtained a permanent footing, under the fostering care of the far-famed Caliph Haroun al Raschid. Public hospitals and laboratories were founded by him for the benefit of students, who are said to have amounted at one time to no fewer than six thousand, consisting chiefly of Christians banished on account of their religion ; and the Caliph Almamon surpassed even his predecessors in muni­ficent patronage, extended to every department of art and science, and in unwearied exertions to restore and propa­gate the various branches of learning. By supplication he prevailed upon the Grecian emperors to send him many works in philosophy ; and, employing the best interpreters that he could find, ordered all these books to be translated, and encouraged the industrious study of them by his own personal example. The medical sch∞l at Jondisabour, the

@@@1 Mr Francis Adams, a very erudite surgeon practising in the vicinity of Aberdeen, has published the first volume of “ The Medical Works of Paulus Ægineta, the Greek Physician, translated into English : with a copious commentary, containing a comprehensive view of the know­ledge possessed by the Greeks, Romans, and Arabians, on all subjects connected with medicine and surgery.” Lund. 1834, 8vo.

a Le Clerc, Histoire de la Médecine. Geneve, 1696, 8vo. Amst. 1723, 4to. Freind’s History of Pnysick, from the time of Galen to the beginning of the sixteenth century. Loud. 1725-6, 2 vols. 8vo. Le Clerc only continues the history till the age of Galen. The literary his­tory of the Greek physicians may be sought in the *Bibliotheca Grata* of Fabricius.