INTRODUCTION

GAIUS PLINIUS SECUNDUS—usually called Pliny the Elder to distinguish him from his nephew and ward, Gaius Plinius Caecilius Secundus, whose collected correspondence has preserved such a vivid picture of Roman life in the time of Trajan—belonged to a family of wealth and position in the North of Italy. He was born at Como in A.D. 23. After studying at Rome he started when twenty-three years old on an official career, serving in Germany under L. Pomponius Secundus, and rising to the command of a cavalry squadron. Seven or eight years later he came back to Rome and took up the study of law. During most of Nero’s principate he lived in retirement, but towards the close of it he re-entered public life and became Procurator in Spain. He held this post until Vespasian won the principate, when he returned to Rome and was admitted to the Emperor’s intimate circle; they had been acquainted in earlier days when at the front in Germany. He also launched into another field of activity, receiving a naval commission.

Throughout his busy career as a man of action he had kept up a constant practice of study and authorship. His interest in science finally cost him his life, at the age of 56. He was in command of the fleet at Misenum on the Bay of Naples in A.D. 79.
when the famous eruption of Vesuvius took place on August 23 and 24, overwhelming the little towns of Herculaneum and Pompeii. Pliny as a man of science sailed across the bay to obtain a nearer view; he landed at Stabiae, and there was killed by poisonous fumes. The circumstances are recorded by his nephew in a letter to Tacitus (Pliny, Epp. VI. xvi). Vespasian had died and had been succeeded as Princeps by his son Titus two months before.

Pliny's earlier writings were on subjects suggested by his professional experiences, e.g., the use of the javelin by cavalry, a history of the German wars, the training of the orator. During his retirement he produced Dubius Sermo, a treatise on grammar, and later a continuation down to his own time of the history of Rome by Aufidius Bassus; and lastly Natural History, the largest and most important of his works and the only one that has survived, although his historical writings on the defence of the German frontier and on the events of his own period were clearly works of value, the loss of which is much to be regretted. The substance of both, however, is doubtless largely incorporated in the writings of Tacitus and Suetonius, the former indeed repeatedly citing Pliny as his authority both in Annals and in Histories.

Natural History is dedicated to Titus, who is referred to in the Preface, § 3, as 'sexies consul'; this dates the completion of the work at A.D. 77, two years before the author's death and the accession of Titus. It is an encyclopaedia of astronomy, meteorology, geography, mineralogy, zoology and botany, i.e. a systematic account of all the material objects that are not the product of man's manu-
BOOK XXIX

I. The nature of remedies, and the great number of those already described or waiting to be described, compel me to say more about the art of medicine itself, although I am aware that no one hitherto has treated the subject in Latin, and that the judgement passed on all new endeavours is uncertain, especially on such as are barren of all charm, and the difficulty of setting them forth is so great. But since it is likely to come into the minds of all students of the subject to ask why ever things ready to hand and appropriate have become obsolete in medical practice, the thought occurs at once that it is both a wonder and a shame that none of the arts has been more unstable, or even now more often changed, although none is more profitable. To its pioneers medicine assigned a place among the gods and a home in heaven, and even today medical aid is in many ways sought from the oracle. Then medicine became more famous even through sin, for legend said that Aesculapius was struck by lightning for bringing Tyndareus back to life. But medicine did not cease to give out that by its agency other men had come to life again, being famous in Trojan times, in which its renown was more assured, but only for the treatment of wounds.

II. The subsequent story of medicine, strange to say, lay hidden in darkest night down to the Peloponnesian War, when it was restored to the light by Hippocrates, who was born in the very famous and powerful island of Cos, sacred to Aesculapius. It had been the custom for patients recovered from illness to inscribe in the temple of that god an account of the help that they had received, so that afterwards similar remedies might be enjoyed. Accordingly Hippocrates, it is said, wrote out these inscriptions, and, as our countryman Varro believes, after the temple had been burnt, founded that branch of medicine called "clinical." Afterwards there was no limit to the profit from medical practice, for one of the pupils of Hippocrates, Proclus, born in Selymbria, founded ialrallipte ("ointment cure"), and so discovered revenue for the anointers even and drudges of the doctors.

III. Changes from their tenets were made, with a flood of verbiage, by Chrysippus, and from Chrysippus also a violent change was made by his pupil Erasistratus, a son of the daughter of Aristotle. For curing King Antiochus he received a hundred talents from King Ptolemy, his son, to begin my account of the prizes also of the profession.

IV. Another medical clique, calling themselves "Empirics" because they relied on experience, arose in Sicily, where Acron of Agrigentum received support from Empedocles, the physical scientist. These schools disagreed with each other, and were all condemned by Herophilus, who divided pulsation into rhythmic feet for the various periods of life. Then this sect also was abandoned, because it was necessary for its members to have book-
learning, and that sect also was changed that afterwards had been founded, as I have related, by Asclepiades. He had a pupil called Themison, who at first followed his master, but then later in life he also changed his tenets, a further change being made by Antonius Musa, another pupil of Asclepiades, with the support of the late Emperor Augustus, whose life in a dangerous illness he had saved by reversing the treatment.\textsuperscript{a} I pass over many famous physicians, among them men like Cassius, Calpetanus, Arruntius and Rubrius.\textsuperscript{b} Two hundred and fifty thousand sesterces were their annual incomes\textsuperscript{c} from the Emperors. Q. Stertinius said that the Emperors were in his debt because he had been content with an income of five hundred thousand sesterces a year, proving by a counting of homes that his city practice had brought in six hundred thousand. A like fortune also was showered by Claudius Caesar upon his brother, and the estates, although exhausted by beautifying Naples with buildings, left to the heir thirty million, Arruntius alone in the same age leaving as much. Then there arose Vettius Valens, celebrated for his intrigue with Messalina, wife of Claudius Caesar, and equally so for his eloquence. Chancing to gain followers and power he founded a new sect. The same generation in the principate of Nero rushed over to Thessalus, who swept away all received doctrines, and preached against the physicians of every age with a sort of rabid frenzy. The wisdom and talent he showed can be fully judged even by one piece of evidence: on his monu-

\textsuperscript{a} The reading \textit{annuales} has such strong support (R too has \textit{anulìs}) that with much misgiving I retain it.

\textsuperscript{b} The reading \textit{Physicisci} is omitted by D, and the passage is then read as "Physicians' incomes."

\textsuperscript{c} The reading \textit{Physicisci} is omitted by D, and the passage is then read as "Physicians' incomes."
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over our life and slaughter, just as if thousands of peoples do not live without physicians, though not without physic, as the Roman people have done for more than six hundred years, although not slow themselves to welcome science and art, being actually greedy for medicine until trial led them to condemn it.

VI. In fact this is the time to review the outstanding features of medical practices in the days of our fathers. Cassius Hemina, one of our earliest authorities, asserts that the first physician to come to Rome was Archagathus, son of Lysanias, who migrated from the Peloponnesus in the year of the city 535, when Lucius Aemilius and Marcus Livius were consuls. He adds that citizen rights were given him, and a surgery at the cross-way of Aelius was bought with public money for his own use. They say that he was a wound specialist, and that his arrival at first was wonderfully popular, but presently from his savage use of the knife and cautery he was nicked named "Executioner," and his profession, with all physicians, became objects of loathing. The truth of this can be seen most plainly in the opinion of Marcus Cato, whose authority is very little enhanced by his triumph and censorship; so much more comes from his personality. Therefore I will lay before my readers his very words.

VII. I shall speak about those Greek fellows in their proper place, son Marcus, and point out the result of my enquiries at Athens, and convince you what benefit comes from dipping into their literature, and not making a close study of it. They are a quite worthless people, and an intractable one, and you must consider my words prophetic. When that race gives us its literature it will corrupt all things, and even all the more if it sends hither its physicians. They have conspired together to murder all foreigners with their physic, but this very thing they do for a fee, to gain credit and to destroy us easily. They are also always dubbing us foreigners, and to fling more filth on us than on others they give us the foul nickname of Opici. I have forbidden you to have dealings with physicians.

VIII. And this Cato died in the 605th year of the City and the 85th of his own life, so that nobody can think that he lacked opportunities in public life, or length of years in private life, to gather experiences. What then? Are we to believe that he condemned a very useful thing? No, by heaven! For he adds the medical treatment by which he prolonged his own life and that of his wife to an advanced age, by these very remedies in fact with which I am now dealing, and he claims to have a notebook of recipes, by the aid of which he treated his son, servants, and household; these I rearrange under the diseases for which they are used. It was not medicine that our forefathers condemned, but the medical profession, chiefly because they refused to pay fees to profiteers in order to save their lives. For this reason even when Aesculapius was brought as a god to Rome, they are said to have built his temple outside the city, and on another occasion upon an island, and when, a long time too after Cato, they banished Greeks from Italy, to have expressly included physicians. I will magnify yet further their wisdom. Medicine alone of the Greek arts we serious Romans have not yet practised; in spite of its great profits only a very few of our citizens have touched upon it,
and even these were at once deserters to the Greeks; nay, if medical treatises are written in a language other than Greek they have no prestige even among unlearned men ignorant of Greek, and if any should understand them they have less faith in what concerns their own health. Accordingly, heaven knows, the medical profession is the only one in which anybody professing to be a physician is at once trusted, although nowhere else is an untruth more dangerous. We pay however no attention to the danger, so great for each of us is the seductive sweetness of wishful thinking. Besides this, there is no law to punish criminal ignorance, no instance of retribution. Physicians acquire their knowledge from our dangers, making experiments at the cost of our lives. Only a physician can commit homicide with complete impunity. Nay, the victim, not the criminal, is abused; his is the blame for want of self-control, and it is actually the dead who are brought to account. Panels of judges are tested according to custom by the censorial powers of the Emperor; their examination invades the privacy of our homes; to give a verdict on a petty sum a man is summoned from Cadiz and the Pillars of Hercules; indeed, before the penalty of exile can be inflicted forty-five selected men are given power to vote on it; yet on the judge himself what manner of men sit in consultation to murder him out of hand! We deserve it all, so long as not one of us cares to know what is necessary for his own good health. We walk with the feet of others, we recognise our acquaintances with the eyes of others, rely on others' memory to make our salutations, and put into the hands of others our very lives; the precious things of nature, which support life, we have quite lost. We have nothing else of our own save our luxuries. I will not abandon Cato exposed by me to the hatred of so vain-glorying a profession, or yet that Senate which shared his views, and that without seizing, as one might expect, any chances of accusation against the profession. For what has been a more fertile source of poisonings? Whence more conspiracies against wills? Yes, and through it too adulteries occur even in our imperial homes, that of Eudemus with Livia, wife of Drusus Caesar, and that of Valens with the royal lady with whom his name is linked. We may grant that the blame for such sins may lie with persons, not with the medical profession; Cato, I believe, had no more fears for Rome about these matters than he had about the presence in Rome of royal ladies. Let me not even bring charges against their avarice, their greedy bargains made with those whose fate lies in the balance, the prices charged for anodynes, the earnest-money paid for death, or their mysterious instructions, that a cataract should be moved away and not pulled off. The result is that the brightest side of the picture is the vast number of marauders; for it is not shame but the competition of rivals that brings down fees. It is well known that the Charmis aforesaid exchanged one sick provincial for 200,000 sesterces by a bargain with Alcon the woundsurgeon; that Charmis was condemned and fined by the Emperor Claudius the sum of 1,000,000 sesterces, yet as an exile in Gaul and on his return from banishment he amassed a like sum within a few years. Let the blame for this sort of thing also be laid on persons. I must not accuse even the dregs of that mob or its ignorance: the irresponsibility of
the physicians themselves, with their out-of-the-way use of hot water in sickness, their strict fasts for patients, who when in a fainting condition are stuffed with food several times a day, their thousand ways moreover of changing their minds, their orders to the kitchen, and their compound ointments; for none of life’s seductive attractions have they refrained from touching. I am inclined to believe that our ancestors were displeased with imports from abroad and with the fixing of prices by foreigners, but not that Cato foresaw these things when he condemned the profession. There is an elaborate mixture called theriace, which is compounded of countless ingredients, although Nature has given as many remedies, anyone of which would be enough by itself. The Mithridatic antidote is composed of fifty-four ingredients, no two of them having the same weight, while of some is prescribed one sixtieth part of one denarius. Which of the gods, in the name of Truth, fixed these absurd proportions? No human brain could have been sharp enough. It is plainly a showy parade of the art, and a colossal boast of science. And not even the physicians know their facts; I have discovered that instead of Indian cinabar there is commonly added to medicines, through a confusion of names, red lead, which, as I shall point out when I discuss pigments, is a poison. These things however concern the health of individuals; but those other practices, which Cato feared and foresaw, much less harmful and less regarded, such as the heads of that profession themselves admit about themselves, those, I say, have ruined the morals of the Empire, I mean the practices to which we submit when in health—wrestlers’ ointments, as though

they were intended to treat ill health, broiling baths, by which they have persuaded us that food is cooked in our bodies, so that everybody leaves them the weaker for the treatment, and the most submissive are carried out to be buried, the draughts taken fasting, vomitings followed by further heavy potations, effeminate depilations produced by their resins, and even the pubes of women exposed to public view. It is certainly true that our degeneracy, due to medicine more than to anything else, proves daily that Cato was a genuine prophet and oracle when he stated that it is enough to dip into the works of Greek brains without making a close study of them. Thus much must be said in defence of that Senate and those 600 years of the Roman State, against a profession where the treacherous conditions allow good men to give authority to the worst, and at the same time against the stupid convictions of certain people who consider nothing beneficial unless it is costly. For I feel sure that some will be disgusted at the animals I shall treat of, although Virgil did not disdain to speak quite unnecessarily of ants and weevils, and of:

"sleeping places heaped up by cockroaches that avoid the light."

Nor did Homer disdain amid the battles of the gods to tell of the greed of the fly, nor yet did Nature disdain to create them because she creates man. Therefore let each take into account, not things themselves, but causes and results.