The FitzPatrick Lectures

ON GREEK MEDICINE IN ROME.*

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS
OF LONDON.

BY

SIR T. CLIFFORD ALLBUTT, K.C.B., M.D., F.R.S.,
REGIUS PROFESSOR OF PHYSIC IN THE UNIVERSITY OF CAMBRIDGE

PRESIDENT AND FELLOWS.—In calling me to deliver the FitzPatrick Lectures you have done me much honour; and it would be an ill-timed however genuine a diffidence which might seem to disparage your election; I may, notwithstanding, hesitate for a moment as I regard the dignity of this place, and as I admire the services of my predecessors. In them we have had examples of wide and sound learning, of biographical skill and of anecdotal charm, which are above my hope, and I trust outside your comparisons. For such lists I am unarmed. To original research I have no pretensions; I am a child in scholarship. Yet in some converse with letters my tastes, if not my talents, have attracted me to the development and propagation of ideas; and it will be my endeavour to present to you some broad sketch, thin and partial as it may be, of this evolution as illustrated in the history of Medicine.

On the dark and stupendous background of Rome, from the foundation of the City to this day, has been displayed, as on no other canvas, the procession of those forms and those forces, innate or acquired, of science, art, politics, and religion, by the conflict and interpenetration of which the nations of modern Europe were made, governed, and inspired.

We have our moods in which we ask ourselves if history is a fruitful study—nay, indeed, if it be not a sign of an uncreative or even of a decadent society. If our hearts are opening more and more towards the promises of the future, why should we be hankering after pictures of the past? Did the Greeks of the Parthenon regard the earlier temples whose fragments they built into their battlements, or did the Greeks of Sancta Sophia painfully restore the ruins of the Temple of Constantine? Did not the builders of St. Mark's or of St. Paul's without the Walls for their own creation even demolish the monuments of the past, as the painters of the generation of Massacio obliterated the frescoes of their fathers, and as the scribe of the cloister buried the silver uncials of some rare pagan manuscript under his ruder record of the Gospels? Was it not, then, the wistfulness and pathos of a nation passing its prime which first tuned the notes of Virgil to a historical theme? Was not his patriotism the passionate clinging to a form which was passing away? And when our own poets take up the chant of *Où sont les neiges d'antan*, is the voice one of joy or of foreboding? In our saner judgement we shall answer with some boldness that the study of history need be no wistful turning back from the plough to yearn after golden ages which never were; that history is much more than the raw material for pious platitudes, and regrets, and picturesque instances. The study of history must become the orderly reflexion and method of a society, past its golden childhood indeed, yet parting with this blessed blindness, to enter upon a nobler life, in the maturity of reason and responsibility. To sap our ideals, as Roman history and all history show, does mean decadence; and it is for history to reveal the unity, the spirit, and the growth of all human ideals; and to maintain our standards. Nay, may it not, as at the Renaissance which drank deep of the past, by a kind of psychical cross-fertilization, infuse in us the rudiments of a new epoch? It has been said that as an emotional and instinctive being man is dateless; but as a reasonable being that he is of yesterday. In its youth society is sustained by authority—by authority of king, priest, or philosopher; myth is then its history; but

when authority ceases and self-consciousness awakes historical reflection must begin. The society which had grown up on tradition, on its instincts as the ants and the rooks, must, if it is to interpret its own nature and to shape its future, now take to learn at first hand the origins, the course, and the principles of its growth, wealth, and activities, and moreover to apprehend the vast scale upon which not only material but spiritual forces operate. For time present can scarcely be said to exist: *Dum loquimur fugerit invida aetas*. From history, "a longitudinal section of human life," as Ilberg calls it, we shall apprehend how hideous is the waste in the phases of unreflective social development; and how progress may be made, not by scrapping one human society or devouring another, but on lines of continuity in free spaces of expansion, and by disengaging and delineating the methods by which a rational creates an economical evolution.

Thus truly it is that we are assured by our professorial colleagues that History is a Science; a truth of which we are made painfully aware when nowadays from the Capitoline Hill we look down upon the stone mason's yard still bearing the name of the Roman Forum. Science looks to the future, it is true, but to the more material future. It has little or no concern with values, but with means rather. Science seeks not exemplary instances; for science no fact is despicable because it is little; true and false opinions are alike significant of the mind of the past. History is a science when by its methods we analyse our past; it becomes an art when for our inspiration we recreate the ideals which time had devoured, and when as politicians we apply them to life. With the disengagement of reason there is no doubt in society, as in the individual, some loss of spontaneity; moreover, the creative and the deliberative impulses, instead of uniting in fertile marriage, are but too apt at first to get in each other's way, to act at cross and even contrary purposes, and to mistrust each other; so that each faculty drags its images and counterfeits from the past to impose them upon its own times. Thus we are provided with static monuments of the past for admiration and example, rather than with the breath of its dynamics for our life, strength, and beauty. But the historical philosophy of an age gone by did not consist in its fashions, nor even in its ostensible systems of logic. Of course, no category which becomes an instrument of thinking can ever become obsolete, but to imitate the past, as our modern mediaevalists would do, is but a masque; as to form and custom history never repeats itself; it is in a restoration of the motive and the spirit of the past that we must cherish the perpetual fire to animate and renew the ever-changing forms which are never repeated. Man should ever be more and mightier than his past. It is, then, the mediatory office of such lectures as these to interpret the past *sub specie historiae*; to construct a historical or comparative criticism of life; to bring life and flexibility into law and logic, to warn us against the clumsiness of interpreting the ancients by translating our ideas and ways into theirs, as men have imputed Christianity to Virgil and Shakespeare to Bacon, and as the earlier critics of the Bible, in the immaturity of the historical sense, occupied themselves with judicial criticisms of its contents; or conversely to warn us against the illusion of tricking out modern ideals in ancient trappings. From history we have to learn not only what our ancestors conceived and made, but also why they thought and acted so.

Once more: both as science and art, both in reflective and developmental criticism and in regenerative idea, does not history make yet another kind of appeal to us? The mountaineer, familiar with a group of peaks as they had long appeared to him in his accustomed haunts, where again and again he had climbed their summits and explored their recesses, takes a new journey; he traverses a great valley, outflanks the hills, and suddenly from a strange vantage the once familiar peaks burst again into view; but with fresh features and in new relations. He gazes wondering at the transformation, as it were of some wary herd which, while he was making his circuit, had silently faced round to watch him, but yet were not the same. In some solemn maze they have wheeled about each other, and have turned other faces to the wanderer. Thus, in no extravagant figure I hope, I have sought to convey

* On the occasions of these Lectures portions only of a larger manuscript were read. For some consequent incoherences the author hopes to be pardoned.

to you the new, the strangely new, regard of the constructions of man when, by our adventures in history, we come round to see them from other quarters and other prospects. We knew our own group of ideas; we had, if you please, scaled its summits and explored its recesses; but these ideas now reveal themselves with fresh features and in new relations. And thus the real forms and organic plan of our own age are manifested to us as never they were before; and, whether as artists or geographers, we discover how partial was that knowledge, even of our own life, which before we had believed to be intimate and comprehensive. We do not know the full truth of our own felix, our own walks, and our own phases of life until by travel of time and space we have outflanked them, and discovered their form and growth by other avenues and in other illuminations.

Now of medicine the history is, or until our own day has been, part of the history of natural science; and indeed the source of that philosophy of history which regards human societies as conditioned by circumstances; a conception in which Hippocrates preceded Comte, Buckle, and Taine. He, therefore, who would interpret the documents and the history of medicine must be at least initiated into all history. Physicians of the past, as of the present, were made of common humanity, and their life in medicine was not alien from their life, and the common life of their age, in love, work and war. In the medical historian, therefore, the sympathy of humanity must be added to the accuracy of the scholar, and these to a technical equipment in our art. And in the age of Leonicens, of Linacre, of Caius, of Fuchs, of Foësius, of Mercurialis, we made at the Renaissance a famous beginning. But the humanists, never really friendly to science, soon began to play us false. Disliking the raw anatomy of knowledge, with what they called "The Classics" they built a walled pleasance for themselves and dwelt therein, raising florist's blooms and cut flowers, till Wolfe and Schliemann began to throw stones over the fence. They were of the kind of the old grammarian who said there could be no interest in a period when *ἀπὸ* governed the accusative.* In classical periods we realize our traditional ideals, but if they claim by their stationary contemplation to govern development they stifle the spirit of history, not only in forms of words and artificial categories, but also by an assumption of "common sense." Now "common sense" never verified premisses, discovered origins, or interpreted natural means, orders, or ends. A curious instance of this claim of common sense peeped out in a recent *Times* review of Mr. Jones's *Malaria and Greek History*: by this faculty the literary man supposed he could settle Mr. Jones's problem without even the pretence of repeating and verifying his researches. The study of language deals only with past experience; the past of the whole of mankind and of its chief persons, yet still of the past. New and enlarging experience is to be had not by common sense, but by new uses of the senses; and for the record of these fresh receptions new words, new phrases, new combinations of old words will be required. Thus a nation, or an individual, which is not continually returning to the direct uses of its five senses on advancing problems may collect experiences, but makes none. No small part of the labours recorded in our classical journals may have its narrow utility, but, intellectually and ideally regarded, seems to me to rank with chess problems. As studied statically, literature is deprived of the keys of growth, and of those tests of affinity whereby we learn to discriminate the formal and incidental from the essential and spiritual.

Although, then, in the first ardour of the Renaissance medical texts sprang into discovery, some were printed, and Medicine received its place in the universities as a liberal study, yet humanist fastidiousness so prevailed that no original medical texts followed those of the sixteenth century; nor did eminent scholars and commentators labour much even upon these. Naturally, therefore, among the incunabula medical history settled on its lees; the baser utilities prevailed, and, in the eclipse of Greek, Latin texts were more in demand. Hence, beside the invaluable

recovery of Celsus, sprang up a thick crop of Isagoges, Articellas, and crude Latin renderings of portions of Hippocrates, Galen, Soranus, Rufus, and Oribasius, often derived through the anything but achromatic medium of Syriac, Arabian, or Hebrew. Thus, as I have foreshadowed, forms were copied; but the spirit—the return to nature—was not imparted. The cruder stuff came over, the finer evaporated.

How hardly the sacerdotal crust of the false Aristotle and Galen was cracked and split up, I endeavoured in my Harveian Oration to illustrate.† And, even when by the sledge-hammers of Vesalius and Harvey this crust was cracked, the awakening was slumberous. In my own reading for these lectures I have been surprised to discover the faults of the texts, the poverty of criticism, and the sequacious dependency of medical historians one upon another, even to verbal repetition. For the edition and interpretations of our documents, as I have hinted, and as Ilberg and Wellmann have declared, the too rare combination of physician and scholar—as in our own Adams and Greenhill—is required. So it has been left to our own time—I had almost said to our generation—to see the first great edition of a medical classic; I scarcely need say that I refer to the Hippocrates of Littré. But since then our progress has become more lively. In Greek we have had the Oribasius of Daremberg, Ideler's‡ *Physici et Medici Graeci Minores*, Wellmann's *Dioscorides*, Puschmann's *Alexander*; in Latin three or four critical editions or commentaries of Celsus, and so forth.§ To Littré and Daremberg in France, and in Germany to Diels, Ilberg, and Wellmann, we are largely indebted for the impulse they have given to the re-editing of medical texts, and for the fertile culture, both linguistic and scientific, which they have brought to the task. I wish we could show in this country a like accomplishment. It is mainly, I believe, to Professor Diels, upon whom the other day in Cambridge by bestowing an honorary degree we honoured ourselves, that we owe the great project of a *Corpus Medicorum Graecorum* from Hippocrates to Paul, now undertaken by the Berlin University under the auspices of the Associated Academies, and initiated by the *Excerpta Vaticana* of Philumenos, edited by that distinguished scholar, Max Wellmann. But after all our collections, probably after all we can hope to collect hereafter, the history of medicine will resemble the geological record in its breaches, in its fractions, in its faults, and in its embeddings of ancient and precious débris in later conglomerates. Cicero's conditions, "excipiente memoria, prodendisque monumentis" are in our history too often wanting (*De Div.*, i, 6).

I have regarded Rome as a vast dark background against which were projected the processions and conflicts of human ideas, as they gathered from east to west to pass before her, or through her, or to be taken into herself. It is necessary to my purpose, then, to see how this background was laid in; though in this place a survey of Roman origins must be so curt as bluntly to state for truths a set of opinions which, however probable, have as yet scarcely more than a provisional acceptance. The original, the lowest, and still perhaps the thickest stratum of the peoples of the region I may briefly indicate as Mediterranean, and is a small slender dark race, long skulled, delicate in limb and feature, probably of neolithic descent, who buried their dead. This race was vivacious but not robust in body; not of large political capacity, being more factious than warlike, more clannish than national; vain and fickle but attractive, sociable, affectionate, even tender, yet wily, and with strange red veins of cruelty; but above all endowed with imaginative or at any rate with artistic gifts beyond the rest of the children of men. In the great peninsulas and myriad islands of the inland sea, and no doubt over a larger area, this race established civilizations of high culture, especially of artistic culture, which in its various modes and places is now known to us under such names as Pelasgian, Minoan, Aegean, Attic, Ionian, and so forth.

† *Science and Medieval Thought*. By T. C. Allbutt, Harveian Oration, 1901. Cambridge: University Press.

‡ Ideler published this work in the last year of his life (1841-2) at the age of 33. In him we had to lament a death even more premature than of Daremberg.

§ Another edition of Celsus is announced by the Saxon Society of Sciences under the care of F. Marx. There are rumours of the discovery of another and much earlier MS.

* I find this construction was not a mere pedantic pleasantry. Liddell and Scott do indeed ignore it with severity; but in Sophocles I find many examples from Alexandrian and Byzantine Greek, for example, Porphyry, Hermas, Leo Grammaticus, etc.

Now we are to suppose that northwards of this Mediterranean world there was an area of high pressure occupied by prolific races of alien stock, of greater physical strength and hardihood, of larger political aptitude, and perhaps possessed of weapons of iron. These various kinds of northmen were fair of complexion, and on the whole bigger of body; in temper warlike, dominant, stubborn, and ruthless. In contrast to the earlier race they burned their dead, and thus in later days the two customs continued side by side. We must presume that some period of time, probably a very long period, elapsed before, by their own increase or by the pressure of other races upon them, these fiercer northmen or mountaineers, as in the cases of Elam and of Assyria, became restless; pressure rose higher and higher, and the thrust southwards irresistible. Especially, as it concerns us at present, their periodical irruptions began and increased by way of the Balkans. Under the various names of Achæians, Thessalians, Dorians, Siculi, Umbrians, Sabines (probably akin to Umbrians), Oscans, and so forth, kindred tribes of warriors swept downwards on the peninsulas of Greece, Italy, and Spain, slaughtering more or less, but for the most part subduing and enslaving the more slenderly built dark people probably already enervated by peace and indolence.* The later descent on Rome of a coalition of "Keltic" and other tribes under Brennus, is more within common memory. "Gauls" and "Kelts," in one shape or another, were probably continual immigrants.

It is important to remember that, although in the Greek peninsula the Dorians swept downwards to Sparta and the South, into the southern half of the Italian peninsula the northern tribes scarcely penetrated. From geographical causes this area was more open to occupation by way of the sea, and was thus invaded from Greece; and the history of the flourishing harbours and cities of Southern Italy indicates that it was not malaria which at that time arrested or checked the immigration from the north, but the natural features of the land and coast. Southern Italy, in the times of which we are speaking—say from c. 570–280 B.C., when these cities submitted to Rome—was not Italian even in name, but in name was Magna Graecia and in character was Greek; and this character, until blighted by malaria, it maintained. The Italiote Greeks held their general assembly at Heraclea; the later Thurium was an outpost of Athenian influence. The people of this region were greatly reinforced, moreover, by the flight of kindred folk chased from Greece to "Saturnia" by the Dorians and their kind. In the time of Augustus Dr. Verrall speaks still of the Hellenic city of Naples, Hellenic in its society, culture, and festivals; it became filiated to Rome late and reluctantly. I have long held the belief that rivulets of this Greek blood and culture, choked indeed by oppression, disaster, and pestilence, were yet one source of those springs of new culture which broke forth in this region in mediæval times—of the inspiration, so various in its manifestations, of Paulinus, of Telesius, of the physicians of Salerno, of the savants of Naples, and possibly of the Pisani. Frederick the Second, by the library he collected, fed these springs, but he did not make them. Dr. James tells me he thinks that before that collection there were not a few Greek MSS. in Calabria. The natives of Calabria of 1155 A.D., says Gibbon, were still attached to the Greek language and worship, and in mediæval times passed themselves off as Greek. I may note that the first professor of Greek in a Western university was a Calabrian, Legrizio Pilato, at Florence, who pretended to be a Greek of Thessalonica. He is said to have translated Homer into Latin for Petrarch. If I remember right he was forcibly described by Boccaccio as a dirty, grumbling little beast. He had the honour, however of being killed by lightning on board a ship in the Adriatic. The archaeological spade work so much needed in Calabria will doubtless reveal hereafter in richer measure the distinctively Greek works and qualities of this region; and it will do more. Even

to-day the Greek walls and tombs of the fourth century B.C. laid bare on the desolate waste of Metaponto read us not only the old homily of the mutability of human things, but the new and unlearned lesson that without Medicine there can be no abiding city.

About the time of the foundation of Rome, then, a large under population of the slight dark people was submitted to the ascendancy of more vigorous northern tribes, of whom Umbrians and Sabines may be taken as types. But this was not all. By way probably of the Po, but thence extending over the Apennines, a strong, a strange, and a gifted people, from whom the region of Etruria derived its name (Rasena in their own tongue), had in some foretime of history, perhaps about 1200 B.C., established themselves by fortified cities in northern and central Italy. As from this race Rome took much of its nature and customs, we must digress for a moment to learn what we can of the obscure story of its origin and affinities. We shall consider hereafter the close connexion of Latin Medicine in its later history with Asia Minor, a side of the story which the recent essay of Mr. Hogarth on Ionia has set very ably before us. To proceed after my summary fashion, we will regard Asia Minor as controlled by a great power whose history lies in the mists of the past, every key to whose language is lost, and, indeed, had disappeared in Strabo's time. This power—for we can scarcely indicate it less vaguely—was in its might continental rather than of the seaboard, and the seat of its power in inland cities. It seems to have consisted in a lordship of Aryan invaders from the North, by way of the Black Sea, over native races which in ancient times, under the names of Carians, Lydians and the like, occupied also the Levantine seaboard; and ancient records and modern researches indicate that what must have been a vast host of these people, Carians or Lydians, thrust out, perhaps, by the North Cappadocian overlords, whether these arrived by sea, as may be supposed from their place of origin, the tradition of their advance from south to north, and their Italian history as sealords, "pirates," and great traders, or, as Mommsen supposes—less probably *salvâ tamen ejus laude*, by the Balkans and Aquileja, and established themselves in Italy as Etruscans,† and brought with them not only some literature, some astronomical science, and a rich art, but also customs and ceremonies of such potency and tenacity as to have entered into the construction of ancient Roman society, so deeply as in no small part to have survived in the Roman hierarchy from then till now: for the Roman Ceremonial, as we see it, is not wholly, perhaps not chiefly, "Aryan." As, on the physical side, in their fleshy bodies ("Tuscos obesus"), almond eyes, big noses, and gorgeous tastes, so in their caste and stationary policy, customs, divinations,‡ magical and sepulchral ceremonies, dances, and festivals, this people was in character strongly oriental; and their divinations may have been witnessed by Abraham himself on his entry into Hebron. Their trumpets are said to have been Lydian, their pipes Phrygian. "Tuscos Asia sibi vindicat" was the record of Seneca. Profoundly as the Etruscans differed from the Umbrian or Sabine Roman, especially in respect of artistic faculty, yet in warlike energy, military caste, doggedness, hard and exclusive temper, aristocratic supremacy, and curiously enough in the status of their women, the two masterful races had so much in common that by their fusion Rome was created, and a permanent ascendancy established over the weaker but still multitudinous and, no doubt, somewhat mongrel people, or plebs, which we have regarded on the whole as aboriginal. We read of the "parcus Umber"—the close-fisted Umbrian; of the "tetrica et tristis Sabinorum

* Vid. paper by Mr. Stuart-Glennie (Meeting of American School in Rome, December, 1908) on a tomb of Pelasgic origin at Quinto Fiorentino (near Florence) which gives further evidence of a Pelasgic period between (as the author puts it) "the Ligurian and Etruscan epochs of Roman (Italian?) history." If I do not enter into such vexed questions as of the round and long headed dark people of mid-Europe, and of Gael and Goidel, it will be readily forgiven me.

† That ornaments and utensils like those of Etruscan provenance have been found in Rhaetia is true, as I myself observed under Professor Pigorini's kind instruction many years ago, at Matrai, Trent, and elsewhere. But all bronze civilization was not Etruscan. Moreover, the Etruscans buried their dead; the Rhaetians, like all the Hallstadt and Villanova folk (Umbrian?) cremated. The Sabine families in Rome cremated. At Matrai bronze fibulae, coral and amber have been found together. Etruscan sway probably extended far beyond its realms, as, for instance, to the L. Benacus, the "Lydian Lake" of Catullus. The wonderful beauty and genius of their crafts are preserved for our admiration in all great museums, especially in the Vatican, in the Castellani and in Florence, and their work is described in Dennis's *Etruria* and later books.

‡ Divinations by entrails, flight of birds, etc., rather than by the astrology of the Chaldeans. Certain of the gods of ancient Rome were of Etruscan importation.

disciplina"—the sombre and puritanical discipline of the Sabines, who were the backbone of old Rome.* The patricians and their flamens seem to have worshipped Sabine deities. In broad outline, then, the background of Rome, for us the soil on which Roman medicine was to be cultivated, consisted of the original small, dark race, reduced to formal or virtual servitude, degraded but still vivacious and factious, and of an ascendant and irresistible aristocracy, mainly of northern invaders, but interpenetrated by another ruling race of oriental habits. It is remarkable, and belongs perhaps to the military avocation of Rome, that while in religion the omens and auguries of the Etruscans persisted and even prevailed, their notable artistic qualities, unless in the mighty architecture† and cloacæ, seemed under military rigour to have been blighted, or in later times to have been stifled in luxury, until the Renaissance, when in Tuscany especially it reappeared. In early times they were warriors, hunters, pirates, and athletes; we all remember the later description of them:

Semper inertes Tyrreni;
At non in Venerem segnes nocturnaue bella,
Aut ubi curva choros indixit tibia Bacchi;
Expectare dapes et plena pocula mensæ
Hic amor, hoc studium.

Aen., xi, 732 (vid. et Catullus, xxxix, 11).

Whether in war, in religion, in literature, or in any high purpose of man, when forms are not kept fluid by an ardent and expanding spirit, induration and corruption set in. We have spoken of one of the lessons of history—that so long as we keep mind and passion free, forms will take care of themselves and be transformed in ever new revelations of beauty and strength. Thus of the so called Iberian or Pelasgian people, the artistic and imaginative qualities, which in all the Ægean cities were notable and in Greece attained to incomparable achievement, in Rome seem to have been crushed under the weight of the State; even the melancholy harp of the oppressed seems to have been muffled or silenced. Yet, such were the undying gifts of this brilliant race to an ungrateful world, that wherever they broke forth again into some freedom, in realms—as in Gaul and in Spain—where the fury of the northern invaders was appeased; or in remoter fastnesses such as Brittany, Wales, and Ireland, where they were, so to speak, squeezed out at the edges of the conquering principalities, their song was heard again; no longer indeed joyous, dominant, supreme, but wistful and symbolic, dreamy and unsubstantial in the sense of uncondensed mystery rather than of chaos; yet, as in the Ireland of the eleventh century, soaring again; in Alfred and Charlemagne educating not kings only but dynasties, and in France, in Belgium, in Franconia, in Switzerland, in North Italy (Bobbio) teaching and illuminating the new Europe; so that to this remnant in the far west, as to Greece, the old phrase may be adapted:—*Hibernia capta ferum victorem cepit, et artes Intulit agresti*. Their creative work, like that of the Jews, if it has not gone to the making of nations, has built up the spiritual kingdoms of mankind.

And of this race, not as the artificially degraded plebs of Rome but as the spiritually free, if politically subordinate, Pelasgic Ionians of Greece and Asia Minor, we have to speak as protagonists of Medicine in the arena of Rome; Rome as we have seen her grow up—austere, masterful not in ideas but in material predominance; yet, being ignorant and infused with Oriental affinities, superstitious, and in religion ritualistic and pharisaic; a people entrenched also in a folklore and a folk medicine of their own, and worshipping a mob of pallid deities each, as elsewhere so in Medicine, personating rather than creating

* The "Lanuvinus ater atque dentatus" ("with fine teeth," as we gather from the context) was probably "Iberian." This passage, to which I have lost the reference, alludes to the practice of rinsing the teeth with urine; the whiter the teeth and the redder the gums the more of this disgusting lotion must have been used! Urine has not even yet wholly disappeared from the nursery pharmacopoeia; there are still crones among us who would use it, like "fasting spittle," for children's sores, and especially for chilblains.

† It is said that the great temple of Jupiter on the Capitol was of Etruscan architecture; but great examples of it, in enormous city walls, uncemented but everlasting, in the arch with uncemented keystone, and in exquisite specimens of jewellers' work, are well known to all travellers interested in ancient history. The Roman house is supposed to be on Etruscan plan.

‡ To speak of "wedding the Celtic vivacity to Greek technique," unless in certain late and special instances when Greek had shrunk into a "technique," seems to me, ethnologically speaking, misapprehension.

not only every chief system and function of the body but every stage of each. For each stage of labour there was its peculiar deity; and of limbs—even the harmless, unnecessary navel had its divine warden. Thus, as Bloch says in Pagel's *Handbook*, "the religious cult of Rome contained an entire pathological system"—and consecrated it. Mommsen had said also that this religion contained every function of life. Even the itch was not without its goddess. Thus for the early and religious Roman a scientific medicine was impossible. How in the decay of faith and by the immigration of the busy, curious Greek, this "cake of custom" was broken up we shall consider hereafter. Soranus bluntly declared that the obstetrician should be "ἀδελφίδαλμων." It were scarcely worth while for the purpose of these lectures, even if I had the mythological knowledge, to distinguish in the chthonian and olympian hierarchies between the gods of the Etruscans and those, on the one hand, of the aborigines, and, on the other, of the northern invaders. Into the populous circles of Graeco-Roman divinity almost any new god was welcome who would play in the old game. The Etruscan worship was, however, in the main nature worship, and its deities chiefly chthonian. And among all the aboriginal Mediterranean races the chief deity was, and still is, the great and fertile Earth Goddess—Dea dia, under various names—Cybele, Rhea, Ashtoreth, Diana, Orthia of the Spartans, Artemis of the Ephesians, and so on. In his rare hymn to Diana, Catullus, after saluting her as the mistress of woods and fountains, as Luna, as Trivia, as the patroness of corn and fruits, and as *Tu Lucina dolentibus Juno dicta puerperis*, exclaims:

Sis quocumque tibi placet,
Sancta, nomine; Romulique
Antiquam, ut solita es, bona
Sospites ope gentium.

Catull., *Carmen. Sec ad Dianam*.

And, as Mr. Hogarth points out, in the General Council of A.D. 431, when the Nestorians were condemned, the Madonna had taken this place in the hearts of the people, and has held it ever since, both in the Roman and the Eastern Church. And I may remind you of a passage in the first volume of the *Stones of Venice*: "The Madonna is in great glory, enthroned above ten or dozen large red casks of three-year-old vintage, and flanked by goodly ranks of bottles of Maraschino and two crimson lamps . . . in the evening, when the gondoliers come to drink under her auspices, she will have a whole chandelier."

We cannot wonder that the Solemn City, the seat of so grave and haughty a race, mistrusted and repulsed the plausible but yet alert and intellectual Greek. When Greece was at its height Rome was the land of the soldier, the peasant, and the small trader; a people without art, literature, or philosophy. It has been aptly said that the relative geographies of the two peninsulas, Greece and Italy (for the elder Greeks the land of Hesperia), especially in respect of harbours and seafaring, were such that they turned their backs upon each other; and the mission of Rome was westward. Until the third century, except at Cumæ, and a little later at the remoter Ancona, the only fair harbour on the Adriatic aspect, the contact of Greeks with Rome, if any, was only by way of the southern provinces. It was not until four centuries after the time when Rome was little more than a dyke and a palisade commanding an agricultural domain that she established diplomatic intercourse with Greece,§ and that a Greek freedman of Tarentum became the earliest of Latin poets. After Metapontum, Tarentum, a great city upon a rock, founded by Dorians of Lacedæmon in 708 B.C., produced between 400–330 B.C. its finest coins, and led the southern confederacy until its reduction by Rome in 272 B.C.

So far, then, as we have analysed the sources of Roman Medicine we discover a broad and deep but far from pellucid stream issuing from and compounded of the folklore of the small dark people we have taken as aboriginal, of the Etruscans, and of the invading northern tribes whom we may indicate roughly as Thessalian. It is obviously impossible, were it worth while, to trace Roman folklore farther and severally upward to these

§ The well-remembered embassy of Diogenes, Critolaos, and Carneades to the Roman Senate praying for the reduction of an indemnity. The decree of expulsion of the "philosophers," a few years previously, must be taken as a sign that Greek ideas were then spreading in Rome.

three constituent founts; we must content ourselves with some note of its characters as we find them in respect of medicine when Greek physicians first appeared in Rome. Into that main stream were now poured three fresh tributaries. Two of these tributaries were medicine of the Greek clinical or Hippocratean school, which again was twofold: The earlier current of Italo-Greek origin, dating from the sixth century, deriving from the following of Pythagoras, Empedocles, Philolaus, Alcmaeon, at Achaian Croton, a school second only to Cos, from Metapontum, also from the school of that great physician, Diocles of Carystus, probably at Athens; and the later, but more direct, current, reinforced by the Alexandrians, of which Celsus is our exponent and eminent example. The third tributary was the Hellenistic medicine of which Asclepiades was in Rome virtually the first, as Galen was the chief example.

In an inchoate society, founded as was Rome, in the year 759 B.C. on some federative basis, the faculties of religion, law, custom, medicine, agriculture, could not be fully differentiated; and we shall see how long a time it took to release medicine from other functions, and especially from religion and custom; and even then how vehement were the later conflicts and reactions between clinical and scientific medicine, priestcraft, and folklore.

Folk medicine, whether independent or still engaged with religion and custom,* belongs to all peoples and to all times, including our own. It is not the appanage of a nation, it is rooted in man, in his needs and in his primeval observation, instinct, reason, and temperament. Still it is largely modified by the kind of man; for instance, in the Greek folk medicine was soon separated from theurgic medicine, and even from mysticism; so that a professional medicine was more quickly conceived and built up. The necessarily sceptical attitude of professional medicine whereby the infinite complexity of function and the baffling conditions of observation are understood, an attitude which even commended it to the subtle, inquisitive, and irresponsible apprehension of the Greek, was for the ceremonial and slow-witted Roman even more intolerable than it is for our own fellow-countrymen to-day. To folk medicine doubt is unknown; it brings the peace of security. If infallibility failed! why, the game was not played properly. From Cicero we learn, as we learn in modern Rome, the potencies of an inflexible ritual exactness. First of all, the right deity for the job had to be discovered; let us say, for fortune Mercury, Neptune for a voyage, Robigus against the mildew, and so on. Then he tells us how there was one priest for ceremony, another for formula. If a word was altered, if a flute player rested, or if an actor stopped short, the rite was broken; all must be recommenced. Prayer and personal observance had to be no less pharisaic.† So in medicine; the proper god or godling had to be ascertained; then the proper formula of magic utterance to accompany the drug or operation, which, as we read in Cato and elsewhere, was to be recited with rigid precision.

Of supernatural or magical observances the more specific were "binding and loosing," the virtue of laying-on of hands, the discovery of names, lustrations, holy wells, dreams and their interpretation, temple incubation with its corresponding donaria, and the fantastic notions of signatures and symbolisms, of sympathy and analogy, of talismans; all of which observances entered deeply into early Roman as into other folk medicine of those and of later times.

[These several veins of folk medicine, worked out at some length, were necessarily omitted from the Lecture.]

Having now indicated rather than described the theurgic and magical elements in Roman medicine, I will with your permission step back to take up my story again with the household and folk medicine, and particularly with the practice of Cato the Elder. The more remote and secluded the society the more freely domestic medicine

flourishes, as common experience tells us. In the agricultural and pastoral provinces of Scotland, where journeys were long and toilsome, the housewife's medicine closet was the busier. The lairds and their wives "doctored and drenched themselves and their dependants with all sorts of weird and wonderful decoctions," mixed according to manuscript collections of recipes handed down from generations beyond memory. And in the English counties this self-reliance was not much less, especially among those of the gentry who rarely travelled far from home. I remember hearing that the great sportsman, Mr. Meynell, to get rid of the gout for a hunting day, would take on his own counsel two strong calomel pills and a teaspoonful of colchicum wine in a glass of hot gin and water; while the only stimulant he took with him in his flask was tincture of rhubarb. It is in some such light as this that we must regard the medicine of Cato—as one of the many arts and home industries which in early societies are not yet differentiated. Though not noble yet probably of old Sabine stock, Cato, by his rude honesty, energy, strength, and austere ascendancy—*ferrei prope corporis et animi*, as Cicero says in the *De Senectute*—rose from quaestor to be aedile, praetor, consul, and censor. Like nearly all the old Romans, and like many Swiss landholders down to our own day, before the importation of Sicilian and foreign grain, and presumably before the introduction of malaria, he "tilled his own lands with his own hands." Now we learn from Pliny that Cato practised medicine by the guidance of a certain *Commentarium*, or traditional recipe book in many chapters, extant in Pliny's time (*Hist. Nat.*, xxix, 8), the contents of which, so far as conveyed in the *Historia Naturalis*, are partially known to us. Many of the prescriptions were futile, many were filthy, though in later generations they became filthier and filthier; some, however, were efficacious enough. Local and general narcosis were practised after a fashion. As we find the same or similar recipes in Dioscorides, Scribonius, and other such collections, we infer that Greek and Roman drew from the common sources of an ancient medical lore.

The best known of Cato's medical means are the homely prescriptions of cabbage and wine in various forms for almost all internal complaints, and his magic sentences, gibberish‡ which was uttered over both surgical and medical cases to expedite the cure. Now, although I have not met with the suggestion, it must have occurred to many medical readers that Cato's cabbage, in days when fresh meat was not to be had in winter, or certainly not by the lower orders and the slaves, probably acted very effectively as an antiscorbutic, and that by this virtue its repute as a medicine was made and sustained. The cabbage—*Olus* under its more general name, more specifically *Brassica*—was regarded seriously as a remedy long before Cato's time; by the Etruscans, for instance, and by the Greeks—at any rate by the Sicilian Greeks of the tradition of Pythagoras, as by Epicharmus, a pupil of Empedocles, who wrote a treatise in the Doric dialect in which cabbage was thus recommended;§ and, indeed, by physicians of no less distinction than Diocles, and Chrysippus the master of Erasistratus. If, then, Cato erred, it was in good company. The variety in use as a medicine in early times was probably the colewort, or sea cabbage, which has a slenderer leaf and a more bitter taste.

It may be asked why we should occupy ourselves with Cato, who, whatever his merits as a patriot, was from the point of view of scientific or artistic culture, a gruff, obstinate, narrow-minded rustic, whose violent denunciations of Greek physic were but illiterate prejudice. I think in this respect historians have done Cato some injustice. In no small part we as physicians have derived our impressions of Cato from the babbling of Pliny, who had the vanity and garrulity of Boswell without his reverential sincerity. But in Plutarch we have a truer appreciation of Cato. It was said that he took to learning Greek "in his old age"; "belike fearing," as Sir Philip

* Mr. Warde Fowler points out that the rites of Rome, whether Etruscan or Old Italian, are to be regarded separately from the religion, much of which came from other sources.

† I read this year in a certain church, and over the signature of an eminent archbishop, that forty days of Indulgence would be obtained by saluting a particular crucifix, and reciting one *pater* and one *ave*. But for one unable to go to this image twenty *paters* and *aves* would be required; one for each of the fourteen stations of the Cross, five for the five wounds, and one "à l'intention du saint Père." Thus tenacious is ritual tradition. In the recent controversies around the deathbed and burial of the late Mr. Tyrrell much curious matter of this kind was notable.

‡ From our point of view, gibberish; yet even gibberish may have its specific interest. It is probable that not Cato's incantations only, but those also of other times and peoples, are the degraded remains of some ancient tongue. Cato's "*Daries, dardaries, etc.*" may be remnants of Etruscan?

§ Vide Schneider, *Script. rei. med.* *Brassica* = *κράμβη*, "crambe repetita"; in the late Greek lexicon of Sophocles, *κράμβιν* = *κράμβιον*, cabbage.

Sidney puts it, "that Pluto understood not Latin"; or, as Professor Mackail suggests, because of his admiration for the younger Scipio. But Cato was no such ignoramus; on the contrary, for his time he was a learned man. His stoicism, stern and inhuman as it was no doubt when compared with the milder interpretations of Panaetius, he owed nevertheless to Greece. And, before Celsus and Varro, he was an encyclopaedist—a "summist," whose chapters, not only on military matters and agriculture but also on law and history, were extant and respected in Cicero's generation. After his African campaign, and some nine years before his consulship, he discovered Ennius in Sardinia, brought him to Rome, and learned Greek of him at an age nearer 30 than 80 years. So that his Greek studies, were they more or less, extended over some half-century of his life. So far, then, from regarding Cato as a narrow and arrogant boor, may we not come as near to the truth if we regard him with Ennius as one of the founders of Roman prose, and put him in some low degree of comparison with Petrarch, whose diatribes against physicians were no less unmeasured and indiscriminate? Can we be surprised, on looking back to their several epochs, that the harsh puritan and the petulant humanist, the one and the other alike without scientific insight, denounced the parade, the greediness, the luxury, and the glosses of medical adventurers as they saw them? If Petrarch could not understand or foresee the growth of the scientific thought of his own age, shall we blame Cato for that he did not foresee Asclepiades or Galen, nor perceive that in 150 years Rome would be dependent on Greeks not for medicine only, but also for its science and philosophy, and for much of its exquisite and derivative literature? "Belike" Cato, had he foreseen it, might have thought these Danaan gifts dearly bought at the cost of a sterner patriotism, of honour, and of righteousness. However, in all military periods of society—except, perhaps, that of Athens—the craftsman, whether of fine or practical art, has been regarded by the noble warrior with contempt; even *schola*—leisure itself—in such a period is humble.

It is improbable that Cato, versed as he was in annals and customs, would have accepted the absurd assertion of Pliny that for 600 years Rome had done without physicians, a new-fangled order, and moreover a canker in the State. Rome, in all its wars and plagues, must have had more than a domestic medicine, some accredited practitioners, even if of a Homeric order. For example, even in the reign of Numa the Caesarean operations both for removal of a living child from the dead mother, and conversely, were imposed by law.† A liability for this service in case of urgency was imposed upon all citizens, it is true;‡ but these and other operations, such as the semi-sacred operation of trepanning, those for fractures and dislocations, for fistula, stone, etc., which we know were regularly and successfully undertaken, were no doubt as a rule committed to persons of professed dexterity. We know that there were many Greek physicians in Rome in Sulla's time; and certainly in the first century before Christ the "medicus" was plainly distinguished from the crowd of barbers, quack salvers, and wizards; for in the *Digest*, L. 13, 1, we read, "Medicorum quoque eadem causa est quae professorum nisi quod iustior," and the law goes on to include orderly specialists, as for the eyes, ears, and teeth, for fistula, etc.‡ But "Non tamen si incantavit, si imprecatus est," which are not of the kind of medicine. To do more than note probabilities concerning ancient times of which we have few historical data is otiose; and it is only too certain that in and after Cato's generation many, perhaps most, of the medical adventurers who flocked to Rome were a gang of impostors who stank in the nostrils of high-minded men. Notwithstanding, secluded as early Rome was, it seems impossible that the learned and honourable traditions of the medical schools of Magna Graecia, of Alexandria, of Cnidus, and the rest can have passed over and around Rome, even into distant provinces of the West, such, for example, as Marseilles, etc., and yet left the Mother of Nations—not even then a very simple society—as if they had never been. Pliny was

talking of times long before his own, yet he knew enough of Chrysippus, at any rate, to abuse him, and gives his case away when he says: "*Non rem (medicinam) antiqui [our ancestors] damnabant, sed artem [the craftsmen].*" How can we say there were and had been no physicians in Rome before Archagathus, when in the time of Plautus, the contemporary of Cato, we note the Greek cast of his plays, and note specifically such remarks as: "*Ibo ad medicum atque ibi me toxico morti dabo,*" though we can apprehend Cato's angry repudiations of them. Plautus speaks also of the Roman coin numus (*nummus*=about 1s.) as being not enough for a doctor's fee (*plus jam medico mercede est opus*). Again, Amphitryon exclaims: "I have looked for him in the marketplace, in the spice shops . . . in *medicinis et tonstrinis*."§ There is in Plautus a good deal more of medicine with a colour so local that it clearly was not a hearsay medicine from Greece. Let us turn, for instance, to the fussy doctor in the *Menaechmi*—written 200 years before Christ—making his visits and boasting of his grand patients. He appears, moreover, to have had a Home in which he received sick persons for special treatment—*Ad me face uti deferatur. . . . Scin' quid facias optimum?* (that is, for a course of hellebore for twenty days). Lucilius again uses many medical words and phrases—not a few, such as "cataplasma," etc., taken from the Greek, as if Hippocrates had been filtering in between the generations of Ennius and Lucilius. We note from Plautus also that skin diseases were evidently rife in those days of dirt—*Serpere uti gangraena mala atque herpetica possit*.||

Varro (Marcus Terentius) was a full century younger than Cato; he belongs, indeed, to Cicero's generation, yet he remained a Catonic sort of person; he also was a "summist" of the kind which in Rome Cato initiated, and Celsus, and may we not add, Virgil, whose *Georgics* were written about the same time in Rome, carried to its culmination. In Varro's nine *Libri Disciplinarum* medicine was the eighth book. In the time of Cicero, who was well versed in medicine, and even in that of Aulus Gellius, (*Noctes Att.*, xviii, 10) a knowledge of the broader truths of medicine, and especially of bodily hygiene, was still considered part of the education of a man *liber liberaliterque institutus*; smatterings which, in the contemptuous phrase of Galen, had degenerated into "philiatry." In the volume of his output Varro almost equalled Galen; but all is lost, except his *De re rustica* and a few fragments. He seems, however, to have given to Rome less of medicine than of literature, antiquities, and "natural philosophy," especially mathematics; while to popularize "the higher philosophy" and rhetoric was Cicero's work. However, Varro says much on the salubrity of sites; and Haeser draws attention to the following remarkable passage: When the fleet and army of Pompey were at Corfu a pestilence broke out, and the houses were full of sick persons and corpses, Varro, however, "immisso fenestris novis aquilone, et obstructis pestilentibus, januaque permutata, caeteraque ejus generis diligentia, suos comites ac familiam incolumes reduxit."

While such was the general medical equipment of a Roman gentleman, and while also under the Republic we read of *medici* rich enough to own slaves, yet the technical practice was chiefly confided to domestic slaves. But we are not to suppose the slave of those times to have been what the haughty Roman took him for, nor to judge him on our prepossessions derived from negro slavery. The Roman medical slave was usually a Greek, and his price, by law fixed at not less than 60 minae, was a high one. The slavery was a convention enforced by the hardness of the times; the captive was not usually of an inferior race, but in brains as well as in dexterity often superior to his owner. His bondage was an accident; for on manumission his personal qualities often commanded such professional success and independence as to dissipate the sense of gratitude and attachment, and thus to give some check to manumission whereby valuable services were often lost

* Compare old legends of Zeus and Athene, of Bacchus (in Virgil and Ovid), and even of Aesculapius; as well as such celebrated cases as those of Fabius and Scipio Africanus.

† In the *Lex Regia*, "si mater praegnans mortua sit fructus quam primum caute extrahatur."

‡ The very word "medicus" itself is of early Italian derivation.

§ Plautus speaks also of interpreters of dreams and omens, and of a charmer against disease—"praeantatrix." That the midwife should be "manibus puris, capite aperto" applies, I fear, rather to religious rites than to antisepsis. The midwife of the clandestine confinement in the Andria of Terence was a drunken slut. I need scarcely direct the reader to Ménière's delightful books on Medicine in the Latin Poets, and in Cicero.

|| Cancer, of course, was well known from early times; Ovid's *Utque malum late solet immedicabile cancer Serpere* is, if an apt, of course, a late allusion to it.

to the patron. Conversely, whatsoever the personal virtues of the slave, the debasing pressure and conventions of that status must have thrown some shade upon his character; so that too often the Greek, by nature slippery and inconstant, as a freedman—and even between the *libertus* and the Roman there was still a chasm—betrayed himself as a stealthy and venomous rascal.

Of medical colleges and public medical offices I will treat hereafter; but, speaking generally, it is true that in Rome itself there was no kind of professional test or standard to discriminate sharply between such medici as the gentle and accomplished freedman Antonius Musa or the botanist Lænaeus, and villains like Vettius. As manners softened, and intelligence and skill compelled recognition, the position of these slaves and freedmen improved, especially under the enfranchisements of Julius and Augustus; but their calling could not well progress nor gain public recognition as *ars prudentiae majoris*. Thus it was that, even under the Empire, Roman medicine remained almost wholly Greek; for the few physicians, such as Scribonius Largus, who bore Latinized names, were nearly all of them Greeks.*

How are we, then, to explain the enmity of Cato; and the malice of Pliny, who, while he endeavoured to ignore the physicians, could not refrain from signifying by his indiscriminate if not wholly unjustifiable abuse that they existed, and among the "antiqui" had existed, only too abundantly? Now, the fault of these physicians was not so much that they were crafty and rapacious as that their craft and rapacity were not of the Roman sort. As the physicians in Rome were practically all Greeks, their ideas were Greek, so Greek that no Roman could enter into them; furthermore, these Greek notions were not only mischievous in medicine, but in their more general tendency were socially subversive. The scent of a ruling class, secular or ecclesiastic, for inquisitive or esoteric opinions is amazingly keen, and its resentment ruthless. How haughty, ruthless, and unreceptive was the temper of the conquering races in Rome, how sacred were their religion and rites, how rooted their superstitions and folk medicine, how obstinately impermeable their qualities and customs to new ideas, and how incapable of elastic adaptations, we have already seen. We shall not wonder that all these conservative opinions and instincts should have incited, especially in Republican Rome, an alarm against foreign ideas. The old Roman of the type of Cato, austere and imperious as he was, was also, consciously or subconsciously, apprehensive of the instability of his State. Built as it was, not only upon slavery but also upon the quicksand of a restless, excitable *plebs*, mostly of alien blood, its security could be maintained only by the rigidity of the old iron will, consecrated tradition, military framework, and hardy strenuous habits. Thus the dominant class was clinging fiercely to creeds and rites whose validity they dare not suspect, and to intellectual conventions which, already sapped by Hellenic curiosity, were ultimately by Christianity to be overthrown. This issue the old Roman dimly but uneasily foresaw. And is it too fanciful to surmise that no less dimly, but by some community of racial instincts, the bent of the subject or plebeian Roman was apt to assimilate the notions of his distant kinsfolk of the Aegean, and to be stirred by the fickle passions, the irresponsible wit and faction of that clannish primeval race then, as before and since, intolerant of rank, though submissive to despotism? Such may have been Cato's presages; such, at any rate, was the upshot. For with spoils came luxury; with the deletion of Carthage ease and security; with intellectual curiosity the sapping of creeds and the decay of patriotism. It is scarcely true, I think, to say that Rome was unstable for lack of a middle class; the equestrians took some such place; the instability lay in the rift between the upper classes and the plebs, an unassimilated and naturally turbulent mass, mixed with the nation but not mingled or organized with it.

NOTE.—The bibliographical references are reserved for the fuller and more formal publication of these Lectures.

* Sextius Niger and Julius Bassus, in Caesar's time, are said to have been Romans, though, as the fashion was, they wrote in Greek.

THE RELATION BETWEEN THE TIME OF RUPTURE OF THE FETAL MEMBRANES AND LACERATIONS OF THE CERVIX UTERI.

BY STANLEY COLYER, M.D.LOND., M.R.C.P., D.P.H.,

LATE HOUSE-PHYSICIAN, GENERAL LYING-IN HOSPITAL, LONDON;
ASSISTANT TO THE MEDICAL OFFICER OF HEALTH,
SOUTHAMPTON.

VAGINAL examination during the puerperium is a practice the value of which is not generally recognized and is very seldom followed. Were it, the experience that would have been gained would, I think, have materially influenced in certain directions some methods which are at present too common among many practitioners; in other words we should have learnt from a new quarter the disadvantages of meddlesome midwifery. In these days when midwifery is slowly but surely passing out of the hands of trained practitioners into those of partially trained midwives, it becomes most essential to discover whether our methods of conducting labour are correct, so that definite rules may be formulated for their guidance.

Following the rule which has been in force for many years at the General Lying-in Hospital, I made vaginal examinations, when advisable, upon patients before they left hospital. I noticed, among other things, in my early examinations, that the damage to the cervix varied within wide limits, and I determined, if possible, to discover the reason or reasons for these conditions.

Many different factors might be held responsible—such, for instance, as the age of the patient, the size and weight of the child, and the time of rupture of the membranes. I came to the conclusion that the size and weight of the child were relatively, if not absolutely, unimportant factors. The time of rupture of the membranes was therefore left to explain the phenomenon. During the inquiry many other relations occurred to me to study.

My conclusions are based upon a consideration of 233 primiparous cases, in 164 of which vaginal examinations were made. The notes were recorded partly by Mr. Basil Hood, who succeeded me as house physician, and partly by myself, and, as a definite systematic method was followed, the results, due allowance being made for the personal factor, are comparable.

The examinations were made on the ninth or tenth day of the puerperium, after thorough evacuation of the bowel and bladder. The points recorded were:

First, the height of the fundus uteri above the pubes.

Secondly, the lie of the corpus uteri—whether to the right of, left of, or in the midline—and also its state of version or flexion.

Thirdly, the condition of the cervix, more especially with regard to lacerations. The lacerations, if present, being recorded under three degrees: First, those reaching less than half way up the vaginal cervix; secondly, those reaching half way; thirdly, those reaching up to or beyond the reflection of the vaginal mucous membrane.

Fourthly, the condition of the bases of the broad ligaments, any thickening in them being recorded, as slight or moderate.

Fifthly, the nature and quantity of the lochia.

In addition to the important relation I hoped to establish, there were three others that I thought might possibly be shown to exist—namely:

1. A relation between the quality and quantity of the lochia and the degree of uterine involution.
2. A relation between uterine involution and lacerations of the cervix.
3. A relation between cervical lacerations and thickenings of the broad ligaments.

A careful consideration of the notes has failed to prove to me that there is a definite relation between the lochia and the degree of involution. Unfortunately two disturbing factors crept in—namely, the patient being allowed to get up for a short time the day before the examination, and being given an enema upon the same morning—both factors which often lead to an increase and an alteration in the quality of the lochia.

Although my own notes show a definite relation between the thickening of the bases of the broad ligaments and