## THE MEDICINE AND DOCTORS OF JUVENAL. By EUGENE F. CORDELL, M.D.,

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In a paper read before this Society last year, I endeavored to throw some light upon the medicine of Rome in the Augustan Age, by an examination of the writings of the Latin poet, Horace. So far as I could find, there was no article dealing with his works from this point of view. As an attaché of the Imperial Court and a favorite of the great Prime Minister, Maecenas, Horace must have come in daily contact with men of all classes, so I felt sure that he would have something of interest to say regarding the state of medicine and the medical profession in the great Roman metropolis. My researches were amply rewarded, bringing to light, among other things, an unexpected and most agreeable addition to our knowledge of those times, in the fact of the close intimacy existing between Horace and Celsus, the great medical writer of the Augustan Age; at the same time furnishing some interesting details regarding the almost unknown personal history of the latter. To-night, let us turn our attention to Juvenal-in full, Decimus Junius Juvenal Aquinas. Please note the threefold appellation, indicating distinction; and I would call your attention especially to the last name, or agnomen, indicating that

1 Johns Hopkins Hosp. Bull., 1901, xii, p. 233.

he was a native of Aquinum (a town of the Volsci in Latium), because it corresponds with the analogous title of Albinovanus given by Horace to Celsus; Juvenal of Aquinum, Celsus of Albinova.

Of all Roman writers of their times, Horace and Juvenal give us most insight into the customs and manners of their countrymen. As satirists, they deal especially with the growing and fatal degeneracy of the Romans, and yet with a pronounced difference of method. Horace, self-indulgent, lax in life and morals, himself not untouched by the sins and weaknesses which he condemns, yet frank and free from meanness, servility and hypocrisy, more human and therefore less perfect, but with all his weaknesses, more lovable; Juvenal, strict in life and morals and intolerant of vice in others. Horace, not separated from us by any class distinctions; Juvenal, a member of the legal profession, a distinguished advocate, and naturally approaching his subject from the point of view of a prosecutor. Horace, with more observance of the proprieties of speech, attacks vice by rendering it ridiculous; we can almost see the merry twinkle of his eye and hear his half-suppressed laugh as he sees his victims scamper across the stage, pursued by the shafts of his wit and irony, and catch his whispered aside, "They are not much worse than the rest of us after all." Juvenal is plain almost to the point of brutality, and holds up vice to our gaze in all its hideous nakedness; he shocks us with the wickedness of his times, and renders his victims utterly hateful and despicable; he is above sympathy and affection, he has no humor or pity, and he never smiles; he deals out his fierce invective with the sternness of an implacable judge, sparing none; he is like some irate Jove hurling thunderbolts from a mountain top with his red right hand. Horace deals more with vice in the abstract, the follies of the classes and the masses, often with the mere weaknesses of poor human nature; vice had advanced with rapid strides by Juvenal's time, and a more drastic method was called for. Juvenal attacks individuals directly; he seizes and holds them-they cannot escape until he has wreaked his vengeance; he loves, too, to aim at high prey-the wife of a great Senator eloping across the sea with a scarred gladiator-the Empress Messalina standing naked in the common brothel and prostituting herself for pay to its patrons-even the Emperor himself, through his favorite actor, Paris. Let us see what this princeps satyrorum has to say of medicine in his day.

Before proceeding with this, I would remark, that, as in the

case of many other great men of antiquity, but little is known of his life. He probably lived between A.D. 20 and 100, and he attained a great age. He was the son or foster-son of a rich freedman and had the advantage of a learned education, pleading causes at Rome with great reputation in the time of the Emperor Claudius, A.D. 41 to 54. He never knew Horace, who died 8 B.C., but he probably knew Celsus, who is believed to have written the last part of his great encyclopedia, that upon medicine, in the latter period of his life, about A.D. 40.

You will recall the confidence, the homage, the obedience shown to the physician by Horace. We cannot expect such a frame of mind in Juvenal, whose faith could never blind him to the imperfections and the weakness of the immature profession of his day. Accordingly, in the famous Satire VI., we find a certain Greek surgeon, Heliodorus by name, represented as engaged in castraing the young slaves who have just reached robust puberty—"bilibres testiculos"—in order that their mistresses may use them with impunity for the gratification of their lusts. A physician of this name is said to have practised at Rome during the reign of Trajan (A.D. 98-117), and to have written upon surgical subjects, but his writings have nearly all been lost. It is a pity that his memory did not share a similar fate, and we can only hope that his case was a solitary one, even at Rome.

A fling is made at the profession in Satire X.; I quote the entire passage, which is of literary as well as medical interest. Speaking of old age and of the dangers which threaten it, he says: "Moreover, the scanty blood which flows in his chill body is warmed by fever alone. All kinds of disease dance round him in a troop. If you were to ask their names, I could sooner tell you how many lovers Hippia" (the eloping Senator's wife) "had; how many patients Themison has killed off in a single autumn (quot Themison agros autumno occiderat uno); how many partners Basilus has cheated; how many wards Hirrus has defrauded; how many men tall Maura has submitted to the embraces of in a single day; how many pupils Hamillus corrupts." Themison is here used for the profession in general, and the selection shows his prominence at Rome. The association of the name with lewd women, false guardians, corrupt teachers and dishonest merchants, enhances the sharpness of the satire. Who, then, was this Themison, the profession's representative in infamy? He was a Greek physician of Laodicea, a pupil of Asclepiades of Bithvnia, who settled in Rome about the last half of the first century B.C. He lived, therefore, before the time of Juvenal, and he was the immediate predecessor of Celsus, who refers to him in six places. "Asclepiades," says Celsus in his preface, "changed in great measure the art of healing. Themison, one of his successors, has lately, in his old age, differed from him in some things. The profession of medicine has been greatly improved for us by these eminent men." Themison was the head of the sect of Methodists, whose tenets Celsus gives in the following passage: "Some physicians of our own age under the authority . of Themison (as they wish it to appear), contend that a knowledge of the cause can have no influence on the treatment, and that it is sufficient to observe some of the most common affinities of diseases, of which there are three kinds: 1. Constipated; 2. Relaxed; 3. A mingling of these two. For sometimes the secretions are too scanty, sometimes too abundant, or too scanty in one part and too abundant in another. Diseases, too, are sometimes acute, sometimes chronic; they may be progressing, at their acme, or on the decline. Now, when the complaint arises under any of these circumstances, if the body be constipated, it should be relaxed; if it suffer from a flux, this should be restrained; if it take on a complicated character, we must relieve the more violent manifestations. We ought also to treat an acute disease differently from a chronic one; one that is progressing, differently from one that is at its acme or on the decline. Such principles and action constitute the theory and practice of medicine-a certain way of proceeding which the Greeks call method (μέθαδοσ)." Later, as we learn from Celsus, the disciples of Themison were not all in entire agreement as to their doctrines. Celsus also gives a composition for the ear, devised by Themison. He is also mentioned by Pliny, Seneca, Soranus and Cælius Aurelianus, and some of his teachings have been preserved for us in the writings of the last two authors.

In Satire III., among the crowds of foreigners who had flocked to Rome, attracted by the hope of gain or plunder, a Greek adventurer is depicted, a sort of jack-of-all-trades "with a quick wit, desperate impudence, speech ready and more rapid than that of Isæus" (the preceptor of Demosthenes), . . . . "grammarian, rhetorician, geometrician, painter, trainer, soothsayer, ropedancer, physician, wizard—he knows everything. A hungry Greek will go into heaven if you command!"

"Doctor Trypherus" is mentioned in Satire XI., but he was a doctor of the art of carving, not of medicine, although one cannot

be certain that he was devoted exclusively to this pursuit—he may have added it to the long list of accomplishments of the Greek.

In Satire XIII., a physician by the name of Philip is referred to, whose insignificance is emphasized by the words of the satirist: "Let doubtful cases be treated by greater physicians; you may safely entrust your vein to a pupil of Philip," i.e., your case is so simple, you are so manifestly insane that it requires no professor in the art to treat you—a mere novice may bleed you.

There are some other references to doctors. In Satire VI., which deals with the wickedness of the Roman women, an adulterer, impersonating Archigenes, a physician, is admitted by a mother pretending to be sick, in order that he may have secret intercourse with her married daughter. Strange to say, there is no intimation that the physician was in any way an accomplice to this fraud. Archigenes was a native of Apamea in Syria, a contemporary of Heliodorus, and died at Rome in his seventythird year. He is referred to with respect by Galen twelve times, and by Cælius Aurelianus once. He was an Eclectic and enjoyed considerable reputation as writer, practitioner and surgeon. Only a few fragments of his writings, which took a wide range of subject, are preserved in the works of Cælius Aurelianus, Galen, Oribasius and Ætius. He is mentioned again by Juvenal in Satire XIII.: "Let not the runner, who is in his senses and therefore does not need the services of the physician Archigenes, hesitate to wish for the rich man's gout," i.e., for wealth even at the cost of health. And again in Satire XIV .: "Already your long and stag-like old age torments your heir; make haste, and look up Archigenes and purchase from him the compound of Mithridates, if you wish to pluck another fig or again to handle roses," i.e., to live longer. "You must get the antidote which a father no less than a king needs before meals."

When his friend Ursidius contemplates marriage and thinks he has found a chaste wife, Juvenal exclaims in Satire VI.: "O physicians! open the middle vein, he is mad!" This refers to the custom, then prevalent, of bleeding insane persons from the vena media of the arm.

In Satire VI., the physicians are represented to have been sad when a child whom they were attending became very ill, but there is no intimation that their sorrow was unreal.

There are fewer references to diseases and operations in Juvenal than in Horace: "Corruption is communicated, as when in the

fields a whole herd falls by the scab and measles of one swine"; dogs are rendered hairless by an old mange"—scabie vetusta.

Referring to the marriage of males, a practice in vogue among the upper classes at Rome and mentioned also by Horace, and to those who imitated women, he says: "But what do they wait for, for whom it is now high time in the Phrygian manner to cut away their superfluous flesh?" i.e., to castrate them. The gladiator with whom the senator's wife eloped is described as being adorned with "a great wen in the middle of his nostrils," ingens gibbus, mediis in naribus, probably some large tumor caused by repeated blows upon the part. Nor was this his only attraction; he had also "the sharp evil of an ever-dropping eye," acre malum semper stillantis ocelli, fretting and disfiguring his face. "But he was a gladiator! This makes them hyacinths! Him she preferred to her children, her country, her sister and her husband. It is the sword they love."

In Satire VI., the Roman husband is represented as driving from his house his wife who is growing old and losing her charms: "Collect your traps and get out," says his freedman, "you wipe your nose too often; quick, make haste, there comes another with a dry nose"—sicco naso—i.e., a young wife. In the same Satire, it is said that certain things would excite even the passion of Priam and the hernia of Nestor. Nestor, King of Pylos, is said to have lived three ages and to have had a hernia. Whether it was a genuine hernia or not, is uncertain, since several affections of the scrotum and adjacent parts were included under this name. We have, also, a woman consulting an astrologer about the death of her "jaundiced mother"—ictericæ matris.

We find also the expressions quartana, quarta dies torrens, "quartan fever"; varicosus haruspex, "the broken-veined sooth-sayer"; furor, "madness"; phrenesis, "insanity"; loripes, "a youth with club-foot"; strumosus, "a scrofulous person"; Rutilæ gibbus, "the hump of Rutila"; phthisis et vomicæ putres et dimidium crus,

Satire II., 80. Satire VIII., 34. Satire II., 115. Satire VI., 108. Ibid., 109.

'Two years ago, there appeared in a New York paper an account of the elopement to Europe of a celebrated prize-fighter and a charming young actress. "Jim," she is reported to have said, "why do women adore a conqueror of men? You are indeed a gladiator that all Rome might have been proud of"; and the actress smiled sweetly and tossed a small bouquet into the fighter's lap. This episode and the recent experience of a young naval officer, show that 2,000 years have not dissipated the hero-worship of women.

"consumption, putrid abscesses and a shriveled leg"; and podagra, "gout." Senile dementia is described; circumcision is alluded to in the expression praputia ponere, and the birth of triplets recorded in the words pueros tres in gremium patris fundere simul. There was a priest of Bellona who emasculated himself with a broken shell, mollia qui rupta secuit genitalia testa. Depilation of the body was practised by the young rakes of Rome-resinata iuventus, "the perfumed youth"-in order to render themselves more inviting to the arms of their paramours.8 Pliny, also, refers to this practice: "pudet confiteri maximum jam honorem esse in evellendis ab virorum corporibus pilis." The operation of excising is thought to be referred to in Satire II.: "Podice lavi cæduntur tumidæ, medico ridente, mariscæ." Goitre and a peculiar hypertrophy of the breast, not understood by the annotators, are referred to in Satire XIII .: "Quis tumidum guttur miratur in Alpibus, aut quis in Mero crasso majorem infante mamillam?"-"who marvels at goitre in the Alps; who, in Merce, at the breast larger than a fat baby?"

There are still fewer allusions to the organs and remedies. The liver is mentioned as the seat of anger but not of lust, as in Horace; "substringere bilem" is to restrain one's anger only; the heart presides over the intelligence. Both stomachus and venter are used for the organs of digestion. Ægrum cor, is a distempered heart; cerebrum, head; viscera, intestines; lumbi, loins; pulmo, lung—"to shake one's lungs with laughter"; "the lungs burn with wine." We also meet with the words, guttur, vena, medulla, pracordia and alvus.

Among drugs, hemlock is mentioned: "Athens bestows nothing but cold hemlock" (gelidas cicutas) "upon poor Socrates." The herb eruca (rocket), referred to in Satire IX., is said by Celsus to cause a burning sensation and to act as a diuretic: "Do thou only impress thy tooth on rockets," says Juvenal to Nævolus, the professional panderer, "and another greater hope remains to thee." Ovid¹o calls it "eruca salax." Tigellinus, the infamous favorite of the Emperor, gives aconita (wolfsbane) and other poisons, to three uncles.¹¹ In Satire VII. we find the expression: "What mortars (mortaria) now heal blind old men?" Bleeding was in general and perhaps, from an expression of Celsus, in excessive use at this time, and is often referred to. It was either

Satire VIII., 115. Liber XIV., 20.

<sup>10</sup> Remedia Amoris, 799.

<sup>&</sup>quot;Satire I., 158.

general—from the arm—or by cups (cucurbita ventosa). These cups were made of horn or of brass, and were also applied dry for their derivative effect. Leeches are not mentioned. The celebrated antidote of Mithridates, King of Pontus and Bithynia, "by taking which daily, that monarch is said to have rendered himself proof against the dangers of poisons" (Celsus), is alluded to in Satire XIV. Its heterogeneous ingredients, thirty-seven in number, are given by Celsus, who directs that they be bruised, mixed with honey, and a piece the size of a sweet almond be given in a glass of wine. It is hard to comprehend how a composition which appears to us so worthless, and which has fallen into such deserved neglect, ever could have had the reputation that this had. Such experience is calculated to impair our confidence in human judgment and in modern "specifics."

The use of the fibula or clasp, applied to the prepuce of young actors and singers to prevent copulation and preserve the voice, is mentioned several times by Juvenal. Celsus12 describes the operation of infibulation, as follows: "Some surgeons have been accustomed to infibulate youths, sometimes on account of the voice, and sometimes of the health. It is done as follows: the skin covering the glans is drawn out, marked on either side at points where it is to be perforated, and then released. If the marks return over the glans, too much has been taken up and it ought to be marked nearer the extremity. If the glans be free from these, that is the proper place for the clasp. Then, where the marks are, the skin is pierced with a needle and thread and the two ends of the latter are tied together. The thread is now pulled back and forth daily, until small cicatrices form around the openings. When these have become strong, the thread is removed and a fibula is applied, which is the better as it is the lighter." This operation does not seem to have been always an effective barrier to the fair Romans, for Juvenal says:18 "Solvitur his (i. e., feminis) magno comædi fibula." And again:14 "Si gaudet cantu nullius fibula durat vocem vendentis prætoribus." And Martial says: "Fibula quid præstat? carius ut futuant." Celsus,15 as we might suppose, disapproves of the operation: "sed hoc quidem sæpius inter supervacua quam inter necessaria est,"-"but this operation is oftener superflucus than necessary." It is not mentioned in the works of later Greek and Roman physi-

<sup>&</sup>lt;sup>12</sup>Liber VII., 25, 3. <sup>12</sup>Satire VI., 73. <sup>14</sup>Satire VI., 378. <sup>13</sup>Liber VII., 25.

cians, such as Galen, Aurelianus, Ætius, Paulus Ægineta, and would appear, therefore, to have fallen into early desuetude.

The restoration of the prepuce was also practised in those early days, upon certain individuals who wished to avoid the taxes and other inconveniences which its loss occasioned.

Juvenal repeats the complaints of the deadly autumn, "autumnus letiferus," which we found so frequent in Horace.

"Taberna," Satire II., was a shop where perfumes, "opobal-sama," etc., were sold, and was presided over by the pharmacopola. You will recall how Horace describes the pharmacopola as grieving over the death of their patron, the singer Tigellius. It is probable that they were the dispensers of medicines to the poor, as there were no drug-stores proper at Rome.

As bearing upon the daily experience of the medical contemporaries of Juvenal, as they went about visiting their patients, and also as indicating the source and character of some of their practice, may be cited, in conclusion, some remarks upon the condition of the streets and houses and the insecurity of life at Rome, to be found in Satire III., where Juvenal's old friend Umbritius is leaving the city in disgust. The unsafe condition of the houses is first depicted; according to Umbritius, a great many of them were supported with props to prevent their falling down, and there were many chinks and gaps in the ancient walls. Owing to the great noise in the streets, none but the rich could sleep, and many an invalid died from want of rest. For a stream of carriages was continually passing in the narrow and crooked thoroughfares, and the drivers were perpetually engaged in noisy disputes and foul abuse of one another. If you were in haste, your passage was obstructed by the crowd. A rich man's litter, borne aloft upon stout shoulders, jostled you aside; those behind pressed upon your back; one man would dig into you with his elbow, another with a hard pole; your shoulder would be struck by a joist, your head by a beam, and a cask thrust against your shins. Your legs were bespattered with mud, on all sides you were trodden on and the nail of a soldier's boot would stick in your toe. cooks scattered the burning coals as they hurried by with their patron, meals, and your clothing was torn into shreds. wagon loaded with a fir-tree, another with a huge pine, shook the streets as they advanced, the ends waving to and fro, threatening the people. Another wagon was loaded with stones from the quarries of the Apennines, and woe betide if the axle broke and the mass was precipitated on the people. Who could find

their scattered limbs or gather up the carcasses ground to powder? Then there were the dangers of the night when broken crockery, thrown out of the lofty windows, made dents in the pavement and threatened to break one's skull. Indeed, there were as many fates awaiting you as there were open windows where you passed. You might thank your lucky stars if they threw only the contents of the basins and pots upon you. Rash would he have been thought who went to supper without having made his will. Or your life was put in jeopardy by some drunken and illtempered fellow, ready to pick a quarrel with the first person he met. He took care to avoid the scarlet cloak and the long train of attendants, the many lights and the brazen lamp, but you whom the moon alone attended, he despised. Or you met a worse fate' if you fell into the hands of the numerous robbers, driven by the soldiers out of their lairs in the neighboring Pontine marshes and forced to seek refuge within the city's limits.

This language may appear exaggerated, but Horace<sup>16</sup> speaks in similar strains, inveighing aganist the noise and smoke, and telling of "a builder in heat who hurries along with his mules and porters: the crane hurls aloft at one time a stone, at another a great piece of timber: the dismal funerals dispute the way with the unwieldy carriages: here runs a mad dog, there rushes a sow begrimed with mire."

Such are the all too brief glimpses of medical life and thought in imperial Rome which we glean from the writings of the greatest satirist of all ages.

16 Epist. II., 2, 72.