INTRODUCTION

From Asia Minor, Greek medicine was carried by the Nestorians to the East where it was taken up by the Arabs surging out of the desert under the banners of Islam. The conquering Arabs were willing students; the medical works of Hippocrates and Galen were translated into Arabic along with the works of Plato and Aristotle. Blending the knowledge of Greece with the wisdom of the East, the Arabs further developed the arts and the sciences; under their rule medicine attained a status in some aspects unsurpassed until modern times.

Toward the second half of the eighth century, the Arab world was divided by schism and personal rivalries to form the Eastern Caliphate of the Abassids with Baghdad as its capital, and the Western Caliphate of the Umayyads with Cordova as its capital. Two schools of philosophy and medicine subsequently developed; the Eastern School of Rhazes and Avicenna, and the Western School of Avenzoar and Averroes.

With the decline of both Caliphates, the seat of learning moved centrally to Egypt, then under the enlightened rule of the Ayyubites. It was in this period that one of the most celebrated physicians of old, Moses ben Maimon, came from the Maghrib to Egypt. Embodying the best in Arabic medicine of both East and West, he contributed to its propagation, and played an important role in its introduction to Europe.

Moses ben Maimon ha-Sefardi (the Spaniard) is commonly referred to as the Rambam, an abbreviation of Rabbi Moses ben Maimon. He is also known as the Maimoni, hence the name Maimonides. In Arabic, the language he employed in most of his writings, he is known as Abū Ḥasan Mūsā ibn 'Ubayd Allāh ibn Maymūn. This name poses a question; the name Abū Ḥasan is obviously a kunya, a nickname, while ibn 'Ubayd Allāh, the Arabic equivalent of Obadiah, appears to be the nisba, or patronymic name. Ibn Uṣaybi'ah does not list ibn 'Ubayd Allāh in his discussion of Maimonides (21),* whereas some Jewish medieval scribes list its Hebrew transliteration 'eved elohim as an honorific title (43, 45, 46) while others maintain the original form (43); such is the case also with Latin manuscripts. Considering the usual form of Arabic names, this is rather unusual, but all authors, accept Maymūn (Maimon) as the name of the father.

The earliest known biography of Maimonides was written by the noted medical biographer Ibn Abī Uṣaybi'ah (1203–1270), himself a physician and an acquaintance of Maimonides' son Abraham. His account of the life of Maimonides and his son Abraham, translated from the Arabic edition of his work (21), is as follows:

al-Ra'is Mūsā is al-Ra'is Abū Ḥasan Mūsā ibn Maymūn, the Cordovan, a Jew. He was learned in the Laws of the Jews, and was counted among their learned and their sages. He was their head (Ra'is) in the Province of Egypt. He was unique in his time in the Art of Medicine and its practice, versed in the sciences and possessed of an excellent knowledge of philosophy. al-Sultan al-Malik al-Naṣir Šalāḥ al-Dīn saw him and consulted him, and likewise his son al-Malik al-Afdal 'Alī. It is said that al-Ra'is Mūsā became a Moslem in the Maghrib, memorized the Koran and was occupied in its studies. Then, once he arrived in the Province of Egypt and settled in Fustāt, Cairo, he recanted. Said al-Qāḍī al-Sa'īd ibn Sa'īd ibn Sa'īd al-Mulk in praise of al-Ra'is Mūsā:

I deem Galen’s Medicine fit for the body alone, But Abū Ḥasan’s for both body and mind. Had the Medicine of the Time on him come to call, Through knowledge he would have cured it of ignorance’s ills. Had the ripening moon his counsel required, She could attain the perfection to which she aspired. The day of the full-moon he would cure her of spots, And save her from waning at the end of her month.

* Numbers in parentheses indicate references listed on page 14.
The books of al-Ra’i’s Mūsā are the extracts of the sixteen books of Galen, a treatise on hemorrhoids and their treatment, a treatise on the regimen of health compiled for al-Malik al-Afḍal ‘Ali ibn al-Malik al-Nāṣir Shalāh al-Dīn Yūsuf ibn Ayyūb, a treatise on poisons and protection against lethal drugs, a book in explanation of drugs, and a large book on the religion of the Jews.

Ibrahim ibn al-Ra’i’s Mūsā, is Abū al-Mani Ibrahim ibn al-Ra’i’s Mūsā ibn Maymūn, born in Fustat, Egypt. He was a famous physician, knowledgeable in the Art of Medicine and excellent in its practice. He was in attendance on al-Malik al-Kāmil Muḥammad ibn Abī Bakr ibn Ayyūb. He also went frequently from the palace to the hospital in Cairo, and treated the sick there. I met him in the year six hundred and thirty one or thirty two (1233-4) when I was practicing in the hospital there. I found him a tall old man, thin of body, handsome in appearance, pleasant-spoken, and discriminating in medicine. Ibrahim ibn al-Ra’i’s Mūsā died in Egypt in the year six hundred thirty . . . (missing).

Ibn Abī Usaybi’ah’s narrative, wanting in both details and scope, leaves much to be desired, and in the absence of better contemporary biographies, information about Maimonides’ life had to be drawn from other sources such as his correspondence with his students and followers, and the writings of others who knew him. Many of these sources, though written by contemporaries, are questionable. Typical of these is a narrative, found in MS. Opp. Add. 8336 of the British Museum, written by an unknown person who identifies himself as follows: “I, who write this letter, am from Tulitula and my birthplace is Spain; I also escaped . . . and left Tulitula in the year 4946 (1186) . . . and went to the land of Fez.” Thus this author is a Spaniard who sought refuge from persecution in Fez, only twenty-five years after Maimonides did the same. His narrative contains only a few biographical details about Maimonides, and these are often in conflict with well-established facts, while most of the work is devoted to a description of a fanciful and chimerical letter, said to have been written by Maimonides to a certain Isaac, son of Nathan, which appears to be both apocryphal and apocryphal.

It is apparent that even in his own lifetime, legends and fables obscured the image of Maimonides the man, and made it difficult to understand him and his contributions in terms of his personality; too many questions remain unanswered if not unanswerable. This is even more apparent with respect to Maimonides the physician; in fact, in the eyes of later generations his religious and philosophical contributions outshone those in medicine to such an extent that many students of his works, while aware of his fame as a physician, were totally unfamiliar with the nature and the scope of his medical contributions.

Rabbi Moses Maimonides was born in Cordova, Spain, the seat of the Western Caliphate, on March 30, 1135; his father and mentor was a well-known scholar and author in the Jewish community that flourished there (53). It is believed, though not proven, that the Maimon family were descendants of the House of David (53, 55). Little is known of Maimonides’ early life and education, but, judging by his later works, he was thoroughly tutored in mathematics, astronomy and astrology, medicine, philosophy, theology, and Jewish studies. Undoubtedly, it was the latter subject which captured young Maimonides’ fancy, and to this he devoted most of his time and energy.

It is not clear where and with whom Maimonides studied medicine, although there is no doubt that he acquired the foundation of his art in the West. In his Regimen of Health he states, in support of a prescription, “this is what we have received from the Elders of the Art,” and, again, in his Treatise on Accidents he states, “thus we have seen the outstanding Elders do in the land of Andalusia,” but he does not mention these Elders by name. Some authors claim him as a student of Abū Marwān ibn Zuhr (Avenzoar; 1091-1162), who lived in Spain, while others place him as a student of Ibn Rushd (Averroes; 1126-1198), himself a Cordovan and only ten years older than Maimonides. Maimonides himself, however, claims neither as his teacher. He frequently refers to the venerable Ibn Zuhr, but he makes little mention of Ibn Rushd. In his treatise on asthma (43), he records an incident involving Ibn Zuhr, but he states that he heard it from his son Abū Bakr with whom he was acquainted. Thus, while there is no doubt that Maimonides was well acquainted with the works of these two masters of the school of medicine of the Western Caliphate, the exact source of his medical education is not yet established (17, 41, 57).

In 1148 Cordova, along with the rest of Moorish Spain, was conquered by the al-Muw’ahhidin (Almohades), a sect of unitarian Moslem zealots. An era of religious intolerance and persecution ensued, and the Jews were often given the choice of conversion to Islam or exile. Choosing the latter, Maimon’s family escaped in 1160 to the city of Fez, Morocco, and spent a few years there, apparently disguised as Moslems. There is no evidence whatsoever supporting Ibn Abī Usaybi’ah’s claim that Maimonides ever accepted Islam. In fact, it was during that time that he endangered his own life by publishing his Iggeret ha-Shemad, the Epistle on Apostasy, following which his family fled Fez and in 1165 arrived in Acre, Palestine (53). According to the British Museum manuscript cited above, Moses’ father voluntarily left for Fez so that his children might study under the great Rabbi Judah ha-Kohen; then, when Rabbi Judah died a martyr’s death, they fled to Palestine.

Their sojourn in Palestine was brief, and they finally sought refuge in Egypt. Maimon, the father, died on the last stage of their journey, and in 1165 Moses and his brother David settled in Fustat (old Cairo). According to the above-mentioned manuscript, the father died in Jerusalem, while according to others he died in Fustat (18, 53, 57).

While David turned to commerce, Maimonides con-
tinued to devote his time to his studies, and in 1168 he published his first major religious work, Kitāb al-Sirāj, a commentary on the Mishnah. By that time he was already known through his treatises on the Art of Logic and the Jewish Calendar (published in 1151 and 1158, respectively), and was recognized in Egypt as an authority on Jewish subjects. When his brother David perished in the Indian Ocean not long after the settlement in Cairo, Maimonides had to earn his livelihood in order to sustain himself and his brother’s family. Refusing to accept remuneration for rabbinical duties, he turned to the only other profession he knew—medicine (15, 18).

Maimonides’ endeavors in his new occupation proved successful, and within a short time he attracted the attention of the Vizier al-ʿAḍīd al-ʿAḍīl al-Baysānī, who obtained his services and introduced him to the court of al-ʿAḍīd, the last of the Fatimid Imams of Egypt. When the latter was deposed in 1171, the capable Vizier, who retained his high office, introduced Maimonides to the court of the new Sultan, ʿṢalāḥ al-Dīn (Salādīn) (38, 41). The details of Maimonides’ rise to medical fame are not altogether clear. Friedenwald (18) fixes his appointment to Salādin’s court at a much later date, while Zeitlin (65) maintains that Maimonides lingered a few years in Alexandria and did not settle in Fustāṭ until 1171, which appears to preclude the possibility of his appointment to the court of al-ʿAḍīd.

Maimonides’ fame as a physician had spread, and he was now occupied from morning till noon attending the court of Salādin, and catering to a wide clientele. In addition to his practice, he was appointed by Salādin a Nagīd over the Jewish community of Egypt, a position similar to that of the Exilarch in Babylonia who was a direct descendant of the House of David (21, 38). So heavy was the burden on his shoulders, that in a letter to his friend and translator Ibn Tibbon, he wrote, in order to dissuade him from coming for a visit, “I converse with and prescribe for them while lying down from sheer fatigue, and when night falls I am so exhausted that I can scarcely speak” (18).

The reputation of Maimonides was apparently so great that he received an invitation to become the personal physician of a “Sovereign of the Franks in Ascalon,” thought to be Richard Cœur de Lion, who heard of him from Salādin’s brother al-ʿAḍīl (41). Maimonides must have declined the invitation, for it is known that he never again left Egypt. Nonetheless, it has been suggested that the portrayal of the Hakim in Scott’s Talisman was drawn after Maimonides (11).

His medical practice notwithstanding, Maimonides continued to pursue his religious and philosophical studies, and in 1180, he published his major religious work, the Mishneh Torah, in which he organized, edited, summarized, and codified the immense collection of laws, customs, opinions, and regulations found in the Talmud. This was no minor task, and by this contribution alone, Maimonides earned himself immortality. The proverb still prevails, “from Moses to Moses there was no one like Moses.” Composed of fourteen books, the Mishneh Torah is often referred to as Yad ha-Ḥaṣaqaḥ, The Mighty Hand, since the Hebrew letters yod and dalet which made up the word yad (hand) have the numerical value of fourteen. Maimonides himself was called Baʿal Yad ha-Ḥaṣaqaḥ, Master of the Mighty Hand, in allusion to the very last sentence of the Torah (Deuteronomy 34: 12), “And in all the mighty hand and in all the great terror which Moses wrought in the sight of all Israel.”

In 1190 he published the Dalālat al-Ḥayrīn, The Guide to the Perplexed, the crown of his philosophical achievements. This was an attempt to reconcile Jewish thought and Aristotelian philosophy, a philosophical feat that was greatly acclaimed and often quoted by Christian scholastics, as well as by Jewish and Moslem scholars, and the influence of which reached into the age of Spinoza and Kant as well as into our own age (7, 55, 56).

As his reputation as a physician and a healer spread, Maimonides had to devote more and more time to his practice at the expense of what he considered his prime interest. In a letter to Rabbi Jonathan of Lunel he wrote:

Before I was formed in the belly the Torah knew me, and ere I came forth from the womb she had sanctified me for its studies, and ordained me to spread wide its fountain. She is my beloved doe, and the wife of my youth whose love I have followed ever since. Nevertheless, many foreign women became her rivals . . . and God knows that at first they were not taken except to be her anointers, cooks and bakers, to show the people and the nobles her beauty . . . now I have become remiss in my duty to this marriage, for my heart is divided among the various sciences . . . (MS. Add. 27, 129, fol. 117–8; British Museum).

Among these “foreign women” medicine was the foremost, and the one most demanding of his time. He was now ailing; in that same letter he noted:

my illness lingered for nearly a year, and now that I have recovered, I am like a sick man no longer in danger. Most of the day I recline in bed with the burden of the people upon my neck, regarding matters of medicine, weakening my strength. They do not leave me alone for an hour, neither in the day nor at night, and what can I do now that my reputation has spread in many countries . . . ?

Apparently, he was never in sound health, and had always been weak and ailing. In his letter to al-Afdal, the second treatise in this translation, he noted that “the badness of his original temperament and the weakness of his natural build—if when young how much more so in old age—stood between him and many pleasures.”

It was only during the last two decades of his life that Maimonides devoted time to medical writing. Not only was he well read and familiar with the works
of the leading Greek and Arabic physicians and philosophers, but he must have had a phenomenal memory if we are to consider his mastery of the voluminous Talmud together with the abundance of quotations found in his medical writings. As noted by Ibn Abi Uṣaybi'ah, Maimonides was known not only for his vast knowledge of theory, but for his mastery of the practical art as well. It is with this in mind that his writings should be viewed, for Maimonides has provided us with the very best of Arabic medicine, both in theory and in practice, and with a selective view of Greek medicine through its Arabic transformation, "tempered with rational criticism based on direct observation" (57).

In essence, Maimonides was an adherent of Hippocrates and especially Galen, and it is only within the framework of Galenical physiology and medicine that his works can be properly evaluated and appreciated. He was not, however, a mere disciple echoing the voice of his masters, but a critical student who carefully examined and evaluated whatever he learned in theory and in practice, and who did not hesitate to offer and present constructive criticism, even of Galen, a virtue not too well appreciated in those days (15, 39, 57). In view of his mastery of the Talmud, the absence of references to Talmudic medicine in Maimonides' medical compositions appears to be a convincing proof that he was a fundamental Galenist.

Unlike most of his contemporaries and predecessors, Maimonides had no respect for magic and superstition, and had no use whatever for astrology, which he had studied himself (52). In his celebrated letter to the Rabbis of Montpellier (MS. Add. 14,763, fol. 160–2; British Museum) he stated that, "it seems to me that there is not a thing on this subject left in the world written in Arabic or translated from other languages but that I read it, understood its subjects and fathomed its meaning." Maimonides distinguished clearly between astronomy and astrology. "Know ye my masters," he stated in this letter, "that the science of the stars [i.e., astronomy] is a true science. Astrology, on the other hand, was not a matter of science, but sheer stupidity." He further noted that "the sages of Greece and the philosophers . . . and also the sages of Persia realized and understood that all this . . . was folly and deceit." "It behooves man," wrote Maimonides, to believe only in one of three things. The first is that for which there is a clear proof from man's reason such as mathematics . . . ; the second is that which is perceived by man through one of the five senses, such as knowing with certainty that something is black or red . . . ; the third is that which is received by man from the prophets or the sages. . . . It is said of him who believes in anything which is not one of these three, "a fool believes anything."

One can only conjecture whether it was the philosopher that dominated over the physician, or the physician-scientist who guided the philosopher, but there is no doubt that there was no compartmentation in his life; he preached what he believed to be true, and he practiced what he preached. Medicine, religion, and philosophy were always closely interwoven in his works (20, 54, 56). This unified approach is well exemplified in his major religious work, the Mishneh Torah, wherein he states (Book 1, Chap. 4, A): "Whereas by keeping the body in sound health one walks in the ways of God, for a man knows not nor understands when ill, a man must remove himself away from those things that destroy the body. . . ."

On the twentieth of Tevet, 1204, Moshe ben Maimon died in Fustat. Having left no instructions for his burial, so the legend goes, his coffin was put on a camel and the animal was let loose while the mourners followed. The camel went without stopping for food, water, or rest for seven days and seven nights, through the desert, from Egypt to Palestine. The camel at last stopped on the shores of the Lake of Galilee outside the city of Tiberias, and there Maimonides was buried. His grave still stands there, and pilgrims still come to pay homage to the great teacher. For three days, the people of Egypt and Palestine mourned the death of Maimonides. In recognition of his stature and authority, a passage from the Prophets (1 Samuel 4) was read in public (53), concluding with the words, "the glory is departed from Israel, for the Ark of God is taken."

All the medical works of Maimonides were written in Arabic. In view of his mastery of the Hebrew, as seen in the Mishneh Torah, this can only be explained on the basis of the role of Arabic as the language of science and philosophy of his age. Ibn Abi Uṣaybi'ah lists only five medical works of Maimonides: (a) extracts from Galen; (b) on hemorrhoids; (c) on the regimen of health; (d) on poisons; and (e) a work in explanation of drugs. Steinschneider (61) enumerates eight compositions; Macht (32, 33), on the other hand, lists sixteen works, while Rubbinowicz (35) lists seventeen.

The authenticity of some of the works attributed to Maimonides is open to question. Such is the brief collection of fifty aphorisms, said to have been written by the author for his son, which was published in Hebrew by Grossberg (34). These are actually excerpts from the Regimen which are appended in MS. Add. 27,089 of the British Museum to what purports to be Maimonides' will; the authenticity of this will is doubtful and its contents are questionable. Another work attributed to Maimonides which is often cited, is the Tractatus de Causis et Indiciis Morborum, claimed to be an Arabic translation of a work which had been originally written in Hebrew. The attribution of this work to Maimonides, long under question (15, 16), has finally been proven false by Levy (30). Nor has the authorship of the now famous Maimonides' Daily Prayer of a Physician been
satisfactorily established (6, 23). The only thing resembling a "physician's prayer" which we could find, was a poetical hodge-podge found in the University Library of Leiden (MS. Or. 4479, fol. 150). This "prayer," entitled The Prayer of the Rabbi Moses, is largely made up of phrases and sentences drawn from several compositions by Maimonides, but is obviously not what it claims to be.

Excluding the medical subjects discussed in the Mishneh Torah and his other religious and philosophical compositions, only ten works have been well preserved and authenticated. These ten, known to be those of Maimonides, are the following:

1. al-Mukhtasar?—The Extracts

This is a carefully selected collection compiled from the various works of Galen. Of the extracts of the sixteen books reported by Ibn Abi Usaybi'ah only a few are extant and only in Arabic. Three of these books are found in MS. Arab. 6231 in Tübingen. Several other fragments are contained in MS. Casiri 798 at the Escorial, and in MS. Hebreux 1203 of the Bibliothèque Nationale, Paris. The fragments in the latter manuscript are written in Hebrew script and are bound randomly with other medical works. According to Barzel (4), the content of the Paris and Escorial manuscripts is the same, and they appear to be segments of a larger composition, parts of which are lost. The excerpts translated and published by Barzel under the title The Art of Cure, give the impression that this is Maimonides' own work and not extracts from Galen. Careful examination of these manuscripts, however, revealed that except for the extracts of the Art of Cure, which are found in both, they contain different parts of the Mukhtasar?. Hiftat al-Bara', the Art of Cure, is in fact the title of the Arabic translation of a book by Galen which was also abundantly quoted by Maimonides in his Medical Aphorisms. The Extracts were apparently very popular and much used as a "digest" of Galen's work (48), but no translation into either Hebrew or Latin is known.

2. Fusul Muz? fi al-?ib?—The Medical Aphorisms of Moses

This book, composed between 1187 and 1190, was perhaps the most popular of Maimonides' medical compositions, as attested by the numerous copies of the Arabic, Hebrew, and Latin versions found in many European libraries. The book was translated twice into Hebrew; by Zechariah ben Yizhaq ben Shealtiel Hen (Gracian) in Rome in 1277, and by Natan Hameati, again in Rome, in 1280. An edited version of these translations was published by Muntner in 1959 (46). The Latin translation entitled Aphorismi Secundum Doctrinam Galeni was made by John de Capua toward the end of the thirteenth century. This composition contains over 1,500 aphorisms, most of which are drawn from Galen. Muntner (49) lists 87 works of Galen quoted in the Aphorisms. In addition, Maimonides quotes several Arab writers such as Ibn Zuhr, al-Tamimi, Ibn Wafid, Ibn Ridwan and al-Farabi. These aphorisms, to which Maimonides added his own as well as commentary and interpretations, are edited, systemized and combined into twenty-five chapters. Of these the most interesting are the last two. Chapter 24 deals with unusual occurrences, and with subjects considered by the author to be without foundation, while the last chapter, revised and rewritten just before its author's death in 1204, is devoted in toto to the author's doubts and criticism of Galen (39).

3. Sharh Fu?al Abuqrad?—A Commentary on the Aphorisms of Hippocrates

Divided into seven books, this work contains Maimonides' commentary on the Aphorisms of Hippocrates as they were translated into Arabic by Hunayn ibn Isphaq. Written after the Aphorisms of Moses, the work exists in only two known Arabic manuscripts, both of which are incomplete. According to Muntner (47) and Steinschneider (60), there are two Hebrew translations, one made by Moses ibn Tibbon in 1257 and the other by an unknown person. Having examined several Hebrew manuscripts we were able to identify three distinctly independent translations, and not two, all made from the Arabic (3). It was not translated into any European language except the introduction and the commentary on the first aphorism, which were translated into German (48) and English (3), respectively. An edited version of the Hebrew translation was published in 1961 by Muntner (47).

4. Fi al-Jim' a?—On Coitus

Two treatises on sexual hygiene and aphrodisiac remedies are attributed to Maimonides. The longer of the two was written at the request of al-Mu?affar ibn Ayyu?b, Sultan (1179-1192) of Hama, Syria; no Hebrew or Latin translations of this work are known. The second treatise, written apparently for another nobleman (60), was translated into Hebrew, once by Z. Hen and the second time by an anonymous translator; a Latin translation, titled De Coitu, was apparently made from the Hebrew. The Arabic text of the first treatise and the two Hebrew versions of the second, together with a German translation, were published by Kroner in 1906 (43). An inaccurate and unreliable English translation, made from Kroner's work, was published in 1961 by Gorlin (19).

5. Fi al-Bawasir?—On Hemorrhoids

This brief treatise on the management and treatment of hemorrhoids was composed ca. 1187 at the
request of an unidentified youth of prominent and renowned descent (10). The book was translated into Hebrew, Latin, and Spanish; the identities of the translators are not known. A German translation was made by Kroner and an English translation from the German was published by Bragman (10).

6. *Maqālah fī al-Raḥā*—A Discourse on Asthma

This treatise includes not only a consideration of asthma, its symptoms, treatment and prevention, but a general discussion of the regimen of the body and soul as well. Written ca. 1190, it was translated to the Latin by Armengaud Blasius of Montpellier in 1302, and some twenty years later, from the Latin to the Hebrew, by Rabbi Samuel Benvenisti. Another Hebrew translation, apparently made toward the end of the fourteenth century directly from the Arabic, is attributed to Joshua Schatibi (44, 56). An edited version of the Benvenishti translation was published in 1940 by Muntner (41).

7. *Kitāb al-Sumūm wa-al-Mutaḥarris min al-Adwiyah al-Qīṭālah*—A Book on Poisons and the Protection Against Lethal Drugs

Written in 1198 at the request of Maimonides' benefactor, the above mentioned Vizier al-Fadil, this treatise contains a discussion of organic and inorganic poisons, their toxicity, antidotes, and remedies, as well as general advice for emergency measures. The book was translated into Hebrew, first by Ibn Tibbon and the second time by an anonymous translator (59). A Latin translation, titled *De Venenis*, was made by John de Capua, and not by Blasius as reported by Muntner (48). It was translated into French by Rabinowicz (35), and into German by Stein-schneider (59). An English translation from the German was published by Bragman (9).

8. *Sharḥ Ismāʿil al-ʿUggār*—A Commentary on the Names of Drugs

This work, cited by Ibn Abī Uṣaybiʿah, was long thought to be lost or apocryphal until its recent discovery by Ritter in the library of the Aya Sofia mosque of Istanbul (41). Curiously enough, this manuscript was copied by the very hand of the noted Arabic pharmacist, Ibn al-Baitār, a contemporary of Maimonides' son Abraham (38, 41). The Arabic text, together with a French translation, was published in 1940 by Meyerhof (40). This composition contains some 2,000 names of drugs in an alphabetical list composed of 405 paragraphs. The drug names are given in Arabic, Greek, Persian, Berber, and Spanish with brief definitions, descriptions, or comments by the author. Meyerhof (41) considers it puzzling that Maimonides did not include Hebrew terms in this glossary, since this practice was not uncommon among Arabic pharmacists.

9. *Fi Taḏbīr al-Ṣīḥah*—On the Regimen of Health

The subject of the present translation, this work was written at the behest of al-Malik al-Afḍal Nūr al-Dīn ʿAlī, the ill-fated son of the illustrious Ṣalāḥ al-Dīn (Saladin). The exact date of its composition is not clear, but it was certainly written sometime between 1193, the year of Saladin's death and 1198, when al-Afḍal was dethroned by his uncle al-ʿĀḍil Sayf al-Dīn, the Saphadin of the Crusades. The nature of this work and the circumstances of its composition are best explained by the author himself in his own introduction.


This treatise, also the subject of the present translation, was written, like the Regimen, at the request of al-Afḍal. Unlike the Regimen it is not a discourse on a general topic such as the regimen of health, but rather a compilation of detailed and often elaborate answers to specific questions posed by the ailing prince to his trustworthy and famous physician.

The title of this treatise is in doubt, as neither of the two extant Arabic manuscripts bears an original title. A later hand titled one of them (MS. A2) *maqālah fī bayān baʿḍ al-ʿaḍād wa-al-jawāb ʿanḥā*—a treatise in elucidation of some accidents and the response to it. As can be seen in the introductory paragraph of the text, this title is misleading since the treatise does not contain an elucidation of accidents, but rather the response of the author to a letter containing such an elucidation. The misleading title has resulted in a certain confusion in the literature regarding the proper identification of this work and its contents. Only recently, in a review of the Hebrew edition of two of Maimonides' medical works, Levey (29) mistook the Arabic title of this treatise for that of the Regimen, and consequently confused Kroner's German translation of this work with the translation of the Regimen. The Hebrew manuscript (MS. H6) bears a title correctly identifying this work as *teshuvot 'al she'lot perafiot*—answers to personal questions. Time, however, has sanctioned the misleading Arabic title and the equally misleading Latin title *De Causis Accidentium*, and we had no recourse but to keep the title so often cited in the literature.

The date of the composition of the treatise on Accidents has not been established, but the numerous references to the Regimen contained in the text leave no doubt that it was written after the Regimen. The lack of any references to royalty or any acknowledgment of al-Afḍal as king, as in the Regimen, strongly suggests that this work was written after the deposition of al-Afḍal by his uncle al-ʿĀḍil. Thus it appears that this work was composed after 1199; indeed, it may well have been the last medical work written by
Maimonides, with the exception of the last chapter of his Aphorisms, which he revised and rewrote just prior to his death in 1204 (41, 48). The statements of Kroner (27), Steinschneider (60), and Muntner (48) identifying al-Afdal as king of Riqqah, and the speculations of these authors about the presumable location of this place are interesting and amusing in that they are based upon a misreading of the Arabic text. The expressions mālik ṭiqqīḥī (MS. A1) and mālik al-ṛiqq (MS. A2), meaning the holder of his bondage, are honorific acknowledgments. To identify these phrases as meaning malik al-ṛiqqaḥ, the king of Riqqah, is inadmissible for two reasons. First, the word is mālik (holder), and not malik (king); second, the scribe of MS. A1 has made it very clear that the second word does not designate a place called ṭiqqah, by adding vowels which definitely establish the word as ṭiqqīḥī (his bondage). The expression mālik al-ṛiqq (MS. A2) is merely a variation of mālik ṭiqqīḥī.

Like all of Maimonides' medical compositions, both treatises were written in Arabic, the language of science and medicine of his age. Together, they are preserved in toto in only two known manuscripts, both of which are at the Bodleian Library, Oxford:

A1: MS. Pocock 313 (Regimen: fol. 3r–33v; Accidents: fol. 33r–53v)

This manuscript was written in 1340 in clear large Arabic script, 17 lines to the page, and is very well preserved. Of interest is the flowery epilogue of the scribe: "... Muḥammed ibn 'Alī ibn Abū al-Qasмир ibn Khalil, born in Damietta and of the Shafiite sect. May God forgive him, his parents, and him who studies this book, and may he be blessed for the repentance of transgressions and the fear of the Day he is called for reckoning. The completion of the transcription coincides with the morning of Monday the twelfth of al-Muḥarram, of the months of the year forty one and seven hundreds (1340). May God render good its conclusion, and may we end it in goodness."

A2: MS. Hunt 427 (Regimen: fol. 62r–80r; Accidents: fol. 80r–91r)

This manuscript was written in the second half of the fourteenth century in a clear and precise Arabic script, 19 lines to the page. The manuscript is complete and very well preserved. A later hand titled the Regimen as maqālah fi ḥāds al-tabi'ah—A Treatise on Constipation, and gave the Accidents the above mentioned lengthy and misleading title. This manuscript contains an interesting postscript added by the scribe: "This is the writing of the slave, destitute for the mercy of his Lord, Abū al-Ḥaṣan—be there dignity to the writer, may God pardon him and forgive his parents—completed by transcription from, and by comparison with, the original." The last statement is indeed intriguing, since this manuscript appears to be more accurate than the preceding one.

The other two Arabic manuscripts utilized in this work were written in Hebrew script, a practice not uncommon among Jewish scribes copying Arabic works. Both of these manuscripts contain only the Regimen.

A3: MS. EMC 789 (fol. 1r–18r), of the Library of the Jewish Theological Seminary of America, New York.

Bound alone in a thin volume of nineteen folios, this manuscript is believed to have been written ca. 1490. It is well preserved, but the script is small, 21 to 25 lines to the page, often not clear, and not well executed. There are numerous corrections and omissions and many sentences and phrases are condensed. The tenth and the thirteenth chapters of the fourth tract are inserted in the midst of the third tract preceding the discussion of the passions of the psyche, while the fifth chapter of the fourth tract is omitted altogether. The work is introduced by a statement composed of Hebrew and Arabic phrases: "In the name of the Lord, God of the Universe. An Epistle on Medicine by our Rabbi Moses ben Maimon, blessed is the memory of the righteous."

A4: MS. Hebreux 1202 (fol. 80r–121r) of the Bibliothèque Nationale, Paris.

This manuscript was written in 1466 in large and clear Hebrew script, 17 lines to the page. It is the only one of the Arabic texts that is clearly divided into paragraphs, the first word of each being written in large letters. The work is introduced by the statement: "In the Name of Allāh, the Merciful, the Compassionate; by Him we are aided, Amen. This is the most excellent treatise of our lord and master Mūsā ibn Maymūn on medicine." Here, too, the fifth chapter of the fourth tract was omitted, and many phrases and sentences were condensed or altered. Edited versions of the Arabic texts of both treatises were published by Kroner together with a German translation; the Regimen in 1923–1925 (26), and the Accidents in 1928 (27). Unfortunately, Kroner had access to only one Arabic manuscript (A1), which, in the case of the Regimen, he edited in accordance with the Hebrew translation, several versions of which were available in Germany. For this reason, both the edition of the Arabic text of the Regimen and its subsequent German translation were strongly influenced by the Hebrew version.

The Regimen was translated into Hebrew in Provence, in 1244, by Moses ibn Tibbon of the famous family of physicians, scholars and translators, all named Ibn Tibbon. Six Hebrew manuscripts con-
taining this translation were utilized:


This manuscript was written in 5135 (1375) in a clear and large rabbinical script, 17–19 lines to the page, and is well preserved except for a few places where the ink has partially faded.

H2: *MS. Opp. Add. 4° 108 (fol. 185r–198v)* of the same library.

Written in 5244 (1484) in clear rabbinical script, 29 lines to the page, the manuscript is well preserved except for the last 3 folios which were damaged by moisture.

H3: *MS. Or. Quat. 545 (fol. 33r–41v)* of the Universitätsbibliothek, Tübingen.

This manuscript written early in the fourteenth century, is beautifully executed with clear scriptural writing, 37 lines to the page. It is well preserved, but the ink has faded considerably although it is still legible.

H4: *MS. Or. Quat. 836 (fol. 52r–65v)* of the same library.

This manuscript was written in the fifteenth century in German rabbinical (Rashi) script, 24–26 lines to the page. It differs from all other manuscripts in that it is divided into twenty tracts instead of the customary four; the 17 chapters of the fourth tract were listed as independent tracts.

H5: *Cod. Hebr. 111 (fol. 84r–93r)* of the Bayerischen Staatsbibliothek, Munich.

Written in 5090 (1330) in a beautiful Spanish rabbinical script, 38–40 lines to the page, this old manuscript is very well preserved.


Written in the fifteenth century in a clear rabbinical script, 31 lines to the page, this manuscript is well preserved.

All these manuscripts contain the translation of Ibn Tibbon, and are essentially the same. The Hebrew version is a relatively free translation replete with inaccuracies, deletions, confusing statements, and explanatory comments that are not found in the Arabic texts. Of special interest is the epilogue found in three of the Hebrew manuscripts (H2, 4, 5):

This is the treatise composed by the great Rabbi, teacher of righteousness, our master Moses, the Servant of God, ibn Maimon—blessed is the memory of the righteous

— for a certain king of the Ishmaelites. And I, Moses son of Samuel son of Judah ibn Tibbon, have translated it in the year 5004 (1244) from a book so inaccurate that I was obliged to add words in various places in order to complete the contents; I was so besought by one of my honorable friends to translate it, that I could not refuse him. If I am not worthy in one of the two tongues, especially having translated it from an inaccurate book, may the Lord atone for me. Amen.

The scribe who copied MS. H4 commented caustically at the conclusion of the treatise: “Completed is the treatise composed by Rambam, of blessed memory, for one of the Kings of the Ishmaelites. It was translated by the Sage Rabbi Moses son of Rabbi Samuel ben Tibbon, of blessed memory, who said what is said by unworthy translators who find inaccurate books; the Lord knows the truth of their thoughts.” A later hand added Ibn Tibbon’s epilogue on the margin.

The Hebrew translation, edited by S. Muntner, was published in 1957 (45). This text is profusely edited, but almost completely without any indication of the source or basis for the many additions, deletions, interpretations, and interpolations. We were therefore unable to utilize this text because it is impossible to distinguish textual variations from editorial interpolations without resort to the original manuscripts.

Upon completion of the preliminary translation, we chanced upon an English version of the Regimen by H. L. Gordon, under the misleading title, *The Preservation of Youth* (Philosophical Library, N. Y., 1958). This work is claimed to be a translation “from the original Arabic.” To expound the exact nature of this free, indiscriminate, and inaccurate translation and its source, it is sufficient to point out that a printer’s error, through which lines 9 and 10 of page 54 of Muntner’s book (45) were transposed, rendering this passage incomprehensible, was perpetuated on page 53 of Gordon’s product.

The treatise on Accidents was translated into Hebrew by an unknown person, and only a few fragments have survived in a single manuscript, found in the Universitätsbibliothek, Tübingen:

H4: *MS. Orient. Quat. 836 (fol. 116v–119r)*

This manuscript, which contains the Regimen, as well as several other medical works by Maimonides, was described above. The treatise on Accidents is introduced with the following statement: “These are greatly beneficial answers of Rambam, of blessed memory, to personal questions asked of him by one of the kings in order to decide among the opinions of the physicians who were in disagreement; some of them are written here with the aid of God.” Aware that these were only fragments of a larger work, the scribe added a postscript stating: “Behold, this I have found of the great Rabbi, the Ram (i.e., Rabbi Moses) of blessed memory; whatever else my soul has sought, I have not found.”
Both the Regimen and the treatise on Accidents were translated into Latin, in which language they are usually titled *De Regimine Sanitatis* and *De Causis Accidentium*, respectively, with the latter often appended to the Regimen as a continuation thereof. The translation was made by John de Capua, an apostate Jew, at the behest of a certain Guilhemus de Brixia who is identified by the translator as a physician to the Pope (MS. L2, fol. 206v).

The date of the translation is not certain. Steinschneider (60) states that the various translations of John de Capua were made between 1262 and 1278, but there is no doubt that this translation was executed considerably later, since *Pope B. VIII*, mentioned in De Capua's introduction which is cited below, could only be Boniface VIII who reigned from 1294 to 1303. A note, *in honor Bened. VIII*, added by a later hand on the margin of MS. L4 is obviously incorrect, since it can hardly refer to Benedictotto Gaetano, the given name of Boniface VIII, and it cannot possibly refer to Benedict VII who was pope from 1012 to 1024. A further clue to the identity of the pope in question is provided by the illumination of the first page of the translation, contained in MS. L3, which shows a figure in full regalia seated upon a throne. This appears to suggest the legend that when the Vice-chancellor of France, acting on behalf of Philip the Fair, came on the night of September 7, 1303, to arrest Pope Boniface VIII in Angani, he found him seated on the throne in full regalia. Thus it can be affirmed that the translation was made sometime between 1294 and 1303.

Four Latin manuscripts and one printed version containing the translation of John de Capua were utilized:

**L1:** MS. Fr. 571–6 (Regimen: fol. 186r–195v; Accidents: fol. 195r–199r) of the Friedenwald Collection, the Hebrew University, Jerusalem.

This manuscript, the work of two scribes, was written ca. 1450, two columns to the page, 44–50 lines to the column, and is very well preserved.

**L2:** Palatine-Latin 1298 (Regimen: fol. 189r–195v; Accidents: fol. 195r–199r) of the Biblioteca Apostolica Vaticana.

Written in the fourteenth century, the manuscript is very well preserved and is the most legible and the least abbreviated of all the Latin texts. There are two columns to the page, 60 lines to the column. The work bears no original title, but a later hand added: *Rabi Moyzes de regimine sanitatis ad regem hyspania* (or hyspalis; i.e., Seville). Amusingly enough, the scribe himself identifies this work, composed for al-Afdal, as that, *quem regi castelle composituit*.

**L3:** MS. Cod. Latin 2280 (Regimen: fol. 89r–93v; Accidents: fol. 93r–95r) of the Osterreich-Nationalbibliothek, Vienna.

This manuscript was written early in the fourteenth century, two columns to the page, 71 lines to the column. The statement in the catalogue that it was written in the thirteenth century cannot be accepted in view of the date of the translation discussed above. The text begins with the rubricated illumination described above, and the first letter of each paragraph is decorated. The script is beautifully executed, but the abundance of abbreviations and the style of the scribe, who often does not allow for space between words, render reading difficult. The work is introduced with the statement: *tractatus rabi moysi abenmunyon quem domino et magnifico soldatis transmitunt* (sic).

**L4:** MS. Cod. Latin 5306 (Regimen: fol. 1–11v; Accidents: fol. 11r–17r) of the same library.

Written in the fifteenth century, two columns to the page, 48 lines to the column, the manuscript is legible and well preserved. A later hand added above the first column: *a Iudaeco converso Johanne traduct;* the same hand also inscribed the marginal note *in honor Bened. VIII*. The treatise on Accidents is identified by the scribe in a postscript as *de preservatione a melancolia passione*.

Of some interest is the apologetic introduction of John de Capua contained in the manuscripts cited above. Freely translated, it reads as follows:

Says the translator: I turn away from darkness, led from Jewish depravity into the serene splendor of the Catholic Faith by the sole mercy of the Omnipotent Father to me; the inflowing of His special grace, that Christ is the true God's only begotten, I formerly refused to confess for a long time. The hand of the Same, wrought graciously upon me, not only taught me in a sufficient tongue the whole volume of the Old Testament of the early patriarchs and prophets, and other books that are unto this day in the possession of the Jews, but also that language of the Latins in which are written the various volumes of the saints and many sciences that are so innumerable. It instructed my intellect, finally, to translate from this to that what is contained in both, according to the capacity of my mind, in a manner clear, refulgent and convenient. Thus directing my studies upon those things specially written in Hebrew, I have found them in diverse volumes to be many, great and useful in no small degree. But, passing over these things for the time being, it is my intention for the present to translate that work which is designated by the title On the Regimen of Health. For, in it, sufficiently and learnedly, the conservation of human health is taught. By considering, therefore, the great purpose of this work, many perils in the course of human life might be avoided, and health induced, to the honor and praise of the most holy Divine Trinity, and to the praise, health prolongation of days, fortitude of spirit and strength of body of the most holy Father, the Lord Pope B. VIII, whose divine person be ever protected by divine aid and mercy, and whose good and holy life be prolonged.
for his own, and for the common good of the entire holy Christian Church.

I, John, humble in Christ, though my ability is limited as mentioned above, have tried, putting forth my hand, to translate the above work from the Hebrew tongue into Latin. Therefore, most holy Father and Lord, deign to accept this little work from the hand of a new Christian, especially dedicated though unworthy, and deposit it in the papal archives to accompany the number of other medical books.

With the advent of printing, the Latin translation of De Reginime Sanitatis appeared in several editions indicating the measure of its popularity. Muntner (45, 48) and Steinschneider (60) report no less than six editions published between 1477 and 1535. Having examined these editions, we agree with Muntner that they are identical. The following printed version was utilized:


This printed version occupies nine pages, two columns to the page, 77 lines to the column. The work is titled tracitus Rabbi Moysi quem domino et magnifico soldano Babilonie transmisit. There is no mention of the translator’s introduction contained in the manuscripts. Only the first part of De Causis Accidentium appears in the printed version, and it is incorporated as the fifth chapter of the Regimen.

The first half of the first tract of the printed version of the Regimen differs radically from the translation of John de Capua, but beginning with the sentence Nos vero adducemus, at the end of the paragraph initiating the discussion of the quality of the good nutrients, all Latin versions coincide. This first part of the printed version was undoubtedly translated from the Hebrew, and it is more than likely the work of a translator possessing a copy of De Capua’s version from which the beginning was lost.

Some aspects of this difference give rise to interesting speculations. Intriguing is the difference in the translation of the dictum of Hippocrates cited in the very beginning of the first chapter. The Arabic text quotes Hippocrates’ statement “that the conservation of health lies in abstaining from repletion and forsaking the disinclination to exertion.” The Hebrew renders the latter phrase “avoiding collapse from over-exertion.” This error in translation, due perhaps to an overzealous transliteration from the Arabic, is carried into the next sentence where the same idea is paraphrased as “that a man should not surfeit himself and should not neglect exercise.” Here the Hebrew further corrupts the sentence by adding, “that a man should not surfeit himself nor over-exert himself so that he would not corrupt the benefit of exercise.” The printed Latin version adheres closely to the Hebrew rendition, but the manuscript version of John de Capua corresponds exactly to the correct Arabic text. Since there is no evidence that De Capua’s translation was edited in accordance with the Arabic text, the source of his version remains puzzling. We can provide only two possible explanations. Either the Hebrew translation available to John de Capua was more accurate, and the presently available versions were altered by scribes who did not grasp the meaning of the text, or, John de Capua understood the text correctly in terms of the contemporary usage of the Hebrew. The possibility that there was another, more accurate, Hebrew translation which remains unknown cannot be accepted in view of the fact that in most places the Latin corresponds exactly to the version of Ibn Tibbon.

It is apparently this variation in the first tract that gave rise to the mistaken notion reported repeatedly in the literature that there exists a second Latin translation attributed by some to Armengaud Blasius of Montpellier. This translation was supposed to be found in MS. 178/211 of the library of Gonville and Caius College, Cambridge, England. Having examined a microfilm of this manuscript, which indeed contains translations by Blasius, it can be affirmed that it does not contain Maimonides’ De Reginime Sanitatis but rather his treatise on asthma.

The Latin texts of De Causis Accidentium, in general, are in agreement with the Arabic text, allowing for errors attributable to the scribes. Since John de Capua translated from Hebrew and not from Arabic, it is evident that there existed at one time a complete and accurate Hebrew translation of this treatise, and that it was made from the Arabic. The fragmentary nature of the presently available Hebrew text, however, makes it difficult to establish whether these are sections from the original version, or from another translation, or possibly from a later rendition from the Latin; the usefulness of the Hebrew text to us was therefore greatly restricted.

In comparing our translation of the Arabic with the Hebrew and Latin versions, we have sought to clarify difficult passages, and to ascertain that our understanding of the text corresponds to the medical concepts prevailing at the time of its composition. With respect to the latter, we have relied heavily upon the Latin in selecting an English terminology stemming from a contemporary source, although reliance on Latin stems is often restricted to a considerable extent by the gradual change in meaning and usage that have taken place with time. Thus, for instance, we could not use such phrases as “comfort the vigor,” although the word comfort stems from the Latin confortare—to strengthen, since to the modern reader the term comfort conveys the idea of consolation rather than strengthening. The term “accident” (Arabic: a’arād)
poses a different problem. Although the word "event" or "symptom" can at times substitute for "accident," neither conveys accurately the exact meaning of the latter. In its medieval medical-philosophical usage, the term "accident" connotes a phenomenon, change, or quality which, unlike "essence," is present by chance, and is therefore not essential to our conception of a given substance or object. While some accidents can therefore be classified as symptoms, others could not possibly be considered symptoms in the usual medical sense of the word. Hence, we often had to retain the term accident even though it might convey to the casual reader a somewhat different meaning.

In translating passages containing physiological explanations, we have resorted to terminology which would best preserve the Galenical concepts prevailing in Maimonides' days. The three pneumas have been rendered as "natural," "vital," and "psychic," because the Latin rendition of the latter as "animal," although acceptable in its archaic meaning and in such English terms as "animate," might mislead the modern reader to whom "animal spirit" conveys a quite different meaning. Furthermore, although the Arabic nafs and the Hebrew nefesh usually correspond to the English "soul," we have preferred the Greek psyche because of the accepted philosophical and theological attributes of "soul" which do not necessarily reflect the original meaning of such terms as psyche or "animal spirit."

The weights listed in the text were translated whenever possible. Thus the Arabic raš, awqiyyak, dīrham, and mithgāl, were rendered "pound," "ounce," "dram," and "miskal," respectively. The reader should bear in mind that these are Troy weights comprising twelve drams to the ounce, and twelve ounces to the pound. The dram is equivalent to seventenths of a miskal. The miskal, identical in weight to the dinar, corresponds, more or less, to the Attic drachma. The ānāq, which has no English equivalent, is one sixth of a dram. In summary, there are six ānāqs to the dram, approximately one and a half drams to the miskal, twelve drams to the ounce, and twelve ounces to the pound. The monetary dram and ānāq are nine-tenths of the ponderal dram and ānāq, respectively.

Since the present work was not meant to be a critical presentation of the text, grammatical annotations are not included, and footnotes appear only where we deemed them necessary for the understanding of the text or whenever the differences among the Arabic texts and among the various translations should be brought to the attention of the reader. For the sake of brevity, the manuscripts are designated in the footnotes by a letter indicating their language and the serial number appearing before the description of each manuscript above. The designation of the manuscript is as follows:

- A1 Pocock 313 (Oxford)
- A2 Hunt 427 (Oxford)
- A3 EMC 789 (N. Y.)
- A4 Hebrew 1202 (Paris)
- H1 Opp. 685 (Oxford)
- H2 Opp. Add. 4° 108 (Oxford)
- H3 Or. Quat. 545 (Tübingen)
- H4 Or. Quat. 836 (Tübingen)
- H5 Cod. Hebr. 111 (Munich)
- H6 Hebrew 1191 (Paris)

- L1 Fr. 571–6 (Jerusalem)
- L2 Palatine-Latin 1298 (Vatican)
- L3 Cod. Latin 2280 (Vienna)
- L4 Cod. Latin 5306 (Vienna)
- L5 The Printed Latin (Washington)

The transliteration of Arabic and Hebrew words is in accordance with the rules approved by the Library of Congress (Bulletin 49, Nov. 1958, and rule 43, Feb. 1923). The sections of the treatise on Accidents which are extant in the Hebrew (H4) are designated by (H) at the end of the appropriate paragraphs.

A glossary of drugs, vegetables, fruits, and animals listed in this text is provided for the reader's convenience at the end of the text.

We are grateful indebted to the various libraries cited, for the permission to examine the manuscripts mentioned and for the microfilms and photostats provided for our work, and to the U. S. National Library of Medicine for lending us the volume of Ferari di Gradi's Consilium and the works of Kroner (26, 27).

In the absence of al-Afdl's letters, both these treatises appear to be incomplete; nonetheless, these unique works provide us a source of information which, however indirectly, illustrates the medical problems presented before the physicians of that age. They also provide a record of the opinions held by this great physician-philosopher who was obviously so esteemed in his own age that he was called upon to referee the conflicting opinions of his colleagues—at no time an enviable role.

In presenting these works to the English-speaking reader, we have attempted to achieve two goals: to provide an accurate and sound translation, and to preserve as much as possible the flavor of the medieval Arabic text, its terminology, expressions, and syntax. We hope that thus we have done justice both to the author and the reader.
REFERENCES

21. Ibn Abi Usaid. 1884. 'Uyūn al Anbā' fi Tabagāt al Atibbā' (Sources of Information on the Classes of the Physicians), A. Müller, ed. (Königsberg, 1884), Book II: pp. 117–118.
43. ———. 1940. Sefer ha-Qazaret (the book on Asthma), S. Muntner, ed. (Jerusalem, Reuben Mass Pub.).
44. ———. 1955. be-Hanhagat ha-Beri'ut (on the regimen of health), S. Muntner, ed. (Jerusalem, Mossad Harav Kook).
45. ———. 1959. Pirgey Moshe bi-Refu'ah (Moses' medical aphorisms), S. Muntner, ed. (Jerusalem, Mossad Harav Kook).
52. Oryan, M. 1956. ha-Moreh le-Dorot (a teacher unto generations) (Jerusalem, Mossad Harav Kook).
60. —— 1893. Die Hebraeischen Übersetzungen des Mittelalters und die Juden als Dolmetscher (Graz, Academische Druck-U. Verlagsanstalt; Reprinted, 1956).
FI TADBĪR AL-ṢIHḤAH

The Treatise Sent to the King al-ʿAfḍal, son of Saladin, concerning

THE REGIMEN OF HEALTH

In the Name of God, Merciful and Compassionate!

The high command of the royal al-ʿAfḍal, may God elevate and sustain him, has reached this minor Servant Mūsā ibn ʿUbayd Allāh 1 the Israelite of Cordova. Sent by the hand of a messenger, it requests of him a regimen to be relied upon in curing the ailments that occur in our Master, may God keep ailments afar from his high abode, and may health and peace accompany him forever. The messenger bringing this exalted command relates that our Master complains of the dryness of his stools 2 which are often so hard that they cannot be moved except with effort. 3 He also mentions the occasional occurrence of melancholy, evil thoughts, desire for solitude, 4 and foreboding of death. In addition, he has had much indigestion and most of the time his digestion is feeble. 5 This is what he mentions. 6

This Servant has thus seen fit to include in this discourse four chapters:

The first chapter is on the regimen of health in general, applicable to all men, in a few words.

The second chapter is on the regimen of the sick in general, when a physician cannot be found, or when the physician available is deficient and his knowledge is not to be trusted.

The third chapter is on the Regimen of our Master in particular, according to the symptoms of which he complains.

The fourth chapter consists of sections in the form of advice that is beneficial in general and in particular, for the healthy and for the sick, and in all places at all times.

Let whoever examines this treatise and all that we have composed, not censure us because we have already mentioned some of the topics of this discourse in other treatises which we have composed earlier, for each treatise was written to comply with the request of an individual, not as a composition intended to teach the Art of Healing to all men.

God is implored for success in what is right!

THE FIRST CHAPTER

On the Regimen of Health in General, Applicable to all Men, in a few Words

Our intention in this chapter is to set forth rules that are easy to follow, and which are of great value in the regimen of health. These are universal precepts of the great physicians. Among these is the statement of Hippocrates that the conservation of health lies in abstaining from repletion and forsaking the disinclination to exertion. 7 Note how Hippocrates embraces the entire regimen of health in two dicta, that is, that a man should not surfeit himself and should not neglect exercise. 8 This is because repletion, that is, eating until the appetite departs and repugnance commences, requires filling the stomach to the utmost of its capacity, and distending it. When any organ becomes distended, its connections are loosened and its vigor is necessarily weakened. The stomach will in no wise digest such a meal adequately; indolence, 9 feebleness of movement and heaviness of the meal will occur, and even more so when much water is drunk after the satiating meal. This is necessarily required in repletion, for nature requires water to float the meal and ease the stomach.

Perforce, there is no escape from the occurrence of one of two things: either an indigestion, a severe one causing death or a mild one causing illness, or corruption of the digestion. The kinds of corruption vary

1 'Ubayd Allāh—literally, “the Servant of God”—a variant of ʿAbdallāh; most Hebrew and Latin versions translate this name in its separate form, rendering it ‘evod elohim and servus dei respectively.

2 Arabic: fabi’—literally, “nature”—a euphemism for feces. All Arabic, Hebrew and the Latin versions use the term “nature.” Since there is no such usage in English, where this word has indeed quite another connotation, we chose the term “stools,” a euphemism approached closely by assellare, a term which is also employed in the Latin text.

3 L—“he cannot go to the stool except with the greatest trial and labor.”

4 L—“he wishes to be alone.”

5 L—“his stomach is debilitated so much that food corrupts in it without complete digestion.”

6 Preoccupation with the bowel as a source of numerous symptoms and disorders dates back to antiquity. In fact, the earliest attempts at a rational explanation of the etiology of disease ascribed the origin of disease to the ascending products of decomposition and putrefaction of residues in the bowel—the WHDW of Ancient Egypt, and the Aristotelian concept of Perittoma. It is interesting, if not altogether amusing, that these concepts and ideas are still much in evidence, and that it is commonly believed, even in this day and age, that residues retained in the bowel can generate such symptoms as headache, malaise, depression, and melancholy.

7 H—“in guarding against satiety and avoiding the collapse from exertion”; L5—“avoidance of great repletion and superfluous labor.”

8 H—“a man should not overeat and should not overwork so that he would not lose the benefit of the exercise.” L5 renders it in accordance with the Hebrew. Both thus modify the text to avoid contradicting their version of the preceding statement.

9 L—dolor, pain.
greatly according to the various kinds of food eaten, according to the various temperaments, and according to the various predispositions of the organs to disease. When the meal is digested poorly in the stomach, its second digestion in the liver is bound also to be bad, and its third digestion in all the organs will perform be worst of all. This is the cause of all kinds of diseases in great variety. Galen has said in these words: He who wishes to avoid all illness should take care to avoid indigestion, and should not move about after the meal. Because of this grave danger, all physicians have cautioned against eating to repletion and ordered one to withdraw his hand from the meal while appetite still remains, before it departs, and to abstain from distending the stomach and overfilling it.

Physicians all agree, that taking a little food of bad quality is less harmful than taking much good and laudable food. This is because when a man takes bad foods and does not overeat, they are digested well, and the organs derive from them all that is beneficial. The expulsive faculty is strengthened and expels their evil superfluities, and no damage at all occurs, or if any occurs, it is not serious. But in repletion, even if it is with well prepared bread and laudable meat, the digestion will in no wise progress well; we have already mentioned the cause of this.

To guard against repletion, physicians have warned against eating many dishes and recommended limiting each meal to one dish, so that one does not overeat, and the appetite subsides before surfeit occurs. He will also be saved from a diversity of digestions, for different dishes are digested in different digestions, each dish according to its nature.

The view of this Servant regarding the determination of the quantity of food for anyone who wishes to conserve his health, is to take in the temperate season an amount that does not distend the stomach, or burden it and impede the digestion. When it becomes clear that this is a good measure, inasmuch as it does not cause evil eructation or arouse thirst, but is pleasant and light, making the stools moderate, continuous and tending slightly toward softness, then this is the proper measure to keep on taking.

When the weather becomes warmer, one should reduce the amount of food, since in the summer the digestions are feeble because of the dispersal of the natural heat. When the weather turns cooler, the amount should be increased, for in the winter the digestions are strong because of the increase of the natural heat in the interior of the body, owing to the constriction of the pores, and satiety will not be reached.

This Servant says: If man were to conduct himself as he manages the animal he rides, he would be safeguarded from many ailments. That is, you find no one who throws fodder to his animal haphazardly, but rather he measures it out to her according to her tolerance. Yet he himself eats indifferently, without measure. Moreover, he takes into consideration the activity of his animal and exercises her, so that she does not stand still forever and be ruined. Yet he does not do this for himself, or pay attention to the exercise of his own body, which is the cornerstone of the conservation of health and the repulsion of most ailments.

Long before us, Hippocrates stated that the maintenance of health lies in forsaking the disinclination to exertion. Nothing is to be found that can substitute for exercise in any way, because in exercise the natural heat flames up and all the superfluities are expelled, while at rest the flame of the natural heat subsides and superfluities are engendered in the body, even though the food is of the very best quality and is moderate in quantity. And exercise will expel the harm done by most of the bad regimens that most men follow.

Not all motion is exercise to the physicians. What is termed exercise is powerful or rapid motion or a combination of both, that is, vigorous motion with which the respiration alters, and one begins to heave sighs. Whatever exceeds this is exertion, that is to say that very strong exercise is called exertion. Although not everyone can endure exertion, or needs it, it is nonetheless better in the conservation of health than the omission of exercise.

10 Galen explained the physiology of nutrition in terms of three orders of digestion: the first concoction taking place in the stomach, the second in the liver—the major nutritive organ where the food is turned into blood—and the third in the rest of the organs which the nutriments reach via the veins.
11 A3—members.
12 Galenical physiology ascribed to the bowel four faculties, or powers: the "attractive" and the "repulsive" which, together, account for selective absorption, the "retentive" which holds the residues inside the gut, and the "expulsive" which expels the superfluities, in this case the feaces, to the outside.
13 The belief, dating back to Hippocrates, that different foods require different "digestions" and produce different "superfluities," accounts for the great emphasis which the ancient physicians placed on proper and selective diet.
14 A1—"quality."
15 Arabic: fi ḥa ḫ tīdāl al-ha wa, literally, "at the time of the temperance of the air." The Hebrew and the Latin render it "hour," rather than "season."
16 The Hebrew adds here, "he should choose food that is good for his stools," as does the Latin.
to exercise except upon an empty stomach and after expulsion of the superfluities, that is, the urine and the feces.\textsuperscript{25} Nor should one exercise in the intense heat or in the intense cold. The best time for exercise is at the beginning of the day, upon awaking from sleep, and after the expulsion of the superfluities, as we have mentioned.

Among the sayings of Galen, embracing the regimen of health, it is said: Just as motion before the meal is all good, so motion after the meal is all evil. You should know that any movement after the meal is most harmful; by that I mean no strenuous movement,\textsuperscript{26} no coitus, and no bath, because these are very harmful, especially to those whose veins are by nature narrow and thin.\textsuperscript{27} To them the danger is grave. But it is permissible after the meal to walk a little from one side of the room to another, so that the meal will settle to the bottom of the stomach and remain there until it is digested.\textsuperscript{28} Sleep aids the digestion, and especially in those who are accustomed to sleep during the day.

It is one of the rules of the regimen of health not to introduce one meal upon another, and not to eat except after true hunger, when the stomach is empty, the saliva is drawn into the mouth, and the hunger is justified. This is the time when a meal is beneficial. One should not drink water except after genuine thirst; that is to say, that one should be hungry or thirsty, he should wait a while since a false hunger and also a false thirst can arise from an evil and mordicant humor vexing the mouth of the stomach.\textsuperscript{29} Should these subside, one should not take anything, but if this hunger or thirst increases, one should then eat or drink. Drinking water following a meal is bad, corrupting the digestion, except when one is accustomed to it. One should not drink anything with the meal, or after it, as long as it is in the stomach, except pure, cold water; it should not be mixed with anything.

It is one of the rules of the regimen of health not to retain the superfluities in any way; rather, when there is need to expel them, one should hasten to do so.

It is not proper to take food, or enter a bath, or copulate, or sleep, or exercise, until one takes account of himself and tries to expel the superfluities; following these five things one should also take account of himself.

Another rule in the regimen of health is to pay attention to the quality of the food. This is a very broad topic, requiring a knowledge of the nature of all the foods, of each and every kind. The physicians have already compiled lengthy books on this subject, and they are justified, for it is a very important matter. But considering the intention of this discourse, and taking into account the foods that are customary among us, and in great abundance, I shall offer some beneficial generalizations.

One of these is that the good foods, that ought to be adopted by every one who desires the continuation of his health, are wheaten bread properly prepared, the meat of sheep\textsuperscript{30} that are one or two years old, the meat of the chicken, the francolin, the grouse, the turtle dove and the partridge, and the yolk of the hen's egg. What I mean by properly prepared bread is that is should be made from fully ripened wheat, dried of its superfluous moisture, in which spoilage from age has not begun. The bread should be made of coarse flour; that is to say, the husk should not be removed and the bran should not be refined by sifting.\textsuperscript{31} It should be well raised and noticeably salty. It should be well worked during kneading, and should be baked in the oven. This is the bread that to the physicians is properly prepared; it is the best of foods.

You ought to know that all that is made from wheat except this bread is in no wise good food. On the contrary, very bad foods are made from it, such as unleavened bread, dough cooked like noodles and vermicelli—that which the Persians call putmáj, flour that is cooked like pap and porridge,\textsuperscript{32} dough that is fried like a pancake, and bread that is kneaded in olive oil or in any other oil. All these are very bad nutrients for all men.\textsuperscript{33} Likewise, white bread, bread made of semolina, and the harisah,\textsuperscript{34} are not good nutrients. Although they are good once they are digested, they require a stomach with a powerful digestion, and only then do they nourish well and abundantly.

Those meats that we have mentioned are not all of the same nature, and are not equally laudable. The best meat of cattle\textsuperscript{35} is that of the sheep\textsuperscript{36} that graze...
on the foothills, are one or two years old, and are moderately fat.\footnote{37} The best of this meat is the fore-quarter,\footnote{38} and that which adheres to the bone. All that is in the abdomen is bad. Fat is all bad; it surfeits, corrupts the digestion, suppresses the appetite and generates phlegmy humor. Likewise, the head of all animals has more superfluities than the rest of their members. The extremities of animals, by that I mean the shanks,\footnote{39} are devoid of superfluities and their nutritive quality is not bad. Lamb has many superfluities, and there is no good in it, but the suckling kid is a good nutrient and is rapidly digested. The meat of the fowl in general is lighter than the meat of cattle, and is digested faster. The best of the meat of the fowl is that which we have mentioned.

Freshly drawn milk is a good nutrient for those in whom it does not sour in the stomach, or resolve into flatus, or give rise to ventosity in the loins. One ought to add to it a little honey with a grain of salt, as Galen has mentioned, so that it will not curdle in the stomach. The best of all milk is the thinnest, such as goat’s milk;\footnote{40} the milk of the she-camel\footnote{41} is also good.

All that is made from milk or mixed with it is very bad, that is to say, the curdled, the mixed, and the strained;\footnote{42} similarly, all that is cooked from milk or cooked in it are bad foods. As for cheese, it is a very bad and heavy nutrient, excepting the cheese that is fresh, white in color, sweet of taste and light in fat. Galen says that its nourishment is good, and praises it, but all that is similar to it is very bad, and particularly aged cheese rich in fat. As for butter and clarified butter, there is no evil in their nourishment; they are permissible to all men.

Bees’ honey is good nourishment for the old, but is contraindicated for the young, and especially for those of hot temperament, for it will change into yellow bile.\footnote{43}

Most fish are bad nutrients, especially for those of humid temperament and for the aged. The large of body among them, the salted, those that congregate in bad water, and those that abound in fat and viscosity are particularly bad.\footnote{44} But the fish that are small of body, white and frangible of flesh, sweet of taste, from the sea or running waters, like those called mullet or pilchard, are not bad nutriments; nonetheless, one should restrict them.\footnote{45}

It is known among all physicians, that the best of all nutriments is that which was prohibited in Islam.\footnote{46} It combines the laudable qualities of all foods, because it nourishes with good, abundant, and delicate nourishment, it is quick to be digested, and at the same time it aids the digestion, expels the superfluities from the pores, and pours forth the urine and the sweat. It has other virtues besides these, and many advantages already enumerated by the physicians. But words about that which is illicit are futile, and therefore we have omitted mentioning its varieties and the manner of its consumption from the standpoint of the regimen of health.

Those vegetables that are generally bad for all people, are garlic, onion, leek, radish, cabbage, and eggplant; these are very bad for whoever wishes to conserve his health. The cucumber and the gourd are less harmful. As for the yellow melon, if it is eaten alone at the beginning of the day on an empty stomach, and there is no evil humor present in the stomach nor is there a bad temperament in it, then it will be digested well, and it will cool the body a little, pour forth the urine, cleanse the veins, and empty what is in them.\footnote{47} On such occasions its nourishment will not be bad; I have mentioned this only because people eat much of it.

As to fresh fruits, it should be known that all that the trees produce are generally bad nourishment for everyone; some, moreover, excel in badness. Among these are those that are very bad nutrients like the carob, the lota fruit and the azarole, and those of lesser badness, close to being good, like figs and grapes. Galen says that figs and grapes are like princes to the rest of the fruits, and that they are less evil; nonetheless, they are not exempt from the censure that attaches to the consumption of all fruit.\footnote{48} Let no one mistake my statement that all that the tree produces is of evil nourishment, since conserves of fruits, their

4 H & L add here "for, they increase the humidity."
43 The Arabic manuscripts vary greatly in this passage. A1 omits "sweet"; A3 & A4 render it "fresh" rather than "from the sea"; A4— "and which is not in running water"; A3 omits "pilchard."
44 I.e., Wine.
47 L1—"clean the veins of the humors which are in them"; L3, L4 & L5—"cleanse the nerves of their humors."
45 All translations render this sentence as a physiological explanation of the preceding. Hence the Hebrew, and subsequently the Latin, translate freely: "But the blood generated from fruits is not good." Kroner follows suit. This is hardly consistent with the preceding text. The error is due to the use of the word dam (blood) as in MSS. A1 & A4, instead of dhamm (blame) as in MS. A2 & A3.
THE SECOND CHAPTER

On the Regimen of the Sick in General when a Physician cannot be Found or when the Physician Available is Deficient and his Knowledge is not to be Trusted

The sages have already observed that the practice of medicine is most necessary for man, especially for the people of the cities which abound in food, and that the physician cannot be dispensed with at any time, or in any way. This is because the art of medicine comprises three regimens, of which the first and most noble is the regimen of the healthy, that is, the regimen of the state of health so that it is not lost. The second is the regimen of the sick, that is, the employment of the craft to restore lost health; this is known as the art of cure. The third is the regimen Galen calls vivification, that is, the regimen of those who are neither in perfectly sound health, nor sick, such as the regimen of the convalescent and the old.

It is therefore manifest that man requires the guidance of a physician in all circumstances, and at all times. Nevertheless, the need for the physician in time of illness is more intense, and the lack of the physician at that time is most perilous. Because of this the populace supposes that a physician is not needed except during illness, not otherwise. Yet frequently a man falls sick while on a journey, or in a town wherein there is no physician, or when, if available, the physician's knowledge is not to be trusted. Therefore this Servant has seen fit to give advice as to what ought to be done in such a case.

I say regarding this, that Galen has already explained to us that all the ancient Greeks, when the disease was obscure to them, would not treat it with anything, rather they would relinquish the sick to Nature, for she is sufficient in the cure of diseases. Hippocrates has already dilated in numerous places in his books in commendation of Nature, stating that she is dexterous and sagacious in doing what is proper, that she requires nothing in the cure of ailments, and that the physician is needed only to sustain her, not otherwise, and to follow in her path.

Al-Rāzi has said in one of his notable treatises, that if the disease is stronger than the vigor of the sick, there is no hope of saving them and a physician

49 Arabic: aḥlā al-nagār; the Latin rendition, "speculators," cannot be used because of its modern connotation.

52 H—"because he husbands ailments due to the abundance of foods."

62 Arabic: al-in'āš; H—"taking advice and performing accordingly in order to restore health."

63 "Populace"—the Hebrew and the Latin render it "fools."

64 Arabic: al-in'dsh; H—"taking advice and performing accordingly in order to restore health."

65 "Populace"—the Hebrew and the Latin render it "fools."

66 Abū Bakr Muhammad ibn Zakariya al-Rāzi, known in the West as Rhazes (850–932), was one of the foremost physicians of old, and a prolific writer, considered together with Avicenna as the very best in Persian and Arabic medicine.
will not be of any benefit at all. If the vigor of the sick is stronger than the strength of the disease, there is no need for the physician to treat them. But if the disease and the vigor are equal, then the physician is needed to aid the vigor. This is so when the physician is accomplished, and knows how to aid Nature, assist her and remove what impedes her. Most physicians err greatly in this, supposing that they are aiding the vigor, yet they destroy her, or hinder her, or confuse her ways. For this reason, Aristotle says in his book on Perception and the Perceptible that most of those who die, die from the treatment, because of the ignorance of most physicians about Nature. Physicians mean by Nature, in this connection, that power which governs the bodies of living creatures; its existence and the soundness of its action have been demonstrated in the learned books of the wisdom of the ancients. For these reasons kings gather numerous physicians and select from among them those endowed with wisdom, and those of long experience, for perhaps by the coming together of such minds they will be saved from error.

It has become manifest from all that we have presented above, that it is proper to relinquish the sick to Nature when an accomplished physician cannot be found. The meaning of leaving it to Nature is that one should not take remedies other than those customary for the healthy to take, or forsake nourishment altogether; when thirsty one should drink and when hungry one should eat, at whatever time it is his habit to eat. At that time he should eat the lightest meal that he is accustomed to eat. One should know that even if attended by a well-known physician, or several physicians, he should not submit, and take the strong remedies except on the advice of a physician who is very accomplished, whose knowledge has been verified, and whose experience has been attested. Otherwise, one should, when ill, employ the weak remedies, not the strong.

I shall declare what the strong remedies are. They are: phlebotomy with the extraction of much blood; evacuation by violently attractive purgatives such as the pulp of the colocynth and the Mahmūdāh; evacuation by vomiting such as the two hellebores and nux vomica; sharp clysters containing colocynth pulp, sagapenum; cas-toreum, and their like; the deprivation of nourishment in its entirety, and ordering the sick not to consume anything at all; the prohibition of drinking water and the endurance of thirst; taking the great electuaries of multiple adjuvants such as theriacs, the Mithridatic and the Theodoretic, and their like. All these are very strong remedies, and one ought not to have a thing to do with them except on the advice of a physician of surpassing knowledge, because all these things, when they hit their mark, cure the sick instantaneously or within a short time, or deliver them from death, but if they miss their mark, they usually kill at once, or they engender an illness that ultimately leads its host to death; therefore one should beware of them.

As for the weak medications, they are: the extraction of blood by scarification of the legs or the upper parts of the body; softening the belly with the two mannas, prunes, cherries, violets, refined syrup of roses; and their like; emesis with barley water, or oxymel, or radish, or orach seeds, or melon roots, and their like; mild clysters, like the injection of barley gruel, or a decoction of bran, or aquamel, or oil alone, and the like of these; lightening the food by taking the customary drinks prepared from sugar, or honey, or barley water, or kashk of barley, or soaked bread crumbs, or a little bread in a broth for the sick; medication with the healthy medicaments, that is to say, things that are often taken by the healthy like the renowned syrups, such as the syrups of oxymel, roses, lemon, violet, and their like, and the preserves that are similar, that is, preserved roses, preserved violets, preserved myrobalans, and their like; taking decoctions compounded of light and safe medicaments, like liquorice, maidenhair, oxotongue, endive seeds, citron rind, sea holly, asparagus roots, the bark of endive roots, fennel, parsley, seeds of the gourd, purslane seeds, cucumber seeds, melon seeds, the stem of the marshmallow and its seeds, and their like; infusions compounded from the fruits, seeds and flowers that are customary for the healthy to take, and infusion of tamarind. All these are light rem-

---

67 Arabic: kilāb al-bas wa-al-maḥsūs; the Latin lists the title as de sensu et sensato.
68 Theriac—Any of numerous simple and compound antidotes to poisons and poisonous bites. In the belief that repetitious consumption of small doses of a specific theriac confers immunity against a specific poison, various complex theriacs were developed by individuals who hoped to gain thereby lasting immunity against any poison—human or animal. Of this variety of theriaca, two are mentioned in the text: the Mithridatic and the Theodoretic (see Glossary under “theriac”).
69 The Hebrew and subsequently the Latin, render this “chilled syrup of roses.” This error could have well been due either to the similarity between the Arabic mukarrar—refined, the Arabic maqūr—“cool,” and the Hebrew meqūr—“chilled,” or to the similarity between the Hebrew meseṭūn—“refined,” and meṣṭūn—“chilled.”
70 Al—amusingly, reads here “currants alone,” a plausible scribe’s error rendering sūt as zabīb.
71 Kassh—a thick pottage made of wheat or barley; it is described in detail in the Accidents.
72 Al—“bread with seeds.”
edies; if they hit their mark they benefit and cure the mild illnesses, and they can in time cure severe illnesses. If they miss their mark, they do not kill, or cause great damage; you find therefore that most physicians resort to these and their like among the remedies in seeking security.69

As for the evacuation with the hiera,70 the agaric, the turpeth, and their like, and likewise with the cassia fistula, the situation is an intermediate one. They are not of the order of the strong purgatives nor are they weak medications. The cassia fistula, even though it might produce distress and often tenesmus, is nevertheless very reliable. Similarly, agaric, although it is reliable71 as a purgative, can nevertheless cause very serious harm because of its acuity and the vehemence of its drying whenever we need to moisten either the entire body or a member thereof. Similarly, the harm of the hiera and the itrīfāl72 in the feverish is grave at most times.

Our warning against taking theriac and Mithridatium, except on the advice of an accomplished physician, is only for the sick. As for the healthy, it has already been mentioned that it is in accord with the regimen of health to take theriac every ten days. So have the physicians stated; yet there is not a tenet in the doctrines of medicine that is an absolute one, but for anything allowable there are necessary reservations, as in the instance mentioned regarding the taking of theriac every ten days in accordance with the regimen of health. Thus, it should not be taken by one of hot temperament, nor at a time of intense heat, nor by one who has in his stomach an evil humor of any kind. As to the statement that vomiting once or twice a month is very good in the regimen of health, it also has reservations, and these are that the person should not have a feeble chest, or be one whose head becomes congested easily, or have frequent headaches. Eversion at the time of intense cold is not beneficial. Thus, any given tenet has reservations, as we have illustrated.

Our instruction to use the weak medicaments, some points of which we have mentioned, when a skilled physician cannot be found, should be followed, whether the physician in attendance, only when necessary, because even small quantities of medicaments can also be harmful, should the physician err in them, and apply them out of place. Galen has already explained

to us that at times a patient is ordered to drink water until satiated, and his body becomes wet with sweat, his stools soften, his fever departs, and he recovers completely, while at other times a patient is allowed a draught of water at an improper time, and this causes the loss of the patient or his acquisition of a chronic disease from which he never recovers. All the conditions in which the drinking of water73 is to be permitted or prohibited have already been determined. If this is the case with drinking water, how much more so with other things!

When the indications are equivocal and it is obscure to us whether drinking water ought to be permitted or prohibited, the sick should be permitted to drink water, but not to excess.74 Likewise, when uncertain whether to feed the sick or prohibit food altogether, we should feed them with light nourishment. It follows from this that it is proper that the regimen, when a skillful physician cannot be found, should always be in accord with what is customary in health. One should take a little of what is customary, and always maintain his strength by taking nourishment, either light nourishment like chicken soup, meat broth, yolk of soft-boiled eggs, and a drink for him who may take it, or those nourishments that are heavier than these, like meat of chicken, and bread.

One should never neglect strengthening the Natural Faculty75 with nourishment, strengthening the Psychic Faculty with good odors, either the hot, like musk, ambergris and basil in cold diseases, or the cold, like rose, water lily, myrtle and violet in hot ailments, and strengthening the Vital Faculty with musical instruments, by bringing the patient joyful news that cheers him and dilates his heart, by telling tales that divert him and make him laugh, and by the presence of someone whose company cheers him. All these must be done in all illnesses whenever there is no physician to arrange things as is proper.

The physicians have already admonished all practitioners not to employ medicaments if they can manage the sick by regulating nourishment alone. If they cannot manage without medication, they should manage with things that are customary, like the nourishing medicaments or the nutrients that are medicinal. If they cannot do without what is solely medication, they should begin with the weaker medicaments. If this suffices, it is good; should it not suffice, they should repair to the stronger in potency. Whenever it is possible to manage with a simple medicament they should not manage with the com-

69 H—"fleeing from doubt and seeking peace."
70 The Arabic ṣayrīf, a transcription of the Greek iera, denotes any of several aperient remedies. From the context, however, it appears that the reference here is to a specific medication, and both the Hebrew and the Latin render it Hieria Picra (see Glossary). The Hiera Picra, also known as "hickery pickery" and "holy bitter" (a translation of the Greek iera pikra), dates back to antiquity and with "theriac" and the "sacred sealed earth" followed from this that it is proper that the regimen, when a skillful physician cannot be found, should always be in accord with what is customary in health. One should take a little of what is customary, and always maintain his strength by taking nourishment, either light nourishment like chicken soup, meat broth, yolk of soft-boiled eggs, and a drink for him who may take it, or those nourishments that are heavier than these, like meat of chicken, and bread. One should never neglect strengthening the Natural Faculty with nourishment, strengthening the Psychic Faculty with good odors, either the hot, like musk, ambergris and basil in cold diseases, or the cold, like rose, water lily, myrtle and violet in hot ailments, and strengthening the Vital Faculty with musical instruments, by bringing the patient joyful news that cheers him and dilates his heart, by telling tales that divert him and make him laugh, and by the presence of someone whose company cheers him. All these must be done in all illnesses whenever there is no physician to arrange things as is proper.

The physicians have already admonished all practitioners not to employ medicaments if they can manage the sick by regulating nourishment alone. If they cannot manage without medication, they should manage with things that are customary, like the nourishing medicaments or the nutrients that are medicinal. If they cannot do without what is solely medication, they should begin with the weaker medicaments. If this suffices, it is good; should it not suffice, they should repair to the stronger in potency. Whenever it is possible to manage with a simple medicament they should not manage with the com-

72 A2 adds here "until he is satiated."
73 Literally, "should not become well watered." A4 reads: "the sick should be permitted and not prohibited."
74 The three forces mentioned in this paragraph, are those attributed by Galenic physiology to the three pneumas, the Natural, the Vital and the Psychic, which were associated with the liver, the heart and the brain, respectively. The concept of the pneumas is further elaborated by the author in the beginning of the fourth chapter.
plexity. They should not resort to very complex medicaments except when absolutely necessary. And if this is an injunction in the laws of the accomplished physicians, how should it be when there is no physician? Indeed, it behooves one to be most diligent with what is customary among the lighter regimens. If this is an injunction in the laws of the accomplished physician, how should it be when there is no physician? It is therefore proper to strive to the utmost to keep the stools soft.

Abū Marwān ibn Zuhr,77 may God bless him, has said that the best thing for softening the stools is an infusion of rhubarb with tamarind. But what this minor Servant looks upon as the best with which to soften the stools when constipated, considering what was mentioned to him about the temperament of our Master, is to choose a lemon broth prepared with a fat hen, much carthamus, sugar, lemon juice, and beets in the water in which they were boiled.78 In addition, he should not neglect at mealtime to take herbs spiced in barley sauce and good olive oil before the food; thereafter our Master can take whatever food he chooses. Upon completing his meal, he should suck a quince, pear, apple, or a pomegranate with its seeds. Those herbs that he should take first are fennel, seven kernels. Steep the whole in one and a half pounds of hot water for a day and a night, boil, stir, and filter over twenty monetary drams of cassia fistula, four drams of almond oil and two ounces of sugar. He should take it, and endure patiently until the completion of its action; the corrective for it is a cooked rooster.81 If it is not the season for fresh roses, it should be filtered over three ounces of refined rose syrup.

I declare that he is right who might ponder over this treatise and ask why he should employ barberry seeds, which are constipating, in a preparation intended as a laxative. But he should know that barberry seeds have properties preventing the distress of the cassia fistula, and that they comfort the intestines so that tenesmus does not occur; this is what we have received from the Elders of the Art.82

The physicians have already mentioned the syrup of oxymel of roses as a purgative; it should also be in the possession of our Master, and he should take it to soften the stools in times of intense heat. This is its description: take a pound of wine vinegar, very sour, cast into it one hundred petals of fresh roses, and put it in the sun for a day. On the morrow, strain out the roses, discard them, and put in this vinegar other roses as above; do not cease to change the roses in this manner every day for forty days. This vinegar should be taken and thickened into a syrup, a pound of sugar to three ounces of this vinegar.

Ibn Zuhr has compounded a syrup of oxymel of currants which is very good; our Master should employ it occasionally during the summer. Its description is: take black currants, cleaned of their seeds, and throw half a pound of them into each pound of vinegar, and steep for two days.83 Then place it over a fire, boil vigorously, filter, and thicken this vinegar into an oxymel. This compound was indeed composed with good judgment, for the vinegar cuts the phlegm

80 Arabic: takajjar; literally “petrified,” become as hard as stone.
81 Literally, “and the departure from it is with a cooked rooster.” It appears to us that this is the corrective for the cassia fistula. The Hebrew makes this more definite by rendering it, “and afterwards he should eat a cooked rooster.” According to Dioscorides, “after ye purging, they give ye broth of an Hen or of fish, for to temperate ye sharpness of gawing” (The Greek Herbal of Dioscorides, R. T. Gunther, ed., N. Y., Hafner Pub. Co., 1959, p. 609).
82 Elders of the Art—the author apparently refers to his teachers in Andalusia and Fez.
83 A4—“one day.”

THE REGIMEN OF HEALTH
23

of roses. He should take it in the morning, and he should not eat thereafter until six hours of the day have passed.

If the stools become excessively hard,80 there is no alternative but to take cassia fistula. The manner of its taking is thus: take of oxtongue, four drams; liquorice peeled and crushed, maidenhair, and barberry seeds, of each three drams; marshmallow seeds, five drams; fresh roses when available, seven flowers; fennel, seven kernels. Steep the whole in one and a half pounds of hot water for a day and a night, boil, stir, and filter over twenty monetary drams of cassia fistula, four drams of almond oil and two ounces of sugar. He should take it, and endure patiently until the completion of its action; the corrective for it is a cooked rooster.81 If it is not the season for fresh roses, it should be filtered over three ounces of refined rose syrup.

I declare that he is right who might ponder over this treatise and ask why he should employ barberry seeds, which are constipating, in a preparation intended as a laxative. But he should know that barberry seeds have properties preventing the distress of the cassia fistula, and that they comfort the intestines so that tenesmus does not occur; this is what we have received from the Elders of the Art.82

The physicians have already mentioned the syrup of oxymel of roses as a purgative; it should also be in the possession of our Master, and he should take it to soften the stools in times of intense heat. This is its description: take a pound of wine vinegar, very sour, cast into it one hundred petals of fresh roses, and put it in the sun for a day. On the morrow, strain out the roses, discard them, and put in this vinegar other roses as above; do not cease to change the roses in this manner every day for forty days. This vinegar should be taken and thickened into a syrup, a pound of sugar to three ounces of this vinegar.

Ibn Zuhr has compounded a syrup of oxymel of currants which is very good; our Master should employ it occasionally during the summer. Its description is: take black currants, cleaned of their seeds, and throw half a pound of them into each pound of vinegar, and steep for two days.83 Then place it over a fire, boil vigorously, filter, and thicken this vinegar into an oxymel. This compound was indeed composed with good judgment, for the vinegar cuts the phlegm...
and opposes putrefaction of the humors with a resistance without equal. It is of a very subtle essence and it will cool the temperament; hence this oxymel is highly beneficial in all fevers. Nevertheless, the vinegar harms the liver greatly, injures it, and too much of them can inflame the blood. So, when the syrup is compounded from vinegar and currants, as that Notable has compounded it, we gain the advantages of the vinegar and are spared its damage to the liver, and we gain the advantages of the currants and are spared their heat. This is an extraordinary syrup, and it ought to be prepared.

This Servant has seen fit to compound for our master two syrups and an electuary in accordance with those symptoms that were mentioned. One of the two syrups should be taken regularly, in all seasons; its actions are to clarify the blood, remove its turbidity and cleanse it of the melancholic vapors, dilate the spirit, gladden, expand the chest, and remove the dejection and the anxiety referred to. The description of its preparation is: take fresh rose petals, a pound; oxtongue, half a pound; stoechos, two ounces; raw silk, chopped seeds of fumitory and citron peel, of each one ounce. Steep the whole in six pounds of hot water a day and a night, then boil it on the morrow, stir and filter it over thirty monetary drams of cassia fistula, cleaned and moistened with half an ounce of almond oil, and filter it and set it aside. Then take myrobalans, shredded chebulic, Indic and emblic, of each ten drams. The myrobalans should be chopped and steeped in a pound and a half of hot, intensely boiling water for a day and a night. On the morrow, the myrobalans should be stirred well, filtered, and added to the decoction containing the cassia fistula that was set aside. Combine the two liquors and pour it over four pounds of syrup of violet. Place it over a gentle flame, and suspend in it a bag of fine linen, in which there is nard and mastic, of each two drams, and chopped rhubarb, three drams; do not cease pressing this cloth with a spoon until the virtues of the medicines which are in it have emerged. When it has attained the thickness of a syrup, remove it from the fire, place it in an earthen vessel, and use it as needed, as we have mentioned.

As for the electuary to which this Servant has referred, it is a Great Itrifal; this Servant has compounded it previously for someone who needed it. It will improve the three digestions, strengthen all the members in general and the heart and the stomach in particular. It will retard aging, dissolve the phlegm, prevent the vapors from ascending to the brain, strengthen all the senses and remove their lassitude, aid coitus, and dilate the soul. Its description is: take myrobalans, chebulic, Indic and belleric, of each an ounce; emblic, two ounces; citron peel, oxtongue, stoechos flowers, cost and zedoary, of each an ounce; red rose petals, an ounce; samara of ash, wild carrot, asparagus seeds, carrot seeds, rocket seeds, the two behens, anise, mastic and balsam peel, of each half an ounce; cubebs, cardamon, cloves, cinnamon, galangale, long peppers, ginger, nard, doronicum and

---

84 A3—“chill.”
85 A3 & A4—“heat the humors.”
86 Raw silk—the Latin renders this sete crudis, or seris. According to Pliny, seris is Chicorium endiva (see Glossary).
aloes, of each an eighth of an ounce; piñon nuts, three ounces. The dry medications should be pulverized and sifted, the seeds and the piñon nuts should be ground very fine, and the myrobalans should be rubbed over and over in half a pound of almond oil or pistachio oil, and the whole should be mixed and kneaded with three pounds of julep and two pounds of honey of bees from which the foam has been skimmed, and placed in a wide vessel. The amount of it to be taken is four drams to half an ounce, in the winter time in hot water in which anise was boiled. In temperate weather it should be taken as an electuary. It should not be used in times of intense heat. Whenever it is taken, it should not be used frequently, but only once a week.

These are the syrups and the electuary which, this servant thinks, should always be found in the treasury of the prosperous kingdom of al-Afdal, may God preserve it by lengthening the life of its king.

It is known to our Master, may God prolong his days, that passions of the psyche produce changes in the body, that are great, evident and manifest to all. As evidence thereof, you can see a man of robust build, ringing voice, and glowing face, when there reaches him, unexpectedly, news that afflicts him greatly. You will observe, that all of a sudden his color dims, his voice becomes hoarse, and even if he strives to raise his voice he cannot, his strength diminishes and often he trembles from the magnitude of the weakness, his pulse diminishes, his eyes sink, his eyelids become too heavy to move, the surface of his body cools, and his appetite subsides. The cause of all these signs is the recall of the natural heat and the blood into the interior of the body.

The state of the timorous and anxious, and the confident and sanguine, is known; so also, the state of the vanquished and the victorious is clear. The vanquished is so disheartened that he may not notice things because of the lessening of the visual spirit and its dispersal, whereas the light of the vision of the victorious is so greatly augmented that it seems as though the light of the day has increased and grown. This subject is so clear that it is unnecessary to dilate on it.

On this account, the physicians have directed that concern and care should always be given to the movements of the psyche; these should be kept in balance in the state of health as well as in disease, and no other regimen should be given precedence in any wise. The physician should make every effort that all the sick, and all the healthy, should be most cheerful of soul at all times, and that they should be relieved of the passions of the psyche that cause anxiety. Thereby the health of the healthy will persist. This is also foremost in curing the sick, and especially those whose disease is psychic, like those who harbor hypochondria and morbid melancholy, because solicitude for the emotions in these is obligatory. It is the same for someone who is overcome by grief and obsessions, or by terror of whatever is unnatural to fear, or by the diminution of satisfaction in what is natural for him to enjoy. In all of these, the skillful physician should place nothing ahead of rectifying the state of the psyche by removing these passions. Nonetheless, the physician, inasmuch as he is a physician, should not insist upon his own art as the rationale for the stratagem in removing these passions, for truly, this virtue is to be attained from practical philosophy, and from the admonitions and disciplines of the Law.

Indeed, just as the philosophers have composed books in the various sciences, so have they composed many books about the rectification of morals and the discipline of the psyche so that it acquires a virtuous nature, until nothing comes from it but good actions. They inveigh against moral imperfections, and teach the way to remove them from the psyche of whoever finds any of these in himself, until all those tendencies that incline to evil actions depart. Likewise, the disciplines of the Law and the admonitions and laws received from the prophets, peace be with them, or from their followers, and the knowledge of their virtuous ways, will rectify the disposition of the psyche until it acquires a virtuous state, so that nothing comes from it but good actions. You find, therefore, that these passions make strong impressions only on persons who were not taught the philosophy of morals or the disciplines and admonitions of the Law, such as children, women, and the ignorant. These, because of the softness of their spirit, are irresolute and fearful, and you find that when some harm comes to them, and there falls upon them a calamity from the adversities of this world, their grief is great, and they cry out and weep, slap their cheeks, and beat their breasts, and often the affliction is so great upon them that

93 Arabic: inqibad al-nafs, constriction of the psyche; the Hebrew renders this sentence, "and the physician should think that every sick person has a constricted heart while the healthy is of a broad psyche, and therefore he should remove from him the passions that lead to anxiety." The Latin is essentially the same.
94 Arabic: al-infa'aldt al-nafsaniyyah; as can be seen in the text the term "passions of the psyche" is used to connote more than emotional excitement or agitation.
95 Galenical physiology taught that all nerves are hollow; the optic nerves, often called the hollow nerves, were thought to contain the visual spirit to which the power of vision was attributed.
96 Arabic: inqibad al-nafs, constriction of the psyche; the Hebrew renders this sentence, "and the physician should think that every sick person has a constricted heart while the healthy is of a broad psyche, and therefore he should remove from him the passions that lead to anxiety." The Latin is essentially the same.
97 Arabic: nafsanm, of the psyche; the Latin renders this "animal" in accordance with Galenic terminology. The Hebrew reads: "and all the more so if his illness was specific to the powers of the psyche and their vessels."
98 The Hebrew reads: "like the disease which is in the diaphragm or the brain." The Latin renders this, "pleurisy, stupefaction and melancholy."
99 Literally, "persistent thoughts." 100 H & L—"speculative philosophy."
some die, either suddenly or after a time, from the grief and the distress that possessed them. Likewise, when these people acquire something from the good of this world, their joy in it is magnified, and they suppose, for the want of discipline of the psyche, that they have indeed acquired a very great good. Their conceit grows, their delight exaggerates what they have acquired. They become greatly affected by this, their laughter and senseless gaiety increase, so that some of them die in the vehemence of their exultation because of the dissolution of the spirit through the intensity of its sudden deflection to the outside, as Galen has mentioned. The cause of all this is softness of the spirit and ignorance of the truth of things.

But people nurtured in the philosophy of morals, or in the disciplines and admonitions of the Law, acquire strength of mind, and they are the truly strong. Their psyche does not change and is affected as little as possible. The more a person is disciplined, the less their agitation in both these states, namely, in the state of prosperity and in the state of adversity. So, when acquiring a great good from the good of this world, and this is what the philosophers call imaginary good, he is not affected by it, and this good is not magnified within him. Likewise, when there falls upon him a great evil from the evils of this world, and this is what the philosophers call imaginary evil, he is neither dismayed nor disheartened, but bears it in good spirit.

Indeed, this quality of spirit will develop in man through consideration of the truths of things and recognition of the nature of reality, because the best of the good of this world, even though it endures with a man all his life, is a very minor thing and a perishable thing, and what is there in this for man who must die like other animals? Likewise, when the greatest of the evils of this world is compared with death, from which there is no escape, all such evil is less than death, without doubt. One should therefore moderate his reaction to such evil, for indeed it is less than that from which there is no escape.

In truth the philosophers have called the good of this world, and its evil, imaginary good and imaginary evil, because how often something of its good is supposed to be good, yet in truth is evil, and how often one of its evils is supposed to be evil, yet is good in truth. How often has much wealth befallen a man and how often has he acquired vain possessions, and this has become the cause of the corruption of his body, the warping of his soul with vices of character, the shortening of his life, his alienation from the Most High God, and an estrangement between him and his Creator? Indeed, what is there in it for him but eternal misery? How often has a man been deprived of wealth, or property torn from him, yet this has become the cause of the improvement of his body, the adornment of his soul with virtues of character, and the prolongation of his life, drawing him near his Creator and turning his face toward His worship? Indeed, herein lies eternal happiness for him. What this servant has said about the lengthening or shortening of life is only said upon the opinion of the physicians, and the philosophers, and some masters of the Law that have preceded Islam.

On the whole, most of what the public supposes to be good fortune, is in truth misfortune, and most of what they suppose to be misfortune is in truth good fortune. It is not the intention of this treatise to expound the truth of this subject, or to explain it and to teach its way, for much has already been compiled about this in all times and in all learned nations that have studied the sciences. This servant has only meant by these references to suggest training the psyche to restrain the passions by studying books on morals, the disciplines of the Law and the admonitions and the laws spoken by the sages. Thus the psyche will be strengthened and will see the true as true and the false as false. The passions will diminish, the evil thoughts will depart, the depression will lift, and the psyche will dilate in whatever situation a man might encounter.

Here, contemplation is very good; it will reduce evil thoughts, anxiety, and distress. Often they will cease altogether if a person holds the following consideration before his mind's eye. If one reflects on something and becomes distressed by the thought, and grief, sorrow, and sadness arise in him, this can come from one of two things. Either he thinks about something that has passed, like thinking about what has befallen him from the loss of wealth that was his or the death of someone for whom he grieves, or he thinks of things that might yet happen and fears their coming, like thinking and dwelling upon what might result from the coming of adversity. Yet it is known through rational observation, that thought regarding what has come and passed is of no value at all, and that sorrow and gloom about things that have come and passed are the occupation of fools. There is no difference between a man who is gloomy because of wealth that has perished, and its like, and one who grieves because he is a man and not an angel, or a star, or similar thoughts that are impossibilities.

As for obsession with thoughts about what might befall in the future that lead to anxiety, these ought

---

101 Literally, "from the goods." The Latin renders this "commodity." The meaning, however, is that of "goodness" or "good," not in the sense of commodity goods.

102 When we consider the turbulent history of the unfortunate al-Afdal, who was twice deposed, this remarkable paragraph acquires special significance because of the possible play on the words *milk*—"property or possession," *mulk*—"sovereignty or kingdom," and *malik*—"king," all of which are spelled identically in Arabic.

103 A4 reads here "neglected"—a quite different meaning.

104 H—"speculative sciences."

105 Here, too, there might be a play on words: *malak*—"angel" vs. *malik*—"king" (see note 102).
also to be relinquished with the consideration that everything that one might anticipate lies in the realm of possibility; it might happen or it might not happen. And just as one might grieve and sorrow over what he anticipates might occur, so it behooves him to dilate his spirit and hope, and with this hope he might perhaps obtain the opposite of what he anticipates. Indeed, that which is anticipated and its opposite are both possible.

This is the measure of what the Servant has envisaged as necessary in this chapter.

THE FOURTH CHAPTER

Consisting of Sections in the Form of Advice that is Beneficial in General and in Particular for the Healthy and for the Sick, and in all Places at all Times

First, one ought to attend to the rectification of the air, then to the rectification of the water, and after this to the rectification of the nutrients. This is so because what the physicians call pneumas, are fine vapors found in the body of living creatures; their origin and the main part of their substance are from the air inhaled from without. The vapor of the blood found in the liver and in the veins arising from it is called the Natural Spirit, the vapor of the blood found in the heart and the pulsating vessels is called the Vital Spirit, and the vapor found in the ventricles of the brain and that which is transmitted from it through the cavities of the nerves is called the Psychic Spirit. The source of all these, and most of their substance, is the air inhaled from without, and if this air becomes corrupt, putrid, or turbid, all pneumas undergo alterations and their affairs proceed contrary to what is proper.

Galen said: Make every effort that the essence of the air that reaches the body through breathing is in perfect balance and free of everything that might pollute it.

This Author says: The finer the pneuma is, the more it is altered by changes in the air. The Natural Spirit is coarser than the Vital Spirit, and the Vital is coarser than the Psychic, and if the air is altered ever so slightly, the state of the Psychic Spirit will be altered perceptibly. Therefore you find many men in whom you can notice defects in the actions of the psyche with the spoilage of the air, namely, that they develop dullness of understanding, failure of intelligence, and defects of memory, although no change is to be noticed in their Vital and Natural actions.

Comparing the air of cities to the air of deserts and arid lands is like comparing waters that are befouled and turbid to waters that are fine and pure. In the city, because of the height of its buildings, the narrowness of its streets, and all that pours forth from its inhabitants and their superfluities, their dead, the carcasses of their animals and the corruption of their decaying food, the air becomes stagnant, turbid, thick, misty, and foggy. The pneumas change accordingly, although a person might not perceive what has befallen him. If there is no choice in this matter, for we have grown up in the cities and have become accustomed to them, you should at least select from the cities one of open horizons, especially towards the north and the east, high in the hills or on the mountains, and sparse in trees and waters. If you have no choice and cannot emigrate from the city, endeavor at least to dwell on the outskirts of the city, facing north and east. The dwelling place should be a tall building and should have a wide court, traversed by the north wind and accessible to the sun, because the sun dissolves the putridity of the air, thins it, and clarifies it. One should strive to set the rest room apart from the site of the dwelling as much as possible, and also endeavor to rectify the air and dry it with good aromatics, vapors, and fumigation as is proper according to the changes in the air. This is fundamental in the initiation of every one of the regimens of the body or the psyche.

Even if you are watchful and alert to the utmost of your diligence, minor accidents are always occurring in the body. For example, sometimes the stools become a little soft and sometimes a little dry, or one detects a feebleness in his digestion one day, or a minor headache hurts him, or a small ache causes pain in some place in his body; the like of these are many. Be cautious and careful lest you hasten to medicate these. Do not rush to take a remedy for the relief of such a minor occurrence; the best of the physicians have already admonished against it. This is because Nature is sufficient in the like of these things, and does not require assistance with medication; rather, one should adhere to his good healthy regimen. For, if you treat such a minor illness, you do one of two things. Either your action is in error and you oppose what Nature has intended, and perplex her so that the affliction increases, or your action is correct and you turn Nature back to her natural course, thereby teaching Nature passivity and accustoming her not to do what is proper except with assistance from without. An example of this is the man who accustoms his beast not to move except with a spur, whereupon it stands still forever unless spurred. Similarly, you may find that the stools have softened

106 The Hebrew adds here, "in the Lord"; the Latin follows suit. Literally, "animals"; L—"in the body of man and other animals."
107 A3—"clear and sweet."
a little, as is not their custom, without there having been any change in your regimen; at times this may persist for two or three days without pain or weakening of vigor. If you hasten with measures and restrain this deviation, Nature returns to her habit through medication. Often the cause of all this is a natural movement of the expulsive power, excited to expel what ought to be expelled, turning the stools soft, and if the correctness of its action is restrained, harmed and damaged, and what ought to make its exit is retained, calamities might befall. At times the cause of this softening is debility of the retentive power, and if this had been left alone, it would have awakened and the member would have returned innately to its natural action. But if you strengthen this power by medication whenever it is weakened, this will come to be a custom and a habit, and whenever the power is enfeebled, it will require a stimulant from without. It has already been made clear that it is correct to leave well enough alone; it behooves one to act thus in any matter wherein there is no peril.

Abū Naṣr al-Farābī has already mentioned in this connection, that in the art of medicine, in seamanship, and in farming, the outcome does not necessarily depend upon performance. Indeed, the physician might do whatever he should do, as best he can, without errors committed either by him or by the patient, yet he does not attain the cure which is his goal. The cause of this is clear, because the agent here is not the medication alone, but the medication and Nature, and at times Nature does not succeed for a number of reasons, some of which have already been mentioned in this treatise. Likewise, the farmer can do all that is proper yet the seed does not prosper. Similarly, the sailor can manage his ship with the best of skill, build it with the best construction and sail the sea at the proper time, yet the ship perishes. The reason for all this is that these ends are attained through a coupled action, and at times one agent does all that must be done while the other falls short in its action.

If the contents of the preceding paragraph are considered, you will realize that at times the ailment is light, and Nature is strong over it, has undertaken to remove it, and has begun doing all that she should do, yet if the physician errs in his treatment, or the patient errs, Nature's actions are ruined. This is very frequent in all places and at all times.

In one of his tracts, al-Rāzī has a statement with the following meaning. He says that when the disease is more manifest than the vigor, medicine is of no value at all, and when the vigor surmounts the disease, there is no need for a physician in any wise, but when they are equal, there is need for a physician to assist the vigor and aid it against the disease.

This Author says: From the words of this man who is accomplished in his art it should be realized that, when all ailments are taken into consideration, the physician can be dispensed with more often than he is needed, even when he is excellent, knows how to assist Nature, and does not perplex her or divert her from her proper pathway.

Careless physicians often commit very grave errors against the people, yet the sick do not perish, but are saved. I have repeatedly seen someone administer a strong purgative to a person needing not even a weak purgative. There exuded much blood from below, he persisted in it for days, and gripped with great tenesmus, yet recovered afterwards. I have also seen someone bleed a person with indigestion, while unaware of the indigestion, and it overcame the patient, diminished his strength, and lengthened and increased his ailment, yet he recovered in the end. Nevertheless, this is not taken into consideration, and it is supposed that physicians' errors do little harm. It is said that, if when they do commit such grave errors the sick do not perish, there must be even less danger when the physician errs only in regulating the quantity of food, or the dosage of mild concoctions. The matter is not so, but rather, these preceding cases are similar to those that follow. You see with your own eyes people whose arms are cut off at the elbow or their legs at the knees, or their eyes are extracted, or they are stricken with severe blows in battle into the cavity of the body, yet they do not die, but live as God wills. Yet you see a man pricked by a thin needle or a thorn; it punctures one of his nerves, and he has convulsions and dies. Thus are the physicians' errors balanced; at times they commit a grave error and the patient is saved, while at times something they assume to be but a trifle, and which the patient assumes to be but a trifle, becomes the cause of the patient's death. This should be born in mind by everyone with intelligence.

It is known that all men suppose that eating the customary foods, drinking the customary liquids, washing in cold water when one is accustomed to it, and taking a bath, are all matters wherein there is no great danger for the sick if done improperly. This is not so. Galen has already explained to us that among those with fever there are some in whom drinking cold water causes an unripening of the humors, and

---

114 This English idiom best approximates the Arabic expression al-shawāb al-tark, "the correct (is) the omission."
115 Abū Naṣr al-Farābī (870?-950), also known as Alfarabius, was a philosopher and translator, and one of the first Moslem scholars to introduce the knowledge of Plato and Aristotle to the Islamic world.
116 A3 & A4 omit this paragraph, while in A2 it is added on the margin.
117 A3 & A4—"experimenters"; L—"facile"; H—"those of the physicians who do not act properly."
118 A4—"he fainted"; H—"he became paralyzed from heartache."
119 A3 & A4—"his strength was seized with a shudder."
120 L—"puncture an artery or a nerve."
121 A1—"much water."
the unripening fires their fever and they perish, while for some others, cold water is a remedy. It softens their stools, extinguishes their fire and they recover, while if it is withheld from them, they perish. Likewise, among those with fever there are some who, if permitted to enter cold water, are cured and saved, and others whom this kills. So also, bathing cleanses the body of some with fever and completes their recovery, yet it increases the putridity of others, stimulates their fever, and kills. The same applies to food; withholding it from the sick is at times a cause of recovery, at times a cause of death.

The rules governing these matters and the conditions in which one should permit any one of these actions, or prohibit it, have already been presented, explained and demonstrated with their causes. But while the understanding of all this from books is very easy for anybody with adequate intelligence, applying this in the defluxion of humors of an individual case is very difficult even for the profound scholar. As for those who are ignorant of the elements of this Art, and for the careless, nothing is difficult, and they do not see, moreover, that diseases demand study.

In one of his tracts, al-Rāzī has stated: Medicine is an acquired art in which the worthless vaunt, yet how difficult is its attainment for the skillful physician.122 This Author says: Galen has already filled books with the subject on which al-Rāzī wrote in that tract, and he mentions that the crafty123 find this Art easy and belittle it, while Hippocrates finds it arduous and exalts it. Let him who sees these my words not suppose that this is unique to medicine; indeed, if you consider all the sciences, the natural, the deductive or the theological,124 you find it the same. The more a man is accomplished in any science, the more precise his meditations become, doubts arise in him and any problem becomes difficult for him, and he becomes deliberate in contemplation, and hesitant in some of his answers. And the less a man’s wisdom, the more he considers to be easy all that is difficult, and draws near that which should be distant. His nonsense increases, and his pretentiousness, and the hastiness of his answers about that which he knows not that he knows not.125

I shall return to my subject and say that Galen has already mentioned what I have said regarding the ease with which the Art of Medicine is understood by those who possess a good intellect, and their difficulties in practicing it. He has a statement and its wording is thus: It is easy to say that it is right to anoint the aged with oil in the morning, and massage them, but to do this properly is a most difficult thing. This Author says: Observe, oh possessors of impartiality! If anointing and massaging is one of the most difficult matters in the practice of Galen, that is to say when we come to the individual application, and likewise the drinking of water and the withholding of it as we have explained, how much more should it be in bloodletting, purging with the pulp of colocynth, the extracts of the squirting cucumber and the two hellebores, the clusters with castoreum and opoonax, cauter, lancing, and amputation. Will these be easy for the physicians, in truth, or difficult? Ibn Zuhr has said in one of his available, well-known books: I did not ever administer a laxative potion that my heart did not labor over it for days before and after.126

The behavior of all men regarding coitus is known. And that is, that there is not one who uses it for the sake of the regimen of health, or for the sake of procreation, but merely for pleasure; thus they lust until fatigued, at all times, and at every opportunity. It is already manifest among those who know, that coitus is detrimental to all men except some few whose temperament is such that a little of it does no harm. But men differ only in the degree of harm; among them are those whom it harms greatly, and among them are those whom it harms but little. Its harm to the young that are of moist temperament is little. Its harm to the old, the convalescent, and those of dry temperament is very great. Among the convalescents we have already seen some who copulated and died that very day, or suffered syncope and recurrence of fever, and died after a few days. On the whole, it is a pernicious matter for the sick and the convalescent, and very detrimental to the old and to all of dry temperament. It is improper for anyone to copulate before the food in the stomach is digested, or when hungry, or when thirsty, or in a state of inebriety, or after leaving the bath, or following exercise or before it, or for a day before bloodletting and for a day thereafter. Whoever desires the continuance of health, should drive his thoughts from coitus all he can.

The benefits of a drink are very many when it is taken properly, for then it is a great factor in the conservation of health, and in the cure of many infirmities. The manner in which it is used by all men, however, is already well known; they aim at nothing but inebriety, yet inebriety is harmful to all men. He is wrong who supposes that inebriety is of benefit once a month, for inebriety putrefies and grieves the body, especially the brain. The small amount that is beneficial should be consumed after the food has left the stomach. Adolescents should not consume it because it is very harmful to them; it will corrupt their bodies and their souls. Galen has already said that the young should not take any of it, except after three sabbaths, that is one and twenty

122 Most Hebrew manuscripts read here a different meaning: "medicine is a learned art acquired by worthless people, etc." 123 H & L—"deceptors" meaning quacks. 124 Arabic: shar'iyyah—religious law. 125 According to Cicero, Socrates believed that all wisdom consists solely in "not thinking that you know what you do not know" (Cicero, Academica, I IV). 126 Isaac Israeli, in his sefer musar harof'im, attributes a very similar statement to Galen (Jour. Hist. Med. 17: 251, 1962).
years. The more a man grows in years, the more beneficial for him wine becomes; those needing it most are the old.

The bath is greatly needed in the regimen of health and in the cure of ailments. Physicians prescribe the bath in the state of illness according to the kind of disease, according to the season, and according to individual differences.127 They have already said that from the standpoint of the regimen of health it is proper to enter it every ten days. Physicians have noted that frequenting the bath every day corrupts the humors. This statement is true for one who lingers in the bath until his sweat flows copiously, but for one who enters and does not tarry, but washes and leaves, it is beneficial even if it is taken every day, and especially for the old and for those of dry temperament.128 It is improper for one to enter the bath before the food leaves the stomach. Entering it after the stomach is empty, and before feeling hungry, is good for all men, but after sensing hunger it is not proper to enter it except for one who wishes to reduce his body. The description of its usage is, that a man should first sweat and wipe his sweat with a clean cloth of linen. As the sweat flows, he should wipe it until the garment with which he is wiping becomes soaked. Then he should clean the skin, and after this he should rub and wash with hot water from which the skin does not shrink. Then he should diminish the heat little by little until he washes, finally, with tepid water, almost cold, but not cold enough to make the skin shiver; then he should descend into the bath, the water of which should be the same. But he who desires to thin his body should use hot water that is as hot as he can bear.

As for the head, it is improper ever to wash it with cold water, or with tepid, but only with water so intensely hot that it feels as though it burns the skin of the head. For even though cold water strengthens the brain, it retains its superfluities and chills it. All the nerves become cold, since the brain is their source, and all movements become difficult. At times hemiplegia can occur, or paralysis of the mouth or sudden spasms; one should be very cautious about this. Tepid water also adds coldness and softness to the brain, decreases its superfluities, improves its temperament, and all the movements and the senses are strengthened.

It is proper for one to sleep after leaving the bath. Galen said: For ripening that which is to be ripened, the senses are strengthened. It is proper for one who drank cold water after the bath; their kidneys were chilled immediately and they became dropsical. One should therefore endure thirst until his body cools and the warmth which the members have acquired from the bath departs; then he can drink water. If he cannot wait because of the intensity of his thirst, he should first temper the water with a syrup of citron peel, or with mastic syrup, or with syrup of rose buds, and then drink. Likewise, drinking a brew prepared with pomegranate seeds and sugar spiced with musk, aloes, and cloves after the bath is not harmful. And if he waits after the bath until the warmth of the bath passes from the body, and then takes it, it will be beneficial, that is to say, this brew or the other before-mentioned drinks.

Often men neglect rheums in their ignorance of what can result from them. That which results from them, mostly, is either catarrh when they descend to the nose, or hoarseness of the voice and cough, if they descend to the trachea. My advice about this is to take heed and beware of rheums in the winter and in the summer, and to wear one's turban,131 while warm, inside the bathhouse. Always protect the head from the intense cold which causes rheums, and also from the intense heat, because the intense heat melts the coagulated superfluities that are in the brain, and they descend; these are the hot rheums.

All the rheums, hot and cold, often pour into the hollows of the lung and fill them all at once, because of the abundance of the descending humor and the weakness of the recipient. The expulsive power is too weak to expel it by cough, and the man suffocates and dies or develops orthopnea.132 At other times they descend to the hollow of the stomach and cause mucosity of the intestine; this is a disease that is hard to cure. Or at times, they descend to one of the joints, and produce aching of the joints. They can also descend to the substance of the internal organs and their cavities, and produce swelling in these organs, pleurisy, inflammation of the lungs, swelling of the liver, and swelling of the stomach or the rest of the members. Because of this, it is important to beware of rheums.

Protection against rheums lies in guarding against heating the head intensely or chilling it intensely, as we have mentioned, and in avoiding eating that which fills the head, such as milk and the inflating grains like

127 A4 & H—"years"—age.
128 H & L—"bad complexion."
129 Literally, "sunny"—i.e., as hot as though put in the sun.
130 H—"heartache."
131 A3—"turban"; all other manuscripts read "clothes."
132 Literally, "rising up"; H & L add, "which is shortness of breath so that one cannot lie down."
vetch and peas, in not sleeping after a meal, especially at night, in not consuming inebriating drinks in any amount that might alter the intellect even slightly, and in strengthening the substance of the brain by smelling incenses and spices appropriate to the temperament and the season. Among the specialties for strengthening the brain are cloves, pulverized as fine as dust and put at the hairline throughout the winter; anointing the brain with spiced ben oil during the winter also strengthens it. But at the time of the intense heat one should dip his head in water of roses and al-Nasrin, and dust the head with a little mace which is thoroughly pulverized.

It is improper for anyone, in any place or at any time, to consume food in which spoilage has appeared, even a minimal spoilage; or water that is turbid, altered in odor or tepid; or anything putrid, like unleavened bread, fish gravy, jelly of salted fish, Khalat, and their like. These are the source of fevers, and they are like poisons. The best physicians have admonished against eating food left overnight, or meat left overnight, for putridity has already commenced even though this is not apparent to the senses.

One should endeavor to partake of sweet foods, for the sweet is what nourishes, as Galen has mentioned. Likewise, one should drink waters that are sweeter, clearer, and cooler. If one loathes sweet foods, he should temper his meal with a little of the sour, or with something that has a noticeable saltiness or astringence in its taste, like dishes cooked in verjuice, vinegar, lemon, barley sauce, sumac, quince, or pomegranate seeds. These foods, though they lack the virtues of the sweet and provide but little nourishment, are beneficial. First, they are not loathsome. Then, some of them dissolve the phlegm in the stomach and are appetizing, like pickled dishes; some resist putrefaction and remove it, like dishes infused with vinegar and lemon-water, and some strengthen the stomach and close its orifice, like those that are cooked in sumac, pomegranate seeds, quinces or verjuice. One should rely on these foods all one can.

Habit is fundamental in the conservation of health and in the cure of ailments. It is improper for one to depart from his healthy habits all at once, either in eating, in drinking, coition, taking a bath, or exercise. In all these whatever is customary should be maintained. Even if the accustomed thing is contrary to the principles of medicine, one should not leave it for what is determined by these principles except gradually and over a long time, so that one does not perceive the change. If one alters any of his habits all at once he will persevere fall sick. As for the sick, they should not change their customs in any way, that is to say, that one should not hasten at the time of illness to alter a habit even for the better.

It is known that there are animals whose meat has a temperament very adverse to the nourishment of man, like the meat of the wolf and the fox, and others that are very suitable, like the meat of the sheep; so also is the rule regarding their hair in the clothing. The most suitable for man are clothes lined with the pelt of the sheep, and the most harmful for him are clothes lined with the fur of foxes; so say the proficient among the physicians mentioned, and it is the truth. Hence this Servant has observed that the clothing called Qartās is to be condemned. The fur of the squirrel has been praised by the physicians. They have also mentioned that clothes lined with skins of cats cause sickness, as does smelling their breath. They have recommended therefore keeping away from them and the smell of their breath, just as they have recommended smelling the breath of pigeons and keeping them in the house. This, they said, protects against all the diseases of the nerves, such as hemiplegia, distortion of the face, spasms, tremors, and the like. Whoever keeps pigeons will be safe from all these, providing he bewares of their excrement and does not leave it to accumulate in any wise, for it putrefies the air and corrupts it. Likewise, eating young full-fledged pigeons cures ailments of the nerves.

The best of game meat is the gazelle; so also is the rabbit. It has virtues verified by experience, that is, eating its brain is good for tremor and diseases of the nerves. The fur of the rabbit warms greatly and is of benefit in diseases of the nerves, especially in the old. The wild ass has a great property of strengthening the vision; this has been verified by experience. Eating its meat and exposing the eyes to the vapor of its cooking meat strengthens the vision and opens occlusions of the hollow nerves. Gazing frequently at the eyes of the wild ass strengthens vision and removes its defects; this has been verified by experience.

This is the measure of what the Servant has now presented for the needs of our Master, may God perpetuate his dominion for him unto all times.

May the Exalted God prolong the days of our Master, perpetuate his health, and grant him the fulfillment of the Two Worlds, as he has granted his servants and subjects the favors of his nature and generosity through his benevolence and munificence.

Thanks be to God, Lord of the Two Worlds.

139 Qartās—a striped Egyptian dress.
134 LS—“color.”
133 Khalat—fish preserved in salt.
132 al-Nasrin—a wild Persian rose.
131 The term could mean either “poisons” or “Simoom,” the destructive desert wind.
MAQĀLAH Fī BAYĀN BA‘D AL-‘ARĀD WA-AL-JAWĀB ‘ANHĀ

The Response to the Letter of al-Afdal in which He Elucidated all those Accidents which have Befallen Him.

In the name of God, Merciful and Compassionate!

A letter has reached this minor Servant containing a list of all those accidents that have befallen our Master, may God perpetuate his days, along with an explanation of the causes of all those accidents and the times of their occurrence, information on all the particulars that a physician needs to inquire about, a description of his thoughts at each time about each accident, and an outline of what the physicians advised, and wherein they agreed or disagreed. This minor Servant knows with certainty that this letter was dictated by our Master, without a doubt. This Servant swears by God the Most High, that accomplished physicians in our times lack the knowledge essential for systematizing such complaints, let alone explaining and organizing them in such a fashion. Therefore, this minor Servant has seen to it that his answer to him who holds him in bondage, may God preserve his shadow, is in the words of one physician to another and not in the words of a physician to someone who is not of the people of the Art, since the perfection of our Master has become evident to this Servant through the account of those accidents and their causes.

Whereas this Servant is acquainted with those accidents that are now present, the removal of which is desired, and whereas our Master, having cited to his minor Servant what each physician has counseled, has commanded him to comment on the statement of each one of them, he obeys accordingly:

As to the statement of the physicians who said that the ailments now present would disappear if the blood were to exude now from the orifices of the vessels as has already happened at times, it is the truth, without any doubt. This is because that blood that comes out is only the turbidity of the blood and its sediment, expelled by Nature, because of its badness, in the form of a crisis. (H)

As for the physician who advised opening the orifices of the vessels by means of water in which one sits, or poultices on which one sits, he is in error. This Servant does not agree with this at all, for several reasons which he will explain. First, those things that are applied, or the hot water in which one sits, heat the temperament and inflame the humors. Second, when Nature opens these vessels, she opens them in the required measure, but when we open them by medication, they open more than they should, the flow of blood goes to excess and its arrest becomes difficult. Even when it comes by itself, it may happen that it goes to excess so that it cannot be arrested. (H)

Third, when these vessels open by themselves, whatever comes out of them is most often what should come out, because Nature has driven it to the periphery and the expulsive force has moved to expel it. If we open them ourselves, something might come out that should not come out, and most often this is what happens. (H)

In general, we do not have recourse to this action unless those places are swollen, and the pain is greatly increased. Then we open them by medication so that whatever was dispelled there from the blood and caused those places to swell flows out. Our action at such a time is similar to the action of one who lances a swelling when Nature is unable to open that which overlies the swelling and expel what is in it. Our Master should never do this, but, should it come by itself, as it has done several times, it should not be stopped at all, unless it goes to excess; may God avert it! (H)

Our Master then mentioned that some of the physicians advocate taking a little wine with water of oxtongue a few hours after the meal and at bedtime to deepen his sleep, and that some of them advised in this regard that there is no purpose in its use, since the unmixed heats the temperament and the mixed generates ventosity and flatus. As this Servant sees it, the first view is the correct one; that is, if the food has begun to be digested, a little of it, namely a Syrian ounce or the like, will help digestion, aid the egress of the superfluities by promoting a copious flow of urine, and expel from the blood the smoky vapors engendering all these presently occurring accidents, especially if mixed with water of oxtongue. Should oxtongue itself be infused in it, in a measure of two drams per ounce, it will be most effective, and its dilation of the spirit will be greater. (H)

When the physicians speak of the drink that exhilarates, in general they mean the syrup of oxtongue. If the oxtongue is steeped in wine, it increases the dilation and the delight of the spirit. Drinking wine moistens the body with a good moisture; Galen has already mentioned this in his book on the regimen of health. (H)

---

1 The Latin rendition presents these as the requests of al-Afdal. It is perhaps because of this, that this work was erroneously titled de causis accidentium.
2 A1—mālik riqāq; A2—mālik al-riqq (see introduction).
3 H—"its turbidity and ferments"; L—"its dregs and superfluities."

---

4 H—"which is not the case when it comes by itself."
5 A1—"cleanse."
Whoever assumed that it heats, was mistaken, for wine is a nutrient, not a medicament. It is a very good nutrient, and the good nutriment neither heat nor cool; it is the medicaments that heat and cool. Indeed, it generates praiseworthy blood, of the nature of the natural blood, which is hot and wet. As to mixing it, there is no doubt that this will generate flatus, and could possibly generate tremor. Nevertheless, Ibn Zuhr, who was unique in his age and one of the greatest sages, has already mentioned that the mixture does this if it is mixed and drunk at once, but if mixed and left for twelve hours or more and then drunk, it is very good, since the vinous part surmounts the watery and alters it, and the temperament improves. (H)

This Servant suggests that what ought to be used of the oxtongue is the bark of its roots, not its leaves as the people of Syria and the people of Egypt do; thus we have seen all the outstanding Elders do in the land of Andalusia. And all the Arabs prescribe the bark of its roots, not its leaves. Our Master should not neglect this herb, because it has the virtue of dilating the spirit, effacing the black humor and eradicating its traces. (H)

This Servent suggests that what ought to be used of the oxtongue is the bark of its roots, not its leaves as the people of Syria and the people of Egypt do; thus we have seen all the outstanding Elders do in the land of Andalusia. And all the Arabs prescribe the bark of its roots, not its leaves. Our Master should not neglect this herb, because it has the virtue of dilating the spirit, effacing the black humor and eradicating its traces. (H)

This Servant has tried and verified as true, without any doubt, that light wine, if mixed with a little rose water, about a tenth, will dilate the spirit, will not inebriate, will not harm the brain, will strengthen the stomach and augment all the virtues associated with wine. Therefore, this Servant recommends steeping twenty drams of oxtongue in one Syrian ounce of wine and ten drams of rose water. It should be left for about ten hours, and then it should be taken. As to taking it also at bedtime, this is an excellent idea for various reasons; sleep deepens, anxiety departs, the digestion improves, and the superfluities are repelled. (H)

The consensus of the physicians that when the temperament tends toward the hot one should take something to cool and moisten, is correct, but their statement was too brief; it ought to be detailed and the regimen mentioned.

Whoever advocated drinking water of endive in sandalwood syrup, and the infusion of tamarind, prunes, and jujubes, appears to this Servant to be in grave error, because, although phlegm is dominant in the original temperament, this general regimen is not at all suitable, especially the prunes and the jujubes. It will debilitate the stomach, harm it greatly, and curtail the digestion, and whenever the stomach is moistened and debilitated, the three digestions are corrupted. The like of this regimen is not suitable except for one who is dominated by yellow bile. Yet nothing is mentioned that indicates dominance of yellow bile at all, while the implication of the whole of the indications mentioned is the generation of black vapors caused by the black bile arising from the combustion of phlegm that recurs periodically.

As to him who suggested drinking an infusion of rhubarb in water of endive one day and then abstaining for two, if he intended by that to soften the stools, then he is correct; this Servant has already mentioned the method of softening the stools with rhubarb, in the third chapter of his treatise that has already been presented in the court of our Master.

The suggestions for bathing every three days, exercising each day and anointing with oil of violets, are all correct; this Servant will speak about this clearly and adequately.

He who advocated placing cloths with sandalwood upon the liver, and he also who advised eating cucumber, lettuce, snake cucumber, purslane, spinach and orach, are absolutely wrong, for this is a regimen that suits those who harbor the intensely inflaming burning fevers, should these occur in those of hot temperament in the summer. More grave is the error of the one who advises drinking fresh milk, because he has caught a glimpse of its moistening virtue, overlooked its quick transformation into any humor whatever, and failed to consider the essence of the cause of this disease, which is the inflamed phlegm.

He who advised the use of oxymel of quince an hour after the meal, is correct; it is a good regimen to improve the digestion. But adding it to a drink of barberry extract after the meal is an uncommon regimen not in accord with medical regulations and custom, that is, taking barberry extract while the food is in the stomach. Even when the stomach is empty, the extract should not be introduced in this disease.

Whoever suggested drinking the exhilarating drink of Ibn al-Tal̤mīd or someone else, and likewise he who advised syrup of sorrel, apples, water of oxtongue, seeds of basil and seeds of the balm gentle, are all correct. But this Servant does not see the point of adding the seeds of fleabane, because I cannot visualize a rigorous regimen in this disease and this temperament.

The suggestion by one physician to take barley water with poppy and seeds of round pumpkin is surprising, even though he has mentioned the moderation of sleep, and maintains that the moistening effect

---

* L—Acco (Acre); L5 corrupts this to Actio; H—"the people of the Land of Israel."

* H—"Syrian ounce, that is from the Land of Israel"; L—"Oriental ounce"; A1—"Syrian medicaments."

* A1 omits "water."

* A1—"the anxieties."
of barley water is insufficient, so that he has supplemented it with the seeds of round pumpkin. More surprising than this is the suggestion to take prunes following the barley water. I do not suppose that for these physicians there is any member of the body more lowly than the stomach, or that they take into consideration whether the stomach is debilitated or not, and whether there is moistness in it or not. Perhaps they do acknowledge the nobility of the stomach and its general usefulness, and that care should always be given to it, for which reason the best physicians have devoted treatises to it. Nevertheless, according to the former, the regimen previously mentioned by them, that is, barley water with seeds of round pumpkin, poppy, and the subsequent taking of prunes, will strengthen the stomach, improve its digestion, dry its moistness, cut the viscosity of the phlegm which evidently never ceases accumulating in it, and thin its thickness. This Servant censures in this section what ought to be censured only in order to warn strongly, not because he is inclined to make such statements in general.

Taking apple and quince, and sucking pomegranate seeds after the meal are recommended for everyone as part of the regimen of health. There is nothing superfluous in it in relation to this disease, except what was mentioned regarding taking coriander following the meal. This is truly laughable. This was proposed because coriander thickens the vapors and prevents their ascent, which is right, but it ought to be taken in medicaments like medicinal powders and the like, or cooked with the food. As to taking coriander alone after the meal, if its does not cause vomiting it will undoubtedly cause nausea and corrupt the meal. Occasionally taking purslane seeds in sugar apart from the meal is good. Taken with the meal these also cause no harm because they cool and strengthen the heart. (H)

Our Master has mentioned that the physicians advised taking apricots, pears, and quinces after the meal, and grapes, melons, and pomegranates before it. This Servant does not understand the intent of this advice. If there was need to induce appetite, or a habit of taking fruits, the intent is correct, and thus one should take before the meal whatever softens the stools and after the meal those fruits in which there is astringence, like pear, quince, and apple. But if they advised that taking these fruits is beneficial in this disease, this is an error, for all the fresh fruits are bad for everyone, healthy or sick, if taken as nutrients, and especially the melon and the apricot, because of the rapidity of their change into whatever evil humor there is in the body. The peach is also very evil and it is the substance of the evil malignant fevers. Galen has already mentioned that since he stopped eating all fresh fruits, he had not had a fever to the end of his life; he dilated on this story of his as an admonition to everyone, as expressed in his treatise. Therefore, it behooves our Master to avoid fresh fruits all he can. (H)

He spoke the truth who advocated avoidance of game meat, cured meat, eggplant, and everything that heats, for all these increase those accidents of which our Master has complained. The one who suggested exercising every day gave most appropriate advice. Likewise, he who forbade travel to the hot regions gave good advice in his suggestion. He who assumed that hot regions melt the vapors is correct only with respect to those vapors that ascend to the surface of the body if they are cool and moist. As to those that arise from thick turbid blood, such regions would only augment the thickness of the blood and its inflammation, and increase its vapors. When health is reestablished, as God wills, our Master may travel wherever he wishes, until God grants his hopes in the two worlds.

This Servant does not approve of emesis with lapis lazuli or with the Armenian stone; with the lapis lazuli because of its vehemence, and with the Armenian stone because it is of obscure substance. The accomplished among the physicians, most of them, have already had doubts regarding the latter, whether it is what is designated by this name.

This Servant approves the view of whomever it was who admonished against the employment of strong purgatives, and advised restriction to rhubarb or whey or senna of Mecca and the like; all of this is correct.

This Servant does not approve the infusion of peaches or melon juice, because of their harm to the stomach; there is not, in those accidents complained of, either burning or thirst. He also does not approve the excessive use of water lily, because it thickens the blood and debilitates the stomach; this suits only those who have acute inflammatory fevers, as this Servant has mentioned. Moreover this Servant sees no point in the use of cooked dodder of thyme because of its distressing and drying action. If the dodder of thyme is infused in a hundred drams of whey, and taken twice or three times in the springtime and once or twice in the autumn, it is good, but there should be fifteen days between one time and the other. The dodder of thyme should be crumbled in almond oil, wrapped in fine cloth, and then steeped overnight in the whey.

Our Master mentioned that a vessel had once been opened, and there came out blood as thick as spleen, whereupon the physicians counseled on this account, further bloodletting. In so far as plethoris appears at one time or another, bloodletting is undoubtedly required, and the blood should be withdrawn propor-

\[\text{\small 13 The Latin Mss. surprisingly read, "and generate pusules."}\]

\[\text{\small 14 H—mishmish, and these are al-barquq (another Arabic term for apricot); L—mesmes que dicuntur bacoch in Hispania.}\]
tionally. What should be aimed at always is clarifica-

tion of the disease and rectification of the tempera-
ment of the liver so that good blood is generated; the Ser-
vant has already explained in his previous treatise how

this can be brought about through the syrups that he
has compounded.

He who suggested that the nourishment should
consist of peach and tamarind with the meat of the
kid is correct for the summertime. We should not
neglect steeping cinnamon, mastic, nard, and the like,
in these dishes, in order not to harm the stomach. On
the other hand, taking cooling concoctions as they
have counseled, in the summertime, could be dis-
astrous unless they are taken in moderation. They
should not be taken deliberately, because this Ser-
vant's aim is the equilibration of the temperament, not
an increase in cooling, when the cause is inflammation
of the phlegm.16

The recommendation of exhilarating potions and the
electuary in which there are jacinth, emerald, gold,
and silver is correct and very beneficial, because these
are cardiac medicaments which act through special
properties, by which I mean their specific form which
is the whole of their essence, and not through their
particulars alone.17 (H)

Our Master has mentioned his abundant use of
oxotongue and water lily, despite which the cause of the
disease has not disappeared. The reason for their
limited effect is that they are continued too long.
When the use of extremely strong medicaments is
continued, Nature becomes accustomed to them and
she is no longer affected by them, and they turn into
nourishment or the like of nourishment; Galen has
already mentioned this.18 This is all the more so if
these are weak medicaments, which are close to being
nutriments. If these are taken continuously for a
week, their medicinal actions are abolished and not a
trace of them appears thereafter. Therefore one
ought to change from one medicine to another, or
omit a medication for a few days and then return to
it. (H)

Our Master has mentioned a reduction in coitus
from what was customary; this action is good, and
what a great benefit comes from this reduction!

The bath should never be neglected either during
paroxysms of fever 19 or during remissions.

It is wholly a blessing that sleep is regular, and a
clear proof that these black vapors do not hurt the
brain or alter its temperament, especially if the heart
is afflicted.

As to what our Master has mentioned regarding
the presence of weakness after exercise, the cause of this

16 This paragraph is missing in all Latin versions.
17 H—“abstract qualities”; L—“simplex” qualities.
18 The Hebrew and the Latin attribute to Galen the following
statement rather than the preceding one.
19 Or: intermittent attacks; L—non in tempora coitus (L1:
tempora motus): non in tempora quietis.

is its omission and remission. If he resumes it gradu-
ally, little by little, he will find following it the
strength and the vitality that should be found after
all exercise that is carried out properly.20

Whereas this minor Servant has now responded to
all the sections of that noble 21 letter, as commanded,
he will now compile a statement, and follow it with a
chapter in which he will make clear what the regimen
of our Master should be, in accordance with those
accidents presently occurring. This might well have
been made obvious by what this Servant has men-
tioned in preceding paragraphs and by what he wrote
in that treatise,22 but these were statements that were
dispersed and not properly organized.

Before I begin with this chapter I should say that
there ought to be two electuaries in the treasury of our
Master, in addition to those syrups and the Itrifal
which this Servant mentioned in the third chapter of
his previous treatise.

One of these is a cool musk medicament. The
Elders of medicine who had experience 23 have already
tested it, and found it to have an extraordinary action,
so that they do not permit any substitution, or the
prescription of its components separately. Rather,
they brought it out as an electuary; it is a medicament
incorporated by al-Rāzī in his book on the repulsion
of the harm of the nutrients.

This is its description in his very words: There
should be taken of pounded roses, bamboo-manna,
dry coriander, and amber, of each, one part; of small
pearls, half a part; of the purest and best musk, a
sixth of a part. There should be taken tabarzad 24
sugar, dissolved in pressed strained sour apple juice
and cooked until it gains the consistence of honey.
There should be cast in it leaves of citron, and the
medicaments should be kneaded in it. This medica-
ment will take care of one who harbors this accident,
for, it is an excellent medicament for strengthening the
heart without heating, and it is suitable for palpitation
and throbbing of the heart with heat.

The second medicament is the jacinth electuary
incorporated by Ibn Sīnā 25 in his famous treatise on
cardiac remedies; he mentioned three recipes for it, the
first cold, the second hot, and the third temperate.
The one which this Servant deems suitable for our
Master to employ is the temperate, and this is the
description of the third in Ibn Sīnā's words:

He said: There is another very excellent compound
which I have tried as an electuary and in troches,
adding to and taking from it according to each and every temperament, and its property of strengthening the heart is highly beneficial. These are its ingredients: pearls, amber, coral, each of a dram and a half; shredded silk, burned river crab, of each a miskal and a dāniq; oxtongue, five drams; gold filings, the weight of two dāniqs; seeds of Frankish musk, seeds of sweet basil, and seeds of balm gentle, of each three drams weight; red behen, white behen, aloe, Armenian stone, washed lapis lazuli, mastic, bark of cinnamon cassia, cinnamon, saffron, lesser cardamoms of Bawa, big cardamoms, and cebecs, of each a miskal; dodder of thyme, the weight of two drams and a half; stoechos, the weight of three drams; zedoary, one miskal, and if not available, then instead of it, zedoary root, two miskals; Greek doronicum, two miskals; seeds of endive, the weight of five drams; seeds of snake cucumber, the weight of four drams; manna, the weight of ten drams; red roses, the weight of four drams; 26 musk, two miskals; camphor, a miskal; ambergris, one miskal; nard and folia indica, of each, two drams weight; this is the essence. The dough can be made into troches or combined with honey, and both can be prepared to suit the moderate temperament, which will not be altered, or prepared for one with a wicked hot temperament, or for one who has an evil cold temperament. As for the moderate, it should be left as it is. When it is to be made into troches, each troche should be of one miskal. The whole should be kneaded with three parts of honey. If it is desired that it be fermented and then used, then there must be steeped in it five drams of opium and the same of powdered castoreum. It should not be used except after at least six months, in case the opium and the castoreum are steeped in it.

For one who is dominated by a bad hot temperament, reduce the saffron and the musk to half a miskal, omit the dodder of thyme, and use in its stead five drams of fumitory and four drams of senna of Mecca. Steep in it roses, ten drams weight; seeds of purslane, eight drams; bamboo-manna, five drams; seeds of asphodel, two drams; and sandalwood, three drams. The other ingredients should be kept as they are. It should be made into troches as we have mentioned, and kneaded with honey, thoroughly skimmed of its foam.

For one who is dominated by a bad cold temperament, add to the medicaments nutmeg rind, citron rind, balsam wood, ginger and pepper, of each a dram weight, and castoreum, two miskals; the camphor should be restricted to half a miskal.

Whoever has a hot temperament should proceed to take half a draught of this with a miskal of balsam-cinnamon and manna in apple rob. 27 He who harbors a cold temperament should take a draught of it with one-twelfth of a dram weight of castoreum.

I have already treated some of those who follow the same course as kings suffering from melancholia, a disorder that tends toward mania, 28 that is rage. In these cases, I added to the temperate recipe the weight of a dram of thoroughly pulverized jacinth, of exquisite pomegranate color, and they were greatly benefited by it, after previous despair. 29

As to the compound specific for those who harbor a hot temperament, and are attacked by palpitation 30 and weakness of the heart because of the badness of their hot temperament, there is a composition of this description: lettuce seeds, melon seeds, pumpkin seeds, and shelled snake-cucumber seeds, of each five drams weight; purslane seeds, the weight of four drams; pearls, coral, amber, burned river crab, and shredded silk, of each a miskal; rob of pandanus palm, a miskal, and if that is not available, wood of the pandanus palm, three miskals; aloes, doronicum, zedoary, and white behen, of each two drams weight; red roses plucked from the stalk and dried in the shade, seven drams weight; saffron, half a miskal; camphor with a tenth of its weight of thoroughly pulverized musk, and a sixth of ambergris, of the whole, one and a half miskal; oxtongue, five miskals. The whole of this should be made into troches as we have explained, or kneaded in rob of apple, rob of quince or rob of pomegranate in parts equal to that in which it is kneaded.

There is also a julep of the above. It is taken with the expressed juice of oxtongue with an equal quantity of expressed juice of endive, four times its quantity of apple juice, twice the whole of rose water, and a sixth of the whole of jabarsad sugar; it should be cooked gently until thickened. This julep, taken with leaves of balm gentle cooked in rose water until it gains its virtues, or with balm gentle juice diluted in rose water 31 one-third to two-thirds, is beneficial to all those who have a weakness of the heart, especially if it contains oxtongue which, if dry, should be cooked with it in rose water, and if fresh, should be mixed with its expressed juice. If the temperament 32 is intensely hot, reduce the juice of balm gentle and increase the juice of oxtongue; otherwise, they should be taken in equal quantities.

I should mention also the preparation of the nutrients which are usually taken. Their first is bread, which is the goodness of the wheat. It should not be made white; by that I mean that it should not be immersed in water as the custom goes, and it should not be sifted thoroughly until none of the bran

26 The Arabic text employs here the terms mdalnkhuliyd and māniyd, obviously a transcription from the Greek, in order to designate definite disease entities.
27 A1 omits “manna” and “red roses.”
28 L—“after few days.”
29 A1 omits from “until it gains.”
30 L—“syncope.”
31 A1 omits “until it gains.”
32 A1—“mixture.”
The Meat: As far as possible, it should be and it should be noticeably salty and well raised. The loaves should have no crumb, and it should be baked in the circular earthen oven, or in any oven; the earthen oven is better.

The Dishes: As far as possible, the dishes should be sweet in taste or have in them a little or just perceptible sourness. I shall herewith mention a number of dishes, so that our Master may choose from them those appropriate for each and every occasion, because our Master already knows the virtues of most of the foods, and a physician will not fail to be at hand to be relied upon in this regard.

The Wine: One should take that which is as white in color as possible, of fine essence, of good taste—and if there is a little astringency in it, there is no harm—of good odor and that which has aged for a year or close to it. Beware of that which is intensely red, or thick of essence, or altered in odor, or old and intensely bitter; one should not approach anything of these kinds at all. (H)

The manner of their management is as follows: The hens and roosters should be let loose in spacious ruins, wherein there is no dunghill or dirt, tended with cleanliness and constant sweeping. The food that they eat should be placed before them at the beginning of the day in vessels; it should be barley flour kneaded in fresh milk. It is even better if dried figs are chopped and mixed with it. Food should be given to them only in an amount that fills their crops. Water should be given to them. After several hours, wheat should be scattered before them after soaking it for hours in water. At the end of the day, barley flour and chopped figs kneaded with milk should again be put before them. In hens and roosters thus managed, we find the suet white and delicious; it cooks as rapidly as possible, moistens the temperament greatly and renders it moderate. These things have already been tested, and their value is manifest.

Should repetition of the same variety become tedious, there is no harm in taking instead on some days, francolin or grouse. As to the turtle dove, there is dryness in it, although it has a unique virtue in kindling the mind. I do not deem the partridge animals. Nothing of these should be taken unless the forepart of the meat, especially, should be taken; it should not be excessively fat, but from grazing animals. Nothing of these should be taken unless hens or roosters become wearisome.

The spirit craves the meat of cattle, it should be that of a suckling kid. If there is no avoiding, at times, the meat of sheep, those lambs that have not attained a year, but approach it, should be chosen. The forepart of the meat, especially, should be taken; it should not be excessively fat, but from grazing animals. Nothing of these should be taken unless hens or roosters become wearisome.

The Wine: One should take that which is as white in color as possible, of fine essence, of good taste—and if there is a little astringency in it, there is no harm—of good odor and that which has aged for a year or close to it. Beware of that which is intensely red, or thick of essence, or altered in odor, or old and intensely bitter; one should not approach anything of these kinds at all. (H)

The Dishes: As far as possible, the dishes should be sweet in taste or have in them a little or just perceptible sourness. I shall herewith mention a number of dishes, so that our Master may choose from them those appropriate for each and every occasion, because our Master already knows the virtues of most of the foods, and a physician will not fail to be at hand to be relied upon in this regard.

The first is hens or roosters, boiled or broiled in a pit, or steamed, or cooked with chervil, or cooked in water into which green fennel is cast; these dishes are suitable in the winter time. Those cooked in water to which lemon juice, cedrat pulp or mixed lemons are added, are suitable in the summer time. Those prepared with almonds, sugar, lemon juice and wine are suitable in every season. Those prepared with currants, almonds, and a little vinegar are excellent at any time. Those prepared in Isfiddaj with beets or lettuce in the summertime, and those prepared with round pumpkins, or spinach, or blite, or with prunes, which the people of Syria call Khawakh, are all good in the summer. One should not neglect spicing them with cinnamon bark, mastic, and nard to prevent any harm to the stomach. Those prepared with tamarind and sugar, and those prepared with purslane seeds and sugar, should not be used except in the summer, while those prepared with rose preserves are better in the winter. The one prepared with pistachio and sugar ought to have a little lemon juice added to it.

The dish of food eaten in cool weather should not lack the good drink, described previously. The meat should be fried in it, if it is a cooked dish, or it should be added to the soup, if it is a boiled dish. Likewise, during warmer weather there should be added to all the dishes during cooking a measure of twenty drams of wine and five drams of rose water; if the dishes are to be sour, there should be added twenty drams of the wine, five of rose water, and five of lemon juice. If it is a chicken, broiled on a spit as is customary, it should be basted while roasting with wine and lemon juice, or wine alone.

If the spirit craves roast meat of cattle, it should be the suckling kid, basted while roasting with wine and a little saffron. To each meal, a little saffron should be added, because it is a cheering cardiac medicament;
it should not be in excess, because it has the property of quieting the appetite for food.

This is what this Servant now presents on the dishes of food which suit our Master, may his days be prolonged.

Galen, and those who preceded him among the physicians, mentioned a drink which they name in their language hydromel; they used to prepare it from honey and thin white wine, as they used to prepare oxymel from vinegar and honey. But their successors, as they prepared oxymel from sugar and vinegar, prepared hydromel from sugar and wine. This is a most excellent drink, beneficial in strengthening the stomach and the heart, improving the digestion, dilating the spirit, and easing the egress of the two superfluities with good effect. We have tested it, as have others, time and again.

The description of its preparation is: take five Egyptian pounds of sugar, cook it as syrups are cooked, removing its foam, until it acquires a good consistency. Then cast into it one Egyptian pound of good wine, and thicken it into a syrup of the consistency of syrup of roses. This Servant has mentioned this syrup along with the foods only because it resembles them. It should always be taken daily at the beginning of the day, in the wintertime in hot water and in the summertime in cold water. Three or four ounces should be taken at a time, because this syrup is not like the syrup of oxymel and others of its kind, since those drinks are medicaments requiring apportioning and discernment regarding whom they suit, while this drink is an excellent nutriment because the sugar alone is a nutriment, although it is only slightly medicaive, and the wine is also an excellent nutrient, without any doubt. What is most admirable about it, it is said, is that it does not harm the choleric, and the reason for this is simply that its ingredients are familiar good nutriments. (H)

This is the measure of what this Servant has envisaged presenting before mentioning the order of the regimen.

On the management of a regimen for our Master in accordance with his complaints—may God remove his pains and perpetuate his days.

There is no doubt that this tract will reach our Master at the approach of winter, and therefore this Servant thought he should begin with the kind of regimen which he should follow in cold weather. This Servant hopes that, if our Master perseveres in this regimen, his health will return to normal in as short a time as God the Most High may will. This Servant does not know the habits of our Master in the state of health, whether he eats but once a day or whether he takes breakfast and supper. On this account, he will mention the regimen appropriate for both conditions.

I declare that one should always aim to awaken from sleep at sunrise or a little before that. Two or three ounces of the syrup of hydromel should be taken at that time. He should wait thereafter for an hour and then go riding. He should ride leisurely, and then, without stopping, gradually quicken the pace until the members are warmed and the respiration alters. Then he should dismount, and rest until none of the changes caused by exercise remain on the skin of the body or in the respiration. After that, he should partake of one of the dishes mentioned previously. He should take some of the astringent fruits as has already been said, or kernels of pistachio and currants, or a little of the dry sweetmeats, or a little of rose preserves, depending upon what he is now using. Then he should recline for sleep, and the chanter should intone with the strings and raise his voice and continue his melodies for an hour. Then, the chanter should lower his voice gradually, loosen his strings and soften his melody until he sleeps deeply, whereupon he should stop. Physicians and philosophers have already mentioned that sleep in this manner, when the melody of the strings induces sleep, endows the psyche with good nature and dilates it greatly, thereby improving its management of the body. Upon awakening, he may be engaged for the rest of his day in reading whatever he wishes, or be attended by someone whose company he chooses. The best is the attendance of someone whose company is desirable because of his virtues, or the delight in beholding him, or his lightheartedness. All these dilate the psyche and remove evil thoughts from it.

If it is customary by habit to partake of another meal for supper, there should be a measure of fifty drams of the drink described, mixed with ten drams of rose water and twenty drams of water of oxtongue; this should be taken little by little until supper time draws near. He should wait for half an hour until the drink leaves the stomach, and sup as is his custom on one of the dishes mentioned. Then the chanter should attend and distract him with songs for two hours after the meal; he should recline and command the chanter to soften his string and his melodies until he sinks into sleep. The melody should be stopped as it was done in the daytime.

If there is no supper, and if he does not take a second meal after that taken during the day, he should mix the drink according to the preceding proportions. He should continue taking it little by little while the strings play, until sleep draws near, either after two hours of the night, or three or four, as he pleases. If he does not take supper, there is no need to pay attention to the amount that he takes of the mixed

Arabic: Idrāmālāt.

The Hebrew reads here "hot of temperament," as does the Latin.
drink. Even if he takes two or three hundred drams of it, or a little more than that on winter nights, it will be good and moistening to the body. It would be best if he made it a habit to eat nothing with the drink, except some kernels of pistachio roasted in lemon juice or salt, or in a citron peel preserved in sugar, or with roasted kernels of myrtle or roasted coriander.

If it is customary to partake of some food after the drink, then it is best to take young chicken broiled on a spit. These should be those young chickens that were fed, as we have mentioned, with barley flour, milk, figs, and grains of wheat.

Let no one suppose that taking citron peel preserved in sugar heats the temperament, because the peel of the citron is intermediate between the hot and the cold; it is a cardiac medicament, and he should rely upon taking it.

If he were to start this very regimen as of tomorrow, upon awakening from sleep, he should not alter it in any way during the cold season.

Upon arising from sleep he should examine his condition. If there is thirst, drinking oxymel of roses is preferable to drinking hydromel. If there is a little unripening in the urinal, drinking oxymel of currants is preferable. If there is fullness in the stomach, taking ten drams of preserved roses and four drams of that Itrifal is preferable.

On the day in which he decides upon the bath, he should, at its beginning, take the drink as above, and he should reduce the vigor of the exercise and shorten its duration. He should enter the bath immediately after the exercise, then leave the bath and partake of a brew prepared with pomegranate seeds, sugar, many spices, and a touch of hot spices like clove and mace, or a syrup of roses or sorrel, with water of oxtongue, or the syrup which we have compounded and mentioned in the third chapter of that treatise. He should sleep following the bath. Galen said: In ripening what needs be ripened, or in resolving that which is to be resolved, I deem nothing better than sleep following the bath. Upon awakening, he may take food and engage the rest of his day and an hour of the night in what we have mentioned. When the food begins to leave the stomach, he should begin to take that mixed drink, little by little, while the chanter chants, until he sinks to sleep in the manner described. There should be no supper at all that night. If it is customary to have supper, breakfast should be postponed until after arising from the sleep that follows the bath.

As for the time which is selected for coitus, there are two periods, either following digestion of the food after taking the small measure of the drink before supper, or late at night. The crux of the matter is that this action should take place neither during hunger upon an empty stomach, nor when the stomach is filled with food. It is the same with respect to the drink; it should not be drunk before the food in the stomach has been digested, because it will unripen it and expel it before its ripening, or while the stomach is empty and in need of food, since at that time it will heat the temperament, cause headache, and inflame the humors. Rather it should be taken when the food begins its digestion.

On each Friday morning, he should take one miskal of that temperate electuary which is prepared with jacinth or of Itrifal, or of one of the recipes of the musk medicaments mentioned in the Canon. He should not exercise on that day. He ought not, by any means, to take an electuary in which there is any castoreum, and castoreum should be omitted from any musk medicament that our Master takes.

This is the regimen for the cold season.

In the hot season, he should not be awakened from sleep except after an hour of the day, and he should take the syrups of oxymel of roses and currants, and the syrup we have mentioned in the third tract of that treatise. He should exercise in the coolness of the air, and breakfast on dishes inclining toward coldness. He should sleep long from listening to the strings as mentioned before. He should take but very little of that mixed drink. He should not pass the night awake and he should reduce coitus below what is customary in the winter. He should take the cool musk medicament we have mentioned instead of the temperate jacinth medicament. If he desires to drink one of the drinks, let it be the end of the day, so that he will take the stated measure of it, and sleep at the beginning of the night or at the end of its second hour. It is good for him to take the cool jacinth medicament.

The brew that he drinks after the bath should be of tamarind, sugar, musk, and a little camphor.

Softening of the stools, when needed, should be with the infusion of rhubarb and tamarind we have mentioned in the third chapter of that treatise, or with the syrup we have compounded.

If the heat increases, there is no escape from taking barley kashk, prepared every day. Take it upon arising from sleep, an hour before the exercise, instead of the drinks mentioned, or take it at bedtime and sleep upon it, instead of foods or drinks that fill the stomach. Its description in accordance with the needs of our Master is as follows: Take polished barley, six months after it is harvested, forty drams; chopped seeds of fumitory, chopped seeds of endive and oxtongue, of each four drams; chopped seeds of Iraqi poppy, two drams; chopped moistened white sandalwood, one dram; nard, a fourth of a dram; dill flowers,
half a dram; olive oil from the Maghrib or Syria, yellow of color and free from bitter taste, three drams. The whole of these should be put together in an earthen pot. Pour into this pot one thousand drams of water, and heat it over a charcoal fire until half the water evaporates. Then pour into it six drams of wine vinegar. Its cooking is completed when less than a fourth of it remains, and its color appears red. Then filter it, and add to the filtrate half a dram of salt. It should be taken alone without a drink, and an hour after it is taken, a spoonful of lemon syrup should be taken as an electuary.

It behooves our Master to be most concerned about this, to adopt it and to use it habitually, because it will resist the dryness of the black humor, moderate the inflamed humors, remove their burning, thicken those vapors that ascend to the heart and the brain, prevent their ascent, cool the temperament through moderation, and improve the condition in all that of which our Master complains. Indeed, Hippocrates says in summation of his enumeration of the virtues of the barley kashk, that it delivers what ought to be to what must be. Our Master should not neglect recourse to it in the summertime in any wise, unless there is constipation, or acidity in the stomach, or flatus beneath the ribs. Whereupon, at such times, our Master should not take it.

This Servant realizes that because of the excellence of the intellect of our Master and the soundness of his understanding, he is able to regiment himself as is proper, according to that preceding treatise and these chapters, and all the more so if there is at hand someone of whose knowledge he seeks advice, and of whose familiarity with the Art he asks help.

God the All Highest is the Witness, and He is a sufficient witness, that it was the highest hope of this minor Servant to undertake to serve his Master by his body and words, not through his paper and quill, but his poor original temperament and his weak natural build—if when young, how much more so in old age—stood between him and many pleasures. I do not mean pleasures, but good, the greatest and most sublime of which, is to undertake the service of our Master. And God is Praiseworthy in all events, the totality of which occur in the totality of existence, and its particulars in each and every person, in accordance with His Will which follows His Wisdom, the depth of which man can not fathom. Praise be to God, always, in any condition, whatever direction events may take.

Let not our Master censure his minor Servant for what he has mentioned in this his treatise about the use of wine and song, both of which the Law abhors, because this Servant has not commanded that this ought to be done, but mentioned what his Art determines. The lawgivers have already known, as the physicians have known, that wine can be of benefit to mankind. The physician, because he is a physician, must give information on the conduct of a beneficial regimen, be it unlawful or permissible, and the sick have the option to act or not to act. If the physician refrains from prescribing all that is of benefit, whether it be prohibited or permissible, he deceives, and does not deliver his true counsel. It is manifest that the Law commands whatever is of benefit and prohibits whatever is harmful in the next world, while the physician gives information about what benefits the body and warns against whatever harms it in this world. The difference between the edicts of the Law and the counsels of Medicine is that the Law commands compliance with what benefits in the next world and compels it, and forbids that which harms in the next world and punishes for it, while Medicine recommends what is beneficial and warns against what is harmful, and does not compel this or punish for that, but leaves the matter to the sick in the form of consultation; it is they who have the choice.

The reason for this is manifest. In Medicine, the harm of what is harmful and the benefit of what is beneficial, are tangible, immediate, and require neither compulsion nor punishment, while neither the harm nor the benefit of these commands and prohibitions of the Law can be ascertained in this world. The ignorant might well imagine that all that is said to be harmful will not harm, and whatever is said to be beneficial will not benefit, because he does not see it at hand. Therefore, the Law compels the performance of the good and punishes for the evil that cannot be ascertained, be it good or evil, except in the next world. All this is benevolence toward us, favor bestowed upon us, compassion upon us for our ignorance, and mercy for the weakness of our comprehension.

This is the measure of what the Servant has envisaged to present unto the hand of him who hold his bondage, may God perpetuate his days; the wisdom of our Master is supreme. Now, this is the end.

Praise be only to God; He is sufficient for men and a most excellent Guardian. 40

A2—"vexed humors."
A1—"in numerous propositions."

47 The Arabic term shar'a specifically designates Moslem religious law.
48 A1 omits this sentence and substitutes: To the Bestower of Intellect, Praise be without limit. Finished is the Excellent treatise.
This glossary contains the names of the drugs, herbs, vegetables, fruits, animals, and minerals mentioned in the text. No detailed explanation is made of terms which are familiar. The Arabic terms are transcribed in parentheses; when the Arabic texts employ more than one term in designating the same object, all these terms are listed. The letter P. designates Persian names.

**Agaric** (ghārīqūn). The corky species of *Polyporus*, a genus of fungi which grows on trees, are collectively known as “agaric”; *P. officinalis*, also called the “female agaric,” was especially renowned as a cathartic.


**Ash** (lisan 'asafir). A well-known forest tree with a silvery gray wood; the Arabic terms mean “Indian wood” and “good wood,” respectively.

**Ambergris** (‘anbar). A morbid secretion from the intestine of the sperm whale found floating in some tropical seas. It is a waxylike substance of ashy color used primarily in perfumery. It was used formerly as a stimulant and antispasmodic. The name ambergris is a derivative of *amber grisea*.

**Anise** (ansān). An umbiliferous plant, *Pimpinella anisum*, a native of the Levant, which is cultivated chiefly for its aromatic and carminative seeds, known as aniseed.

**Apple** (tuffāh). The English word “apricot” is derived from the Arabic al-barquq—a noun which is not used in the texts, but is added as a parenthetical explanation in both the Latin and the Hebrew (Accidents, note 17).

**Anthriscus cerefolium*, the leaves of which are used in season-ing. The Arabic term literally reads “green coriander,” and is simply means “beavers’ testicles.”

**Apricot** (barqūq, mishmish). The English word “apricot” is derived from the Arabic al-barquq—a noun which is not used in the texts, but is added as a parenthetical explanation in both the Latin and the Hebrew (Accidents, note 17).

**Ash** (lisan ‘asāfîr). A well-known forest tree with a silvery gray bark, pinnate foliage, and peculiar winged seeds. These seeds, or *samara*, are called “Ash Key.” The Arabic term used in the texts means “birds’ tongue.”

**Asparagus** (halyūn).

**Asphodel** (khuntha).

**Azarole** (za’rūr). The fruit of the Neapolitan medlar, *Crataegus azarolus*, a spiny shrub related to the hawthorn, the fruit of which resembles a small brown apple. The English *azarole* is derived from the Arabic.

**Balm gentle** (taranjan, bādaranjābīyān P.). A fragrant labiate herb. It is also known as the balm-mint. Both the Arabic and the Persian terms are employed in the text.

**Balsam** (balasān). An aromatic, oily, resinous exudation of various trees of the genus *Balsamodendron*, especially the Balsam of Frangipani, *B. opobalsamum*. The Balsam of Frangipani is a derivative of *balsam grisea*.

**Bamboo-manna** (tabāshir P.). The concrete white juice obtained from the bamboo plant, *Bambusa arundinacea*, and related bamboo species.

**Barberry** (amābdarī, bādarī). The shrub, *Berberis vulgaris*. The Arabic term is transcribed from the Latin.

**Bark of the cinnamon cassia** (salīkhāh). See under cinnamon.

**Barley** (sha’ir).

**Basil** (raybān, badrīfuj, shāhīfaram P.). The aromatic shrubby plants of the genus Ocymum, especially *O. basilicum*, the sweet basil, and *O. minimum*, the lesser basil, the leaves of which are used in seasoning. The name “basil” is derived from the Greek word meaning “Royal.” Similarly the Persian *shāhīsifaram* is derived from the title *Shāh*. Of the three terms employed in this text, the first, raybān, appears to designate any of the good-smelling basils, while the other two are specific for the sweet basil.

**Bees** (naḥl). **Beet** (silq). **Behen** (bahman, bahman). The English “behen” is derived from the *Arabic bahman*, and is commonly used to designate the bladder campion (the white behen), and the sea lavendar (the red behen). The Arabic bahman refers to the medicinally used roots of a plant resembling a large radish. These roots are bicolored, red and white, and apparently this explains the “two behens” mentioned in the text.

**Belleric** (ballaj). The fruit of *Terminalia bellerica*, also known as the “bastard myrobalan.” The English “Belleric” is derived from the Arabic ballaj. **See Myrobalan.**

**Ben** (bān). The winged seeds, or ben nuts, of two species of Moringa, *M. oleifera* and *M. arbica*, from which ben oil was prepared. Unfortunately the terms “ben” and “behen” are often confused, especially since the English “ben” is derived from the Arabic bān, the plural of which is similar to that of “behen.”

**Blite** (yarbdūz). Any of the several species of the goosefoot family, *Chenopodiaceae*, and especially the wild spinach, *Amaranthus blitum*, or strawberry blite.

**Bran** (nukhalah).

**Cabbage** (kurunb).

**Camel, female** (nūq).

**Camphor** (kāfūr). The bitter, aromatic, white crystalline substance distilled from the bark and the wood of the evergreen camphor tree, *Camphora officinarum*. The English “camphor” is derived from the Arabic.

**Cardamom** (gāqūlla, hil buwwā). The seed capsules of various species of *Amomum* and *Elettoria* commonly used as a spice. The Arabic text employs two terms; one, gāqūlla, which appears to be generic, and a more specific term, hil buwwā, designating the lesser cardamom or *E. cardamomum*. The latter term means literally the “cardamom of Bawa,” a small Persian town west of Shiraz.

**Carob** (kharībūb, gharibūb). The fruit of the leguminous evergreen carob tree, *Ceratonia siliquea*, a native of the Levant. The fruit is an elongated flat hornlike pod containing hard seeds and a pulp which when ripe and dry is of rich sweet taste. The English “carob” is derived from the Arabic kharībūb or the Hebrew harīn.

**Carrot** (jazar).

**Carthamus** (qirtim, qurtim). A small annual composite plant, *Carthamus tinctoris*, the safflower, whose florets were used medically. The flowers also yield red and yellow dye. The name is derived from the Arabic gurtim.

**Cassia** (qīrat, qīrit). The leaves of the pudding pipe tree, a native of India, whose pulp was used as a potent laxative. The term *Cassia* was originally restricted to this tree, but is now used to denote a widely distributed genus of trees, shrubs, and herbs found in the warmer regions.

**Castoreum** (jundaba dastar). An oily substance obtained from the vesicles of the beaver. *Castor oil* is derived from the *Arabic qīrit*.

**Cinnamon** (khashīb). The leaves of which are used in seasoning. The Arabic term literally reads “cinnamon,” and is thus misleading.

**Chervil** (kuzbarah khadra). The aromatic garden herb, *Anthriscus cerefolium*, the leaves of which are used in seasoning.
Chicken (dajjah, dağ). The sing., dağjah, denotes a hen, while the pl., dağj, is employed to designate either hens or, collectively, chickens.

Cinnamon (där šinī, qirfah, salīkhhah). A widely used spice prepared by powdering the inner bark of several species of Cinnamomum, and especially C. cassia, the Chinese cinnamon. Its origin, China, is well preserved in the English name, which is derived from the Hebrew gināmōn, as well as in the Arabic där šinī. The Arabic texts employ two additional terms which designate respectively the bark or the rind of the cinnamon tree; the term qirfah, translated as rind of the cinnamon, appears to designate the rind of C. zeylanicum, the Ceylonese cinnamon, while the term salīkhhah, translated as “bark of the cinnamon cassia,” appears to denote the Chinese variety, C. cassia. According to Dozy, the latter term refers to acacia.

Citron (utrūj). The aromatic spice made of the dried flower buds of Carophyllus aromaticus, a tropical tree of the myrtle family. The Latin refers to it as gario fiïorum, which suggests the English “gilly flower.”

Clove (qaranfūl). The aromatic spice made of the thick aromatic roots of the composite plant Agastache foeniculum, a native of Kashmir. The term “cost” is derived from the Arabic qust and is often confused with “costmary”—the aromatic perennial plant Cynanthemum balsamita.

Cubeb (kabbābāh). The berry of Cubeba officinalis, a climbing shrub, which is also known as Piper cubeba. The English cubeb is derived from the Arabic.

Cucumber (khiyar). The small aromatic fruits of the herb Cucumis sativus, of the carrot family, which were much used as stomachics, and for seasoning.

Cost (qustūn). A spice prepared from the thick aromatic roots of the composite plant C. occidentalis, a native of the Levant. The term “cost” is derived from the Arabic qust and is often confused with “costmary”—the aromatic perennial plant Cynanthemum balsamita.

Cuscuta epithymum, of a genus of plants which attach themselves to surrounding vegetation such as clover, thyme, etc. The similarity of the Arabic name to the term epithymum suggests its Greek origin.

Cynanchum (liqibā). A leafless parasitic plant, Cynanchum rubrum, known as black and the red currants, respectively. The term is also used to designate collectively raisins prepared from a seedless variety of grapes, as well as a variety of other dried fruits.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.

Gazelle (ghazāl). The English noun is derived from the Arabic ghazāl.

Gin (sālīkhhah). See Myrobalan.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.

Gold (dhahb). The term is also used to designate collectively raisins prepared from a seedless variety of grapes, as well as a variety of other dried fruits.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.

Goat (māʿīz). The term is also used to designate collectively raisins prepared from a seedless variety of grapes, as well as a variety of other dried fruits.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.

Goat (māʿīz). The term is also used to designate collectively raisins prepared from a seedless variety of grapes, as well as a variety of other dried fruits.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.

Goat (māʿīz). The term is also used to designate collectively raisins prepared from a seedless variety of grapes, as well as a variety of other dried fruits.

Dill (shibīrī). The small aromatic fruits of the herb Anethum graveolens, a variety of the above, which are gingerlike. The English term is derived from the Arabic Khulanjan, which in turn is a derivative of the Chinese Ko-Liang-Kiang—mild ginger from Ko.

Ginger (zanjabīl). A spice prepared from the roots of Zingiber officinalis, a native of China and India.
Liquorice (sus). A medicinal preparation extracted from the roots of Glycerhiza glabra, native to Southern Europe and Syria.

Long pepper (dār filfil). The edible berry-like fruit of the thorny bushes of the genus Zeythus, especially Z. Lotus—the lote tree.

Mace (bassahasah). A spice prepared from the dried outer covering of the nutmeg.

Maidenhair (kuzbarat al-ha’ir). A fern, Adiantum Capillus-
veneris, having fine hairlike stalks and delicate fronds.

Manna (shirkhusk P., taranjubin). The solidified sweet, yellow, juice that exudes from incisions made in the bark of several trees. Two kinds of manna are listed in the texts: taranjubin—the Manna of Fraxinus ornus, the manna-ash, and shirkhusk—the Manna of Atraphaxis spinosa.

Marshmallow (khatmi).

Mastic (maṣṭakā). The gum which exudes from the bark of Pistacia lentiscus and some other related trees. The English Mastic is probably derived from the Arabic.

Melon (battikh).

Mule (būri).

Musk (misk). The secretion obtained from a sac under the abdominal skin of the male musk-deer; it is an odiferous reddish-brown substance. The English term is derived from the Arabic misk or the Persian mushk.

Myrobalan (halilaj, ahlilaj). The myrobalan trees are of the true myrobalan, but rather a related species, Embelica officinalis, the fruits of which were used medicinally.

Myrtle (as). A shrub, Myrtus communis, the flowers of which have low succulent leaves that usually expand in the direction of the sun.

Nard (sunbul). An aromatic balsam or ointment, also known as "hyacinth." (q.v.)

Nux vomica (jawz al-raqqa'). The seeds contained in the pulpy rind of the cinnamon (qirfah). See Cinnamon.

Onions (basal).

Olive (zayt).

Opium (afūn).

Opopanax (jaww buwwā). The term is derived from the Arabic opo, "parsley." The fettid gum-resin obtained from the roots of Opopanax chironium, a yellow-flowered plant resembling parsley.

Orach (qaṣat). A small red ornamental herb, Atriplex hortensis, also called "the mountain spinach."

Oxtongue (lisān al-thādhawr). A collective term applied to several species such as bagloss, borage, and alkamet, the leaves of which are rough and tongue shaped. The Arabic term means literally "tongue of an ox."

Oxymel (sakānjaḥān). A medicinal drink or syrup made of vinegar and honey with which other ingredients were compounded. The Latin text usually transcribes this term as secamina.

Pandanus palm (kadar). A fragrant tree, Pandanus odoratis-simus, resembling a palm, related to the screwpines. The Arabic term kadar is obscure. We have followed Kroner in rendering it "pandanus palm" (Ar. ḫatl).

Paradice (qarafs).

Partridge (bijlah).
Saffron (za‘farān). The plant *Crocus sativus*, which is widely cultivated for its use in coloring and flavoring.

Sagapenum (sakbīnā). The gum-resinous juice extracted from *Ferula persica*, which was used medicinally as an antispasmodic.

Saltwort (hamd). Any plant of the genus *Salsola*, especially *S. kali*, used in the manufacture of soda ash.

Sandalwood (sandal). The yellowish fragrant wood obtained from several species of the genus *Santalum*, especially the parasitic Indo-Malayan tree *S. album*.

Scammony (al-maḥmūdih). The laxative preparation obtained from the tuberous fleshy roots of the plant *Convulvulus scammonia*, a native of Syria. Its popularity is reflected by the Arabic name al-maḥmūdih—The Delightful.

Sea holly (qarsa‘annah). The herb, *Eryngium martimum*, of the carrot family, also known as sea holm.

Senna (sana). A medicinal preparation from various tropical shrubs of the genus *Cassia* which bear yellow flowers and green flat pods. The Senna of Makka (Mecca), sanā makki, was considered the best of all sennas. The English “senna” is derived from the Arabic.

Sheep (da’n).

Silk (abrīshām).

Silver (fiddah).

Snake cucumber (qithṭa’). A Mediterranean plant, *Ecballium elaterium*, known also as the spirting cucumber. When ripened, the fruit separates forcibly from the stalk, squirting its seeds and juice; a powerful purgative, *elaterium*, is prepared from the juice.

Stoechas (ustūkhūdāss). A small shrub, *Lavandula stoechas*, with lilac-colored flowers, the distillation of which was used as oil of lavender. It is also known as “French lavender,” or “stechados.”

Sugar (sukkar).

Sumac (summaq). A preparation of the dried and chopped leaves and shoots of plants from the genus *Rhus*, especially *R. Cariara*. The English term is derived from the Arabic summaq.

Sweet Basil (bādrafīj). See Basil.

Tamarind (tamr hindi). The pulp of the fruit of *Tamarindus indica*, which was usually preserved in sugar. The English term *tamarind* is a derivative of the Arabic term *tamr hindi*, meaning *Indian date*.

Theriaca (tīrāq). No other single medicine can rival the long, illustrious and fascinating history of this panacea (G. W. Corner, “Mithridatium and Theriac, the most famous remedies of old Medicine,” Johns Hopkins Hosp. Bull. 26 (1915): pp. 222–226). Though it eventually became a cure-all, it began as an antidote to poisons, compounded of small doses of many ingredients (see Regimen, note 64). Of the various types known, two are mentioned in the text: the Mithridatic and the Theodoretic. The Theodoretic, a popular formula attributed to a certain Theodoretus (ca. 110 C.E.), was made of aloes, rhubarb, saffron, orris root, colocynth, cinnamon, pepper, scammony, and gentian (C. J. S. Thompson, *The Mystery and the Art of the Apothecary*, London, John Lane, 1929, p. 38). The Mithridatic, by far the most famous of all theriacs, was concocted by Mithridates VI, King of Pontus (120–63 B.C.E.). “The theriaca of Mithridates contained no less than seventy-one articles, of which fifty-eight are tonic or stimulant, one narcotic, five purgative or diuretic, and the remainder serve to unite these ingredients in the form of electuary. This strange assemblage of drugs may indeed deserve the name of ‘Monstrum Pharmaceuticum.’” (A. Stille, *Therapeutics and Materia Medica*, Phila., Henry C. Lea., 1868).

Turpeth (turbith). A cathartic drug prepared from the root of *Ipomaea turpethum*, the East Indian jalap. The English terms “turpeth” and “turbith” are derived from the Arabic.

Vetch (fül). The beanlike fruit of various species of the leguminous plant *Vicia*.

Vinegar (khall).

Violet (banalṣaj). The plant *Viola tricolor*, also known as “panzy” or “heart’s ease.”

Watercress (jirjir). A culinary perennial plant, *Nasturtium palustre*, found in abundance near springs and small running streams. It is used in salads, and has a pungent flavor.

Water lily (nilūfar).

Wheat (qamb).

Wild ass (bimar al-wahsh).

Wild carrot (shaqaqul). An umbelliferous desert plant, *Trachydatum lehmanni*, also known as the “desert parsnip” and as the “root of wisdom,” the root of which resembles a small carrot. The sweet white pulp of this root was used as a stimulant and was believed to increase the powers of the brain, whence comes the term “root of wisdom.”

Wolves (dhiyāb).

Zedoary (jadwar, zarunbad, antulah). A medicinal preparation from the roots of several species of the genus *Curcuma*, especially *C. zedoaria*, having properties resembling those of ginger. The term antulah refers to a special kind of zedoary.
Sumac, 31
Summer, 17, 23, 24, 30, 33, 35, 37, 38, 40; digestion in, 17; regimen in, 39
Sun, 23, 27
Sunrise, 38
Superfluities, 17, 18, 19, 20, 23, 27, 30, 32, 33, 38; expulsion of, 18; retention of, 18
Supper, 38, 39
Surfet, 16, 17, 19
Sweat, 19, 22, 30
Sweet basil, seeds of, 36
Sweet dishes, 37
Sweet food, 31; nutritional value of, 31
Sweetmeats, 38
Sweets, 20, 31
Swelling, 30, 32
Symptoms, 24
Syncope, 29, 30
Syria, 33, 37, 40
Syrian ounce, 32, 33
Syrup, 23, 24, 25, 38
Syrup for softening the stools, 24
Syrup, gladdening, 24
Syrup of citron peel, 30; of fruits, 20; of lemon, 21, 40; of mastic, 30; of ox tongue, 32; of oxymel, 21, 23, 38; of oxymel of currants, 23; of oxymel of roses, 23; of rose buds, 30; of roses, 21, 23, 38; of sorrel, 33, 39; of violets, 21, 24 of wild sorrel, 24
Syrups compounded by Maimonides, 24
Tabarzad sugar, 35, 36
Talmud, 5, 6
Talmudic medicine, 6
Tamarind, 23, 35, 37, 39; infusion of, 21, 23, 33
al-Tamimi, 7
Temperament, 18, 19, 23, 24, 29, 30, 31, 32, 33, 35, 36, 37, 39, 40; of the liver, 35
Temperament, bad, 19; cold, 36; dry, 29, 30; hot, 19, 22, 33, 36; humid, 19, 29; original, 33, 40
Temperament, rectification and equilibration of, 35
Temperate jacinth medicament, 36, 39
Tenesmus, 22, 23, 28
Terror, 25
gov't
Teshuvot ol She'lot peratio, 8
Theodoretic, theriac, 21
Theriac, 21, 22; Mishridatic, 21, 22; Theodoretic, 21
Thirst, 17, 18, 21, 29, 34, 39; false, 18; genuine, 18
Thorn, 28
Throbbing of heart, 35
Thyme, dodder of, 36
Thyme, 22, 27, 34; of wine, 23, 40; effect on liver, 24
Vains, 18, 19, 20, 27
Ventosity, 19, 32
Ventrices, of brain, 27
Veins, 18, 19, 20, 27
Vegetables, inflammation against, 19
Vegetables, injunction against, 19
Vexation, 19, 32
Vermicelli, 18
Vessel, 37; earthen, 24; wide, 25
Vessels, opening of, 32, 34; pulsating, 27
Vetch, 31
Vices, 26
Victorious, the, 25
Vigor, 16, 20, 28
Vigor vs. disease, 20, 28
Vinegar, 23, 24, 31, 37, 38; of wine, 23, 40; effect on liver, 24
Violet, 21, 22; oil of, 33; syrup of, 21, 24
Viscidity, of fish, 19; of phlegm, 34
Vision, light of, 25; strengthening of, 31
Visual spirit, 25
Vivification, 20
Voice, 25, 30, 38
Vomiting, 21, 22, 24
Water, 16, 18, 19, 21, 22, 23, 24, 27, 28, 29, 30, 31, 36, 37, 40; at mealtime, 18; drinking after the bath, 30, 39; in therapy, 21, 22, 29; rectification of, 27; spoiled, 31
Water of endive, 33
Water of ox tongue, 32, 38
Water Lily, 22, 34, 35
Weakness, 25
Weight, importance of, 26
Weather, cold, regimen in, 38, 39
Weather, hot, regimen in, 39
Weights, 13
Wheat, 18, 36, 37, 39
Wheaten bread, 18, 36
Whew, 34
White behen, 36
White bread, 18
White sandalwood, 39
Wild ass, 31; virtues of, 31
Wild carrot, 24
Wild sorrel, syrup of, 24
Wind, 27
Wine, 19, 22, 29, 32, 33, 37, 38, 39, 40; as nutrient, 19, 33; at bedtime, 32, 38, 39; choice of, 37; praise of, 19; use and abuse of, 19, 29
Wine and song, 40
Wine vinegar, 23, 40
Winter, 17, 24, 25, 30, 31, 37, 38, 39; digestion in, 17; regimen in, 38, 39
Wolf, 31
Women, 25
Words, 40
World, the next, 40
World, the present, 40
Worldly good and evil, 26, 40
Worlds, the two, 31, 34
Yad ha-Hazakah, 5
Yellow bile, 19, 24, 33
Yellow melon, 19
Yolk, 18, 22
Young, the, 19, 29
Young age, 40
Zedoary, 24, 36
Zedoary root, 36
Zeitlin, S., 5