## THE EARLIEST HOSPITALS.\*

## BY ELEANOR KAIRIS.1

The modern hospital is the result of a gradual evolution from institutions which had their nascence in antiquity. The temples of Egypt and Greece, the surgeries, the valetudinaria, and the Roman military hospitals, all helped to pave the way for the modern establishments which followed. Because of their pagan implications, these early institutions were closed in 335 A. D. by a decree of Constantine. Some were completely abolished while others only ceased to function. So great a need had been created for these establishments, however, that those not completely destroyed were obliged to re-open under new influence and supervision.

The earliest institutional care of patients had its inception in the ancient Egyptian and Greek temples. In most instances, these temples were dedicated to gods of healing, or as is generally believed now, to rational beings whose mundane achievements earned them deification. Religious and philanthropic in character, they were equipped and manned to assuage both the flesh and the spirit.

In the beginning, cures in the temples were effected by subordinating rational methods to mystic ritual. These outward manifestations of mysticism, magic and cant, were resorted to, according to Gauthier, in order "to gain ascendency over the populace." It is said that Pythagoras, who exercised the earliest and most lasting influence on medicine, learned from the Egyptian priests how to influence his patients through magical charms and incantations. He felt that to eliminate certain mystical rites, which were as much a part of the patient as the pain which brought him, would result in a loss of confidence. Hence he allowed it to be supposed that the magic formula was the important part of the cure. Breasted, in his introduction to the Edwin Smith Surgical Papyrus, said that certain traditional practices in medical treatment, which were wholly or chiefly magical, never disappeared. These views, implicitly followed by the common people, died hard. When Pythagoras founded his great Brotherhood he had two types of disciples: those who "had been proven," and "those who remained to be proven." There were secret doctrines for those who "had been proven," precepts teaching a combination of science and magic, supplementing one with the other. When the Order was dissolved in the second half of the 5th century B. C. a disagreement as to doctrine caused a rift in the ranks of the Brotherhood. One group of disciples cast off the air of mystery and acknowledged that they cured only by natural means. The other group, however, engaged in even more mysticism, repeating glibly the philosophical catchwords of their school, and concocted a psuedo-scientific system which dispensed with all proof.

Magic and mysticism in the temples started with the oracles who were first consulted for any purpose, and eventually for health. When the oracles were overwhelmed with consultants they called in the priests, who with their practical knowledge of simple remedies, proved able allies. When the requests became even more numerous, one priest devoted all his time to the observance of ritual while a colleague devoted himself to cures. The chief physicians to the Pharaohs were high ecclesiastics and their titles, still extant on many of the inscribed stelæ, indicate

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that they were the heads of staffs of physicians attached to the court and the temples.

Nothing was spared to make the temples imposing and inviting. They were situated geographically in supremely attractive scenery. Ivory doors inlaid with gold, decorative sculptures, majestic statuary—all had a tendency to impress the patient. And yet, it was not only the æsthetic side which was nurtured. Fresh air, sunshine, a good water supply, freedom from external disturbances were combined factors which decided the site of a temple of healing.

Procedure in the temple followed a very definite form. On arriving, the patient was conducted through preliminary stages of ritualistic bathing and dieting. After these preliminaries he was led to a life-sized statue of the god to whom he offered prayers and oblations. Then the priest-physician conducted the patient through the temple, stimulating his imagination by showing him numerous votive offerings representing parts of the body which had been cured in others. These adorned the walls and columns of the temple. A pair of silver eyes, or a relief in marble of a leg, were manifestations of gratitude for recovery. The tour concluded with singing of hymns in adoration of the god and an observance of religious dances. This entire procedure was a necessary propædeutic to induce a state of mind which would lend itself to suggestion.

After the patient's imagination had been sufficiently stimulated, he was led to the abaton where he was put to bed. This was a lofty, airy, sleeping chamber, its southern side an open colonnade. The beds, which bore a marked resemblance to portable cots, were placed between the columns of the portico. According to inscriptions, it was during this temple-sleep, or incubation, that the priest, masquerading as the god, appeared to the patient, commented on his ailment, and suggested a method of cure. It is difficult to say whether these visitations were merely hallucinations in individuals whose imaginations had been excited, or whether they had been given a drug to induce dreams. Nevertheless, the priest-physician availed himself of this situation and prescribed a course of treatment.

Long before incubation became a rite in the temples, the sick in Egypt and Babylonia were laid in public squares and much frequented by-ways. Those passing by who had suffered from a like disease and had found a remedy contributed of their knowledge and experience. After incubation became more widely practiced friends of the sick frequently went to the temple to see whether the god might reveal a cure for their ailing friends. When Alexander required medical care several of his friends laid themselves in the temple of Serapis to learn from the god if it would be to his advantage to come into the temple. It is said that the voice of the god replied negatively.

Whether incubation was indigenous in all ancient countries, or whether the idea was borrowed or diffused, is a problem for cultural anthropology. While it had an extensive development in the religions of the Euphrates and Tigris Valleys, and although it was widely practiced in the temples of Aesculapius throughout Greece, it may be conjectured that its genesis was in Egypt.

There is abundant evidence that among the methods of cure in the temples, even in earliest times, were surgery, use of drugs, hypnotic treatment, and the so-called miracle cures. Drugs were employed in forms requiring special preparation for administration. According to Jayne: "the more practical therapeutics of the

temple made use of external applications of lotions, ointments and remedies from plants." There were assistants to the priest-physicians whose assignment was to collect plants, to separate them into their constituent parts, and to prepare the leaves, blossoms, roots and juices. Mariette, in his voluminous work describing the excavations in the Great Temple at Dendérah, told of one large hall having the word "Laboratory" written over the door while an adjoining chamber was specified as a place where the preparations of the Laboratory were stored. The oils, ointments and essences, which were prepared here, undoubtedly were used in religious ceremonies, but it can be inferred with some degree of certainty that when the priest-physician felt that prayers and incantations had to be supplemented by a plaster or a poultice, the task was delegated to the "Laboratory." The large number of remedies and prescriptions cited in the *Papyrus Ebers* points to an elaborate Egyptian pharmacopæia and a highly developed art of pharmacy. The preparation of pills, plasters, poultices and ointments, required as much pharmaceutical technique in the days of the Pharaohs as they do to-day.

In Greece, too, there were temples dedicated to gods of healing, or to those whose seemingly miraculous cures had enrolled them among the deities. Just as in Egypt temple-sleep was widely practiced and excavations have revealed numerous votive offerings and inscriptions describing the varied methods of cure.

The Surgery or Iatrium (also written Jatreion) was in the nature of a private hospital in a physician's establishment, and was fully equipped with consulting rooms, pharmacies, operating rooms, and all the instruments then available. In Kranken-Anstalten, Meyer-Steineg wrote that the arrangement of rooms in the Iatrium was such that the patient was given every conceivable hygienic advantage. Draughts and the heat of the sun were avoided although there was an abundance of air and light. Part of the Iatrium was utilized for compounding drugs, another section for preparing foods and diets. There were quarters for the nursing staff and the physician's assistants. The Iatrium provided not only for the active staff but there is much probability that it was also a public laboratory for the sale of medicines. Aristotle's father, a distinguished physician and author of medical works, owned such an Iatrium. We are told, that when Aristotle returned from the wars he was obliged to dispose of the surgical building, apparatus and medicines, which he had inherited.

The Valetudinaria were hospitals in Rome so thoroughly equipped and manned with so complete a staff that a venerable tradition was indicated. Many are of the opinion that these hospitals ministered only to slaves but ancient literary commentators, especially Celsus and Seneca, mentioned no such restriction. In fact Seneca, when he wrote to a contemporary, referred to these hospitals frequently. He said, "and let us discuss our common woe as if we lay together in the same valetudinarium," which would lead one to suppose that admissions were not limited to slaves.

At permanent Roman army posts excellent military hospitals were established. The oldest revealed by excavation thus far is that of Carnuntum where remains of two periods were unearthed; a simple valetudinarium of the first century A. D. and a later enlargement. The new design was built on the corridor system and had both a kitchen and a pharmacy. With the decline of the Empire the military hospital

vanished almost completely and over a thousand years elapsed before provision again was made for sick and wounded soldiers.

One of the first hospitals following the edict of Constantine was a Nosocomium founded in 380 by Fabiola, a Roman lady of renowned piety and a close friend of St. Jerome's. She provided nourishment and such medical care as might be needed to the destitute sick whom she found on the public highways. Another hospital was built by Sir Basil, eight or ten years earlier, outside the walls of Cæsarea in Cappodocia.

In 550 the Emperor Justinian built the hospital of St. John at Jerusalem which subsequently became the cradle of the warlike Knights of Rhodes and Malta. Their original function was to care for sick pilgrims and later to minister to wounded crusaders. The earliest Christian hospitals were in the homes of the bishops but when the resources of the church proved insufficient the canons were ordered to give a tenth of their revenues to maintain the sick poor. Charlemagne decreed that the institutions should always be near the cathedral in order that the clergy might visit the sick. The monasteries of the Early and Middle Ages served both as hospices for pilgrims and as hospitals for the care of the sick. In early days the word "hospital" was used to denote a permanent retreat for the poor, infirm or insane, as well as a regular institution for the temporary reception of those requiring medical care.

In summation, the modern hospital is an outgrowth of institutions which arose in pagan antiquity through the temples, the surgeries, the valetudinaria and the Roman military hospitals. Archæological evidence confirming literary tradition attests to the existence of these institutions as early as 3000 B. C. In the beginning cures were effected by subordinating the rational to the mystical, but it may be conjectured that these outward manifestations were resorted to only "to gain ascendency over the populace," that it was the concrete substance employed which actually effected the cure.

The edict of Constantine closed these early institutions in 335 and the first hospitals or nosocomia under the new order were those founded by Fabiola and Sir Basil. The monastic period followed when hospitals were ecclesiastical rather than medical; they were for care rather than for cure. There was practically no further progress until the beginning of the 16th century and then began a slow but steady development which culminated in our present system, a system which had its genesis in remote antiquity.

# REFERENCES.

Allbutt, Sir Clifford, Greek Medicine in Rome, MacMillan & Co., 1927.
Aravintinos, Temples of Aesculapius.
Blackwell, Basil, Magic in Greek and Latin Literature.
Breasted, G. H., The Edwin Smith Surgical Papyrus, Chicago, 1930.
Bryan, Cyril P., The Papyrus Ebers, New York, 1931.
Buck, Albert H., The Growth of Medicine from Earliest Times to 1800.
Burdett, Sir Henry, Hospitals and Asylums of the World, London, 1893.
Caton, Richard, The Temples and Ritual of Aesculapius, London, 1902.
Daremberg, C., Etat de la Medecine entre Homere et Hippocrate.
Daremberg, C., Histoire des Sciences Medicales.
Dawson, Warren R., The Beginnings in Egypt and Assyria Clio Medica Series.
Farnell, Louis Richard, The Gult of the Greek States.

Gauthier, L. P. A., L'Exercise de la Medecine dans les Temples chez les Peuples de L'Antiquite, Lyon, 1844.

Grote, George, Aristotle, London, 1883.

Hurry, Jamieson B., Imhotep, Oxford Univ. Press, 1926.

Jayne, Walter Addison, The Healing Gods of Ancient Civilizations, Yale Univ. Press, 1925. Mariette-Bey, Auguste, Dendérah, Paris, 1875.

Neuburger, Max, History of Medicine, London, 1910 (Playfair Translation).

Petrie, W. M. Flinders, Social Life in Ancient Egypt, New York, 1923.

Singer, Charles, Short History of Medicine, Oxford, 1928.

Smith, G. Elliot, The Ancient Egyptians.

Steineg-Meyer, Kranken-Anstalten.

Stubbs, S. G. B., and Bligh, E. W., Sixty Centuries of Health and Physick.

Sudhoff, Karl, Essays in History of Medicine, New York, 1926.

Taylor, Henry Osborn, Greek Biology and Medicine, Boston, 1922.

Thorndike, Lynn, History of Magic and Experimental Science, New York, 1929.

Walton, Alice, The Gult of Asklepios.

Wilkinson, J. Gardner, Manners and Customs of the Ancient Egyptians.

Zeller, Eduard, The History of Greek Philosophy, London, 1931.

## PROPOSED INDIANA INTER-PROFESSIONAL HEALTH CONFERENCE.

A preliminary meeting of the Proposed Inter-Professional Health Conference was held in the Union Building, Purdue University, on April 27th, for the purpose of perfecting a tentative program for the creation of an Indiana Interprofessional Health Conference. The purpose of the Conference is to enhance the quality of public health service and to study the various civic, health and professional problems with the view to rendering better health service to the citizens of Indiana.

At the meeting a proposed Constitution was accepted for submission to the various Member-Associations for their consideration and adoption. The following articles are quoted.

## ARTICLE I.

Name. This organization shall be known as the Indiana Interprofessional Health Council. The associations herein-after named shall be known as Member-Associations; the individuals, as Members.

#### ARTICLE II.

Objectives. (a) To enhance and protect the quality of public health service and the general public weal of the citizens of Indiana.

- (b) To provide a clearing house for the interchange of information and knowledge between the Member-Associations, looking toward effective coöperation in the securing and maintaining of the highest professional standards of public health service.
- (c) To inform the public with regard to the aims of the individual Member-Associations and thus advance the welfare of these respective associations.
- (d) To furnish a means for study of and research in the various civic, health and professional problems in which the Member-Associations have common interest.
- (e) To coöperate as a single unit in local, state and national problems and/or emergencies of mutual interest; this to be carried out by means of education of the laity, so that they may thereby be authoritatively informed.

#### ARTICLE III.

Membership. The membership of the Council shall be composed of five representatives from each of the following organizations: The Indiana State Medical Association, the Indiana State Dental Association, the Indiana Pharmaceutical Association, the Indiana Hospital Association, the Indiana State Nurses' Association, the secretary of the State Board of Health, the dean of the School of Pharmacy of Purdue University, West LaFayette, the deans of the Schools of Medicine of Indiana University at Bloomington and Indianapolis, of the School of Dentistry, Indiana University, and of the Indianapolis College of Pharmacy.