eration were printed by them: Alessandro Benedetti's "Collectiones medicinae," a small pamphlet without place, date or printer and by Mlle. Pellechet ascribed to Aldus, though Robert Proctor has since shown that the book was printed from types that belonged to the Gregorii; Bernard de Gordon's "Lilium medicinae," highly valued for its clearness and conciseness, and which gives a good idea of the standpoint of medicine in the thirteenth century; its author was professor at Montpellier from 1285 and dictated the present work to his students in the year 1305; the book has a wood cut on the title-page to the index, that to the work itself being quite plain.

"Theicrisi," or "Altheisir," is the title of the third book in this group; it has for its author Avenzoar, the latest of the great Arabian physicians.

The fourth book, called "Fasciculum Medicine," is of interest on account of its illustrations, which are the earliest examples of anatomic drawings reproduced in wood cuts, though the present edition, printed in 1500, is not the first (the first edition was printed in 1491); the author of the book, Johannes Ketham, was a German physician, living in Italy, but of whom nothing further is known; it should be said, though, that the illustrations are not original with him; some of them are of interest for the student of the history of costume and furniture.

Mondino da Luzzi's "Anathomia" is one of the three books in the collection that were printed in Germany. It has neither place, date nor name of printer, but it was printed with the same types with which Martin Landsberg printed in Leipsic after 1492, and has, therefore, been assigned to this printer; it was printed before 1500. Mondino was the first anatomist since the time of the Ptolemys to dissect human bodies, and his book was intended as a handbook for anatomic exercises. From 1290 to his death in 1326 he was a teacher at the university of Bologna.

The other two books printed in Germany are bound together; they are not medical in character, though one of them, Bartholomæus Anglicus (or Glanvilla's) encyclopedia, "De proprietatibus rerum," contains a good deal of medical information. It was printed with types used by a printer in Heidelberg whose name is not known, but who is commonly spoken of as "the printer of Lindelbach," after the title of one of his books. The work bound together with this, Werner von Rolewinck's "Fasciculum temporum," was one of the most popular books of its time. Leo Baer, in his work, "Die illustrierten Historienbücher des 15. Jahrhunderts," enumerates not less than thirty-four editions of it printed before the year 1501; the first two editions were printed in the same year, 1474, both in Cologne, but by different printers; the present edition is one of several printed by Johannes Prüss in Strassburg in the decade beginning 1490; but it does not bear his name nor is it dated. The author of this work was a Carthusian friar and inmate of the St. Barbara monastery in Cologne, where he died in 1502, 77 years of age. He was the author of several books, both historical and theological.

One volume still remains to be mentioned, though it is likely that it should not have been classed among the incunabula. It is an anonymous edition of the "Regimen Sanitatis Salernitanum," with Arnoldus de Villanova's commentary, a versified essay on hygiene prepared by the physicians connected with the famous school of Salerno for the benefit of Duke Robert of

Normandy, who in 1096 visited his relative, Duke Rugiero of Salerno, on his way to take part in the first crusade. Hain, Mlle. Pellechet and other bibliographers count this edition among incunabula, but Robert Proctor does not include it in the first part of his "Index to Early Printed Books in the British Museum," but merely refers to it as being "not fifteenth century." For my part, I have not been able to come to any definite conclusion, but have followed the lead of the majority in assigning to it tentatively the date 1500; I may say, however, that I have not been able to identify the type with which it is printed with any of those described in Haebler's "Typenrepertorium der Wiegendrucke"; when the section for Italy of the second part of Proctor's "Index" appears we shall probably be able to determine the date of the book; it is also probable that a closer study of the wood cut on the title-page will help to solve the problem.

STREPTOCOCCIC INFECTIONS OF THE THROAT *

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During the past few months a great deal of attention has been attracted to the subject of streptococcic infections of the throat, and there have been two contributions to the literature of the subject which are of more than ordinary interest. At the Chicago meeting of the American Medical Association last June, Dr. Alice G. Bryant, of Boston, read a paper¹ describing a series of cases in which the infection fastened on the so-called adenoid tissue found in the pharynx, and in which there were marked symptoms of infection, with temperature ranging from the neighborhood of 100 to 104 F., and at times a free discharge from the nose of a creamy consistency, masses of adenoid tissue sometimes being found in this discharge. Bacteriologic examination of the discharge in the cases reported by Dr. Bryant showed streptococci in abundance.

By far the most interesting article that I have seen on the subject, however, is that by J. O. Hollick,² Medical Officer to the Midland Counties (England) Idiot Asylum, in which is reported an epidemic of streptococcic or "septic" throats which prevailed in the asylum during April of last year, also a similar epidemic in his private practice. The first outbreak was thought to be due to the Klebs-Loeffler bacillus, but bacteriologic examination showed an absence of diphtheria and diphtheroid bacilli, with a plentiful growth of both streptococci and staphylococci. The epidemic occurred first among the nursing staff, and then spread to a number of the inmates. The general symptoms are summarized by Hollick as follows: malaise and pains in the back and neck were prominent, and violent headache in a few cases; no vomiting or other abdominal symptoms. Evening temperature often rose to 104, morning temperature 100 Fahrenheit. Slight soreness existed on one or both sides of the throat and difficulty in swallowing; the submaxillary and glands adjacent to the angle of the jaw and in the triangles of neck enlarged and tender. One or both tonsils showed creamy

* Read before the Memphis and Shelby County Medical Society, March 2, 1909.

1. Streptococcic Infections of the Pharyngeal Adenoid Tissue in Adults, THE JOURNAL A. M. A., June 13, 1908, 1, 1963.

2. Lancet, London, Dec. 19, 1908.

white secretion, with angry-looking areola of inflammation extending to the anterior pillar of the fauces, and the uvula was often swollen and intensely edematous. There were no points of follicular exudation on tonsils. Urine febrile, and in some cases slight traces of albumin. The exudation rarely extended beyond the anterior pillars of the fauces to the front, or beyond the posterior pillars behind, but much mucopurulent secretion was observed to exude from the lymphoid follicles over the vault of the pharynx, and signs of nasal obstruction pointing to a general engorgement of the lymphoid tissue around the posterior nares and extending through the nares anteriorly were often evident. The exudate in no case extended over the soft palate or uvula. In from two to four days, according to the severity of the infection, the symptoms and local signs decreased, glandular swelling and tenderness remaining for some days or weeks after clearing up of the other symptoms. A tendency to relapse was shown in several cases after subsidence of the temperature.

No sooner had this epidemic abated than one of a similar but severer character occurred in Hollick's practice at a private preparatory school in the same neighborhood. There was a history, before the beginning of the epidemic, of one boy returning to school who had had a sore throat which had imperfectly cleared up. In two or three weeks later a boy was seized with convulsions, and when Hollick saw him after the abatement of the seizure, his temperature was 103 F.; he complained of no sore throat, but his cervical glands were enlarged and tender. When seen next day he had a creamy secretion over both tonsils, but not extending onto the palate, uvula, or faucial pillars. There was much angry congestion over the latter, and he now complained of much difficulty and pain on swallowing. Four other boys on this day were put to bed with rise of temperature, tenderness over the cervical glands, headache, malaise, and some pain on one or both sides on swallowing. One of these showed much cervical glandular enlargement and had a more suspicious look about his fauces and tonsils than the rest. A swab from his throat showed Klebs-Loeffler bacilli. He was treated with 4,000 units of antitoxin. It proved to be a severe case of diphtheria of the fauces and nares, with marked heart and kidney trouble, and the patient succumbed fourteen days after onset of symptoms of cardiac failure.

Swabs from other throats showed Hoffman's diplococci and streptococci but no diphtheria bacilli. Boys fell down like ninepins, says Hollick; in all thirty cases developed, but only in one other of these was the specific bacillus found, this case proving, however, to be very mild.

Hollick calls attention to the well-understood possibility of a "diphtheritic" supervening on or accompanying a "diphtheroid" infection, or of a streptococcal infection going hand and hand with both and gaining sometimes the upper hand.

My reason for quoting so freely from Hollick's article is that he very accurately describes a condition which has prevailed during the past winter to no little extent in Memphis, and also in the surrounding country, and because his experience has been similar to a recent one of mine.

Recently I have had a number of cases of mixed streptococcic infection of the throat to deal with, and the severity of the symptoms in these cases has at times

corresponded with some of the cases reported by Hollick. I shall here report more or less in detail some of the cases that have come under my observation.

CASE 1.—History.—Lavina M., aged 7, seen through the courtesy of Dr. J. A. Crisler, of this city, was brought to my office on November 1, 1908, with a history of having had a severe headache and fever about a week before, since which time her nose had been stopped up and she was unable to breathe through it at all, especially at night. She had been complaining of sore throat for several days, and the mother stated that while she had no thermometer, she was convinced that the child had been having fever. In the meantime, distressing to relate, the child had been going to school.

Examination.—This revealed a confluent pseudomembrane on both faucial tonsils, and extending back onto the pharynx, involving the lateral pillars. Both nares also were filled with this pseudomembrane. There was considerable glandular enlargement on each side of the neck. There was no elevation of temperature (axilla). On removal of portions of the pseudomembrane from the tonsils and pharynx a bleeding surface was left. Swabs and pieces of membrane were immediately taken from the throat and also from the nose, and culture tubes inoculated. Repeated examinations made from these tubes revealed no diphtheria bacilli, but streptococci were found in abundance associated with staphylococci.

I did not see the child again, but heard later that she was entirely well.

As an infection-carrier this patient certainly was a good example, and the anomalous condition of a pseudomembrane, but no diphtheria, was present.

CASE 2.—History.—Charles M., aged 12, was seen by me at his home Dec. 30, 1908. The child had a sore throat and headache, with high fever, for a day or two, accompanied by a purulent discharge from both nares. There was a very disagreeable odor to the nasal discharge, which was detected immediately on entering the room.

Examination.—The boy's throat showed a creamy exudate on either tonsil, without any extension to the soft palate or pharynx. There was a similar creamy discharge from both nares. There was no membrane whatsoever. The submaxillary glands on both sides were considerably enlarged. Temperature at this time was 101.4 F., pulse 102 and very full.

Course of Disease.—The opinion expressed by me to the boy's mother was that the case was very suspicious of faucial and nasal diphtheria, and instructions given to isolate the patient. The next morning at 9 o'clock the temperature was 99, pulse 90, and the child much better. Convalescence was uninterrupted. Cultures made from swabs taken from both nose and throat revealed almost pure streptococci, diphtheria bacilli not being found on repeated examinations.

CASE 3.—Corinne M., aged 5, sister of previous patient, developed a sore throat, running nose and considerable fever January 9.

Examination.—When seen by me on the 10th the faucial tonsils showed some creamy exudate, with no extension from the tonsils, temperature 102 F., and some enlargement of the submaxillary glands. There was also the same discharge from nares as seen in the previous case, accompanied by the same odor. Swabs were immediately taken from the nose and throat. When the patient was seen next morning the temperature was the same—102 F., pulse 104, and submaxillary glands somewhat more swollen. Bacteriologic examination of spreads from cultures showed a mixed infection of streptococci and staphylococci, the former in great majority, no Klebs-Loeffler bacilli being found in the cultures grown from the swabs taken from either the nose or the throat. On this second morning I suggested antitoxin, but the mother was prejudiced against this agent, saying that she was more afraid of antitoxin than diphtheria, and despite some suspicious symptoms at this time, I did not feel that in the face of this prejudice and the negative bacteriologic report I should urge the use of the serum. Inasmuch as I was very suspicious of the condition of this second child, I repeatedly called for reports from the cultures, but frequent examinations, and these made by several competent physicians, failed to reveal Klebs-Loeffler bacilli.

Course of Disease.—The next morning the child's temperature was normal, pulse 102. The following morning the mother telephoned me that the temperature was 102, and in the afternoon 100 F. At 8 o'clock in the evening the child began to bleed freely from the right naris, and after ineffectual attempts on the part of the mother to control this I was called and reached the house at 11 o'clock. I soon succeeded in controlling the hemorrhage, which I judged was septic in character. The next day, the 13th, not being satisfied with the condition presenting, I again asked for a bacteriologic report, and was told then that a few Klebs-Loeffler bacilli could be found in one of the cultures. The child was immediately given 5,000 units of antitoxin and such supportive treatment as was regarded necessary. The urine was found to contain considerable albumin. The morning of the 15th 3,000 units more of antitoxin were given. Temperature at this time (rectal) was 101.6 F., and pulse 76. The child raised herself up about 12 o'clock that day, collapsed and died.

CASE 4.—Miriam M., aged 14, schoolgirl, sister of the previous two patients, developed sore throat and temperature of 102 F. the night of January 14. The next morning a creamy exudate was found on both tonsils, with considerable faucial congestion, but no extension to surrounding parts. The exudate on the tonsils in this, as in the previous cases, had nothing characteristic of diphtheria about it. Five hundred units of antitoxin had been given the child the night before, and 3,000 units additional were now given her. There was no nasal discharge. Cultures from the child's throat showed an abundance of streptococci with some staphylococci, but positively no diphtheria bacilli. Swabs were taken morning and evening, thus giving a control. There was no albumin in the urine.

This case ran practically the same course as that of the boy Charles, who had received no antitoxin; and this patient (Miriam M.) was apparently free from the effects of the disease forty-eight hours afterward. Repeated examinations of the cultures grown in this case made by several competent men showed an entire absence of diphtheria bacilli.

This series of cases in one family had some very peculiar features. Every effort was made to ascertain the presence of diphtheria bacilli, and the cultures were made from swabs vigorously rubbed over the exudate in all the cases, and grown on Loeffler's blood serum mixture. Dr. B. W. Fontaine, who very kindly grew the cultures and made the bacteriologic examinations in his laboratory, was not contented merely with his examinations, but had several other men to study the slides with him. The case last reported ran the same course as that of the first case in the family, and the antitoxin could not be said to have exerted any influence on the course of the disease, for the duration of this case was no shorter than that of the boy who was not given antitoxin. In the case of the child who died, there was an entire abatement of the symptoms for one day, and it seems as though in this case the mixed infection here presented was characterized by an inhibition of the growth and effects of the diphtheria bacilli due to the preponderance of streptococci. This has been observed in other cases, and it has been my experience, and I am sure that of others, that where we have this virulent type of mixed infection a fatal termination is almost inevitable, and antitoxin given even in the earliest stages lacks the potency which seems to be associated with its use in infections with the pure Klebs-Loeffler bacillus. Kyle³ says, "The presence of streptococci, in addition to the *Bacillus diphtheriae*, augurs ill for the patient, because to their effects are due the complications of the more malignant character." The fatal termination in this case was probably further assured

by the violent septic hemorrhage, which doubtless weakened the child considerably, although this was not shown by the condition of her pulse the next day. Considering the readiness with which diphtheria bacilli are grown on proper culture media, the ease with which they are isolated, and also the repeated examinations of the cultures in these cases, there could be no question of faulty technic causing failure to find the specific bacillus in those cases here reported as failing to reveal this. Furthermore, there was nothing characteristic of diphtheria in the tonsillar exudate, and the clinical course of the disease in all but the fatal case was unusually short, while the temperature ran much higher than commonly is found in diphtheria, and in none of these cases was there any membrane whatsoever, nor extension from the tonsils, features diagnostic of diphtheria. The diphtheria infection in the case of Corinne M. probably was secondary in its effects to the streptococcus infection, and the virulent mixed infection very likely would have been fatal under any circumstances.

Before passing from this series of cases, I should also mention that a young nurse, probably 19 or 20 years of age, who, for about forty-eight hours, was with the patient who died, was taken sick the night that she left the house, and the following morning had an exudate on her tonsils similar to that of the cases reported. The serum tube inoculated by me from her throat grew immediately a culture of streptococci with a few diphtheria bacilli. This girl received, I believe, about 800 units of antitoxin, but was practically over the attack in forty-eight hours.

CASE 5.—R. T. C., male, aged 34, came to my office with temperature of 100 F., a slight exudate on both tonsils, and some glandular enlargement. Culture showed streptococci and staphylococci, the former predominating. This patient did not stop work, and was free of fever in about two or three days after I first saw him.

The next case is more interesting.

CASE 6.—*History.*—Miss Virginia G., aged about 30, seen through the courtesy of Dr. Edward D. Mitchell, began to have severe sore throat about a week previous to the day that I first saw her. She had some pain in the right side of her chest a week before this, but no symptoms of pneumonia. Her fever had been running as high as 104 F. in the afternoons, but was usually lower in the mornings. The throat pain was quite severe, being more pronounced in the right side, and reflected to the ear. The back of the head and neck on this side were very tender.

Examination.—This showed considerable faucial congestion, with some edema of the soft parts—edge of velum palati, etc. There was no exudate on the tonsils at all. The right cervical glands were enlarged and tender, and the least pressure seemed to cause excruciating pain. The temperature at the time that I first saw the patient was 102 F.

Course of Disease.—Ice to the back of the neck and a fever mixture were ordered, and the next morning the temperature was normal and the patient felt decidedly better. The following day, however, I received a message that she was suffering greatly, even more than she had at any time previously. On calling at the house I found the throat in the same condition of congestion as before, and the glands just as swollen and painful. Her temperature was 101 F. While there was nothing showing in the throat other than congestion, I swabbed the affected side and inoculated a culture tube. The same treatment as previously advised was continued. The next day the patient was decidedly better, and convalescence was uninterrupted. The culture showed a mixed growth of streptococci and staphylococci.

3. Diseases of the Nose and Throat, 1907, p. 488.

Marschik⁴ recently reported from Chiari's clinic a case of septic hemorrhagic pharyngitis occurring in a man 54 years of age, which ended fatally in fourteen hours, and in which the streptococcus was found in almost pure culture. While ordinarily we do not expect a streptococcus infection of the throat to terminate fatally, yet we are not justified, apparently, in giving a favorable prognosis in any of these cases, since we can not determine when the condition may assume a malignant type. Bearing this statement out is the history of a case recently seen by me in consultation.

CASE 7.—History.—On March 10, 1909, I was asked by Dr. E. M. Holder to see Mrs. P., aged about 32, who had been under his care for about three weeks. Dr. Holder stated that when Mrs. P. came to him at first she had an eruption over her body which he regarded as a possible lues, and for which he gave her mixed treatment. There were also some rheumatic symptoms. This eruption disappeared, and a short while afterward the patient developed considerable glandular enlargement of the left side of the neck, there subsequently being some soreness of the throat. This enlargement was at first confined to the glands, but later involved the periglandular tissue, until it resembled an acute phlegmon. The patient had been having some fever and was flighty at times. She was sent to the Presbyterian Hospital the morning of the day that I saw her, and an incision was made by Dr. Holder through the most boggy portion of the involved area, but pus was not found. A few days prior to this a clear blister resembling pemphigus was noticed on one finger, but no other blebs were found. The patient was very much depressed, and seemingly in a grave condition from the sepsis.

Examination.—I found Mrs. P. in a lethargic, almost stuporous condition, but mentally clear. Her temperature was 99.4 F., with small, fast pulse. There was a large and brawny swelling of the glands and periglandular tissues of the left side of the neck, especially marked low down toward the clavicle. No fluctuation was detected anywhere. The throat showed no distinct peritonsillar swelling, and there was no exudate on the tonsil, although there was some edema of the uvula. I inoculated a culture tube with a swab which had been rubbed over the peritonsillar region of the left side of the throat, and the next morning received a report of a rich growth of streptococci.

Course of Disease.—This patient was being given supportive treatment by Dr. Holder, and nothing else was regarded as advisable. The case went on to a slow recovery. The prostration in this case was very marked, and an excellent illustration of the virulence of the infection.

Memphis Trust Building.

ADVERTISING BY PHYSICIANS*

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A discussion of the ethics of advertising may at first seem superfluous to the respectable physician, or, at least, not to interest him personally. "A gentleman," he will say, "knows how to conduct himself without consulting a written code. Reputable physicians do not advertise, and therefore nothing more need be said on the subject." But we are sometimes called on to pass judgment on the acts of others, and then the dictates of a sound conscience, which are sufficient to determine one's own conduct, require to be formulated into rules, in order that we may proceed with that order essential to justice. But, besides, is it true that reputable physicians do not advertise? Is it not rather true that all physicians, consciously or unconsciously, willingly or unwillingly, advertise and are advertised?

Is the trail of the serpent, then, over us all? Not at all. For there is objectionable advertising and unobjectionable advertising, differing in form, but still more in intent, and the gulf between the charlatan and the true physician exists, not from the fact that the one advertises and the other does not, for both do, but from the kind of advertising practiced by each.

I can almost see the hot wave of anger mounting to the faces of some of my honest friends at these words, while they can hardly suppress the vigorous protest rising to their lips. But, my dear doctor, have you never had a card printed with your name, address and office hours? I admit that it was not intended for advertising purposes, but is it not at least potentially an advertisement? Do not your name, occupation and address appear in the city and telephone directories? That, you say, is merely for the convenience of your patients, but, none the less, there it is, plain for all men to see. Have you no sign on your door or window? You don't mean it as an advertisement, maybe, but it is one, all the same. And your biggest and best paying advertisement is your title of "Doctor" by which you are everywhere addressed.

Let us then consider what is proper in the way of advertising, and what is not. And first let us see in what set terms the wisdom of our profession in this country has from time to time expressed itself on this subject. It will be useful not only to cite the text of the national pronouncement now recognized, but also from codes and similar formulas in force in earlier times and in various parts of the land, inasmuch as we wish to know not only the written law which can be invoked to-day, but the sentiment of the American profession on this subject from its earliest expression. We need not be surprised if we find the oldest and the newest in close accord.

The earliest dictum on this subject I have found is one by the New York State Medical Society. On Feb. 27, 1823, "A System of Medical Ethics" was reported to that body by a committee appointed for that purpose, and was adopted.¹ We read under heading "Quackery," Division II, Section 6:

Public advertisements or private cards, inviting customers afflicted with defined diseases; promising radical cures; engaging for no cure, no pay; offering advice and medicines to the poor, gratis; producing certificates and signatures even from respectable individuals in support of the advertiser's skill and success, and the like, are all absolute acts of quackery, which medical institutions should always repress and punish by the rejection or expulsion of those who commit them.

The American Medical Association, at its first annual session, in May of 1847, adopted a "Code of Ethics,"² which continued as its formal expression until superseded by the "Principles of Ethics" in 1903. We read in the "Code," Article I, Section 3:

It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures, or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics and are highly reprehensible in a regular physician.

1. Tr. Med. Soc. State of N. Y., Volume for 1807-1831, p. 233. Reprinted 1861, p. 282.

2. First published in the *Transactions* xviii, 523. Before that it appeared in a small pamphlet.

4. Monatsschr. f. Ohrenh., xliii, No. 1.

* Read before the St. Louis Medical Society, Feb. 6, 1909.