Bacteriologic Findings.—Anthrax bacilli were found in the heart's blood and peritoneal exudate.

Histologic Findings.—Sections of the intestinal lesions and mesenteric lymph nodes were similar to those of Case 1.

Section of the spleen, stained by the Gram-Weigert method, revealed anthrax bacilli scattered through the pulp.

SYNOPSIS

These two cases present the following salient features:

1. Marked involvement of the first portion of the duodenum.
2. Selective action of the infection for the lymphatic tissue of the intestine, somewhat analogous to typhoid fever.
3. The accumulation of the bacilli in the germ centers of the involved lymph nodes.
4. Great intensity of the inflammatory process, with associated edema and hemorrhagic extravasation.
5. Penetration of the entire thickness of the intestine and invasion of the peritoneum, producing seropurulent peritonitis.
6. The rapidly fatal course of the affection.

The probable mode of transmission of the infection to the intestine was by contamination of the food by the fingers infected by the scratching of the initial lesion induced by the intense itching that usually accompanies the process. The sterilization of the patient's hands before meals or the wearing of rubber gloves is suggested as a useful measure in the treatment of anthrax to prevent the fatal intestinal involvement.

THE EXPERT AND THE ISSUE

SANGER BROWN, M.D.
CHICAGO

Unhappily it not infrequently transpires that the physician, when acting as expert in medicolegal cases, leaves the witness stand painfully conscious of having failed, perhaps ignominiously, in his attempt to lay his opinion fairly before the court. In this event, he and the attorney who engaged his services alike suffer from a sense of disappointment and discomfiture.

In a brief discussion of medicolegal cases in which either insanity is set up as a defense in a criminal charge or it is sought to prove that insanity, apoplexy or some other disease has destroyed testamentary capacity, it is my purpose to offer hints or suggestions which, if accepted, might in my opinion measurably minimize the liability to such a distressing experience.

By way of introduction to a given case, I hold that it is of cardinal importance that the attorneys who seek his assistance should submit to the expert all facts and information which they have reckoned on as possessing medical significance in support of the contention which they wish to establish. This material should then be thoroughly analyzed and discussed, and a definite understanding reached between lawyer and physician as to the position the latter is willing to attempt to maintain on the witness stand, taking care especially to anticipate what answers might have to be given to questions put in cross-examination; for although a candid expression of his opinion at this initial stage may terminate the expert's further connection with the case, superficial or hasty performance of this preparatory work only too surely invites disaster when the medical witness enters the box.

THE INSANITY PLEA TO A CRIMINAL CHARGE

Those cases may first be considered in which it is claimed for the defendant that he was insane when he committed the particular criminal act with which he stands charged.

The wide variation between the services demanded of the medical expert in the trial of these cases and those required of the clinician when engaged in the examination of a patient should be kept prominently in view throughout. According to my observation, this distinction, if not altogether ignored, rarely receives the recognition which its importance merits.

In the trial of the cases under consideration, the essential question is: Was the defendant insane when a specified act was committed? The definition, "Insanity is a disease affecting the brain so as to cause a change in feeling, thinking and acting which disqualifies the individual for supporting the ordinary relations of life," is one which in practice has much to commend it. Having adopted it as working formula, the alienist should insist on the importance of limiting the inquiry to the discovery of evidence tending to prove that the designated change had or had not taken place. In this sort of investigation it may be held that there is only one insanity, and that it is not material to attempt to determine into what particular group or class its predominating manifestations would properly place it. Thus much unprofitable wrangling over the vexed and illusory problem of classification may be avoided; the obligation to undertake the baffling and hopeless task of elaborating and erecting a clinical entity that shall correspond, satisfactorily, to such terms as dementia praecox, paranoia, manic-depressive insanity, pyromania, or what not, disappears. Similarly it is not material to prove that the defendant's family is or is not tainted or that he himself has or has not suffered from any disease, injury or stress, commonly recognized as an exciting cause of insanity. And in the same category may be placed as immaterial such subjects as pathology, prognosis and treatment.

To obscure or shift the real issue would appear to be a well recognized measure of legal strategy. With a textbook before him, the opposing counsel may attempt to draw the expert into a discussion of subjects of more or less importance clinically and in regard to which the opinions of students are more or less at variance, but which are not material to the question before the court. If by any crafty device the witness can be maneuvered into foreign and at the same time highly speculative and controversial territory, and there drawn into a discussion, the opposing counsel will attempt to maintain in argument that answers conceding that certain topics are open to debate are admissions that the expert is in doubt regarding the real question at issue. As a matter of course, assuming that proper preparation has been made, tactics of this nature will be promptly and duly opposed.

As instances of attempting to shift the issue, two cases may be cited. In the first, in order to secure a verdict for their client, the counsel rested their hopes on showing that he was subject to predisposing, and in the second to exciting, causes of insanity.

CASE 1.—A working man lost all his hard earned savings through having made, as he supposed, a joint investment with a man in whose ability and integrity he reposed confidence. For reasons good and sufficient from his point of view he discovered that he had been heartlessly betrayed; and under circumstances of a supremely exasperating nature, he killed the man who he believed had compassed his ruin. A plea of

insanity was set up in his defense, and his attorneys occupied several days, indeed by far the major part of the whole time taken by them in the examination of witnesses, in attempting to prove the importance of heredity as an etiologic factor in insanity, and that the defendant's grandfather was insane.

CASE 2.—A woman, actuated by hatred and revenge, cunningly contrived and executed a plan involving arson and murder. In conformity with the plea of insanity made in her defense, for several months prior to her trial she was confined in a hospital for the insane, where the uterus and ovaries were removed. At the subsequent hearing, numerous physicians testified that they had examined the exsected organs, found them obviously diseased, and that their condition constituted convincing evidence of the insanity of the woman from whom they had been taken.

Obviously, the obligation to prove that a given individual was insane at a designated time cannot be fairly met by demonstrating ever so conclusively that he was subject to any or all recognized causes. And conversely, neither is evidence intended to prove the absence of cause material when seeking to establish sanity.

As already stated, the line of inquiry should be directed with a purpose of discovering such a change in the individual as will warrant a diagnosis of insanity. This implies gaining an intimate acquaintance with the personal history from early childhood if possible; for the expert must estimate the departure of questionable conduct from that normal to the individual by comparing it with his usual personal characteristics; and this, of course, implies a searching scrutiny of the circumstances or setting of the debatable act or acts.

Lawyers are prone to be governed by the popular fallacy that it is possible to construct a more or less definite[1] mental norm embracing a specified range of moral, emotional and intellectual reaction which may serve as a general standard of comparison, for the purpose of determining the significance of particular conduct as indicating the sanity or insanity of the person who has exhibited it. Thus, failing to recognize that every individual has a mental norm peculiar to himself with which alone any of his questionable acts must be compared, the counsel feels impatient when the expert insists that the previous personal history be fully and minutely developed. He wishes to proceed directly to the task of demonstrating how widely the conduct under investigation is at variance with his conception of a general norm as described above. He is eager to produce witnesses of fact to prove that certain grossly irregular and unconventional acts were committed, and he believes that this proof alone should afford a sufficient foundation for the basis of an expert opinion. Or if, on the other hand, his purpose is to prove the sanity of his client, he attempts to expand the dimensions of what he assumes should be accepted as a standard mental norm so that it will easily include all deportment under scrutiny, and to this end he usually quotes the published eccentricities of various historical characters who, if insane, had probably never been publicly so adjudicated. When, in prosecuting this line of contention, counsel asks if the cited practices or opinions denoted the insanity of the person to whom they were attributed, the expert witness may logically reply that such a question could not be fairly answered unless a very full and minute record of the individual's personal history was available.

1. Mental Norm is proposed as a convenient term by which to designate normal emotional, moral and intellectual reaction.

Though the suit was a civil action, the following case may be briefly cited to illustrate my contention that, in order to establish a charge of insanity, the cardinal issue is to prove that the person in question has undergone certain changes in feeling, thinking and acting:

CASE 3.—The widow and surviving children of a gentleman who had risen from obscurity to a position of national prominence in industrial and financial circles attacked his will, charging insanity. Perodic debauches, when he would consort exclusively for perhaps a week or more with disreputable people of both sexes exercising no restraint in matters of sexual or alcoholic indulgence, were relied on by the prosecution as sufficient to prove the contention. The testimony of the widow who had married the testator when both were quite young, suffering under a keen sense of lifelong neglect and humiliation, was voluble, minute and convincing when describing the reprehensible practices of her deceased consort; among other statements she testified that she had conducted very searching investigations which had demonstrated conclusively that he had gone on these "high sprees" throughout the whole course of their married life, and even prior to their marriage. Since impairment of business sagacity or any other evidence of derangement of the mental faculties was not claimed, in order to win his case, it was necessary for the counsel for the defense merely to lead the witness on cross-examination to reiterate her direct testimony, which showed conclusively that the periods of moral laxity that were being offered as evidence of the testator's insanity were nothing more than instances of the practice of a lifelong habit.

The medical expert should be careful not to permit the developing fascinations which not infrequently appear in the progress of a case to induce him to invade the proper province of the lawyer and attempt to direct how his special contribution shall be brought into requisition during the course of the trial. When he has critically weighed and sifted all available evidence with reference to its medical significance, and explained clearly to the counsel what position he will undertake to maintain or direct, as well as what he will be obliged to admit on cross-examination, the expert may fairly claim to have discharged his responsibility. For on reflection it seems altogether probable that in the examination of witnesses and in argument, an experienced and well qualified barrister is much better able to judge just how such information as the medical witness may impart to him can be used to advantage than would the expert himself.

In legal practice, many formalities have to be observed which appear superfluous to the layman; but investigation will usually disclose the fact that such arbitrary and minute methods of procedure are essential to the preservation of some basic principle of law or practice; and perhaps it is only fair to allow that some of the proposed amendments submitted by members of our profession to improve methods long in vogue in the conduct of medicolegal cases clearly demonstrate that their proponents have not duly recognized the importance of yielding to these fundamentals. The expert is naturally impatient to have the facts and opinions that he is prepared to present submitted frankly and directly to the jury; the trial lawyer, on the other hand, in the interest of his client must take into account a variety of considerations in the introduction of evidence. In selecting the jury, the personal characteristics of his experts as well as the testimony he expects from them should, no doubt, strongly influence his choice; for, obviously, before going into action a prudent combatant would set his target with due reference to the range of his ordnance.

THE QUESTION OF TESTAMENTARY CAPACITY

To prove ever so conclusively that a person has suffered one or more strokes of apoplexy, or has been afflicted with arteriosclerosis or any other disease, does not establish his testamentary incapacity, no matter what may be said by physicians of the symptoms associated with these various disorders. The essential issue to be met in these cases is, after the construction of an individual mental norm as outlined above, to determine to what extent the terms of the will in question are consistent with this. As has already been stated when considering cases of insanity, so in these, the proper elaboration of this norm is a work of cardinal importance and may demand the exercise of the utmost penetration, perseverance and patience on the part of counsel. It should not be hastily or superficially performed, for when completed it furnishes an instrument which must serve the expert as a measure with which to square his opinion as to the mental status of the individual under investigation.

CASE 4.—In a suit brought to set aside the will of a wealthy widow, who died of pneumonia at the age of 63, it was charged that a previous apoplectic stroke had impaired testamentary capacity, though a convincing history of the attack was not available. A positive diagnosis of arteriosclerosis had been pronounced, however, and this was adopted by the counsel for the plaintiffs as their main point of attack. At the trial, several days were consumed in the examination of expert witnesses to prove the etiologic relation of arteriosclerosis to apoplexy.

CASE 5.—In a similar case in which a competent diagnosis of a stroke of apoplexy with severe aphasia was in evidence, the counsel for the plaintiff appeared to pitch their main hope of success on being able to maintain the contention that the designated symptom invariably implied some degree of mental impairment.

In each of these cases, the counsel for the plaintiff directed comparatively little effort to the purpose of showing to what extent the terms of the wills under investigation were inconsistent with the mental norms of the testators, which, of course, was the sole issue.

Finally, in the trial of medicolegal cases in which insanity is set up as a defense in a criminal charge, or in which the claim is made that a lesion or disease of the brain has impaired or destroyed testamentary capacity, the evidence as to fact most material is that tending to define and establish, on the one hand, the mental norm of the given individual, and, on the other, that which constitutes the subject of controversy, one side maintaining that it conflicts, and the other that it is consistent with this delimited personal standard. To give the court the benefit of his opinion as to the significance of this debated evidence is the peculiar province of the medical expert. Incidentally, it is true, in explaining how he has reached his stated conclusions he may refer to matters of clinical moment; but any such incidental reference should not be permitted to attain a position of such relative prominence as to obscure or shift the main issue.

Freely admitting that in the medical, as in all other professions, dishonest members may be found, and that such individuals actuated solely from motives of cupidity may pose as expert witnesses, nevertheless I hold that the excoriating denunciations of medical experts and their testimony, which have from time to time emanated from the bench and have been so prominently quoted in textbooks as to encourage an attorney to bandy the term "expert" as a by-word whenever it suits his purpose to do so, are in no small degree chargeable to negligence on the part of the witness to make proper preparation before going on the stand.

If, however, the physician has examined the case carefully and arrived at a clear understanding with counsel in charge as to the scope of his testimony, he may hope to leave the courtroom with the comforting assurance that he has not only succeeded in getting his opinion fairly before the court, but that he has neither disappointed the attorney who engaged his services, nor compromised the credit or dignity of his profession.

GAS BACILLUS INFECTION IN AN ARMY CAMP

REPORT OF CASE

LOUIS M. WARFIELD, M.D.
MILWAUKEE

Infection with *Bacillus aerogenes-capsulatus* has been so common on the battlefields of France that not to find it in a wound is the exception, not the rule. In this country, however, where the land has not been so intensively cultivated and manured for generations, infection with this organism is seen only here and there. Conditons under which it occurs and the rarity of the infection make it always of interest to the physician and surgeon.

The following case occurred under rather interesting circumstances during the epidemic of influenza and complicating pneumonia at Jefferson Barracks, Mo.:

REPORT OF CASE

H. A., recruit, aged 23, a blacksmith from a small town in Georgia, was drafted into the service about October 12 at Jefferson Barracks, Mo. He was taken ill with influenza during the prevailing epidemic, and was admitted to the hospital, October 17. There was nothing in the family or past history of disease of any interest at the time. He had always been a healthy, strong fellow, carrying on his vocation without interruption. His present illness apparently dated while he was en route to the barracks. One week before he was admitted, he noticed that he had a headache, cough, pains in the chest, lameness in the back and muscles, some discharge from the nose, and a slightly sore throat. On admission to the hospital his general condition was good. He was a rather powerfully built man. There was a slight redness of the throat, slight enlargement of the cervical lymph glands, infection of the vessels of both conjunctivae, and a heavy dull look about the eyes. The temperature was 102.6, and the pulse 84 on admission.

The patient had a sharp attack of influenza, and developed bronchopneumonia, which involved practically the whole lower lobe of the right lung on the 19th. During the period of severe illness, he was given hypodermics of strychnin and caffein sodiobenzoate. October 23, he was in very good condition, and hypodermic medication was gradually being withdrawn. He complained to the nurse that his shoulders and arms were quite painful as the result of numerous injections; consequently she injected caffein sodiobenzoate solution subcutaneously into the calf of the right leg about 6 p. m., October 22.

The patient made no complaint until the next morning, when he stated that his leg was sore, and the ward surgeon ordered hot dressings put on the leg. The patient did not complain very much more, and an examination of the leg at the time showed some swelling and redness, with the skin rather tense. Not having any such infection in mind as the gas bacillus, the ward surgeon did not examine the leg again until the morning of the 24th. The condition then was so alarming that he reported it to me at once, and I examined the part.