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The Relation of Law and Medicine in Mental Disease

"Less than one hundred years ago the insane were punished as guilty and were objects of public execration, because the effect of a diseased organism was imputed to their malevolent will. It was only after the efforts of Chiarugi and Pinel—preceded, as Alvisi has shown, by those of Valsalva d'Imola—that society became convinced that insanity is like any other disease and requires the care of the physician and not the whip of the galley master. And yet, whoever had maintained that the poor demented person, the poor demonomaniac, should not be considered as morally responsible for his insanity, nor as evil, and worthy of punishment and contempt, would have deeply shocked public opinion which admitted non-culpability only in the most evident cases of violent mania. Appearances and ignorance saved the furious maniac and consigned the demented victim of hallucinations to chains and the executioner. It was only by a slow evolution of psychiatry and of public opinion as its counter-effect, that the modern opinion was reached that the insane are not responsible for their acts. As Dubuisson remarked, about 1800, the irresponsibility of the insane was as yet admitted only in the rare and evident cases. The field of delinquency (by free will) was vast, while the field of insanity (due to pathological conditions) was limited."[1]

The great work of Dorothea Lynde Dix in this country and in Europe took place during the nineteenth century.[2] As a result the more serious cases of insanity almost everywhere are treated in institutions. It is true that by no means all who would be benefited by treatment for mental trouble receive it. Persons suffering from other diseases have hospitals. One threatened with

[1] Ferri, Criminal Sociology, The Modern Criminal Science Series, p. 356.
[2] Hurd, The Institutional Care of the Insane in the United States and Canada.

an attack of mental disease has in general no place to go. State hospitals are doing their utmost to encourage voluntary patients to take advantage of the remedial and preventive treatment offered and are endeavoring to extend to discharged patients the after care that may prevent return to the institution that is now unfortunately too often necessary. Subject to exceptions it is, however, true that insanity is not generally recognized as a disease, and treatment is given by the state only to those who are dangerous to life and property.[3] Much educational work must be done before the state will provide adequate facilities for treatment and prevention and before the people needing it will learn to use the hospitals provided and avoid the necessity of prolonged confinement in an institution. It is not claimed that psychiatry has become an exact science. The field for future investigation is limitless, but each decade now registers progress in knowledge and improvement in treatment. Not so with the law as formulated by the courts of last resort. In some respects there has been retrogression since Hale wrote his treatise on Pleas of the Crown nearly two hundred and fifty years ago:[4]

> "*Dementia accidentalis vel adventitia,* which proceeds from several causes; sometimes from the distemper of the humours of the body, as deep melancholy or adust choler; sometimes from the violence of a disease, as a fever or palsy; sometimes from a concussion or hurt of the brain, or its membranes or organs; and as it comes from several causes, so it is of several kinds or degrees; which as to the purpose in hand may be thus distributed: 1. There is a partial insanity of mind; and 2. a total insanity.
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> "The former is either in respect to things *quoad hoc vel illud insanire;* some persons, that have a competent use of reason in respect of some subjects, are yet under a particular dementia in respect of some particular discourses, subjects, or applications; or else it is partial in respect of degrees: and this is the condition of very many, especially melancholy persons, who for the most part discover their defect in excessive fears and griefs, and yet are not wholly destitute of the use of reason; and this partial insanity seems not to excuse them in the committing of any offence for its matter capita; for doubtless most persons that are felons of themselves, and others are under a degree of partial insanity, when they commit these offences: it is very difficult to define the indivisible line that divides perfect and partial insanity; but it must rest upon circumstances duly to be weighed and considered both by the judge and jury, lest on the one side there be a kind

[3] Cal. Pol. Code, § 2168.
[4] Hale, Pleas of the Crown, p. 29.

> of inhumanity towards the defects of human nature, or on the other side too great an indulgence given to great crimes: the best measure that I can think of is this; such a person as labouring under melancholy distempers hath yet ordinarily as great understanding, as ordinarily a child of fourteen years hath, is such a person as may be guilty of treason or felony.
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> "Again, a total alienation of the mind, or perfect madness; this excuseth from the guilt of felony and treason: (d) *de quibus* infra. This is that, which in my lord Coke's Pleas of the Crown, p. 6, is called by him absolute madness, and total deprivation of memory."

In Arnold's case[5] the court said that to constitute a defense of insanity "it must be a man that is totally deprived of his understanding and memory, and doth not know what he is doing no more than an infant, than a brute, or than a wild beast, such a one is never an object of punishment."

In Hadfield's case[6] Lord Erskine in his address to the jury said:

> "If a total deprivation of memory was intended by these great lawyers to be taken in the literal sense of the words:—if it was meant, that, to protect a man from punishment, he must be in such a state of prostrated intellect, as not to know his name, nor his condition, nor his relation towards others—that if a husband, he should not know he was married; or, if a father, could not remember that he had children; nor know the road to his house, nor his property in it—then no such madness ever existed in the world."

The treatment of lunatics by incarceration in jails and punishment with chains and stripes would seem well calculated to produce a state of total madness. The court, however, agreed with Erskine that a total deprivation of reason was not necessary, but that when the act took place as a result of delusions of an alarming description which overpowered the faculties and usurped the place of realities the defendant was not to be held responsible. In the particular case Hadfield, who had been seriously wounded in the head during the war, became possessed of the delusion that he was the Saviour and must die to save the world. He accordingly shot at the king in order that he might be put to death.

In 1843 came McNaghten's case.[7] It is not necessary to discuss that case in full. Stephen in his History has done that thoroughly.[8] It is also discussed in the comment of Dr. Morton

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[5] (1724) Howell, State Trials, 695, 764.
[6] (1800) Howell, State Trials, 1281.
[7] (1843) 10 Cl. & Fin. 200, 8 Eng. Rep. R. 718.
[8] Stephen, History of the Criminal Law of England, Vol. 2, p. 153 et seq.

Prince.[9] It is sufficient to say that it has had a most unfortunate effect. The law is there laid down that a defendant is punishable if he knew at the time of committing the crime that he was acting contrary to law; that for a defense it must be shown that he was laboring under such a defect of reason from disease of the mind as not to know the nature and quality of the act he was doing or if he did know it that he did not know he was doing what was wrong. In the case of a delusion, it was laid down that if a person labors under such partial delusions and is not in other respects insane he must be considered in the same situation as to responsibility as if the facts with respect to which the delusion exists were real. As to this latter view an American judge has said:[10] "The doctrine thus promulgated as law has found its way into the textbooks and has doubtless been largely received as an enunciation of a sound legal principle since that day. Yet it is probable that no ingenuous student of the law ever read it for the first time without being shocked by its exquisite inhumanity." As Stephen points out, McNaghten's case was not an actual decision at all. It consists simply of the answers of the judges to hypothetical questions put by the House of Lords. In each case the answer was to the hypothetical question and the assumption was expressly made that the defendant was insane in a particular respect and in no other; but in the vast majority of cases persons affected with delusions are not in other respects sane. The truth probably is that there is not and never has been a person who labors under partial delusion only and is not in other respects insane. The delusion is merely a superficial manifestation of a profound mental disturbance.[11] A person with a deep-seated delusion cannot and ought not to be expected to reason about it rationally.

Unfortunately most judges have never read Stephen and have taken the answers to the abstract questions in McNaghten's case, which expressly applied to persons not in other respects insane, as being of general validity and have applied the test to persons who by any practical or scientific test were unquestionably insane. By a strict application of the right and wrong test as laid down in the books, even Hadfield with his delusion should have been punished. He knew that what he was doing was contrary to the law of the land. It is evident, however, that the judges in

[9] 2 Journal American Institute Criminal Law, 539.

[10] State v. Jones (1871) 50 N. H. 369, 9 Am. Rep. 242.

[11] Stephen, History, Vol. 2, p. 161.

McNaghten's case had no notion that they were overruling a prior decision. It is unfortunately true that many courts have interpreted McNaghten's case without its qualifications. It is therefore not surprising that, as Mr. Bishop says, "The memorials of our jurisprudence are written all over with cases in which those who are now understood to have been insane have been executed as criminals."[12] Stephen himself suggested that besides knowledge of right and wrong the power to choose was equally important, and this is the English law and the law in some American jurisdictions. This again, however, is an abstract test applicable to but few cases. Complete lack of power to choose does perhaps exist, as in the examples given by James in his Psychology,[13] of the exaggerated impulses of real dipsomaniacs.

But in the great majority of cases before the courts the impulse is not irresistible. Lord Bramwell once asked the question when the irresistible impulse defense rose before him, would the defendant have taken the umbrella had the policeman been present? The answer was no. "Well," said Bramwell, "then the impulse was irresistible in the absence of a policeman," or as judges have put it, "every crime is committed under an influence of such a description; and the object of the law is to compel people to control this influence." The law says to men who say they are afflicted with irresistible impulses, "If you cannot resist an impulse in any other way, we will hang a rope in front of your eyes and perhaps that will help!"[14]

The defect in our legal theory was clearly perceived by the committee appointed to investigate this subject by the American Institute of Criminal Law and Criminology. "The difficulty with the present law relating to insanity is that it prescribes tests of responsibility which are not in accord with general principles of

[12] Bishop, New Criminal Law, § 390. There can be little doubt that in the following recent cases in which the defendants were sentenced to death, they were so far abnormal as to be irresponsible even under the legal test, although there was in each case, perhaps, sufficient evidence to support the verdict of the jury on appeal. In some of the cases it would appear that the defense of insanity was not properly presented. Whether these unfortunates should be hanged may be open to question. It is not open to question, however, that it is better to hang them than to acquit and take the chance of having them turned loose on the community. Yet if the jury had taken the law as given instead of using their common sense, they should probably have returned a verdict of not guilty. People v. Harris (1914) 169 Cal. 53, 145 Pac. 520 (epileptic); People v. Oxnam (1915) 170 Cal. 211, 149 Pac. 165 (feebleminded); People v. Fountain (1915) 170 Cal. 460, 150 Pac. 341.

[13] James, Psychology, American Science Series, 439.

[14] The King v. Creighton (1908) 14 Canadian Criminal Cases, 349; cited 46 American Law Review, 246.

law and has incorporated into itself obsolete medical views of mental disease."[15] It was therefore a disappointment that the committee in its report should lay down the artificial doctrine that "one who by reason of mental disease did not have the particular state of mind which must accompany such act should not be convicted." The criminal intent is a technical doctrine in the criminal law difficult to apply. It is bad enough to ask a jury to pass on the question whether the defendant knew the difference between right and wrong in relation to the act he committed. It is much worse to have to ask whether he knew the difference between right and wrong in relation to the particular intent which the particular crime requires. It is a satisfaction, therefore, that the committee of the institute has now repudiated this artificial doctrine and in a later report placed the matter on a sound foundation:

> "As a defense for crime the irresponsibility of the criminal is, from the viewpoint of society, largely an academic question. The pragmatic feature of such a situation is that the offense has been committed and this remains a fact regardless of whether it is decided that the person committing it was irresponsible by reason of juvenility, feeble-mindedness, insanity or other inadequacy. Such considerations are of importance only for determining the particular treatment to be adopted for the reformation of the criminal and the protection of the community. Society needs as much protection from the criminal acts of irresponsible individuals and is as vitally interested in their reformation as in the case of the responsible.
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> "Upon the above considerations this committee recommends the adoption of a program for development directed towards the following ends:
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> "(1) That in all cases of felony or misdemeanor punishable by a prison sentence the question of responsibility be not submitted to the jury, which will thus be called upon to determine only that the offense was committed by the defendant.
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> "(2) That the disposition and treatment (including punishment) of all such misdemeanants and felons, i. e., the sentence imposed, be based upon a study of the individual offender by properly qualified and impartial experts co-operating with the courts.
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> "(3) That provisions be made permitting the transfer of such misdemeanants and felons at any time after conviction from one institution to another affording a different kind of treatment upon the presentation of evidence of the needs for such action satisfactory to the court which passed sentence.

[15] 7 Journal American Institute Criminal Law, 484.

"(4) That no maximum term be set to any sentence.

"(5) That no parole or probation be granted without suitable psychiatric examination.

"(6) That in considering applications for pardons and commutation careful attention be given to reports of qualified experts showing the applicant's mental age and mental stability and that in drafting statutes determining or defining juvenile delinquency, mental age and mental stability, within reasonable limits, be regarded as of importance with the calendar age of the delinquent."[16]

How far can this ideal be incorporated into the law? In England it has been partially solved in a way that is practical, though theoretically unsound. Anyone setting up the defense of insanity is entitled to a verdict by the jury on that issue. If the jury believe he committed the act but was insane at the time, the verdict is "Guilty but insane." He is then committed to an asylum for the criminal insane to await his majesty's pleasure. Release therefrom is very difficult. As a consequence the defense is seldom set up except in capital cases.[17] Some states in this country have similar statutes. It is of course possible that the defendant may have been insane when he committed the act but has recovered his sanity at the time of trial. The English law considers, however, that by his act he has demonstrated his danger to society and that therefore society should be extremely reluctant to allow him to go at large. In this country the entire defense of insanity was abolished in Washington but the law was held unconstitutional.[18] The decision has been severely criticised and it is at least arguable that the question is an open one in other jurisdictions.[19]

The fundamental error in the legal view is that it divides all defendants setting up the defense of insanity into two classes, guilty and not guilty, the line of demarcation being drawn between responsibility and irresponsibility. A certain number of defendants are clearly so far insane as to be irresponsible. To use Tarde's explanation, they have become no longer identical with themselves nor do they resemble their fellow human beings. In practice these cases give no difficulty. They are sent to asylums, seldom going before a jury at all. The vast majority of defend-

[16] 10 Journal American Institute Criminal Law, 186.

[17] Trial of Lunatics Act, 46 and 47 Vict., 38, § 2.

[18] State v. Strasburg (1910) 60 Wash. 106, 110 Pac. 1020, 32 L. R. A. (N. S.) 1216, Ann. Cas. 1912B 917.

[19] 9 Michigan Law Review, 126; 59 University of Pennsylvania Law Review, 252; but see 20 Yale Law Journal, 313.

ants, however, who come before the court, indeed the great majority of the inmates of an insane asylum, know the difference between right and wrong in relation to the act they are committing, to a greater or less extent and have more or less power to control their actions and are influenced to a greater or less extent by rewards and punishments. It is of course perfectly true that an individual with a family history of insanity, feeble-mindedness, disease, alcoholism and criminality, brought up in an environment of poverty, misery and crime, does not appreciate the difference between right and wrong, and is not able to resist his impulses as the person whose heredity and environment are sound. He is less responsible, but how futile to say that the jury can take this into consideration in their verdict! It is just this diminished responsibility that causes the danger. It is against such persons that society needs protection most. The problem in other words is the problem of the semi-insane and the semi-responsible. They are insane to a certain extent—they are not fully responsible, but they are responsible in a measure. "When a semi-insane individual has committed a misdemeanor or crime, he should be both punished and treated at the same time."[20]

No artificial rule of law should be permitted to stand in the way of a solution of this problem of the semi-insane who constitute a large part of all the cases submitted to a jury. If the difference in treatment between the criminal and the insane person was extreme, if criminals were boiled in oil and insane persons surrounded with the luxury of a Pittsburgh millionaire, it would be absolutely essential to draw a line between them; but as a matter of fact very few criminals are executed, and insane patients are not pampered. For both the criminal and the insane confinement in an institution is the prevailing treatment, or punishment, whichever you choose to call it—really it is both—the principles of institutional treatment for both are in most respects the same. They must be kept from doing harm to others and themselves; subject to that paramount object, they must be improved physically, morally and mentally as far as possible and made useful to society—"individualization of punishment considering the act committed, the offence against society and protection of society, yet notwithstanding with an eye always to the offender, his motives, his environment, his limitations, his possibilities, and supplying the remedy with an eye to the future so

[20] Grasset, Jelliffe's Translation, The Semi-Insane and the Semi-Responsible, 330.

as to reclaim the individual if possible for future usefulness to the community, without at the same time sacrificing the real demands of society."[21]

What then is necessary to accomplish the object? "These preliminary considerations lead logically, and, I think inevitably, to the conclusion that the function of the jury should end with the establishment of the fact that an offense has been committed by the accused. This fact being established, should give the state authority over the person of the defendant, and he should be taken into custody, dealt with as the sort of person he is, and not passed back into the community until this may be done with safety."[22] What an absurdity it would be for any court to hold unconstitutional a statute expressly designed and adapted to protect society and to afford the best treatment to the defendant! If there is any doubt as to the constitutionality of taking the question of the state of mind from the jury, would it not be sufficient to provide that the jury may find the defendant guilty on account of insanity where there is found a total idiocy or absolute insanity? That was the law at the time the Constitution of the United States and many of the state constitutions were adopted. How could it be held unconstitutional to apply that test and at the same time also unconstitutional to recognize the fact that many defendants belong to the semi-responsible class, and that their treatment and punishment are matters of administration?

All that is necessary, then, is to have the jury pass on the fact. If the verdict is guilty, the defendant should be remanded to a psychopathic clearing-house. Here after a careful examination he should be assigned to the institution best adapted to his needs, a prison, a reformatory, a farm, a factory, an institution for the criminal insane, an insane asylum—whichever will accomplish the best results in the particular case.[23] This requires

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[21] 3 Journal Institute Criminal Law, 93.

[22] William A. White, 4 Journal Institute Criminal Law, 107.

[23] Out of 2500 prisoners in the Indiana State Prison, about 675 were feeble-minded, 250 insane, 200 epileptic, 450 psychopathic. See Paul E. Bowers, A Survey of 2500 Prisoners in the Psychopathic Laboratory at the Indiana State Prison, reprinted from the Journal of Delinquency, Vol. 4, No. 1, January, 1919. This result coincides with the study of Dr. Bernard Glueck, Mental Hygiene, Vol. 2, p. 85.

It is a mistake to keep together the feeble-minded, criminal insane, and other prisoners. No class receives the best discipline and treatment or study. As a result, recidivism is greatly increased. No one can question the value of probation and parole. The reports of probation and parole officers speak for themselves. On the other hand, the figures on recidivism are startling. The report of the California State Bureau of Criminal Identification shows that from July 1, 1918, to July 1, 1920, 1935 identifications were made of persons arrested in California for serious offenses. This means that each of

little change in the laws and still less change in practice, for, whatever supreme courts may say, police officials, district attorneys, police judges and trial judges all over the country are doing this very thing every day, in so far as the present institutions make it possible. Where the insanity is manifest there is commitment to the insane asylum without any trial on the criminal charge, and in those cases where there is doubt the opinion of alienists is asked and accepted as to the best disposition of the case. The change above outlined would not be revolutionary, but would accomplish the following desirable results:

(1) It would systematize the present actual practise, making it operate regularly instead of arbitrarily as at present, according to chance or the whim of the particular official.

(2) It would avoid the present unseemly wrangling between lawyers and medical men. This does not occur often, but when it does it fills the papers. All the alienist really testifies to is the existence of the disease. If he is a genuine expert of experience he should be able to give a fairly good opinion as to what should be done with the defendant. What the law compels him to do now, however, is to answer the questions whether the defendant was responsible or not, and how does he know. Who does know? Of this both the legal and medical profession are sure: the defendant, if guilty of the act, is a person who should be restrained and very carefully examined before being allowed to return to society. There is no real antagonism between the two professions, but under the present absurd procedure the effect of the medical expert's testimony may result in an acquittal and the discharge of the defendant, which is the last thing he or the legal profession really wants.

The late Dr. Southard used to say that insanity was a legal concept and that an alienist was a man who answered the ques-

these persons had previously been sufficiently involved in crime to have a police record. In the city of Berkeley for the fiscal year 1919-20, there were 307 arrests of all kinds, including juveniles, and of these persons arrested seventy-five had known prior criminal records. Fourteen of them had been convicted of serious offenses four or more times. The lack of continuity and of co-ordination in the pursuit of criminals due to our decentralized police administration means that the real criminal record does not get before the tribunal; furthermore no adequate psychopathic examination is made of the applicant for probation or parole to find out whether he is the kind of man who would be reasonably safe at large. Accordingly probation is too often granted on superficial appearances and parole on the prison record, which is a very poor indication of the prisoner's capacity for freedom, as the old convicts are usually the model prisoners.

See the Report of the Committee (San Francisco) for the Advancement of Medico-Psychological Examinations for Adult and Juvenile Delinquents, in which the need and organization of a psychopathic clinic is presented, 9 Journal Institute Criminal Law, 279.

tion whether the defendant was sane or insane according to a test laid down by the law such as the "right and wrong" test.[24] The psychiatrist, on the other hand, is a physician specializing in mental diseases; he can testify to the mental condition of the defendant, to the disease and to the extent of its progress. This differentiation between the alienist and the psychiatrist which the law now compels would be done away with if the dilemma of "guilty" or "not guilty" were abolished. Some psychiatrists now refuse to answer the question of responsibility.

> "Well, to come right down to it, is the accused responsible or not? I have not hesitated to reply, Mr. President, I am here as a physician; I have come to show you from the medical point of view what is the matter with the accused whom I have been asked to examine; it is for you to decide whether he is responsible or irresponsible. The question that you have asked me is of a metaphysical or psychological order; it is not a medical question."[25]

The learned author disagrees with this view, believing that the expert on mental diseases ought to draw a conclusion, and it must be apparent that if not limited to the alternatives of responsibility or irresponsibility, no one is so well qualified to give an opinion as to what should be done with the defendant as a psychiatrist experienced in the diagnosis, prognosis and treatment of mental diseases.

(3) There would be a better organization of our state institutions. At present, owing to the lack of an adequate clearing-house, there are feeble-minded persons and insane persons in the state prisons and insane criminals in the state hospitals. There should be an institution for the criminal insane. An act was passed to that effect in California, but was allowed to become a dead letter. The state hospitals for the insane are not properly equipped to handle the criminally insane who require treatment partaking of both the insane asylum and the penitentiary. The criminally insane need more effective guarding than a hospital can give consistently with its duty towards its patients; they require more expert treatment for mental disease than the state prison can give. The unfortunate results of our present method (or lack of method) of treatment are that these semi-responsibles comprising a large portion of the criminal population are sent to public hospitals, to the county jails, or the state prisons, coming up in due time for parole from the latter and released to begin

[24] Mental Hygiene, Vol. 1, p. 567.
[25] Grasset, Jelliffe's Translation, The Semi-Insane and the Semi-Responsible, p. 379.

their criminal acts all over again. It is these semi-responsible and the feeble-minded criminals who are caught time and time again and make up the bulk of the recidivists. The evil of short sentences has been to a considerable extent mitigated by the indeterminate sentence law, which we now have in California, which makes it possible to hold defendants whom it is unsafe to let out, for the maximum penalty provided by law.

It may be asked what becomes of the concept of responsibility. Is it not right, as Stephen says, that we should hate criminals, and on the other hand should we not have nothing but pity for the insane? But what is the prevailing sentiment toward criminals? Is it not one of pity with at the same time a recognition that the public must be protected at all hazards? And will not the public be better protected than it is at present, when so many are turned loose daily whom the police officers from experience and the alienists from scientific study know will return again? In the infinite gradations of nature, persons of every type and degree may be found among those arrested on criminal charges. Modern psychiatry has accumulated a fund of knowledge. Some cases cannot be explained—many can be. The causes, the treatment, the possible cure, the kind of action to be expected, will differ more or less as the defendant is diagnosed as feeble-minded, an epilept, a case of dementia praecox, etc., or simply an individual with a tendency to some weakness. For an adequate understanding of the case it is necessary to know in a general way what psychiatry can contribute toward the solution. This Stephen did in a masterly way, but psychiatry has made many advances in the last forty years and it is the purpose of the ensuing articles to present in a popular form the outlines of modern psychiatry for the judge and lawyer as an aid to the administration of the criminal law and also to assist in understanding the abnormal conduct which gives rise to business complications, divorce, will contests, and so much other civil litigation. It is not the purpose to write a treatise that will make every lawyer his own psychiatrist, or every psychiatrist his own lawyer, but to assist the lawyer in recognizing a psychiatric problem, to explain in a general way paresis, amnesia, neurasthenia, Binet test, etc., and to point out the methods of co-operation between the lawyer and the doctor in the preparation and conduct of the trial.

Too often, in cases involving mental disease, the evidence consists of gossip and answers by so-called experts (a horse doctor

and a porous plaster specialist in a recent case in San Francisco) to abstract and meaningless hypothetical questions. In a modern trial by a skillful lawyer with a competent psychiatrist, the exact mental condition of the defendant is first ascertained. Such diagnosis can often be made with as much accuracy as in cases of tuberculosis or typhoid. When the diagnosis reveals a mental disease, the evidence of it, in the heredity, environment, physical condition and conduct, must exist and can usually be obtained from witnesses each testifying to facts within his own knowledge, no one of which may be conclusive or even strongly probative standing alone, but when cumulated demonstrating with irresistible force the existence of the disease.

The relation of mental disorder to law is a topic which is of great interest and paramount importance to specialists in mental diseases and to lawyers. From time immemorial the divergence between the legal and medical concept of insanity has been more or less constant. Little or no attention has been paid by members of the legal profession to the study and progress of medical science as it relates to mental disorder; and, on the other hand, members of the medical profession who specialize in psychiatry have stood firmly by the prevalent scientific concepts of mental disorder and in many instances fail to recognize, blinded as they often are by their scientific enthusiasm, that the legal concept is purely an effort on the part of society to segregate, at least temporarily, persons who by their abnormal behavior interfere with the rights of the majority of the herd.

This article is simply an effort to place before its readers the concept of modern psychiatry in order that a clearer understanding may be had of the aims both of psychiatrists and lawyers. Be it understood that modern legal psychiatry does not properly aim to free its objects from the enforcement of the law, but does aim properly to educate the public, and more especially the legal profession, to the necessity for permanently segregating many persons who, by reason of certain mental abnormalities and defects, are a permanent menace to the welfare of society. As it stands at present, it frequently happens that dangerous lunatics are discharged from custody; and many who have committed abnormal and dangerous acts and who are convicted are shortly released upon society by the parole and probation systems, only to repeat their criminal acts by reason of an unrecognized mental defect or abnormality. Unfortunately the public looks with suspicion upon expert testimony and this is undoubtedly due to indis-

cretion, unconscious partisan feeling, or, as occasionally happens, to deliberate misinterpretation and twisting of facts, by the medical expert backed up by the lawyer who is bent only upon freeing his client and who fails to recognize his obligation to society.

The chaotic situation may be cleared and lawyers and doctors meet on a common ground if the principles of modern psychiatry are recognized, and properly applied for the benefit of society and not for the selfish aims of lawyers and doctors whose social ideal is either nil or at best at low ebb.

The conclusion of this article will sum up the relationship between lawyers and psychiatrists — and their obvious duty to their clients, to each other, and to society.

As it now stands, the law, through modern psychiatry, frequently turns loose upon society persons dangerous to its welfare. This weapon of modern psychiatry should be impartially utilized by society for its protection, but unfortunately, through restrictions and misinterpretations, either deliberate or unconscious, it frequently becomes a menace. Given free rein, modern psychiatry would segregate permanently more people with criminal tendencies than legal procedure does at present. Recidivism would, in time, be reduced to a minimum.

More than forty years ago Stephen stated the situation when he said: "I must say that the provisions of the existing law have, as it seems to me, been greatly, though perhaps not unnaturally, misunderstood by medical men, who cannot be expected either to appreciate the different degrees of authority to be ascribed to different judicial declarations of the law, or to understand the rules for their interpretation, or to recognize the limitations under which they are made, or to appreciate the fact that when made they cannot be altered at will."[26] It is this misunderstanding and the consequent efforts of both professions to sustain their respective positions that have led to such a chaotic situation.

The breach between the law and medicine which at present is a decided detriment to society, will be narrowed only through education. This means enlightening the public regarding the nature and extent of mental diseases and defects of intelligence, by establishing courses in mental diseases in law schools and improving and stabilizing the courses of psychiatry in medical schools, as well as establishing mental hygiene departments in public schools, colleges and more especially in universities.

The last twenty years has seen great progress in psychiatry

[26] Stephen, History, Vol. 2, p. 126.

During the nineteenth century considerable progress was made, especially in the care and treatment of mental diseases, and in establishing a few relatively simple concepts of mental disorders.

The following from Jelliffe and White briefly describes the psychiatrical situation:

> "Present-day psychiatry is almost wholly a product of this century. Nineteenth century psychiatry, even well along in its latter half, had only a few relatively simple concepts with which to approach the problems of mental disease. It was altogether in the descriptive stage, endeavoring to define the material with which it had to deal. The whole group of the psychoses was classified, for the most part, as states of mania, melancholia, and dementia, plus the congenital states of the various degrees of idiocy and imbecility. Paresis was the only disease that had a well-recognized course and outcome and even its specific etiology was only suspected. Paranoia was a later concept and was largely conceived to be secondary to chronic states of mania and melancholia. The adolescent psychoses were only being slowly dismembered by the description of catatonia and hebephrenia which Kraepelin later used in formulating his dementia praecox concept. This, together with the manic-depressive concept, also formulated by Kraepelin, were the notable contributions to the psychiatry of the latter half of the century.
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> "Kraepelin's method, however, was a distinct advance upon what had gone before. It approached the problem of mental disease by the natural history method of studying its life history, but in so doing still remained at the descriptive level. Psychiatry in this period of its development was occupied largely with questions of classification and dominated by a psychology which was also in its descriptive stage of development and handicapped by metaphysical speculations on the nature of the psyche and its relations to the body."[27]

The modern concepts of psychiatry are the result of the knowledge obtained by highly specialized and scientific research workers investigating: (a) the development and functioning of the nervous system, more particularly that portion of the nervous mechanism commonly called the sympathetic nervous system, with all of its muscular and glandular connections; (b) the functioning of so-called internal glands (e. g., thyroid, adrenal, ovary, pituitary, testes) and the disturbances (nervous and mental) produced by increased, diminished, perverted, and lost secretion of these glands; (c) the "growth of a genetic psychology" (psychology of primitive man and child psychology); (d) the

[27] Jelliffe and White, Diseases of the Nervous System, p. 773.

semi-insane and borderland nervous and mental disorders (e. g., constitutional psychopathic inferiors, hysteria, neurasthenia, psychasthenia, etc.); (e) the development of a psychology of behavior and the study of conduct and its disorders; (f) personalities, including research work in instincts and emotions and special character studies; (g) "the rise of the psychoanalytic school."

Classification of mental diseases is a much mooted question. It has been the custom of authors of text-books on insanity to present a classification of their own; the result has been a multiplicity of classifications without uniformity. In an attempt to standardize the classification of mental diseases the American Medico-Psychological Association appointed a committee for that purpose. The result of the labors of this committee is noted in a standard classification accepted by the members of the American Medico-Psychological Association.[28] This classification, while open to criticism, is, however, the best that could be arranged with our present knowledge of psychiatry. It will of necessity have to be changed from time to time as progress is made in this branch of medicine.[29]

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[28] Statistical Manual for the Use of Institutions for the Insane. Published by Bureau of Statistics of the National Committee for Mental Hygiene.

[29] CLASSIFICATION OF MENTAL DISEASES.

1. Traumatic psychoses:*
   (a) Traumatic delirium; (b) Traumatic constitution; (c) post-traumatic mental enfeeblement (dementia).
2. Senile psychoses:
   (a) Simple deterioration; (b) Presbyophrenic type; (c) Delirious and confused type; (d) Depressed and agitated states in addition to deterioration; (e) Paranoid types; (f) Presenile types.
3. Psychoses with cerebral arteriosclerosis.
4. General paralysis.
5. Psychoses with cerebral syphilis.
6. Psychoses with Huntington's chorea.
7. Psychoses with brain tumor.
8. Psychoses with other brain or nervous diseases.
   The following are the more frequent affections and should be specified in the diagnosis:
   (a) Cerebral embolism; (b) Paralysis agitans; (c) Meningitis, tubercular or other forms (to be specified); (d) Multiple sclerosis; (e) Tabes; (f) Acute chorea; (g) Other conditions (to be specified).
9. Alcoholic psychoses:
   (a) Pathological intoxication; (b) Delirium tremens; (c) Korsakow's psychosis; (d) Acute hallucinosis; (e) Chronic hallucinosis; (f) Acute paranoid type; (g) Chronic paranoid type; (h) Alcoholic deterioration; (i) Other types, acute or chronic.
10. Psychoses due to drugs and other exogenous toxins:
    (a) Opium (and derivatives), cocaine, bromides, chloral, etc.,

*A psychosis is a generic term for a mental disease or disorder; sometimes used where the exact nature of the disorder is unknown.

MEDICO-LEGAL CASE HISTORIES

In the following case histories the facts will be presented in uniform order, i. e.:

1. Brief statement of case as first presented to attorney.
2. Legal facts (enumeration of facts upon which a prosecuting attorney would naturally and logically base his plea in criminal cases and upon which opposing counsel would try cases in civil procedure).
3. Medical and psychiatrical facts upon which the expert in mental disorders would base an opinion.
4. Diagnosis and brief description of disease condition from which patient suffered or suffers.

The cases presented here have been selected because they are fairly representative of the practical problems so frequently encountered by lawyers and medico-legal experts. Also these cases have been taken from the files of one of the authors, not because they are more representative of the conditions described than cases occurring in the practice of others but because of greater familiarity with the facts.

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alone or combined (to be specified); (b) Metals, as lead, arsenic, etc. (to be specified); (c) Gases (to be specified); (d) Other exogenous toxins (to be specified).

11. Psychoses with pellagra.
12. Psychoses with other somatic diseases:
    (a) Delirium with infectious diseases; (b) Post-infectious psychosis; (c) Exhaustion delirium; (d) Delirium of unknown origin; (e) Cardio-renal diseases; (f) Diseases of the ductless glands; (g) Other diseases or conditions (to be specified).
13. Manic-depressive psychoses:
    (a) Manic type; (b) Depressive type; (c) Stupor; (d) Mixed type; (e) Circular type.
14. Involution melancholia.
15. Dementia praecox:
    (a) Paranoid type; (b) Catatonic type; (c) Hebephrenic type; (d) Simple type.
16. Paranoia or paranoic conditions.
17. Epileptic psychoses:
    (a) Deterioration; (b) Clouded states; (c) Other conditions (to be specified).
18. Psychoneuroses and neuroses:
    (a) Hysterical type; (b) Psychasthenic type; (c) Neurasthenic type; (d) Anxiety neuroses.
19. Psychoses with constitutional psychopathic inferiority.
20. Psychoses with mental deficiency.
21. Undiagnosed psychoses.
22. Not insane:
    (a) Epilepsy without psychosis; (b) Alcoholism without psychosis; (c) Drug addiction without psychosis; (d) Constitutional psychopathic inferiority without psychosis; (e) Mental deficiency without psychosis; (f) Others (to be specified).

Assume that a young man consults you regarding a criminal charge—murder—made against his father and gives you the following facts:

> "My father, a man aged fifty-five years, on the night of ——, 1919, entered a saloon and while there and after drinking not more than two bottles of 2.75 per cent (prohibition) beer, made a remark to the proprietor of the saloon that he could not 'lick' the whole crowd (there being only the proprietor and another man in the room at the time); whereupon the proprietor of the saloon ordered my father to leave, telling him that he could not fight there. My father left the saloon, went to his home a short distance away and procured a double-barreled shot-gun and some shells, and returning to the saloon enters it, walking to the center of the room, 'breaks' the gun, inserts two shells and deliberately shoots the proprietor of the saloon twice, after which he calmly 'breaks' the gun again and extracts the exploded shells; without manifest emotion he carefully blows the smoke out of the barrels, blowing from the breech of the gun. There ensued a brief struggle between the man who was shot and my father. They struggled through the swinging doors of the saloon to the street, where the man shot by my father fell to the ground and died. My father was immediately arrested and after some grilling by the police, signed a confession. My father did not know this man, in fact he was a total stranger to him. Also my father had not taken a drink of alcohol for fifteen years. My father had been in the habit of hunting and he had his hunting paraphernalia all ready for a hunt the next day, hence the accessibility of the gun and shells. I can give you no motive and the above is all I know concerning the act."

(2) The legal facts from the prosecutor's standpoint:

These usually differ materially from the facts as they appear to the defense, but in the present case there is no substantial disagreement. The prosecution simply emphasized the cold-blooded character of the killing from the calmness with which the defendant "broke" the gun and blew out the smoke.

(3) Medical and psychiatrical facts:

The attorney trained principally in investigating the crime, and not the criminal, turned to the psychiatrist for aid, candidly expressing his inability to see a loop-hole for his client.

The first essential is a psychiatrical investigation (which means the study of the individual under investigation, from all angles, e. g., family history: heredity, nervous, mental and physical abnormalities of the family; health history: diseases, operations, acci-

dents or injuries of the defendant; personal and developmental history: schooling, comrades, occupations, delinquencies, religion; environment: early and at various times up to present; present condition: complete examination of patient—physical, nervous, mental, psychological, laboratory reports on blood, urine, spinal fluid, and X-ray examinations).

There was revealed by this examination the following medical and psychiatrical facts which could be positively substantiated by statements of examining physicians and by lay witnesses: i. e., a physically, nervously and mentally ill man who gave positive evidence of defective intelligence.

After careful inquiry it was ascertained that this man had some years previously sustained an unusually severe injury to his head and spine and that thereafter his personality gradually became changed and he was no longer considered the same.[30]

The facts offered in evidence by the defense and from which it was necessary to make a diagnosis are presented below in the form in which they were presented to the expert on the stand:

> A man aged fifty-five years, fourth of eighteen children from a consanguineous marriage[31] (father and mother being first cousins), who, withal, had a hard early life; very little opportunity to acquire an education (two years in school, at most); who went to work in a foundry at the age of ten years; who during his life, and up to present time, so far as is known, did not suffer from any serious infectious disease; who at the age of twenty-two or twenty-three years was rendered unconscious by striking his head against the side of a swimming tank, and was operated on for a supposed fracture of the skull (the scar of such operation still in evidence behind the left ear); who at the age of thirty-nine years, while working at his trade of moulder, sustained a severe injury to his back or spine and head by having a "core"

[30] It is not unusual to find during examinations of patients a history of injury to the head. Such history should always be taken cognizance of, but the true bearing it has on the case at hand would necessarily depend upon the direct relationship of the present symptoms to such injury. Effect of head injuries is usually exaggerated in minds of patients and their relatives, and frequently has no bearing. In this case, however, the relationship between the head injury and the subsequent development of the abnormal mental symptoms was definite enough to justify the diagnosis.

[31] Many facts related in these cases may appear superfluous, but from a psychiatrical standpoint they may be significant. For example, the consanguineous marriage may have had a tendency to cumulate the nervous condition of both parents. Although the cause of the mental condition of the defendant was undoubtedly the injury to the head, his mental organization prior to the injury may continue to exert more or less influence. It will be impossible in the space allotted to point out the psychiatric siguificance of every fact mentioned. The important thing for the lawyer and the family is to put the psychiatrist in possession of all the facts.

weighing four hundred pounds suddenly fall on his back and head while he was in a crouching position, and who by reason of this great weight falling on him was immediately rendered unconscious and bled profusely from the nose, mouth and ears, and who, as a result of this accident was confined to his bed and home for a period approximating six weeks to two months; and who, during this period of confinement to his bed and home suffered great pain, delirium or confusion for a great portion of the time so confined; who, up to the time of the aforesaid accident, which occurred when this man was thirty-nine years of age, passed successfully through the stages of apprentice, journeyman and expert foundry man, and was considered one of the most expert in his occupation; who after the aforesaid injury in 1904, and after he recovered from the immediate effects of his injury, went into the foundry business with two other persons, but soon thereafter suffered great mental stress and worry as a result of the shattering of his business hopes and ambitions by the earthquake and fire on April 18, 1906; who, after this accident in 1904, and business reverses in 1906, began to deteriorate in his work and grow weaker physically and mentally; who before the accident in 1904 was a successful and competent foundryman and moulder; who since the accident in 1904 has not taken any intoxicating alcoholic beverage (thus eliminating alcoholism as a cause); whose ability to work efficiently thereafter gradually lessened; who showed before and after the accident in 1904 the character and traits which may be described as follows:

Before the Accident in 1904	After the Accident in 1904
Intellectual ability demonstrated in ability to learn. Capable in positions. Good memory. Good power of concentration and observation.	Intellectual ability began to deteriorate. Unable to learn. Poor memory. Powers of concentration and observation gradually weakened.
Output of Energy in Work	
Demonstrated in being active, pushing, energetic.	Demonstrated in sluggishness, inactivity and lack of "push."
Habits of Activity	
Showed by punctuality; definiteness of purpose; precise; consistent; practical; efficient; and carried responsibility exceptionally well.	Showed him to have lost his definiteness of purpose; his punctuality and orderliness lessened and is now practically nil. Not consistent or precise. Poor efficiency, and shirking responsibility.
Moral Standards	
Noted in his honesty and conscientiousness.	Seemed to have remained about the same.

General Cast of Mood

Noted in stability (especially occupational); cheerfulness; optimism.	Changed so that it became variable; superficial; lost his sense of humor; became depressed; despondent; at times even suicidal; moody; extremely irritable; indifferent and placid.

His Attitude Towards Himself

Ability to see his mistakes; self-consciousness, and manifesting normal scruples.	Was more of conceit; inability to see his mistakes; changing to self-depreciation; extremely self-conscious.

His Attitude Towards Others

Was sympathetic, kind-hearted, affectionate, generous; thought the world gave him a square deal.	One of suspiciousness; irritability, fiery temper; resentful; disliked by others; considered "queer."

His Reaction to Attitude Towards Self and Others

Was frankness; sometimes brooding; occasionally fault-finding.	Very reticent; very seclusive; extremely fault-finding; great demand for sympathy, but irritably resenting it when given. Takes disappointments badly.

Self-Assertion

Was manifested in effort to shape things for his future; leadership ability (foreman and shop-owner); ability to manage difficulties; ambitious.	Entirely lacking; led rather than leading; does not manage difficulties well; not ambitious.

His Adaptability

Was demonstrated in his ability to get along with other people; sociability; ability to take advice.	Is demonstrated in his inability to get along with other people; inability to get acquainted; stubborn; opinionated; inability to take advice.

Before and after his accident in 1904, he manifested the following disposition:

Before Accident—1904	After Accident—1904
Cheerful, affectionate, courageous, cautious, ambitious, friendly, loyal, orderly.	Despondent, erratic, cowardly, unfriendly, antagonistic, sullen.

This is a man who shows by actual examination of his nervous system symptoms pointing to organic or destructive changes; who by actual mental intelligence test shows an intellect far below what is considered average normal, in fact the intelligence of an average eight-year-old child; who, by examination of his mental processes, shows poor association of ideas; poor reasoning ability, poor memory; poor orientation as to place and people and time,

apathy, confabulation; ideas of suspicion and persecution, thinking everybody is against him; who broods, has threatened suicide; is melancholy; extremely irritable; who on numerous occasions, after the accident of 1904, has insulted people by walking away in the midst of a conversation in which he was apparently interested and giving no reason for such abrupt acts; frequently fell asleep in unusual places in the daytime (especially noted in falling asleep at the table); complained of great pain and distress in the back of his head and neck at times; complained of dizziness on numerous occasions, especially when stooping; had frightful dreams in which he saw people and conversed with them, and when in a dream-state heard wild animals howl and growl; fainted on several occasions; has high blood-pressure; has evidence of beginning serious eye trouble; has evidence by X-ray examination of some serious and incurable condition of his skull and spinal column (noted in the report from X-ray technician); has no evidence of syphilis of his central nervous system by examination of his blood and cerebro-spinal fluid; has evidence of epileptoid attacks noted in brief attacks of unconsciousness; "absences";[32] does automatic and impulsive acts, portraying a movement that was customary to be made during full consciousness, for example, the act of shooting a shot-gun; who, upon committing an act of homicide following a delusion of persecution on October 9, 1919, with two shots from a shot-gun, deliberately "broke" the gun, extracted the shells, and carefully blew the smoke out of the barrels, blowing from the breech of gun and causing the smoke to issue from the muzzle of the gun, just as he had been accustomed to do when hunting; who has no memory or at best a hazy recollection of this act of homicide; who has, by actual observation of his friends and relatives, definitely deteriorated physically and mentally since his accident in 1904; and who, in addition, by many impulsive acts, unusual and abnormal conduct, great irritability, spells of anger, threats of suicide, great unreasonableness, at times apathy, great depression and despondency, insulting conduct to friends and relatives, has caused his friends and family great mental stress, worry and anxiety.

Further it may be stated that the personal report to the attorneys in this case included the following conclusions:

[32] "Absence" is essentially characterized by a momentary suspension of all conscious psychic operations; exceptionally prolonged, however, for hours, days, or even weeks, during which the patient may execute complicated acts, such as taking a journey, without retaining any recollection of his acts whatever.

"The neurological examination points to a definite organic change in the central nervous system. Longer observation in a proper environment accompanied by frequent examinations will be necessary to make an exact diagnosis. The symptoms point more specifically to a cerebral arteriosclerosis following trauma; the possibility of a brain tumor has been considered and somewhat borne out by X-ray findings. The psychiatrical examination positively demonstrated the dementia. Epileptoid attacks, represented in 'absences' and due, no doubt, to arterial changes, are present. These are of 'petit mal' nature. Paranoidal ideas dominate the life of the patient. The psychological examination shows a person having the intelligence of a seven-year-old child. In this case intellect has deteriorated and the patient has lost a portion of what he once possessed, intellectually speaking.

"From all of the above and from reports from laboratories, X-ray technician, and consultations, it is concluded that this patient is suffering from a dementia which is progressive in nature. The exact cause of such dementia will have to be determined after further observation and examination, but at present the facts point to the severe trauma sustained in 1904 as exciting cause.

"From the history of the case and the statements of relatives and friends, it is concluded that this patient was suffering from a dementia at the time he committed the act on October 9, 1919. From the facts in the case, and principally the epileptoid symptoms, it is concluded that he committed the crime while in a state of 'absence.'[33] The conclusion in this case was that the defendant was suffering from a traumatic psychosis, the effect of which, at or about the time of the killing, was to induce a state resembling epilepsy, during which a condition of unconsciousness or 'absence' existed, in which condition it is well known that automatic acts (acts which patient is more or less accustomed to do habitually when conscious) may occur. In this state the defendant entered the saloon (a thing he probably would not have done in a conscious state); while in the saloon he exhibited ideas of persecution, thinking he was about to be attacked. While still under the delusion of being attacked and while still in a dream state he procured his shot-gun from its usual place (he had gone hunting every Saturday for some weeks) and after loading it as was his custom he killed the decedent in much the same manner as he would a duck. After the killing he automatically 'broke' the gun, extracted shells, and blew

[33] This case brings up the important question of amnesia, a disorder of memory which will be fully discussed later. At present it is simply mentioned as a symptom of this particular psychosis. The defendant in this case had no recollection of having killed the decedent.

> the smoke, as was his custom when hunting, a highly improbable act for one committing a conscious murder. The automatic and impulsive nature of the act bears out such a conclusion. This man is a menace to society unless properly restrained and treated. He should not be given his liberty to do as he pleases, for the liability to repetition of his act or other acts of violence directed against himself or others is great. Proper institutional treatment is essential. It is suggested that the material in this case be submitted to a commission in lunacy, and the patient regularly and legally declared insane, and committed to an institution, public or private, where he can receive the treatment essential in his case, and thus prevent a trial. The prognosis is hopeless."

That under the legal test the defendant did not know the difference between right and wrong at the time he committed the act is apparent. Here is where the defects in our legal procedure are painfully evident. There being no consultation before the trial, the experts for the prosecution had no knowledge of most of the significant facts, and having no compulsory power to examine the defendant, could know little of his actual condition. Accordingly, their opinion that the defendant was sane must necessarily have been based on the few facts in the possession of the prosecution, consisting principally in the circumstances under which the act was committed. Having testified, however, that the defendant was sane, they were in no position to have him committed to an institution. The result is that when the jury found the defendant not gnilty, as the evidence required, he was free to go at large, and the safety of the public depends on the voluntary restraint on him exercised by his family. Thus psychiatry became a weapon against society.

(4) Diagnosis:

Dementia of traumatic origin, associated with symptoms which constitute a psychosis—in this case a traumatic psychosis. The following brief statements can be made regarding traumatic psychosis or mental disorder resulting from brain (or head) injury:

Traumatic Psychoses

The diagnosis should be restricted to mental disorders arising as a direct or obvious consequence of a brain (or head) injury producing psychotic symptoms of a fairly characteristic kind. The amount of damage to the brain may vary from an extensive destruction of tissue to simple concussion or physical shock with or without fracture of the skull.

(a) Traumatic delirium: This may take the form of an acute delirium (concussion delirium), or a more protracted delirium.

(b) Traumatic constitution: Characterized by a gradual post-traumatic change in disposition with vasomotor instability, headaches, fatigability, irritability or explosive emotional reactions; usually hyper-sensitiveness to alcohol, and in some cases development of paranoid, hysteroid, or epileptoid symptoms.

(c) Post-traumatic mental enfeeblement (dementia): Varying degrees of mental reduction with or without aphasic symptoms, epileptiform attacks (like epilepsy) or development of a cerebral arteriosclerosis (hardening of the blood-vessels of the brain).

Traumatic psychosis means a mental disorder following or contingent upon brain injury (head injury). Symptoms following injury to brain may be divided into immediate or acute, and remote or chronic.[34]

The usual immediate result of injury to brain (head injury) is:

1. Unconsciousness (varying in degree).
2. Irritability and restiveness if disturbed.
3. Maybe mild delirium with hallucinations.
4. Maybe slight rise of temperature.
5. Lucidity (clearness) and confusion may alternate.
6. Stupor may last several days.

The remote or chronic effects of brain injury (constitutional changes) may be:

1. Headache.
2. Dizziness (intensified by stooping).
3. Irritability.
4. Insomnia.
5. Physical fatigue.
6. Mental fatigue.
7. Change of character (very subtle, usually).
8. Intolerance of alcohol.
9. Memory defects (retrograde-amnesia type).
10. Explosive outbreaks.
11. Depressed periods.
12. Moodiness.

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[34] White, Outlines of Psychiatry (7th ed.) p. 248, containing Meyer's classification of effects of traumatism in the nervous system.

13. Dream states.
14. Hysteriform attacks.
15. Epleptiform attacks.

The subtle character changes following head injury, which are so very important from a psychiatrical standpoint, are exceptionally well defined by Jelliffe and White. From them is quoted the following:

> "As regards the more characteristic results of head injury of a distinctly psychotic nature, it should be borne in mind that the change in character, transformation of the personality, as it might be called, is often a very subtle process and one extending over a very considerable period of time. It might be practically impossible to evaluate the situation at all if one were dependent upon a cross-section of the patient's mental life. When a longitudinal section, however, is available, one finds in typical cases an individual who up to a certain point in life has gotten along well, showing efficient reactions and developing by steady progress in some chosen line of work. Such an individual receives a head injury and from the time of this injury on there will be noted in the history a gradual falling off in efficiency."[35]

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(To be continued.)

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[35] Diseases of the Nervous System (3d ed.) p. 942.