experience known cases of two asylum attendants and two nurses who developed the disease, while I have reason to believe others may suffer from temporary and partial infection, which they are able to throw off because of their healthy state. It is not inconceivable that the staff of asylums may develop an immunity to general paralysis like the surgeon to sepsis. With regard to the amount of pressure in the spinal canal in cases subjected to lumbar puncture, I may say that La Pegna observed high pressure in cases of idiocy, senile and other varieties of insanity, and in epileptic and general paralytic patients, quite apart from convulsive and congestive attacks, while some cases in convulsive or congestive seizures showed a distinctly low pressure. My own experience has been similar, and I have been struck by this inconstancy, which is not in keeping with the general teaching. With regard to the paper just read, I think Dr. Ford Robertson and Dr. Dods Brown are to be congratulated on the further progress they have made in this research. The fact that many persons still exist who do not believe in the "diphtheroid" hypothesis is no proof that it is fallacious, and I earnestly and confidently hope that before long sufficient evidence to satisfy their critical needs may be afforded these sceptics.

Dr. FORD ROBERTSON said it was a mere assumption, and almost certainly an entirely erroneous one, that general paralytics did not occasionally infect other persons. Any general paralytic who harboured diphtheroid bacilli of the virulence of many of those that he had isolated from such patients must be a source of considerable danger to others who happened to be susceptible to the pathogenic action of these micro-organisms. It was one of the many deplorable consequences of the hostility with which these views regarding the ætiology of general paralysis had been received, that to this day no precautions were taken in asylums to prevent the propagation of this contagious disease. Congestive seizures could not be explained as the result of the accumulation of cerebro-spinal fluid and increase of pressure. There was no evidence that in cases of general paralysis the pressure of this fluid was not controlled by the intra-cranial venous pressure, as in normal conditions. The excessive amount of fluid present after death was simply compensatory for brain atrophy and did not indicate increased pressure. It seemed inevitable that in a discussion of this kind the old and often-answered objection should have been raised, that diphtheroid bacilli were common in other diseases and even in health. These critics should first have offered this objection against the view that acute diphtheria was caused by a particular bacillus of this wide group, for it would have been equally valid. Some of their critics were also to be criticised for their apparent inability to understand so simple a doctrine as that of the infective focus. They could not see any difference between the presence of a pathogenic micro-organism upon the surface of a mucosa and its local invasion of the tissues. There was really all the difference between health and disease. He had dealt briefly with the subject of the treatment of general paralysis in a paper published in the *Lancet*, to which reference had been made. They now used combined active and passive immunisation, and endeavoured also to combat the local infection in the naso-pharyngeal and oral cavities by direct measures.

Some Aspects of "Maniacal-Depressive Insanity." (1) By Dr. M. J. NOLAN, Resident Medical Superintendent, Down District Asylum, Downpatrick.

IN view of the general interest at home and abroad taken in "maniacal-depressive insanity," and because of the special attention this division of the Medico-Psychological Association gives the subject to-day, the writer ventures to submit some considerations (based on his personal experience) on the value of the term.

Like many other things which we do not seem to be able to produce at home the term was made in Germany, and first given to us by Kraepelin. By him it was assigned to cover "the greater number of cases usually called recoverable mania, simple mania, simple melancholia, periodical mania, periodical malancholia, and circular insanity." He defined it as a mental disorder which recurs in definite forms throughout the life of the individual, and in which a defective hereditary endowment seems to be the most probable ætiological factor. divides his great class of cases into three sub-groups, the "maniacal," the "depressed," and the "mixed," and he contends that such a conception of the disease, with characteristic fundamental symptoms, makes its recognition possible at the outset without having to wait for the occurrence of more than one attack. is therefore essential to the clear conception of the class of cases to which Kraepelin applied this term "maniacal-depressive insanity," that the observer must be competent to recognise "the characteristic fundamental symptoms," so that, estimating them when grouped together, he may be in a position not only to designate them correctly, but what is far more important, to form his diagnosis and his prognosis, which is often of prime importance in medico-legal relations. Kraepelin lays down that "the characteristic fundamental symptoms" of the maniacal type are—

- (1) Great psycho-motor restlessness.
- (2) Pronounced flight of ideas.
- (3) Disorientation.
- (4) Great impulsiveness.
- (5) Transitory expansive delusions.
- (6) Occasional hallucinations.

This "maniacal state" may vary from hypomania (mania mitis or mitissima, and folie raisonnante) to delirious mania.

The characteristic syndrome of the depressed stage is comprised of—

- (1) Simple retardation.
- (2) Retardation with hallucinations and delusions.
- (3) Stuporous conditions.
- (4) Self-accusations.
- (5) Hypochondriacal delusions.
- (6) Hallucinations (auditory, visual, and olfactory).
- (7) Insight with condition.
- (8) Conduct, psycho-motor retardation.

Combined with the above symptoms, numbness of the head, palpitation of the heart, loss of appetite, constipation, insomnia, and dreams are also found.

A stuporous condition is the essential characteristic feature of the depressive state, and is further marked by incoherent and dream-like delusions and hallucinations, and a "pronounced clouding of consciousness." It is usually only an episode in the state (and sometimes occurs in the maniacal state). It is associated with profound disturbance of nutrition, loss of weight. great insomnia, fœtid breath, extreme constipation or diarrhœa. The climax is reached in a few weeks, and the average duration of an attack is four months.

The foregoing recapitulation of Kraepelin's symptomatology brings at once into view so many conditions more or less common to the acute insanities that the question arises, How far is their grouping of practical value in dealing with mental It must be confessed that so far as the first two groups—the maniacal, and the depressed—are concerned, it is doubtful if anything is to be gained by separating the cases comprised therein from classical cases of mania and melancholia when manifest in single or recurrent attacks. in the clear paragraphs of a text-book, the grouped symptoms of the "maniacal" and "depressed" groups are well defined, and diagnosis should be easy if the clinical aspect was always as pronounced. In point of fact, however, the individuality of the patient influences the degree of the symptoms to such an extent that the relative values of the symptoms are questionable—some are accentuated with startling prominence, others subdued almost to complete repression. This individual factor is so distinctive in its positive and negative variations that it practically effaces the value of the academic grouping. Thus while the observer is impressed with the form of mental derangement of A. B, he is unable to relegate A. B to the category of the "maniacal," or "depressed" group of "maniacal-depressive" insanity. Such, at least, is the writer's personal experience.

No such difficulty, however, exists with regard to the "mixed" group, to which the term "maniacal-depressive insanity" might perhaps be restricted for all practical purposes. Here we have the association of maniacal and depressive phases, in one attack, and so intimately united that there is the closest juxtaposition. It is with this mixed form we may chiefly

concern ourselves, as it is most definite in character, most frequent in occurrence, and most interesting in its psychological aspect. The striking mental contrasts presented in one individual within a brief period of time compose a clinical picture that must be attractive to the least observant: The oscillations are frequent, irregular in periodicity, and ring the changes on the emotions, passions, and sensations, leaving the intellect intact after all the erratic phases—phases which in character and degree may be comparable to aërial phenomena. We see in turn the dead calm of apathy, the gale of mania, the cyclonic violence of paroxysmal furor. There is a fascination in the display of such exaggerated mental forces, feeling as we do that so surely as the calm follows the storm, as surely will rational conduct succeed the mad riot and conflict—that after each attack there is a complete restitutio ad integrum. As Bianchi states—"The diverse forms which have been described are but the different manifestations of one and the same fundamental pathological process, equivalents, like the many forms assumed by epileptic paroxysms." So rapid at times are these diverse forms that it has been observed "the patient goes to bed a melancholiac and rises a maniac."

Bianchi says "the gravest form of this sub-group is that which gives very short truces, inasmuch as the psychic life is caught in the gearing of a series of maniacal and by-maniacal attacks from which the sufferer very rarely succeeds in freeing himself."

Kraft-Ebing, while insisting on the primary origin of periodic maniacal insanity, refuses to admit a pre-melancholic stage, but notes a prodromal stage akin to an *aura*. And though Kraepelin states that the melancholia of involution is quite distinct from the depressive stage of maniacal-depressive insanity, yet he gives no sure criterion to distinguish the two.

Having now grasped to some extent the views of Kraepelin and other authorities on the subject, let us consider their practical application.

While it must be admitted that some such term as "maniacal-depressive" insanity was, indeed, much needed to clinically classify such attacks as those to which Bianchi refers so graphically, it is very questionable whether Kraepelin's vast group of so many conditions under one head has tended to clear the air, and to the writer at least it would seem that the

necessary purpose would have been better accomplished if the term had been restricted to that class of the insane of which it has been said by Sir John B. Tuke, "That it is impossible to say whether they are melancholic maniacs or maniacal melancholiacs."

Are the symptoms individually or collectively "characteristic" in the so-called "maniacal" and "depressive" states? That they are so is certainly open to doubt, and personally the writer cannot agree in the affirmative. With regard to the "mixed state," no such doubt is possible. For though one or more of these "characteristic symptoms" may be common in cases outside Kraepelin's very wide class of "maniacal-depressive insanity," yet the grouping of them is so very definite in the circumscribed mixed sub-group that they undoubtedly seem to deserve special recognition as a valuable syndrome when they occur in globo during a single attack. We are well aware what a crux such a combination presents to the general practitioner, who in his bewilderment seeks our assistance, and we are painfully alive to the difficulty we ourselves experience in recording such cases in official registers and returns under the restricted heading of "mania" or "melancholia."

Hence we accept with pleasure a term which correctly designates a hybrid of the two.

If some symptoms of the special groups are to be regarded as of more importance than others, it would seem to the writer that from his knowledge of such mixed cases much weight should be given to the transitory expansive delusions of the maniacal state, and to the patient's insight into his condition in the depressed state, taken together with tics and "numbness in the head" during convalescence. There is something inherently characteristic in the ephemeral inconsequence of the transitory expansive delusions: the patient seems to speak with "his tongue in his cheek"; he "talks big," too, and with an air of bluff when he indulges in spiritual and personal fantasies. In no way is his exaltation of the same assured and solid type met with in states of exalted mania or general paralysis.

Similarly the patient's "insight into his condition" carries a specially characteristic value—in no other class of the insane is the same keen appreciation of disordered intellectuality so startling, vivid and accurate, and so often given in the terse statement, "I am mad! Don't mind me, I am only a lunatic!"—so often made in voluntary explanation of erratic conduct.

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The convalescence is very frequently marked by neuralgias as well as "numbness of the head." This latter condition varies in degree and in area, from a mere circumscribed numbness to an all-over feeling of torpor and weight; or the latter feeling may be described by the patient as affecting only one region, the vertex or the occiput, the former more frequently in climacteric, and the latter commoner in adolescent cases.

In some cases, too, the writer has heard complaints of internal growths or other material agents as being the sources of these abnormal feelings. Schroeder has observed long continued localised pains after recovery.

neurons from permanent injury, though the patients are placed under most favourable surroundings. But though there is no organic pathology yet demonstrated as associated with this lifelong disorder, surely some pathological condition must underlie it, causing intermittent damage, if not altogether "permanent injury" to the neurones. Is it not possible that apart from amentia in any degree there is in the affected individual a pathological condition (not necessarily in the neurons, though of a kind to affect their normal function), bearing somewhat the same relation to the condition that is pathognomonic of chronic melancholia and chronic mania, that true angina pectoris, with its associated cardiac and aortic disease, bears to angina vasamotoria, which never kills and leaves no organic change?

From my observations I come to the following conclusions:

- (1) That the "mixed form" is the only form worthy of acceptance. It alone can be diagnosed from the single attack. Single attacks of mania or melancholia, which in the light of previous or subsequent history may prove to be links in the chain of so-called "maniacal-depressive insanity," cannot be so recognised in the absence of such history.
- (2) That the incidence of the "mixed form" attacks is intimately associated with the stress of the age epochs, with toxic influences (alcoholic, etc.), and with sexual excesses.
- (3) That the "characteristic syndrome" of the "mixed orm" may be found—
 - (a) Incidental to marked congenital mental deficiency.
 - (b) Associated with epilepsy.
 - (c) In a certain class of general paralysis.
 - (d) After operations.
- (4) That the "mixed form" is sometimes unconsciously adopted by malingerers who are generally of the neurotic type. Such a case has come under the writer's notice—an alcoholic police officer who was pseudo-maniacal, depressed and stuporose in turn, was obliged to confess his fraud.

A somewhat like case was reported in America, where a man of the same occupation and habit murdered his wife. After many varied phases associated with physical symptoms, he confessed he was malingering, and went calmly to the electric chair to expiate his crime.

(1) Read at a meeting of the Irish Division of the Medico-Psychological Association, held in Dublin, November 7th, 1908.