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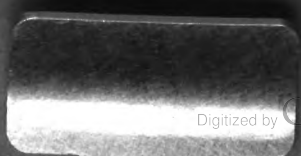
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"The care of the human mind is the most noble branch of medicine."—GROTIUS

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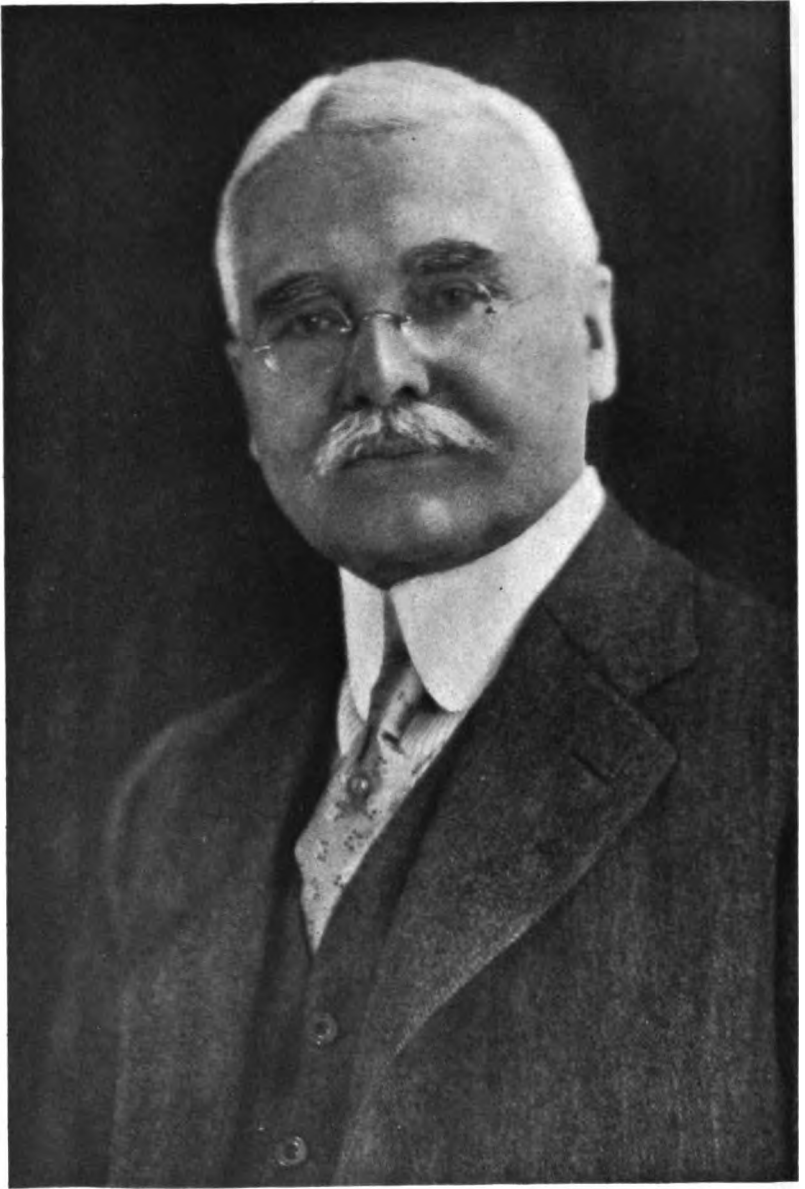
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Owen Copp, M.D.

# AMERICAN JOURNAL OF PSYCHIATRY

## SOME PROBLEMS CONFRONTING THE ASSOCIATION.\*

By OWEN COPP, M. D.

*Physician-in-Chief and Administrator, Pennsylvania Hospital, Department for Mental and Nervous Diseases, West Philadelphia, Pennsylvania.*

*Members of the Association, Ladies and Gentlemen.*—The founders of this Association were first to organize as specialists in the practice of medicine in this country. The need of conference and co-operation in a common field of labor united them. The spirit of service inspired their zeal in promotion of the common welfare. Their altruism has been characteristic of leadership in the long history of the Association.

The founders were first in another enterprise, the endeavor to standardize hospital methods in construction and administration. As early as the sixth annual meeting the first of that famous series of "propositions" was propounded by Secretary Kirkbride and adopted by his associates. In the passage of years proposition after proposition was added until was built a virile hospital creed, representative at the outset of consensus of opinion of the members and potent in the councils of trustees and superintendents of institutions, old and new.

Inflexible adherence to this creed led to controversy and, ultimately, restraint of individual initiative and action, but the trenchant motive behind it is significant and uplifting. It was rooted in a sense of obligation to the great human and material interests entrusted to this Association. It accepted responsibility for community of action and leadership in a domain otherwise prone to neglect.

\* Presidential address at the seventy-eighth annual meeting of the American Medico-Psychological Association, Boston, Mass., May 31-June 1-2, 1921.

Vast has been the growth of these interests in more than three-quarters of a century since the founding.

The original membership of 13 has nearly passed the goal of 1000. The public institutions for the treatment of mental diseases have increased from 26 to over 500 in the United States;<sup>1</sup> their aggregate of patients from about 3000 to over 235,000; their annual admissions from about 2000 to over 75,000; their annual cost of maintenance and upkeep, from less than \$500,000 to over \$65,000,000; their valuation of plants and equipment from about \$3,000,000 to over \$250,000,000.

The cost of care and treatment of the insane, feeble-minded and epileptic in New York and Massachusetts exceeds one-eighth of all the expenses of state government.

Amazing is the fact that the number of beds for the treatment of mental diseases in public institutions throughout the United States *equals, probably exceeds*, the aggregate for all other forms of illness.

Impressive as these figures are, they are insignificant compared with immeasurable wastage through neglect of preventive and curative measures; through avoidable dependency, inefficiency, delinquency and degeneracy; through adverse reactions of mental factors in personal, family, social, educational, industrial and governmental relationships. The drag upon human progress, and the sum of human misery are incalculable.

Our government, state and national, is confronted with no greater issue, nor with any issue greater in potentiality for good or ill to their people, than is involved in the development of a wise and adequate policy in these matters.

True, then, to the spirit of the founders and the traditions of the Association, we face grave and imperative problems.

The apparent indifference of the public legislators, even physicians, scientists and teachers of medicine, would dissipate, if they could be made to realize the magnitude, importance and practical bearing of these problems.

Here, therefore, lies our first duty. Public and professional consciousness must be aroused to sense the facts in the present situation. The mental patient rarely gets "a square deal"; rarely

<sup>1</sup> The data on which these statistics are based were furnished by the National Committee for Mental Hygiene.



has the best chance, or an even chance with sufferers from other forms of illness, for the study and treatment of his malady, which often goes unrecognized until the best hope of restoration has long passed.

The note of prevention has hardly been touched.

The family physician, the first aide, receives no adequate instruction or clinical experience in his medical course to fit him to recognize and treat incipient mental disease.

Essential provision for treatment is often lacking, even trained physicians, nurses and other personnel in many hospitals.

Insufficiency of living space is almost universal in public institutions.

Clinical and research laboratories, which are indispensable in diagnosis, treatment and betterment of methods, are deficient usually, or absent altogether.

The misconception, even among physicians, is prevalent, that mental patients, unrecovered after short, initial study and treatment, may properly be put aside for mere care in asylums during protracted illness without persistent and resourceful effect to alleviate and rehabilitate.

Mental abnormality is too often regarded as a matter of charity and poor relief, not as a vital issue of disease and health.

Questions of support must usually be answered before response to need of prevention and cure.

Finally, has not the tendency, now happily abating, to isolation and a lack of hopefulness, retarded progress in mental medicine?

I wish to strike no note of pessimism. I feel none. The future of psychiatry presents to me a bright prospect. But at the threshold may we not wisely strive to sense the realities; seek a clear conception of problems; consider practicable plans and policies?

Out of the consciousness of need will there not arise the determination and hopefulness necessary for worth while achievement?

What possibilities invite us?

Prevention of syphilis and inebriety; removal of physical and hereditary causes of mental abnormality will gradually solve one-third of the problem, probably more.

Adequate treatment of mental disease will restore to health at least one-fourth of mental patients, probably more.

Residual disabilities may be alleviated by good medical and nursing attention, thereby diminishing the amount and cost of care of such afflicted.

Happiness, comfort and usefulness will abundantly reward persistent and resourceful effort to alleviate permanent mental disability and rehabilitate the mental patient in the hospital and the community.

Discernment of mental factors and their understanding adjustment in human affairs will reduce poverty, delinquency, economic strife and waste and conserve in a large way the welfare of individuals and the enduring peace of nations.

Where is the path? What specific obstacles lie in the way?

Some old alignments must be broken; false concepts abandoned.

Our chief concern is no longer with dependency, custody of the dangerous and defence of the public.

Lunacy, asylum, custodial care and other false or hopeless expressions must give place to the language of beneficence to the patient, his guidance and protection from pernicious tendencies; of prevention, treatment, cure or alleviation of disease; of rehabilitation of the mentally disabled; of removal of causes of mental abnormality; of conservation and promotion of mental health.

Psychiatry is advancing into its rightful alignment with the science and practice of general and psychological medicine in the realm of health.

The path of mental health starts and ends in the community; its course leads through the home, the school, the hospital, out again into the widening network of supervisory and helpful agencies of the community; guide posts along the way are prevention, treatment, rehabilitation.

I. Prevention through:

a. Eugenics by education, wise supervision, prohibition of marriage of known defectives, segregation of vicious and delinquent defectives in institutions, sterilization in exceptional cases for specific reasons, registration of defectives.

b. Adequate psychiatric inspection of school children and provision in special classes for teaching the backward.

c. Institutional training in occupation and habit formation for such children non-educable in the public schools.

d. Early recognition and treatment of mental abnormality by—

1. The family physician, which will necessitate adequate teaching and clinical experience in psychiatry as a *requirement* of his medical course.

2. Psychiatrists in charge of psychopathic wards of general hospitals and in neuro-psychiatric practice.

3. Community mental clinics, as first aid stations for information, history taking, preliminary examination, advice, treatment and supervision so far as practicable at home, as guides to special agencies.

4. Hospital mental clinics, as reference centers for special examination, diagnosis in doubtful conditions, and observation within the hospital; special treatment and supervision in the community.

5. Travelling mental clinics to reach remote and scattered communities inaccessible to other clinics.

e. Early removal and treatment of physical causes of mental abnormality in co-operation with general hospitals, internists and specialists.

f. Prevention and treatment of syphilis and inebriety.

A wise program of mental health provides first for prevention but must include:

2. Adequate provision for treatment in—

a. The *private, incorporated psychiatric hospital* with endowment for charitable and other special service; capacity for 100 to 300 patients of selective class and character of mental illness; center of clinical and laboratory research; short, intensive treatment of curable and improvable conditions; observation and diagnosis of doubtful conditions; affiliated with general hospitals and medical schools for clinical experience and teaching for graduates and special investigators in psychiatry; performance of all these functions without pecuniary restriction; but, *in addition*, alleviation and rehabilitation of patients during prolonged illness, so far as they require hospital supervision and are able to pay the cost of special conditions and adjustment for indefinite periods.

b. *Public provision*, chief agency of treatment of every type of mental patient in every state, stage and duration of illness.

1. The *psychopathic ward or pavilion of general hospitals*, with psychiatric staff and equipment; separation from other

wards; for temporary and emergency care; short, intensive treatment of mental states not recognized as such by patient or his friends and other conditions which are curable and not disturbing to the general hospital régime; essential to the diagnosis, removal or treatment of physical causes; conducive to right relationship of physical and mental illness and least stigma of mental disability.

2. *The psychiatric clinic*, integral part of a university general hospital and medical department; primary functions, investigation and research; instructions and clinical opportunity in psychiatry for medical students and specialists; specialized service in observation, diagnosis, treatment and rehabilitation of selected patients, limited in number and duration of service; capacity 60-120 patients; supported by state or endowment; no pecuniary discrimination.

3. *The Psychopathic Hospital*: (1) The metropolitan, (2) The district.

(1) *The metropolitan psychopathic hospital*; location in large, urban center; capacity 100 to 200 beds; high admission rate and rapid turnover of patients; affiliation with medical schools and general hospitals; all the functions of the *university psychiatric clinic* and, *in addition*, a great clearing house for many patients received for temporary and emergency care, observation, and classification preliminary to distribution to other hospitals and agencies of relief; separation of clearing house from treatment service important; consultant relationship to district psychopathic hospitals.

(2) *The district psychopathic hospital*; location accessible to the several communities of a district requiring provision for a maximum of 2000 patients; reception of all classes of patients directly from its district; all the functions, except the clearing house, of the metropolitan hospital within the requirements of its district and limitation of advantages of location; and, *in addition*, because it may have ample acreage of land for pleasure grounds and occupation of patients, treatment of prolonged mental illness for indefinite periods; agency of relief of the metropolitan hospital in such cases; chief

recourse of the poor and those of moderate means for treatment and hope of restoration to mental health; maintenance of the highest standards imperative.

After the utmost attainment in prevention and treatment, there remains a great humane and economic problem in alleviation of permanent mental disability and rehabilitation of such afflicted.

3. Rehabilitation is an inseparable function of every mental hospital in:

a. *The institution* whose alleviation of physical and mental condition, systematic training in habit formation, adaptability and occupation reduces the amount and cost of care and promotes comfort, contentment and usefulness of patients during their institutional life.

Resultant improvement facilitates the passage of many patients out of the restrictive régime of the wards into comparatively free and normal living in:

b. *The occupational homestead*, separate in space but a part of, and accessible to, the hospital for medical and nursing supervision and quick response to change of mental state; the interests and atmosphere of a home; suitable occupation under trained direction; careful grouping of patients in small but variable number according to mental state, social adaptation, environmental adjustment and occupation; a station between the hospital and the community for patients while they may enjoy these privileges under such supervision but may not safely and usefully live with their families.

Finally, rehabilitation finds its ultimate and broadest field in:

c. *Community psychiatric service*; necessary function of every mental hospital; part of its medical service under direction of a hospital physician with at least one social worker; special and adequate support justified by increase of discharge rate, longer stay at home and self support of patients; an aid to discharged patients in regaining and holding their normal places in life; safeguards against present dangers and future increase of degeneracy; promotes early recognition, prevention and treatment of mental abnormality; conduces to better understanding of mental reactions in human affairs and through adjustment and supervision raises the level and extends the range of safe and salutary living of mental patients in the community.

Achievement in a program of mental health depends on numerous and varied factors.

Naturally a leading rôle falls to the mental hospital, as a source of counsel to its community, whose mental problems should gravitate to it as the central laboratory for their investigation and practical solution.

The activities of mental hygiene, vitalized by its inspiration, and fortified by co-operation throughout the sphere of its influence, should radiate from it as an agency indispensable in training and furnishing personnel, setting standards, guiding methods and policies and sustaining the impulse to service.

Each type of mental hospital will find its peculiar and important place. The psychopathic wards of general hospitals, the private, endowed psychiatric hospital, the university psychiatric clinic, the metropolitan psychopathic hospital, will each acquire special functions within distinct and limited fields with individual and exclusive sources of interest and support, but the *district psychopathic hospital*, usually designated the state hospital, will alone have full opportunity for service within widest range of usefulness with utter dependence upon general interest and support of the public. It will always be the only recourse of the poor and those of moderate means in the greatest of human afflictions; will minister to more than 90 per cent of all mental patients throughout the longest illness; will have exclusive opportunity in most cases, so that any *deficiency* means to the patient proportionate deprivation of the best hope of restoration to health or alleviation of disability. It must strive to meet *every* requirement of *every* type of mental hospital because the necessity of *every* kind of service is sure to arise without possibility of other aid in many cases.

Hence, the District Psychopathic Hospital becomes a chief consideration in laying the foundations of good psychiatry and insuring to the multitude of mental patients the most humane and enlightened treatment.

It is beset with dangers and difficulties.

The outstanding menace is politics, whose domination must be evaded in any system of state administration and policy. Even temporary deviation from the best theory and practice may be justified to escape such evils of existing situations and controlling

personalities of the time and place; but the long perspective must not lose sight of the mark set by the best experience.

Probably, the surest safeguard in the long range is decentralization within the bounds of efficiency under the supervisory relation of state government to institutions; reliance upon competent investigation, comparison and conference to attain uniformity of methods and standards and co-operation, under the driving force of professional and public opinion, educated by wise publicity of facts and principles.

Such *supervisory method* may be slow, and at times halting, but progress is surer and greater than under the *control method*.

Deficiency of living space and resultant crowding of patients with liability to violence and infection is as common—almost universal—in public institutions as it is deplorable. The cause lies deep in public unconsciousness of the dire consequences; but some relief lies within reach through wise foresight in systematic planning over considerable periods for the inevitable increase of mental patients; avoidance of special building commissions by appointment at the outset of the permanent board of trustees and superintendent who can be held responsible for satisfactory results; standardization of specifications of construction and use of the same type of building for like purposes with revision as progress may indicate; insistence upon durability, convenience in arrangement and provision for work, ample facilities for treatment of patients, clinical and laboratory research, sufficiency but not excess of living space; and absolute elimination of waste in every form. The buildings should be made attractive by their simplicity, fair proportions, good architecture, and pleasing arrangement in beautiful grounds. There should be no monumental display, decorative stone courses or other ornamentation, no unnecessary connecting corridors and underground passages, unusable basements, dark interiors, high ceilings nor any non-essential. The inevitable alternative to strict economy of initial construction and later administration is to the patients deprivation of sufficient space for their best treatment and safe, sanitary and comfortable living.

The disadvantages of over development of District Psychopathic Hospitals may be unavoidable. It is easier to induce a legislature to extend existing plants with good organizations than

to convince it of the need of a new hospital with many uncertainties. Expediency and inaction favor extension.

Vigilance and unswerving adherence to a well-thought-out policy, agreed upon as the best under all the circumstances, are required to combat this tendency.

The growth of a public hospital should not surpass the needs of its districts nor force removal of patients beyond reasonable nearness to home and friends to sustain their interest and save expense of travel; should not deprive any patient of personal knowledge and individual attention of a competent charge physician; should insure good classification of patients and economy in administration.

Too large capacity tends to loss of individuality in mass grouping of patients; relative insufficiency of medical and nursing personnel to afford him thorough examination, complete understanding and attention to his needs. Economically, there is dissipation of the best energy of the higher personnel in mere adjustment to abate friction of many and complex parts of a great mechanism which consumes the forces which would be applied in a smaller and simpler organization to the direction of ultimate workers to the prevention of waste and increase of efficiency.

On the other hand, too small capacity might not afford sufficient differentiation of classes to permit the best classification of patients.

The requirement of the small hospital differs only in degree from that of the large hospital in the qualification and specialization of its personnel and adequacy of facilities and equipment for treatment of patients, clinical and laboratory research, community service and good business administration. Unhappily, the day of the one, all round person competent and willing to perform many and varied duties seems to have passed, if it ever existed. This increases cost of service. The minimum limit of capacity cannot wisely drop below the level of reasonable expenditure.

The happy, economic mean of these extremes is not readily apparent and will always be debatable.

Probably dissent will not be general from a maximum capacity of 2000 patients, which is the basis of the present discussion.

Such a district psychopathic hospital must discharge its obligations to patient and community in these particulars—



1. Every patient must have the best treatment of mental and physical conditions possible with present knowledge.

2. The personnel must strive to add something out of its own experience and investigation to increase the store of knowledge and advance standards and methods of treatment.

3. Interest must be taken in the mental problems of its community and service rendered before admission and after discharge of the patient.

4. Business administration must minimize waste of energy and material to conserve the resources available for the higher purposes of the hospital.

These primary requisites define four spheres, distinctive in function and interspaced with complex and elusive relationships—

1. *The clinical*; point of contact with the patient and convergence of all services; examination, diagnosis and treatment of patients; clinical research; medical administration.

2. *The scientific*; specialized functions without routine outside of the laboratory; adjunct to clinical sphere in laboratory service necessary to diagnosis and treatment, and in the study of special clinical problems and such research; pathological examinations; investigation into the structure and functions of the nervous system and related research.

3. *The communal*; community psychiatric services as before described.

4. *The administrative*; non-medical administration relating to business matters separable from the care of patients and co-operation with other spheres in common relationships.

Each of these spheres has—

1. An internal field of clear definition and relative independence.

2. An external field of common and possibly conflicting relationships.

Obviously, there must be a competent head in each of these fields; *in each interval*, a director experienced in the special functions of that sphere: *in the external field*, the medical superintendent of the hospital, trained in all spheres; mature, sympathetic and co-operative in supervision; just harmonizer of conflicting relations, whose decisions are final subject to appeal to the governing board.

Such an organization would express present tendencies and conduce to worthy attainment in the special functions of the large district psychopathic hospital.

But where are the men to fill specifications of five highly specialized types of personnel?

The outstanding fact in psychiatry and in every other field of endeavor to-day, is the deficiency of workers of the best capability, of stable character, devoted to high ideals and willing to bear responsibility.

How may such men be attracted and held?

There are two prerequisites :

1. Intimate contact of the student and young graduate in medicine with the best expression of medical and scientific ideals in modern psychiatry. This is the promise of the university psychiatric clinic.

2. Assurance of a satisfying career in the average mental hospital.

The realities of subsequent experience in such hospitals must confirm the first impressions and deepen the interest acquired in the university psychiatric clinic.

The conditions of work must encourage self expression and growth along lines of individual capability and desire.

Each of the above spheres should offer such opportunity and insure a life career, either within itself or through logical promotion, with certainty of sufficient pecuniary reward, professional and social recognition.

Thus gradually would evolve the expert clinician, scientist, community psychiatric worker and business administrator.

Nevertheless, there are other perplexities.

There have been enunciated the principles of differentiation into spheres of special function ; of headship and autonomy in internal relations of each ; of supervision, co-ordination and general leadership of the medical superintendent in the external field of common and conflicting relationships ; but his release from the bondage of business administration has not been accomplished.

How may the energy, attracted by the highest reward, conserved by the broadest experience and longest tenure of service be diverted from the channel of administration to medical and scientific attainment ?

The administrative sphere interposes the chief obstacle. Its deficiencies are palpable. The public and legislatures insist upon precedence in their correction.

Good business administration is as vital to the efficiency of a hospital as normal organic functioning of the human body to clear thinking and mental achievement of an individual. Neither appears in consciousness unless obtruded by disorder.

There is an obvious remedy. The administrative sphere of the hospital must be raised to the level and correlated with the clinical, scientific and communal spheres on the same plane of ethics and competency.

Its director should have technical education and successful business experience. He should have equal capability and opportunity for development, and equal incentive, reward and assurance of a satisfying life career.

Thus the medical superintendent may be enabled to maintain his primacy in the medical functions of the hospital, without sacrifice of its material interests: may be freed from routine; may organize every detail under a competent head of department and give personal attention only to exceptional and new situations.

Stability of service is the flower of an adequate hospital régime. Conditions of work, opportunity, satisfying reward, assurance of the future, all avail much, but the right or ill adjustment of living relationships will sweeten or embitter them all. Harmony and satisfaction with resultant permanence and economy of service of a hospital personnel can never be secured without removal of the intimate and unescapable contacts now necessitated in most institutional households. Separation of all living quarters from buildings used for patients or administrative purposes; provision for families in single houses, married couples in independent apartments, single persons in careful groupings with suitable welfare supervision; all gathered into appropriate communities of congenial classes near the institution but in direct contact with the outside public; necessitating going to and from work but releasing the worker from the institutional atmosphere during relief periods; these would be the crowning achievement in hospital development.

In conclusion, the ideals sketched in this address, may not be all realized. They will be recast in future study and progress. Some are not attainable without laborious and persistent endeavor. But they are the forecast of a life experience and aspiration.



# THE PLATELET COUNT AND BLEEDING TIME IN CATATONIC DEMENTIA PRÆCOX.

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## INTRODUCTION.

It has long been known that the hypersecretion of the thyroid gland is accompanied by a prolonged coagulation time of the blood, while the hypofunction shows a shortening of the same. Alfred Hauptmann<sup>1</sup> was the first to carry out an investigation along this line and especially on catatonic dementia præcox hoping that the determination of the coagulation time would reveal the functional condition of the thyroid as contrasted with the nervous and mental diseases of other origins. In many cases of catatonia the coagulation began to take place in about five and a half minutes, and in no case did it take longer than seven and one-half minutes which was the lowest limit for the normal. Most of the nervous and mental cases studied showed more or less retarded coagulation, while the catatonic dementia præcox cases presented a constant, decidedly shortened coagulation.

This peculiarity of the dementia præcox, catatonics, was attributed by Hauptmann to the diminished function of the thyroid gland.

Shortly after the publication of Hauptmann's article, Itten<sup>2</sup> presented his hematological study on a few psychoses, and together with some other findings, the coagulation time was taken into consideration. Among 54 cases of dementia præcox (including hebephrenic and paranoid forms) the coagulation time for 6 cases was normal or somewhat retarded, for 15 the time was slightly subnormal and the rest of the cases, *i. e.*, the majority showed a marked shortening. He did not, however, try to explain the significance of the finding, saying that our present knowledge

<sup>1</sup> Hauptmann, Die Beschleunigung der Blutgerinnungszeit bei Katatonie. *Zeitschr. f. d. ges. N. u. P.* Bd. 29, 1915, p. 323.

<sup>2</sup> Itten: Zur Kenntnis hæmatologischer Befunde bei einigen Psychosen. *Zeitschr. f. d. ges. N. U. P.* Bd. 24, p. 341, 1914.

of the biology of the coagulation is too meagre to draw any conclusion regarding the cause of this peculiar condition.

Whatever the source may be, this new finding of the shortened coagulation time seems to the writer to be extremely interesting and significant. Further investigation in this direction might help, at least to a certain extent, the solution of the much discussed and everlasting question as to cause of dementia præcox or schisophrenia.

#### THEORY OF COAGULATION.

Hewton (1772) was the first to discover that coagulation can be inhibited indefinitely by the addition of neutral salts, such as sodium sulphate, to the blood. It was by a study of such bloods that he arrived at the conclusion that the formed elements of the blood take no part in the production of the clot.

Buchanan, to whom we owe the modern ideas of the coagulation of the blood, held the opinion that it is due to the conversion of a soluble constituent of the blood into fibrin by an action exerted probably by the colorless corpuscles.

Denis, Alexander Schmidt, Hammersten, Wooldridge, Morawitz, Green, Arthus and Pages, Pikelharing, Delezenne, Fuld and Spiro, Nolf, Mellanby, Rettger, Howell and others made an intensive study of this subject. Their opinions in regard to the coagulation process differ more or less.

Two of the representative theories which seem to be most generally accepted at present will be briefly stated. Morawitz, Fuld and Spiro, independently, proposed the theory which assumes that the thrombin is present in the blood in an inactive form which is called thrombogen. This thrombogen is converted into thrombin by the action of calcium salts and an organic thromboplastic substance which is called kinase or thrombokinase. Thrombokinase is derived from the tissue cells in general, especially by those rich in nuclein, also by the cellular elements of the blood. In the circulating blood calcium salts and thrombogen are present, but no kinase, and when the blood is shed the disintegration of the platelets and leucocytes liberates thrombokinase, which then combines with calcium and changes thrombogen to thrombin.

Howell<sup>a</sup> advanced a somewhat different view which is expressed as follows: Prothrombin may be converted into active thrombin

<sup>a</sup>Howell: A Text-Book of Physiology. Sixth Edition.

by the action of the calcium alone. This action does not occur in the circulating blood because an antithrombin is present in amounts sufficient to prevent it. In shed blood the tissue cells (platelets) furnish a thromboplastic substance (Kephalin-protein) which neutralizes the action of the antithrombin and thus permits the calcium to react with the prothrombin to form thrombin.

Both theories assume the action of the thromboplastic substance. In the former, this substance acts as kinase directly in the conversion of prothrombin to thrombin, while in the latter the substance permits the conversion indirectly by neutralizing the antithrombin.

#### THE BLOOD PLATELETS, AND THEIR SIGNIFICANCE.

The blood platelets (Bizzozero), hæmatoblasts (Hayem) are colorless, discs, circular, elliptic, or rod-like in shape, generally with a diameter one-half or one-third of the red blood corpuscles. Their size in fresh specimens vary, according to different writers: 2.5 to 5 microns (Determann); 1.5 to 3.2 microns (Osler); 2 to 7 microns (Preisich and Heim). In general their size varies inversely as their number; that is, the more the platelets the smaller they are (Emerson). The number of the platelets in a normal person has been variously stated to be from 180,000 to 800,000 per cm. The normal platelet count is also differently given: Ayaud an average of 500,000; Howell, an average of 300,000; Osler, 250,000; Determann, 225,000; Enden, 245,000; Wright, from 250,000 to 400,000; Gram, from 200,000 to 500,000 but rarely less than 300,000. It has been claimed by authors that their number varies in the same person at different hours of the day. Helber found no great daily variation (190,000 to 260,000, average 228,000). The difference in statements of authors in regard to the number of platelets may probably be due to the method adopted (Starling). The platelet count was found to be lower by Wright's method than by that of Pratt (Duke).

As to the nature and origin of the platelets, authors' opinions vary greatly and in spite of the large amount of research done nothing definite has been obtained. Donne considered the platelets "globulins"; Schulze, fragments of broken down leucocytes; Bizzozero, independent corpuscles, a view which Osler also holds;

Loewit, artefacts; Hayem, very young red blood cells. In 1897 Arnold suggested that they might be fragments from constricted red blood cells or fragments of cells which had gone to pieces. Mueller and others consider that these platelets are formed from red blood cells and that this formation is a necessary preliminary step in coagulation. Maximow considers them to be the extruded inner body of the nucleoid. Engel thinks these masses are remnants of the nucleus. Preisich is one of the last to insist that they are extruded nuclei of the red blood cells, and are in constant process of formation; that the platelets increase as red cells increase, and that eosinophile leucocytes are white phagocytes which have ingested platelets. Deetjen proved by his agar-plate method that they are independent cells, motile and nucleated. Dekhuysen and Kopsch confirmed Deetjen's work. Deetjen believes them to be actively amoeboid while most of the later observers are inclined to deny it. Wlassow says that they may extrude pseudopods, but they never show true amoeboid motion; chloroform will stop the amoeboid motion of leucocytes, but not that of plates; Deetjen uses an agar field, which would much favor the production of diffusion currents. Wright<sup>4</sup> has offered very strong evidence that the blood platelets are formed from the megakaryocytes of the bone marrow. These cells frequently show budding masses of the same structure as the blood platelets. The hyaline peripheral zone of the giant cell has the power of amoeboid motion and can be observed to give out protoplasmic processes. Blood platelets are found only in such animals as have megakaryocytes and only in embryonal mammalian blood at the time when giant cells are observed in the hematopoetic organs. While blood platelets are easily demonstrated by various methods, it is also possible to obtain blood in an uncoagulated state, from the vessels, in which no trace of platelets can be observed. Buckmaster has shown that a film of blood examined in a platinum loop, kept carefully at the temperature of the body, presents no trace of platelets. The same absence of platelets is to be observed when blood is received into sterile blood serum of the same species of animal and kept at the body temperature. On allowing these specimens of blood to cool, blood plates make their appearance. If the non-coagulable plasma is cooled to zero C. for 24 hours, a

<sup>4</sup> Wright, *Journal of Morphology*, XXI, 263, 1910.



precipitate indistinguishable from blood platelets is found to have been produced, under the action of cold. Sterling,<sup>8</sup> owing to the above mentioned facts, is inclined to believe that the blood platelets do not form a constituent of the normal living blood, but are produced in the plasma either on contact with foreign bodies or by lowering its temperature from 37° to 18° or 20° C. These, he says, may be regarded as precipitates produced in the plasma when it undergoes alterations, their appearance being the first sign of changes in this fluid. According to Kossel and Lilienfeld the blood platelets consist of a chemical combination between protein and nuclein, and hence they are also called nuclein plates by Lilienfeld, and are considered as derivatives of cell nucleus.

There is no difference in opinion that the blood platelets have a certain connection with the coagulation of blood. The majority of writers think that the platelets play an important part in the formation of thromboplastic substance, either fibrin ferment or a substance which neutralizes the action of antithrombin. As for the precise manner in which the platelets act in coagulation, very little is known, and views are unfortunately very divergent.

It seems to be certain that there is a relation between the number of platelets and the time of coagulation. A number of observers have stated that in hemorrhagic diseases (there are some exceptions) in which there is delayed coagulation and tendency to bleed, there may be a great reduction in the number of plates.

Duke states that in cases of hemorrhagic diatheses, the transfusion of blood from normal person removes the hemorrhagic tendency, while increasing markedly the number of platelets. But in three days the number of platelets again falls to a low level, and simultaneously there is again a tendency to spontaneous bleeding.

According to Gram's<sup>9</sup> recent observation, in all cases where the platelet count falls below 100,000 per cmm. one finds a protracted bleeding time often longer than 10 minutes (normal 4 minutes).

Pratt found no direct relation existing between the coagulation time and the platelet count. As for example, the coagulation

<sup>8</sup> Sterling, Principles of Human Physiology. 1912.

<sup>9</sup> Gram, Archives of Internal Medicine, March, 1920.

time of the blood obtained from a very superficial wound of the skin was two minutes and the plate count was 170,000 per cmm. Blood from a deeper cut made in the same individual at the same site coagulated in five minutes, and contained 223,000 plates per cmm.

The differences of opinions in the cases above mentioned are probably due to the delicacy of the tests in both platelet count and coagulation time. The external conditions, under which these tests were carried out, would change the results considerably. In this respect the writer thinks that Duke's method for the determination of the bleeding time is very valuable. Duke's bleeding method is done under natural conditions while the various tests for the coagulation time are carried on under different external conditions. It must be mentioned that the bleeding time and the coagulation time are altogether different, although in many cases they show the same tendency for shortening or lengthening. Duke found the bleeding time of several jaundice cases to be normal, whereas the coagulation time was very much delayed. Pratt saw a patient with purpura, bleeding to death from the mucous membrane, when the coagulation time was normal.

Duke found a great delay in bleeding time in:

- (1) Cases in which the platelet count was excessively reduced (9 to 10 minutes).
- (2) Cases in which fibrinogen content of the blood was excessively reduced (12 hours to 10 minutes), and
- (3) Experimental animals in which both platelets and fibrinogen were reduced.

In the expectation of obtaining some light on the peculiar condition of the coagulation time in catatonic dementia præcox, the writer tried to determine the bleeding time and the number of the platelets, together with the cytological study of the blood.

#### METHODS ADOPTED.

For bleeding time Duke's method was adopted. A small cut was made in the lobe of the ear. At half-minute intervals the blood was blotted up on the edges of the absorbent filter paper. This gave a series of blots of gradually decreasing size; each blot

<sup>1</sup>Duke: The Relation of Blood Platelets to Hemorrhagic Disease. *Journal of American Medical Association* 55, p. 1185, 1910.

represented one-half minute's out-flow of blood. The rate of decrease in the size of the blots showed the rate of decrease of the hemorrhage. The cut was made with a very sharp lancet and was regulated so that the wound was 2 mm. in depth. The blood should flow very freely at the beginning and no pressure should be applied either at the beginning of the out-flow or at the time of blotting. The size of the first blot should be over 1 cm. in diameter. The total duration of such an artificial hemorrhage is called the bleeding time. The bleeding time is, to a certain extent, dependent upon the quality of the paper used. Throughout this research the same sort of paper was used. The paper thus tested could be kept or attached to the case history and be compared with those of the further tests.

There are, roughly speaking three methods for the platelet count :

(1) Direct count in dilution after the ordinary hemocytometric procedure using only a certain fixing solution for dilution.

(2) Indirect count, in which the relation of platelets to erythrocytes is counted, in a variable dilution with a fixing fluid.

(3) Direct count of platelets of the citrated plasma, calculating the number from the known relation of citrated plasma and the volume of the blood cells.

The writer tried each of these groups but the simplest method seemed to be the most desirable, since the complicated procedure would be apt to change the result. The writer used Hayem's solution for fixing. The solution was first drawn up to the mark 3 or 4, then the cut was made in the tip of the finger, the blood was drawn so that the first solution reached to the mark 8 or 9 respectively, thus taking five portions of blood in the pipette. If the platelets were found agglutinated or adherent to the blood cells the preparation was not used. This method gives, when one is practiced, a fairly constant value.

#### PRELIMINARY EXAMINATIONS.

Platelet count and determination of bleeding time was done on 50 normal individuals as is shown in Table I.

TABLE I.

No.	Platelet count.	Bleeding time.
1	212.000	5.0
2	316.000	4.5
3	244.000	5.0
4	284.000	5.5
5	252.000	4.5
6	212.000	7.0
7	212.000	6.0
8	224.000	5.5
9	296.000	4.5
10	236.000	5.0
11	296.000	5.0
12	324.000	4.5
13	412.000	4.5
14	324.000	5.0
15	224.000	5.0
16	196.000	6.0
17	368.000	4.5
18	224.000	5.0
19	364.000	5.0
20	424.000	4.5
21	384.000	4.5
22	188.000	6.0
23	296.000	5.0
24	260.000	5.0
25	244.000	5.5
26	300.000	5.0
27	516.000	5.0
28	196.000	4.0
29	200.000	5.5
30	244.000	6.5
31	364.000	5.0
32	272.000	5.0
33	232.000	5.5
34	220.000	6.0
35	300.000	5.0
36	316.000	5.0
37	280.000	4.5
38	240.000	6.0
39	220.000	6.0
40	248.000	5.0
41	376.000	5.0
42	204.000	4.5
43	216.000	6.5
44	336.000	5.0
45	196.000	7.0
46	272.000	5.0
47	244.000	5.5
48	260.000	5.0
49	300.000	4.5
50	240.000	5.0
	188.000—516.000	4.0—7.0
50	average 296.000	average 5.2

The majority of normal individuals show, as in Table I, below 300,000 platelet count. The lowest platelet count is 188,000, the highest, 516,000 and the average, 296,000. It appears to be certain, judging from these figures, that there is some relation between platelet count and the time of bleeding. Speaking in general, though there are some exceptions, the lower the platelet count is, the longer the bleeding time, and the higher the platelet count, the shorter the bleeding time. The result is in accordance with Duke's report. The exceptions and irregularities found in the table are probably due to other factors which influence the bleeding time, such as the amount of fibrinogen or something else which we cannot determine.

### BLEEDING TIME AND PLATELET COUNT IN CATATONIC DEMENTIA PRÆCOX.

The bleeding time and platelet count in catatonics together with hemocytological findings are tabulated as follows (see Table II) :

TABLE II.

No.	Name.	Age.	Dur.	Hgh.	Red count.	W. C.	Eosi.	Poly.	Lym.	Mono trans.	Baso.	Plate lets	B. T.
1	S. S.	23	5Y	33	5,216,000	7,200	3.0	69.3	24.0	3.0	0.7	723,000	3.0
2	J. D.	29	7Y	79	5,524,000	8,520	2.0	64.3	25.0	8.7	0.0	576,000	3.0
3	T. E.	30	11Y	75	6,120,000	6,340	5.0	54.7	34.0	6.3	0.0	372,000	4.5
4	G. M.	52	4Y	80	5,931,000	7,140	1.0	68.0	26.7	4.0	0.3	376,000	4.0
5	A. H.	41	3Y	80	4,642,000	9,980	6.7	59.0	29.0	5.0	0.3	368,000	4.0
6	N. R.	25	6m	95	5,200,000	7,330	4.0	58.3	31.7	6.0	0.0	490,000	3.0
7	J. C.	25	4Y	80	4,936,000	10,800	1.0	67.0	25.3	6.7	0.0	622,000	3.5
8	C. C.	25	7Y	80	6,220,000	8,500	12.0	50.0	30.0	7.0	1.0	646,000	3.0
9	J. B.	23	4Y	79	4,172,000	16,000	5.0	59.0	29.0	6.7	0.3	480,000	3.5
10	T. C.	37	15Y	80	5,840,000	7,600	10.0	46.3	38.0	5.0	0.7	680,000	3.0
11	E. C.	45	20Y	70	4,132,000	5,520	9.7	47.0	38.3	5.0	0.0	384,000	4.0
12	T. J.	32	6m	90	4,872,000	10,560	7.7	55.3	27.7	8.3	1.0	644,000	3.5
13	C. M.	33	7Y	85	4,408,000	11,520	1.3	68.3	19.7	10.3	0.3	448,000	3.5
14	E. O.	65	2Y	65	4,744,000	9,640	1.3	76.3	18.7	3.3	0.3	792,000	2.5
15	B. F.	18	3Y	75	5,504,000	9,200	0.2	25.7	56.7	17.3	0.0	612,000	3.0
16	R. O.	27	14Y	85	4,872,000	8,320	1.7	60.0	29.7	7.7	1.0	584,000	4.0
17	J. M.	59	32Y	90	7,080,000	5,880	12.0	52.7	26.0	8.7	0.7	668,000	2.5
18	S. M.	30	1Y	95	5,464,000	8,040	3.0	69.3	23.0	4.7	0.0	542,000	3.5
19	G. C.	38	15Y	80	6,040,000	7,440	9.3	46.3	37.7	5.0	1.7	640,000	3.0
20	J. A.	27	9Y	80	5,400,000	10,700	5.0	55.0	32.3	7.0	0.7	680,000	3.0
21	A. H.	41	5Y	85	4,264,000	6,320	4.0	55.3	33.3	6.3	1.0	732,000	2.5
22	R. K.	22	6m	85	4,616,000	8,800	2.3	44.7	43.7	8.3	1.0	640,000	3.5
23	M. G.	44	24Y	75	5,700,000	8,700	6.7	54.3	32.3	5.3	1.3	420,000	3.5
24	R. B.	21	6m	85	5,120,000	8,360	2.7	70.0	24.0	2.3	1.0	564,000	3.0
25	B. F.	26	7Y	75	5,360,000	9,640	0.7	57.3	32.0	9.3	0.7	656,000	3.0
26	A. H.	20	3Y	75	6,384,000	8,800	4.0	60.7	28.3	6.7	0.3	520,000	3.5
27	E. H.	29	3Y	75	5,536,000	8,320	1.0	54.7	32.0	12.3	0.0	480,000	3.5
28	M. M.	26	7Y	80	4,960,000	7,480	3.0	65.3	24.7	6.3	0.7	684,000	3.5
29	E. S.	15	1Y	85	7,725,000	10,280	1.3	64.0	24.7	9.7	0.3	648,000	3.5
30	C. M.	20	1Y	80	4,928,000	9,210	3.3	66.3	25.0	5.0	0.3	568,000	3.5
31	M. E.	24	3Y	75	4,816,000	9,300	2.7	59.7	28.3	9.3	0.0	712,000	2.5
32	D. B.	29	6Y	80	4,560,000	11,960	2.0	75.0	20.3	2.3	0.3	532,000	3.5
33	F. H.	31	2Y	85	4,688,000	10,880	4.0	59.7	31.0	5.0	0.3	440,000	4.0
34	H. H.	32	6m	75	4,800,000	8,080	7.0	54.3	34.7	4.0	0.0	396,000	4.0
35	L. B.	26	2Y	73	4,448,000	7,280	1.3	59.6	29.4	8.3	1.3	676,000	3.0
36	B. K.	29	6m	70	3,740,000	9,680	1.0	57.6	34.0	6.7	0.3	564,000	3.5
37	A. C.	31	1Y	70	4,730,000	7,850	5.0	52.7	33.0	9.0	0.3	632,000	3.0
38	G. D.	36	1Y	78	5,640,000	10,340	2.7	55.7	32.0	9.3	0.3	484,000	3.5
39	E. H.	33	12Y	80	5,394,000	8,760	4.0	55.0	28.3	12.0	0.7	562,000	3.0
40	F. R.	26	3Y	75	4,860,000	9,320	4.7	68.3	24.3	2.0	0.7	776,000	3.5
41	E. R.	34	7Y	80	4,940,000	8,070	11.0	53.0	27.3	7.7	1.0	496,000	3.0
42	L. H.	35	1Y	88	6,820,000	7,800	3.0	58.0	31.7	7.0	0.3	459,000	3.0
43	R. C.	30	24Y	85	5,260,000	9,940	2.0	70.3	23.7	4.0	0.0	576,000	3.5
44	A. R.	28	4Y	75	5,260,000	8,900	7.0	59.3	25.0	8.0	0.7	544,000	2.5
45	R. N.	40	2Y	80	5,280,000	8,200	2.0	63.7	24.0	10.0	0.3	588,000	3.0
Average.....				80	5,248,000	9,000	6.6	59.0	27.0	7.0	0.5	573,000	3.3

The bleeding time varies from 2.5 to 4.5 minutes, the majority being under 3.5 minutes (38 out of 45) and the average 3.3 minutes. Six cases show a bleeding time of 4 minutes which lies at the lower limit of the normal. Only one case presents 4.5 minutes' bleeding time which is slightly above the lower limit of normal but not exceeding the normal average (5.2 minutes).

Thus the bleeding time on catatonic dementia præcox is found to be decidedly lessened, this fact being in accordance with the findings of Hauptmann, who discovered the shortened coagulation time in catatonics.

How is this peculiar condition to be explained? Can there be some connection between this and the platelet count?

The blood platelets in the catatonics are exceedingly increased, numbering from 368,000 to 792,000. Five out of 45 cases show the platelet count from 300,000 to 400,000; 9 cases from 400,000 to 500,000; 12 cases from 500,000 to 600,000; 14 cases from 600,000 to 700,000 and 5 cases from 700,000 to 800,000. Even the lowest count of 368,000 corresponds to the higher count of the normal.

This finding may explain the peculiarity of the bleeding time above mentioned. Although there are some writers who do not believe in the immediate relationship between the bleeding time, coagulation time and the platelet count the majority are of the opinion that the retarded coagulation time is apt to be found in the decreased platelet count. The writer's preliminary tests on normal individuals revealed the same relation. It seems to the writer, therefore, to be justifiable in concluding that "the shortened bleeding time in catatonic dementia præcox is due to the abnormally increased number of blood platelets."

As has already been mentioned in the introduction the hypofunction of the thyroid gland has been known to show a shortened coagulation time. In order to know the relationship between the hypofunction of thyroid and catatonic dementia præcox, three cases of myxedema, and two cases of cretinism were studied. The result is shown in Table III.

BLEEDING TIME AND PLATELET COUNT ON MYXEDEMA AND  
CRETINISM.

The bleeding time in myxedema and cretinism is found to be shortened apparently being much shorter than that of the catatonics. It varies from 2.5 to 3.5 minutes, the average being 2.9 minutes. The platelet count is also very high; the lowest being 480,000, the highest 904,000 and the average 640,000. The relation between the platelet count and the bleeding time is exactly the same as in catatonics. Here the bleeding time is found to be shorter than that of the catatonics, and the platelet count is accordingly much higher than that of the catatonics. The question as to why the coagulation time in myxedema is shortened can also be explained by the increased number of the platelets.

TABLE III.

No.	Name.	Age.	Dur.	Hgb.	Red count.	W. C.	Eosi.	Poly.	Lym.	Mono trans.	Baso.	Plate lets.	B. T.
1	J. A.	60	10y	50	3,980,000	7,100	8.0	43.0	39.0	9.7	0.3	480,000	3.0
2	S. C.	55	18y	70	4,100,000	7,300	6.0	52.0	31.7	10.0	0.3	610,000	3.0
3	S. B.	66	3y	65	3,950,000	6,980	4.7	58.7	32.0	4.3	0.3	664,000	2.5
4	S. B.	70	...	65	4,220,000	6,400	3.0	48.0	40.0	8.3	0.7	904,000	2.0
5	C. O.	52	49y	65	4,100,000	8,100	2.0	36.7	45.0	15.3	1.0	542,000	3.5
Average.....				63	4,070,000	7,150	4.6	47.7	37.5	9.5	0.5	640,000	2.9

But how do the blood platelets increase in these diseases? We cannot give an answer to this question at the present time, because of our uncertain knowledge of the nature and the origin of the blood platelets. However we will try to discuss the nature of the catatonic dementia præcox basing the discussion on the facts described above and some other examinations made for this problem.

## COMMENT.

The resemblance between the hypothyroidism and the catatonic dementia præcox is more pronounced than mentioned above. Kraepelin suggested some etiological relationship between thyroid disease and dementia præcox. Lundborg mentioned the resemblance between the dementia præcox on one hand, and the myoclonia and tetany on the other hand, and explained it by the same underlying disturbance which he thought was the alteration of the thyroid and the parathyroid gland. Some writers, however, consider the dysfunction of the thyroid gland to be a secondary

one, caused by the primary disturbance of the internal secretion of the sexual gland (Lomar, Abderhalden, et al.).

The animal experiment (Blum, v. Eiselsberg, Biedl, et al.) proved that after the extirpation of the thyroid gland the animal shows not only the somatic changes but also the mental changes, which resemble to a larger extent those of the catatonic dementia præcox.

Very interesting is the recent discovery of Schmidt, of absence of the increase of blood pressure after the administration of adrenalin in catatonics. This observation would suggest the hypofunction of the thyroid gland in catatonics.

According to authors, in myxedema the blood shows a decrease of the red cells, and especially of the hemoglobin. The leucocytic formula is altered, consisting in mononucleosis and mostly in hyper-eosinophilia. (Bruce and Engel, Falta et al.). In cretinism the hemoglobin content is for the most part reduced, more than the number of the erythrocytes and the number of the leucocytes is increased. The differential count of these shows an enormous reduction, of the polymorphonuclear neutrophiles and a corresponding increase of the mononuclear cells. The writer's observation of a few cases of myxedema and cretinism is in accordance with that of the early writers. In myxedema the erythrocytes and hemoglobin content is reduced. The number of the leucocytes is slightly subnormal. The differential count shows some mononucleosis and well-marked eosinophilia. Two cases of cretinism show about the same relation as the myxedema. The hemoglobin content is 65 per cent in both of the cases, the red count being 4,200,000 and 4,120,000 respectively. The mononucleosis is more marked than in myxedema.

The authors' observations on blood formulæ in catatonic dementia vary. Schultz described the capillary erythrosthesis as one of the symptoms of the stuporous condition of the catatonic dementia præcox. Itten and others found the same condition. In this present study, the writer found an increase of the erythrocytes in 53 per cent of the cases studied and this condition is regarded as erythrosthesis. The number of the leucocytes seems to vary according to the condition of the patient. Thirty-two cases of the writer's observation showed increase in white cells, nine of these presenting a white cell count of over 10,000 per c. mm.



The differential count of the white cells is differently given by various authors. According to Krueger the catatonic dementia præcox should show in less than half of the cases (44 per cent), an absolute increase of white blood cells. A relative increase of lymphocytes was observed in one-third of the cases and a well-marked eosinophilia was found in three-quarters of the cases.

Itten summarizes his findings as follows: The blood picture of the schizophrænia varies with the condition of the patient. In most cases, it may be said, that the improvement is accompanied by the decrease of mononuclear and the increase of polynuclear (neutrophilic and eosinophilic) cells while the progress of the disease is on the contrary attended by mononucleosis with corresponding decrease of neutrophilic and often of the eosinophilic cells. Chronic cases of all groups show in about four-fifths of the cases, lymphocytosis and eosinophilia. The latter condition, together with the frequent finding of a status thymicolymphaticus would suggest the probability of the pathologic function of the internal secretory glands.

Zimmermann observed, in dementia præcox, almost always a relative lymphocytosis. Nine-tenths of the cases presented an increase of mononuclear cells and transitional forms. In two-thirds of the cases a well-marked eosinophilia was shown. The increase of these lymphocytes, mononuclears, and eosinophiles caused a relative decrease of the neutrophilic cells whose number in 95 per cent of the cases was found to be lower than the normal.

Renaudie found in the catatonic forms, recent or of long standing, the number of white cells to be normal with a diminution of the polynuclears and an intense augmentation of the mononuclears, the lymphocytic formula being altered.

In the writer's study, the lymphocytosis is shown in 69 per cent of the cases, of which 44 per cent is accompanied by absolute leucocytosis. The mononuclears and the transitional forms are increased in 67 per cent and the eosinophilia is observed in 49 per cent of the cases studied. The result is in accordance with the majority of the former writers. The important feature of the hemocytological changes consists thus in lymphocytosis, mononucleosis and eosinophilia.

The hematological study also points toward the remarkable resemblance of catatonia to hypothyroidism. It must be mentioned, however, that this peculiar blood picture is found not only

in catatonics and hypothyroidism but also in most of the disturbances of the internal secretory glands. A number of the writers attribute this peculiar blood formula of catatonics to a disturbance of a ductless gland. However, as to which of these organs is affected opinions are divergent.

Not only the physical symptoms mentioned above, but also the mental would indicate the similarity of the catatonic dementia præcox and the hypothyroidism. The progressive retardation, and the difficulty in the mental activity in myxedema correspond to the restraint and blocking of catatonics. The simplicity and the stupidity of the mind is common to both diseases. The frequent symptoms of irritability, resistiveness and negativism, also a confused condition with all kinds of hallucinations, and delusions are found in both diseases.

With a whole array of similarities thus stated, can the catatonic dementia præcox be regarded as the result of hypofunction of the thyroid gland? There are quite a few facts which oppose this assumption. The writer will point out some of the authors' opinions and his own findings.

Bleuler denied the intimate etiological relationship between catatonic dementia præcox and the hypofunction of the thyroid gland, because of the ineffectiveness of the thyroid treatment, and because of the fact that just as many catatonics are found in "Kropf" district as in the seashore.

While Berkley reported 8 cases of catatonic dementia præcox recovered by a partial thyroidectomy and jodlecithin treatment, Kanavel and Pollock reported a negative result from a similar operation and treatment on 12 cases of catatonic dementia præcox. Van der Schleer's experiment proved that of 7 cases of catatonia, 2 fresh cases recovered, 2 long standing cases improved, and the rest remained unchanged.

The histopathological changes found by various writers showed the thyroid gland to be most often normal. The writer also studied the thyroid gland in four cases of young catatonic patients who died of bronchopneumonia, but no recognizable alterations could be demonstrated.

These facts indicate, at least, that the myxedema and catatonic dementia præcox are quite different diseases in certain respects, and cannot be explained simply by the diminished functions of the thyroid gland.

Is the disturbance of the thyroid in catatonics a hypofunction or a dysfunction, which resembles to a larger extent the hypofunction, but differs from it? In order to answer this question the sensitiveness of the thyroid gland in catatonics was tested. Harrower's method for testing the thyroid function was applied. The test consists of giving definite and increasing doses of thyroid extract, with a suitable inert excipient, in a uniform and routine manner, while a careful study is made of the pulse, and any other symptoms which may occur. The reaction of the patients to this administration of thyroid extract varies, depending upon the factor that we are attempting to discover. In apathetic hypothyroid cases, the pulse figure remained unaltered. In the normal individual the pulse rate increased during the administration and was followed by a rapid decrease on the day after the withdrawal of the drug. In hyperthyroidism the average pulse rate is somewhat higher, and there is more irregularity than normal, and in the administration of the thyroid extract the pulse increases more rapidly and becomes higher than in the normal. The removal of the medicine is not followed by a rapid fall in the pulse but it remains high on the day after and the second day after.

Twelve typical stuporous cases of catatonics were tested by this method. Eight cases showed normal reaction for this test while one presented a typical pulse figure of hypofunction and three revealed a hyperfunction. The test seems, to the writer, to be fairly accurate for the purpose of showing the functional activity of the thyroid. Although 12 cases may not be sufficient to settle the question under discussion, it seems to the writer to be reasonable to think that it is not a simple hypofunction with which we are dealing in catatonics, but it is a delicate functional disturbance which shows in many respects a similar picture to the hypofunction. The reason why the simple thyroid treatment could not help the condition can be explained by this assumption.

As to the nature, and the origin of this thyroideal dysfunction, the writer has no definite ideas; neither does he know whether or not this dysfunction occurs secondarily, following a disturbance of some other secretory glands. Even the primary alteration of the central nervous system would give an altered function in delicate organs like ductless glands. However, the fact that no other diseases of the central nervous system show so marked

a resemblance to a thyroideal hypofunction as does the catatonic dementia præcox, would probably favor the endocrinal origin.

The thyroid therapy when combined with some other treatment and well regulated will perhaps permit a more favorable prognosis of the catatonic dementia præcox.

The writer is indebted to the Messrs. S. Edgerton and T. Harrold, student interns from Johns Hopkins Medical School, whose assistance in hematological study enabled him to complete the report.

#### DISCUSSION.

DR. FRANK G. NORBURY.—There is one thing in this paper which suggests to me a question: I should like to ask whether there has been any relation in his study of function, between venous blood studies and capillary blood studies, as regards blood platelets.

DR. DONALD GREGG.—It is interesting to notice that there are two papers on the program this evening, the first of which suggests a possible relationship between dementia præcox and hypothyroidism because of the platelet count, while a second suggests a possible relationship between hyperthyroidism and dementia præcox because of the sugar tolerance. We cannot very well have dementia præcox due to both hyper- and hypothyroidism. I should like to ask one question of Dr. Uyematsu: Have you followed through with platelet counts the condition of one individual with the idea of finding out whether the platelet count varied from time to time with a change in the individual's condition? If the platelet counts were made upon different individuals in the same general condition, it seems to me that the results indicate a blood finding in a certain stage of a diseased condition rather than having any significance of diagnostic importance as to the disease itself. For example: I believe there is evidence enough to show in a desiccated condition there is a change in the constituents of the blood, and inasmuch as catatonic præcox cases are often in a desiccated condition, possibly the platelet count signifies a need of fluids rather than dementia præcox.

DR. UYEMATSU.—For the first question: I have taken blood from the lobe of the ear, but before I started my research I took the venous blood from the vein of the arm, and I found increased platelets and shortened coagulation time. I think the bleeding time tested by the ear in this study was the same value.

The second question, as to the condition of the patient: I did 45 cases of typical stuporous catatonic cases, because these are easily differentiated from other forms. Of course the bleeding time differed according to the condition of the patient, but I might say in stuporous typical catatonic studies this is true.

# REACTION IN DEMENTIA PRÆCOX TO THE IN- TRAVENOUS ADMINISTRATION OF NON- SPECIFIC PROTEIN.\*

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In view of the tendency noted in dementia præcox for remission following acute febrile infections,<sup>1</sup> it was deemed that it might prove of some value to study the reaction, from this standpoint, in a group of such cases, to the intravenous exhibition of non-specific (bacterial) protein, which, it has been determined, exerts much the same general constitutional effect, and, being wholly controllable, may be regarded as essentially danger free. This was done somewhat in extenso, so as to allow for the possibility of added contribution to the general systemic effect of foreign protein, parenterally introduced, a question which has, as yet, been by no means completely settled. Such a study was regarded as of especial interest in view of the contradictory results reported by certain workers with reference to the response, in dementia præcox, to the subcutaneous administration of sodium nucleinate, a non-bacterial protein which is known to induce hyperthermia and leukocytosis. Thus Itten<sup>2</sup> and Kraepelin,<sup>3</sup> utilizing this reagent, were absolutely unable to detect any evidence suggestive of psychic amelioration, while Donath<sup>4</sup> claims definite improvement in eight, and recovery in four, of a series of fourteen cases, and Lundval,<sup>5</sup> employing a solution containing sodium nucleinate, arsenious acid and hetol, reports apparent recovery in six of eighteen cases.

### PROCEDURE.

In this investigation, a series of seven male cases was studied (Table I), including well-marked representatives of the four

TABLE I.—CASES.

Case.	Number.	Age.	Sex.	Type.	Years duration.	Stage.
1—C. S.....	18,070	30	Male.	Paranoid.	1	A.
2—V. H. M....	18,266	26	Male.	Hebephrenic.	3	A.
3—L. H.....	18,374	20	Male.	Hebephrenic.	4	A.
4—H. S.....	16,702	28	Male.	Hebephrenic.	10	B.
5—Z. F. A....	17,686	35	Male.	Simplex.	5+	B.
6—A. W.....	13,295	35	Male.	Hebephrenic.	14	C.
7—G. T.....	7,707	56	Male.	Catatonic.	22	C.

\* From the Kalamazoo State Hospital, Kalamazoo, Michigan.

primary types of dementia præcox, all of whom were otherwise clinically negative.

The cases were, in addition, so selected as to render possible a survey over patients in three successive stages in the progression of the disease. Thus, the cases included under A were those of relatively brief clinical duration, showing confusion and definite lack of adjustment, *i. e.*, acute phase; the cases included under B were those of longer duration, somewhat adjusted, and showing a certain degree of deterioration, *i. e.*, subacute or chronic phase; and the cases included under C were those of very long duration with profound deterioration, *i. e.*, terminal phase.

The bacterial protein used was typhoid vaccine (Parke-Davis) which has apparently come to be regarded as the agent of choice in general non-specific protein therapy.\* The material was administered intravenously, as indicated (Table II) in two succes-

TABLE II.—INJECTION SCHEDULE.

Course 1.		Course 2.*	
Date.	Dosage.	Date.	Dosage.
I-11.....	500 mil.	2-17....	500 mil.
I-15.....	750 "	2-19....	500 "
I-20.....	750 "	2-22....	750 "
I-24.....	1 bil.	2-24....	750 "
I-27.....	1 "		
I-29.....	1 "		

\* Cases 1 and 4 omitted from this course.

sive courses, of six and four injections, respectively, with an interval of nineteen days. The initial dosage was 500,000,000 killed bacilli which was gradually increased to 1,000,000,000, the generally recognized therapeutic maximum. The individual injections, in each course, were made at intervals of from two to five days, the vaccine being delivered from a regulation tuberculin syringe and care being taken to discharge the material very slowly (one to two minutes).

### RESULTS.

The general clinical response was essentially as noted, in non-psychotic cases, by Cowie and Calhoun<sup>1</sup> and others, thus malaise, occasional chill, headache, hyperpyrexia, and leucocytosis. The temperature (rectal) showed, uniformly, a marked and abrupt rise (Table III) of from 2° to 5° F. which seems to have decreased

TABLE III.—TEMPERATURE AND LEUCOCYTIC REACTION.  
FIRST COURSE.

Date.	1-10-21.		* 1-11-21.		1-12-21.		1-13-21.		1-14-21.		* 1-15-21.		1-16-21.								
	Temp.		Leuc.		Temp.		Leuc.		Temp.		Leuc.		Temp.								
	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.							
<i>Case.</i>																					
1-C. S. . . .	98.6	99.2	11,500	98.4	103.2	17,300	102.0	99.0	8,500	98.6	100.0	9,900	100.0	99.0	6,500	98.6	101.6	12,500	100.0	98.6	....
2-J. H. M. . .	99.0	98.0	10,400	98.8	104.0	4,800	103.0	101.0	11,000	100.6	100.0	10,900	99.6	98.6	11,300	98.6	104.2	8,400	100.2	98.0	....
3-L. H. . . .	98.6	99.6	7,800	98.8	101.8	9,000	98.6	100.0	5,400	99.6	98.8	5,900	99.0	98.6	4,400	98.6	100.6	9,600	100.6	98.8	....
4-H. S. . . .	98.6	99.0	11,800	99.2	103.4	7,200	102.2	100.4	9,600	98.6	99.0	12,500	98.6	98.6	5,500	98.6	103.0	9,400	102.6	99.0	....
5-Z. F. A. . .	98.6	98.6	10,000	98.6	98.2	7,700	98.6	99.9	8,500	98.6	99.0	6,700	98.6	99.0	9,100	99.2	100.8	6,000	103.0	101.0	....
6-A. W. . . .	99.0	98.8	9,000	98.6	102.4	17,200	101.4	100.6	9,500	100.0	98.0	8,200	98.6	98.6	6,300	98.6	101.0	9,000	99.6	98.6	....
7-G. T. . . .	99.0	....	12,200	100.0	100.0	10,700	101.2	100.0	11,400	99.0	100.2	5,700	98.6	98.6	4,500	98.6	101.0	6,100	101.6	98.8	....

Date.	1-17-21.		1-18-21.		1-19-21.		* 1-20-21.		1-21-21.		1-22-21.		1-23-21.								
	Temp.		Leuc.		Temp.		Leuc.		Temp.		Leuc.		Temp.								
	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.	6 A. M.	4 P. M.							
1-C. S. . . .	98.6	98.8	13,400	98.6	98.4	10,300	98.6	98.4	6,300	100.0	98.8	15,400	98.6	98.8	13,200	98.6	99.2	13,000	99.0	98.8	....
2-J. H. M. . .	98.6	98.4	8,100	98.6	98.4	7,600	98.6	98.4	5,900	98.6	101.4	18,300	98.6	98.6	11,000	98.6	98.0	8,800	98.4	98.8	....
3-L. H. . . .	98.6	99.0	6,000	99.0	98.8	3,800	98.6	98.4	9,900	98.6	102.0	12,200	99.6	98.6	6,600	98.6	98.6	4,600	98.6	98.8	....
4-H. S. . . .	98.6	98.6	8,600	98.6	98.8	10,000	98.6	98.8	10,400	98.6	102.0	17,500	99.0	98.6	11,500	98.6	98.8	9,000	98.4	98.8	....
5-Z. F. A. . .	100.0	100.0	8,400	98.6	99.6	7,900	99.6	100.4	7,800	99.2	102.0	5,800	98.6	98.6	9,800	98.6	98.0	6,900	98.6	99.2	....
6-A. W. . . .	98.6	97.8	7,800	98.6	98.0	12,500	97.0	98.6	7,500	98.6	100.6	11,800	98.6	98.4	8,900	98.6	98.6	11,000	98.6	96.8	....
7-G. T. . . .	98.6	98.6	6,300	98.6	99.0	8,800	98.6	98.8	15,800	98.6	100.0	10,900	99.0	98.8	7,000	98.6	99.0	8,000	98.4	98.8	....

\* Injection days.

TABLE III.—TEMPERATURE AND LEUCOCYTIC REACTION.—CONTINUED.

FIRST COURSE.—Continued.

Date.	1-24-21.	1-25-21.	1-26-21.	1-27-21.	1-28-21.	1-29-21.	1-30-21.
1—C. S. ...	98.0	8.800	98.4	99.2	98.2	98.2	98.0
2—J. H. M.	98.6	9,000	98.4	98.8	22,000	7,600	98.6
3—L. H. ...	98.4	6,300	98.2	99.0	10,100	8,800	98.2
4—H. S. ...	98.6	9,600	98.6	99.0	10,700	7,300	98.4
5—Z. F. A.	98.4	100.8	20,800	98.6	15,800	7,900	100.8
6—A. W. ...	98.0	8,700	98.0	99.4	8,400	9,400	99.2
7—G. T. ...	98.4	8,000	98.0	99.4	8,000	7,800	98.0

SECOND COURSE.

Date.	2-15-21.	2-16-21.	2-17-21.	2-18-21.	2-19-21.	2-20-21.	2-21-21.
2—J. H. M.	98.2	98.8	102.9	98.6	98.6	7,800	98.8
3—L. H. ...	98.4	99.0	98.2	98.4	98.4	9,900	98.4
5—Z. F. A.	98.4	98.8	98.8	98.0	101.0	3,700	99.0
6—A. W. ...	98.6	99.0	98.2	98.6	102.8	9,600	98.6
7—G. T. ...	98.6	99.0	98.4	99.6	101.2	7,600	98.4

Date.	2-22-21.	2-23-21.	2-24-21.	2-25-21.
2—J. H. M.	98.4	99.0	101.2	99.0
3—L. H. ...	98.6	98.6	100.4	99.6
5—Z. F. A.	98.2	98.6	103.4	98.0
6—A. W. ...	98.6	98.6	102.4	98.8
7—G. T. ...	98.6	98.6	100.6	98.2

\* Injection days.



progressively as the number of injections was increased. There was also remarked, as indicated, a very definite leukocytosis (Table III) which, however, seems to have been somewhat lower than observed by Cowie and Calhoun.' It seems, too, from Table IV, in which the initial count was made 48 hours following the first injection of the second course, that the preliminary leucopenia described by Cowie and Calhoun' was, in our cases, consistently

TABLE IV.—CHRONOLOGIC ANALYSIS OF LEUCOCYTIC REACTION.

Time.	Leucocyte counts.						
	½ hour before inject.	½ hour after inject.	1 hour after inject.	2 hours after inject.	3½ hours after inject.	5½ hours after inject.	7½ hours after inject.
<i>Case.</i>							
2—J. H. M..	6,400	10,800	7,200	9,100	7,500	7,800	11,400
3—L. H.....	6,700	7,000	5,600	11,400	9,800	9,900	10,700
5—Z. F. A..	3,800	8,000	3,700	8,200	8,500	3,700	3,200
6—A. W....	7,000	11,000	7,900	12,400	15,100	9,600	9,000
7—G. T.....	5,100	7,100	7,400	13,500	8,800	7,600	6,600

Time.	Leucocyte counts.						
	9½ hours after inject.	12 hours after inject.	24 hours after inject.	33 hours after inject.	48 hours after inject.	55 hours after inject.	72 hours after inject.
<i>Case.</i>							
2—J. H. M..	10,200	10,500	7,800	6,800	5,800	7,400	8,800
3—L. H.....	7,200	6,700	5,400	7,900	3,000	9,000	8,700
5—Z. F. A..	8,200	7,200	6,700	6,600	2,600	5,600	5,400
6—A. W....	14,600	14,800	7,800	6,700	5,700	8,000	10,800
7—G. T.....	7,000	7,200	6,700	6,300	6,900	7,600	9,200

preceded by a short period of mild leucocytosis, and in addition, that the second or essential leucocytic period, which seemed to reach its acme in approximately 12 hours was succeeded by a phase of gradual reduction with the establishment of definite leucopenia in about 48 hours, following which there seemed to be gradual return to the normal level.

In regard to the effect upon the red cells (Table V), there was uniformly noted a severe reduction in the total red count, so much so that it was deemed advisable to drop two of the cases (1 and 4) from the second course. This reduction was a prolonged nature,

TABLE V.—BLOOD PICTURES.

Case.	Preceding first course.								On completion of first course.									
	Erythrocytes.	Leukocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Myelocytes.	Koimnophiles.	Basophiles.	Erythrocytes.	Leukocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Myelocytes.	Koimnophiles.	Basophiles.
1—C. S. . . . .	3,960,000	11,500	74	8	25	6	0	0	0	3,570,000†	8,200	66	12	11	7	0	4	0
2—J. H. M. . . . .	4,480,000	10,400	55	12	25	6	0	2	0	3,490,000	7,500	4	26	8	0	0	0	0
3—L. H. . . . .	5,280,000	7,800	73	5	17	4	0	0	0	3,500,000	4,900	75	3	16	3	0	3	0
4—H. S. . . . .	4,240,000	11,800	65	9	20	2	0	4	0	3,570,000	8,400	59	13	16	3	0	4	0
5—Z. F. A. . . . .	5,680,000	10,000	69	7	14	4	0	5	0	4,200,000	7,100	72	3	13	4	0	2	1
6—A. W. . . . .	4,740,000	9,000	56	5	32	6	1	0	0	4,050,000	7,400	63	8	24	5	0	0	0
7—G. T. . . . .	4,900,000	12,200	73	7	14	5	1	0	0	3,940,000	7,900	75	3	16	5	0	1	0
	Preceding second course.								On completion of second course.									
	Erythrocytes.	Leukocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Myelocytes.	Koimnophiles.	Basophiles.	Erythrocytes.	Leukocytes.	Poly. Neutro.	Large Lymph.	Small Lymph.	Transitional.	Myelocytes.	Koimnophiles.	Basophiles.
1—C. S. † . . . . .	2,500,000	11,800	63	3	23	4	0	0	1	3,250,000	10,400	73	0	22	4	0	1	0
2—J. H. M. . . . .	4,310,000	10,000	80	2	11	6	0	1	0	3,680,000	6,600	79	0	20	1	0	0	0
3—L. H. . . . .	4,100,000†	5,200	55	5	32	6	0	2	0	3,500,000	8,300	69	4	26	1	0	0	0
4—H. S. . . . .	2,860,000*	14,600	73	2	20	3	0	0	0	3,850,000	9,600	75	19	4	0	0	2	0
5—Z. F. A. . . . .	4,020,000	8,000	71	4	23	2	0	0	0	4,180,000	7,500	86	2	8	3	0	1	0
6—A. W. . . . .	3,270,000	11,600	68	3	27	1	0	1	0	3,630,000	9,000	69	1	28	1	0	1	0
7—G. T. . . . .	3,500,000	9,800	71	3	24	2	0	0	0	4,230,000	7,800	59	1	35	2	0	2	1
	8 weeks following first course.																	
1—C. S. . . . .	3,840,000	5,100	84	0	10	3	0	3	0									
2—J. H. M. . . . .	2,480,000	12,200	78	0	16	1	0	5	0									
3—L. H. . . . .	3,470,000	5,200	63	3	24	4	0	4	2									
4—H. S. . . . .	3,700,000	8,600	68	1	28	2	0	1	0									
5—Z. F. A. . . . .	3,530,000	6,600	60	6	27	6	0	6	0									
6—A. W. . . . .	4,000,000	4,000	60	0	28	1	0	0	1									
7—G. T. . . . .	3,500,000	5,200	83	0	13	4	0	0	0									

\* Many macrocytes, microcytes, and poikilocytes.  
 † Many platelets.  
 ‡ Omitted from second course.

persisting in these two cases for at least eight weeks, and in the others for at least four. Increased platelet count, as described by Cowie and Calhoun,<sup>7</sup> was occasionally noted as well as the appearance in one case, in unusual numbers, of macrocytes, microcytes, and poikilocytes. No frank change, however, was noted as regards white cell type.

Determination of erythrocyte fragility (Butler<sup>8</sup> as modified by Greenthal,<sup>9</sup>) showed (Table VI) moderate increase in fragility

TABLE VI.—BLOOD FRAGILITY.

Case.	Date.	Fragility curve.	Date	Fragility curve.	Date	Fragility curve
1—C. S....	2-18-21	0112345555	2-25-21	0012355555	3-18-21	0012455555
2—J. H. M.	2-18-21	0001234555	2-25-21	0000123555	3-18-21	0001345555
3—L. H....	2-18-21	0001234555	2-25-21	0001235555	3-18-21	0001345555
4—H. S....	2-18-21	0001234555	2-25-21	0001234555	3-18-21	0001245555
5—Z. F. A.	2-18-21	0112345555	2-25-21	0001345555	3-18-21	0011355555
6—A. W....	2-18-21	0012344555	2-25-21	0001235555	3-18-21	0000145555
7—G. T....	2-18-21	0012345555	2-25-21	0001234555	3-18-21	0001345555
Normal Curve..		0001234555				

Key: 0—no hemolysis. 2—trace of hemolysis. 4—almost complete hemolysis.  
1—faint trace of hemolysis. 3—partial hemolysis. 5—complete hemolysis.

in two cases (1 and 5) and slight increase in two others (6 and 7), which in all cases, except the first, was apparently of but short duration.

Examinations of the urine revealed no evidence suggestive of renal disturbance nor was there indication of essential physical change save for a gradual decrease in weight (Table VII), asso-

TABLE VII.—WEIGHTS.

Case.	Date.	Wt.	Date.	Wt.	Date	Wt.	Date.	Wt.
1—C. S.....	1-7	129	1-14	125	1-21	118	1-28	134
2—J. H. M.....	1-7	115	1-14	112	1-21	114	1-28	119
3—L. H.....	1-7	141	1-14	141	1-21	134	1-28	139
4—H. S.....	1-7	178	1-14	178	1-21	163	1-28	176
5—Z. F. A.....	1-7	145	1-14	144	1-21	138	1-28	146
6—A. W.....	1-7	118	1-14	112	1-21	114	1-28	114
7—G. T.....	1-7	132	1-14	132	1-21	132	1-28	135
1—C. S.....	2-4	133	2-11	133	2-18	133	2-25	133
2—J. H. M.....	2-4	119	2-11	116	2-18	113	2-25	117
3—L. H.....	2-4	143	2-11	144	2-18	138	2-25	142
4—H. S.....	2-4	181	2-11	182	2-18	180	2-25	185
5—Z. F. A.....	2-4	149	2-11	147	2-18	141	2-25	145
6—A. W.....	2-4	119	2-11	118	2-18	115	2-25	117
7—G. T.....	2-4	138	2-11	135	2-18	135	2-25	133

ciated with transient asthenia, which continued until about the midpoint of the first course, soon thereafter reattaining its original level, which was well maintained until the completion of the study and, in fact, in two cases, showed an appreciable increase.

Psychiatrically, there was absolutely no evidence indicative of remission or even transitory improvement although, in certain cases, (A and B types) there was noted for several days, towards the end of the first course, a certain cheerfulness and good humor which might possibly be construed as approximating the euphoria of the second or positive phase, more or less characteristically noted by Petersen,<sup>30</sup> as following the administration of non-specific protein. Although it is theoretically conceivable, had treatment been continued over a longer period of time, that definite improvement might have been effected, yet in view of the direct nature of the procedure, the vigor of the reaction and the length of period actually employed, such a possibility seems rather unlikely.

It appears therefore that the results of this study are in general agreement with those of Itten and Kraepelin (*loc. cit.*) and definitely at variance with those of Donath and Lundval (*loc. cit.*). However, as concerns the findings of the authors last mentioned, whose cases were treated and observed over a number of years, due regard must be accorded the fact that much of the apparent improvement remarked, might, possibly, have occurred *per se* and need not, of necessity, have been specifically induced by the nucleinate injections.

#### SUMMARY.

It seems, in the dementia præcox cases constituting this series, that no amelioration in psychiatric status was effected as a result of the intravenous administration of non-specific bacterial protein, and that the general constitutional reaction, in these cases, closely approximated that reported as characteristic of non-psychotic individuals, save, that in the former, there seems to have been, additionally, evidence of transient weight-loss, a preliminary leucocytosis period, a late leucopenic period, and a marked persistent reduction in the erythrocyte count with a tendency for increased fragility changes, all of which, upon further study, may be found to be typical of non-psychotic cases as well.

Grateful acknowledgment is made to Dr. F. C. Potter, Pathologist, for assistance rendered in the blood and urine determinations, and to Dr. H. Ostrander, Med. Superintendent, for permission to study these cases.

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## CONNOTATIONS AS A FACTOR IN THE MENTAL HEALTH OF THE COMMUNITY.

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### I.

A few fortnights ago I was called in as friendly counsel regarding a situation which centered around a rapidly developing case of senile dementia. A theological student of promising ability had been forced to leave his studies somewhat prematurely and enter upon active ministerial work upon the death of his father which left him the sole support of his aged mother. He entered into the work of a rather responsible parish with vigor and enthusiasm but after a period of six months began to realize the deteriorating condition of his parent and the additional strain which this progressing condition was placing upon him.

The mother's orientation with respect to place, as well as time, was very defective, demanding an ever-increasing amount of attention. Excessive outbreaks of emotion and general irritability constantly and especially in public were not only trying but at times exceedingly embarrassing. The mother could not be left alone with safety for any length of time and the financial status would not permit of the employment of assistance, either trained or untrained. It was necessary for the son to be in almost constant association with his parent with but little time remaining to devote to the work of his parish.

The mother had slight recognition of her condition and the generally uncomfortable situation which resulted. The son's attitude was very frank and wholesome although in his management of the patient he did not manifest any unusual ability in the handling of psychiatric cases. In attempting to smooth down the emotional storms he had told his mother that unless she "braced up" and "got control of herself" it might become necessary to send her to a state institution. In a way these admonitions produced the desired result, but in a short time apparently became effective in the causation of a worried, fearful state of apprehension which was directed to the matter of commitment. This fretful attitude

became more and more accentuated during the successive steps toward commitment until—but that is the starting point of this study.

During a conference with the son I learned that for several years the family had lived in Wisconsin in the vicinity of a *county lunatic asylum*. The more recent years of residence in Minnesota had been spent within the sphere of influence of a *state asylum*. These institutions with their frankly descriptive appellations had made a deep and unfavorable impression upon the present patient. It was this associative complex which was operative to a large extent in shaping the attitude of the mother toward institutional care. Accordingly arrangements were opened for the care of the patient in the Independence Hospital. The mother readily consented, in fact was eager to go since she had sufficient insight into her condition to realize that scientific supervision would be of benefit. She positively refused to willingly go near an *asylum* but would cheerfully enter a *hospital*. As soon as negotiations of which she was aware were entered into with the hospital her whole conduct, which had been dominated with the asylum reaction until this time, changed for the better and the emotional outbreaks ceased for the time being. Remnants of a certain vague pride also remained and the term *county* and *state* were perhaps as influential in forming her aversion to the institutional names as were the terms *asylum* and *lunatic*. It was partly out of consideration for this barrier of pride—which is rather common as will be seen later—that the affective life became intensified. So the word *state* was omitted from the name of the hospital in all later reference to it and although the patient was aware of the fact that the institution was maintained by the state she was put at ease by the title given it.

This is just one case out of many in which the name of the institution plays a rôle by no means insignificant in determining the patient's conception of the institution and governing his receptiveness to the idea of care within its portals. Such cases as the above could be multiplied several fold, but it is doubtful if their importance can be unduly magnified.

Anyone who has made contracts with mental cases, in a professional capacity or otherwise, on the wards of institutions or in the family circle, can testify to the counteracting effects of the



deplorable connotations bound up with certain terms which are in all too frequent use. The family physician can tell of the dolorific issue in the patient; the lawyer and the conservator know of the hesitancy in selecting an institution with a cognomen wholly or in part unpleasant. The psychiatric social worker comes up against antagonistic attitudes which have their origin in an antipathy to the institutional name and the associations which it carries. The resident psychiatrist is given the opportunity of tracing the delusional and affective structures which the patient erects as a natural reaction upon the wormwood of these chafing connotations and inner meanings.

In almost every phase of the world of commerce a happy term or a respected firm name means much to the success of an organization. Trade names have been copyrighted and capitalized and their use and ownership protected by the courts. The names of marketed products and commercial organizations have been demonstrated time upon time to possess a distinct value that can be measured, or at least estimated, in financial units.

When we turn to the field of mental health we also find that there is a scale of values consequent upon the associative context interwoven with terms which are in the long run synonymous. The relative value of these terms cannot be determined in monetary units as can the value of a trade name for these terms are cardinal in a realm which cannot be evaluated in terms of material things. Mental life and happiness are not to be purchased at any cost; they are to be conserved and developed and valued for their own sake. And especially in this field is it that we find the connotations to be unusually strong and of such a nature as to exert an undesirable influence.

These symbolizations bound up with terms which in the past have been connected with objects now obsolete and repugnant have a very practical bearing upon community mental health. These unfortunate connotations are influential in determining the advance in community mental health in three important phases.

In the first place the attitude of the public in general toward the objects which are perhaps supreme in mental welfare is made sadly destructive by the use of terms which carry with them a rather rank and highly undesirable outer fringe of context. One of the first fruits of the labors of the National Committee for Mental Hygiene is the steady increase in the use of the term

hospital to replace the more overtly descriptive terms which were predominant in this field only a few years ago. The cooperation of the body politic is essential for thorough and comprehensive results to be realized from efforts toward community mental health. This group factor cannot be wholeheartedly contributory so long as a considerable share of the terminology is laden with revolting and entirely unjustified filiations. And in passing it should be noted that those terms which carry the largest number of repugnant and antagonizing connotations are the ones with which the general public is most familiar and which are most productive in determining the group consciousness with reference to the things of mental health.

Consider this group consciousness boiled down, concentrated, and brought into the mental life of one as a vital, burning issue, coloring the entire stream of thought and conduct. Here is found a powerful force working in direct opposition to one of the outstanding aims of constructive mental hygiene. It is what is often found operative in what might be termed psychopathic material. At the one point in these individuals' lives where a wholesome, unbiased, healthy-minded attitude should be held toward the agencies of mental health we see the baneful results of the misconceptions of the ages as they are brought down to the present time in the associative conglomerate of connotations. The exacerbations in the symptomology and the appearance of transient secondary symptoms noticed in the newly admitted patient is frequently due in a large part to these undesirable affective connotations. In the case of voluntary patients undoubtedly these connotations are effective in lessening and delaying the applications. Where legal coercion is used to bring the patient for care and treatment the inner struggle is usually much greater than even the sometimes violent outward signs would indicate. Regardless of whether or not one is a Freudian the therapeutic significance of this emotional intensification is very apparent.

What may be isolated as the third mode of action upon community mental health is, like the second, really a derivative of the first but it is worthy of special consideration because of its direct effects upon the rehabilitation and the welfare of the ill of mind. I refer to the attitude often taken by the relatives and friends toward one who is receiving institutional care. This is

active in the early stages of a case where a considerable hesitancy is shown about arranging for proper care and such a delay may seriously impair or even offset all later remediable measures. After the patient is at last placed in suitable surroundings the matter is not treated with openness, a marked reluctance is manifest toward visiting the patient because of the social connotations of the institutional name and the benefit which is to be derived in a large percentage of cases from properly timed and sincere visits is lost forever. Psychiatric social workers also tell me that they are not infrequently hampered in their work by attitudes taken by patients and relatives and which have root in the connotations of the terminology which in turn almost give justification to the uninitiated for their naive conceptions of work in mental health.

There is a decided need for a knowledge of the actual connotations which are present in present-day terminology as related to community mental health. Such a knowledge would enable one to estimate in a way the manner in which these associations are operative in various practical phases of work in public mental health. With such knowledge available it will also be possible to suggest any needed changes in the terminology which may be discovered. It is the object of this investigation to ascertain the nature and direction of the connotations in a limited number of terms which are in rather extensive use in this field.

There are many problems unique to work in public health which can be pushed nearer to a pragmatic solution by utilizing the methods of applied psychology in solving them. Commercial organizations have found applied psychology a valuable adjunct and it is to be reasonably expected that public health will also find such preliminary procedure a valuable auxiliary. The general approach which will be followed in the present report is that of applied psychology and any claim to originality must be limited to the application of these methods directly to the field of public mental health.

The most imposing bulwarks of the agencies of mental hygiene are the state hospitals for mental diseases. The names of these institutions are the ones with which the general public is most familiar and which are probably most influential in their connotations. The associative values of the various names taken by these institutions are, therefore, the main objective of the present

investigation. Attention will be given only to the connotations of the names found among state hospitals for mental patients. There are several reasons for this limitation. These state institutions care for the bulk of mental patients; their influence also extends over a larger area than is the case with county and private or even municipal institutions. Private institutions are also excluded for the present because of the commercial nature which would attend the application of the findings. Private sanitariums, also, are not usually offensive in the matter of name—it is good business to have a title rich only in pleasant associations. Then, too, it is sort of a Hobson's choice; the present project had to be limited in scope that the task asked from our respondents might not be so difficult and involved as to destroy interest and cooperation.

## II.

Before turning to the more empirical aspects of the present problem it is well that we orientate ourselves by a short survey of the development of the nomenclature in this field and acquaint ourselves with the present-day tendencies.

Tables I, II, and III were derived from the available data which gives the names of institutions of this character in full.<sup>1</sup> In Table I the names of the institutions are reduced to the type categories indicated. The horizontal line of data, for example, which extends to the right of "Asylum, Insane" enumerates all institutions in which "Insane Asylum" seems to be the basic phrase. Such names are: State Insane Asylum, Asylum for the Insane, Asylum for Insane Indians, Northern Insane Asylum, etc. The other types enumerated are also considered as basic and the various institutional names placed in the horizontal line indicated by their essential elements. State Hospital for the Insane, for example, in view of our objective, obviously belongs under the category of "Hospital, Insane" rather than "Hospital, State."

<sup>1</sup> Data for 1880, 1890, 1903, and 1910 is from the reports of the United States Census. Data for 1918 is from Pollock and Furbush: Comparative Statistics of State Hospitals for Mental Diseases, 1918. *Mental Hygiene*, 1920, 4, pp. 137-191.

TABLE I.

FREQUENCY OF TYPE NAMES AMONG STATE INSTITUTIONS FOR MENTAL PATIENTS DURING FIVE PERIODS FROM 1880 TO 1918.

Name.	Period.				
	1880	1890	1903	1910	1918
Asylum, Insane.....	25	42	11	14	4
Lunatic .....	15	16	3	1	1
State .....	..	..	2	5	3
Territorial .....	..	..	1	..	..
(Geog. location).....	..	..	6	..	..
(Name of State).....	..	..	4	2	..
(Name of Town).....	..	..	1	..	..
Total asylums .....	40	58	28	22	8
Colony, State.....	..	..	1	1	1
Total colonies .....	..	..	1	1	1
Hospital, (Euphonic).....	..	..	3	2	2
(Geog. location).....	..	..	20	..	..
Homeopathic .....	..	..	2	..	..
Insane .....	25	39	8	44	30
Lunatic .....	5	7	1	1	1
Mental .....	..	..	1	1	1
Mental disease .....	..	..	..	1	2
Nervous disease.....	..	..	..	1	1
Psychopathic .....	..	..	..	1	1
State.....	..	..	57	69	104
(State name).....	..	..	8	..	2
(Town name).....	..	..	6	2	2
Total hospitals .....	30	46	106	122	146
Infirmiry, State.....	..	..	..	1	1
Total infirmaries .....	..	..	..	1	1
Retreat, for insane .....	..	1	..	..	..
Total retreats .....	..	1	..	..	..
Reformatory, The.....	..	..	..	..	1
Total reformatories.....	..	..	..	..	1
Sanitarium, State .....	..	..	1	1	1
Total sanitariums .....	..	..	1	1	1
Total institutions.....	70	105	136	147	159

Analysis of this data reveals several significant tendencies. Two names, Colony and Infirmiry, have come into use fairly recently, the former since 1903 and the latter since 1890. The term Retreat as applied to state institutions has a transitory appearance

in the period ending in 1890. Sanitarium has been introduced into this field since 1890 and is showing some increase in use but not notably significant.

The most pertinent development, however, is in the shifting use of the terms hospital and asylum. In the case of the second term a steady decline in the number, and a much greater decline in

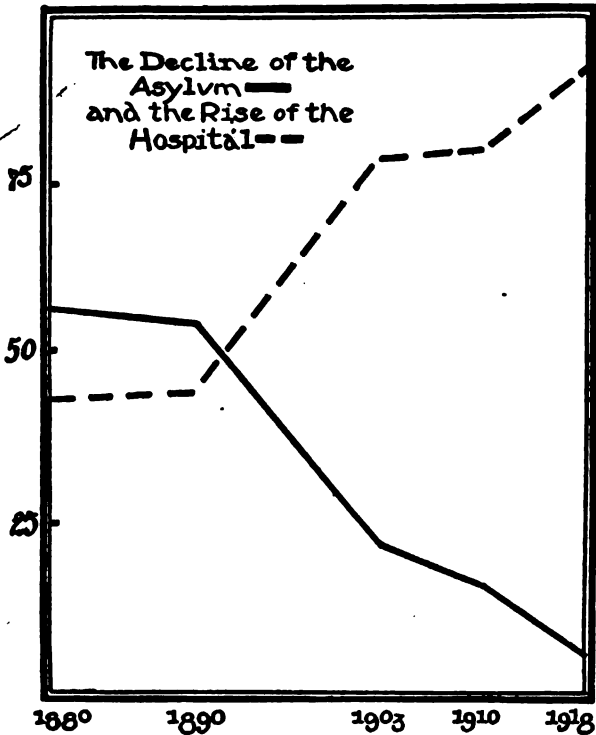


CHART I.

the per cent of institutions using this term as a part of their title is immediately noted. This decline is slight during the first per interim followed by a sudden drop from 55 per cent in 1890 to 20 per cent in 1903. The last two periods also record a decline in the use of this term but not nearly so marked as in the interval mentioned above. If the use of this term continues to diminish at the rate it has the last two periods it will be extinct in about 10

more years.<sup>2</sup> Reference to the sub-totals in Table I will suffice to indicate that the term hospital is replacing asylum, the curve of its ascent being almost the exact reverse of the decline of the asylum. This is plainly shown in Chart I in which the periods are plotted on the horizontal and the per cent of institutions using the terms charted on the vertical scale which is on the basis of 0 to 100 per cent. In 1880 the distribution of these terms was about equal with a slight preference shown to asylum. At the close of 1918 all but 7 per cent of the institutions bore the name hospital.

A more detailed record of the institutional use of terms is given in Table II. The data for this table were obtained from the same sources as were used in Table I. In this instance, however, each of the major terms were recorded, no attempt being made to retain the type classification as was done in Table I. Insignificant terms such as of, for, the, and, at, etc., were not recorded. The terms have been divided into two groups, the generic and the specific. The generic terms specify the general character of the institution while the specific terms limit this meaning to one particular institution or at a certain place or of a specific function or of a particular nature.<sup>3</sup>

A marked characteristic to be noted upon even a superficial examination of this table is the abundance of specific terms. On the whole about two specific terms are used to one generic term. The specific terms most in use during the first period were insane, lunatic, state, and the names of states. In 1918 the terms found most in use are state, the names of towns, the names of states, and—strange as it may seem—insane.

The term state is used in both specific and what may be designated as sub-specific ways. For example we find State Hospital and State Insane Hospital. The names of towns, state names, and geographical terms are also used in the two ways mentioned.

<sup>2</sup> This applies to state institutions only. The decline in the use of this term among county institutions is probably very slight.

<sup>3</sup> Any apparent discrepancy between Tables I and II is dissolved by recalling that in Table I the names were recorded under certain type categories. It will also be noted that the data under the generic terms in the present table is made up of the same number of terms found in the sub-totals of Table I.

The term incurable has passed into oblivion in this immediate field<sup>4</sup> while chronic still persists as does also the term dangerous. During the last three years a slight increase in the use of homeo-

TABLE II.  
THE USE OF TERMS IN INSTITUTIONAL NAMES.

Terms.	Period.				
	1880	1890	1903	1910	1918
<i>Generic:</i>					
Asylum.....	40	58	28	22	8
Colony.....	..	..	I	I	I
Hospital.....	30	46	107	122	146
Infirmary.....	..	..	..	I	I
Reformatory.....	..	..	..	..	I
Retreat.....	..	I	..	..	..
Sanitarium.....	..	..	I	I	2
<i>Specific:</i>					
Chronic.....	2	..	I	I	I
Criminal.....	I	I	2	..	I
Dangerous.....	..	..	I	..	I
Disease.....	..	..	I	2	3
Geog. location.....	13	23	38	28	30
Government.....	I	I	..	I	..
Homeopathic.....	I	I	I	2	3
Incurable.....	I	I	I	..	..
Indefinite term.....	..	..	3	2	2
Indian.....	..	..	I	I	I
Insane.....	49	81	20	60	34
Lunatic.....	19	22	4	2	2
Mental.....	..	..	I	2	3
Nervous.....	..	..	..	I	I
Numbered.....	2	4	5	5	4
Psychopathic.....	..	..	..	I	I
State.....	24	46	74	96	129
State name.....	28	4	22	41	34
Territorial.....	..	3	I	I	..
Temporary.....	I	..	..	..	..
Town name.....	14	5	38	62	82

pathic is observed. Psychopathic, and nervous, have appeared since 1903 while mental was already in use by that date. In both

<sup>4</sup>Just recently I passed a "Home for Incurables" in a large center. I must confess that the temperature of my spinal fluid lowered several degrees upon sight of this institutional name engraved in stone, apparently as ineradicable as the afflictions of those within the "home" were assumed to be.



the generic and the specific terms an increase in variety is present in each progressive period. For example in 1880 there were 15 classes of terms in use, in 1903 there were 20 classes and 23 in 1918.

The terms most vital for our consideration are insane, lunatic, and state. Their use is graphically indicated in Chart II in which

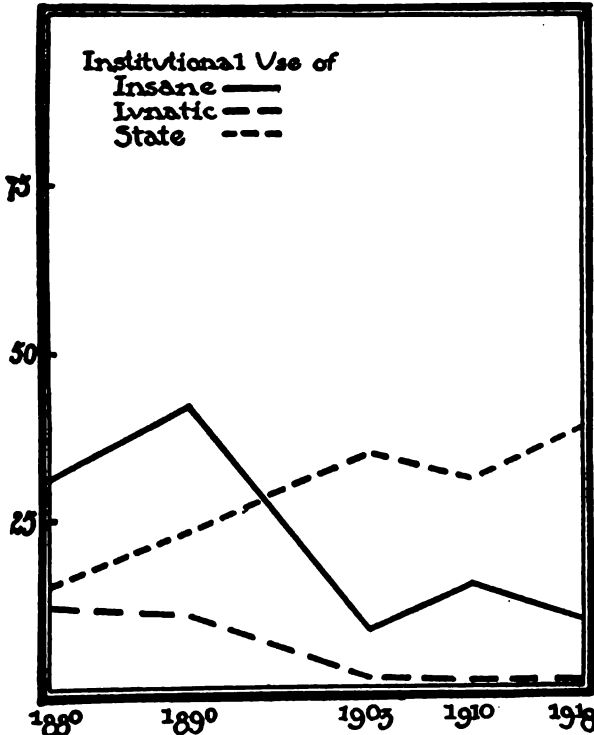


CHART II.

the census periods are again represented on the horizontal scale and the percentages of use on the vertical scale. At the opening period the term insane was over twice as popular as lunatic while state occurred with a slightly greater frequency than lunatic.\*

\*It should be remarked at this point that in the earlier periods the term state was used almost entirely in a sub-specific sense. It usually appeared in connection with the specific term lunatic or insane while in 1918 the tendency was to use state as the sole specific term.

An increase in the use of the term insane amounting to an absolute gain of 11 per cent is noted in 1890 with a decline of about 1 per cent on the part of lunatic. During this same period state increases 8 per cent.

State continues to rise at about the same rate from 1890 to 1903 while there is a decline on the part of insane and lunatic, especially marked in the former. This decline in the use of insane is followed in the next period by an absolute increase of 6 per cent or a relative increase of almost 50 per cent. This rather unexpected and almost unexplainable finding was checked over institution by institution and was found not to be due to the entry of new institutions but to the change in names of old ones. Whether or not this is due to the source of data for 1903\* I cannot

TABLE III.  
NUMBER OF WORDS USED IN INSTITUTIONAL NAMES.

	1880	1890	1903	1910	1918
Number of institutions.	70	105	136	147	159
Total terms (Table II).	226	297	350	455	493
Average per name . . . . .	3.2	2.8	2.5	3.1	3.1

say but I am inclined to favor the view that in the reports for this period a connotative censorship was exercised to a certain extent. One interesting observation to be made from Chart II is that the highest point of the curve for the use of state (1918) falls 3 per cent below the highest point in the curve of the use of insane (1890).

It is apparent from the two charts so far presented that the most definite and marked development in the institutional use of terms in this field has been in the generic terms, asylum having been almost completely replaced by hospital. The development in the case of the specific terms is not quite so steady and definite and prediction in this respect is somewhat precarious.

It has already been noted that about two specific terms are in use for every generic term. In Table III is given the number

\* United States Census: Special Reports, Insane and Feeble-minded, 1904. Washington, Government Printing Office, 1906.

of words per institutional name, exclusive of prepositions, articles and connectives. The tendency is seen to be to use around three main words to a title. The periods ending in 1890 and 1903 made use of an average of about two and a half words per name but the more recent tendencies as shown in the data for 1910 and 1918 is to use slightly more than three terms to a name.

Since the length of name is not touched upon in the experimental section it is well to consider this matter in slight detail at this point since it is of no little consequence. While it is not entirely a matter of connotations it may nevertheless be accepted as falling within the province of this work.

Long names are admittedly awkward to handle either verbally or in writing. They require an undue amount of time and attention and generally invite abbreviations and substitutes. Such popularly altered or substituted forms seldom, if ever, better the situation. The very common vulgarism "bughouse," deplorable as it is, among the staff and employees in general of state institutions is an instance at hand. A lengthy name composed largely of words of several syllables is sometimes considered to promote dignity and attract respect but the usual effect is just the opposite and rather than creating the desired results bulky names invite levity and ridicule. I doubt if there are any of my readers who will assimilate "The State Asylum for the Chronic Insane of Pennsylvania" without noting either a feeling of amusement or repulsion. Either reaction supports the point. If the name just given failed in any respect surely this which was found in the data for 1880 cannot: "Asylum for the Benefit of Persons Bereft of the Use of Their Reason."

To anticipate the results of a later section it may be said now that while a lengthy name may be demanded for scientific accuracy of description it is much out of place to go into such specific detail for the general populace. To utilize these exact descriptions defeats to a very considerable extent their purported aims. In general, the shorter a name the more favorable will be its reception.

### III.

Connotations as a factor in public mental health was set forth in Section I. The next section dealt with the objective situation of institutional names during five periods. In this section a report

will be made of the methods and results of an empirical attempt to determine the subjective situation—that is, the relative connotative value of the various terms now in use or coming into use in this field.

By means of the data blank which is reproduced in Fig. 1, the connotative value of the following terms was probed :

*Generic terms:*

Asylum.  
Colony.  
Indefinite term.  
Hospital.  
Infirmary.  
Sanitarium.

*Specific terms:*

Disease.  
Insane.  
Indefinite term.  
Lunatic.  
Mental.  
Nervous.  
Name of a town.  
Psychiatric.  
Psychopathic.

For the preparation of the data blanks the generic term hospital was used as the basic or key term because it was anticipated that the presence of that term repeatedly would not have the discomforting effect which the other generic terms might produce. Reference to the reproduction of the data blank in Fig. 1 will show that the term hospital appears in combination with each of the specific terms. To determine the comparative connotative value of disease, however, it is introduced in combination with the term mental with which hospital has already been seen. The generic terms, with the exception of the indefinite term Sunnyside, are presented in combination with terms with which hospital is already found.

From the arrangement of the references as given by our respondents the values of the different terms, from the point of view of connotations, can be determined. In the case of the specific terms it is their combinations with the term hospital

CHICAGO HOSPITAL  
 STATE INFIRMARY  
 RIVERVIEW HOSPITAL  
 PSYCHOPATHIC HOSPITAL  
 MENTAL CLINIC  
 STATE HOSPITAL  
 LUNATIC HOSPITAL  
 PSYCHIATRIC COLONY  
 MENTAL HOSPITAL  
 NERVOUS HOSPITAL  
 CHICAGO ASYLUM  
 INSANE HOSPITAL  
 RIVERVIEW SANITARIUM  
 PSYCHIATRIC HOSPITAL  
 SUNNYSIDE  
 MENTAL DISEASE HOSPITAL

## INSTRUCTIONS:

Hospitals that treat mental diseases have many different names, although their aims and methods are practically the same. Some of these hospitals, however, have names which give an unfavorable impression. These names with unpleasant associations are very undesirable since it is an additional strain for one who is in danger of a mental breakdown to be sent for treatment to a place with a name that is disliked and perhaps repulsive.

It is the object of this folder to find out just what names cause the most aversion as well as those most liked.

Read over the list of names on the last page and in front of the name which to you seems to be the least unpleasant write the number 1. In other words, which one of the hospitals would you choose *on the basis of name alone* in case it was necessary for you or some friend or relative to receive such treatment and care? Then, after you have made your first choice, look over the remaining names and write a 2 in front of the name *next least objectionable* to you. Continue until you have them all numbered. *The name least objectionable will be numbered 1 and the name most objectionable numbered 16.*

Do not discuss this with anyone until after you have filled in all the pages.

*How old are you?* .....

*Are you a man or a woman?* .....

*How far did you get in school* .....

*What do you work at?* .....

*In what state do you live?* .....

The two inside pages of this folder are vacant. On them write what it was about the different names that caused them to seem unpleasant or to be disliked. Write about as many of them as you can. Write as much about each one as you can. If there is not enough space inside to write all you want to use a separate sheet of paper and pin it to this.

FIG. 1.—Blank used for collecting the data. The two inside pages of the folder are blank. The page illustrated to the right is page 1; the page to the left is page 4.

which are crucial. To take an example, if we should find, by and large, that Riverview Hospital is preferred to Lunatic Hospital we should conclude that the connotative value of Riverview is better and more desirable from the approach of mental health than the connotations attached to lunatic.

With the generic terms it is the comparison of the preference ranks of the other generic terms which are combined with the same specific term which is crucial. For example, on the data blank the specific term Riverview is found in combination both with hospital and sanitarium. If, therefore, we find the average preference for Riverview Hospital to be three and the preference grade of Riverview Sanitarium to be 1 we would conclude that as a generic term sanitarium is to be desired over the term hospital, all other things being equal.

An objection, but by no means a fatal objection, to this method of evaluating the relative connotative values is that each generic term should be combined with all the specific terms. This is recognized as a theoretical consideration of some moment but I cannot see that it is of any great practical consequence. Admittedly it may be true that the general subjective effect produced by the specific term will vary slightly as the generic with which it is combined. The total situation connoted by Riverview Hospital may lend some enhancement to the specific term while the situation presented by Riverview Asylum subtracts some of the favorable associations from the same term. In general it is the absolute value which is not determined by this present procedure. The relative value, however, probably remains much the same within the specific series regardless of the generic partner so the pairs arranged in the data blank need not be increased several fold to pair all the generic and specific terms. A more serious defect which results from the presence of most of the generic terms only once is that they cannot be adequately compared with the basic term hospital. Practical necessity forces the present arrangement and to increase the number of entries on the data blank would obviously not only invalidate the results by setting a Herculean task for our respondents but also decrease the returns to a very low percentage.

A word of explanation concerning the motives which lead to the selection of the terms adopted with the neglect of others is

appropriated at this point before going further into the experimental technique. To take up the generic terms first we find from reference to Table I that in 1918 six generic terms were in use. These were: asylum, colony, hospital, infirmary, reformatory, and sanitarium. The term reformatory was not used in the collection of our data since the denotation of this word eliminated it from the institutional type under consideration. The indefinite term Sunnyside which could be used as a name for a country house, a farm, a summer resort, or a health sanitarium as well as a state institution for mental patients, was introduced as a constructive suggestion prompted by a psychological analysis of the factors entering into the connotative complex in situations of the sort under investigation. Clinic was also used because it is a term which is coming into rather general use in other phases of community mental health activities.

Of the 17 specific terms reported for 1918 only eight types were used in collecting our data. In general those appearing with the greatest frequency were selected although this criteria was not the sole basis for the choice. Some were omitted from our schedule because of denotative restrictions and other obvious inappropriateness. Such terms are chronic, criminal, dangerous, homeopathic, and Indian. Others of no great connotative significance such as the geographical location terms and numbers were left off the experimental list since the length needed to be restricted. The state name was not utilized on account of the introduction of extraneous associations. The term psychiatric while not in use by any state institution was introduced into the experiment because of the recognition which has been accorded to this term by several imposing public hospitals and clinics and the army and navy. When compared with psychopathic it will also give some insight into the relative merits of these oft debated terms.

Data was obtained from 422 respondents<sup>1</sup> but for convenience of treatment (as well as ease of calculation) the number has been reduced to 400. Eighteen incomplete returns were automatically eliminated and four others were discarded at random. The sex distribution of the respondents incorporated in this report is 231

<sup>1</sup> Especial acknowledgment should be made in this connection of the very valuable aid received from Professor Louvisa Wagoner of the University of Wyoming in securing a large part of this data.

women to 169 men. It is a selected group, being composed in the main of persons with a high school education. The range of ages is from 18 to 66 years with the mode in the third decade. Preliminary tables showing preference by age, sex, and education were prepared but no essential variations were evidenced from the group findings other than those consequent upon a smaller number of cases being used. Accordingly these preliminary tables are omitted from this report.

The preferences of the 400 are tabulated in percentages in Table IV. In this table the frequency of each preference rank given to a name is indicated in per cents in the horizontal line of figures to the right of any given name. For example, 12 per cent of the respondents indicated Chicago Hospital as their second choice, 13 per cent gave this same term as their third preference, and so on.

Two prominent characteristics of the data to be seen upon a superficial observation of the general contour of this table is the grouping of the preferences for some of the terms at one end of the scale of preferences or a general scattering on the part of others. Riverview Hospital is an example of the distribution of the preferences throughout a rather narrow range primarily at the upper end of the scale. Insane Hospital illustrates the rather concentrated grouping in the lower or undesirable end. Psychopathic Hospital is distributed throughout all the preferences. This lack of unanimity, so to speak, of opinion is of some little practical importance as will be indicated more fully later.

There are several methods of treating the data which will be followed that we may be certain of our findings from several angles.

The connotative preferences, as recorded in Table IV, of the three most significant generic terms are charted in Chart III. In this chart, as in the charts which follow, the vertical represents per cents on a scale of 0 to 100 and the horizontal the choices from first place to sixteenth. There can be no doubt as to the connotative merits of these three generic terms. The curve for asylum shows a lumping of choices toward the extreme lower end of the scale. Hospital occupies a somewhat similar position but at the upper or more desirable end of the scale of choices while the indefinite term Sunnyside is not only at the uppermost position but emphatically so. Both Asylum and Hospital show a scattering which is more marked in the case of the former. The indefinite



TABLE IV.  
PREFERENCES FOR INSTITUTIONAL NAMES OF 400 RESPONDENTS.\*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Chicago Hospital .....	..	12	13	34	17	7	8	6	1	..	1	..	1	..	..	1
State Infirmary .....	..	2	..	5	13	13	11	10	6	9	10	10	3	8	..	..
Riverview Hospital .....	12	28	38	8	5	6	1	1	1	..	..	..	..	..	..	..
Psychopathic Hospital .....	2	2	1	1	7	12	10	17	11	12	12	7	2	3	1	..
Mental Clinic .....	1	1	3	5	3	6	4	12	9	12	14	11	10	7	2	..
State Hospital, .....	..	3	8	21	21	14	10	3	9	2	4	2	1	1	1	..
Lunatic Hospital.....	..	..	..	..	..	..	..	..	..	2	..	..	4	5	4	85
Psychiatric Colony.....	..	1	3	2	7	5	6	6	11	18	13	11	9	2	6	..
Mental Hospital .....	..	..	1	3	1	10	9	8	16	10	10	13	8	9	2	1
Nervous Hospital.....	..	2	2	3	6	13	13	11	5	12	9	12	7	4	1	..
Chicago Asylum .....	..	..	..	1	2	2	10	8	5	8	5	9	15	27	6	2
Insane Hospital.....	..	..	..	..	..	..	..	..	..	1	2	4	4	18	69	2
Riverview Sanitarium.....	6	38	22	12	11	1	3	3	2	1	1	..	..	..	..	..
Psychiatric Hospital .....	1	1	4	3	5	7	11	7	14	6	11	14	10	3	1	1
Sunnyside .....	78	10	5	2	1	1	..	..	..	1	..	..	..	..	1	1
Mental Disease Hospital .....	..	..	..	..	1	3	4	8	10	6	8	8	26	13	6	7

\*Adjusted to even per cents.

term, however, has a closely grouped and narrow range of choices, indicating a more general agreement on the part of our respondents.

In Charts IV and V the preferences for the more important of the specific terms are illustrated pictorially. Very definite tendencies are seen in the case of the first and last choices of this group, especially in the case of the latter where there is an extreme peak in the curve. The first preference is undoubtedly the indefinite term followed by the name of a town and the term state. The least preferred specific term is lunatic which is hard pressed by insane for the last place. Disease is also a contender for the last honors.

The fate of the remaining terms is not very evident from the graphs, in fact it will be noted that some of them are not recorded there. Accordingly a preference coefficient was developed to determine the position of terms such as psychiatric and psychopathic, nervous and mental which it is difficult to place on the charts. This coefficient penalizes each term one point for each per cent in each *progressive* displacement toward the lower end of the scale. The sum of these displacement-per cent products for each name, when divided by 100, the total per cent, will give the average placement of the name on the scale of choices. The formula for this in which  $n$  represents the number of cases in each point on the scale of preferences indicated by the arabic numerals 1, 2, 3, etc., up to 16 would be:

$$\frac{1n^1 + 2n^2 + 3n^3 + 4n^4 + \dots + 16n^{16}}{100} = \text{Preference coefficient.}$$

Applying this formula to the returns for each name we obtain the material for Table V.

TABLE V.  
PREFERENCE COEFFICIENTS FOR THE NAMES.

Name.	Coef.	Name.	Coef.
Chicago Hospital.....	479	Mental Hospital .....	981
State Infirmary.....	849	Nervous Hospital.....	879
Riverview Hospital.....	299	Chicago Asylum .....	1,143
Psychopathic Hospital.....	844	Insane Hospital.....	1,451
Mental Clinic.....	952	Riverview Sanitarium.....	341
State Hospital.....	608	Psychiatric Hospital .....	905
Lunatic Hospital .....	1,562	Sunnyside .....	173
Psychiatric Colony .....	963	Mental Disease Hospital....	1,171

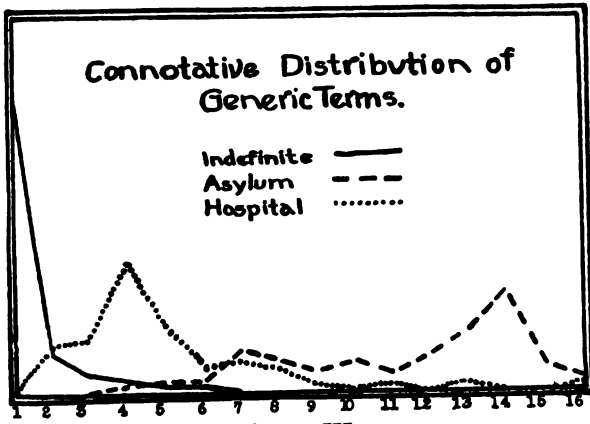


CHART III.

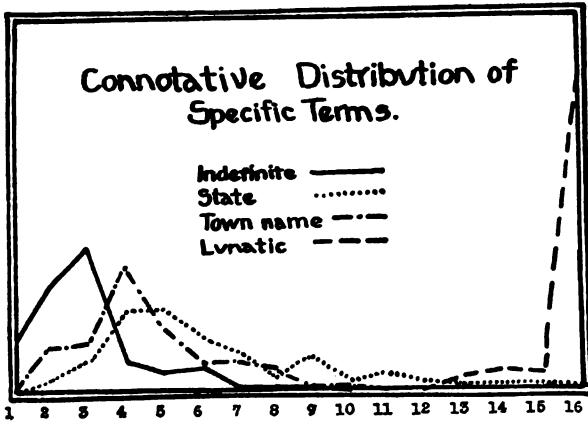


CHART IV.

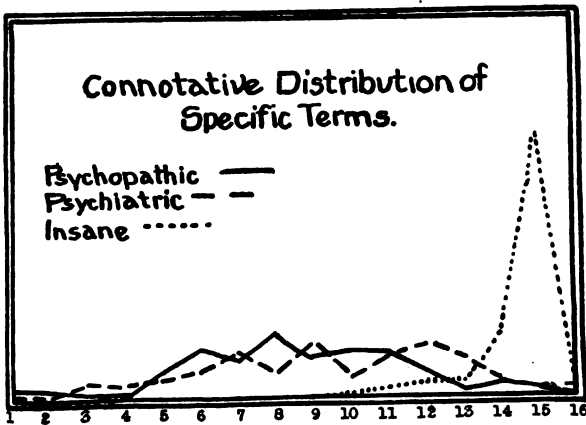


CHART V.

With the data reduced to coefficients as has now been done it will be possible to determine with some ease and reliability the relative connotative values of the terms, especially in the case of those terms from which there was a scattering of returns as psychopathic-psychiatric, where but little difference was apparent on the charts. Arranging the specific terms in the order of connotative merit as this coefficient permits we obtain the following series:

Euphonic*	299
Town Name	479
State	608
Psychopathic	844
Nervous	879
Psychiatric	905
Mental	981
Insane	1451
Lunatic	1562

This order is very definite and plain and should call for little comment. It is to be noted, however, that psychopathic is connotatively as well as denotatively preferable to psychiatric. It is perhaps more significant that nervous is preferable by slightly more than 100 coefficient points to mental. Our respondents would apparently rather bear the burden of organic (nervous) disease than a disturbance of some ethereal, over-plus affair (mental). This preference is reflected also in the very common use of the vague phrase "nervous breakdown" to convey the idea that one has experienced a maladjustment of behavior. I believe, too, that this is but another piece of evidence which indicates that the popular conception of "mind" is very similar to some antiquated theological conceptions of the same phenomena.

The conclusion to which we are forced by the data at hand regarding the specific terms is that, all other things being equal, from the approach of community mental health the most desirable terms are those *least specific* concerning the nature of the institution designated.

To arrive at the relative connotative value of the various generic terms it will be necessary, in addition to the charting of the most overt selections in Chart III, to compare the preference co-

\* Riverview is the euphonic term used.

efficients of the crucial pairs. Doing this we find the following data:

Hospital, Riverview .....	299
Sanitarium, Riverview .....	341
Hospital, Psychiatric .....	905
Colony, Psychiatric .....	963
Hospital, Chicago .....	479
Asylum, Chicago .....	1143
Hospital, Mental .....	981
Clinic, Mental .....	952
Infirmery, State .....	849
Hospital, State .....	608
Sunnyside .....	173

The generic term hospital is thus seen to be preferred largely through its connotative value to colony, sanitarium, infirmary, and asylum in the order listed. The preference of hospital over colony and sanitarium is very small but in the case of infirmary and asylum, especially in the latter, it is large enough to be of considerable significance. Clinic was the only generic term preferred to hospital but in this case also the difference is less than one step on our scale of 1 to 16. There are connotative restrictions on the use of clinic, however, which would make it seem best policy to retain the term hospital rather than clinic.

The one term which was obviously and conclusively demonstrated to be richest in desirable connotations was the indefinite, euphonic term Sunnyside which has a coefficient of 173.

Apparently, in consideration of the above data, our conclusion regarding the use of the generic terms will simply be an echo of the findings regarding the specific terms. From the point of view of connotations the more indefinite a term the more desirable is its use.

Not only are the indefinite terms preferred in this connection but the thought of disease is better eliminated. Evidence of this is found in a comparison of the following preference coefficients:

Mental Hospital .....	981
Mental Disease Hospital .....	1171

The introduction of the overt thought of disease thus is seen to throw the connotative value of a name from tenth place on our

scale to twelfth place. A displacement of two steps toward the unpleasant and more undesirable end of the scale. With the exception of Sunnyside the disease aspect probably enters into the connotative complex of all the generic terms but in not so marked a manner as in this one instance.

One of the first observations made upon the data of Table IV was that some of the preferences spread out over practically all 16 points while in other cases the preferences were concentrated at one extreme of the other. The range of preferences thus furnishes the material for Table VI.

Only in one instance above do we find a scattering throughout the entire scale. This is in the case of the term psychiatric. Psy-

TABLE VI.  
THE RANGE OF THE PREFERENCES.

Name.	Range.	Name.	Range.
Chicago Hospital.....	11	Mental Hospital .....	14
State Infirmary.....	12	Nervous Hospital.....	14
Riverview Hospital.....	9	Chicago Asylum .....	13
Psychopathic Hospital.....	15	Insane Hospital.....	7
Mental Clinic.....	15	Riverview Sanitarium.....	11
State Hospital.....	14	Psychiatric Hospital.....	16
Lunatic Hospital .....	5	Sunnyside .....	9
Psychiatric Colony .....	14	Mental Disease Hospital....	12

chopathic is found in all choices but one—the last. Nervous, mental, and state are distributed throughout 14 of the possible 16 places. Referring back to page 62 where the specific terms are found arranged in the order of connotative merit we note that the terms with the most scattering are those found between the extremes in the connotative order. Those which either head the list or are found at the bottom are the ones in which the range is smallest. Riverview, for example, has a range of nine and is found at the head of the connotative arrangement. At the other extreme of the scale is insane with a range of seven and lunatic with a range of five. The most decisive results of this study are apparently in a negative direction, least variation in connotative selection being manifest in the most undesirable terms.

It would of course be extravagant to think that the associations carried by any given term or phrase would be practically identical

for all people. There can be no doubt, however, that there are terms on which there is a general agreement. The data in the instance of lunatic seems to indicate this strongly. All other things being equal or even nearly equal the terms for which there seems to be most definiteness of connotative trends should be given preference over those with scattering associations. To carry this into action would be to avoid the institutional use of the terms for which the apperceptive mass, so to speak, is variable thus eliminating automatically those terms with a range of more, say, than nine.

The reasons given by our respondents for preferring certain terms over others confirms the frequently occurring observation that, regardless of whether man is a rational animal or not, most of man's profoundest and most certain convictions are not conceived by a logical inspection. A large number of those who contributed to the data which has been reported stated in unequivocal terms that there was a great significance attached to the various names on the data blank. While no one was able to state the reasons for this adequately they were nevertheless very positive in their preferences. The practical value of the findings is in no way lessened by the nebulous connotations which the respondents attempted, but failed, to identify.

In most instances "..... is better than ....." or "I do not like ....." were stated as the reasons for their preferences. The fundamental trends influencing and forming the connotations of these terms is apparently deep lying in the mental life and not on the surface ready for instant examination. This would lend support to the contention that the matter of the connotations of the institutional names is of no little significance in community mental health.

A statement which was written very frequently by the respondents was that they were led to select a given name as first choice because it did not in any way suggest the real nature of the institution. The present generation is very loath to admit the presence of that most estatic of human experiences—mental disease. Sunnyside was thus given first rank to a large extent on account of its indefiniteness and partly because of the pleasant imagery it brings to mind. This same term was also placed last in the range of preferences by some who objected because an institution of this kind, so they said, was really not nearly so pleasant as the

name would lead one to think and to use so agreeable a term was almost plain deceit. Not exactly deceit but perhaps camouflage and that of a very wholesome sort. Lunatic and insane brought to mind the very prevalent conception of despair, hopelessness, ravings, and all the conventional popular attributes of the *non mens compos*. State smacked of charity to numerous of the correspondents.

To a few people hospital was repulsive because of painful experiences but on the whole was accepted as standing for scientific efficiency. Clinic suggested a very thorough examination and adequate treatment at the hands of several experts, carrying the hospital concept perhaps more concentrated than does the term hospital. Infirmary was associated almost invariably with exhausted forces and debility as was colony which also savors of isolation and lepers. An air of distinction and luxury is carried by sanitarium but it is also clouded by charlatanism.

Psychopathic and psychiatric were elected primarily upon their capacity to be pronounced. To most of the communicants they were comparatively meaningless terms and neutral in their connotative effects otherwise than suggesting some medical diseases. Psychiatric was especially meaningless and pronounceless. I believe that on the whole the terms preceding psychopathic in the list of connotative merit as given on page 62 have desirable connotations, those following psychiatric undesirable connotations. The range between and including these terms is probably, by and large, relatively neutral.

#### IV.

In the two preceding sections we have studied the institutional nomenclature as it is and as it should be from the point of view of connotations. In the present section we will attempt the somewhat onerous and difficult task of superimposing the results of the two previous sections that we may in a way measure up and compare the ideal with the actual. It is sort of a connotative diagnosis which will be the aim of this section. To carry the medical analogy further, after having made the diagnosis some practical indications within the institution itself will be resolved.

We found that there has been a persistent decline in the use of the generic term asylum which is being replaced by the term hos-



pital recalling the relative connotative values of these two terms this may be described as a healthy tendency. Hospital also was found to dominate the field of terminology at the present day. This condition, also, is in itself in harmony with our connotative findings in general. Hospital does carry the disease aspect rather prominently, however, and was found connotatively to be inferior to a less definite and more euphonic term.

In the matter of specific terms we found in section two that the rather common tendency now is to use the term state as qualifying hospital. In our empirical findings, on the other hand, the term state is found third from the top (page 62). It is more desirable to use either a euphonic term or a town name rather than state. The difference in this case as was experimentally determined is about four steps on the preference scale used and is large enough to be significant. A gracious natural selection is at work eliminating the more rankly undesirable specific terms. What is needed now is a conscious selection in the adaptation of a terminology that will better serve the functions of these institutions.

In the light of our findings in section third, one might ask: Why have a specific term at all? And the question is very pertinent. We have found from our experimental material that indefiniteness is to be desired but before commending the application of this criterion in a wholesale manner to institutions for mental patients it may be well to anticipate involvements in respects other than connotative. The chief objection which may be raised against the adoption of a less definite, even generic, terminology is that the general public must be "educated up" until a more wholesome attitude toward mental ill-health is attained and to introduce terms that are not concrete and specific and are not a part of a technical vocabulary already existant will impede this progress considerably. It is entirely possible to cause such a change in attitude on the part of the great majority as Isben would say it. We see examples of such an accomplishment in the instance of large corporations which suffered a loss of public confidence upon exposure under the anti-trust laws. By extensive- and expensive-morale advertising it has been possible for them to win back the public confidence in due time.

As I see it there are two courses open with respect to this terminology as it is a factor in community mental health. The one

would be to start in with a clean slate by adopting terms more consistent with the interests of mental hygiene such as was determined in the section immediately preceding. The other course would be to win the public confidence to the terminology now in use.

Either course is practical. The first is perhaps the easiest of accomplishment. A great deal has already been done to approach the latter by the National Committee for Mental Hygiene but such progress is only in its infancy. It is entirely possible for the two courses to be interlocked to a certain extent thereby gaining the most from the start. It is one duty of the institutional executive as well as every isolated worker in this field to lend every effort to the upbuilding of a more rational terminology as well as gaining more of the public confidence and good will. The so-called mass mind is very plastic and fickle and in the hands of conscientious workers much can be accomplished in moulding it along any line desired. The influence of the state institution extends over a large radius and it is as much the function of these monuments to mental maladjustment to be a constructive force in the upbuilding of community mental health as in the rehabilitation of the patients in their care. So long as a part of the terminology fostered by these institutions is in itself destructive through its associations public policy will be loath to accept a healthy minded attitude toward the things of mental hygiene.

PSYCHOLOGICAL TRAITS OF THE SOUTHERN NEGRO  
WITH OBSERVATIONS AS TO SOME  
OF HIS PSYCHOSES.\*

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The negro race evinces certain phylogenetic traits of character, habit, and behavior that seem sufficiently important to make the consideration of these peculiarities worth while; especially as these psychic characteristics have their effect upon and are reflected in the psychoses most frequently seen in the negro. Forming so large a part of the population and living as he does under conditions, climatic and otherwise, that are favorable and natural, the negro of the Southern states forms the basis of the observations and deductions of this brief article.

Less than three hundred years ago the alien ancestors of most of the families of this race were savages or cannibals in the jungles of Central Africa. From this very primitive level they were unwillingly brought to these shores and into an environment of higher civilization for which the biological development of the race had not made adequate preparation. In later years, citizenship with its novel privileges (possibly a greater transition than the first) was thrust upon the race finding it poorly prepared, intellectually, for adjustment to this new social order. Instinctively the negro turned to the ways of the white man, under whose tutelage he had been, and made an effort to compensate for psychic inferiority by imitating the superior race. Thus we see in this people a talent for mimicry that is remarkable. Efforts to imitate his white neighbors in speech, dress, and social customs are often overwrought and ludicrous, but sometimes sufficiently exact to delude the uninitiated into the belief that the mental level of the negro is only slightly inferior to that of the Caucasian.

The insidious addition of white blood to the negro race has produced significant effects upon the latter. This racial admixture

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of blood has been between the negro female and the white male, with practically none between the negro male and the white female. But we cannot agree with Hoffman when he says that there is probably no true-blooded black man in the United States to-day. A limited observation and study of the negro families in the South will reveal the fact that there are still hundreds of the pure black African stock untouched by any possibility of miscegenation, though as the years go by they are passing. If the original white parent were always even an average representative of his race, mentally and morally, the hereditary effect upon the more or less mulatto offspring would naturally be that of improvement of the traits and mentality of the colored race, but unfortunately the white man by whom this fusion of blood starts is most often feeble-minded, criminal, or both. "This miscegenation appears to have effected the longevity of the race, and the changed social environment has brought about a moral and mental deterioration, together with a diminished power of vital resistance. Information has been brought out by some writers that the mulatto more nearly approaches the white in the contour and shape of the cranium; that the facial angle in the mulatto is larger than in the negro; that the cranial capacity has been increased, but that there has been no increase in the vital force; that the race may have gained in an intellectual way but not in a moral"—according to O'Malley.

Healthy negro children are bright, cunning, full of life and intelligent, but about puberty there begins a slowing up of mental development and a loss of interest in education as sexual matters and a "good time" begin to dominate the life and have the first place in the thoughts of the negro. From this period promiscuous sex relations, gambling, petty thievery, drinking, loafing and a care-free, prodigal life, full to the brim with excitement, interspersed with the smallest possible amount of work, consume his time. The female of the race begins promiscuous hetero-sexual relations, even with grown men, at a remarkable early age, resulting in illegitimacy and the spread of venereal diseases. Many mulattoes do not conceal their pride in being the paramour of a white man or becoming the mother of a quadroon. With their low moral level and as free agents, no wrong is felt in gratifying their natural instincts and appetites. The untoward effects of their excesses and vices are potent factors in the production of mental diseases.

Motion, music, and excitement, or a combination of these make up much of the life of colored people. Their natural musical ability of a peculiar type, and their sense of rhythm, are too well known to make comment necessary. Motion pictures especially delight but the modern dance has little or no charm for them. The "cake walk, shuffling, strutting, buck and wing," and such dances as give a wide range of motion of the arms, legs, and feet, suggestive of dances and orgies of the original African tribes, are executed in great style. •

Naturally, the negro lacks initiative; takes no thought for the immediate future, living only in the present, without recalling with any degree of concern the experiences of the past and profiting by the same; does not worry poverty or failure; distrusts members of his own race, and shows little or no sympathy for each other when in trouble; is jolly, careless, and easily amused, but sadness and depression have little part in his psychic make-up.

All negroes have a fear of darkness and seldom venture out alone at night unless on mischief bent. Even when two or more are out together there is always fear and much caution. This noctiphobia is closely associated with the superstitions of the race, is akin to actual cowardice, so easily demonstrated, and emphasized by the constant reiteration of stories of the ante-bellum system of patrol of the plantations, of ghosts and the impressive nocturnal performances of the Ku-Klux-Klan.

It is the conscious or unconscious wish of every negro to be white. This is brought out in his dreams, the hope of being white and snowy being in the eternal life and in psychoses in which he is or *was* white.

Very dear to the heart of the whole race is the privilege of belonging to a secret order. The more lodges to which he belongs, the greater citizen he is considered. The secret work with its mysticism, ceremonies of initiation, parades and marches in highly colored uniforms and regalia on holidays or on funeral occasions greatly fascinate and attract both the men and women.

The religion of the race is unique in that it is not taken as seriously as is superstition. It is difficult to determine where one ends and the other begins. Original tribal worship, the queer racial awe of the mysterious, and association with the white race have affected their religion. Prior to emancipation, the slaves

attended the churches of the planters, occupying galleries especially prepared for them. Doctrines thus inculcated formed the background for their religious activities of later years. To these have been added such sounds, motions, and residual forms and ceremonies as have been left them by their African forefathers in efforts to appease the wrath and do honor to many deities. From time to time are added features that have proven successful in religious matters by their white friends. In their religious services, whether it be in singing, prayer, testimony, or sermon there is always a varying accompaniment ranging from an occasional grunt, groan, or exclamation to an almost continuous volley of all these, with continuous motion by the congregation, increasing in volume as the service progresses until a point is reached where their emotional fervor reaches its climax in wild disorder. During a single service a congregation of colored worshippers may work themselves into a hysterical state of emotional exaltation in which "the real world disappears from sight and the supernatural alone exists for them." Behavior at these times appears to be only a step from the manic phase of manic-depressive psychosis or a catatonic excitement. The service is never complete until a reaction from this state back to comparative quietude takes place. Meetings often last five or six hours and continue every night for several weeks. Sermons and exhortation delivered and received with such emotion and enthusiasm bear little or no fruit in their every-day life and conduct, affecting favorably the morals of very few.

Nothing in the life of the negro stands out more prominently than his superstition. It influences his thought and conduct more than anything else. In no other trait or peculiarity do we find more plainly the imprint of primitive African life and customs. A monograph might be written describing and tracing the origin of this psychic weakness of those of "ebony hue" but we mention only the most common and strongly believed superstitious ideas, born as they are of fear, credulity, intellectual poverty, and child-like imagination. Even the most talkative of the race are reticent and ashamed to talk about their superstitions, and make great effort to conceal all traces of it in ordinary conversation. It is best understood by hearing conversations between individuals of the race when they think it impossible to be heard by a white

person. Under these circumstances they discuss what they have heard and believe and match experiences freely with each other. Frequently this trait comes to the surface in delusions and obsessions but is even then disclosed with reserve.

Buried deep in the nature of this people is the belief that souls wander around not far from the interred body during twilight and at night as spirits, ghosts, or "hants," to trouble and disturb the peace of mind of those who have been unkind to the deceased when living. This belief and fear are sufficient to occasionally bring about optical illusions, especially if the moon is shining just a little, that are always without question taken as "hants." It is also believed that the left hind foot of a rabbit found in a "graveyard" is a charm or "fetich" that will make them successful at dice and in many ways ward off misfortune. Teeth of animals, snake rattles and skins are said to possess magic power of protection. Great faith is placed in witchcraft, palmistry, and divination. Persons who claim power to give information about the future, as in the fortune telling of these fakers, are considered great and all-wise representatives of the "Most High," especially if they present a weird appearance, use words that are difficult to pronounce and hard to understand, and do some sleight-of-hand tricks. The moon, particularly a new or waning moon, is ever to the colored man a sign of time and a reminder of death. This "time of the moon" is considered unfavorable for any doubtful or dangerous undertaking. It is also unlucky to start on an errand and turn back, but if such must be done, it is necessary to make a cross-mark on the ground and spit in one of the angles. Of interest to the psychiatrist is the belief in the ability of certain members of the race to "conjure" or place a "hoodoo," "voodoo," or "spell" upon another. The victim thinks that his enemy uses this power very secretly at will and for his own benefit. All sorts of bad luck, persecutions, disease, and mental conditions can be called down upon the person who is under the spell. This unfortunate condition can only be relieved by the intervention of some person having a greater power to "conjure" than the original enemy. Persons supposed to possess great power to break these spells and to ward off the evil operations or the power of the enemies are referred to as "Witch Doctors," or "Night Doctors," and are held in great reverence. Parents of a young patient having a

psychosis often contend that all that is wrong is that he or she is suffering from a "spell" placed on by a jealous or disappointed lover. The colored patients themselves often give being under a "spell" or "hoodoo" as explanation for their mental difficulties. They will often say, "He controls my mind." "Love Powders" to change one's luck in winning the affection of a person of the opposite sex or to break the power of a rival are much in demand, if guaranteed. With all the handicaps resulting from fears, low ideals, and primitive notions, it occasionally happens that the negro youth is fortunate in having the proper guidance and sufficient work to prevent him from making a complete wreck of his physical and mental life. Spurred on by a good example and a wholesome desire to be an exception and a leader who can help the race, many profit by the opportunities offered even in the South to secure a good education and develop into most excellent citizens.

In order to present late, reliable statistics of psychoses most often seen in the race, considerable information was obtained from state hospitals in the South treating a large number of patients, some of which receive only the colored. This information is given herewith in the form of a table, showing the number of admissions, the number and percentage of six of the most common psychoses of negroes admitted during 1920, as well as the number of suicides among such patients during the last five years. This statistical information is based upon a large number of admissions with diagnoses by capable psychiatrists.

It will be noted that alcoholism or alcoholic psychosis is the lowest in percentage of any of the group. This may indicate some of the "blessings of prohibition" but this psychosis, according to Kirby, is seen less often in this race than any other except the Hebrew.

Dementia præcox easily stands at the top in frequency, representing more than one-fourth of the psychoses of those admitted, a considerably higher percentage than among whites. This is not surprising when their racial character make-up and the atmosphere of superstition in which they move are considered. Much of their usual behavior seems only a step from the simpler types of this classification. The catatonic form predominates, occurring almost twice as often as among white patients.



STATISTICAL INFORMATION, COLORED PATIENTS IN SOUTHERN STATE HOSPITALS.

Admissions, 1920.			Psychoses.												Suicides, 1920 to 1920.																				
			Alcoholic psychoses.			Cerebro-spinal syphilia.			Paresis.			Manic-depressive.					Senile.			Dementia precox.															
Male.	Female.	Total.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.	Per cent.	Male.	Female.	Total.														
169	172	341	0	0	0	0	20	11	31	9	10	5	15	4½	48	55	103	30	20	15	35	10	52	41	93	27	0	0	0	0	0	0			
260	226	486	2	3	5	1	9	1	10	2	8	0	8	2	61	91	152	31	26	36	62	13	48	55	103	21	1	0	1	0	1	0	1		
99	65	164	2	1	3	1	2	2	4	2	13	3	16	10	7	9	16	10	5	3	8	5	38	33	71	43	0	0	0	0	0	0	0		
183	187	370	0	0	0	0	1	0	1	0	13	2	15	4	24	19	43	12	23	19	42	11½	64	113	177	48	0	0	0	0	0	0	0		
228	188	416	1	0	1	½	20	12	32	8	19	4	23	6	31	53	84	21	22	16	38	9	51	35	86	21	1	0	1	0	1	0	1		
204	234	438	2	1	3	½	2	6	8	2	31	10	41	10	46	69	115	26	5	24	29	6½	37	50	87	20	1	1	2	1	2	1	2		
129	158	287	0	0	0	0	21	12	33	11	11	5	16	6	28	64	92	32	21	7	28	10	23	20	43	15	0	1	1	0	1	1	0	1	
133	97	230	0	0	0	0	27	12	39	12	8	2	10	4	22	19	41	17	19	6	25	11	14	23	37	16	0	0	0	0	0	0	0	0	
Totals.		1,405	1,327	2,732	7	5	12	102	56	158	113	31	144	267	379	646	141	126	267	141	126	267	9	327	470	697	3	2	5	3	2	5	26		
Per cent....						½			6					5				24																	

Manic-depressive is the next highest. This percentage is higher than that of Green, who in 1916 gave valuable information and statistics as to this form of mental illness in the negro. His statement that the same was increasing is verified. In a people naturally care-free, fond of excitement and motion, it is expected that their mental unbalance would be colored by this mood swing and disposition and find expression in the manic type of the manic-depressive group. The very small number of suicides occurring among such a large number of insane colored patients is worthy of note and agrees with the statement of Babcock: "Two interesting phases of insanity in colored races are the comparative rarity of melancholia and the prevalence of mania which is 20 per cent more common than it is in whites. Consequently we should expect to find, and do find, almost an absence of suicidal tendencies among the colored insane."

The percentage of cases of the senile group does not materially differ from the ordinary proportion found in other races.

Comparison of this table with that of Kirby made from a study of psychoses of admissions to Manhattan State Hospital, by races, shows striking differences in the incidence of paresis and manic-depressive; the former being much lower and the latter much higher in our table. In considering such variance two facts must be given weight: (1) In New York hospitals there are normally received comparatively few colored patients, a different type, a higher type than usually admitted to the hospitals of the South Atlantic and Gulf states. (2) Twelve years ago there was no prohibition of alcoholic beverages in New York. According to Kraepelin, syphilitics using alcohol are more likely to develop paresis than those who do not.

With the great prevalence of syphilis among the negroes, it is significant that the number in this series developing cerebro-spinal syphilis and paresis is so low. Alcohol being less plentiful may be a factor, but it is evident that syphilis in the colored people of the Southern states does not strongly tend to develop into cerebral types, but may spend its fury upon other vital parts of the human body and express itself in the psychoses accompanying toxic conditions so often complicated by syphilis.

If we consider the psychoses of the negro from the mechanistic viewpoint, it will be found that practically all may be correctly

included in the following classes, named in the order most frequently observed: dissociation, compensatory and repression. Most of such psychoses are benign and acute but may become chronic if improvement does not relieve the situation in time to prevent it. The most common causative factors in the dissociation types are: "inability to prevent repressed disguised cravings from breaking through through the ego's resistance," as mentioned by Kempf; toxic elements, and real or imaginary domination by others. Conflicts or situations becoming almost unbearable, with no suitable means of sublimating or otherwise avoiding, make a psychosis of this character an easy avenue of escape from the field of reality. An example is the case of woman who was under the influence of a "spell" put upon her by another, committed a crime, asserting that it was not she that did it but that under this uncontrollable influence she became the helpless agent.

Fear is the all pervading cause in the compensatory type, "fear of fear, fear of sexual impotency and fear of loss of the love object" being the most noticeable elements. These manifest themselves in grandiose, unreasonable claims, persecutory ideas and pathological lying. An example is a case of a man, though black, said that he was the commissioned representative of God to protect white women and that he might be more effectual in his mission was made white and for all these reasons has been grossly mistreated by both white and black.

The repression type makes up the smallest part of the racial psychoses under consideration and is more of a compulsion neurosis than a psychosis. There are phobias and obsessions suggestive of psychasthenia. As so clearly expressed by White, "there seems to be an alternation between love and hate with no possibility of the formation of a working compromise." This type is more often seen in those who show an appreciable proportion of white ancestry.

In our observations the following points are evident:

- (1) The Southern negro has certain psychological traits that are reflected in his psychoses.
- (2) Motion, rhythm, music and excitement make up a large part of the life of the race.
- (3) Naturally, the most of the race are care-free, live in the "here and now" with a limited capacity to recall or profit by

experiences of the past. Sadness and depression have little part in his psychological make-up.

(4) Of all his peculiarities, fears and superstitious ideas stand out most prominently.

(5) The number of cases of alcoholic psychoses is surprisingly low.

(6) Suicide and suicidal tendencies are almost absent in colored patients, the ratio being about one to three thousand in state hospitals.

(7) The incidence of cerebro-spinal syphilis and paresis is relatively low in the Southern negro.

(8) Manic-depressive psychoses are observed to occur in higher percentage than that given by Green in 1916 (17 per cent). The manic phase is the one nearly always seen.

(9) Dementia præcox stands at the head of the list of the psychoses of the colored, catatonic form occurring about twice as often as in the white, and paranoid form coming next in importance.

(10) Mechanistic classification of the psychoses of this race show that nearly all are dissociation, compensatory or repression types.

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## THE CONTROL OF COMMUNICABLE DISEASES IN PSYCHIATRIC HOSPITALS.\*

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Although the practical control of communicable diseases in state hospitals may require certain modifications of methods employed elsewhere, the principles upon which all hygienic measures depend are universal.

I shall, therefore, present what seems to be a consensus of modern opinion regarding the essential epidemiological features of these diseases, and then attempt to show how these facts apply to conditions in hospitals for mental diseases.

Fifty years ago the germ theory of disease had not been accepted, and a belief in the doctrine of spontaneous generation still lingered in the minds of some medical men. The origin of communicable diseases was then ascribed to noxious emanations from the bodies of sick persons or to the pernicious influence of air charged with miasm.

To-day, however, we are convinced that all communicable diseases are directly attributable to animal or vegetable parasites; that these diseases spread only as their causal agents are transferred from the sick to the well; and that only by their secretions and excretions do infected individuals endanger others.

Under the term *communicable diseases* are included: all of the acute eruptive fevers, as smallpox, scarlet fever, and measles; the respiratory infections, for example, influenza and tuberculosis; such enteric affections as dysentery, typhoid, and uncinariasis; certain protozoan infections whose transmission depends upon the bite of an insect, for instance, malaria; a few diseases whose principal manifestation is a skin lesion, for example, favus and

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scabies; the venereal diseases; and, from the standpoint of the hygienist, those diseases also, the exact nature of whose communicability is not yet determined, but which are apparently infectious, notably encephalitis lethargica.

The agencies through which it is possible for communicable diseases to spread are: contact, animal or human carriers, water, and milk or other food.

It was formerly believed that most of the communicable diseases were air-borne. Merely entering a sick-room was then regarded as an instance of exposure by direct contact. We now know that air plays an exceedingly small part in the transmission of disease. Park<sup>1</sup> states that there are few authenticated instances of the aerial transmission of infection beyond a patient's room, and Marshall<sup>2</sup> says that, even in crowded rooms, the greater probability is that infection comes about through actual contact.

The term *direct contact* now refers to the immediate transfer of infectious material from one to another. The transfer of some of the respiratory infections may take place directly, as, for example, when a diphtheritic patient coughs into the face of an attendant. The venereal diseases are usually transmitted by absolute contact. In general, however, the transfer of infection is more indirect.

Fomites, once considered an important source of infection, are now disregarded in most diseases. The term *indirect contact* now refers almost entirely to the transfer of infection by objects freshly contaminated by infectious excretions. As Park<sup>3</sup> puts it, "the probability of such transfer is directly proportionate to the time elapsing since contamination of the 'fomes.'"

The majority of infections are acquired either by inhalation or by ingestion. Moreover, infectious material is conveyed to the mouth or nose more frequently by the hand than in any other way. The hands of an attendant may become soiled by the discharges of a patient. His fingers then touch some object, as a fork or spoon, which goes to his own mouth or to the mouth of another. Such commonly-used objects as doorknobs, handkerchiefs, towels, and drinking cups may likewise facilitate the spread of infection. Undoubtedly, the most important factor in the distribution of communicable disease is the hand, and it has become increasingly apparent that the hand-to-mouth route of infection is the usual one.<sup>4</sup>

The contamination of milk and other food results almost entirely from infected hands, and is, therefore, but another instance of contact-infection; while a contaminated water supply simply represents on a large scale the transfer of human excreta to human mouths.

Besides the diseased individual, there is another important source of infection, namely, the carrier. By the term *carrier* is meant a person who, without symptoms of a communicable disease, harbors and disseminates the specific microorganisms.<sup>5</sup> A carrier state may occur during convalescence, or it may continue following recovery from an infectious disease; or, following exposure to infection, a healthy person may become a carrier.

Some of the lower animals may also communicate disease to man, either mechanically or by serving as intermediate hosts for the causal agent. However, the most important distributor of human sickness is man himself.

In the foregoing discussion, we have dealt briefly with the ways in which communicable diseases spread. We shall now consider the methods of preventing the spread of these diseases. The means of control are: recognition, isolation, disinfection, and immunization.

I cannot emphasize too strongly the importance of early diagnosis in the prevention of infectious diseases. Measles, for instance, is highly communicable during the pre-eruptive stage.

The case with mild symptoms also deserves serious consideration. A number of serious respiratory affections, for instance, begin with symptoms resembling those of an ordinary cold. So eminent an authority as Park<sup>6</sup> says that there is no laboratory method of differentiating between a cold and influenza. And Foster<sup>7</sup> has recently shown that bronchopneumonia frequently passes under a diagnosis of bronchitis. Furthermore, serious secondary infections are readily implanted upon tissues rendered vulnerable by slight inflammations. Again, mild cases of diarrhea may be due to typhoid or dysentery bacilli. Bates,<sup>8</sup> of the Panama Canal Zone Health Department, reported a bacteriologically-controlled series of mild, atypical typhoid cases, and remarked their importance as sources of endemic infection.

Not only must we recognize the early case and the case with mild or atypical symptoms, but we must also have in mind the carrier.

The appearance on our wards of such diseases as typhoid, diphtheria, or meningitis, suggests a carrier, and indicates a bacteriologic search for such person among the patient's associates.

If we would prevent epidemics, we must isolate every case of communicable disease during the period of infectivity. The period of communicability continues as long as definite lesions persist, and until microorganisms, known to have a definite etiologic relation to the disease concerned, disappear from the excretions. Some diseases are quite infectious during the prodromal period. Hence, during an epidemic, we must isolate not only the actual cases, but also all contacts who show an elevation of temperature.

There are two systems of disinfection: concurrent and terminal. The term *concurrent* applies to the disinfection, while the disease is in progress, of all discharges and of all articles which come in contact with the patient; *terminal* refers to the disinfection of the premises when the patient has vacated them.

Terminal disinfection has practically been abandoned. Fumigation methods, as ordinarily carried out, are notoriously uncertain in action. Furthermore, they are entirely unnecessary if concurrent disinfection has been faithfully employed. The most satisfactory method of terminal disinfection is to sun and air the sick-room thoroughly, after carefully scrubbing its floors and walls.

At the Ellis Island Hospital,<sup>9</sup> contagious cases constitute seventy per cent of the admissions. The patients are all served by the same laundry and kitchen, and all handled by the same personnel. They have discontinued terminal disinfection in this institution, and rely entirely on concurrent disinfection and simply scrubbing and airing the vacated rooms. Yet only two per cent of their patients develop cross-infections.

Regarding the use of vaccines and anti-serums for immunizing purposes, there are very few diseases, indeed, in which these agents are of proved value. Smallpox, rabies, tetanus, typhoid and paratyphoid, and to a lesser extent, diphtheria, cholera, and bacillary dysentery are probably the only ones.

We have now considered the principles underlying the spread and control of communicable diseases. We have seen that the patient's discharges contain the source of danger; that human contact is the most important factor in spreading infection; and



that the route of conveyance is most frequently from hand to mouth. We have noted also the great importance of the early case, the mild case, the unrecognized case, and the carrier, in the spread of infection. Likewise we have noted the necessity for isolation and concurrent disinfection. With these fundamental facts in mind, let us consider their specific relation to the problems of the state hospital.

Although a few suggestions will be made regarding the construction of contagious hospitals, the technic of medical asepsis, the use of disinfectants, and personal hygiene, it is not my intention to treat these subjects comprehensively.<sup>29</sup> Nor are the methods, outlined for the control of communicable diseases in general, sufficient for the management of every communicable malady. Malaria, for instance, is not affected by measures designed to prevent bacterial diseases.

In psychiatric hospitals, communicable diseases are transmitted almost entirely by contact-infection. Food, water, and carriers are relatively less active sources of infection.

Every hospital should secure as pure a water supply as it is possible to obtain. However, water is not a frequent source of disease in institutions. Typhoid is the principal disease transmitted by water. Water-borne epidemics do occur, and, when they arise, affect almost simultaneously a large number of persons. Yet there is no doubt that, in the past, many typhoid epidemics have been erroneously imputed to bad water, whereas more immediate sources of infection, such as contact, carriers, or mild cases, were not carefully excluded.

Milk, too, is a minor factor in the spread of disease in institutions. With the rare exception of bovine tuberculosis, the diseases transmitted by milk are all due to the insanitary handling of the milk. I would counsel vigilance in the supervision of all food-handlers. Every infected person, carrier, or convalescent should be carefully excluded from such duty.

The human carrier is undoubtedly responsible for some epidemic disease in state hospitals. However, the carrier distributes disease in the same way as does the sick person; it is only by contact with the infectious discharges of the carrier that we are endangered.

The conditions in all psychiatric hospitals are such as to favor the dissemination of diseases that may be spread by contact-

infection. The patients spend the greater part of their time, closely associated with other patients, on a ward. Nor is the ward itself an isolated unit. In the kitchen, dining-room, amusement hall, sewing room, and elsewhere, the patients mingle with those from other wards. Moreover, visitors and attendants introduce into the wards infections which they have acquired outside the hospital. Again, it is necessary to utilize the help of patients in the ward work. Frequently, the same patient will, at one time, assist in performing toilet service for some unclean patient, and, at another time, help serve meals. Add to the foregoing statements the fact that we cannot improve the insanitary personal habits of some of our patients, and you have a fair account of the possibilities of contact-infection in hospitals for mental cases.

To prevent communicable diseases, it is not necessary to restrict the mingling of our patients nor to modify materially the normal routine of hospital life. It is necessary to detect and isolate promptly all infectious cases occurring on our wards.

Every state hospital should have special wards for contagious cases. The experience of the Ellis Island Hospital,<sup>9</sup> and that of Richardson<sup>10</sup> at the Providence, R. I., City Hospital have demonstrated the possibility of handling contagious diseases successfully even on the wards of a general hospital. However, it is certainly unwise to keep infectious cases on the general wards of a psychiatric hospital.

The contagious wards may safely be situated near the other hospital buildings. The construction of the wards may be similar to that of the general wards, the single rooms being used for individual contagious cases, and the day rooms for convalescents, or, perhaps, for suspicious contacts. Stokes,<sup>11</sup> of the Dermatologic Department of the Mayo Clinic, who has studied exhaustively the question of contagious hospital construction, advocates the single-room type of building. Ample facilities for sterilization should be provided.

A more important matter than the architecture of the contagious wards, is the rigid observance of a technic adequate to prevent cross-infections within the hospital. Every object removed from a sickroom must be regarded as infected until sterilized. No unsterile article may be taken from the room of one patient, or class of patients, to that of another. A separate gown, placed

near the entrance to each room, is put on when entering and removed upon leaving. The hands must invariably be disinfected upon leaving a room.

A two per cent emulsion of creolin can be recommended as an efficient, practical disinfectant for the hands.\* This emulsion is also useful for such purposes as cleaning bedsteads or washing out bathtubs. Allowed to act for one hour, it may be used to disinfect clothing, utensils taken from isolation rooms, and discharges. For the latter purpose, thorough incorporation of the excreta with the disinfectant is important. The disinfection of most of the articles used on contagious wards may also be accomplished by boiling, which is a much more certain method. Gowns and other linen may be sterilized by steam under pressure.

The attendants on the general wards are incompetent to nurse contagious cases. They lack training. Indeed, many of them do not expect to continue in hospital work, and, therefore do not care to learn how to nurse the sick. For the personnel of our contagious wards we must select a few reliable attendants, and teach them the principles of infection and of medical asepsis.

If we isolate, as we should, every infectious case, our contagious ward will seldom be empty. And, to be effective, isolation must be thorough. Neglect to isolate an occasional infectious case may mean the failure of our whole system of prophylaxis.

More urgent, perhaps, than the need for a contagious hospital, is that of providing pavilions for the tuberculous patients. The experience of the Georgia State Sanitarium<sup>13</sup> sufficiently emphasizes the value of such pavilions, not only as a means of segregating the tuberculous patients, but as an efficient therapeutic measure as well. Following the construction of pavilions at the Georgia institution, the mortality rate for tuberculosis fell, within three years, from 28 to 7½ per cent.

Since the prevention of communicable disease is so largely a personal matter, a few elementary hygienic facts ought to be universally known. As physicians, we should, whenever and wherever possible, aid in the diffusion of this knowledge. We should impress upon all of our attendants, and upon docile patients, such facts as the importance of keeping the fingers away from the mouth and nose, and of washing the hands before eating.

Reviewing, then, the question of a communicable disease control in psychiatric hospitals, it is obvious that a clear conception of

the epidemiology of these diseases is essential. In addition to this, the early and thorough isolation of infected patients, a properly trained personnel to nurse the infectious cases, and the encouragement of better personal hygiene, are the considerations which seem to be of most importance.

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## RECREATION FOR MENTAL CASES \*

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The original idea in the preparation of this paper was to arouse more general interest in the recreation provided for patients in hospitals for mental cases, but so close is the relation between recreation and occupation and so important is the latter, that it was found impossible to refrain from devoting considerable space to it.

No one who has had much experience in the treatment of mental cases will deny the beneficial effect of diversion of any sort. There may be some difference of opinion as to the most useful forms for different conditions, and also as to how extensively we shall put our beliefs into practice, but we all recognize the value.

It has been appreciated by some for many years. Dr. Mary Lawson Neff,<sup>1</sup> who long directed the occupations and amusements in the institutions in Massachusetts, is authority for the statement that, in describing a visit to York Retreat in 1798, Dr. Delarive, of Geneva, said: "As soon as the patients are well enough to be employed, they endeavor to make them work." He made special mention of basketry as among the occupations engaged in. Dr. Wyman<sup>2</sup> was the first superintendent of McLean Hospital (1818-50). He paid great attention to recreation. The following is a quotation from him: "In mental diseases, where there are no symptoms of organic disease, a judicious moral management is most successful. It should engage the mind and exercise the body, as in riding, walking, sewing, embroidery, bowling, gardening and the mechanical arts, to which may be added reading, writing, conversation, etc." Dr. Amariah Brigham, while at Hartford Retreat, and later as superintendent of the State Hospital at Utica, N. Y., went much further and recommended many

\* Read at the Thirty-Seventh Semi-Annual Meeting of the Association of Trustees and Medical Superintendents of the State and Incorporated Hospitals for the Insane and Feeble Minded of Pennsylvania, Harrisburg, May 6, 1921.

<sup>1</sup> Medical Record, Dec. 3, 1910.

<sup>2</sup> Institutional Care of the Insane in the United States and Canada.

industries, as well as museums and schools, where, in addition to simpler branches, history, philosophy and the natural sciences could be studied.

These views were in advance of the times, and we have not yet caught up to some of them. Schools seem to have been quite common at one time, but the writer has been unable to learn of any in existence at the present time, except in hospitals for feeble-minded. A few years ago one was started at Massillon, Ohio, but it was later discontinued.

I think that we may say, with truth, that almost any form of occupation may rightly be considered recreation for men and women who would otherwise have nothing to do, or who would have no inclination to do what lies at their hand; but this paper will consider mainly those occupations which are undertaken for the express purpose of furnishing diversion or recreation for minds that need it.

It is, I think, the consensus of opinion that the object of all forms of recreation should not be, primarily, to enable the patient to pass the time more pleasantly, though that is very desirable, for the play instinct has been neglected in so many lives, with more or less injurious effect. But the main object of recreation is to divert the mind of the patient from any morbid thoughts or feelings into more healthful channels, so that his life, as a whole, may be influenced beneficially; and he may be rendered a better patient in every way, to the end that he may be restored to his former place in life, a self-respecting, self-supporting citizen.

I have mentioned thoughts and feelings. It might be well, at this point, to include habits and ideals; habits of thought and feeling, and not only habits but ideals of cleanliness, industry and efficiency. It has been stated that the degeneration of patients into the filthy, destructive stage is due entirely to habit deterioration, and Dr. W. A. Bryan,<sup>9</sup> of Danvers, states that, if this be true, the correct principles of treatment are obvious: first, by means of training, to prevent the formation of vicious habits before they become fixed, and secondly, to form new and better habits in those who have already sunk to this low mental level. I think that most of us will agree that habits have a strong influence upon mental

<sup>9</sup> American Journal of Insanity, July, 1920. p. 999.

health, and that our main aim in treatment is to influence the habits of the individual.

As Dr. Bryan has so well brought out, there are in each individual, more or less developed, certain instincts, which act as motives and forces impelling to thought and action. If we are able to discover in a patient the instincts which are most active, and are able to encourage the good ones and to discourage the undesirable ones, we shall get good results. Dr. Bryan mentions the instincts of play, imitation, acquisitiveness and constructiveness, affection, sympathy, self-assertion, curiosity, rivalry, pugnacity in certain cases, and occasionally the sex instincts as expressed in modesty and vanity. Pride may also be useful in connection with competition and rivalry, and fear—the fear of social disapproval. These instincts exist, as we all know, and we can depend upon them, as we endeavor to influence the habits and ideals of our patients, whether in actual practice we think much about them or not.

The forms of recreation may be said to fall roughly into two classes, those in which there is a necessity for some effort on the part of the patient, some degree of initiative, some attempt to control and to fix the attention, and to persevere in the thing undertaken, whether it be in playing a simple game or in making a broom; and those in which none of these efforts are required, such as in watching a base-ball game or a minstrel show or in listening to a victrola.

The first of these classes, those requiring effort, are undoubtedly of much greater value than the latter, because they do require effort and so have a greater influence in arousing and stimulating the mental faculties of the patient. They may be again divided into those activities in which there is no end-product from a utilitarian standpoint, except physical health, such as in all games and exercises, and those in which something definite has been accomplished, something of value, which tends to increase the patient's self-respect, by making him feel that he is of some use in the world.

All forms of entertainment, though requiring no effort, have their place and are also of value. For one reason, because they may be made to reach, in one form or another, practically all the patients in the hospital, and with the least expenditure of effort on our part. They brighten the outlook of all patients. But the

faithful workers, who do so much of the necessary work about a hospital, call for all the brightness that we can bring to them. Some of them will remain in hospitals all their lives, many performing more or less monotonous work, and they all deserve that much thought shall be given to relieving the monotony of their work and to making their lives as enjoyable as possible.

Practically all hospitals show moving pictures regularly, and they are generally helpful, provided the right sort of pictures are exhibited, and not those showing murders, marital infidelity and other objectionable features. Probably the comic pictures are most generally helpful, for they certainly tend to dispel gloomy thoughts, and to replace them with others of a character tending to arouse interest and to provoke mirth. The artistic and educational pictures are also helpful.

The next most generally adopted forms of recreation are the baseball game in summer and the dance in winter, and they are both helpful; the baseball game, because so many can be led to take an interest in it, even many who know little about the game, and the dance, because it tends to overcome the lack of initiative and the anti-social tendency.

Many who cannot or will not attend a dance, movie or other entertainment, may be reached on the wards by victrolas or music in other forms.

The usual games are helpful, such as cards, checkers, pool, billiards and croquet, but they so often reach only a comparative few.

Reading is also helpful, but it needs to be under some supervision, for some patients are disturbed by certain classes of books, and much encouragement is necessary to induce many patients to read books at all. An intelligent librarian may do much to develop a taste for a better class of literature than would be selected if the unguided choice of the patient was alone consulted. Dr. Dunton, of The Sheppard and Enoch Pratt Hospital, places the establishment of a library under a competent librarian as the first step in arranging for any system of occupational therapy.

I have spoken, so far, only of the things which are more or less usual in hospitals for mental cases, things which call for little effort on our part and entail only moderate expense, but on the other hand they fail to effect, to any great extent, a large part of our population. We have not yet provided for the idle class, the



unsociable, the dirty and destructive, the demented and those who are becoming so. If the theory of habit deterioration is correct, and experience seems to support that view, we will do well to work along that line, and this is being done in many places.

Two distinct lines are being followed, that of physical exercises and games under a physical director or physical therapist, and of occupation under an occupational or vocational teacher. Each line of endeavor has its advantage.

In hospitals which have physical directors, patients are given calisthenic drills or simple exercises, are taught folk dances and play games. In this way patients may be reached in large numbers, and not only their health be improved, but their mental faculties may be aroused and many may be induced to engage in some occupation, who might not otherwise have done so.

As Dr. Russell<sup>4</sup> of Bloomingdale has put it: "Calisthenics and games furnish exercises in attention and in precise, purposeful action. They divert the mind from unwholesome, solitary pre-occupation, break-down inhibitory influences and aid in establishing capacity for social adjustments. Frequently in the treatment of a patient, they serve as an approach and a preliminary training to more productive occupation."

It is considered that the instinct of play is the most useful of all instincts in reaching patients, because of the sensation of pleasure which accompanies all games, and because of the stimulating effect and the instinct of rivalry which is called upon. Outdoor games are especially helpful, because of the benefit and enjoyment to be derived from the fresh air and sunshine.

At the Chicago State Hospital, two years ago, an average of four hundred and fifty patients attended calisthenic classes daily and Dr. Read reported that 54 male patients from a ward of idlers were so improved, after a month of this work, as to warrant their being placed upon detail work about the grounds.

In some hospitals games and music are used to break the monotony of occupation and to avoid tiring the patients.

As far as the writer has been able to learn, calisthenics and games have not yet been much developed as therapeutic agents in Pennsylvania, but some hospitals are taking them up. Judging

<sup>4</sup>Society of the New York Hospital, General Bulletin, Dec. 24, 1915.

from the testimony of many who have employed them, they are worthy of careful thought.

What is probably the most useful therapeutic measure, that we have, has purposely been left until last—that of the industries and the arts and crafts. Patients of all classes may be cheered and benefited by entertainments of all sorts and by games. Many may be helped by calisthenics and directed games, but we have not yet accomplished the greatest good, until we have our patients at some occupation more or less useful. It is generally conceded that much benefit is derived, much comfort of mind secured from the knowledge that one has performed a useful piece of work or has made something useful or beautiful. Workrooms are therefore most necessary in which as great a variety of occupations as possible may be engaged in; not only to suit the different capacities of the patients, but to insure that something may be found to interest each patient, and that no one may be compelled to work too long on one thing and so lose interest in it. Occupation rooms such as these can only be managed efficiently by trained teachers and only by those trained teachers who have an aptitude for the work. A few years ago, a six weeks course was considered a fairly good preparation for such work. Now some of the courses have been lengthened to a year, and in one hospital the teacher is paid more than the physician. That shows the growing appreciation for this work.

Some patients do not need this sort of employment at all, but might be decidedly injured by being asked to take up many of the arts and crafts, being depressed by the thought that they were considered only fit for such simple work. They are much more benefited by being placed at once at fairly strenuous work.

Others require much individual attention and often much experimentation to discover the occupation which will interest them. Much habit training is also often necessary before they are fitted to do the regular work of the hospital.

Almost all classes of patients can be helped. Some will do nothing at all at first, but are allowed to sit and watch the others work, when after a time, due to the instinct of imitation, they gradually get into the work. Some may be induced to do only the simplest things, such as sorting colors, working with burlap, preparing carpet rags, winding reed in preparation for making

baskets or sand-papering the parts for wooden toys. Bright pieces of silks and wools, the brighter the better, may be obtained from mills at little expense, and one can easily see that some patients, who might not be induced to do other things, would be interested in sorting the bright colors. One patient at Chicago was quite unresponsive, and sat for days before the goods to be sorted but would do nothing, though urged to do so each day. Finally it was noticed that, when the instructor was not around, she began to work with the colors, and she developed into an expert and willing sorter. These goods, when sorted, are used by other patients in weaving and for other work. Burlap may be obtained from the store-room of any hospital, coming as it does about many of the stores. It is sent to the laundry and washed and is then given to the patients to unravel. The destructive tendencies of some patients may thus be diverted into useful channels. Many of them are constantly unraveling socks and towels and anything that they can get hold of, and may be put to unraveling burlap. Other patients may be induced to tie the pieces together and to wind them into skeins, which are then dyed and then wound into balls for weaving. Miss Emily Haines, Supervisor of Industries of the State Board of Insanity of Massachusetts, cites the case of a woman who had sat for 20 years with her hands to her head and who would do nothing. She was induced to unravel burlap and to knot and wind it. Now she is not satisfied until each morning the nurse has given her her work and she sits, a picture of contentment, with a chair in front of her, upon which she winds her skein.

One of the simplest occupations is the tearing of rags for carpets, sewing them and rolling them into balls. This, too, is useful for the destructive patient. The sorting and stringing of colored beads appeals to some, and to others the outlining in colors of simple patterns on muslin or linen blocks for quilts. As the patient becomes more proficient, more complicated designs are given.

More advanced cases, those sometimes spoken of as Class B, may be interested in raffia and reed baskets, in the simple forms of weaving, in wood-work and in crocheting and knitting. Men are taught to do what is called "rake knitting," which, though a mechanical process, enables them to make beautiful scarfs.

For the wood-work, the store-room is again called on for all the cast-off boxes, and it is surprising what can be made from such

material. Much ingenuity is called for on the part of the teacher to keep designing new novelties and toys and so keep up the interest. In this work some can saw and some can paint, but even the most demented can sand-paper and so feel that they are having a part in the work, and quite attractive toys are produced even by this class of patients.

By the more advanced patients, those sometimes called Class A, beautiful work is done. Weaving of the finer and more complicated type produces curtains, toweling, scarfs and hand-bags. Rag rugs are made with patterns and color schemes. The blocks, previously mentioned, are made into quilts. More complicated knitting is done, such as sweaters. At Allentown beautiful lampshades are designed out of wood. In many hospitals furniture is repaired, and in some places furniture is made.

At the Sheppard and Enoch Pratt Hospital the women are taught to do simple repairing to furniture, with the idea of inculcating in them the desire to keep the furniture in their homes in good condition.

There are many other occupations which may be added, as the work advances, such as work in cement, leather and metal, and in printing, book-binding, decorative painting, etc. It is quite doubtful, however, whether much will be gained in most state hospitals by starting some of these occupations, because of the very few who would be interested in them, and because of the manifest uselessness, in a very great majority of cases, of the knowledge and skill gained, to the individual in his or her after life, provided, as we hope, they are returned home. Undoubtedly our first aim is to restore our patient to mental health, so that we are in search, at first, of any occupation which will be taken up with interest, but we are certainly interested in preparing our patient, as much as possible, for life at home. Will we not do well, then, in outlining our courses in occupation, and in advancing each individual patient, to give much thought to securing for each one, sooner or later, knowledge and skill in some occupation which will render the individual's life more efficient at home or, as is often just as important, will furnish a much needed diversion through life.

While the object of occupation, as has been said, is not primarily the production of objects of value, but to discover something which will interest and occupy the mind of the patient, with a view

to helping him mentally and physically; and while great care should be exercised not to discourage anyone from working because the object made is crude and of no value, yet it is interesting to see how their ideals of efficiency and perfection develop under careful training, and the excellent work many of them do. It is also interesting to know that it is the experience of those who have occupation rooms well developed that practically all the products of such rooms, some of them quite crude, may be sold, and that the income provides for all materials used.

I have endeavored throughout this paper to emphasize the benefit to the patient, but I am afraid that it has been done very imperfectly. It is difficult in such matters to speak at all definitely as to results. All appreciate the beneficial effects, but few venture to give any statistics. It is generally conceded, however, that patients are more contented when occupied. They are less destructive. They deteriorate less rapidly, and, in the so-called "curable" cases convalescence is hastened.

The general effect of any study of this subject is to impress upon the mind more clearly than ever the fact that if we wish to do our duty by our patients, it is just as necessary that we shall provide recreation for them, as that we shall provide food and clothing; and the time is coming, if it is not already here, when any hospital that does not provide for games, and for a fairly systematic, progressive, course of instruction in occupation, under trained teachers, will be considered derelict in its duty.



## Notes and Comment.

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**THE SEVENTY-SEVENTH ANNUAL MEETING.**—The meeting in Boston on the last day of May and the 1st, 2d and 3d of June was one of the best attended, with the most sustained interest which the Association has held.

The Committee of Arrangements provided for the comfort and entertainment of the members of the Association and its guests in a manner which deserves much commendation. Its members were most assiduous in seeing that the time was spent to the best advantage by everyone who chose to follow out the program. The hall provided for the meeting place left little to be desired, there were few distractions from outside noises, the ventilation was good and the acoustics were as perfect as could be expected.

The program committee furnished a most excellent selection of addresses and papers and these were so well grouped that the discussions and general interests were well sustained throughout.

The presence of representatives from our fellow associations of Great Britain and France, in the persons of Dr. Rows and Professor Janet, each of whom read papers, added very much to the interest of the occasion and suggested the possibility of future conjoint meetings of the psychiatrists of this country and those so well represented by our visitors.

The address of the retiring President, Dr. Copp, as would be expected, struck a keynote. He outlined a program for future progress in psychiatry which if put into practical application, will be of immeasurable value to the world. The address which appears in this issue of the *JOURNAL* deserves careful reading and will well repay serious study.

The adoption, unanimously, on the second day of the session of the amendments to the Constitution and By-Laws presented last year was an epoch marking event in the history of the Association.

The chief change in the Constitution was that involving a change of name. The Association is no longer to be known as The American Medico-Psychological Association, but becomes The American Psychiatric Association and enters upon the first year of existence under its new title with over 1000 members.

Organized in 1844, with thirteen members, as the Association of Medical Superintendents of American Institutions for the Insane; it had an active and most useful career until 1892 when a new Constitution was adopted and the name changed to The American Medico-Psychological Association. At the same time it became less exclusive as to its membership, and assistant physicians of institutions for mental cases were received as associate members. Physicians of known reputation, engaged in psychiatric practice outside of institutions were also made eligible for membership.

With these changes the Association took on renewed and increased activity.

For a long time, prior to the change, its meetings had ceased to be conferences for exchange of views on hospital management and construction or upon matters relating to the public care of the insane. Papers of real scientific value had appeared in increasing numbers in its proceedings, but it was looked upon by many as a close corporation with limited influence or value.

Its history, however, is one of which one may be proud. It did more than any other force to arouse public interest and instruct the public through legislatures and other organized bodies in the needs of the insane in the community and to provide suitable care for these, when such care was, above all other things of paramount importance.

There were a few whose captious criticism, uninformed by any real attempt to grasp the problems which confronted the members of the Association and unenlightened by any vision of their work or of the obstacles which they had to overcome, for a time caught professional and public attention, but had little or no effect upon the minds of those who had studied the situation.

The period covered by the first forty years of the Association's history has been called that of "humanitarianism and empirical treatment."

Surely the first word bears with it no condemnation—and as to the second—the teachings of even our best medical schools and the work of general hospitals had scarcely emerged from empiricism when, in 1892, the Association took on new life and activity, under a new name.



And now after more than a quarter of a century another name has been adopted "The American Psychiatric Association." The history of the Association since 1844, the character of its work, the men who have been attracted to its ranks, the respectful attention given its promulgations, all argue well for the still further glory which awaits it under the new order and the new name. The meeting in Boston combined in one occasion the closing days under the old name and the opening of the new era under the new one; and the character of that meeting also promises well for the future.

**THE AMERICAN JOURNAL OF PSYCHIATRY.**—Under this title will henceforth appear the quarterly journal known since 1844 as **THE AMERICAN JOURNAL OF INSANITY.**

From July 1844 until 1894 the **JOURNAL** was published and edited at the State Hospital at Utica, N. Y. The editorial work was done by the medical staff of the hospital, and the **JOURNAL** soon took a place among the recognized publications devoted to mental disorders in the world. There are to-day in the field of psychiatry but two periodicals which antedate it and they, by but a few months.

In 1894 the American Medico-Psychological Association purchased the **JOURNAL** from the managers of the State Hospital at Utica and it has since been published under the auspices of the Association and has been its official organ, conducted by an editorial board, appointed by the council.

The proceedings of the annual sessions of the Association have regularly appeared in its pages and the majority of the papers presented at these sessions.

Under the management of the Association and of the Johns Hopkins Press which has been the publishers for several years the circulation and influence of the **JOURNAL** have increased, and from being a liability on the books of the Association in 1894, it has become in 1921 a valuable asset. In addition to the papers read at the annual meetings there has always been an ample supply of other material offered the editors for publication.

With the change in the name of the Association it was deemed best to make a similar one in the name of its official organ.

This change of name does not imply any change in the character of the publication except in so far as its editorial board may be able to continue the progress which has characterized the JOURNAL in the past.

To that end its members promise their best, and to that end they appeal for the support and cooperation not only of every member of The American Psychiatric Association, but of every one interested in the advance of psychiatric medicine in America.

FRENCH LEAGUE OF MENTAL HYGIENE AND PROPHYLAXIS.— We have received from Dr. Antheaume, editor of *L'Encéphale* and *L'Informateur des Aliénistes et Neurologistes* the announcement of the formation in France of a league devoted to mental hygiene, "Ligue Française de Prophylaxie et d'Hygiène Mentales."

In 1920 the Ministry of General and Social Hygiene established a Committee of Mental Hygiene. In order to give greater efficiency to this official committee, the league above mentioned was organized upon the suggestion of Dr. Edouard Toulouse, an honorary member of our association, who became president of the league.

The League has the same aims as the National Committee for Mental Hygiene of this country, the work of which is so well known. We trust that it will receive in France the same hearty support and recognition that has been accorded its sister organization in America.

The League proposes to study all questions bearing upon the prevention of mental maladies, and the conservation of the mental equilibrium of individuals and communities.

It desires to improve the methods of treatment of mental disorders; to promote voluntary admissions to institutions, both public and private, and to that end has already conferred with the public authorities.

The care and training of abnormal children will also occupy the attention of the League, and already a communication has been addressed to the public authorities relative to a better application of the law of April 15, 1909, which looks to the creation of special educational facilities for abnormal persons, which law has up to the present been enforced in a most desultory manner.

The active members of the League are recruited not only from the medical profession, but from all persons interested in social progress, magistrates, educators, members of the bar, manufacturers, public officials, officers of the army and navy, in short from all whose interests or work are touched by the work of the League.

The League desires to enter into fraternal relations with similar organizations, and to acquire groups of foreign correspondents. It believes, and correctly, that its work is one which is not alone of national but of international importance.

Correspondence should be addressed to Dr. Genil-Perrin, Secrétaire de la Ligue de Prophylaxie et d'Hygiène Mentales, 99 Avenue de la Bourdonnais, Paris, 7<sup>e</sup>me., France.

**THE CELEBRATION AT BLOOMINGDALE—THE LABORATORY DEDICATION AT UTICA.**—Two important events of psychiatric interest are recorded elsewhere in these pages.

Through the courtesy of Dr. William L. Russell, medical superintendent of the Bloomingdale Hospital, and the kind co-operation of Dr. Karl M. Bowman, assistant physician, we are able to present an account of the Bloomingdale celebration, with an abstract of the papers and addresses which formed a part of the program. We hope to be able to publish in the October JOURNAL a more extensive account of the dedication of the George Alder Blumer Laboratory at the Utica State Hospital than we are able to present at this time.

Bloomingdale has had a long active and most useful career. It starts upon its second century of existence as a separate department of the New York Hospital under the most favorable auspices. Under its present medical director it has taken on new life and increased vigor, and has assumed a position characterized by most efficient clinical and scientific work.

Its parent institution, the New York Hospital, of which it is the department for mental and nervous disorders, points with pride to its Royal Charter, granted in June, 1771, and its many years of efficient and noteworthy service to the sick and injured.

The foundation stones of the hospital were laid in 1773, and in 1775 the nearly completed building was seriously damaged by fire. The War of the Revolution followed, the buildings were

occupied by the British, and not until 1791 was the hospital opened for patients.

In the following year the governor directed the admission of the first mental case, and thereafter until 1808 these patients were treated in the general hospital building, in most instances in special apartments in the basement. In 1808 a separate building was erected, at a cost of \$56,000, adjoining the hospital, and called the "Lunatic Asylum," and here until 1821 all mental cases were treated.

It is undoubtedly due to the philanthropic efforts of Thomas Eddy, a member of the Society of Friends, and a governor of the hospital that the first Bloomingdale Asylum was built. Thomas Eddy's long-forgotten communication to the Governors of the New York Hospital, on April 4, 1815, was brought to light by Dr. Russell four years ago, and through his courtesy, we were able to reproduce it in the *JOURNAL* for January, 1917. Mr. Eddy's communication affords most interesting reading, and gives a picture in miniature of the views held at his time regarding mental disorders and their treatment. He gained much in support of his argument from the writings and experience of Samuel Tuke, of the York Retreat, in England; and says that his mind was "considerably enlightened by perusing the writings of Doctors Creighton, Arnold and Rush."

He proposed that grounds of not less than ten acres in extent be purchased by the governors, conveniently situated within a few miles of the city; that a substantial building be erected to accommodate fifty patients, the grounds to be embellished with walks and gardens for the exercise and amusement of the patients.

This communication was presented in April, 1815, referred to a committee, and on July 3 the committee reported in favor of the project; whereupon the governors appointed Thomas Eddy, John A. Murray and John Aspinwall to be a committee to look for a suitable spot of land and make a purchase thereof, if, in their opinion, it appeared necessary.

On August 1 the committee reported that "Another building for the use of those unfortunate persons who have lost the use of their reason is not only advisable but seems to be absolutely necessary." It also reported that it had purchased at Bloomingdale part of the estate of Gerard Depeyster, thirty-eight acres in

extent, subsequently increased to seventy-seven. A smaller lot of ground, the committee said, might suffice, but it counted it "advisable to prepare for a period that must certainly come; a period in which such a lot will be needed and not easily obtained."

It will be seen that these early governors of the New York Hospital were men of vision; but this was not their sole characteristic, they were men of action. Less than four months had passed since Thomas Eddy's communication had been received urging the removal of the insane to a new location, separate from the general hospital, with grounds and walks and gardens, and the grounds were purchased, the site prepared, and plans were being discussed, not only for the erection of the buildings necessary, but for the conduct of the new institution, and an improved method of care and treatment.

The student of psychiatry who ignores the past, who fails to inform himself of the ideals which actuated the men of the early days in the long struggle which has brought us to our present era, who does not inform himself concerning the problems which confronted them and the methods which they devised in their solution, misses much which would serve to enlarge his mental horizon, which would elevate his mental standards and stimulate his intellectual growth.

Such celebrations as that at Bloomingdale in May last, are therefore to be welcomed as among the best methods of calling attention to these things, too often neglected and forgotten in our every-day toil and moil. May we have more occasions such as the one so well arranged and carried out by Dr. Russell and the Board of Governors of the New York Hospital.

The dedication at Utica of a laboratory named in honor of Doctor George Alder Blumer was an event, which though different in character and purpose, deserves to rank with the celebration at Bloomingdale.

It was at Utica, under the late Dr. John P. Gray, that the first definite attempt in any institution for the insane in this country, at laboratory work and pathological investigation was made.

First in 1868 by Dr. Hun, then by the late Dr. Walter Kempster, and for some years by Theodore Deecke, more or less systematic pathological work was carried on. Unfortunately in most

instances there was no collaboration between the clinical workers in the wards and the studies in the laboratory, and not much of real worth resulted.

The institution at Utica had long held a high rank among similar institutions throughout the country.

Dr. Gray demanded of his staff the best that was in them in the way of medical work. His assistants were selected from men who had received previous general hospital training, and solely because of their presumed qualifications for intelligent medical work.

The results of this broad-minded policy on the part of Dr. Gray were soon manifest in the rapid promotion of his assistants to positions of responsibility in other institutions. It has been said, and with truth, that more medical superintendents of other hospitals were trained at Utica than in any other three institutions in the country.

Of the men who went out from Utica none has been more worthy of the honors which have come to him than Dr. George Alder Blumer.

He came to Utica in 1880 as fourth assistant physician. By reason of changes in the staff incident to the promotion of the late Dr. J. B. Andrews to the directorship of the Buffalo Asylum, and the resignation of others, he was, in December, 1884, the senior assistant.

In 1886, upon the death of Dr. Gray, he became medical superintendent, which position he held until called to the charge of the Butler Hospital, Providence, R. I., in 1899.

At Utica, he was a member of the staff of this JOURNAL, and its editor-in-chief from 1886 till 1894, and he again became a member of the editorial staff soon after it became the property and organ of The American Medico-Psychological Association.

Of his work at Utica an editorial in the *Utica Daily Press* of June 6, 1921, written, we suspect, by Mr. George E. Dunham, president of the Board of Managers of the Utica State Hospital, and editor of the *Press*, speaks in glowing terms. We extract the following from the editorial:

It was a very handsome and richly deserved compliment and tribute paid to Dr. G. Alder Blumer at the State Hospital Saturday when the fine new research laboratory was named and dedicated in his honor. It

is now more than four decades ago that he came, a studious youth, to that institution to accept the lowest place on its staff of physicians. By doing faithful, conscientious work he earned and gained promotion and following the death of Dr. John P. Gray was made its superintendent. He was still a young man at that time but had the knowledge and the initiative, the character and the executive ability to make a splendid success of his administration. He was not long in introducing innovations in the service, which at first opposed or looked at askance, proved their undisputed value and have become established as the correct procedure not only in this hospital but everywhere. In those days superintendents and managers had much more latitude and responsibility than now and the young man's administration met every requirement, was enlightened and always progressive.

\* \* \*

When at his order all physical restraint was abandoned at this "lunatic asylum" as it was then called, it was a step so far in advance that even the experts of those times in psychiatry viewed it with alarm and said it was taking an unwise and unwarranted hazard. The opposite proved to be the fact and there came more quiet, more comfort and more recoveries on the wards. In due course other institutions followed this example with salutary results. Suggestion from the same source changed the name from one which struck fear to those who read or heard it to "The Utica Hospital" and again there was very hearty approval and general adoption.

\* \* \*

Many instances and occasions might be cited by those who know the facts to show not only that Dr. Blumer had exceptional fitness for the work to which he dedicated his life but as well to prove that he made exceedingly valuable contributions to the science which aims at doing the best possible for those mentally unbalanced. The advances made by him at Utica have had unlimited influence and changed the whole course of practice and procedure in institutions of this class. He was counted by the cautious as ahead of his time, but the times, appreciating his judgment, made haste to catch up with and follow in his footsteps.

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There is no professional or personal honor too high to be conferred upon a man of this splendid achievement. Dr. R. H. Hutchings, himself a distinguished alienist, and now superintendent at Utica, appreciating this accomplishment, suggested the propriety of naming the new, commodious and modernly equipped building now ready for occupancy, "The Dr. George Alder Blumer Research Laboratory," and the managers were unanimous in approval. It is a handsome honor worthily bestowed. It is fitting that this monument to the memory of what he did for the science to which he has all his life been devoted should be at the institution where he was first a superintendent with the authority to put into practice the theories in which he had faith.

At the Butler Hospital Dr. Blumer under wholly different conditions and surroundings maintained the reputation won at Utica and very measurably added thereto.

The editorial from which we have quoted speaks of days when "superintendents and managers had more latitude than now."

Dr. Blumer has never been a time-server, and when centralized authority interfered with freedom of action, and put its ban upon initiative he, at no small risk, was outspoken and resistant to what he and others considered bureaucratic despotism. Even those who opposed and sought to repress him, could but admire, we believe, his persistent protests and opposition, which were always in the open, and always devoid of intrigue.

The bronze tablet in the entrance hall of the laboratory commemorates Dr. Blumer's services at Utica, referring to him as one "whose wisdom, foresight and humanity contributed to the advancement of his profession, to the sum of human happiness, and to the dignity of life." What better encomium could a man desire or receive. To have added to the sum of human happiness to the dignity of life, surely meets the most worthy ambition.

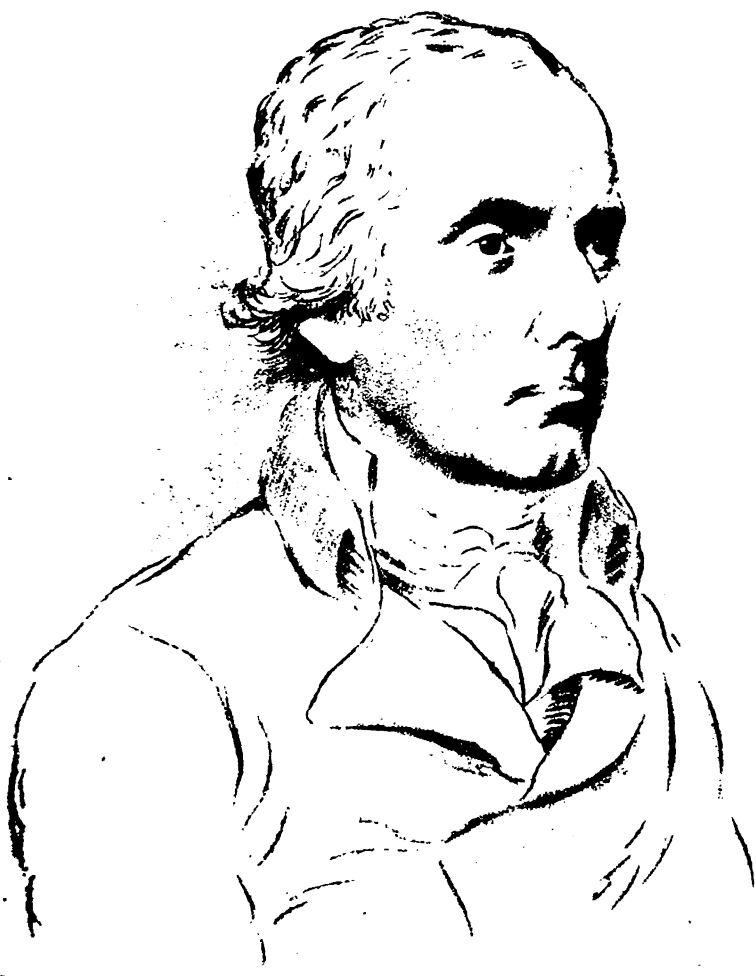
In addition Dr. Blumer has attracted to himself "love, obedience, troops of friends." May he live long to enjoy the honors which have come to him. We can be certain, however, that his days will not be spent in contemplation over these, but in still further effort for his profession and for humanity.

**A PORTRAIT OF BENJAMIN RUSH.**—Through the kindness of Dr. Lloyd P. Shippen, of Washington, D. C., who owns the original, we are able to reproduce for the readers of the JOURNAL a little known, and we believe very excellent portrait of Doctor Benjamin Rush, the first American psychiatrist.

Of William Haines, the engraver of this portrait, Stauffer (American Engravers upon Copper and Steel. The Grolier Club of the City of New York: 1907) says:

This excellent engraver of portraits, etc., in the stipple manner came from England to Philadelphia in 1802. He opened a studio at 178 Spruce St., and advertised that he painted portraits in water colors in a style entirely new in the United States"; and work of this description seen by the writer proves that Haines was a master of this branch of his art. He produced a number of good portrait plates for American publishers and he also drew for other engravers.





*Painted by E. Bouverie; Engraved by M. Hunter.*

*Benjamin Rush, M.D.  
Professor of Medicine,  
in the  
University of Pennsylvania.*



Haines returned to England about 1809, as his name disappears from the Philadelphia Directory in 1810; and a subject plate engraved by W. Haines was published in London in 1809. He was working in London some years later than this.

Among the portraits engraved and published by Haines, in addition to the one reproduced in these pages of Benjamin Rush, were portraits of Drs. Caspar Wistar, Benjamin Smith Barton and William Shippen, Jr., all professors in the medical school of the University of Pennsylvania.

It is probable that the portrait here reproduced was given by Benjamin Rush to his friend and colleague, William Shippen, Jr., from whom it came to his descendant Dr. Lloyd P. Shippen, in exchange for the portrait of Shippen, engraved by Haines, which is the only one of the four bearing a date, 1805, which fixes approximately the date of the Rush portrait.

**A NEW DEPARTMENT IN THE JOURNAL.**—In order that the JOURNAL may be in a greater degree the medium for transmitting to our readers news relating to the Association and to hospitals we have instituted a department headed Association and Hospital Notes and News.

Through this department, the Secretary of The American Psychiatric Association will transmit information concerning the Association to its members, all of whom in the future will receive the JOURNAL, and it will be used also, we hope, by other officers of the organization as a medium of communication. Its pages will also be open to all members who may have information to transmit of interest to their fellow members.

It is hoped that medical officers of hospitals for mental disorders throughout the country will keep us and their co-workers in touch with their work by supplying us with news items.

For a long time the JOURNAL maintained the Half-Yearly Summary, which was intended to be a clearing house of institutional news. For some time, and particularly during the World War, we found it extremely difficult to obtain items of news, and reluctantly the Half-Yearly Summary was discontinued. Now that assistant physicians have returned from army work, and the stress of double duty has in a large measure been relieved, we trust that

we shall be encouraged in this new departure by a regular receipt of interesting news items.

The publication of the list of appointments and resignations will be continued as in the past. It is important, as noted elsewhere, that this list shall be as correct as possible, both for the information of the secretary of the Association, and our own.

## Association and Hospital Notes and News.

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THE MEETING OF THE ASSOCIATION IN BOSTON.—Several things of importance in the history of the Association, and to its future occurred at the seventy-seventh annual meeting in Boston.

The amended constitution changes the name to The American Psychiatric Association, a change which appeared to meet with general favor.

The Secretary-Treasurer's annual report revealed the fact that when the volume of *Transactions* for the meeting last year was published, there would be a deficit of several hundred dollars in the Treasury, unless the dues were materially increased. Since 1892 active members have paid five dollars per annum and associate members two dollars. To each member the annual volume of *Transactions* has been sent. With increased cost of paper and printing the cost of the publication of these volumes has steadily risen, while the receipts from dues, notwithstanding the steadily increasing membership, has not kept pace with the growing expenditures.

For three or more years the cost of the volume sent associate members has been more than the dues received. Each volume for 1919 cost over 50 per cent more for each associate member than he paid in dues, and more than 60 per cent of the amount received from each active member.

It will readily be seen that this was bad financing but no one could be held accountable, least of all the indefatigable Secretary-Treasurer, who could only collect such sums from members as was directed by the Council, and who was expected to promptly meet all bills presented.

There have been many members of the Association who have long felt that the publication of an annual volume was unnecessary. The JOURNAL has always promptly published the proceedings of each annual meeting, and, the majority of the papers read at the various sessions. It has been since 1894 the property and official organ of the Association, and should be in the hands of every member.

After due deliberation the Council recommended to the Association that the dues for 1921-22 be made seven dollars for active, and four dollars for associate members; that the volume of *Transactions* for the meeting at Cleveland in 1920 be published, and that thereafter no further volume of *Transactions* be issued. To supply the members with the proceedings, papers and discussions, it was the recommendation of the Council that the JOURNAL, commencing with the July 1921 issue be hereafter sent to each member of the Association, a certain specific portion of the dues of members, being paid to the publishers of the JOURNAL for each member receiving the JOURNAL.

These recommendations of the Council were adopted without a dissenting vote.

Every member of the Association will, therefore, in the future be on the subscription list of the JOURNAL. No bills for subscriptions, however, will be sent out. When he pays his dues, his subscription is automatically credited to him, and turned over to the JOURNAL publishers.

It will be seen by every member that two things are essential on his part to make this plan work smoothly and successfully. These are prompt payment of his dues and the immediate notification of the Secretary of any error in his address, or of any change thereof so that there be no delay in the receipt of the JOURNAL. The JOURNAL, under its new name THE AMERICAN JOURNAL OF PSYCHIATRY, is now brought in close relation with every member of the Association. Each one has a vested interest in the publication and should do everything in his power to advance its interests. A certain proportion of the members of the Association have been subscribers to the JOURNAL. Some of these have paid their subscriptions in advance. A list of all such payments has been furnished the Secretary-Treasurer. Every member who has paid his subscription will receive a credit therefor on his bill for dues when sent out.

As prices approach a normal level we can confidently predict that the cost of publishing the JOURNAL will decrease and with the decrease there will occur a corresponding decrease in the dues of members. At the present rate for dues, with the sum set aside for payment of subscription to the JOURNAL there is no publication covering a special field in medicine, which is placed in the hands

of subscribers at as low a rate, or which furnishes a larger amount of reading matter.

The roll of membership as corrected to the date of the annual meeting contains 987 members. The new members elected at the Boston meeting bring the membership well beyond a thousand.

It has been a custom for years to promote the Vice-President to the presidency, but the nominating committee this year received a positive intimation from Dr. Sanger Brown, who was elected Vice-President in 1920, that the condition of his health would prevent his acceptance of the office of President, if elected.

Dr. Brown's many friends in the Association regretted this decision on his part and particularly the cause which made such a decision necessary. They were happy to welcome him at the meeting and earnestly hope that his health will rapidly improve. The nominating committee met the situation which confronted it in an excellent manner.

Dr. Albert M. Barrett of Ann Arbor, Mich., was nominated for President, Dr. Henry W. Mitchell, of Warren, Pa., who has so well served the Association as Secretary, for Vice-President and Dr. C. Floyd Haviland of Middletown, Conn., for Secretary-Treasurer. These nominations were unanimously confirmed by the Association.

This issue of the JOURNAL contains Dr. Copp's address as President and the paper of Dr. Schichi Uyematsu, with the discussion thereof read on the evening of the first day's session.

The ladies who accompanied their husbands to the meeting were most hospitably entertained, every arrangement for their comfort and pleasure having been made by the committee of arrangements, aided by an auxiliary committee of ladies from Boston and vicinity. They were anxious that some formal acknowledgment of their appreciation of the many courtesies extended to them should be made to the committee and to the ladies who assisted it, which we have promised to do for them, and which we take this occasion to express.

**THE CELEBRATION AT BLOOMINGDALE.**—The following is an account of the celebration of the one-hundredth anniversary of the opening of Bloomingdale as a separate department of the New

York Hospital, with an abstract of the addresses and papers read, prepared by Dr. Karl M. Bowman, assistant physician at Bloomingdale Hospital.

The Society of the New York Hospital celebrated the centennial of the founding of Bloomingdale Hospital as a separate department for the treatment of mental diseases, on Thursday, May 26th, 1921. Over a thousand invitations were issued and a large audience, including many of the prominent psychiatrists and neurologists of this country, was present. The exercises were held at Bloomingdale Hospital, White Plains, N. Y., and consisted of the following program:

Invocation. Rev. Frank H. Simmonds.

Greetings from the Pennsylvania Hospital (founded 1751). Dr. Owen Copp, Physician-in-Chief and administrator, Department for Mental and Nervous Diseases.

Greetings from the Medical Profession. Dr. Geo. D. Stewart, President N. Y. Academy of Medicine.

#### ADDRESSES.

"Historical Review." Edward W. Sheldon, Esq., President of the Board of Governors.

"The Contributions of Psychiatry to the Understanding of Life Problems." Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins University Medical School.

"The Importance of Psychiatry in General Medical Practice." Dr. Lewellys F. Barker, Johns Hopkins University Medical School.

"The Biological Significance of Mental Illness." Dr. Richard G. Rows, Director Neuro-Psychiatric Hospital, London, England.

"The Relation of the Neuroses to the Psychoses." Dr. Pierre Janet, Professor of Psychology, College of France, Paris.

"Remarks on the Medical Development of Bloomingdale Hospital." Dr. William L. Russell, Medical Superintendent Bloomingdale Hospital.

Mr. Edward W. Sheldon, President of the Board of Governors, welcomed the visitors and gave a brief history of the Hospital.

"In 1769, the Colony of New York, with a population of about 300,000 of whom about 20,000 lived in the City of New York, possessed not a single hospital." But due to a realization of this need, plans were perfected, money raised and on June 11th 1771, a Royal charter was granted to the Society of the New York Hospital. But due to an accidental fire in 1775 and the War of the Revolution in 1776, the hospital was not opened for patients



until January 1791. "In September 1792, the governors directed the admission of the first mental case." After a few years, a separate building, to accommodate 75 mental cases, was erected. Later, Thomas Eddy, a philanthropic Quaker, governor of the Society, who had made a special study of the care and cure of mental affections, urged the establishment of a separate hospital for mental cases as well as many reforms in treatment. Accordingly 77 acres of land, occupying what is now the site of Columbia University, were acquired and a building for the accommodation of 200 mental patients was erected. As the only access to the hospital was over what was then known as the Bloomingdale Road, running through the Bloomingdale District, the name Bloomingdale Asylum was selected. On June 1st, 1821, it was formally opened for the reception of patients and continued in operation until 1893, when a new site having been acquired near White Plains and new buildings erected, the present hospital was opened, its name having been formally changed from Bloomingdale Asylum to Bloomingdale Hospital. The present site consists of about 300 acres of ground with buildings for the accommodation of about 350 patients.

Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins Medical School, read an address on "The Contributions of Psychiatry to the Understanding of Life Problems."

Dr. Meyer showed how modern psychiatry has given us insight into many problems heretofore closed to us. It gives new meaning to religion, ethics, art, etc. Psychiatry literally means the healing of the soul. Our understanding of religion is broadened if one grasps the principles of modern psychiatry. Religion is not torn down but raised to a higher place in one's life.

"Men must be studied as mutual beings in relation to their daily activities." "Psychiatry has intensified hunger for reality." It explains away many fads and vague gropings of the individuals towards personal harmony such as Spiritism, New Thought, etc. It has direct application to all of the problems confronting an individual and offers a satisfactory solution, hence its value.

Dr. Lewellys F. Barker, of Johns Hopkins Medical School, then read an address on "The Importance of Psychiatry in General Medical Practice." He first gave the reasons why psychiatry had been so widely separated from general medicine. In the begin-

ning, the treatment of mental diseases had not been considered as a part of the duties of a physician, later, when mental diseases were recognized as requiring medical treatment, they were not looked upon in the same light as other diseases. The reasons for the general practitioner's ignorance or lack of interest in, and even aversion to, psychiatry are as follows:

1. "A social stigma still attaches, despite all our efforts to abolish it, to mental disorders and has to a certain extent been transferred to those that study and treat patients manifesting these disorders."

2. Our general education is defective in giving any broad concept of man's place in the universe and an orderly view of the world and man.

3. Our medical schools, with few exceptions, fail to teach psychiatry properly or adequately to link it up with the rest of medicine.

4. "The language of psychiatry is unique and formidable."

5. The overemphasis of psychogenetic factors and apparent neglect of somatogenic factors by some psychiatrists has aroused distrust and suspicion among many.

6. The fear of insanity and stigma of mental disease causes the general practitioner to underemphasize the psychobiological and exaggerates the physical.

7. Psychotherapy is regarded as something mysterious or as something not quite ethical.

8. The rise of specialism has further prevented the general spread of psychiatric knowledge.

The need of closer relations between general medicine and psychiatry was then emphasized and some ways for accomplishing this given.

Following Dr. Barker's paper, luncheon was served on the lawn. A historical pageant was then given with the following program:

#### PROLOGUE.

The Muse of History (Narrator).  
Spirit of the Past (Time).

#### SCENE I.

Court of King George III. Granting of the Charter.

## SCENE 2.

Pinel à la Sâlpêtrière.

## SCENE 3.

Portraits: Personalities of The Past.

Thomas Eddy, Esq. of the Board of Governors 1815-1827.

Dr. James Macdonald, First Resident Physician 1825-1837.

Dr. Pliny Earle, Organizer 1844-1849.

Miss Eliza Macdonald, daughter of Dr. Macdonald, unveils the portrait of her father, and Dr. William L. Russell that of Dr. Pliny Earle.

## SCENE 4.

Dorothy Lynde Dix Before a Legislative Committee.

## SCENE 5.

Occupational—Recreational Activities.

## SCENE 6.

Inspirations.

The afternoon session opened with an address on "The Biological Significance of Mental Illness" by Dr. Richard G. Rows, Director Neuropsychiatric Hospital, London, England. Dr. Rows came to this country by special invitation of the governors of the hospital to read his paper.

Dr. Rows stressed not only the necessity of recognizing what rational powers remain to the patient but also of inquiring "how much in their disturbed mental activity could be considered a rational reaction to the stimuli which have operated and still may be operating on them."

We must determine two things: first, what is the normal standard; and second, to what extent are the patient's reactions abnormal in kind to the driving stimulus? It is conceded that they may be abnormal in degree but are they abnormal in kind?

Proper emphasis has not been given to distinguishing between the primary and secondary symptoms of mental disease. The first evidences of mental disturbance consist in some difficulty in carrying out ordinary mental processes, some difficulty in exercise of the functions of perceiving, thinking, feeling, judging and acting and any disturbance of the harmonious activity of these functions

must give rise to an emotional condition of anxiety and depression." But in any disharmony that may occur, it must be recognized that the mental mechanisms affected are those with which the patient was originally endowed (as modified by training and environment). "There is no new mechanism introduced to produce a mental illness but a putting out of gear of those common to the race and their disturbance is the result of the action of influences which may befall any one of us, unbearable ideas with which some intense emotional state is intimately associated."

The secondary symptoms are the obvious signs of disease and may be merely an intensification of the primary symptoms or "may represent efforts on the part of the patient to escape from or explain the primary symptoms."

"We, therefore, must not accept the outward and visible signs at their face value but attempt to discover what past experiences in the life of the patient have led to such a disturbance of function, to such a change in his mental activity."

While these past experiences may have occurred at any previous time of life, childhood is the most important and common period for such experiences to occur. These unfortunate experiences of childhood may cause a later breakdown by warping development, by instilling a lack of self-confidence or by causing a predominance of one emotional tendency.

It is necessary for the physicians to discover and understand these past experiences if he is to treat the patient properly.

Emotions are accompanied by physical changes, changes which are specific for each emotional state. The ultimate effect and interplay of internal glands, nervous system and emotional states in relation to revived memories may be of great importance in understanding mental disease.

Dr. Pierre Janet, Professor of Psychology in the College of France, then gave his address "The Relation of the Neuroses to the Psychoses."

Dr. Janet, likewise, journeyed to this country at the special invitation of the Board of Governors to give this address.

After presenting the best wishes of the French Government, and of various French scientific societies, he entered on the discussion of his subject.

He called attention to the vastly different public opinion at the present time in regard to mental disease compared with a hundred years ago and stated that "this transformation of ideas has taken place, in a great measure, thanks to the studies devoted to neuroses."

In earlier times, the queer behavior of the neurotics was noticed but it was felt that these individuals had "all their reason" and "they were not expelled from society like the poor lunatic."

During the 19th century, the radical division of neuroses and psychoses was accepted as a dogma. The study and treatment was different, neuroses were studied publicly, the examination was on elementary sensibilities, the movements of limbs, and especially reflexes; the insane were studied more closely from the mental view and in private. When psychotherapy "by reasoning with and moralizing the patients was being developed," contrary to what one might have supposed, it was applied to neurotic patients alone.

Charcot modified the concept of neuroses. He showed that neurotic sufferers presented disorders in their thoughts, and many apparently physical states were caused by this.

But "it seems to me exaggerated today to see in neuroses those psychological disorders alone" and not circulatory, endocrine and sympathetic disturbances. Still there was reached the conclusion "that neuroses were at the root, in reality, diseases of the mind."

"If such is the case, what becomes of the classical distinction between neuroses and psychoses?" It cannot be said that psychoses are of longer duration. Nor can it be said that there is in psychoses always less insight on the patient's part. Neither does the presence or absence of organic lesions determine the difference. "Neuroses as well as psychoses are much more likely to be diseases with unknown lesions than diseases without lesions and it is impossible to take this characteristic into account to distinguish the ones from the others."

The concept of insanity now has no precise medical significance and "is now but a term of the police language." "All disorders of the mind oblige us to modify our social conduct towards the patient, but only in a few cases are we obliged to modify at the same time our legal conduct; and these are the sort of cases that constitute lunacy."

Yet this does not satisfy, since some psychoses are not police problems and some neurotics are.

“Conduct is a special form of reaction by which the living being adapts himself to the society to which he belongs.” There are different levels of conduct, the lowest being the reflexes and the highest, the social acts. “There is, in each particular function, quite a superior part which consists in its adaption to the particular circumstances existing at the present moment.” “If one is willing to understand by the word “evolution” the fact that a living being is continually transforming himself to adapt himself to new circumstances, neuroses and psychoses are disorders or halts in the evolution of functions, in the development of their highest and latest part.” “The common character of neuroses and psychoses is that this diminution of vitality bears upon the highest functions of government.”

In many cases it appears that there is an increase or exaggeration of this function, but examination shows that it is really behavior at a lower level. “The agitation consists in an activity, more or less complete, in inferior tendencies very much below those the subject should normally utilize.”

There is another important accompaniment to the disappearance or diminution of superior actions, “both the normal effort and the call upon reserves for executing painful acts are suppressed. There exists visibly a lowering of level and it is right to say that these patients are below themselves.”

“The difficulty of accomplishing superior acts and the exhaustion resulting from the accomplishment renders them fearful to the patient who has the fear or phobia of these acts just as he has the terror of that depression which gives the feeling of diminution of life.”

Certain acts raise the psychological tension instead of exhausting and hence the patient feels bound to repeat incessantly certain peculiar acts.

In certain cases, there is a certain difference in degree between neuroses and psychoses.

“The province of neuroses and psychoses is intermediate between that of rational errors and that of organic diseases of the nervous system.”

"We are capable of wills and beliefs of a superior order when we reach decision after a work of reflection." "Lower, there exist wills and beliefs but they are formed without reflection. They are the result of an immediate assent which transforms verbal formulas into wills and beliefs as soon as they strike the attention, as soon as they are accompanied by a powerful sentiment. The immediate assent is the form of these tendencies."

"If one wished to establish a scientific distinction between neuroses and psychoses, I should say, in a summary fashion that in neuroses the reflection alone is disturbed, that in psychoses the immediate assent itself is affected."

"Neuroses are, therefore, the intermedium between the errors and the faults which appeared to us almost normal and alienation which seemed exceptional and distant from us."

Dr. William L. Russell, Medical Superintendent, then closed the program with "Remarks on the Medical Development of Bloomingdale Hospital."

He stated that to review that past was profitable in that it guarded us from many errors. The establishment of Bloomingdale was due to the initiative of laymen rather than physicians. It contemplated treating mental disease by "moral treatment" alone and discarded the various organic theories and treatments prevalent at the time. It was not contemplated that physicians have full control of the resources for applying moral treatment. The present system of administration by which the chief medical officer is also the chief executive officer was the result of a long process of evolution. Pinel, many years before Bloomingdale Asylum was opened, had shown that management and discipline of the hospital was a most powerful agent in the treatment of the patients.

In the beginning, the form of organization of Bloomingdale Asylum was similar to that of the New York Hospital. There was a layman for superintendent or warden with two men and three women keepers to aid him in the control and management of the 75 patients. There was an attending physician who visited once a week and a resident physician, neither of whom received salaries. Gradually the physicians were given more power until 1831, the committee stated that the new regulations "placed the normal treatment on the physician alone, under the direction of

the Asylum Committee, and that the responsibility remains with him alone." In 1837, the physician was, for the first time, given "the power of appointing and discharging, at pleasure, all the attendants on the patients." It was not until 1877 that the present form of organization in which the chief physician is also the chief executive officer of the institution was adopted. All American institutions and most, if not all, of those in other countries are now similarly organized.

The resources for diagnosis and treatment at Bloomingdale Hospital have been steadily developed. Especial attention has been given to, and special departments developed for, the application of occupational and recreational therapy but, at the same time, all the equipment of modern medical science has been made use of, laboratories, X-rays, dental and surgical operating rooms, massage and hydrotherapy departments, and all other means of determining disease process and applying proper treatment are utilized. "It can now be clearly seen that the problem to be solved relates to the whole personality of the patient, including his physical and mental constitution, the physical and mental factors which may be operating to produce his disorder and the environmental conditions to which he has been and may again be exposed."

The scope of psychiatry has greatly broadened and general knowledge concerning it and facilities for applying this knowledge have been also increased. To fulfil the possibilities for greater usefulness the following improvements are suggested; a department in the city at the general hospital with an outpatient department and with facilities for receiving patients into the hospital; a suitable home or occupational colony for convalescent patients; the more extended use of the hospital for teaching purposes; and more intimate contact with outside agencies for extending psychiatric knowledge and in applying it to the prevention and management of mental disease outside the hospital.

**THE DEDICATION OF THE GEORGE ALDER BLUMER LABORATORY.**  
—On Saturday June 4th, upon invitation of the Managers and Medical Superintendent of the Utica State Hospital, Utica, N. Y., a number of physicians, many of whom had been in attendance at the Association meeting in Boston; as well as many citizens



and physicians from Utica and vicinity, gathered at the hospital, to take part in the dedication of the new laboratory building erected at the hospital, and named, by vote of the Managers, in honor of Dr. G. Alder Blumer, formerly assistant physician and for several years medical superintendent of the hospital.

Shortly before eleven o'clock in the morning, the physicians in attendance at the exercises assembled in the amusement hall of the hospital to take part in the scientific program.

The session was opened by Dr. Richard H. Hutchings, Medical Superintendent, who paid a glowing tribute to Dr. Blumer, and then announced the following program:

"Pathology as related to Psychiatry." Dr. James V. May, Superintendent, Boston State Hospital, Boston, Mass.

"The Integrative Function of a Laboratory." Dr. Adolf Meyer, Professor of Psychiatry, Johns Hopkins University, Baltimore.

"Transitory Mania and Epileptiform Migraine." Dr. J. Montgomery Mosher, Professor Mental Diseases, Albany Medical College, Albany, N. Y.

"Some Problems of the Organic Mental Reaction Types." Dr. George H. Kirby, Medical Director, Psychiatric Institute, New York City.

"Suggestions for Treatment of Syphilis." Dr. John R. Ross, Superintendent, Dannemora State Hospital, Dannemora, N. Y.

"Research in Psychiatry." Dr. H. M. Pollock, Statistician, New York State Hospital Department, Albany, N. Y.

At the adjournment of the morning session lunch was served on the lawn in the quadrangle surrounded by the hospital buildings, which afforded an opportunity for social greetings, and the exchanges of reminiscences by former assistant physicians at the hospital several of whom were present.

After luncheon the audience adjourned to the front of the laboratory building, where seats had been provided under the trees and a speakers' stand erected.

The afternoon session was presided over by Mr. George E. Dunham, President of the Board of Managers, who opened the meeting with some felicitous remarks, and then read a letter from Dr. Stephen Smith formerly Commissioner of Lunacy for New York state, now in his ninety-ninth year, who had been asked to be one of the speakers on the occasion.

Following the reading of Dr. Smith's most interesting letter Mr. Dunham introduced the speakers of the afternoon session

in the following order: Dr Edward N. Brush, Superintendent Emeritus, Sheppard and Enoch Pratt Hospital; Dr. Charles W. Pilgrim, President N. Y. State Hospital Commission; Dr. Charles G. Wagner, Medical Superintendent of the Binghamton State Hospital, all of whom had been assistant physicians at Utica, and associates of Dr. Blumer.

Following the medical speakers, all of whom indulged in reminiscent tales of their early days at Utica and their relations with Dr. Blumer, and who were unanimous in the tribute of affectionate regard and admiration for their friend and former associate, Hon. P. C. J. De Angelis, late Justice of the Supreme Court was introduced. Mr. De Angelis was a member of the board of managers when Dr. Blumer was promoted to the superintendency at Utica. He paid a most sincere tribute to Dr. Blumer.

Dr. Blumer's chief characteristic, he said, and he believed, the secret of his success, was his devotion to duty.

Following Mr. De Angelis, Professor Walter G. Everett, of the chair of Philosophy at Brown University, Providence, and one of the trustees of Butler Hospital, representing the trustees at the dedicatory exercises, presented the greetings of the board which he represented. Referring to Dr. Blumer's career at the Butler Hospital he said: "By his professional and administrative skill he has advanced the standards of our hospital work. By his devotion to the interests of our city and state he has won a high place as a citizen. By his love of literature and his mastery of English style, he has entered into the intellectual life of the community."

Dr. Henry W. Mitchell, medical superintendent, Warren, Pa., State Hospital, representing the committee appointed at the meeting of The American Psychiatric Association in Boston, to attend the dedicatory exercises on behalf of the Association, then presented, with some very appropriate remarks, the resolutions adopted by the association, commemorative of the occasion, and congratulatory to Dr. Blumer.

Mr. Dunham then spoke most feelingly in behalf of the managers, the medical superintendent and physicians and nurses past and present, as well as for the many patients who recalled Dr. Blumer's ministrations, of the services of Dr. Blumer to the insti-

tution, to the state and to the cause of medical science and hospital administration.

Dr. Blumer was then presented and met a most difficult situation, in replying to the speakers who had preceded him, in a most graceful and admirable speech.

We hope to present abstracts of all the papers and addresses in this department of the JOURNAL in the October number, as well as a picture of the laboratory building.

The bronze tablet in the entrance hall of the laboratory, in a few admirably chosen and arranged phrases commemorates the services of Dr. Blumer and dedicates the building to the memory thereof. The inscription is reproduced below :

**GEORGE ALDER BLUMER**  
**RESEARCH**  
**LABORATORY**  
 1920  
 This tablet commemorates the  
 services of  
**DR. GEORGE ALDER BLUMER**  
 Psychiatrist, Editor, Author.  
**ONE-TIME PHYSICIAN AND**  
**SUPERINTENDENT**  
 of the  
**UTICA STATE HOSPITAL**  
 Whose wisdom, foresight and hu-  
 manity contributed to the advance-  
 ment of his profession, to the sum  
 of human happiness and to the  
 dignity of life.  
**ERECTED BY THE BOARD OF**  
**MANAGERS**  
 Geo. E. Dunham, President  
 Edward H. Coley, D. D., Secretary  
 Mary Isabel Doolittle  
 Frederick T. Proctor  
 Elizabeth W. Kellogg  
 William G. Mayer  
 Clarence E. Williams  
 \* \* \* \* \*  
 Richard H. Hutchings, M. D.,  
 Superintendent

**SOME IMPORTANT LAWS.**—The following acts have been placed upon the statute books of the commonwealth of Massachusetts during the last session of the legislature and have been approved by the governor.

Dr. L. Vernon Briggs, of Boston, who has supplied us with copies of the acts, reproduced here, was in a large measure responsible for their introduction and enactment.

[CHAP. 409.]

AN ACT RELATIVE TO THE EXAMINATION OF APPLICANTS FOR REGISTRATION AS PHYSICIANS.

*Be it enacted, etc., as follows:*

SECTION 1. Section three of chapter one hundred and twelve of the General Laws is hereby amended by inserting before the word "practice," in the fourth line, the word:—psychiatry,—so as to read as follows:—

Section 3. Examinations shall be in whole or in part in writing, in English, shall be of a scientific and practical character, shall include the subjects of anatomy, surgery, physiology, pathology, obstetrics, gynæcology, psychiatry, practice of medicine and hygiene, and shall be sufficiently thorough to test the applicants' fitness to practice medicine.

SECTION 2. This act shall take effect July first, nineteen hundred and twenty-three. [*Approved May 19, 1921.*]

[CHAP. 415.]

AN ACT PROVIDING FOR AN INVESTIGATION BY THE DEPARTMENT OF MENTAL DISEASES AS TO THE MENTAL CONDITION OF CERTAIN PERSONS HELD FOR TRIAL.

*Be it enacted, etc., as follows:*

Chapter one hundred and twenty-three of the General Laws is hereby amended by inserting after section one hundred the following new section:—*Section 100A.* Whenever a person is indicted by a grand jury for a capital offense or whenever a person, who is known to have been indicted for any other offense more than once or to have been previously convicted of a felony, is indicted by a grand jury or bound over for trial in the superior court, the clerk of the court in which the indictment is returned, or the clerk of the district court or the trial justice, as the case may be, shall give notice to the department of mental diseases, and the department shall cause such person to be examined with a view to determine his mental condition and the existence of any mental disease or defect which would affect his criminal responsibility. The department shall file a report of its investigation with the clerk of the court in which the trial is to be held, and the report shall be accessible to the court, the district attorney and to

the attorney for the accused, and shall be admissible as evidence of the mental condition of the accused. [*Approved May 20, 1921.*]

The Connecticut law, providing for emergency commitments has been rendered more flexible by extending the validity of emergency certificates from ten to twenty days, and by providing that any "reputable physician" may execute an emergency certificate, whether or not a resident of the state.

**ELECTION.**—Dr. Harold W. Wright, of San Francisco, California, has been elected president of the California Society for Mental Hygiene.

**CORRECTION.**—In the list of Appointments, Resignations, etc., in the April JOURNAL OF INSANITY, the name of Dr. Walter H. Jillson, recently appointed medical superintendent of the Central State Hospital, Lakeland, Ky., was by an unfortunate error printed Wilson.

**CHLOROFORM DELIRIUM—INFORMATION DESIRED.**—Dr. Ben Karpman, Assistant Physician St. Elizabeth's Hospital, Washington, D. C., requests that any reader knowing of an uncomplicated case of chloroform delirium communicate with him.

**APPOINTMENT.**—Dr. David K. Henderson, late resident psychiatrist to the Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, Md., has been appointed Physician Superintendent to the Glasgow Royal Asylum, Gartnavel, Glasgow, Scotland.

Dr. Henderson is a graduate of the University of Edinburgh of 1907. For some time he worked in the Psychiatric Institute of the New York State Hospitals at Ward's Island, New York, under Dr. Meyer, and in 1913 became resident psychiatrist at the Henry Phipps Clinic, on the opening of that institution.

After the outbreak of the World War he returned to Scotland, and was for a time attached to the Glasgow Asylum. Entering the medical service of the British Army he saw service in France and subsequently in Great Britain in the psychiatric wards of military hospitals.

Upon demobilization, Dr. Henderson returned to the Glasgow Asylum, performing the duties of clinical director. His promotion is evidence that he performed these duties, as would be expected, in a highly satisfactory manner.

While still in military service Dr. Henderson obtained a brief leave of absence and returning to the United States married, on October 31, 1917, Miss Margaret Mabon, daughter of the late Dr. William Mabon, for many years Medical Superintendent of the New York State Hospital, Ward's Island, New York, one of the most active and highly esteemed members of the Association.

## Book Reviews.

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*Psychopathology.* By EDWARD J. KEMPF, M. D. (St. Louis: The C. V. Mosby Company, 1920.)

One may well hesitate in attempting fairly to set forth the content of this volume within the limits of a brief review. The work is revolutionary and compelling enough to be worthy of independent study before taking a position for defence or condemnation of its principles.

Whether Kempf at one bound carries psychiatry forward to a point which a generation of steady plodding might not achieve, or whether he moulds to a preconceived theory some of the unformed material on mental disease, perhaps time alone can tell. Most of the profession must however agree, that much of the matter presented is far removed from present-day thought and understanding.

Some of the main features of the author's work are as follows:

(1) He applies psychoanalysis to the field of the psychoses and with comprehensive introductions, supplemented by exhaustive case histories, discusses from this standpoint all the commonly accepted groups of mental diseases with the exception of the gross organic types.

(2) By this manner of approach he finds satisfactory mechanisms to interpret the genesis of the neurosis and psychoses and sees in them a profound unity and simplicity.

(3) He offers an attractive hypothesis to establish a physiological basis for those forces of the human organism such as instincts and emotions, which have in the past been left to the psychic realm in contradistinction to the physical. The Freudian wish, according to his thesis, has a clear physiological basis.

(4) He forms a radically novel classification of the psychoses based on dynamic considerations, and clarifies and simplifies it by an ingenious table.

(5) He does not stop with psychiatry, but explains all motive and behavior of mankind from the simplest indulgence of an instinctive craving to the highest strivings and inspirations along purely mechanistic lines, and finds no need for the human soul.

A brief introduction to the volume outlines the material to follow. In this he refers to the work of Sherrington, Pawlow, Bechterew, Cannon, Watson and others as a basis for his physiological conceptions of the Freudian mechanisms. Case histories compose much of the text, and those presented are chiefly the result of studies made at St. Elizabeth's Hospital, Washington, over a four-year period.

Chapter I is largely taken from the author's well-known monograph on the "Autonomic Functions and the Personality." In brief, the main features of this conception are as follows:

(1) The autonomic apparatus comprises all the vital organs, glands of internal secretion, unstriated muscle, and autonomic nervous systems.

(2) The projicient apparatus includes the striated muscles and the cerebrospinal nervous system.

(3) Feelings and desires, or as the author chooses to call them, affective cravings, are constituted by sensory streams flowing from the periphery of different segments of the autonomic apparatus. This applies to complex emotions such as pity or love, as well as to the more simple instinctive needs of hunger or sex.

(4) These feelings, acting as energizers, put the appropriate projicient apparatus in that state of tonus and contraction which will best derive for them satisfaction from the environment.

(5) Thoughts or conceptual images are produced by the sensory (kinæsthetic) stream from the projicient apparatus which has been set in postural tonus by the feelings. These are supplemented by the afferent stream from the special senses.

(6) Consciousness is the reaction of the whole body as a unity to the sensorial activity of one or several of its parts.

By the above conceptions the brain loses caste in its relation to the human psyche. In simple terms, we feel and desire with our viscera, think with our muscles and are conscious with our whole body.

The feeling, desire or wish is due to, and is associated with, an uncomfortable autonomic tension which seeks relief through appropriate action of the projicient apparatus. Feelings and cravings are not simple and serial; they are on the contrary simultaneous, multiple, complex and conflicting. Also the stern reality of material environment and social organization are determinants in the possibility of their satisfaction. Chaos is avoided by the development of an "ego," a somewhat mysterious part of the personality, which appears in the first few years of life and gradually builds up a system of affective needs of its own which are only satisfied by conduct in harmony with socialized standards. This ego endeavors more or less successfully to integrate the more primitive cravings into unity with itself. In order to accomplish this object, cravings asocial in character are conditioned during the child's development by experience, precept, training and education, so that they may be satisfied by activity beneficial to the organism as a whole. The symbol has become an important and necessary agent for the relief of uncomfortable autonomic tensions which for obvious reasons cannot be directly appeased. Much of artistic production; and social and religious customs and observances, serve this symbolic purpose.

Conditioning of autonomic needs is never ideally completed and may operate in a direction just the opposite of social adaptation. In other words the individual may be conditioned abnormally as well as normally. Throughout life there is constant conflict between instinctive segmental cravings and the developed ego or personality. The contest is clearly staged as follows: the cravings seek immediate gratification; the ego demands social esteem.



For reasons not obscure, the most difficult field for control and synthesis of cravings is in that of the sex life. Cravings not under control press for independent expression in order to relieve the uncomfortable autonomic tensions which constitute them. If they are sexually perverse or otherwise objectionable the ego opposes with equal vigor their direct satisfaction. In this contest for supremacy various mechanisms are made use of by the ego to force individual destructive segmental cravings to act in harmony with the whole personality. Suppression and repression are the most common methods of handling unruly cravings. By the former process, cravings antagonistic to the social ego are inhibited and not allowed to modify behavior. By the latter process they are put out of consciousness as well as inhibited, and the individual is unaware of their existence. Compensation, a third method, implies the expression of some estimable activity, reflexly initiated by the urge of inferior cravings, which cannot themselves be directly indulged.

All these mechanisms are important and healthy factors in character formation and constantly in action in all normal individuals. Frequently however, due to the weakness of the repressing forces of the ego or to the intensity of the cravings, or both, these mechanisms fail. The walling off of cravings by suppression or repression may be unsuccessful, or compensation may become eccentric and bizarre. Vague consciousness of asocial cravings struggling for expression is the basis for an individual's sense of inferiority. On page 71 it is stated: "The most common inferiorities that are compensated for in a manner that may become pathological are segmental cravings for masturbation and homosexual and heterosexual perversions. This is true of both sexes."

Conflict of the type described is normal. Failure to successfully handle it in some manner is abnormal. By such failure are the psychoses and psychoneuroses produced. Psychoses differ from normal behavior chiefly in degree. Page 55: "In the psychoses the conflict is far more severe than normal due to the vigor of the segment or the weakness of the ego."

Chapter II deals with the psychology of the family. Here is discussed the Family Romance of the psychoanalysts. Kempf agrees with them concerning the influence during formative childhood years of the associates, chiefly the adults of the immediate family. He brings in his physiological conceptions by interpreting this influence as a conditioning for good or ill of the segmental reflexes, or autonomic affective cravings. A series of family situations are presented to show the influence of parents and others on the child and adolescent.

The following quotations illustrate the point of view—page 80: "I am convinced (this conviction is based upon professional experience) that no one can become a functional psychopath who is not greatly so influenced through the intentional or unintentional attitude of his associates." Page 88: "It is a general observation to be made, if looked for, with surprising frequency, that wherever we have an individual male or female, who is conscientiously absorbed in striving to suppress the sexual functions from making him or her aware of their conditioned needs, we have a neurotic

individual as the result." Page 91: "Experience with numerous psychopaths and their families shows that it is almost impossible for a member of a family to develop a psychoneurosis or functional psychosis without the family or some members being involved directly or indirectly, consciously or unconsciously, as a repressive influence that has combined with other causes of stress to bring about the collapse."

Chapter III is entitled, the Universal Struggle for Virility, Goodness and Happiness. Toward these goals the author states the guiding forces of human effort, conscious and unconscious, are directed. To attain them is the aim of all mankind. Failure to attain in at least relative degree marks the psychopath. The following highly philosophical definitions of these terms will outline the concept.

"Virility is the capacity of the autonomic apparatus to compensate, when environmental resistances tend to prevent the fulfillment of its wishes or needs, so as to overcome the resistance and so modify the environment that it will gratify (neutralize) the autonomic cravings. True virility applies not only to the mating competitions and overt sexual functions of the individual, but to his ability to coordinate his functional resources into a means (vocational) so as to win the esteem of his love object, overcome competition, and maintain a relatively influential social place in community or clan. Indifference, inactivity and timidity are conducive to loss of social esteem. Fear of becoming socially inferior stimulates the compensatory striving.

"Goodness is a state of feeling which is aroused when the act or sequence of acts gratifies those wishes of the individual which promote his own career (egocentric) as well as the wishes that promote the interests of the race (altruistic); the race containing the love objects, gives rise to the necessity of being esteemed by the race. In the struggle against perverse cravings, the effort to establish the feeling of goodness is often extremely eccentric, and may even become asocial. This idea of goodness is biological and not puritanical.

"Happiness is felt as the autonomic tensions, becoming gratified, permit the striving postural tensions to change to comfortable tensions; as in the vigorous pursuit of a solution, or result when we feel confident of final success, in contradistinction to the heavy sense of depression when a cause seems hopeless."

In Chapter V, Kempf describes his classification of neuroses and psychoses and this really deserves a review by itself. It is perhaps too much to say that he has condensed the whole science of psychiatry into a two-page outline, but he has come nearer to it than would be deemed humanly possible. Whatever the defects of this classification may be, one who has studied it comprehensively must find it a powerful aid to clear thinking when certain obscure clinical pictures are presented to him.

Cases are first grouped as acute, periodic or chronic. Next come the benign and pernicious; and under these, suppression and repression neuroses for the former, and compensation, regression and dissociation neuroses for the latter. Various combinations of these terms are held to meet

requirements for all functional psychoses. A column of old diagnostic terms serves to orient the bewildered novice.

Chapters VI to XIII take up the functional psychoses under both old and new classifications. Anxiety neuroses, psychoneuroses, manic depressive psychoses, paranoia and the three common types of dementia præcox are considered in order.

Suppression or anxiety neuroses include what are commonly called constitutional inferiority, psychopathic personality, psychasthenia, neurasthenia, chronic invalidism, etc. As notable examples of this type, a paper published in the *Psychoanalytic Review*, Vol. V, No. 2, is included, together with a history and analysis of a more modern scientist who was a patient of the author. One regrets to hurry over this fascinating material. In the end we return to the same dominant principle, page 288; "The psychologist meets with almost innumerable varied causes of anxiety, but in one factor they are all the same. The anxiety is due to the suppressed affect trying to force its way through the egoistic resistance in order to obtain relief or gratification." Again on same page it is said, "The most common forms of affective craving which society requires the individual to suppress, and which constitute the most serious personal conflict, are autoerotic or homosexual love, incest, hatred and fear."

Chapter VII is on the repression neuroses. True repression neuroses according to the author include the phobias compulsions and other obsessive states. It is not always made clear in just what manner the suppression and repression mechanisms are distinguished. In general it may be said that in suppression neuroses cravings are inhibited but still remain dynamic enough to produce a state of anxiety and discomfort. In the repression neuroses on the other hand, the cravings are kept subdued by compensatory or substitute activity, as in the handwashing compulsion of the mysophobic, which gives vicarious relief to the underlying craving. This example represents the pathological side of the picture in contrast to the healthy process when the compensatory trend takes the form of artistic creation, invention, or other useful work or interest. Both types of repression, constructive and destructive, are alike in that they give some degree of substitute satisfaction to the cravings. Kempf states, page 293: "All cases in which the repressed affect is resisted by the personality, causing a functional distortion, should be considered as repression neuroses. The individual who has repressed the affect and refuses to regard it as part of his personality, is logically subjected to a mysterious, persistent, pernicious influence from which he can never escape, and this force is liable through a summation of repression or exhaustion of the ego to produce a serious dissociation of the personality."

Elimination and simulation mechanisms for disposing of undesirable affects are described. The former, the more serious as far as possibility of dissociation is concerned is produced by a frank repression, a denial as it were, of the affects' existence. Simulation is the attempt above described, to give some substitute satisfaction to the craving.

The manic-depressive psychoses are interpreted in Chapter VIII along somewhat similar lines. The depressed individual suffers from the inhibition of autonomic affective sources of energy. This inhibition may be due to a preoccupation of thought to control an abnoxious craving; or again result from a regressive process in which the individual temporarily gives up the struggle and solves his conflict by sinking back to a vegetative nursing state. In contrast the happy manic represents an "erotic flight" when without restraint free rein is given to fanciful satisfaction of the compelling cravings. Depression and mania accompanied by anxiety and fear are given special consideration.

Chapters IX to XI are given over to the subject of paranoia and paranoid states. Kempf accepts the classical Freudian concept for the mechanism of these conditions; page 475, he says: "The paranoiacs and paranoid types are always individuals who are biologically inferior to the requirements of the race. They are not able to establish a comfortable heterosexual potency and are constantly forced to struggle in order to control homosexual perverse cravings of which they are fearful, and which they usually refuse to recognize as a part of themselves." Case histories are given with analyses carried out which not only throw new light on the processes involved, but also hold out some glimmers of hope for therapeutic aid in this serious type of psychosis. There is included an illuminating chapter on acute homosexual panic.

In Chapter XII catatonic dementia præcox receives consideration. This clinical type is described according to Kempf's classification as "chronic, pernicious, dissociation neurosis," and may be contrasted with the former paranoid reaction. Both according to the author, represent unsuccessful conflict between the socialized ego and the autonomic cravings of a sexual order. In the male sex these are usually of a perverted type. The paranoiac reacts by a struggle for defense, the catatonic by submission. During this period of submission, most typically represented by the catatonic stupor, the strong affective sex cravings are satisfied by hallucinatory experiences and symbolic acts and interpretations, while the repressing ego is for the time being in abeyance. After a period of this type of gratification the perverse cravings may become less insistent, the ego is able to reassert its domination, and the patient tends once more toward normal social behavior and recovery.

In Chapter XIV the hebephrenic type of dissociation of the personality is discussed as presenting the same struggle between the affective requirements of the developed ego, and the segmental perverse cravings. The nature of the reaction to the conflict determines the type of psychosis. In the hebephrenic condition the mechanism of regression plays a more important part than in the others. As in the catatonic and paranoid forms, the autonomic cravings, unsuccessfully repressed, become dissociated, take up partly independent existence and satisfy themselves in symbolic or hallucinatory manner. In order to cause the least distress to the vanquished ego, the individual sinks back to childhood levels of personality

where the perverse sex cravings can be satisfied without the pain of violating adult standards. This mechanism of regression according to the author is behind the silly, untidy, destructive and often filthy habits of the hebephrenic.

The volume closes with chapters on reconsideration of principles and a brief discussion of psychotherapy. The author is more liberal than some of the analysts in dealing with this latter subject and finds a place for suggestion and other methods as well as for psychoanalysis proper.

Illustrations are profuse throughout the book. Many of them bear on the subject of symbolism, and productions of patients, works of primitive man, and classical art objects from the museums of Washington and New York are freely drawn upon to illustrate the author's meaning. These are scattered throughout the pages often without much relation to the text, and lend a certain sensational as well as scientific interest. One might peruse this book solely from the standpoint of a discussion on art without regard to psychiatry in the strict sense. What the artists themselves might have to say on Kempf's interpretations would not be lacking in interest.

It is quite certain that after an acquaintance with this volume, art productions will never be looked upon by the amateur in quite the same light as before. The new insight obtained will be on the whole of a deeper and finer order. On this subject of art one may be excused for speculating on what will happen when Kempf takes time to study the storehouses of Europe.

The reviewer has attempted to set forth a general outline of this book without prejudice or distortion. He must frankly admit in his own mind a combination of fascination and abhorrence; and feelings of bewilderment, mixed with new and more profound understanding of the problems of psychiatry.

Independent of other considerations, the exhaustive case histories presented must fill a new place and be a permanent and important contribution to psychiatric literature. So far as the principles which Kempf has developed to explain these cases, at least this much can be said. They establish thinkable hypotheses to interpret many common clinical pictures which otherwise baffle attempts of the student to understand. Whatever the basic truth may be, from the pragmatic standpoint of permitting a useful formulation of cases, it seems that Kempf's work must be seriously considered.

The author frequently makes use of a method of presentation which might be called the "all or none" principle. Finding some of the premises acceptable the reader soon discovers himself carried with amazing directness and speed to positions of unstable security before he can let go. There appears to be some difficulty while studying this work, to strike any middle course between full acceptance and complete denial. As a final comment, it is only fair to touch upon the relation of Kempf to Freud. Kempf's work is based squarely upon that of Freud and it seems that he has hardly given due credit to that source for his inspiration. A pecu-

liarity of the author's method of analysis is the little use made of dream interpretation, and the exclusion of Freud's volume on that subject from the extensive bibliography attached, is significant.

M. W. PECK.

*A Manual of Psychiatry.* Edited by AARON J. ROSANOFF, M. D., Clinical Director, Kings Park State Hospital, N. Y., Lieutenant Colonel, Officers' Section, Medical Reserve Corps, U. S. Army. Fifth Edition, Revised and Enlarged. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Limited, 1920.)

This manual first appeared in 1905, as a translation of the *Manuel de Psychiatrie*, by J. Rogues de Fursac. Previous editions of the work, which in its English dress met with a cordial reception in this country, have been reviewed in the pages of the JOURNAL.

It is, therefore, hardly necessary to enter upon a critical review of a work already so well and so favorably known.

The original work, modified by successive revisions, constitutes the nucleus about which this manual has grown to its present dimensions and importance. The editor, as Dr. Rosanoff with becoming modesty calls himself, may indeed be in a large measure accorded, with propriety, the title of author, so numerous have been the changes made from the original text, so extensive have been the additions. Advantage has been taken in full measure of the great strides made by psychiatry during and since the World War.

The broadening field of psychiatry and the all-embracing vision of psychiatrists are well illustrated in a work in which the editor has called to his assistance the psychologist, the social worker, and the worker in the clinical laboratory.

It is refreshing to find in a manual of this type the full appreciation of the fact that, as the editor puts it, "psychiatrists no longer confine their activities within the walls of institutions for the insane, but are constantly organizing connections with general hospitals, schools, charitable organizations, courts of law, penal institutions, etc."

It is a mark of the changes which have come over the world, that psychiatry, the study, care and prevention of mental disorders and defects, is being recognized more and more as a factor in the social forces of the community; and as one which can be effectually availed of for the benefit of those without the pale of institutional care, more effectually perhaps than for those for whom institutional care has been found necessary.

In the present edition are new chapters, sections, or appendices dealing with applications of psychology in psychiatry, psychoanalysis, applications of sociology in psychiatry, extra-mural psychiatry, psychoneuroses, hyperthyroidism, normal course of early mental development, Stanford revision of the Binet-Simon intelligence scale, Kent-Rosanoff Association test, standard psychological group tests and the classification of mental disorders adopted by the American Medico-Psychological Association. Many addi-

tions have been made to the portions of the work dealing with arrests of development, epilepsy, constitutional psychopathic states, chronic alcoholism, cerebro-spinal syphilis, lumbar-puncture, and tests of the cerebro-spinal fluid.

Some of these sections have been rewritten. In a space of 640 pages, exclusive of indices, have been compressed a presentation of modern psychiatric science and practice, comprising a manual which may be highly recommended to the student, as well as to the practitioner of psychiatry.

*Practical Psychology and Psychiatry. For the Use of Training Schools for Attendants and Nurses, and in Medical Classes, and as a Ready Reference for Practitioners.* By C. B. BURR, M. D., Medical Director Oak Grove Hospital (Flint, Michigan), for Mental and Nervous Diseases; Member American Medico-Psychological Association; etc. Fifth Edition Revised and Enlarged. With Illustrations. (Philadelphia: F. A. Davis Company, 1921.)

That this excellent work has passed through four editions, and a fifth one is demanded is sufficient evidence of its popularity.

Dr. Burr has gathered here in a condensed form much that is essential to the proper education of the nurse, whether in psychiatric or general hospitals; and much will also be found of interest and value to the medical student and practitioner.

The experiences of psychiatrists and neurologists in the World War has not been lost to sight, and the author has availed himself of these to modify or enlarge the teachings of former editions.

Dr. Burr has been and is a steady and consistent advocate of preparedness, as we understood the word during the late war, and of military training, not only as a factor in preparedness, but as a physical and mental training of great value to youth in quickening perception, furnishing discipline in self-control, and inculcating obedience; and one is not surprised, therefore, to find the boy-scout movement and military training commended by him in his chapter upon the prevention of insanity.

*Laudator Temporis Acti* is his text apparently in this chapter. He dilates upon the simple life, the home training, the more or less strenuous methods of the past in the upbringing of children, in a manner which will bring to the minds of many of his readers, as it does to the reviewer of his book, a longing for the days that are gone.

Dr. Burr realizes that the days of what he terms "primitive" training are gone, certainly for our unborn population, but he states it as his belief that "much of the insanity in the young appearing in recent years could have been prevented had home and school conditions approximated those of the seventies."

All things are changed, and with them we, too, change; but not always are our methods, much as we vaunt the "advances of the times," changed for the better, as far as the good of the human race is concerned. We commend Dr. Burr's book to not only the heads of training schools, but to the thoughtful perusal of physicians generally.

## Abstracts and Extracts.

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BRONNER, AUGUSTA F.: *Individual Variations in Mental Equipment.*  
(Mental Hygiene. 1920, 4, 521-536.)

The first necessity in all fields of constructive activity is the knowledge of the nature of the material dealt with. In dealing with human nature a better approach can be made to the specific problems of particular individuals, if the social worker knows the practical aspects of psychology, the psychology of individual differences and of the factors producing varieties of human beings and of behavior. But whatever the problem, the mental equipment of the individual must be ascertained, for only in this light can maladjustment be understood. By "equipment" we mean innate abilities and traits as they have been modified by training and experience into habits and tendencies of thought and action—particularly as they offer potentialities for further modifications. The adequate study of mental equipment must cover at least five aspects.

1. Age level tests. The Stanford-Binet revision has the advantage of being in common use and, therefore, admitting of ready comparative study. Moreover, it estimates *general* ability and makes a classification of the individual in terms of mental age or I. Q. However, the classification of an individual should not be based on the Stanford-Binet test alone. First, because the results are not always reliable since they are based on special abilities and disabilities. Secondly, cultural or educational opportunities play a large part in some of the tests. Thirdly, special abilities and disabilities are left unrevealed as the tests deal with ideas and not with persons or things. The I. Q. is often unreliable because it is too high, too low, does not reveal special abilities or does not correlate with practical aspects such as social adjustments.

2. Study of Special Abilities and Disabilities. By testing for special abilities and disabilities we can reveal those potentialities in an individual which promise the greatest development and use and which can, therefore, be utilized socially, educationally, and vocationally. Trade and vocational tests aim to measure special abilities. The ascertaining of special disabilities is important, also, in order that people may not be put to work at something for which they are obviously unfitted.

3. Functioning of the Mind—The Dynamic Aspect. "When mental abilities have been ascertained, there still remains the question how well, with these abilities, does the mind function. . . . How great is the capacity for output." Mental energy, mental balance and control, powers of continuity of purpose are involved in the dynamic aspect of mental equipment. Here belong, also, the problems of the constitutionally inferior



persons who though not mentally defective lack force and effectiveness, the problems of the over-sensitive and over-inhibited intelligent people, and the problems of those over-dynamic persons who are defective in control, and therefore poorly adjusted.

4. **Personality Make-Up.** There are no standards for the measurement of personality. "Subjective standards and interpretations offer the only means of evaluating these objective and highly important life reactions." Although there is much interplay of the innate make-up and that resulting from environment and experience, yet these two aspects must be separated to see if the so-called personality traits might not be altered by means of a change of environment. The same experiences react differently on different individuals and the social adjustments often are dependent not on the mental capacity, but on the character and personal traits.

5. **Mental Content.** What are the ideals, ambitions, daydreams, fantasies, imageries, and obsessive thoughts of the individual or is he characterized by mental emptiness? When there is bad mental content the chain of causation must be brought into the light of full consciousness before the curative processes can be initiated and then good mental content must be introduced to offset the bad.

These five aspects of mental equipment overlap and are inter-related. The dynamic and personality qualities are closely related, and the mental content is determined partly by these and partly by the mental abilities. But, it is well to keep these in mind for diagnosis and recommendation.

"The time and effort such study requires have seemed amply justified by the specific social treatment that can be based on the findings and by the successful results in many cases which social treatment so founded has achieved."

DOLL, EDGAR A.: *Improper Use of the I. Q.* (The Journal of Delinquency. 1920, 5, 67-70.)

The I. Q. is based on the two assumptions that the average limit of the growth of intelligence is 16 years and that intellectual growth is constant throughout the developmental period. It is pointed out that recent investigation has tended to indicate that 13 or 14 years is nearer the average mental age of unselected adults than is 16 years, and that the I. Q. is generally constant only in relation to those tests whose fundamental principles of standardization presuppose this constancy. The I. Q. is a valuable device for indicating relative mental status, but it is not permissible to group indiscriminately the I. Q.'s gained from individuals of widely differing ages or mental ages. For example, an I. Q. of .50 with a life of 8 is not the same as an I. Q. of .50 with a life age of 16 because in the former the mental age is 4 and in the latter the mental age is 8. They are not truly comparable, for even if the I. Q. is constant the first individual will equal the second only after 8 more years of life. The I. Q. alone cannot rightly be used as a basis of classification in scientific investigation, for the distribution of the mental age and the life age must be known.

A recent study on the relation between vocational progress and intelligence is based on the relation of vocational progress to the I. Q.'s independent of the actual mental ages. The conclusions are drawn that there are I. Q. values above or below which success or failure is assured. But such success or failure is a direct function of the mental age. For example a 4-year old child with an I. Q. of 100 is unable to read, but an average 12-year old child with an I. Q. of 100 can read almost anything. Similarly in vocational work certain mental age limits determine success or failure. The same criticism is offered of Dr. Gordon's correlation between success in the mental test and the I. Q. Standing. "Again we must insist that performance in a given mental test is ordinarily a function of actual mental age rather than relative intellectual status."

WOODILL, E. E.: "*Public School Clinics in Connection with a State School for the Feeble-minded,*" (*Mental Hygiene*, 1920, 4, pp. 911-919.)

For five years, monthly clinics for the examination of public school children, backward in school, or truants, have been held in various cities in Massachusetts under the auspices of the Massachusetts School for the Feeble-minded, at Waverley. A staff of examiners, comprising a psychiatrist, psychologist, and teacher from the school, and a nurse from the public school conducts the physical, psychological and school work examinations, and tests the child's general and practical knowledge. Information concerning family, personal, developmental, school, social, economic and moral histories is obtained by social workers either in advance or at the clinic.

Of the 1070 children examined for the first time, up to February, 1920, 522 boys and 261 girls were feeble-minded, 101 boys and 45 girls, not feeble-minded, and 5 boys and 1 girl, potential psychotics.

Recommendations, varied according to the age, sex and mentality of the child, are given as follows: For the idiot class, the importance of habit training is emphasized; information given as to how much to expect in the way of mental development; and the impossibility of school training explained. For the imbecile type, training along industrial lines—either in a special class or institution is advised. For the "bad" morons with poor home conditions, institutional training is recommended, and for the "good" morons, special classes. The parents are told of the child's limitations, and the schools advised in regard to the giving of school cards.

Institutional care was deemed necessary for 28 per cent of the feeble-minded.

The functions of a school clinic are to benefit the child; serve the school; serve the community. It benefits the child by helping the teacher to understand the mentality of the feeble-minded pupil; the schools, by showing the need for special classes, from which shall be excluded the hopelessly feeble-minded and the delinquents by differentiating those who

are retarded through sickness, poor attendance, and frequent changing, but who have normal ability, and designating which truants are or are not responsible; and the community by advising the parents as to home care and supervision, by selecting the institutional types, and by assisting in making a census of the feebleminded.

DOWNNEY, JUNE E.: *The Adolescent Will-Profile*. (Journal of Educational Psychology, 1920, XI, 157-164.)

The will-profile is a graphic presentation of scores received on 12 tests of character, or temperamental traits. The tests are made by various manipulations of handwriting, and measures the following qualities: Speed of Movement, Absence of Load, or Inertia, Flexibility, Speed of Decision, Motor Impulsion, Assurance, Resistance, Motor Inhibition, Care for Detail, Coordination of Impulses, Perseverance and Revision. These fall into groups emphasizing ease and fluency, force, and precision of reaction. Study of actual graphs suggests characteristic types of patterns. In comparing a group of 21 high school freshmen with a group of approximately 250 adults ranging from 17 to 55 years, the author plotted a profile using the median score for each trait of the high school group. These medians coincided with those of the adult group for the following traits: absence of load, speed of decision, motor impulsion, assurance and resistance. They fell below the adult group in speed of movement, flexibility, motor inhibition, care for detail, and coordination of impulses. The general pattern of the adolescent will-profile is of the willful or aggressive type, with emphasis on speed and fluency of reaction. It reveals a temperament with high motor impulsion and deficient motor inhibition, from which combination arise many disciplinary problems. There are several analyses of individual adolescent profiles with relation to teachers' estimates of the individual's intelligence, school marks, and I. Q.'s. In general with this high school group the correlation of I. Q.'s and grades was plus .84; of will scores and grade plus .72; of will scores and I. Q.'s plus .77. But with a group of college girls, there was not found a high correlation of points on the will score and army alpha examination. Above a certain point intelligence is not an important factor in the will test. A fair score may be obtained even from feebleminded subjects.

WHITE, WILLIAM A.: *Extending the Field of Conscious Control*. (Mental Hygiene, 1920, Vol. 4, 857-866.)

Extending the field of conscious control is enlarging consciousness to include the motives for conduct. So long as motives are outside the field of consciousness the individual is their creature, and not their master.

During the ages of evolution the field of conscious control has been constantly extended in another sense. This has been accomplished by the increase in our knowledge of our environment facilitated by the perfecting of the sense organs, the prehensile hand, and the invention of such tools as the microscope and the telescope. Mind also is an instrument for con-

tacting with the environment. Like other instruments it does not function with absolute accuracy, and allowance must be made for error in making observations. For the correction of this error, the personal equation, in the relation of the individual to his environment, the psychoanalytic approach has been made, and mental hygiene developed.

An increased knowledge of himself in man will free him from pursuing cowardly methods of avoiding unpleasantness, unjust prejudices, projected wishes; from simulation, malingering and hysteria, the difference between which lies in the degree of conscious purpose with which he utilizes his symptoms. It will throw light, not only on functional disorders which have long been recognized as psychogenic, but also on such ailments which come nearly within the conception of organic disorders, such as paraplegias, tremors, spasms, aphonias, amblyopias, deafness, the so-called false gastropathies and cardiopathies, neuralgic-like reactions and emotional tantrums. In viewing the human machine, we realize that its several parts must serve the ends which it as a whole is endeavoring to accomplish. If then, the individual approaches the problem of his life with a divided interest, he must of necessity be constantly utilizing his energies for different, often mutually opposed, ends. The result will be that the machine will be set for certain types of reaction which are not permitted to come to pass. These motor sets of the organism will produce tensions of the musculature, voluntary and visceral, as well as psychological tensions which, when long continued or severe, tend to break down the machine. An example of the acute type of reaction would be the development of gastric ulcer in soldiers of the front line kept for a relatively long time under the tension of extreme anxiety, awaiting an attack. Of the more chronic type there is glycosuria from the constant inadequately reacted to emotion of fear. Energy used in the service of repression shows itself in the friction with which the machine works and the wear and tear of its several parts.

# AMERICAN JOURNAL OF PSYCHIATRY

## SOCIAL SERVICE AND OUT-PATIENT RELATIONS.\*

By JOHN B. MACDONALD, M. D.,

*Danvers State Hospital, Hathorne, Mass.*

There are various ways of measuring the value of a State Hospital Service. To the special worker in the limited medical sense which applies within the hospital organization it is one thing; it may be quite another for the executive who, from the thick of his affairs, overlooks his domain. The pathologist has certain fixed ideas regarding the functions of a State Hospital and the ends to which we should aspire. The clinician, coming into touch with the public we serve, and learning something of the intricate mass of human relations and human suffering associated as cause and effect in so many of our cases, has a different viewpoint. Without a doubt the varying opinions have their points of merit; yet they are apt to be one-sided by virtue of an exclusive state for one species of excellence, exclusive attention to a certain class of phenomena, or special interests or predilections. But over and beyond all intramural considerations of this kind, the final judgment lies with the public; and the public estimate is based upon those things which show what has been accomplished towards restoring the patient to health or to social or economic usefulness; what is being done in the way of supervision, guidance and after-care; and what advances have been made in the field of preventive medicine through community service; the educational, supervisory and advisory function of the hospital in respect to the mental welfare of our people.

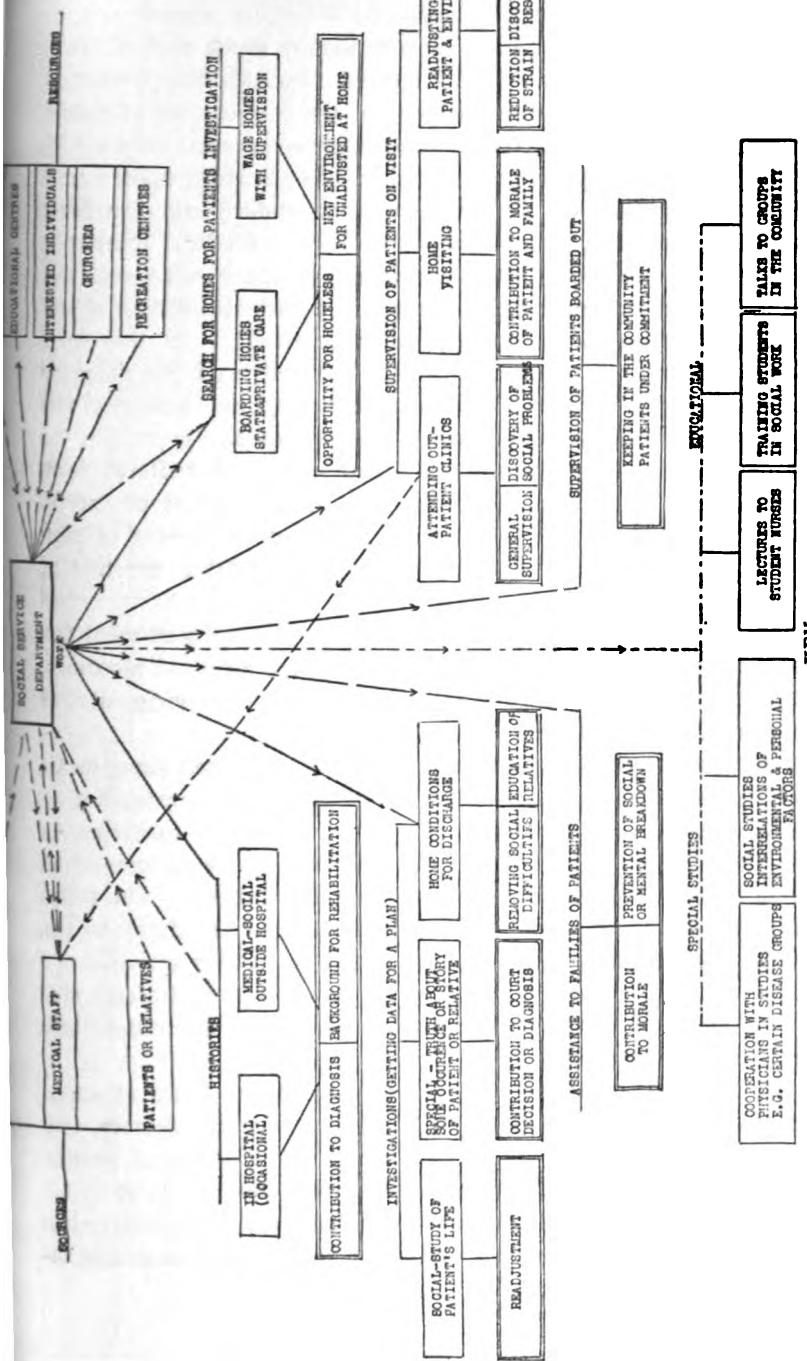
\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now the American Psychiatric Association, Boston, May 31-June 1-3, 1921.

And the judgment of the people in this, as in most matters, is right. In these very practical days the claim to excellence, on the part of individuals or institutions, must be supported upon facts and achievements. The mood of the times is "we must be shown"; and in the psychiatric field the public attitude represents at its extreme that of the "doubting Thomas." Mere assertions as to our aims and methods, our efforts, our successes and accomplishments fail to provide a complete or satisfactory account of things to a court of public opinion, which through long years of distrust and suspicion, and through negligence on our part, has become habituated to regard our activities and experiments as things always to be watched with vigilance; always to be challenged and placed upon their trial.

The out-patient department furnishes largely the terms of the equation from which our value is deduced. It is the outward, visible evidence of the application of the principles of mental hygiene, effective and fruitful of interest in and understanding of the social and physical causes of mental disease; of what mental hygiene means, and how its principles may be put into practice. It needs no explanation; and it refutes the taunting implication, so often felt, that in our work nothing has been learned or unlearned in many years; that the whole system of life in a state hospital is a sort of grim, forbidding ceremony where knowledge fails to multiply in practical ways, but like the talent buried in the earth experiences neither waste nor increase. Herein alone is our best answer to the questions of the people, questions ancient but ever-fresh as they were in the days of Job: "How hast thou helped him that is without power? How savest thou the arm that hath no strength?"

So, conservation of mental health, or mental hygiene, as it is now understood and practiced by us, means a great deal more than the mere intramural activities of the hospital. More important than these are the problems of prevention, education, supervision, after-care, medical advice and direction—community activities which for want of a better title we include under the designation of our out-patient and community service. (Chart I.)

These activities embrace not alone Sociotherapy, readjustment and guidance in the maze of environmental perplexities, and assist-



**KEY**

Source of social cases.....

Use of Resources.....

Purpose in service.....

Activities other than case work..

CHART I.

ance towards insight, self-reliance and a healthy mental attitude on the part of those who are constitutionally weak and of faulty character development. Social factors, tremendously important as they are, form, however, but one of the root-causes of mental disease. The machinery of our out-patient and community service provides for every possible factor which has a bearing upon mental health. Diagnosis of physical conditions underlying disordered mental functioning, medical advice and active medical interest in the physical well-being of our patients, or those who seek our help in our clinics, precede all other considerations, as they should in a properly organized out-patient department. In this work there is a constant demand upon our knowledge of physiological and pathological processes. Environmental and psychological factors may complicate the picture in the case of the syphilitic, the cardiac, the nephritic, the arteriosclerotic, or the sufferer from glandular or nutritional disorders, but anything short of careful diagnostic methods and a scientific outline of treatment of such conditions, as they arise, cannot be dignified under the title of medical or medicosocial service.

So much by way of explanation, lest it be thought in what follows that we have drifted from well-grounded medical moorings, and become the playthings of waves of sociologic experimentation and empiric benevolence. (Chart II.)

Our out-patient and community service is organized along medical and sociologic lines, and aims at the clearest understanding of mental conditions through the combined efforts of medicine, as represented by the physician, and the study of environmental or social conditions, as carried on by the social worker. The social service department occupies the position of an auxiliary to the medical, under whose general control and direction its activities are conducted. The day is here when the internist, the clinician and the laboratory expert are the prominent figures in the out-patient and community service.

No one will question the statement that to be truly effective psychiatric work demands not alone expert medical service, but also expert social service. He who would understand mental disorders rightly must not confine his observations to the study of function, or symptoms by the bedside or in the laboratory. He must see his patient in his social setting; he must possess some



A F T E R C A R E.

		M E N T A L D E F I C I E N C Y A N D A L C O H O L.
W O M A N , 4 4 .	D I V O R C E D . A M E R I C A N . N O O C C U P A T I O N	R E H A B I L I T A T I O N .
A G E	H I S T O R Y B E F O R E C O M I N G T O S O C I A L S E R V I C E .	L I A B I L I T I E S . B A D H A B I T S . F O R M E R B A D C O M P A N I O N S .
49 to 23	Orphan - good home with aunt. School through grammar. Work in mill.	A S S E T S . H e a l t h r e s t o r e d . N o c o n t a c t w i t h o l d a s s o c i a t i o n s f o r f i v e y e a r s .
M A R R I E D .	P L A C E M E N T f o r o n e y e a r - t r i a l v i s i t .	
to	Drinking to excess. Bad company. Immorality. One child, neglected. Child adopted. Husband's efforts to reform patient a failure.	O n f a r m i n r e m o t e c o u n t r y . L i g h t w o r k ( i n k i t c h e n ) f i l l i n g t i m e a n d i n t e r e s t . P e r s o n a l i n t e r e s t a n d s u p e r v i s i o n o f e m p l o y e r .
36	D I V O R C E D .	S O C I A L S U P E R V I S I O N . F r e q u e n t v i s i t s f o r e n c o u r a g e m e n t a n d d i s c i p l i n e .
to	Drinking to excess. Leading immoral life. In almshouse for shelter.	
39	C O M M I T T E D T O H O S P I T A L .	S O C I A L L A U N C H I N G - A F T E R O N E Y E A R .
to	Spent most of five years in bed with rheumatism. Faultfinding. Troublesome. Cotten up and put to work by doctor. Disposition improved.	S o c i a l w o r k e r f o u n d a r e a l h o m e w h e r e p a t i e n t c o u l d b o a r d f o r v a c a t i o n r e s t s . H e l p e d f i n d w o r k .
44	R E F E R R E D T O S O C I A L S E R V I C E F O R P L A N .	R E P O R T - A F T E R T W O Y E A R S .  N o r e t u r n o f b a d h a b i t s . D o i n g g o o d w o r k - A t t e n d a n t i n h o s p i t a l . I n t o u c h w i t h v a c a t i o n h o m e .

C H A R T I I .

knowledge of the personal and human aspects of his condition. He must know him as he appears in his ordinary daily life, in his pleasures and difficulties, emotions and reactions. Nothing can be considered too insignificant for his notice which is not too insignificant to illustrate the operation of laws of health and mental evolution; and this is the contribution of our allies, the social workers, to our studies and adjustments of social-psychological conditions in their relation to mental welfare. I have said that the social workers should be under the control and direction of the medical department; but because, through their contribution, they have humanized our knowledge; because they have broadened the basis of our studies and added greatly to our resources in the way of treatment and adjustment; because they have brought us into intimate touch with the community, the relationship should be one of friendly cooperation, mutual understanding and respect, with adequate scope for initiative and individual judgment. (Chart III.)

The social service policy of the Massachusetts State Hospitals was definitely outlined to the hospitals by the Director of Social Work, Miss Hannah Curtis, upon the organization of this department. Social service departments in the various state hospitals are under the direct supervision of hospital superintendents, and the indirect supervision of the director of social work, Department of Mental Diseases. The duties of the director of social work consist in developing and coordinating social work in hospitals connected with the Department of Mental Diseases. This work is conducted on a cooperative basis, and includes outlining of general policies relative to social and case work, special studies, statistics, reports, etc., and general plans for community work.

In so far as possible, trained social workers, assistants and students are located and referred to hospital superintendents through the office of the director, upon receipt of request for such persons. The eligibility of social workers is based upon qualifications of personality, education, native ability, social training and experience, and selection is determined by the superintendent.

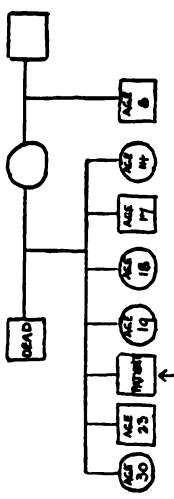
The office of the director serves as a bureau at which state hospitals desiring student social work, educational institutions and social agencies engaged in student placing, register for the purpose of making affiliations looking towards student or volunteer

LIFE CONDITIONS	PERSONAL FACTORS	LIABILITIES	ASSETS
<p>Father insane. Semile very irritable.</p>	<p>Tendency to extreme nervous irritability.</p>	<p>Extreme nervous irritability.</p>	<p>Energy. Desire to work.</p>
<p><b>EARLY CHILDHOOD</b> Poverty - Family friction. Father sent to State Hospital where died after 4 years. Mother committed-exhaustion. Psychosis - recovered.</p>	<p>Learned fits of temper. Got him his own way. Formed habits of giving in to moods. Fight but variable in effort.</p>	<p>Impulsiveness.</p>	<p>Intelligence. Gift in speech.</p>
<p><b>PRE-ADOLESCENT</b> Mother working. Boy left with friends or kept with mother. NO boy friends.</p>	<p>Seclusive, great reader. Precocious in use of language. Acting clown in school to make boys laugh. Subject to spells of dis encouragement.</p>	<p>Habit of lack of control.</p>	<p>Determination to learn control - result of commitment.</p>
<p><b>ADOLESCENT AT WORK</b> Association with older men. Drink. Obscene language.</p>	<p>Growing away from mother. Deceiving her about drink.</p>	<p>Conceit Self display.</p>	<p>Self respect. Strong sense of honor.</p>
<p>Discharged from factory. Idle Drinking. Arrested - <del>for</del> <sup>for</sup> <del>drunkenness</del> <sup>drunkenness</sup></p>	<p>Dependent, nursing grudge. threats will make foreman take him back.</p>	<p>Lack of understanding of other people.</p>	<p>Affection for mother persons <sup>and</sup> respects.</p>
<p>Court case dismissed</p>		<p>Social supervision of good male friend. Recreation with boys of own age. Work with variety and some future, using language ability.</p>	<p>Prescription.</p>

CHART III.

**HOME INVESTIGATION FOR DISCHARGE.**

**FAMILY**



**ENVIRONMENT.**

**NEIGHBORHOOD:** thickly settled.

**HOME:** clean, comfortable.

**HABITS OF FAMILY:** quiet, industrious.

**EMPLOYMENT AND FINANCIAL CONDITIONS:**  
 Own home. Rent one tenement.  
 Pension from son killed in war.  
 Wages of five children in mill.

**HOME SITUATION:**  
 Step-father alcoholic and abusive,  
 has left home permanently.  
 Older children driven away by  
 step-father now returning.  
 Family interested and understanding.

**PLAN:** living at home.  
 Work proposed - not heavy, out  
 of doors, under supervision.

**PATIENT.**

**Male,** **Diagnosis:**  
**Age, 20.** **Dementia Praecox,**  
**Single.** **Catatonic.**  
**French-Canadian.** **Psychosis**  
**Factory worker.** **with**  
**Epilepsy.**

**PATIENT'S PERSONAL REACTIONS.**

Familiar with neighborhood.

Fond of home.

Quiet, seclusive.

Not willing for family to provide for him.  
 Sensitive. Will not eat if not working.

Very fond of all of family now at home.

Desires to work.

**RECOMMENDATION:** HOME CONDITIONS SUITABLE FOR TRIAL VISIT. WORK TO BE FOUND BEFORE RELEASE.

service in the state institutions, to the end of establishing uniform student service in hospitals, and to offer desirable opportunities to those interested in training in psychiatric social work.

The outline for social work in the state hospitals sets forth as the first and foremost function social case work, the interweaving of medical treatment and social service upon the basis of personal knowledge of the patient in his whole environment. Second, systematic home visiting. Patients leaving the hospitals fall automatically into the visiting list; frequent visits to patients requiring special supervision; quarterly visits to boarding patients. Third, histories, medical and social histories in and outside the hospitals when required. Fourth, investigations; home conditions of special patients, prior to visit period or at time of admission to hospital; complaints entered at hospital by patients or outside persons relative to outside affairs of patients; all applications for boarding patients; criminal cases referred by courts for observation; special employment problems. Fifth, placing and care of boarding patients, selection of homes, after-care work. Sixth, out-patient clinic work, attendance and social work connected with hospital clinics (community and out-patient): traveling school clinics; special clinics. Seventh, educational work, in community with social agencies; in case work; lectures, conference, special courses, publications, research work, training of students and volunteers. (Chart V.)

The field of work is a broad one. To obtain the best results it requires a large force of workers, and to this end inducements adequate to the importance and dignity of the service are necessary. It need hardly be said that we have not fully attained our desires in this respect, but the rainbow of hope has not wholly dissolved from our visions; and somehow, some day, we are confident of gaining its alluring promise. It may not be necessary to resort to the arts of diplomacy, the effort to lead or charm mankind with words, to attain this consummation. The pessimist may discourage, exclaiming in words like George Eliot's that, "it is the way with half the truth amid which we live that it only haunts us and makes dull pulsations that we are never born into sound." Nevertheless, the appeal of lofty ideals, of humanitarian efforts which cannot fail to produce between hospital and public a sense of mutual confidence and esteem, a consciousness not of each

SPECIAL INVESTIGATION.

MAN, 45. MARRIED.

AMERICAN.

LABORER.

DIAGNOSIS PENDING.

REFERRED FOR INVESTIGATION.

SITUATION AS IT APPEARED.

Man becomes excited.  
Buys a revolver.  
Makes threats.  
Tells this story:

He has an enemy, for a stranger, who for no known motive, follows him on street and threatens to separate him and his wife.

This seems like a delusion. Man goes to police to complain, is arrested for carrying revolver. Is committed to hospital as insane.

SITUATION REVEALED BY INVESTIGATION.

HALF THE TRUTH.

The patient's "enemy" is found. Enemy admits doing just as patient says he did. Accuses patient of being intimate with Mrs. X. Claims he threatened patient in order to stop affair.

THE WHOLE TRUTH.

Enemy is, himself, in love with Mrs. X. Enemy wants to create trouble between Mrs. X. and husband. Mrs. X. is a friend of patient and his wife. Patient often "sees Mrs. X. home", his wife approving. Enemy accuses patient of intimacy with Mrs. X. Enemy tells patient's wife without destroying loyalty.

REACTIONS TO THE SITUATION.

Mr. X. distressed, but silent, fearing publicity. Patient excited, threatening.

THE OUTCOME.

PATIENT NOT DELUDED, is decision of staff. He is, however, in a HYPOMANIACAL CONDITION. He should not return to environment full of stress.

HE MAY BE DISCHARGED to a new environment.

TRUTH OF SITUATION REPORTED TO POLICE. PATIENT AND HIS WIFE MADE NEW HOME NEAR RELATIVES IN ANOTHER STATE.

other's defects, but of each other's merits, is bound to find its expression sooner or later in the intelligent views and righteous demands of the people.

As foreshadowing the greater triumphs of the better days to come, something of what has already been accomplished through the alliance of medical and social forces is worth passing notice. Taking the records of the work in the Danvers State Hospital, which is typical of what is taking place in the other institutions, one of the most striking things showing is the steady increase of patients on visits or parole in the community. In 1910-1911, without social service supervision, the number of visits was 21.6 per cent of the daily average population. Under social supervision the visits increased to 26 per cent in 1912-1913, 28 per cent in 1913-1914, 36 per cent in 1914-1915, 33 per cent in 1915-1916, 31 per cent in 1916-1917, while during the period of 1917-1918, when for a considerable portion of the year the hospital lacked the services of a social worker the percentage dropped to 24 per cent. (It is well to note that the average numbers on visit before the social service era varied as a rule between 17 and 21 per cent.) In 1910-1911 the total duration of all visits extending over one week was 48,316 days, with an average daily population of 1,452 in the hospital; in 1912-1913, the total duration rose to 50,636 days, for an average daily population of 1,450; in 1914-1915, 63,113 days for an average population of 1,490; 1916-1917, 68,016 days for an average population of 1,501; while in 1917-1918, (mostly without social work) the total duration of visits dropped to 53,222 days for an average population of 1,488. In 1918-1919, with a restored service, the total duration of visits rose to 66,641 days for an average population of 1,486.

Another thing noticeable is the marked increase of total visits, that is all visits, including those of less than one week's duration. In 1910-1911, the total number of persons on visits was 424, and this represents a fair average of pre-social service times. Since that time the numbers of visits for successive years have been 467, 536, 637, 780, 699, 676, 690, 702, 748.

Though it be true that in most of our methods we are apt to be as conservative and individualistic as the men of years ago, yet the leaven of medico-sociological relations is gradually bringing about the socialization of medicine. Nowhere is this effect more appar-

ent than in the State Hospital field. The opportunities for helpful assistance to the medical department and the need of such assistance is strikingly exemplified in a survey of the year's work at Danvers by the Head Social Worker, Miss Bertha C. Reynolds. Three hundred and twenty-two persons were dealt with by the Social Service Department. Two hundred and fifteen of these had never before been referred to the department. The sources of new cases were as follows: 67 per cent referred by physicians of the hospital, 33 per cent by outside agencies, such as other hospital social service departments, family welfare societies, children's aid societies, friends of patients, the Department of Mental Diseases for special after-care or investigation, etc. The 33 per cent referred by agencies outside the hospital contains its own commentary as to the progress in community relations since the old days of detachment which happily had their termination with the organization of the present system. (Chart VI.)

The problems for the solution of which the assistance of the Social Service Department was enlisted were in the following proportions: connected with disease, mental or physical, 46 per cent; connected with environmental or social conditions, 54 per cent; this including such things as poverty, environmental ill-adjustment, sex problems, employment problems, family dissensions, legal difficulties, moral problems, supervision of drug addicts without psychosis, supervision of alcoholics without psychosis, wayward tendencies, vacillating interests, temperament, criminal tendencies, etc.

What was really accomplished for the patients by cooperative medical and social efforts? Nothing is more difficult to estimate statistically, is Miss Reynold's comment. But a basis for estimate may be formed from the variety of services rendered. These include arrangements for medical care; re-adjustments in home, in work, in recreation, in church matters; arrangements for community supervision; plans arranged with relief agencies, with special agencies, with venereal disease clinics, with employment agencies; legal aid secured; advice to patients; advice to relatives; contribution to diagnosis; contribution to decision in regard to discharge; contribution to morale; visiting and supervision of boarding patients; advice to social agencies; information to social agencies; assisting Red Cross with soldiers' compensation claims,



RECEIVED BY THE PATIENTS  
of the children, girl, 3 years, girl, 3 years, mother.  
MRS. J. B. MACDONALD, 25, Madison St., Chicago, Ill.  
Patient's Name: Mrs. J. B. Macdonald

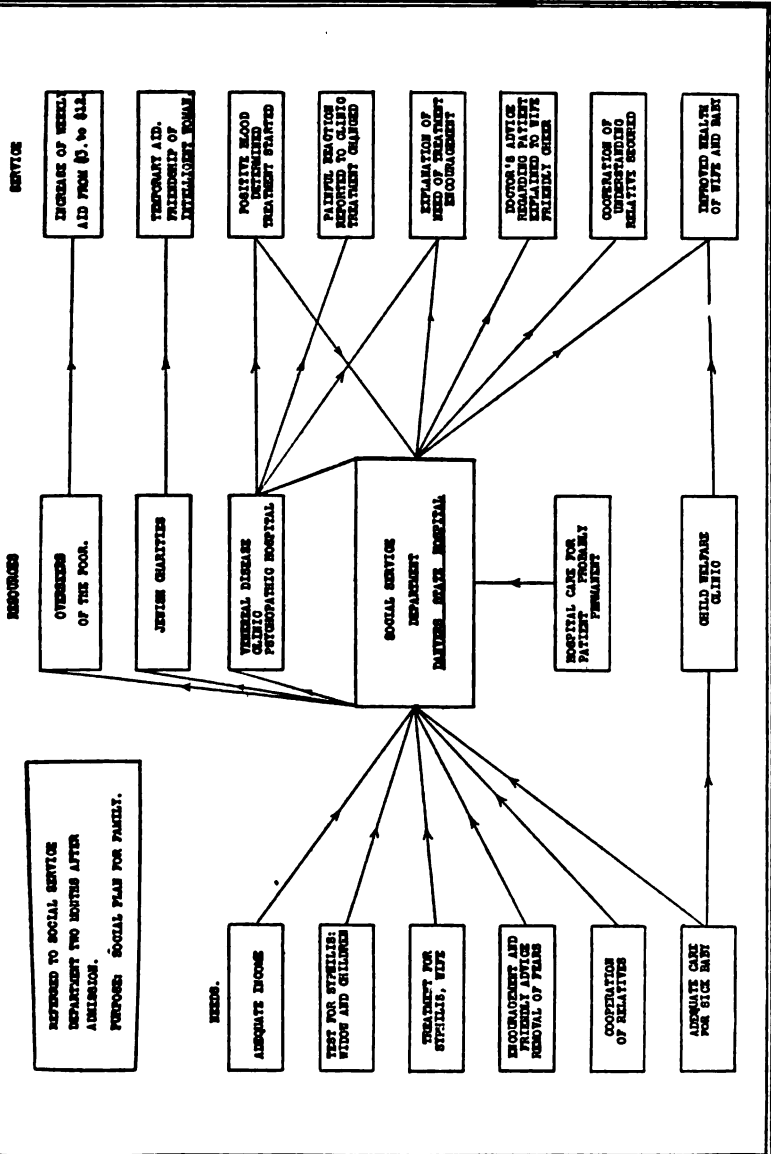


CHART VI.

etc. Trifling things, they may appear oftentimes, but they are the tremendous trifles which sometimes swing the balance in readjustment.

Again, a survey by Dr. Butterfield of patients discharged under social service supervision during the year 1917-18, shows 157 or 63 per cent of the whole who have since been able to live in community life. Sixteen per cent of these were M. D.'s, 26 per cent were D. P.'s, 10 per cent alcoholics. A total of over 50 per cent of G. P.'s discharged (9 discharged, 5 living in community), mentally deficient (16 able as to 9 unable to live in community life). An inquiry as to the economic success of those discharged (total 250), shows 100 self-directed under social service assistance and advice. Seventy-four responsible for others, and 72 requiring social service direction. Under social service supervision the discharges of 1917-18 have been 76 per cent successful with only 24 per cent failures in three years.

Facing the expansion of the hospital, as opposed to the custodial idea, one is tempted to believe that the influence of the Social Service Department has recalled the Physician to moral forces which have been well-nigh forgotten in the concentration of thought and interest upon the disease, rather than upon the patient as a human being, with far-spreading associations, desires, impulses, passions, sublime promptings, unspoken sorrows and sacred joys, and all the pathos and tragedy and possibilities for reconstruction and rehabilitation which otherwise might lie forever concealed by reason of the apparent insignificance of the subject.

#### DISCUSSION.

DR. TERHUNE.—It is very difficult to discuss a paper which has been so thoroughly and ably covered as the one Dr. Macdonald has just presented. I think we all agree with him when he points out the importance of the social factors and diagnosis and treatment in mental disease, and especially of the importance of social factors in the prevention of mental disease. The only difficulty that confronts us is the practical application. My experience with social factors in mental disease has been with the Mental Hygiene Society of Connecticut. The Mental Hygiene Society of Connecticut was organized about 12 years ago and during that time approximately 2500 mental cases had been referred to it, and during the last two years approximately 1400 cases, I think. We have been able, by seeing these patients in the clinic, to keep at least two-thirds of them out of hospitals, and the other one-third we have been able to send them promptly

to the hospital, and I think this has been done largely through the efforts of the social service department of the Mental Hygiene Society.

I feel that the community which does not take cognizance of social service is really handicapped. The community is beginning to realize that a large number of people are really mental problems and are only too glad to get psychiatric aid in solving these problems. The general hospitals are coming to realize more and more that many of their problems have a psychiatric bearing.

Social agencies are demanding that psychiatry give them some assistance in solving their problems, and in all probability one of the big advances in the future will be made along social lines.

DR. DEVLIN.—The Doctor's paper has been most interesting. It clearly demonstrates the value of Social Service Work for the mentally afflicted. Apart, however, from the point of view of the welfare of the patient, there is another aspect in which it can be considered, and that is, the economic one. If we are obtaining a maximum of benefit for the insane and at the same time we are diminishing the cost of their maintenance, this result cannot but be favorably regarded by our legislatures, whether state or provincial. I would like therefore, to ask the doctor if he has made any estimate of the reduction in cost of the care of the patients resulting from the Social Service Work.

DR. J. ALLEN JACKSON.—I would like to express my personal appreciation of the paper just presented. I have been very much interested in after-care work. I had some experience in Philadelphia, and recently I have had some experience in a rural community. I find that in the larger municipalities the field can be covered much more thoroughly than in the rural districts, because there you have your patients centralized, while in the rural district you have them widely scattered, such as we have in Pennsylvania, as many of our hospitals are located in such districts.

We found in Philadelphia several advantages: the first was that we were able to educate the patient's relatives to an understanding of the patient's mental condition. We found that many of these cases would possibly enjoy home privileges for longer periods under supervision than they did without supervision. We also found in our after-care service, that with the so-called "furlough" which usually expired at the end of 60 days, if extended to 120 days or more, we had less so-called "readmissions." The relation between the community and the hospital was a pleasant one.

I would like to have explained to us how in rural districts, with widely disseminated populations, we can cover this field successfully. At the Danville State Hospital at Danville, Pa., we have organized a clinical and community service department; the clinical director has also charge of the community work. Trained workers, under his direction, care for the patients intramural, extramural and social interests. The intramural work is very valuable, and often relatives have renewed their interests in certain types of patients through the efforts of the social worker. The extramural work is carried on by means of health bulletins issued quarterly and mailed

to the overseers of poor, physicians and members of the patients' families. Personal correspondence with the relatives of the patients at frequent intervals before the expiration of furlough, has been resorted to. Field supervision by means of the overseers of poor and charitable organizations have been of valuable assistance. We are also establishing mental hygiene clinics in two large cities of the hospital district. I should be very much pleased to study the Massachusetts system as it specially relates to the rural work.

DR. ABBOT.—Legislatures will have to appropriate just as much, in fact a little more, if they have social service. For there will be the salary and maintenance of the social worker, etc. But Dr. Macdonald reports that with a social worker the patients stayed a shorter time in the hospital, which is thus able to take care of a larger number for the same cost.

DR. HARRINGTON.—I might briefly throw some light on the question asked by Dr. Devlin. At the State Hospital for Mental Diseases at Howard, R. I., we inaugurated social service in 1916. We early made a canvas of the whole hospital and selected 19 patients who were suitable for placing out in homes or positions. These were patients who had no friends who were able to assist them in any way. Through our social service department we were able to place all of these at a very early period of our work. For some of them we obtained lucrative positions. At the end of 17 months the cost of the care of these 19 patients computed on the per capita basis would have amounted to about \$2300 had they remained in the hospital all of that time. This sum would more than cover the cost of our social service for that period. All of these patients had been in the hospital from three to ten years, and one or two had been there much longer.

In asking appropriations for the support of social service, the legislator has to have his answer as to whether or not social service is an additional burden or relief to the state financially. I think his best answer is found in facts such as I have mentioned. I do not mean by this that the saving of money to the state is by any means the chief aspect of social service, because there are so many vast advantages, the value of which cannot be reckoned in money, which can be derived from social service. Perhaps this may be an answer to the question asked.

DR. H. W. MITCHELL.—Now that the economic side of the question has been settled by the previous discussion, I would like to say a word relating to experiences at the hospital with which I am connected. Through the efforts of social workers in going out to the homes and families of patients and carrying to these people a clearer appreciation of the spirit of hospital activities, we have not only had a better idea of the living conditions, home surroundings and environment of our patients; but a much better understanding of the hospitals on the part of the communities served, has resulted. The friends of patients have a better knowledge of the purposes and practice of the hospital, and the community sentiment towards our work has been greatly improved by this feature of the hospital's activities.

DR. COPP.—There is just one point I want to make for the support of community service. The argument to bring to the attention of the legislature is this: It is money-saving and should have independent support by special appropriation.

DR. MACDONALD.—From the economic point of view, I think this was covered in the paper.

DR. DEVLIN.—Did you reduce it to dollars and cents?

DR. MACDONALD.—I did not. But the difference between pre-social and social service times is represented by an increase of duration of visits averaging between 15,000 to 20,000 days, and the cost of maintenance is about \$7.00 a day.

Since the organization of our clinics, a remarkably interesting change has developed in the relations between the hospital and its paroled patients. I can recall the time when a patient was discharged from the hospital we seldom expected to hear from him again, unless the case came up again for re-admission. Now, in our clinics our patients expect to see us at regular intervals, to talk over with us the problems of their lives, and to receive what counsel or advice we can furnish them. What is more interesting still, most of them feel dissatisfied if in any way they miss the opportunity to attend the clinics. Perhaps some of them may have nothing more important to talk over with us than to inquire regarding the health of other patients, whose acquaintance they made in the hospital, or to send a message to some one, either patient or officer; but the majority have some problem of personal interest to discuss. They meet us in the best spirit of friendship, and all this confidence and good-will has grown out of social and community service.

Indeed, this is a stimulus to medical effort, and an education of force in the community. And, these things cannot be estimated in terms of dollars and cents.



## HOW A STATE HOSPITAL COOPERATED WITH A UNIVERSITY TO MEET A COMMUNITY NEED.\*

By HENRY I. KLOPP, M. D.,

*Superintendent and Physician-in-Chief, Allentown State Hospital,  
Allentown, Pa.*

A state hospital for the care and treatment of mental patients, as we know it to-day, has two functions. First, as a hospital for observation, research, care and treatment of mental diseases. Second, as a part of a general scheme for community service for the prevention of such disorders through public education upon the subject of mental hygiene, for the holding of mental clinics, and as a teaching institution.

In order that a hospital may be truly such, it must stand for a definite purpose and must be so constructed and organized that it will best fulfill the object for which it was intended. This is as true of hospitals for mental diseases as it is of general hospitals. It must have a definite relation to the community or territory it serves. Its object, of course if a mental hospital, is primarily for the restoration of mental health; if it is to fulfill its whole function it should be so constructed and organized that it will also aid in the prevention of disease and in the preservation of health. To do this in the largest measure possible, it should be an institution for teaching. As such it need not necessarily be associated with a medical school, but it should be available for clinical teaching for the physicians of the community or districts from which it draws its patients. It should be a community center from which information relative to the preservation of mental health may be given to the citizens who are supposed to be benefited by the hospital. It should also be a place for a nurses' training school conducted upon a reciprocity basis with a general hospital.

\*Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now the American Psychiatric Association, Boston, Mass., May 31-June 1-3, 1921.

These are general principles which should be the foundation of every hospital organization, and they are all the more applicable to hospitals for mental patients.

The subject of this paper has to do more particularly with the institution functioning as a community center from a teaching and clinical standpoint. The Allentown State Hospital, being located midway between two thriving industrial cities with educational advantages, has established the principle of granting free access the same as to a general hospital.

The first activity of the institution was its connection with a medical school—as a teaching hospital for senior medical students and internes. Second, the holding of mental clinics for the medical profession of the neighboring counties from which the bulk of its patients are admitted. Third, the establishment of mental clinics in adjacent cities—Easton, Allentown and Bethlehem; and fourth, its association with the Lehigh University of Bethlehem, Pennsylvania, through its Professor of Psychology who for the past five years has brought his classes to the hospital for lectures and clinics. One year ago this latter scope was enlarged by association with the University Extension Summer School Course for Teachers. The hospital has also given the same privilege to the Professor of Biology at Muhlenberg College, Allentown, Pa., for his students and teachers; and to the Allentown High School Classes in Civics. Credit for the university and college work is due the Assistant Superintendent of the aforementioned hospital.

In an address before the Child Conversation League at Marion, Ohio, President Harding made it clear that he means to do all that a president can to make this country a good place for a child to grow up in. Mr. Hoover, U. S. Secretary of Commerce, in an address at Haverford, Pa., said, "the future of the world is the future of its children." Modern science has taught us that if we wish to eradicate the ailments of old age and restore the buoyant health of youth, we must diligently conserve the health of the child. We must therefore concern ourselves chiefly with questions of education, especially the formation of stable mental habits and the foundation of character, for "in the child lies the hope of each succeeding generation of society."

With the possible exception of idiots, all children between the ages of 6 and 16 automatically come under the control of school



authorities. The public school therefore is the one place where the state can most effectively promote mental health in its citizens; prevent the development of mental twists and habits that may lead later to definite mental illness or to social maladjustments; discover those who need special methods and subjects of instruction—such as the subnormal, retarded or backward child, and the feeble-minded; separate those who need special institutional care; and correct or compensate for such lesser handicaps which, if uncorrected or uncompensated, might lead to more or less grave degrees of dependency or delinquency.

Experience gained through mental clinics has repeatedly emphasized the importance of the fact that the subnormal and defective child is entitled, as much as and possibly even more than a normal child, to education according to his capacity and needs. For the public school to accomplish this end it is necessary that there be an understanding on the part of school authorities of what special classes can do; of the need of clinical and pre-clinical examinations of children; of the importance of special classes themselves; above all, of the need of specially trained teachers to conduct them.

Every case of mental deficiency or defect can be recognized during the required school-attendance age. Present methods of examination regarding the health of school children should be extended to ensure a mental examination of every child retarded in school. It would not be necessary to make a mental examination of all the children, but particularly of those who are two, three or more years retarded in their respective grades.

The type of children designated who cannot be taught in the regular schools should be referred to "special" public school classes. These also serve as clearing-houses for the recognition of defective children who are markedly immoral and anti-social, and who need permanent institutional care. To take full advantage of such classes and clinics, there must be an enlightened public, an enlightened school board, an enlightened principal, and enlightened teachers. In a number of states the only provision for this class of children is furnished by state or semi-private institutional schools for the feeble-minded; most of these have a large waiting list and many require court formality for admission. They provide care and protection for a limited number of idiots and imbeciles, for permanent segregation of defectives, for educational and

industrial training of high-grade imbeciles and morons, and for life-long segregation of feeble-minded women with immoral tendencies. In states where there is not this general enlightenment referred to, there may nevertheless, here and there, be found school boards, principals and teachers who are or want to be enlightened.

In Massachusetts a bill, requiring a mental examination of all children three years retarded, has been placed upon the statute books. In Pennsylvania the 1919 session of Legislature passed an act pertaining to backward children in relation to the public school system. This promises a definite advance inasmuch as it will bring about an annual survey of the entire state in the search for subnormal children. The passage of the bill requiring mental as well as physical examination of exceptional children, the establishment of special classes for those who cannot be properly educated and trained in the regular schools and providing that the state pay half the cost of such classes when established, has stimulated interest in this field. For lack of such interest in many parts of the state, heretofore, there had only been a limited number of teachers so trained. Since the passage of the bill the demand has increased without enough teachers to fill it.

It is not a new idea for hospitals to cooperate with universities; for example, here in Massachusetts there is Worcester State Hospital and Clark University, and there are many such institutions cooperating with medical departments of universities and colleges. However, the details of a specific instance may be suggestive to other hospitals and universities.

In the summer of 1920, Lehigh University in cooperation with the Mental Hygiene Committee of the Public Charities Association of Pennsylvania, as a result of the dearth of trained teachers, offered summer courses in mental hygiene, to instruct teachers to understand the needs of the handicapped or exceptional child and to qualify them to conduct such classes. As a part of that course the students came twice a week to the hospital where Dr. H. F. Hoffman, the assistant superintendent, met them for a total of 20 hours, presenting lectures and clinics upon the following topics:

- a. Extreme Mental Deficiency. Idiots and Imbeciles.
- b. Backward or retarded children.
- c. Defectives with psychotic episodes.
- d. Internal Secretions and Nutrition as factors in development.

- e. General Paresis cases.
- f. Dementia Præcox cases of the various types.
- g. Manic Depressive Types.
- h. Diagnostic and Therapeutic Methods.
- i. Clinics with "problem" children brought for examination by school teachers.

The study of Occupational Therapy—with a demonstration school, was also included.

A lecture was given by me upon the subject of "Mental Hygiene and its Relation to Public Medicine"; also one upon "The Work of Local Clinics" in the cities of Allentown, Bethlehem and Easton, conducted by the hospital staff in cooperation with the public schools.

In the Department of Psychology of the University, the students were given a course in mental diagnosis, in which they were taught some of the individual and group psychometric tests. Through cooperation with the Superintendent of Schools in Bethlehem they were given opportunity to do practical psychometric testing themselves, under direction of the instructors. Children who had been thus examined were then brought to the Hospital Clinic for medical and psychiatric examination. These cases were then discussed with the students by the clinic physician.

The whole course proved most stimulating and the study was continued throughout the university year by two classes of teachers from Bethlehem and Easton.

The Department of Psychology of the University regard the cooperation of the State Hospital as an educative force of the greatest importance. They hope that in the future this instruction will be given to the regular students especially those preparing for the B. A. degree, those taking the premedical courses, and to the extension students especially the teachers; and that the university may be a medium through which the public including the clergy—who are uninformed as to what a modern hospital for mental diseases means, can be brought in closer touch with such work, obtain a correct interpretation and recognize the educational value of mental hygiene.

Thus, as a result of the cooperation between Lehigh University and the Hospital, students—most of them school teachers—gained some knowledge of the chief types of mental deficiency and men-

tal disorders. The close association between the physicians, teachers and social workers of the three cities of the Lehigh Valley and the hospital, has also greatly aided in producing to the advantage of all concerned, a better understanding of the problems of mental hygiene.

#### DISCUSSION.

DR. WILLIAMS.—I believe the universities throughout the country are showing increased interest in these problems. Students are dropped each year in all of our universities because they have failed in their work, presumably because they have not intellectual ability to do the work, while a large proportion of these cases have the intellect but have been handicapped by emotional instability so that they have not been able to use the ability they have.

I think there should be cooperation between the universities and the state hospitals or clinics connected with the state hospitals, or the establishment of psychiatric service in the universities and psychiatrists on the university faculty. I do believe that, particularly where there are state hospitals and universities near together, there should be cooperation between the two, and the universities, I think, are becoming very much interested in these problems.

DR. BRUSH.—This is a question in which the people are becoming more and more interested. Every day there comes up a cry from some "Macedonia": "Come and help us." There are several Macedonias to which we need to go and point out how we can help them. Some of you have no doubt seen in the daily papers in the last few days—I read it with considerable interest coming across the continent—that a senator in the United States Senate denounced the method of teaching at the Naval Academy at Annapolis. I have lived near this Academy for nearly thirty years and have been acquainted with the teachers. About a quarter of a century ago this same question came up; some boys were dropped because they did not pass certain marks. I happened to fall into conversation with the professor of English; he said to me: "Dr. Brush, what we need down there is some one who has had the sort of training you have had. Those boys were dropped because they were unable to keep up mentally with the task set before them; they should have been dropped the first year; they got through the year somehow and then they were dropped." I had occasion to speak to the Surgeon-General of the Navy, intimating that some examinations should be made of the mental status of entering students—of their fitness mentally for the work before them, and with more profanity than politeness, he told me that mental tests were damn foolishness; all nonsense, and I am sorry to say that has been the attitude of some of his successors. There should be some one at the Academy versed in psychiatric work. While I was reading the Senator's remarks there happened to come into the car where I was sitting a young lad in naval uniform, and I very casually

got into conversation with him and asked him about the methods which this Senator denounced. He said "There is nothing wrong with the methods, but if you could see some of the fellows you would say they might better have been set to tasks requiring less mental capacity." He knew nothing about mental hygiene, had had no training in making mental tests, but he appreciated the fact that in many instances the causes of failure to meet the Academic examinations lay not in the methods of teaching, but in the mental capacity of those to whom the teaching was directed.

**DR. WILLIAMS.**—Dr. Brush speaks of Annapolis. The institution at West Point is somewhat different; these men work under great pressure; the result is that very many of them do break nervously and have to leave the institution. I was told that at least 60 per cent of those in the hospital, as ill, at West Point, were not physically ill, but were suffering from nervous pressure.

There is soon to be established at West Point, in connection with the hospital, a psychiatrist who will devote his entire time to psychiatry to handle these cases of mal-adaptation that occur in the institution. I think it is a great advance when the United States Government will do this.

**DR. RUGGLES.**—I was very much interested in Dr. Klopp's paper. It seems to me that Dr. Klopp has described one of the greatest contributions to community welfare of which any hospital can boast. It may be of interest to know that the trustees of one of our New England colleges have already voted to establish a professorship of mental hygiene, and when the President of that college was asked whether the work could be done on a part-time basis, he said he felt the problem was so great and so vital that it needed the full time of a physician with special psychiatric training. It is interesting to note that this sort of work is being undertaken, and I predict that in ten years mental hygiene will have a recognized place in all our colleges and that we will then be doing a truly preventive piece of work.

**DR. KLOPP.**—The only way to accomplish what has been said in the discussion is by individual work and we must be willing to cooperate with the college or university, in this way enabling the students to see what is being done in our institutions. Not only the college and university, but also high school students get a better insight into state hospital methods, and in this way the great misconception of mental institutions should be lessened. Students from the universities and colleges come to us for advice; professors send them and request that we help them and we have done so, although this means a great deal of time and putting forth much energy.



## EXTRA-INSTITUTIONAL ACTIVITIES FOR MENTAL DEFECTIVES IN NEW YORK STATE.\*

By WILLIAM C. SANDY, M. D.,

*Psychiatrist N. Y. State Commission for Mental Defectives.*

Mental deficiency and its associated problems are destined to become of increasing interest and importance to neuropsychiatrists. Sooner or later a greater familiarity with the subject of mental defect will be necessitated, in the first place, as there is a general legislative tendency to place under one commission the supervision of the insane, the feeble-minded and the epileptic. Furthermore, psychiatry has become popularized to such an extent that its scope is being greatly broadened. No longer can the interests of a modern and progressive neuropsychiatrist be confined within the narrow limits of formal institution psychiatry. For instance, there is the close relationship between both mental disease and mental defect, and crime, delinquency and dependency. These questions are being more and more frequently brought to the attention of psychiatrists, and in general are regarded as proper fields for their special investigations.

The prevalence of mental deficiency has been recognized for some years, especially in the few states where surveys have been made and where adequate provisions have been attempted. The extent of mental deficiency in the community was most forcibly brought to the notice of the public, however, by the large number of young men who were found on this account to be disqualified for military service. Taking as a basis the findings among the drafted men, it has been estimated that in New York State alone there are at least 40,000 mental defectives outside of institutions, the capacity of the latter being only about 5000. In this connection, it is suggestive and quite pertinent, as Dr. Pearce Bailey has pointed out, that, although a considerable number of the drafted men of New York State, rejected for other neuropsychiatric conditions, especially the psychotic, have come to the notice

\* Read at the seventy-seventh annual meeting of The American Medico-Psychological Association; now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

of the authorities as needing assistance or care, very few, in fact practically none of the mental defectives have as yet been referred for any such purpose. This is simply corroborative evidence that certain mental defectives may continue in the community in more or less economic independence. For it has been shown, especially during the war-time scarcity of labor, that many individuals of subnormal mentality are capable of quite efficient work. It is firmly believed that a considerable proportion of the mental defectives now outside of institutions may safely remain in the community, especially if they are properly trained and given sufficient supervision.

Accordingly, definite extra-institutional activities form an important part of any program in behalf of mental defectives and have to do with the largest number of individual cases. The *New York State Commission for Mental Defectives* has, therefore, emphasized and enlarged the scope of the extra mural activities as far as limited personnel and funds would permit.

Clinics constitute an important extra-institutional activity because they are one of the best means of reaching and identifying early the mental defective. If the feeble-minded are to be saved from those distressing complications of delinquency, crime and various other manifestations of maladjustment, they must be found when young enough to make it possible to establish good habits and to train in accordance with their intellectual capacities.

Since October 1919, the Commission has been associated in 28 clinics, 15 of which were regular monthly, 9 occasional, and 4 group consultation clinics. They are held mostly in the smaller cities and in towns in the rural districts.

A majority of the clinics, especially the regularly occurring, are conducted jointly with the State hospitals, a complete clinic staff consisting of a psychiatrist and social worker from the hospital for cases of mental and nervous disease, and a medical consultant and psychometric examiner representing the Commission for Mental Defectives for cases of alleged mental defect. The consultants in mental defect are from the staff of the Commission, the various State Schools for Mental Defectives, with occasionally a local physician as medical consultant and a representative of the State Board of Charities as psychometric examiner. Clinics are held in general hospitals, Red Cross or nurse association rooms,



or similar quarters where the public will not hesitate to come for advice as in the general medical conditions. A large number of the cases seen are referred from the public schools.

Time will not permit a full consideration of the clinics, the methods pursued and the results. The outstanding features of a study of approximately 1000 records now on file in the office of the Commission are first, the large percentage of high-grade feeble-minded persons which exist in every community, second, the early age at which these are discovered, most of them being under 16 and third, the few which require immediate institutional care. These are very practical results for it means that the clinics are reaching cases of a type and an age most amenable to training.

The success of such activities as the clinics, however, will depend to a considerable degree upon the facilities for follow-up work, after-care and supervision. It will do little good to find indications for treatment or remediable physical defects, to suggest changes in habits or environment, to advise special methods of training or other disposition if there are no agencies to see that such measures are carried out. Here is the weakest link in the chain and one of the most difficult to strengthen.

So far as the state institutions for mental defectives are concerned, each has its parole agents who investigate the homes where paroles are contemplated, visit those out on parole and keep under supervision the various colonies. Their duties, in many respects, are not unlike those of the social workers of state hospitals. To further extend such work and to begin an attempt to establish state-wide extra-institutional supervision, four field agents were granted the Commission by the Legislature of 1920. These young women, college graduates, combining the experience of psychologists, teachers, social workers and psychometric examiners, have during their first year made New York City their general headquarters. They have been engaged mostly in visiting the so-called graduates of special classes of New York City in co-operation with and with the advice of Miss Farrell, of the City Department of Education. They investigate all phases of home supervision, the physical care, the employment and the possible need for institutional commitment. In all cases they endeavor to remain on friendly relations with both children and parents in order that the supervision may be indefinitely prolonged.

During the first seven months of the field agents' activities, 716 visits were made, about half of these being first visits. Efforts at securing positions for mental defectives have been only partially successful, probably owing to the increasing amount of unemployment. The conclusion has been reached that the most hopeful outlook for employment of intellectually subnormal individuals is by groups, as demonstrated in the successful colonization of mental defectives by Dr. Bernstein.

Besides visitation, the field agents have taken active part in the various clinics as psychometric examiners and have also completed surveys of backward school children in a number of towns and smaller cities. The surveys have usually been made at the request of local educational authorities with the approval of the State Department of Education, the general purpose being to gather together children for special classes.

Supplementing the necessarily limited activities of these four field agents, the Commission has to utilize so far as possible the assistance of the workers of various official and private organizations, all of which are also engaged in other important operations. Essential features of the clinic work, such as psychometric examinations, the bringing of patients to the clinic and the supervision of the carrying out of recommendations, instituting various kinds of publicity and so on, have been greatly extended by the co-operating representatives of the State Hospital Commission, State Board of Charities, State Charities Aid Association, American Red Cross, State Department of Health, State Department of Education and many local health, educational and social organizations. In fact, much of the success of the state-wide activities in behalf of mental defectives must be ascribed to the gratifying willingness to co-operate, manifested by all such agencies.

One of the most urgent needs in the extra-institutional activities in behalf of mental defectives is for more qualified workers. Teachers for special classes in the public schools are especially scarce. If the extra-institutional program is to be successful, provisions must be made in the schools for training the subnormal children which are being identified as early as possible by clinics and surveys. With the need for special classes so manifest, it is deplorable that there is such a general lack of these facilities, especially in the rural communities.

The State Department of Education has recognized the necessity for special classes and is advocating the same throughout the state. There are in some localities, especially the larger cities, very excellent special classes but even here they are much too few and the rural communities are practically without such facilities. Very often the extra expense involved is considered prohibitive but frequently the excuse is offered that there are no teachers available who are qualified to conduct such classes.

Recognizing this need, Dr. Charles Bernstein, Superintendent of the Rome State School for Mental Defectives, has, since 1913, been conducting a summer school for teachers in preparation for teaching special classes in the public schools and similar positions in institutions for the feeble-minded. The courses, of about four weeks duration, are given at the institution, and are open to graduates of normal schools and teachers' training schools, and to experienced teachers. There is no tuition fee but five dollars a week is charged for board and lodging at the institution. The course is conducted in a most practical manner. After observing for a week the general work of the institution, especially the activities of the regular teachers, the students are given charge of classes of mentally defective inmates under the critical supervision of the head teacher and the various officers. In this way, a first-hand knowledge is attained, as to institution methods, special class work, and the characteristics and peculiarities of the various kinds of mental defectives.

Lectures are given daily on the various phases of mental deficiency and its allied problems. Sufficiently prepared students are afforded the opportunity for theoretical and practical work in applied and abnormal psychology. Instruction is also given in the various methods of psychometric examinations.

The maximum number of students for any one session has been 32, the attendance falling off considerably on account of the war.

During the coming season, there will be a short course of two weeks, the full course lasting from July 1 to the 13.

A clinical course for physicians, especially those engaged in examining school children, was also conducted at Rome for one summer but had to be discontinued because of the war. Besides these formal courses, about four public clinics are held each year at Rome for certain groups interested in the general problem of

mental defect, such as the various medical societies, and the graduating classes at Syracuse and Colgate Universities.

Under the direction of the Oswego State Normal and training School, a special class teachers training course has also been started through the initiative of Dr. O. H. Cobb, the Superintendent of the Syracuse State School for Mental Defectives. The lectures and practical work have been given at the latter institution, Dr. Cobb being the chief administrative officer. As originally authorized by the legislature of 1920, the instruction was to be given in a building in the residential districts of Syracuse, used as a colony of the State School. The building was to house 75 children who would form the basis for the theoretical and practical training of special class teachers. The course was to offer one year's intensive training, leading to a certificate or a diploma granted by the Oswego Normal School. There were to be no tuition fees and a limited number of approved students might be allowed maintenance in return for services rendered. One thousand periods were to be devoted to abnormal psychology, mental deficiency, special methods of teaching, physical education, various forms of handwork and observation and practice. Complications arose, however, due to legislative tendencies and difficulty in securing funds so that the formal course as outlined could not be carried out. Miss Otis, the director of special class training at the Oswego Normal School, has, however, conducted at the Syracuse State School evening classes on the Fundamentals of Mental Deficiency and Special Class Methods. In February of this year, there was a total registration of 25, including some of the institution teachers and a number of special class teachers of Syracuse and neighboring towns. At the same time, the resident instructors at the Syracuse State School furnished opportunities for learning various handicrafts including basketry, pottery, sewing, cardboard construction, weaving and other work suitable for special classes. Credit for this work will be given in the Oswego Normal School.

The Commission, being impressed with the importance of the work of the field agents and with the necessity for adequate preparation in such a new undertaking, arranged for special courses for them at Columbia University. These courses have been principally in the Department of Psychology, much time

especially being devoted to the consideration of psychometric examination and related subjects. No courses in social work, economics and allied subjects have been included as all the field agents have had theoretical training and experience along these lines. Four hours a week have been devoted to this special work which may be counted towards the M. A. and Ph. D. degrees.

Plans for future work in behalf of mental defectives include the continued extension of extra-institutional activities as personnel and facilities become available. Clinics will be established as rapidly and widely as possible, a probable change in method being to make the clinic a local community affair wherever qualified workers are found. Whether it will ever be practicable for the Commission to have a sufficient staff of field agents to conduct a state-wide system of supervision is questionable and extremely doubtful. It may be the better plan to use a limited number of well-qualified and experienced field agents for survey and demonstration purposes as it were, detailing them for limited periods in certain districts or towns, until their work has been the means of educating the local authorities to a realization of the importance of provisions for mental defectives. In this way the state may be relieved of certain phases of the problem which may better be assumed by each community. This plan would afford an opportunity for service for properly organized volunteer agencies. In the matter of securing more qualified workers, of which there is a great need, certainly no opportunities should be overlooked to provide means for the theoretical training and practical experience of all who can be interested.

Little will be said of the successful colonization plan of Dr. Bernstein, in a sense extra-institutional, but rather an intermediate stage between institution and community rehabilitation. Colony inmates are still counted as belonging to the parent institution, although many of them, through industrial excursions in the community, are quite extra-mural during the day.

In conclusion, (1) the question of mental deficiency, on account of its prevalence, the close relation to crime, delinquency and dependency, and the tendency to place under one control the insane, epileptic and feeble-minded, is destined to become of increasing interest and importance to neuropsychiatrists.

(2) As most of the mental defectives are outside of institutions and are liable to remain so, extra-institutional provisions should be established and extended as rapidly as possible.

(3) New York State has provided a number of extra-mural facilities.

(a) Clinics for examination and advice.

(b) Supervision by parole and field agents, and volunteer agencies.

(c) Educational activities including summer courses for teachers for subnormal children and courses for field agents.

(4) If extra-institutional activities are to continue to be successful, there must be a rapid extension of facilities for supervision of mental defectives and education of workers.

#### DISCUSSION.

MISS CLARK.—In observing the work of hospital social service departments, I have become convinced that much might be gained by the establishment of closer relations of cooperation with other social service agencies in the community. We should adopt for the state at large the methods of correlation of work that prevail in cities and that make so much for efficiency and economy. Take, for instance, the situation in the State of New York. Among the social workers in any given community we have the field agent of the state hospital of the district, the field agents of the institutions for the feeble-minded, the parole agents of the reformatories for men, women and children, the probation officers attached to county or city courts, in many localities county agents for dependent children or other child welfare workers, public health officers under a district sanitary supervisor, public health nurses both general and special, school attendance officers, workers in charity organization societies, in the Red Cross, the Y. M. C. A., the churches, etc. Many of these agencies may be doing separate and uncorrelated work with the same families. Think of the waste of effort and money involved in having the various members of a needy family in a remote country district visited by two or more representatives of these health, charitable, educational, preventive, protective, or what-not organizations. In cities where social work is well organized much of this sort of over-lapping was long ago done away with. One tenement house family is no longer visited by a baby nurse, a school nurse, a nurse for tuberculosis, influenza, poliomyelitis, or what-not specialty, though here still there is room for improvement in the direction of cooperation. I think that we have an excellent example of the advantages of consolidation and correlation in the traveling clinics that have been a recent experiment in New York State. Here three state departments of Health, Mental Deficiency, Mental Disease have combined with the State Charities Aid Association and the Red Cross, the two leading private organizations with state-

wide activities, to hold clinics in the small cities, which are attended by specialists from the large cities, and the state institutions and departments, to which the people of the community may come for any and every physical, mental or nervous ailment. These joint clinics point the way for a similar movement in the follow-up work and the preventive work of the institutions, the courts, the schools, the charities, and the churches. A good geographical unit of organizations would be such as our New York State Health Department has established in the sanitary districts into which the state is divided, with an average of four counties to a district, and with large centers of population forming separate districts. Each one of these districts has its health work presided over by a paid, full-time medical officer, a sanitary supervisor, who directs the local health officers, and standardizes their work. The health work of the district should be correlated with the other social, charitable and educational work, a central exchange established for the registration of cases, like the social service exchange of a large city, where information could be secured by any worker as to what others were doing with the same families or individuals, and it would seem practicable for one or two properly trained and directed social workers to cover, with any given family, the services that the family required from all the varied public departments and private agencies. If there were in each such sanitary district not only the sanitary supervision in charge of the health work, but also a mental hygiene supervisor in charge of preventive and after-care work for the mentally abnormal or subnormal, a child welfare supervisor, a general family case work supervisor, and a director of the educational interests of the community, these five working in close cooperation and with such assistants as the size of the community required might easily accomplish many times as much as the same number of workers operating in ignorance of one another's activities, and would not only prevent overlapping but, what is much more important, fill up the gaps now existing almost everywhere in the social service that is required if the community is to prosper physically, mentally and economically.

DR. HAMILTON.—The enormous number of mental defectives in a state like New York points very clearly to the fact that there is an enormous amount of work for society to do before the affairs of the defectives will be properly managed; nevertheless this report of Dr. Sandy's is a report of magnificent progress in the activities of the commission to which he has devoted so much of his own effort during the last few years and for whose success he is in no small degree responsible.

The question arises, what are our communities doing and what should they do? It is very noticeable that there are vast reaches of our country in which there is nothing definite being done to secure necessary supervision for mental defectives, except when they are put into jail. It is also noticeable that starting from the great centers some work is being done. I think such work usually starts in the school system and in many places from state institutions. This report points out the necessity of the cooperation not only with these agencies, already interested in the problem, but also many other agencies. I believe the same sort of things must be done

in every state. State institutions, even though already over-burdened with problems, are always ready to assist in something which will be for the good of the community. Bringing together the staff activities of all the institutions in New York for mental defectives, insane, etc., has had a good effect; so bringing together local agencies will do much in this direction.

It is probable that as this work goes on, the scope of authority and the activities of the office of health officer will be increased by adding to his office, not the specific care of these persons, but simply knowledge where the feeble-minded are and readiness to protect them and to aid them in securing the sort of life which will be most useful to the community and most beneficial for themselves.

DR. BRUSH.—I was interested in what Miss Clark said, and perhaps she will be interested in knowing how the problem was solved in Baltimore, and I believe is being solved in Cleveland, and about to be in Philadelphia. Every year each charitable organization appealed, under former conditions, to the citizens of Baltimore for contributions for its particular work. Then it was discovered that we were overlapping; the obstetrical nurse, the Public Welfare Association, The Mental Hygiene Society and some other organizations were each taking care of the same family or child. We now have headquarters in one building; each organization having its own office. If the Welfare Association finds a child whose condition is one which comes under the work of the Mental Hygiene Society they turn that child over to it; if the Mental Hygiene Society finds a mother who needs a nurse for tuberculosis or anything else, we report to the proper society and it is taken care of, and there is no overlapping. Now that we have but one campaign for funds and no single society is permitted to make a direct appeal for itself, we have better success, in collecting funds and are having better results in work accomplished.

DR. RUSSELL.—There is one point it seems to me that has not been brought out as clearly as it ought to be. Through these clinics, with the aid of the social workers, a great many patients are reached who perhaps would never otherwise receive proper attention. The need of institutional care for these cases is sometimes anticipated and prevented. It seems that this point should be made perfectly clear, as it has a bearing on the economic aspect of the question. I think the statistics of the State Hospital clinics in New York show that a great many such cases receive attention. They are brought into the clinics by social workers or informed relatives or are referred by physicians, and through the attention they receive in the clinics they are very often prevented from going to the state hospitals.

DR. SANDY.—I have been interested in the discussion. I would emphasize what Dr. Klopp said in his paper about the responsibility of the educational authorities in establishing special classes. There we have the whole crux of the situation. It won't do much good to locate the mental defectives if we don't have some means of training them and preparing them for life in accordance with their limited capacities.



## WHAT HAPPENED TO DISCHARGED PATIENTS.\*

By GEORGE K. BUTTERFIELD, M. D., HATHORNE, MASS.

Perhaps this is not an inopportune time to briefly summarize our knowledge pertaining to the social and economic adaptability of the individuals who are leaving our state hospitals and making an effort to adjust themselves to conditions as found in an outside environment.

As only under unusual conditions can the abnormal individual compete in the labor market with the normal individual the period selected for this survey was from July 1, 1917 to July 1, 1918. The unusual industrial conditions prevalent at this time made it possible for the individual afflicted with mental disease, to readily secure employment and for this reason seemed especially suited for this comparison.

No patient was considered who had not remained away from the hospital at least one month. Those discharged by transfer and death were also excluded. This left a total of 383 cases for examination. Of this number the Social Service Staff were able to investigate 250.

Three main tests were considered in estimating the individual's success. The criterion of success in this study being the patient's ability to remain in the community. This demands: First, ability to get along without friction; second, economic success or ability to be self-supporting; third, personal success in taking responsibility.

The study showed that 157 patients, or 63 per cent, were capable of living out of the hospital, and that 93 or 37 per cent were unable to live in the community. One hundred and forty-eight were men, of whom 94 were successful and 54 failed, and 102 were women, of whom 63 were successful and 39 failed. Three of the 93 committed suicide. Of the remaining 90 cases returned to this

\* Read at the Seventy-Seventh Annual Meeting of The American Medico-Psychological Association; now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

or some other hospital 31 have been given one or more trials and of this number 26 have been successful.

## SEX.

	Successful	Failed
Total number of patients. 250	157 = 63%	93 = 37%
Men .....	94 = 64%	54 = 36%
Women .....	63 = 62%	39 = 38%

Although the available information was not sufficient to enable us to record in statistical form the reasons ascribed for patient's return to the hospital, the more frequent reasons given for inability to continue outside were increase of severity of symptoms which originally brought the patient to the hospital, change in family status, and industrial depression.

The diagnoses and results are shown in the following table:

Psychoses	Capable of living out of hospital 157-63%	Unable to live in community 93-37%
Manic Depressive .....	26	16
Dementia Præcox .....	41	32
Alcohol .....	27	11
General Paralysis .....	5	9
Epilepsy .....	5	4
Mentally deficient .....	16	9
Senile Dementia .....	1	2
Other Psychoses .....	36	10
	157	93

The average length of time that each patient in this survey remained in the community was 25½ months. The majority of these cases got along without friction, either in their family or public life. In 75 cases was this reported. The greater number of these showing irritability or some evidence of disease which prevented complete adjustment. Only two cases were violent in their homes. Forty-one of these 75 were disturbing to the public in some minor way. Five showed more serious conduct reactions, two of these stealing and three committing acts of violence.

The economic success of these cases is represented by 104 being self-directed, that is, able to make personal decisions but not able to more than take care of themselves. Seventy-four were responsible for others, able to make decisions for others in the family to some extent. Seventy-two were directed being unable

to make personal decisions for themselves. In some cases a man was able to support his family where he was not able to take any real responsibility at home—his wife relieving him entirely from making family decisions.

#### ECONOMIC SUCCESS.

Self directed .....	104
Responsible for others .....	74
Directed .....	72

It was found that the majority returned to their former occupations. They evidently displayed good power of application as only 32 were reported as having occupied over two positions. One hundred and fifty-eight were able to continue at the same occupational level. Forty were obliged to take up a lower level occupation. Twenty-three occupied positions at a higher level, while 29 remained idle.

#### OCCUPATIONAL LEVEL.

Same level .....	158
Lower level .....	40
Higher level .....	23
Idle .....	29

The problem of sex has to be considered at times in the release of patients. In this group the average age on release was 38½ years. One hundred and thirty-eight were single and 112 married at time of release. Twelve of the 138 who were single, married after leaving the institution. Twenty of the 250 had children. These 20 families having 24 children born during the period covered by the investigation. The mentality of these offspring could not be satisfactorily determined because the oldest would be under three years of age. The social workers, however, state that none of them showed any gross stigmata.

It is the usual custom at this hospital to present patients at staff conference to consider the question of discharge. How was the judgment of the staff borne out by results? One hundred and eighty-six were discharged by recommendation of the staff. Of this number 132 were successful and 54 were failures. Thirty-eight were permitted to leave the hospital against advice. Twelve

of these were successful and 26 failed. Twenty-six escaped. These had 13 under the successful heading and 13 under failed.

#### STATUS OF DISCHARGE.

		Successful	Failed
On advice .....	186	132 = 76%	54 = 24%
Against advice .....	38	12 = 32%	26 = 68%
Escaped .....	26	13 = 50%	13 = 50%

It, perhaps, should be stated that in some instances permission for discharge is given, where the staff feel that there is some doubt about patient's ability to get along, yet because of some mitigating circumstance it seems desirable to permit them to leave without placing them in the classification of against advice. To summarize, of those discharged on advice 76 per cent were successful and 24 per cent failed. Of those discharged against advice 32 per cent were successful and 68 failed. Of those who escaped 50 per cent were successful and 50 per cent failed. In accounting for the high percentage of successes among the escapes; one reason perhaps is that it is usually the more active, less demented type that attempt to escape, and thus more likely to succeed.

It is of interest to know what part social service played in the after care of this group and the results obtained. The report shows contact in some form in 101 cases. Fifty-four of these were successful and 47 failed. It would seem that this showing is very creditable in view of the fact that usually it is the problem case that is referred to this department and also that failures are more apt to be known where there is social service supervision. The results lead to the questions: Are we selecting the proper cases for social service contact? Is not effort being expended on the unfavorable type of case which might be utilized to better advantage on a larger number of patients of the more favorable type? It should be said that only when more than one worker is available that after care work other than emergencies can be attempted.

An item in the report of much service is that of helpful influences. By this we mean the reason ascribed by patients for their success. Under this heading we find that good home influences lead the list with 53. Proper employment and prohibition are next with 25 each. Other ascribed influences are army, hospital, religion, marriage, social service and amusements. One reason given

by an old lady is original and full of merit, namely that of "Keeping out of other people's business." It is noteworthy that most of our patients have rather meagre resources for recreation. The movies are the cheap and convenient but not very satisfactory solution to the problem for most people. There is little recreation of an active sort. Many of the alcoholic men are doing well under prohibition, because there is no longer the social saloon. They now spend their evenings at home, much to the relief of their families. The middle-aged men have grown up without recreational resources and say they are too old to develop them now. There is great need for community development of sports for all ages, and of community centers for social meetings. A few patients both men and women find mental rest in handwork or "puttering around" at home. Some have found in the hospital occupation classes the training for new interests of that sort.

In conclusion we may say that a majority of our discharged patients are able to adjust themselves to an outside environment. Evidently under a handicap yet they are able to "carry on" and contribute to the relief of the great burden our Commonwealth bears in the care of its unfortunates.

#### DISCUSSION.

**DR. JOHN F. O'BRIEN.**—As Dr. Butterfield and I were former associates, I cannot resist the opportunity to say a word to encourage him in his work. His paper reminds me of a patient who was and still is, I believe, a resident of one of the state hospitals where he and I were at the time employed. One morning as I made my rounds I perceived that the aforesaid patient was indolently reclining on one of the settees. She was told to arise and take up some work. Slowly she arose, yawned, stretched her arms and with a merry twinkle in her eyes remarked, "Doctor, doesn't a hen have to set before it lays?"

Now, to me such an utterance seemed most appropriate. As psychiatrists we have set long enough on neuropsychiatric problems which are most vital to the race, and it is high time that we acted. Such facts as have propped by Dr. Butterfield and the other doctors, will enlighten public opinion provided we go out into the highways and byways and disseminate said convincing facts. This society and the Mental Hygiene reach a minority. We must reach the majority. Then public opinion will be influenced to more speedily see to it that proper legislation is enacted to prevent mental deficiency, to help the mental defective, and so better the community.

**DR. HOUSTON.**—Dr. Butterfield's tabulation graphically illustrates one of the wheels of progress toward the ideal that our President has outlined this morning. We realize that a hospital's activities should not be confined to the walls of the institution. In 1911 at our hospital one of our assistant physicians was definitely appointed to organize work of this kind. The results, without going into detail, corroborate fairly Dr. Butterfield's tabulation. They show that we have just begun to appreciate the service that the institution ought to do outside of its four walls, and what is perhaps of more importance, it has placed the hospital on a splendid footing with the community; it dissipates some of the fears that the public has; individuals come freely for consultations to the four clinics established in the communities in our district; they welcome visits of our staff to patients who are out on parole; they encourage the coming of patients more freely to the institution itself. That alone has been of more than enough benefit to pay for the expense and trouble of instituting the out-patient service.

Formerly we discharged all patients who were not transferred to other institutions; now a large majority go on the books as on visit or on parole, kept under observation by our social workers and by the members of the staff who attend the various clinics. In a comparatively small institution of 1000 patients we have about 175 who are out on parole, and this is because of the connection that they keep with the hospital through our patient service.

**DR. H. L. PAINE.**—It seems to me that there was considerable said about the economic value of getting these patients out. This paper showed very clearly that it is a very difficult matter to estimate the economic value to the state, of getting these out of the hospitals, for instance—the paper showed the birth of 24 children in 20 families during a period of two and one-half years, which just shows the difficulty in estimating the economic value of getting these patients out on parole, or discharged. I think that we are a little short-sighted sometimes in figuring on the economic value to the state.

**DR. BUTTERFIELD.**—I will just say that I should like to have it thoroughly understood that the period covered by this investigation work is a matter of practically two and one-half years, as that is the time which has elapsed since the patients have been discharged.

## THE NEURO-PSYCHIATRIC WARDS OF THE UNITED STATES GOVERNMENT; THEIR HOUSING AND OTHER PROBLEMS.\*

By JOHN JOSEPH KINDRED, M. D., RIVER CREST, ASTORIA,  
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It is obviously impracticable in the time allotted to this paper to discuss the many problems concerning the United States Government in respect to its neuro-psychiatric wards. I propose therefore to confine my remarks to several phases of the problem relating to the neuro-psychiatric cases resulting directly or indirectly from the World War.

Some idea of the scope of the government's activities relative to the care, treatment and rehabilitation of the American disabled of the World War may be gathered from the quite generally-known fact that 6,000,000 casualties and disabilities were directly or indirectly traceable to the World War. In this connection it may be of interest to state that more than 525,000 persons have applied for compensation in accordance with the War Risk Insurance Act. About one-third of these (30 per cent) come within the purview of the neuro-psychiatric group. As to the ultimate number who will apply for compensation, the government actuaries have estimated that in the course of the next ten years 1,500,000 claims will be filed with the War Risk Insurance Bureau. Many of the mental and nervous cases now applying for or in receipt of compensation, had their disability prior to entry into the military service, but in accordance with the law governing their treatment and payment of compensation their enrollment or acceptance is indicative of the absence of physical or mental disability or injury (Sec. 300 War Risk Insurance Act.). Moreover, many such cases have enlisted subsequent to November 11, 1918, and later have

\* Read at the seventy-seventh annual meeting of The American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31-June 1-2-3, 1921.

been discharged from further duty with the military forces. They are now being treated and compensated by the United States Government, although their disability is in no way traceable to actual war service. New cases will therefore accrue from year to year if the present law and regulation continue in effect. The ultimate number requiring federal aid cannot at the present be determined and must be no more than an approximation. As a further indication of the scope of the government activities in respect to the American disabled of the late war, it may be of more than passing interest to mention that the National Homes for Volunteer Soldiers did not reach the peak of their activities until almost 30 years subsequent to the close of the Civil War.

It is a known fact, however, that more than 76,000 neuro-psychiatric cases came under the observation of the Surgeon General of the United States Army and were discharged because of such disabilities. The surgeon's certificate of disability included the psychoses, psychoneuroses, the epilepsies, the mental deficient, the endocrine disturbances, the diseases and injuries of the central and peripheral nervous systems, and others, which for purposes of description, were designated as constitutional psychopathic inferiors—inadequate personality. Based upon the actual number of known cases, the rate of mental and nervous diseases arising among the military forces of the United States Government during the late war is approximately 2 per 1000, or 191.4 per 100,000.

A short review of what has been accomplished by the United States government in respect to meeting this problem may be briefly presented for your consideration. The problem of the neuro-psychiatric wards of the United States Government arising from the World War automatically divides itself into three activities, each of which is intimately associated with and dovetailed one with the other. They are (1) treatment; (2) vocational rehabilitation; and (3) obtaining of medical evidence, and rating of disabilities for purposes of compensation or training.

(1) The War Risk Insurance Act having become a law in the fall of 1917, the number of patients coming within the purview of that act were exceedingly limited and by July 1, 1918, only a very few had applied for compensation or were afforded medical treatment. The United States Government had available at that



time army and navy hospitals which were being utilized to the fullest extent by the military forces, St. Elizabeth's Hospital, Washington, D. C., and the U. S. Marine hospitals, of which there were 23 of the latter with a capacity of 1500 beds. In August, 1918, the Director of the Bureau of War Risk Insurance requested the Surgeon General of the Public Health Service to provide additional beds for the care and treatment of beneficiaries of the War Risk Insurance Act. Pursuant to that request, a letter was forwarded to the Speaker of the House of Representatives by the Secretary of the Treasury, requesting appropriations to provide additional beds for the care and treatment of the American disabled of the World War. A bill was introduced in September of that year and was finally made a law March 3, 1919 (Public Act 326), which provided for the increasing of the capacity of the existing facilities, the transfer of properties from the army and navy and other departments of the government, and authorized the Public Health Service to negotiate leases and acquire additional properties, an appropriation of \$9,500,000, being made for this purpose. Out of this first appropriation, the United States Public Health Service purchased among other properties, an institution of 300 beds for neuro-psychiatric cases and leased eight other hospitals. Diligent search was made throughout the United States by representatives of the United States government and other organizations to locate properties that could be made adaptable to the care and treatment of nervous and mental patients. It was early appreciated that such properties were not available and in September, 1919, the Surgeon General of the Public Health Service and the Chief Medical Advisor of the Bureau of War Risk Insurance, then an officer of the United States Public Health Service, prepared a letter for the Secretary of the Treasury outlining the needs and requirements necessary to meet the problem of adequate hospitalization for the disabled American soldier, sailor and marine. This letter was transmitted by the Secretary of the Treasury to the Speaker of the House of Representatives on December 5, 1919, requesting an appropriation of \$85,000,000 to provide 30,660 beds in new construction, 11,060 of which were to be devoted to the exclusive care of patients suffering from nervous and mental disorders. After extensive hearings, the

Second Session of the Sixty-Sixth Congress adjourned without meeting sufficiently the needs of the disabled man, but made available \$46,000,000 to be disbursed under the direction of the War Risk Insurance Bureau for the leasing of properties and the improvement of existing government institutions. This obviously did not meet the needs of the disabled soldier and appropriations for new construction were again requested of the Congress. As a result of the \$85,000,000 building program presented in the fall of 1919, \$18,600,000 was appropriated at the Third Session of the Sixty-Sixth Congress and made available on March 3, 1921. To date (May 10) none of this money has been expended for the beginning of new construction or additions to already existing plants. But a committee appointed by the Secretary of the Treasury to locate sites and hospitals is making progress in providing additional beds for neuro-psychiatric cases. The hospital facilities now available (May 10) for the exclusive treatment of nervous and mental patients are as follows:

Nine Public Health Service Hospitals.....	2099	Beds
St. Elizabeth's Hospital, Washington, D. C.....	800	"
National Home for Disabled Volunteer Soldiers (1 hospital)....	350	" *

It is obvious that these facilities are insufficient to meet the needs of the mentally disabled discharged man and it is believed that the entire \$18,600,000 could well be spent in providing appropriate and necessary facilities to meet the needs of these patients. There is urgent need for hospital facilities for the care of the psychoses, which represent about 70 per cent of the entire neuro-psychiatric group, while 20 per cent represent the so-called psychoneurotic class.

I sincerely believe that the United States Government will increase its appropriations to provide adequately for the care of the mentally disabled discharged soldier, sailor, and marine, and that a sufficient number of hospitals will be erected that will be modern in design to provide adequate treatment for all classes of such patients, that their recovery or maximum improvement may

\*The 350 beds at the National Sanatorium, Marion, Indiana, will be increased to 1000 in the very near future, as soon as alterations are completed.

be brought about and that those who will require to spend a large part of their life in its institutions will be made comfortable and happy.

These hospitals, and appropriation for which \$18,600,000 was made by the last Congress, following the high standards of the U. S. Public Health Service, are to be modern and spacious and provided with superior equipment and methods for the care, nursing and treatment including (it is to be hoped), special consultation wards and arrangements for shell shock and other special cases, and every provision for thorough classification, as suggested by Dr. Walter L. Treadway, Surgeon U. S. Public Health Service in his excellent address entitled "Activities of the War Risk Insurance Bureau and the U. S. Public Health Service relative to the mentally disabled ex-military men," delivered at the last annual meeting of this Association at Philadelphia.

The construction and arrangement of these hospitals should provide facilities to carry out some suggestions made by Dr. G. Elliott Smith of the Manchester, England, Medical School, in his book on "Shell Shock" who in discussing the nature and treatment of this complex neuro-psychiatric group (shell shock and allied cases) urges that a special hospital construction be supplied and that a more helpful attitude be inculcated in the public mind as to the social aspects of this and other similar mental and psychoneurotic disorders, some of whom are better treated outside of hospitals in connection with out-patient departments and local psychopathic wards, which are included in this plan of hospitalization and care. He also emphasizes the importance of individualizing intensively, the study and treatment of each shell shock case and the intelligent, discriminating use of all useful agencies to effect cures, even induced hypnotism in proper cases. He points out how essential it is, in many of these, who have a form of suppressed delusional state, to induce them to "make bare their subconscious mind" and to facilitate this and other curative measures, he urges that each hospital have quiet consultation rooms and special arrangements for the thorough treatment of this large and interesting but often difficult class of cases. Such a hospital and administrative system would best serve the entire country and the needs of the neuro-psychiatric and other disabled

sick beneficiaries of the U. S. Government, and would rapidly relieve the present pressing demands of the federal neuro-psychiatric service and the serious overcrowding that has necessarily existed in our state hospitals which have gladly met their patriotic duty to the ex-service men.

(2) In order that the United States Government might meet the needs of all classes of disabled men, the United States, for the purpose of administration, was divided into 14 districts, each district being headed by an officer of the Public Health Service, designated as District Supervisor. His duties consisted of obtaining medical evidence in respect to disabilities, for the purpose of the War Risk Insurance Bureau, and placing patients in hospitals appropriate for the care and treatment of their disability. This decentralization was carried out with the approval of the Secretary of the Treasury, although no statutory authority ever existed for it. In order to meet the situation in respect to neuro-psychiatry, each supervisor was provided with a full-time psychiatrist who acted as executive officer in matters pertaining to the administration of the neuro-psychiatric problem of the district. This psychiatrist had associated with him necessary assistants to inspect hospitals, to aid in the development of out-patient clinics, diagnostic and observation centers, and to give appropriate advice to the Federal Board for Vocational Education in respect to the training of improved or recovered neuro-psychiatric cases.

(3) In respect to the rating of disabilities for the purpose of compensation it may be of interest to know that the Medical Division, War Risk Insurance Bureau, was administered by an officer of the United States Public Health Service until the fall of 1920, when the War Risk Insurance Bureau began to develop and organize its medical service for duty in that Bureau in Washington, D. C. Since the District Supervisors' duties were largely concerned with features relating to medical evidence for the War Risk Insurance Bureau, and acted as its representatives in directing patients to appropriate hospitals, the Secretary of the Treasury, on April 19, 1921, authorized the transfer of such officers to the War Risk Insurance Bureau, the commissioned officers of the Public Health Service to continue to serve under the direction of

the Bureau of War Risk Insurance until such time as that Bureau might arrange for the development of its own medical organization.

I cannot refrain from expressing my admiration for the diligence and earnestness with which the commissioned medical personnel of the U. S. Public Health Service have worked under the stress of often insurmountable difficulties. I must further express my appreciation of the fact that the medical officers of the Public Health Service have laid the foundation for any organization that may now or hereafter undertake to administer these problems. It is again demonstrated as every member of the American Medico-Psychological Association appreciates, that medical men are able and capable administrators. It is believed, however, that the administration of the federal activities in respect to the medical problems as they relate to the obtaining of medical evidence or the rating of disabilities, the giving of hospital treatment, out-patient care, and appropriate advice for the training of recovered or improved neuro-psychiatric patients would best and most efficiently be administered by one medical organization.

Quite aside from the medical problems just enumerated, other necessary activities such as appropriate nursing, occupational therapy, physio-therapy, and social service should all be coordinated in one medical organization. The social service work throughout the late war and since, has been of immense economic, moral, and spiritual value. It is therefore natural that the American Red Cross has planned to continue to act as the social service agent for the Government until such time as its own medical social service may be developed. The treatment of the environment to which a mal-adjusted individual is to return, is an important arm or adjunct to the hospital or out-patient clinic.

In the absence of government facilities for the care of the mentally disabled men it has been necessary to utilize the already existing public facilities that are overcrowded and frequently have insufficient beds to meet their needs. One cannot help but express admiration for the manner in which the psychiatrists have aided their government during the late war in the examination of recruits, in the treatment of those developing disorders in military life, and the treatment and care afforded such patients after discharge under most trying and difficult circumstances without

facilities, and with, many times, appropriations insufficient to meet the ordinary needs or requirements. I am sure that an organization such as this will be intensely interested in the development of a national program looking to the appropriate care and treatment of the mentally disabled veteran of the World War and that every man in this organization is interested in doing everything possible in placing the specialty of neuro-psychiatry in its proper place among things medical. There is work for every member of this society in aiding the government to appropriately meet the needs of its neuro-psychiatric wards and of placing psychiatry on a higher plane. Words and deeds, encouragement and help, should therefore be the watchword, ever keeping in mind the adage: "If thou shouldst lay up even a little upon a little, and shouldst thou do this often, soon would even this become great."

#### DISCUSSION.

DR. TREADWAY.—I am very pleased to have the opportunity of saying a few words in regard to the work so ably and interestingly outlined by Dr. Kindred. It is quite obvious that in an organization so large as that of the Public Health Service and the number of cases that it has been called upon to treat that many men not entitled to treatment would receive it and a small number who are entitled to it in accordance with the law may not receive it. The officers of the Public Health Service, however, have lived up to the traditions of the physician and have provided the best medical care and treatment available in the community. It has been rather unfortunate that the government has delayed so long in providing adequately for the hospitalization of beneficiaries suffering from the psychoses which is the major problem concerning the hospitalization of disabled men. The recent Act of Congress providing funds for the erection of hospitals makes it appear that this delay will soon be obviated. It is hoped that five hospitals for the care of psychoses will soon be provided. There is need, however, for two more in addition.

I cannot permit this opportunity to pass without expressing my appreciation and admiration for the cooperation and assistance which the superintendents of the several state hospitals have rendered the Public Health Service and the mentally disabled men. On many occasions they have gone to considerable inconvenience not only to examine patients, but to afford them care and treatment.

It may not be amiss to say a word or two in respect to the hospitalization of that class of beneficiaries which for convenience have been designated the psychoneuroses. During the year just passed this class of beneficiary represented about 20 per cent of all neuropsychiatric cases applying to the government for relief. It would appear unwise to establish a

large number of hospitals for the treatment of this class of cases and it is hoped that the government will attack the problem of developing out patient clinics for this class of patient in a most militant manner.

After a number of years' experience in the development of measures for the relief of the disabled of the World War, including those activities relating to compensation, insurance, vocational training, and medical treatment, I heartily indorse Dr. Kindred's recommendation that all the medical work in respect to the disabled man should be placed in one organization.

**DR. WILLHITE.**—I do not know that I have much to say. I have been associated with the ex-soldier and also with the soldier. It has been my misfortune or good fortune to see these cases during the time of war activity. These cases, of course, presented many new features. After I left the army I went into the Public Health Service and have been associated with these cases since. I think you will all appreciate the difficulty under which the Public Health Service has had to operate. It has been impossible to make provisions for the insane men; it is hoped that it can now be done. We have endeavored to do the best we can and I think many of the hospitals that have been done over have answered the purpose quite well. We have endeavored to supply trained nurses, and I think I can speak from my own personal experience—we have been supplied with trained nurses and many of them have been trained in psychiatry; many of them have been overseas. It has been a rather trying problem under some circumstances. I have seen a few cases that come to us with this open declaration, that they were not able to get compensation without going to a hospital and they decided to go to a hospital so that they might get a total disability; they have succeeded in doing so and some have been a source of considerable annoyance to us—those are our problems, but I think in time it will be all adjusted and that conditions will be better organized and we will be better able to take care of these men, especially the border-line cases. As time goes on I feel that the organization as started will be able to do better work and there will be less complaints than we have had in the past.

**DR. LORENZ.**—Shortly after the return of the troops of Wisconsin we had the same problem to meet. With us the problem was particularly difficult because Wisconsin always expects the very best. We realize that there were no special provision for the care of the soldier and that unless the same were provided, severe criticism and incidentally just criticism would follow. As a consequence, we immediately turned over for the care of the mentally ill soldier the Hospital Department of the Wisconsin Psychiatric Institute. At that time there were available 40 beds. Our medical personnel was inadequate and as you all know difficult to get. At the suggestion of Colonel Salmon, we applied to the Public Health Service for help and were at once assisted by receiving an officer detailed to our institution for the purpose of assisting in the care of these men. Ever since the beginning we have received help from the Public Health

Service and we have felt very much indebted to this service for the efforts made in assisting us in the problem that we undertook.

I am happy to state that our relations with the Public Health Service has been both pleasant and profitable to our State Service.

DR. J. J. KINDRED.—In presenting the paper I desired chiefly to express the importance of hastening the completion of the best system of hospitalization, the system which the government has evolved, and if possible to cut out the red tape and to utilize these hospitals for the large number of neuropsychiatric cases that cannot be cared for in our communities. I also desire to emphasize the splendid sacrificing work of the United States Public Health Service men, and I desire to emphasize the fact that those men have laid the foundation for any other development of work of this kind which may take place in the future.



SOME CONSIDERATIONS BEARING ON THE DIAGNOSIS AND TREATMENT OF DEMENTIA PRÆCOX.\*

By WILLIAM A. WHITE.

With regard to the diagnosis of præcox I feel that we are on very uncertain ground. Kraepelin gave a masterly grouping and description of symptoms which, on the whole, has an unfavorable course and which we have agreed in a general sort of way to designate as dementia præcox. No one as yet, however, has been able to sufficiently define the underlying factor or factors which bind these symptoms together into a diagnostic unit. No one has been able to define the fundamental processes, the mechanisms which are at work, and of which they are the expression. Bleuler has more definitely made an attempt at a grouping of the symptoms along certain definite lines which indicate their relationship, but the whole matter is still, I believe, very far from our understanding and the problem will not be solved, obviously, until all of the facts, at all of the several levels, vegetative, neurological, psychic and social, can be brought together in a unifying synthesis. At present the facts are best resumed in a formulation at the psychological or better at the psycho-social level. In fact almost the only thing about which it seems to me we can come to agreement is that dementia præcox is a regression psychosis and that its general tendency is malignant. Regression, however, is such an all-comprehensive term, it includes so many symptoms that do not even suggest malignancy or præcox, that to have said that dementia præcox is a regression psychosis is to have said very little. If regression is the only fundamental character, when does it become præcox? and if it is not the only fundamental mechanism at work, what are the other mechanisms?

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I am going to discuss briefly a suggestion as to the direction in which a solution may be sought. In the first place, I feel that regression is the fundamental, underlying mechanism which is responsible for the manifestations. Sticking entirely to the psychological level it seems to me that the whole picture of præcox can be adequately resumed under this concept. The symptoms are all manifestly either regressive in type, or else, as in such conditions as transitory manic states occurring in the course of a præcox psychosis, they are efforts to escape from the regression tendency. The cause of the regression and what maintains it, I will not discuss. Now my proposition is, if you will accept præcox as a regression psychosis, that its malignancy is dependent upon two factors which, in their final analysis, may perhaps be the same. The first, and the less important, is the depth of the regression measured from the point of view of the individual's personal psychological history. The second is the inclusion in the regression process of archaic, that is phylogenetic material.

A number of prominent symptoms in præcox can be explained on the basis of the depth of regression, either from the point of view of the person's individual psychological history or the point of view of the psychological history of the race. The prominent symptoms that can be thus explained are in the first place, the un-psychological characteristic of the symptoms; the fact that the productions of the præcox strike us as being quite alien to us in contrast, for example, to the productions of a manic-depressive. We are not able to feel ourselves into the position which the præcox patient occupies with relation to the world; we do not understand what he says; we do not comprehend the meanings of his symbols; he seems to us outside the plane of our experience. This is because his symptoms hark back to a period of which we have no recollection. They do not, as they so frequently do in manic-depressive psychosis, and in hysteria, go back and reanimate well organized experiences of early adulthood, adolescence, or youth, but they dip down still further and tap the ultimate sources of our psychic integrations, and so may be different from psychological experiences as we know them as hydrogen and oxygen are different from water.

This same concept of the depth of regression also serves as explanation for the lack of insight of the patient, for his failure to recognize his symptoms as emanating from himself, his failure to

recognize his own wishes, to appreciate the personal source of his symptoms. While the inclusion of purely personal material of very early infantile origin might alone account for these characteristics, this explanation is particularly apt from the point of view of the symptoms as possible containers of archaic material, and especially do the physical symptoms of *præcox* fit into this concept. The regression here is so deep that it has touched the very sources of energy which are ultimately to weave themselves into the psychic integration even at their organic points of origin, so to speak.

We see indications of this all through the symptomatology of the disease; we see manifest evidences of segmental over-dominance, especially marked are the oral zone, in such symptoms as salivation; the anal zone in such symptoms as the very marked interest which these patients show in the functions of their lower bowel, and their interest in feces, and the functional disturbances of the gastro-enteric tract; the skin area, which is so frequently the object of all sorts of special activities, rubbing, biting, picking, scratching, wounding, and of disorders, eczema, pruritides, pigmentation, atrophies, disorders of secretion; the muscle segments, in the symptoms of catatonia, *flexibilitas seriatim*; the respiratory zone as seen in the development of pulmonary tuberculosis, and various functional disturbances of respiration, delusions about the breath, the voice.

Such groups of symptoms implicating groups of organs and functions are expressed at all the levels, vegetative, neurologic and psychic, and indicate that the regression has gone deep enough to unloose bits of physiological mechanism. Whether some of this material has to be considered as archaic or not is exceedingly difficult to say. I know no way by which archaic material can be definitely indentified at the symbolic level, but it seems to me obvious that it must be there. Every psychological state must have an aspect due to the personal experiences of the individual, but must also have an aspect which is contributed by the experience of the race, and the two, while fusing, must be different. The gill arches of the human embryo, for example, belong to the developmental history of the individual, they also have an aspect which ally them with the early ancestors of the race. It would seem that their subsequent history depends upon which factor receives the greater emphasis, that is, whether they are adequately integrated

into the normal anatomical structure of the individual, become their proper portions of the hyoid apparatus, the thyroid cartilage, etc., or whether on the other hand they persist, and because they are out of place and out of time, are pathological deformities, errors of development. Just so, for example, the psychotic, who can bring things to pass by thinking them so, harks back in his regressive tendencies to the infantile period of the all-powerfulness of thought. There was a similar period in the history of the race, and whether this tendency produces a benign or a malignant type of reaction depends upon which aspect, the individual or the archaic, that is the ontogenetic or the phylogenetic, receives the greater emphasis.

It may be suggested also at this point that the unanalyzable residual of the unconscious material stands for, represents this phylogenetic rest, and in the last analysis, for the present at least, this may be our only criterion as to whether a given material is or is not functioning as archaic. For the examination of such archaic material the services of the anthropologist and the phylologist must be sought.

As examples of material that would suggest archaic inclusions I will suggest delusions that certain bodily excretions, urine, fæces, sweat, tears contain elements of the personality: delusions of food, air and sound as impregnating material: cannibalistic symbols: water as a birth symbol: such symbols as fire as a libido symbol: mythological animals: certain delusions regarding the heavenly bodies, particularly the sun, etc., etc. All such symbolic reactions belong to relatively infantile, more primitive ways of thinking and are to be correlated with the evidence, becoming abundant, of anatomical and functional abnormalities also indicative of defective development such as infantile genitalia, small circulatory apparatus, aspermatogenesis, status thymico-lymphaticus, vagotonia. The relationship it seems to me is quite evidently quantitative, whether it is also qualitative must remain to be seen.

You will see from my remarks up to this point that I regard præcox as a profound defect of biological adjustment, and I may say that I believe the anatomical evidence bears out this contention, although I recognize that there are many regressive conditions which we are unable symptomatically to distinguish from early stages of præcox which are comparatively benign in course, in

other words that we must still resort largely to the unsatisfactory method of diagnosis by outcome. From this point of view you will see that I cannot regard many of the more radical claims to cure *præcox* as being well founded. We are confronted very largely in these patients with types of defect which under all the circumstances of their make-up and their environment, are unassimilable. However, that much can be done seems to me an undoubted fact. The point that I wish to emphasize, however, is not this so much as the necessity for a reasonably accurate evaluation of the means and methods. A great deal has been said and written and done in recent years in the way of industrial and occupational therapy, and many have come to believe, and this applies to the laity solely, that the be all and end all of therapeutics for the mentally ill is kindness, sympathy, and work, the work taking very largely the form so familiar to you in the recent development of occupational therapy: basket-making, bead stringing, leather tooling, modelling, needle work, toy-making, etc.

It is needless for me to say to this audience that this is, to say the least, a naive conception of psychotherapy. To suppose that a patient with *præcox* can be cured by being taught to weave baskets shows a wholly inadequate conception of *præcox* on the one hand and of psychotherapy on the other. However, with all the stress which has been laid upon work therapy in its various forms in recent years, it is quite well worth while to attempt to lay hold of the energy which this tendency contains, to examine it, and try to discover if it has any usefulness and how it may be directed to best advantage. My own opinion is that all this industrial therapy has value, but that its value is very largely indirect, that nobody is cured because he is taught to decorate a vase, but that the individualizing of the patient, the centering of attention and interest upon his specific problem, the setting up of a wholesome type of transfer between patient and teacher, the starting of the flow of interest to outside realities, the socializing of his tendencies in useful occupations, are all factors of the utmost importance not only with reference to any given patient but still more so when multiplied many times, for they help largely to make the differences between the old asylum and the modern hospital, with its entirely different atmosphere, its different attitude toward the patient and its necessarily different influence upon him.

An examination of these indirect influences of work therapy it would seem to me is now in order. We should by this time have passed the period of believing that it offers anything specific in the way of treatment and come to that period where it is recognized as an important adjuvant, its real results examined into, and its use regulated by an increased understanding of what it is actually capable of accomplishing. The old asylum offered very few levels for possible adjustment. It had its violent and disturbed wards; its wards for untidy and filthy patients; its wards for the quiet custodial classes and its good wards. The modern hospital with its occupational, vocational and industrial departments; its athletic, recreational and amusement activities; its medical, surgical and more direct types of mental therapy; and its mental hygiene social workers, offers innumerable more levels of possible adjustment, each one of which may be utilized in a more or less specific way, under guidance, by the individual patient, for working out his special problems and in which he may find the means for socializing his strivings. All of the various therapeutic methods are therefore functioning to bring about a more elaborate stratification of the hospital into an increased number of levels of adjustment and making for that state of affairs in which the hospital will present to each patient, no matter what his particular biological handicap, a possibility for the utilization of whatever creative tendencies he may have rather than offer him only the extremes of possible cure on the one hand or still further regression to the level of the disturbed and the filthy on the other. They represent a movement which can be taken hold of for the further and more elaborate individualization of the patient, for the creation of the means for getting at his particular symptoms and treating him instead of the group to which he has graduated by a sort of crude behavioristic self classification. Internal medicine has proceeded much further along this line of development than psychiatry. To treat the patient and not the symptom has long been its ideal and while theoretically the ideal of psychiatry it remains for psychiatry to make this ideal actual in practice.

## A STUDY OF "X": PSYCHOMETRIC AND OTHERWISE.

By LLOYD H. ZIEGLER, A. M., M. D.,

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It has in the past been maintained, and probably justly, that the psychologist without medical training has a relation to the psychiatrist and neurologist comparable to that of the laboratory man in medicine. His painstaking and careful scientific studies are only aids to a more thorough understanding of cases but in themselves should represent no finality. The following studies should prove mutually interesting to psychiatrist and psychologist:

**CASE HISTORY.**—X was admitted to the hospital January, 1921. Of his grandparents he could give no account. Father died at 49 of pulmonary tuberculosis. Mother living at 62 and well. Two brothers died in infancy of unknown causes. Three sisters living and well. No neurotic or psychotic determinants elicited in the family, immediate or remote.

X was born in ——— in 1888. He is the fourth in order of birth. His birth was apparently normal. Says he had no childhood diseases, spasms or convulsions. Father was a business man and failed because of bad investments and the financial crisis of 1893. X began school at 7, finished 8th grade at 14. Says he learned well and was especially good at mathematics. In school his relations with other pupils at play and social gatherings were apparently normal. At 14 his parents moved to the city and X procured a position in a bank as clerk and messenger. He liked his work very much and never returned to school. Ever since he has worked as a bookkeeper and accountant. Since he started to work he has been criticized by his mother, brothers and sisters for not giving as much to the support of his mother and the home as he should. The criticism became so severe that on several occasions he left home and lived at a boarding house. These conflicts continued until 1913, when the family began to insist that he associate and go out with girls. This he refused to do, not that he hated women but said his temperament was such that he much preferred the acquaintance, friendship and association of boys and young men between the ages of 15 and 21, which he called a peculiarity of his artistic temperament.

X at this time began to feel that his folks were writing to the Y. M. C. A., where he stayed, or to his employers, asking them to discourage him with his work and to have him return to his home so that he could contribute

more to the support of the family and be induced to associate properly with the opposite sex. X said that his family insisted on his marrying because they feared people might misinterpret his motive in his association with boys and young men.

X held his first position five years, from age of 14 to 19, in a bank. While in this bank an embezzlement occurred. He feared that he might be suspected in connection with it because he had run errands in and out of the cages of the men convicted on the charge. At the age of 19 he developed acute indigestion and was advised by a physician to secure outdoor work, which he did. He secured a position as timekeeper for a railroad company, but was indoors most of the time and quit at the end of a month. Took a position in a bank; worked five months, when he was laid off because of a financial depression. He secured a position with another bank; worked four months and quit to accept a similar position with another bank at a larger salary. This position he held about four months, when he developed a second attack of indigestion and quit, going on a visit to an uncle in ——. After being with the uncle two weeks, he developed phimosis and circumcision was advised by a physician. He returned to his home and had the circumcision performed and a few weeks later (at the age of twenty) had adenoids removed. He remained at home a month. Early in June, he went to N—— and secured a clerical position with an insurance company, for which he worked four or five months, quitting to take a better-paid position of similar nature with an oil company. He worked with the company a few months, when he was transferred to a subsidiary company with which he remained until 1911. At this time he became desirous of seeing New York City, to which he came, remaining there until 1914, filling various clerical positions, but remaining only a few months with each one. While there, he had a submucous resection done. He returned to N—— in December, 1914, remaining here until May, 1915, working at several clerical positions. Went home and stayed at home a month, when he went to M—— where he worked as a bookkeeper in a department store until December, 1916. He then went to S—— and worked a few months each for several companies, and in March, 1917, went to C——; worked in C—— as a bank clerk a year. Here he suffered from an abscessed tooth and antrum infection and quit his position for that reason. Went to his home town and worked for a company as bookkeeper. X explained his frequent change of position as being due to letters sent to his employers by his folks, also to Y. M. C. A., where he usually lived, telling them to discourage him that he might come home and help support the family, go with the opposite sex and marry, because they feared he might be misjudged and accused of the practice of sodomy. He denied onanism, heterosexual and homosexual experiences, alcoholism and venereal infections. Says that his infatuation for boys and young men is purely one of personal temperament and love of youth and the artistic. He says he is not a woman-hater, believes in marriage, but his temperament does not run in that direction and so he should not be forced to do or care for that which



does not appeal to him. He denies arrest except in the case of his present confinement. He was drafted into the U. S. Army in July, 1918, and was sent to Camp ———, where he remained until October, 1918, being discharged for physical disability and neurasthenia. He said he could not stand the drill and asked for clerical work, but his request was not honored. In camp he suffered from insomnia, loss of appetite, general weakness, was depressed, and remained aloof from comrades, and had a fear of being sent overseas. Following discharge he returned to his home, where he worked a month, and then went to A——— because he said his folks interfered with his social progress with boys. Worked at various clerical positions in A——— until March, 1919, when he decided to come to Washington and consult the Secret Service about why the banks in the many cities he had visited had been informed about him and had refused to employ him. He said all the banks gave the same reply to his request for a position, viz: "We have no openings today. File your application and we will be glad to consider it." In April, 1919, he went to the U. S. Secret Service Department to ask if they were investigating him. They referred him to the police, who took him to the Washington Asylum Hospital and from there he was transferred to Saint Elizabeths Hospital.

He has been at the following hospitals: He was at A——— State Hospital in October, 1912, for ten days. His relatives secured his release. In March, 1913, he was sent to the Psychopathic Hospital for observation and then transferred to I. . . . . State Hospital, where he remained one month. In April, 1914, he had an almost identical hospital experience, being released in a month. In April, 1915, he was held in the City Hospital for Mental Diseases in N——— for two weeks. In June, 1915, he was sent to the A——— State Hospital a second time and his relatives secured his release. In November, 1916, he was sent to the A——— State Hospital a third time and was held two and a half months, his longest confinement. In November, 1917, he was held at the Psychopathic Ward in a hospital in S———, but was discharged after two weeks. In February, 1918, he was detained at the C——— Psychopathic Hospital and was sent to I——— State Hospital. He eloped from this hospital after six weeks. In April, 1919, he was sent, as already stated, to the Washington Asylum Hospital and from there he was transferred to Saint Elizabeths Hospital. He eloped after eleven days. In May, 1920, he entered the A——— State Hospital a fourth time and eloped at the end of two months. In September, 1920, he was again held for observation at the Psychopathic Hospital at S———. He was transferred to the U. S. P. H. Service Hospital, where he remained a week and was transferred to the A——— State Hospital for the fifth time. On the way to the latter institution, he eloped but was apprehended. He was released after three weeks. He has been in jail three or four times, but it was usually for observation pending commitment to the hospital. In May, 1919, X was arrested in B——— and fined \$100. The newspaper clipping stated that he was charged with twenty-seven assaults on boys between the ages of 15 and 21. He was arrested by the parents of

several of these boys, many of them belonging to prominent families of B——. He caused a great lot of disturbance in the vicinity of where he made his home. He would give up positions on account of persecutory ideas and felt that he was entitled to financial aid from wealthy people when he lost his position. He annoyed many prominent people by his request for money and aid. He made frequent requests for aid from charitable organizations and always seemed to carry the impression that they were obligated to help him. In his last admission to a hospital, Saint Elizabeths Hospital, he had come to Washington to see his Congressman to get protection from his enemies.

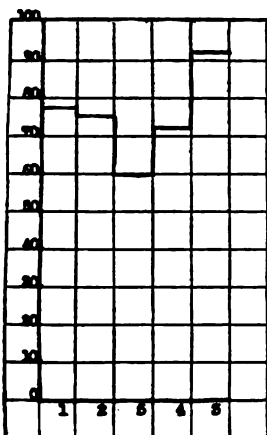
On admission to Saint Elizabeths Hospital, he was especially neat and well dressed. He was very restless and stopped every physician who went through the wards and begged for his release. He was always courteous and polite and never threatened. He co-operated freely in all examinations and never caused trouble on the wards except by his continual efforts and requests to see hospital authorities. He talked excessively, clearly, relevantly and logically. He was not especially depressed. He appeared quite restless most of the time and complained of headache from the confinement. He denied hallucinations. He blamed his folks in conjunction with government agents in plotting against him. Said this was no delusion. A few days later he admitted that he had had delusions and then demanded his release on the ground that he had oriented himself mentally. Said he had liked young boys, preferably blondes, since 1912, at which times he began to be the victim of persecutory schemes. In company with boys, he pets, loves and fondles them. Says he also kisses boys; is not sexually stimulated by same, but says the boys usually are.

Physical examination reveals an asymmetrical face and head, flabby deficient musculature, pouch or female type of abdomen and pelvis, internal hemorrhoids and exaggerated patellar reflexes.

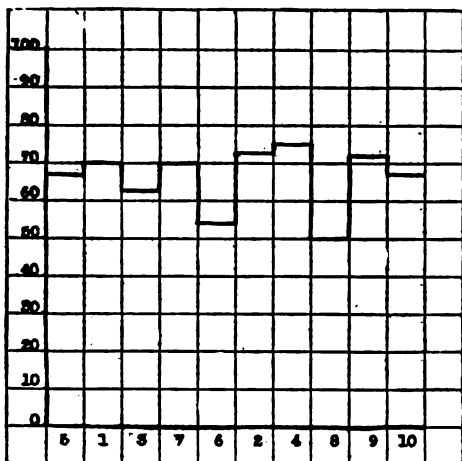
Wassermann reaction of blood serum negative.

During X's residence in the hospital, he was given three intelligence examinations. They were National Intelligence Tests, Scale B, Form I; Terman's Group Test of Mental Ability, Form A; and Trabue's Mentimeter, School Group 2a.<sup>1</sup> Each of these group examinations is composed of a battery of tests. Table I indicates by title the nature of each test, its number, and by their arrangement the ones that were common to the three or any two of the examinations. The individual tests were all verbal in character, *i. e.*, required a knowledge of the English language, except Nos. 2, 3, and 5 of the Mentimeters and No. 10 of Terman's Group Test. The latter are usually called non-verbal tests.

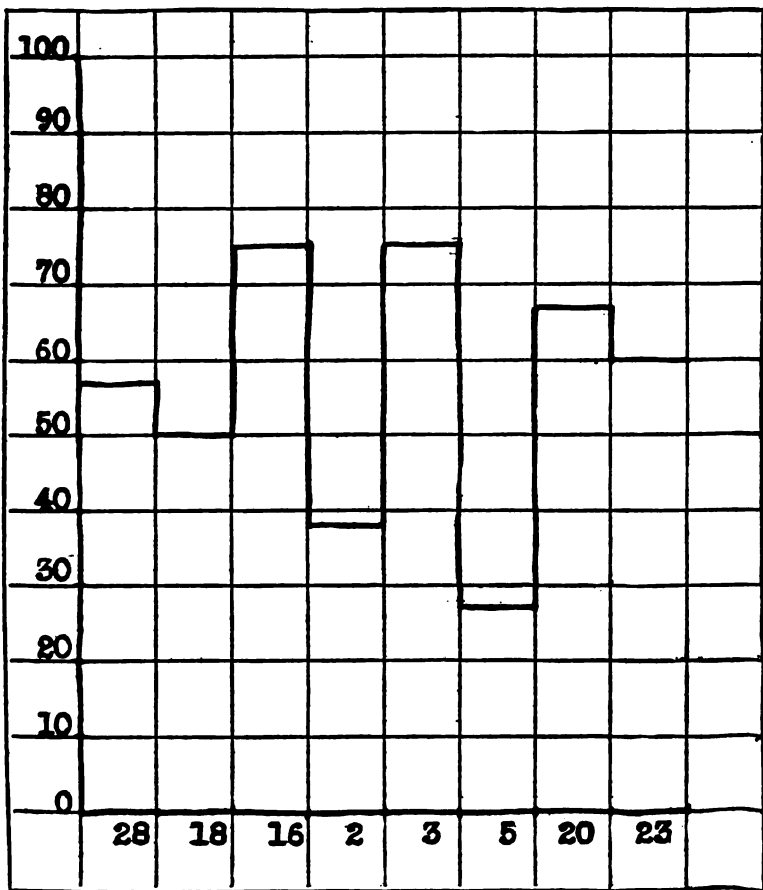
<sup>1</sup>These are psychological tests similar to tests used in the U. S. Army during the late war.



TEST NUMBER.  
 CURVE I.—X's Achievement National Intelligence Test.



TEST NUMBER.  
 CURVE II.—X's Achievement Terman's Group Test.



TEST NUMBER.  
 CURVE III.—X's Achievement—Mentimeters School Group 2 A.

Curves I, II and III give the accomplishment in each individual test of the examinations in terms of per cent (ordinate). The most striking feature is found in Curve III, in which it will be seen that his achievement in detecting absurdities in pictures and in designing geometric figures was poor. On the whole, responses were quite good. There were very few characteristic responses. In the sentence completion test in one case he used the word "mother" where it is rather customary to find the word "parents" used. The patient tended to brag during the whole of the examination and felt that he had made a perfect record on some tests. Said that his confinement made him a bit nervous and not as speedy as he is at most times.

TABLE I

Mentimeters (Trabue) School group 2a	Terman Group Test of Mental Ability Form A	National Intelligence Tests Scale B. Form I
28. Arithmetical reasoning. 18. Range of information.. 16. Naming opposites.....	5. Arithmetical reasoning... 7. Information ....., 3. Opposites (word meaning) 7. Analogies. .... 6. Sentence meaning..... 2. Best answer..... 4. Logical selection..... 8. Mixed sentences..... 9. Classification ....., 10. Number series.....	1. Arith. simple processes. 2. Information. 5. Like and opposite. 4. Analogies. 3. Sentence meaning.
2. Pictorial absurdities.... 3. Maze threading..... 5. Geometric figures..... 20. Reading directions.... 23. Sentence completion...		

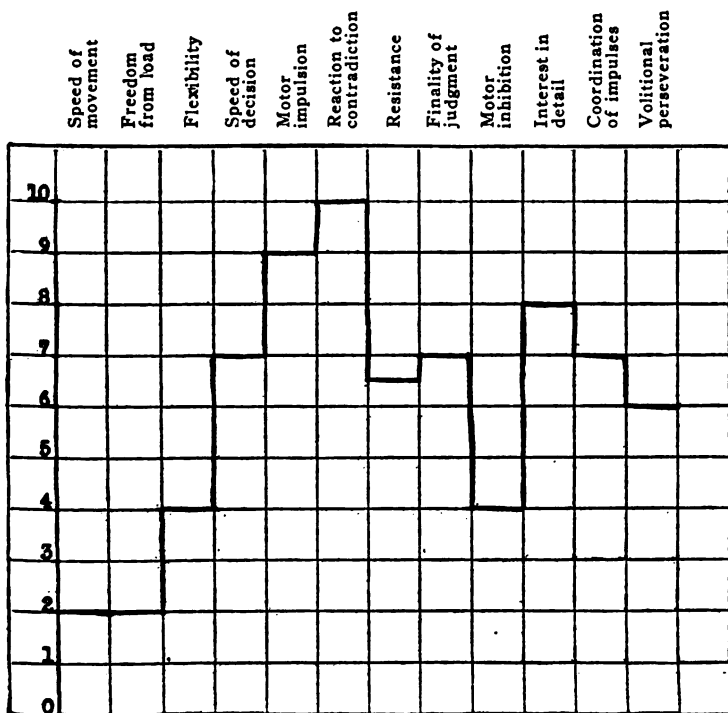
When he came to a problem or situation of which he was uncertain, he preferred to leave it unanswered. He appeared to work very diligently throughout the examination and welcomed an opportunity to demonstrate his mental ability. It will be observed that in arithmetic his achievement is somewhat out of proportion to what he led one to expect of him. The number of errors he made was too great to place him in a very responsible position. In Table II, his achievement in each examination is rated in terms of years of mental age, or grade.<sup>3</sup>

<sup>3</sup> Psychiatrists who examined the patient commented on the fact that his ability was above the average of patients admitted.

TABLE II

	Time to give test in min.	Score of X	Total score possible	Per cent achievement	Mental age	Grade Public School
National Intelligence Test.	16	154	206	74.7	17 + yrs.	..
Terman's Group Test..	27	146	220	66.6	17 yr. 8 mo.	..
Mentimeters 2a .....	36	106	185	57.3	15 +	IX

X was given Downey's<sup>3</sup> Will-Temperament Test. Curve IV presents the results of this examination. The principal features



CURVE IV.—X's Reaction Will-Temperament Test.

of the curve are lack of motor inhibition, his care for details, and his aggressive make-up. According to the author of this test, the

<sup>3</sup>The Will Profile—June E. Downey; Univ. of Wyoming Bull. No. 3, Dept. of Psychology.

curve resembles those of paranoid cases. In "Reaction to Contradiction," X scored perfect according to the test. In motor impulsion and speed of decision he has rather high ratings. When one examines his previous history, he cannot but be impressed by the correlation of these test facts with his life.

His total score on the Will-Temperament Test was 72.5 out of a possible 120. This score is above the median in rating. The abnormal features consist in the distribution of points as already indicated.

X was given Uhrbroch's \* Moral Judgment Test, which consists of a series of stories. Each story is followed by two statements that might be considered solutions to moral issues arising in the story. The subject is expected to make his preference for one of the statements by check-mark. Of 15 stories for which tentative standards indicate a preference of not less than 70 per cent for one or other statement, X was able to agree in only seven. In other words, 8 times out of 15, his judgment of a moral issue was not that for which 70 per cent of people express their preference. In view of his conduct as portrayed in his history, this is not a surprising fact. We could say X gives a low morality quotient. This type of psychological examination promises to be particularly valuable for psychiatrists, and one which has great undeveloped possibilities.

Pressey's X+O Test of Emotional Reactions was given. This is made up of four lists of 125 words each. In the first list or test the subject is to cross out all the words that he does not like. In the second list he is to mark words which in his mind are related to certain designated words. In the third list he is to cross out words that refer to something wrong or what one might be blamed for. In the fourth list he is to cross out the words which refer to worries the patient may have had.

The patient crossed out a total of 192 words. the median for a group of college students was 230. Table III gives the analysis of X's reaction to the words of Tests I and IV. It will be observed that he marked more fear words, more self-feeling words, and more paranoid words. Of the self-conscious and melancholic words, he marked fewer than the average. In Test II he appears

\* As yet unpublished.

to have connected in his mind the following words: Wish, disappointment, boy, brave, sleep, worry. In Test III he marked 79 words. The median for college groups is 73. It appears that he has more things in mind for which he could be blamed than the average college student.

In summarizing the results of this examination, one could well say that he gave a definitely paranoid reaction and has other emotional reactions which deviate from norms established. A few of his reactions are suggestive of childhood complexes unrevealed by the psychiatric history.

An analysis of the case of X presents, first, the fact that his father was not able to make a satisfactory financial adjustment. His father succumbed to pulmonary tuberculosis, a disease very

TABLE III

Type of words	Scores of X	Norms for college men	Type of words	Scores of X	Norms for college men
Disgust.....	13	15	Self-conscious....	3	9
Fear.....	13	10	Paranoid.....	12	7
Sex.....	9	10	Neurotic.....	6	7
Self-feeling.....	16	10	Melancholic.....	5	12
Hypochondriacal..	8	8			

Results for Tests I and IV only, of X-O Examination.

frequent among people whose vital resistance has been expended in the tensions and explosions incident to serious mental conflicts. During the earlier part of his life X appeared to make normal adaptations in school. It is reported that his family dealt with him very strictly. Whether such treatment acted as cause or effect is not certain. At 14 he started to work. It appears that he was criticised at this early age for his financial indifference toward the home, and his reaction was that of leaving home on several occasions. In his first employment he demonstrated his unstable behavior after the embezzlement. Subsequent occupational nomadism was very marked, apparently increasing with advancing years. It is interesting to note that at the time his folks pushed him to assume social relations with the opposite sex, he also began to objectify certain antagonistic agencies as his employers and Y. M. C. A. acting in conjunction with his family.

These things began to assume the proportions of a frame-up to him and subsequently he lived on that interesting borderland where it was evidently easy to be committed to an institution and as easily released.

His first surgical operation was for circumcision and at about the same time he had his adenoid tissue removed. In the case of the former, phimosis had developed. One usually thinks of such things in association with children.

He explained his lack of desire for the opposite sex as an artistic temperament on his part. He denied onanism and heterosexual relations; also perverted relations. He admitted kissing and fondling young boys but attributed no sexual relation to it, referring such to the object of his affection.

His army adjustment was decidedly poor. He said he could not endure the drill and remained seclusive. He came down with neurasthenia. It is quite possible that his emotional tensions in an atmosphere as virile and alive as the average American camp, must have exhausted him. What little virility he had must, in such an environment, have impressed him with his relative inferiority—a sufficient reason on his part for seclusiveness and in reality a quite proper compensatory mechanism.

Anatomically, this man appeared inferior. His asymmetrical face, female type of abdomen and pelvis, with weak musculature, and his ultra refinement of gesture and persuasion cause the average person who meets him to react with feelings of aversion.

X represents a biologically inferior individual in whom the sex instinct, were it wholly an anatomical thing, would be as anomalous as pseudohermaphroditism or cleft palate or harelip. Whether this sex instinct was congenitally defective or suffered a traumatizing influence and became blighted in its early life, is difficult to say. There is some evidence to believe that X might have been reared in an environment in which he could have built barriers of defense about his weakness and been a very different person.

In summary, we have an individual in whom the sex instinct is abnormal and in whom behavior in relation to other members of society is quite from the average—sufficiently so that he has repeatedly been under mental observation.



In the psychological examinations for intelligence, he gave a very satisfactory rating,<sup>8</sup> being somewhat deficient in a few of the tests and not being so good as he led one to believe he would be in arithmetic. In the moral judgment test he showed a decided defectiveness.

In the Will Profile and in the X-O tests of emotional reaction, he gave responses that one should expect from his psychiatric history. The application of such examinations to many inferior individuals, studied with a detailed account of their history, should give a much broader fund of information regarding the usefulness of these tests.

The psychological examinations have given much of the same information that was derived from the history of the case. This is more especially true of those other than the general intelligence tests which psychologists have elaborated for quantitative purposes. For the psychiatrist a quantitative estimate of general intelligence ability is valuable but such a test would be of more value were it to be so constructed that it would permit at the same time a certain individuality of performance. The history and the tests supplement each other very well. Either is incomplete in itself. The psychological examinations *give a certain* analysis which will undoubtedly prove of great value in the proper understanding and therapeutic management of cases. The psychiatric history and psychological examination should go hand in hand and when possible more of the latter should be given.

Unfortunately the detailed and intimate account of X's early history was not obtained. This, the writer feels, would have explained some of the causes accentuating his mal-development. The beginnings of character are in the child. Whether that character is to be good or bad depends very much on the early conditioning of his responses. A psychosis has its incipient stage in these early years. Society may not tolerate what a mother or father selfishly approve as the type of behavior for their son or daughter. On the other hand society may greatly reward, as it has done in the past, biologically inferior individuals

<sup>8</sup> When mental ages of 17 or 18 are reached the individual is thought to have made a fairly good mental development.

who are trained from infancy to make adequate compensations. This is the explanation for the close relation between genius and insanity in the minds of the laity.

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## Proceedings of Societies

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### AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION\*

PROCEEDINGS OF THE SEVENTY-SEVENTH ANNUAL  
MEETING.

BOSTON, MASS., TUESDAY, MAY 31, 1921.

#### FIRST SESSION.

The Association convened at 10 a. m., in the ball-room of the Hotel Somerset, Boston, Mass., and was called to order by the President, Dr. Owen Copp, of Philadelphia, Pa.

**THE PRESIDENT.**—I have the honor to declare the Seventy-seventh annual meeting of the American Medico-Psychological Association now in session.

Will you rise for the invocation.

Rev. Edward A. Horton, Chaplain of the Massachusetts Senate, offered the invocation.

**THE PRESIDENT.**—In the midst of his many and exacting duties the Governor of the Commonwealth has found time to come here to bid us welcome. I am sure we all appreciate the great honor, Governor Cox, of your presence.

**GOVERNOR COX.**—*Mr. President, Ladies and Gentlemen of the American Medico-Psychological Association:* It is a great privilege to welcome you, eminent men and women, to Massachusetts as you come here for your seventy-seventh convention. We are delighted to have you here; we hope that your visit may bring great pleasure to you, as we are confident that it will be of great benefit to us. You would be welcome under any circumstances, but you are thrice welcome when you come headed by one who long rendered distinguished public service to this Commonwealth, and whom we still hold dear—your President, Doctor Copp.

Your President has been good enough to refer to the fact that I came here out of a busy day. As I have seen the duties which Massachusetts

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\*Upon the adoption of the amended constitution offered last year and laid on the table, on Wednesday, June 1, 1921, the second day of the meeting, the Association became "The American Psychiatric Association."

has assumed I have come to believe that one of the greatest problems before us to-day is the care of our insane, of our feeble-minded, of our mental defectives. It is a terrible cost on the public to maintain the pitiful waste of human life that we find in our institutions. If there be ways in which we may prevent this great human wastage I am sure that no form of public service should demand greater recognition. So, I have time to be interested in the work which you are doing and in the study which you are making, especially along the lines of preventing this great wastage and this great suffering. So, again, I hope that your deliberations may be of great benefit to us here in Massachusetts, and to you who come from all parts of the country. And may I suggest that, having looked over your program and having read the titles of your papers which are to be presented here, I shall refrain from any technical discussion of those questions? I hope, as I have looked them over that there are not any matters under discussion which may arouse any difference of opinion of the extent that your visit may be marred in any way. I also hope that you may have a splendid time on your trip to Plymouth. As you stand there at Plymouth on Friday, and realize that you are on the spot where the beginning of our New England civilization was laid, may I urge that you contemplate all the sacrifices which those men and women endured in order that they might lay securely the foundations of a government where there might be civil and religious liberty. If there be any among you who have given utterance to any wails of despair, any feelings of discouragement, as so often men and women do in these days, may you be strengthened and encouraged and may you be reassured that after all we have made tremendous advances; after all this great America is still the land of opportunity; our institutions are still worth preserving, and if each one of us is willing to meet the problems of the day in the same spirit as those Pilgrim founders, then we may welcome the day that is drawing with the promise of new glory and the fulfillment of our highest mission. (Applause.)

**THE PRESIDENT.**—As I cast my eye over this program and saw the name of the Governor of the Commonwealth and the name of the Mayor of this City, I shook my head; I feared there might be a disappointment, but I ought not to have doubted because it is characteristic of Massachusetts men that they do what is expected of them. (Applause.) So that not only the governor, but the mayor is here and we are delighted to welcome him.

**MAYOR PETERS.**—*Mr. President, Guests, and Members of the American Medico-Psychological Association:* It is indeed a pleasure to be here to-day and to join with His Excellency in welcoming you to this city. It is important to welcome you here because your coming here means something not alone to you, but to the great profession to which you have given your lives.

Officially, in Massachusetts, it is the state that cares for mental defectives; the city has nothing to do with this matter except to pay its share of the bills and furnish, perhaps, rather more than its share of the patients. Of

course, we like to think Boston is better than most cities in this respect, but we know that many of our people still suffer from bad air and overcrowding and the thousand forms of artificial excitement which produce so much nervous derangement and mental disease.

I need not tell you that the cases you treat seem to some of us the saddest in all medical experience. The loss of the mental faculties and the degradation of the whole personality which too often accompanies that loss, erects a barrier, more terrible than death itself between the sufferer and his fellow-men. That is why it is such a satisfaction to learn that you are now able to hold out a prospect of cure in many of the cases that were formerly regarded as hopeless.

But you have gone further than the treatment of individual cases. In tracing mental disease to its origin you have come upon underlying causes which are of the widest interest to society. It is to you, gentlemen, that we look to devise some method of preventing the union of persons unfit for parentage so that the pitiable class of born defectives may be reduced in numbers, if not entirely eliminated. Hardly any single step in medical science would do more than this to raise the standard of the human race.

It is to you we look also to cope with some of the conditions that lead to crime, for there is no doubt that a great deal of crime has its roots in mental inferiority. We are fortunate in having in Boston one of the greatest authorities in the world on this subject, Dr. William Healy, who is associated with the work of our Juvenile Court.

Even social discontent does not fall outside the scope of your studies. One half-mad preacher of revolt may lead a whole nation to temporary ruin and yet the alienist may recognize in him a case not essentially different from hundreds that he has treated in his practice. In the end it may be the men of your profession who will save society from some of its most ferocious would-be saviors.

These are only a few of the fields that you have entered. The bare mention of them reveals the inestimable importance of your work. If there is any step the government of our city can take to further that work I hope it will be brought out in your discussions. We have open minds and are not afraid of criticism.

Personally, I am sure you will be greeted here with the hospitable attention due to so distinguished a gathering. You are, I believe, the vanguard of the medical hosts that are now converging upon our city. It is my great privilege to extend to you, and to the others through you, the cordial welcome of the people of Boston. (Applause.)

**THE PRESIDENT.**—While most of the problems with which we are concerned are of great moment to the state and to the municipality, after all they are essentially medical and health problems, so that it is peculiarly appropriate that a representative of the Massachusetts Medical Society should be here to address us—Doctor Jones.

Dr. Fred. E. Jones, of Quincy, Mass., Vice-President of the Massachusetts Medical Society, then spoke as follows:

DR. JONES.—*Mr. President, Fellows and Guests of the American Medico-Psychological Association:* The imperative necessity of attending a function of the Massachusetts Medical Society, which is holding its annual meetings to-day and to-morrow, has prevented its president, Dr. Alfred Worcester, from addressing you.

He has sent me, the vice-president, to represent him, to express his regrets to you and to give you the hearty welcome of the Massachusetts Medical Society as you meet in our midst. This I earnestly do, and I appreciate the honor of being the bearer of this message of welcome, this message of good will, this message of appreciation of the excellent work of your mature and active association.

One rarely prides himself on his maturity but generally does on his activity. Our respective organizations have much in both maturity and activity to be proud of, and I picture them as mature gentlemen, with hands grasped in hearty good-will.

We owe much to you, distinguished specialists, for, to most of us your specialty is of the most trying class of cases that we are called upon to treat and I venture to say the class of cases the diagnosis and treatment of which we know the least.

We are endeavoring in our public and private activities to prevent mental diseases, and time will surely show as it does in all other diseases, that prevention is our greatest weapon against this great class.

We are spending vast sums of money and energy in caring for the affected but our recompense seems small in comparison. The great majority of practitioners divide these cases into institution and home cases, generally, as these cases seem to be a menace or no to the community. The physician is distinctly relieved when the institution takes the sick mind from his responsibility, for he realizes full well the distressing acts which occur.

As a medical examiner of long experience, it has been my sad duty so many times to view the fatalities caused by delay in utilizing institutional treatment. Not long ago it was my duty to oversee large numbers of mental cases, through stress of war. These, for convenience, were classed "psychoneuroses." At first "cold feet" was rather a common term for them. Later, practically all of us became more or less afflicted. Our strongest minds, under sufficient mental and physical stress, would slip and we become much more respectful to its victims. Even now—two and one-half years since war has ceased—our communities contain a host of these cases, some of whom in all that time have shown no improvement.

Gentlemen, we as physicians, as soldiers, as citizens, implore your unceasing activity and investigation that we may have better weapons. You are our officers—we your men.

We are grateful that you are with us in person. May your council of war be productive of better defense and better offense.

**THE PRESIDENT.**—I wish to extend to you all the sincere thanks of the Association for your cordial words of welcome. We have come here with different motives; some of us to re-visit old scenes and renew old friendships because New England is the mother of many of us; others have come to see Plymouth Rock and other historic places of Massachusetts and New England. Boston, with her treasures of art and science, has great attractions for us, but, whatever other motives have actuated us, there is one preeminent. We know what Massachusetts stands for in our field of work; we know that she has set our standards and created our ideals. She has been the pioneer whose lead we have been glad to follow. We shall accept and enjoy your hospitality. We shall go away with regret, and appreciation of all that you have done for us. Again, I thank you. (Applause.)

**THE PRESIDENT.**—Dr. Kline, chairman of the Committee of Arrangements, will now make his report.

#### REPORT OF COMMITTEE OF ARRANGEMENTS.

The Committee of Arrangements for this New England meeting has provided the following program for the entertainment of the visiting ladies:

**Tuesday:** Automobiles at the disposal of the ladies all the morning.

Afternoon: Reception and Tea, 4 to 5:30, Hotel Somerset.

Evening: Pop Concert, at Symphony Hall, 8 o'clock. Concert by the Symphony Orchestra.

**Wednesday:** Morning, 9.30. To the North Shore by automobile, visiting Salem and Marblehead.

Luncheon. At the Corinthian Yacht Club, Marblehead, at 1.30.

**Thursday:** Morning, 9.30. Drive to Lexington and Concord.

Luncheon. At McLean Hospital, Waverly, 1 o'clock, returning in the afternoon via Cambridge and Harvard College or Wellesley College.

Evening. Theatre Party at the Copley Theatre, 8 o'clock.

The meeting of the Association this evening will be held at the Boston Psychopathic Hospital. Members of the Association and visiting ladies will be guests of the superintendent and trustees at the McLean Hospital at luncheon on Thursday, and the afternoon meeting will be held at that hospital. Special cars for members have been provided for the trip to McLean Hospital.

On Friday, June 3, there will be a boat trip, weather permitting, to Plymouth, a boat having been chartered for that purpose. At Plymouth an old fashioned New England clambake will be served. The Committee desires to emphasize the importance of visiting members and guests registering promptly for the various activities in order that the committee may know definitely just how many to provide for.

GEO. M. KLINE, *Chairman,*  
*Committee of Arrangements.*

THE PRESIDENT.—I think we are beginning to appreciate the good work this committee has done, and I imagine it will be a growing appreciation. I will ask Dr. Abbot for the report of the Program Committee.

#### REPORT OF COMMITTEE ON PROGRAM.

The aims of the Committee on Program have been threefold. Recognizing the place of the institution in the origin and membership of the Association, your committee has sought in the first session following the opening one, to have papers dealing with the widening scope of the institution, the extension of its influence beyond its own walls into the community, and the part it may play in the preservation of mental health and prevention of mental disease in the community.

The second aim has been to concentrate attention on some one problem in the psychiatric field, and have several papers devoted to that, thus constituting a sort of symposium. For this purpose Dementia Præcox was selected, the commonest of the frank psychoses, the one about which there is almost the least known, the one that comprises a quarter of the admissions to our public hospitals for mental diseases, and a half of their population, yet which yields almost no recoveries except in extra-institutional practice. Papers were sought dealing with this condition from divers points of view as to causation, diagnosis and treatment; from the laboratory, the hospital clinician and the private practitioner.

The third aim has been to present papers representative of the main fields of psychiatry and the progress being made in them. To this end contributions were secured on psychological bases, delinquency, constitutional and hereditary defects, epilepsy clinical psychiatry, neuro-psychiatry, industrial psychiatry, laboratory contributions, and therapy.

#### ROUND TABLE CONFERENCES.

The Round Table Conferences, first introduced by Dr. Orton, and which have proved so successful in the recent past, have been continued this year. The Committee on Arrangements has provided such an attractive entertainment for the ladies for that evening that the Ladies' Conference has been omitted this year. The Military Round Table has also been omitted, since the interest in that special feature wanes as the occasion which gave rise to it recedes into the past. In order to keep each round table small enough to accomplish the ends sought, namely, the getting together of those with common interests for purposes of informal discussion—a Round Table Conference on Clinical Psychiatry was substituted for the Military Conference.

The programs provided by the Moderators are especially interesting, and it is hoped there will be a large attendance at each conference. All Round Table Conferences will be held at the Hotel Somerset.



## PSYCHOPATHIC HOSPITAL.

Since many of the members of the Association will wish to visit the Psychopathic Hospital, it was arranged that one session should take place there in order that they might easily learn its location and how to reach it. Besides this, the committee on arrangements has provided that groups not to exceed 25 may be shown through the hospital at certain other specified times.

There will be an exhibition of brain photographs in the assembly room of the Psychopathic Hospital throughout the meeting.

## MCLEAN HOSPITAL.

The Thursday afternoon session will be held at McLean Hospital. To have omitted papers during the visit to that well-known institution would have unduly shortened the already somewhat abbreviated scientific program.

## ADJOURNMENT.

Since the excursion to Plymouth planned by the Committee on Arrangements will be an all-day trip, no scientific sessions will be held and no papers presented on that day. This shortens the customary length of the meeting by one session.

## ACKNOWLEDGMENTS.

This Committee wishes to express its high appreciation of the cooperation of the members in responding to requests for contributions and in spontaneously offering papers. It wishes to extend equal appreciation and its regrets to those whose offers were of necessity declined.

Respectfully submitted

(Signed) E. STANLEY ABBOT, *Chairman,*  
*Committee on Program.*

THE PRESIDENT.—We will now have the report of the Council by the secretary.

## REPORT OF THE COUNCIL TO THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

BOSTON, May 31, 1921.

The Council met on the evening of May 30, at the Hotel Somerset, Boston, Mass.

The Council recommends for election to active membership the following-named physicians. This list was presented to the Association a year ago and these names are now submitted for final consideration:

Bruce Allison, M. D., Arlington Heights, Mass.; Max A. Bahr, M. D., Indianapolis, Ind.; James Moss Beeler, M. D., Columbia, S. C.; John H. Berry, M. D., Athens, O.; Richard Blackmore, M. D., Washington, D. C.; Edmund McC. Connely, M. D., New Orleans, La.; Samuel Dodds, M. D.,

Logansport, Ind.; Albert Evans, M. D., Boston, Mass.; Clarence B. Farrar, M. D., Ottawa, Ont.; Wm. Mark Faulk, M. D., Tuscaloosa, Ala.; Don P. Flagg, M. D., San Francisco, Cal.; Justin K. Fuller, M. D., Washington, D. C.; Ransom A. Greene, M. D., Hathorne, Mass.; J. Allison Hodges, M. D., Richmond, Va.; Walter Barry Jennings, M. D., Stamford, Conn.; W. J. Johnson, M. D., Rusk, Tex.; John A. Lichty, M. D., Pittsburgh, Pa.; C. Banks McNairy, M. D., Kinston, N. C.; Louis Adrian Miller, M. D., Toledo, O.; Robert M. Mitchell, M. D., Weyburn, Sask.; David M. Morgan, M. D., Akron, O.; Clarence Neymann, M. D., Chicago, Ill.; Alfred B. Olsen, M. D., Worthington, O.; Clarence A. Patten, M. D., Philadelphia, Pa.; A. S. Pendleton, M. D., Washington, D. C.; George K. Pratt, M. D., Flint, Mich.; Harvey B. Sanborn, M. D., Providence, R. I.; Irving Jesse Sands, M. D., Brooklyn, N. Y.; George A. Sloan, M. D., Buffalo, N. Y.; Eugene A. Stanley, M. D., Waterbury, Vt.; Charles W. Stone, M. D., Cleveland, O.; Henry C. Szeto, M. D., Ward's Island, New York City; Kern B. Uhls, M. D., Overland Park, Kans.; George L. Wallace, M. D., Wrentham, Mass.; Clement Plummer Wescott, M. D., Portland, Me.

The Council recommends the transfer of the following-named associate members to the active class:

C. A. Arkebauer, M. D., Little Rock, Ark.; Inez A. Bentley, M. D., New York City; James R. Bloss, M. D., Huntington, W. Va.; H. A. Bolton, M. D., Warm Springs, Mont.; C. A. Bonner, M. D., Worcester, Mass.; Karl M. Bowman, M. D., White Plains, N. Y.; David T. Brewster, M. D., Waukesha, Wis.; Nathaniel H. Brush, M. D., Santa Barbara, Cal.; Wm. A. Bryan, M. D., Worcester, Mass.; Harriet F. Coffin, M. D., New York City; Thomas Cuddy, M. D., Boston, Mass.; Ira A. Darling, M. D., Warren, Pa.; Homer L. Day, M. D., New York City; Charles M. Denison, M. D., St. Louis, Mo.; Roderick B. Dexter, M. D., Boston, Mass.; Wm. M. Dobson, M. D., Philadelphia, Pa.; John V. Donnet, M. D., Morris Plains, N. J.; W. W. Eichelberger, M. D., Rockford, Ill.; B. F. Frazer, M. D., Osawatomie, Kans.; Joseph C. Fulmer, M. D., Williamsport, Pa.; Robert Edw. Garrett, M. D., Catonsville, Md.; John C. George, M. D., Ann Arbor, Mich.; Edward T. Gibson, M. D., Kansas City, Mo.; Ada F. Harris, M. D., Worcester, Mass.; F. Ross Haviland, M. D., Brooklyn, N. Y.; Elizabeth S. Hellweg, M. D., New York City; Herbert E. Herrin, M. D., Concord, N. H.; Theodore A. Hoch, M. D., Waverley, Mass.; Bertrand L. Jones, M. D., Detroit, Mich.; Edward J. Kempf, M. D., Washington, D. C.; Howard M. Kenyon, M. D., Poughkeepsie, N. Y.; Wm. Leavitt, M. D., Brooklyn, N. Y.; Christine Leonard, M. D., Boston, Mass.; Marie S. Lindsay, M. D., Boston, Mass.; Wm. A. Mac Intyre, M. D., Dansville, N. Y.; J. J. Mc Cloud, M. D., Columbus, O.; P. B. Means, M. D., Trenton, N. J.; George M. Melvin, M. D., Stapleton, N. Y.; Ermy C. Noble, M. D., Boston, Mass.; Arthur E. Pattrell, M. D., Boston, Mass.; Edmund M. Pease, M. D., Boston, Mass.; John A. Pritchard, M. D., Ogdensburg, N. Y.; Jonathan H. Ranney, M. D., Brattleboro, Vt.; John B. Rogers, M. D., Imola, Cal.; Eleanora B. Saunders, M. D., Towson, Md.; Joseph

Slattery, M. D., Indianapolis, Ind.; Gilbert T. Smith, M. D., New York City; Margaret H. Smyth, M. D., Stockton, Cal.; Robert A. Stewart, M. D., Independence, Ia.; Francis A. Taylor, M. D., Milford, Conn.; L. E. Trent, M. D., Meridian, Miss.; Irving Lee Walker, M. D., Rochester, N. Y.; James J. Walsh, M. D., Elgin, Ill.; P. H. Weeks, M. D., Michigan City, Ind.; Anna C. Wellington, M. D., Medfield, Mass.; Benjamin O. Whitten, M. D., Clinton, S. C.; Rodney R. Williams, M. D., Poughkeepsie, N. Y.

The Council recommends that the following-named physicians be elected to associate membership in the Association:

Buell Leslie Ashmore, M. D., No. Grafton, Mass.; W. E. Clark, M. D., Fondren, Miss.; LeGrand A. Damon, M. D., Sonyea, N. Y.; Adelaide Ellsworth, M. D., Warren, Pa.; Penelope M. Fleet, M. D., East Gardner, Mass.; J. T. Googe, M. D., Fondren, Miss.; Grace H. Griffin, M. D., Rochester, N. Y.; Thomas J. Heldt, M. D., Waukesha, Wis.; Roger P. Hentz, M. D., Jackson, Miss.; Arthur B. Howard, M. D., Concord, N. H.; Merle Q. Howard, M. D., Warren, Pa.; William F. Jamison, M. D., New York City; Benjamin F. Johnson, M. D., Fondren, Miss.; Douglas A. Johnston, M. D., Cincinnati, O.; Charles A. Joy, M. D., Sonyea, N. Y.; Anna H. Kandib, M. D., Harding, Mass.; Leo Thomas Kewer, M. D., Boston, Mass.; John C. Lindsay, M. D., Boston, Mass.; Hosea W. McAdoo, M. D., Warren, Pa.; Howard D. McIntyre, M. D., Cincinnati, O.; Edward A. Morgan, M. D., Pineville, La.; Jasper C. Partridge, M. D., Sonyea, N. Y.; Harold A. Patterson, M. D., Sonyea N. Y.; P. A. Petree, M. D., Warren, Pa.; Lydia Lloyd Poage, M. D., Cincinnati, O.; George E. Poor, M. D., Medfield, Mass.; Theophile Raphael, M. D., Kalamazoo, Mich.; Charles E. Sisson, M. D., Norwalk, Cal.; Mary E. Slattery, M. D., Medfield, Mass.; Fletcher J. VanMeter, M. D., Clarinda, Ia.; Mendes S. Wechsler, M. D., Bronx, N. Y.

The Council has received and considered the application of the following-named physicians for active membership in the Association. In accordance with the provision of the constitution, final consideration will be deferred until next year:

Frank Crowell Bishop, M. D., Los Angeles, Cal.; George Edward Clark, M. D., Towson, Md.; Charles B. Dunlap, M. D., Scarsdale, N. Y.; Edwin Elgin Evans, M. D., Jackson, La.; Raymond K. Foxwell, M. D., Washington, D. C.; A. W. Guest, M. D., Jamestown, N. D.; James Ramsay Hunt, M. D., New York City; William Kirk, Jr., M. D., Troy, N. Y.; Louis A. Lurie, M. D., Cincinnati, O.; C. D. Mitchell, M. D., Fondren, Miss.; James M. O'Neill, M. D., Harrison, N. Y.; C. S. Roy, M. D., Mastai, Quebec, Can.; Elbert LaFayette Spence, M. D., Pineville, La.; Geneva Tryon, M. D., Boston, Mass.; Henry Valentine Wildman, Jr., M. D., New York City.

The Council has received the resignation of the following members, and recommends that they be accepted, with regret:

Thomas E. Bamford, M. D., Bernard M. Cline, M. D., H. D. Earl, M. D., and Everett Flood, M. D.

The Council made the following recommendations:

That Peter McNaughton, M. D., be reinstated as a member of the Association, without further action.

That the secretary of the Association be instructed to advise the Hospital Library and Service Bureau that the American Medico-Psychological Association will be glad to co-operate with that bureau in any way within its power.

Also that the secretary send a telegram to Dr. W. M. English, advising him that he has been appointed a delegate from the American Medico-Psychological Association, to the British Medico-Psychological Association at its next annual meeting.

The Council appointed the following members of a committee to consider the matter of disposing of the remaining volumes of the "History of Institutional Care of the Insane in the United States and Canada": Dr. I. G. Harris, chairman, Dr. H. W. Mitchell and Dr. Edward N. Brush.

Respectfully submitted,  
H. W. MITCHELL, *Secretary.*

THE PRESIDENT.—A motion to transfer these associate members to the active list, is in order.

DR. WOODSON.—I move that they be so transferred.

Motion duly seconded and carried.

THE PRESIDENT.—The applications for membership will come up for election to-morrow. A motion to accept the rest of the report is in order.

DR. ABBOT.—I move that the report of the Council be accepted.

This motion was duly seconded and carried.

THE PRESIDENT.—The report of the secretary-treasurer is next in order.

#### REPORT OF THE SECRETARY-TREASURER, 1921.

The following is a statement of membership of the American Medico-Psychological Association to date, May 30, 1921:

#### HONORARY MEMBERS.

Former number .....	15
Added .....	0
	<hr/>
Total .....	15
Died .....	3
	<hr/>
Present number .....	12

## LIFE MEMBERS.

Former number .....	37
Added .....	6
	<hr/>
Total .....	43
Died .....	3
	<hr/>
Present number .....	40

## ACTIVE MEMBERS.

Former number .....	583
Associate to Active .....	41
Admitted .....	42
	<hr/>
Total .....	666
Active to Life .....	6
Resigned .....	3
Dropped .....	5
Died .....	5
	<hr/>
Total .....	19
	<hr/>
Present number .....	647

## ASSOCIATE MEMBERS.

Former number .....	291
Admitted .....	53
	<hr/>
Total .....	344
Associate to Active .....	41
Resigned .....	1
Dropped .....	13
Died .....	2
	<hr/>
Total .....	57
	<hr/>
Present number .....	287
	<hr/>
Grand total membership, May 30, 1921.....	986

## REPORT OF TREASURER—1920-1921.

June 1 Balance in active account..... \$940.75

## RECEIPTS.

## Dues:

Active members .....	\$2,995.00
Associate members .....	591.00
Dues paid in advance .....	54.00

## Miscellaneous:

Gummed lists of members .....	11.25
Sale of Transactions .....	5.50
Interest from June 1, 1920 to Dec. 1, 1920.....	25.34
Transferred from interest to active account.....	1,267.20
Total Receipts .....	4,949.29
Total Debits .....	5,890.04

## CREDITS.

## 1920

June 10	Henry C. Eyman, expense account.....	\$22.90
11	Margaret Bloxham, expense account.....	60.21
21	W. H. McMasters, honorarium.....	50.00
21	Dr. H. J. Gahagan, com. expenses.....	13.18
21	Dr. H. Gahagan, card signs.....	13.50
21	Dr. H. J. Gahagan, postage.....	26.64
21	Dr. H. J. Gahagan, Burns Agency.....	35.00
21	Dr. H. J. Gahagan, certificates merit.....	20.00
July 13	Dr. H. W. Mitchell, expense account.....	41.51
Aug. 6	Hotel Statler, telegrams; Gahagan expense account..	36.21
6	John T. Newell, printing and stationery.....	69.00
6	Samuel T. Orton, postage, clerical service.....	12.39
6	Wm. Rush Dunton, indexing Proceedings.....	22.08
31	Henry Schindler, book and receipts.....	23.00
Oct. 26	Harold A. Ross, postage.....	25.00
Nov. 17	Harold A. Ross, postage .....	20.00
27	Margaret M. Bloxham, reporting Cleveland meeting..	150.00
3	John T. Newell, letterheads.....	9.75
Dec. 15	Lord Baltimore Press, printing <i>Transactions</i> .....	3,061.15
7	John T. Newell, letterheads.....	7.00
7	E. Stanley Abbot, circular letters.....	13.00

## 1921

Jan. 12	Johns Hopkins Press, reports, revision constitution...	36.20
Feb. 23	Harold A. Ross, postage.....	20.00
23	R. A. Stewart, advance payment in error.....	2.00
28	Hoff Business College, 200 letters.....	2.00
Apr. 12	Eline S. Noble, clerical services.....	220.00
19	Harold A. Ross, postage.....	20.00
20	John T. Newell, preliminary programs.....	28.00
20	Hoff Business College, two page letter.....	3.00
28	Harold A. Ross, postage.....	10.00

May 13	John T. Newell, printing programs.....	140.00
19	Eline S. Noble, clerical services.....	20.00
20	Lord Baltimore Press, membership list.....	562.47
24	H. W. Mitchell, expense account .....	18.18
		4,813.37
June 1, 1921,	balance cash on hand.....	\$1,076.67
		\$5,890.04

Respectfully submitted,

H. W. MITCHELL, *Secretary-Treasurer.*

**THE PRESIDENT.**—According to the constitution, this report will be referred to the Auditors for future report.

We will now have the report of the Editors of the American Journal of Insanity.

#### REPORT OF THE EDITORS OF THE AMERICAN JOURNAL OF INSANITY.

There is nothing new or unusual to report concerning the JOURNAL. When it was taken over by the Association in 1894 and became its property and official organ it was a liability on the treasurer's books.

For some years now it has been a valuable asset. Last year I stated that the financial report showed a comfortable balance which might be seriously decreased by increased cost of publication. This prediction has proven to be correct. Since January, the cost of publication, already materially increased over pre-war prices, has again been increased, and our working balance has fallen off about twenty-five per cent.

The finances of the Association will not permit us to ask assistance from the treasurer and such assistance will not be necessary, if the Association pursues a sound financial policy. The whole matter is in the hands of the Council to which body certain suggestions will be made and to which body we may confidently look for a wise solution of the problem. I present herewith the financial report of the publishers, The Johns Hopkins Press.

**THE PRESIDENT.**—Under the rules, the financial part of this report will be referred to the Auditors. A motion to accept the report is in order.

**DR. OSTRANDER.**—I move that the report of the Editorial Board of the JOURNAL OF INSANITY be accepted.

Motion seconded and carried.

**THE PRESIDENT.**—I will now appoint a committee to nominate officers for the ensuing year; I will name as this committee: G. Alder Blumer, M. D., chairman, Charles G. Wagner, M. D., and James V. Anglin, M. D.

Nine of our members have died during the year. I will ask you to rise while their names are being read by the secretary, and our heads will be bowed in silent prayer.

The audience arose and the following names were read by the Secretary: Joseph B. Betts, M. D., Buffalo, N. Y.; Robert H. Chase, M. D., Wyncote, Pa.; Chas. E. Doherty, M. D., New Westminster, B. C.; John W. Duke, M. D., Guthrie, Okla.; A. W. Hoisholt, M. D., Napa, Cal.; Chas. S. Kinney, M. D., Easton, Pa.; John C. Mitchell, M. D., Brockville, Ont.; Alonzo P. Williamson, M. D., Santa Monica, Cal.; David Yellowlees, M. D., Edinburgh, Scotland.

**THE PRESIDENT.**—In the absence of the vice-president, I will ask Dr. Brush to take the chair.

**DR. BRUSH (presiding).**—We will now have the pleasure of listening to the President's Address.\*

The President delivered his address, which was received with much applause.

**DR. BRUSH (presiding).**—I am sure that we have all listened to this address with very deep interest. I am going to ask Dr. Blumer to express the feelings of the Association.

**DR. BLUMER.**—Although, according to precedent and custom, a president's address may not be discussed, there is certainly no reason why those of us who have listened to this admirable discourse should not commend it in the highest terms. I am sorry to say that from where I sat I did not hear all that Dr. Copp read from his manuscript, but I may be permitted to remark, however, that the impression he gave me was that of William Penn himself at his best, or, perhaps, of some Solon of the ancients. I heard him use the adjectives "sympathetic, mature and cooperating," as characterizing the ideal superintendent. In those three words he surely drew his own picture. It is really a remarkable forecast that Dr. Copp has given us in surveying the situation from the elevation he has reached; and I think, notwithstanding all that he has said about his own maturity, in so far as maturity means age, we must realize that he is still a very live wire with perfect insulation.

**DR. BRUSH (presiding).**—I am quite certain that I voice the sentiments of every one present in saying that all Dr. Blumer has said, and a great deal more, does not adequately express our appreciation of this address Dr. Copp has given us. He has drawn a picture; he has set up an ideal, which, if I could live fifty years more, I should hope to see to some extent realized, and I am sure that you will all with very great pleasure give a rising vote of thanks to the president for this address. (Applause.)

**DR. BRUSH.**—The vote of thanks is entirely unanimous, hearty and sincere. I shall now resign the chair to you, Dr. Copp.

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\* AMERICAN JOURNAL OF PSYCHIATRY, Vol. I, No. 1, p. 1, July, 1921.



**THE PRESIDENT** (resuming the chair).—It is now in order to adjourn. Please remember that the afternoon session begins promptly at 2.30 o'clock.

### Adjournment.

The following members registered and were in attendance during the whole or a part of the meeting:

Abbot, E. Stanley, M. D., Medical Director, Mental Hygiene Committee, 1301 Spruce St., Philadelphia, Pa.

Adams, G. S., M. D., Superintendent Yankton State Hospital, Yankton, S. D.

Allen, H. D., M. D., Superintendent Allen's Invalids Home, Milledgeville, Ga.

Anderson, Albert, M. D., Superintendent State Hospital, Raleigh, N. C.

Anderson, V. V., M. D., Associate Medical Director National Committee for Mental Hygiene, 370 Seventh Ave., New York City.

Anglin, J. V., M. D., Medical Superintendent The Provincial Hospital, St. John, N. B.

Baker, Benjamin W., M. D., Superintendent N. H. School for Feeble-Minded, Laconia, N. H.

Ball, Arthur N., M. D., Assistant Physician Northampton State Hospital, Northampton, Mass.

Bancroft, Charles P., M. D., Chairman State Board of Charities, 104 Pleasant St., Concord, N. H.

Baragar, Charles A., M. D., Brandon Hospital for Mental Diseases, Brandon, Manitoba.

Barlaw, Charles A., M. D., Medical Officer U. S. P. H. S. Hospital No. 57, Knoxville, Ia.

Barrett, Albert M., M. D., State Psychopathic Hospital, University of Michigan, Ann Arbor, Mich.

Bernstein, Charles, M. D., Superintendent Rome State School, Rome, N. Y.

Beutler, W. E., M. D., Superintendent Asylum for Mentally Diseased, Wauwatosa, Wis.

Bingham, Anne T., Psychiatrist N. Y. Probation & Protective Association, 2 Gramercy Park, New York City.

Blumer, G. Alder, M. D., Medical Superintendent Butler Hospital, Providence, R. I.

Baber, B. Angela, M. D., Senior Assistant Physician State Hospital, Northampton, Mass.

Bradley, Isabel A., Assistant Physician Columbus State Hospital, Columbus, O.

Briggs, L. Vernon, M. D., 64 Beacon St., Boston, Mass.

Brown, Louis R., M. D., Medical Director Mississippi State Insane Hospital, Fondren, Miss.

Brownrigg, A. E., M. D., Superintendent Sanitarium, Nashua, N. H.

Brown, G. W., M. D., Superintendent Eastern State Hospital, Williamsburg, Va.

Brown, Sanger, M. D., Chief of Staff Kenilworth Sanitarium, Kenilworth, Ill.

Brush, Edward N., M. D., Superintendent Emeritus Sheppard & Enoch Pratt Hospital, Baltimore, Md.

Bryan, Wm. A., M. D., Superintendent Worcester State Hospital, Worcester, Mass.

Buckley, Albert C., M. D., Medical Superintendent Friends Hospital Frankford, Philadelphia, Pa.

Burnet, Anne, M. D., Resident Physician N. Y. Training School for Girls, Hudson, N. Y.

Burrier, Walter, M. D., Senior Assistant Physician Medfield State Hospital, Harding, Mass.

Butterfield, George K., M. D., Senior Assistant Physician Dancers State Hospital, Hathorne, Mass.

Campbell, C. Macfie, M. D., Director Boston Psychopathic Hospital 74 Fenwood Road, Boston, Mass.

Canavan, Myrtille M., M. D., Pathologist Boston Psychopathic Hospital Boston, Mass.

Carlisle, Frank H., M. D., Medical Director Bridgewater State Hospital State Farm, Mass.

Carmichael, F. A., M. D., Superintendent State Hospital, Osawatomic Kans.

Carroll, Robert S., M. D., Medical Director Highland Hospital, Asheville, N. C.

Chapman R. M., M. D., Medical Superintendent Sheppard & Enoch Pratt Hospital, Towson, Md.

Clare, Harvey, M. D., Medical Director Ontario Hospital, Toronto, Canada.

Christian, Thomas B., M. D., Pathologist N. J. State Hospital, Greystone Park, N. J.

Clark, J. Clement, M. D., Superintendent Springfield State Hospital, Sykesville, Md.

Cleasby, Howard W., M. D., Lancaster, N. H.

Coleburn, Arthur B., 16 Elm St., Norwalk, Conn.

Cohoon, E. H., M. D., Superintendent Medfield State Hospital, Harding, Mass.

Cobb, O. H., M. D., Superintendent Syracuse State School, Syracuse, N. Y.

Cohn, Eugene, M. D., Superintendent State Hospital, Kankakee, Ill.

Copp, Owen, M. D., Physician-in-Chief Penna. Hospital, Dept. for Mental & Nervous Diseases, 4401 Walnut St., Philadelphia, Pa.

Coriat, Isador H., M. D., 416 Marlborough St., Boston, Mass.

Cotton, Henry A., M. D., Medical Director State Hospital, Trenton, N. J.

Crittenden, Samuel W., Surgeon U. S. P. H. Service Hospital No. 44 West Roxbury, Mass.

Curry, M. A., M. D., Superintendent State Hospital, Morris Plains, N. J.  
Damon, LaGrande A., M. D., Assistant Physician Craig Colony, Son-  
yea, N. Y.

Dayton, N. A., M. D., Senior Assistant Physician Westboro State Hos-  
pital, Westboro, Mass.

Devlin, F. E., M. D., Medical Superintendent St. Jean de Dieu Hospital,  
Montreal, Que.

Dexter, Roderick B., M. D., Senior Assistant Physician Boston State  
Hospital, Dorchester Center, Mass.

Dewey, Charles G., M. D., 44 Alban St., Dorchester Center, Mass.

Dodge, Percy L., M. D., Boston Psychopathic Hospital, Boston, Mass.

Doloff, Charles H., M. D., Superintendent New Hampshire State Hos-  
pital, Concord, N. H.

Drewry, Wm. F., M. D., Superintendent Central State Hospital, Peters-  
burg, Va.

Eckel, John L., M. D., 589 Delaware Ave., Buffalo, N. Y.

Edgerly, J. F., M. D., Lincoln, Mass.

Emerson, Ernest B., M. D., Superintendent Rutland State Sanatorium,  
Rutland, Mass.

Evans, Albert, M. D., 409 Marlboro St., Boston, Mass.

Evans, Edwin, M. D., Superintendent E. Louisiana Hospital for Insane,  
Jackson, La.

Ellison, W. A., M. D., Medical Officer in Charge U. S. P. H. Service  
Hospital No. 36, East Norfolk, Mass.

Emerick, E. J., M. D., Superintendent Institution for Feeble-Minded,  
Columbus, O.

Faison, W. W., M. D., Superintendent State Hospital, Goldsboro, N. C.

Fay, Emma H., M. D., Assistant Physician Westboro State Hospital,  
Westboro, Mass.

Fernald, Guy G., M. D., Res. Physician Mass. Reformatory, Concord  
Junction, Mass.

Fernald, Walter E., M. D., Superintendent Mass. School for Feeble-  
Minded, Waverley, Mass.

Fisher, E. Moore, M. D., Executive Officer U. S. P. H. Service Hospital  
No. 34, East Norfolk, Mass.

Flood, Everett, M. D., Superintendent Monson State Hospital, Palmer,  
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Slattery, Mary E., M. D., Assistant Physician Medfield State Hospital, Harding, Mass.

Sloan, George R., M. D., 3542 N. 16th St., Philadelphia, Pa.

Stanley, E. F., M. D., Superintendent Vermont State Hospital, Waterbury, Vt.

Stanley, Mrs. E. F., Waterbury, Vt.

Stevens, Elmer A., Massachusetts Commission on Mental Diseases, W. Somerville, Mass.

Stewart, Frank H., Trustee Massachusetts School for Feeble-Minded, Boston, Mass.

Stewart, Mrs. Frank H., Newton Center, Mass.

Taylor, Mrs. Bertram E., Trustee Massachusetts School for Feeble-Minded, Newton Center, Mass.

Thompson, John J., M. D., Assistant Physician Taunton State Hospital

Thomson, Mather, M. D., Health Hospital, Dublin, Ireland.

Thompson, Mrs. Lloyd, Boston, Mass.

Thom, Mrs. Douglas A., Belmont, Mass.

Thomas, Henry J., M. D., Pineville, La.

Thomas, Mrs. John N., Pineville, La.

- Thomas, Elizabeth H., Foxboro, Mass.  
Tingley, Mrs. Ernest D., Jamaica Plains, N. Y.  
Tiernan, John B., M. D., Massachusetts Commission on Mental Diseases, Salem, Mass.  
Tiernan, Mrs. John B., Salem, Mass.  
Troxell, Mrs. G. A., Harding, Mass.  
Tryon, P., M. D., Senior Assistant Physician Boston State Hospital, Boston, Mass.  
Trueman, Mrs. Nelson G., Salem, Mass.  
Tuttle, Mark, Member State Board of Insanity, Prove, Utah.  
Upton, Mrs. W. J., Burlington, Vt.  
Uyematsu, Shichi, M. D., Pathologist Boston State Hospital, Dorchester, Mass.  
Walker, Mrs. Gerna S., Psychopathic Hospital, Boston, Mass.  
Wallace, Geo. L., M. D., Superintendent Wrentham State School, Wrentham, Mass.  
Wallace, Anna M., M. D., Senior Assistant Physician Massachusetts School for Feeble-Minded, Waverley, Mass.  
Watkins, Mrs. H. M., Hathorne, Mass.  
Warren, L. Maude, M. D., Massachusetts School for Feeble-Minded, Waverley, Mass.  
Webb, Miss Marion, 229 E. 48th Street.  
Weinstein, Mollie, Occupational Therapist Psychopathic Hospital, Brookline, Mass.  
White, Mrs. C. E., Weston, W. Va.  
Whitney, Harriet W., M. D., Physician Out-Patient Department, Northampton State Hospital, Northampton, Mass.  
Whillhite, O. C., M. D., Medical Officer in Charge U. S. P. H. S. Hospital No. 49, Philadelphia, Pa.  
Williams, Mrs. G. H., Cleveland, O.  
Wiswall, Mrs. Edward H., Wellesley, Mass.  
Witte, Max E., Jr., M. D., Junior Physician Psychopathic Hospital, Boston, Mass.  
Woodell, Edith E., M. D., Senior Assistant Physician Massachusetts School for Feeble-Minded, Waverley, Mass.  
Wright, Rebekah B., M., D., Director of Hydrotherapy, Boston State Hospital, Boston, Mass.  
Duval, Leon E., M. D., Senior Assistant Physician Gardner State Colony, Gardner, Mass.

#### AFTERNOON SESSION.

The meeting was called to order by the President at 2.30 p. m.

THE PRESIDENT.—Dr. Kline and Dr. Abbot have announcements to make, after which we will have the report of the Committee on Occupational Therapy, by Dr. Hutchings.



## REPORT OF COMMITTEE ON OCCUPATIONAL THERAPY.

The Committee on Occupational Therapy, after consultation with the Committee on Arrangements, found that no hall could be secured either in this hotel or nearby that would be suitable for an exhibit such as has been usually held. It was the general opinion that an exhibit staged at a distance from the meeting place of the Association would not attract sufficient attention to do justice to the exhibitors. After consultation with the officers of the Association it was decided that it would be impractical to hold the usual exhibit and that it would be omitted this year, and the activities of the Committee concentrated upon the round table conference which will be held on Thursday night of this week. It is hoped that it will be possible to resume the usual display of patients industries, for they have reflected credit upon the institutions and have served as an inspiration to all who are interested in the care of patients.

To compensate in a measure for this deficiency the Committee has arranged a program for a round table conference which in scope and interest promises to furnish inspiration, though in a somewhat different way.

The trend of interest in occupational therapy has become in the last few years more definite. There is a clearer conception of the problem—it is more definitely seen how it benefits our patients and how it should be planned and carried out. The importance of maintaining the interest of the patient in reality and the mechanism of regression which becomes manifest when that contact with reality is impaired or lost, have been illuminated by the studies and reports of members of this Association. The result has been that a more hopeful attitude is taken towards even such heretofore discouraging conditions as dementia præcox, the mechanism of which it is recognized is essentially the loss of interest in reality, and preoccupation with somatic and psychic activities of a morbid sort. It is now recognized that this is largely due to the absence of suitable incentive in the environment, that this incentive can be provided which would have the effect not only of arresting the deterioration, which follows on introversion, but can actually restore this interest in some cases where it has long been absent. It is also recognized that this can be done on a large scale by a proper organization and personnel, concentrating definitely upon the object to be attained in each individual patient. The multiplication of opportunities for useful employment for patients is not sufficient. For those patients who are able and willing to work the variety of occupations offers them of course, opportunities for interest in various directions, but when this has been done to the fullest extent there yet remains a very large group of patients who cannot by ordinary means be made to interest themselves in any kind of employment. These constitute a considerable proportion of the hospital population, ranging from 30 per cent to 45 per cent. To be able to benefit this group is the real test of the success of occupational therapy. That it can be done successfully by well organized effort has been demonstrated on a large scale in a number of institutions and perhaps upon the largest

scale by the State of Illinois, where under the encouragement given to it by the State Board of Control, and under the direction of Mrs. Slagle, occupational therapy has become established as an approved method of treating patients. The result has been so encouraging that it may be said to have been demonstrated that idleness and disorder can be almost entirely eliminated and in its place substituted industry and hopefulness. Results equally encouraging have been attained in many individual hospitals owing to the resourcefulness and interest of superintendents, but the encouragement for this work has been notably lacking in boards of control and legislative bodies, at least to the extent of generous appropriation for carrying it out. This is doubtless a reflection of the lack of information on the part of the public as to the benefits which can be attained through activities of this sort. Legislative bodies and boards of control usually act in accordance with their conception of public interest. They for instance, no longer refuse to provide a pure and adequate water supply as public opinion demands this necessity. When through our activities and the success which we have been able to achieve in a small way the public comes to a realization of better methods of care and treatment of our patients, it will be recognized by those bodies which have the responsibility for the appropriation of public funds, and facilities for occupational therapy will be provided just as appropriations are now made for other essential things. This Association then, as a body, and its members as individuals, have before them the task of enlightening the public as to the importance of this measure of treatment. It may be confidently expected that when this is done difficulties of securing ample financial support will be overcome. The Committee is of the opinion that in order to accomplish this object every proper method of publicity should be utilized. In New York State the State Hospital Commission has for several years past held an exhibit at the State Fair which consists of a display of articles of various kinds that were manufactured by patients, with photographs of a large size illustrating the various activities that are carried on in this direction, and leaflets and pamphlets on various related topics are distributed. Every such occasion should be utilized to put over our message to the public; which is that the proper treatment of our patients includes, besides medical and nursing attention, opportunities for employing the hand and mind, and that otherwise the fullest benefit to them is not secured.

Occupational therapy is not to be defined as applying only to work, it includes also the broad subject of recreation. Work and play are corollaries and aim at the same result. A judicious mixture of work and play will do more to arouse and hold the interest of patients than either alone. Particularly for younger patients, play affords an element of interest which makes a stronger appeal to them than work does, and if wisely directed will accomplish results which are sometimes impossible with work alone. The Committee believes that in amusements it is important to make a distinction between those forms of entertainment which require an active participation on the part of the patient and those in which they are merely passive

listeners or lookers-on. The latter, while they may be pleasing and can offer for an hour an agreeable form of relaxation, will not in themselves accomplish very much of therapeutic value as compared with amusement in which team work and co-operation are essential, and active participation requisite, which stimulates social contact, the absence of which is essentially a feature of introversion and deterioration.

A most encouraging prospect appears in the interest shown in this subject by others working in somewhat different fields. The work of the occupational therapists in the army and navy hospitals has demonstrated the advantages of occupational therapy in general hospitals. It was not, of course, done there for the first time. Already systematic occupation for patients and inmates had been established in many of our general hospitals and in almshouses and other institutions where the treatment of the mind was not the first consideration, but the work done in the army and navy hospitals has resulted in a wider recognition of its value because it was known to so many individuals, and now that the majority of them have returned to civil life some knowledge of the value of occupation in convalescence has been disseminated throughout the country. Attention should also be called to the work of the National Association for the Promotion of Occupational Therapy, which though organized a few years ago has already an extensive membership and wide influence.

In concluding this report the situation of occupational therapy may be summarized as follows:

1. That occupational therapy is a recognized and approved measure of treatment of patients.
2. That in the practical field for which it is recommended no other measures are at present available.
3. That a definite organization and personnel are requisite for its success.
4. That its extension and perfection are recommended.
5. That detailed reports regarding methods of employment, the difficulties encountered, and the success which has been achieved in its employment, would be made in such a manner that they will be available for the guidance of all.

Respectfully submitted,

*Committee on Occupational Therapy.*

THE PRESIDENT.—A motion to accept this report will be in order.

DR. ABBOT.—I move that the report of this committee be accepted.

Motion carried.

THE PRESIDENT.—I have a very painful duty, but very imperative and in the interest of all. As you will notice, our program is full and it will be necessary to observe strictly the rule we have had for some years, that no one will be allowed more than 20 minutes to present any one paper, nor more than 5 minutes for discussion.

The afternoon program will be begun by Dr. John B. Macdonald, on "Social Service and Out-patient Relations."

This paper was discussed by Drs. Terhune, Devlin, Jackson, Abbot, Harrington, Mitchell, Copp, and Macdonald in closing.

The following papers were then read:

"How a State Hospital Co-operated with a University to Meet a Community Need," by Henry I. Klopp, M. D., Allentown, Pa. Discussed by Drs. Williams, Brush, Ruggles, and Klopp in closing. "Extra-institutional Activities for Mental Defectives in New York State," by Wm. C. Sandy, M. D., New York. Discussed by Drs. Hamilton, Brush, Russell, Miss Clark and Dr. Sandy in closing. "What Happens to Discharged Patients," by George K. Butterfield, M. D., Hathorne, Mass. Discussed by Drs. O'Brien, Houston, Paine, and Butterfield in closing.

THE PRESIDENT.—You will notice that the goal idea of this session has been community service. We have been talking about extra-institutional service, I think we should bear in mind that community service is just as much a part of the necessary work of the institution if we are going to deal with our patients from the beginning through to the end.

The next paper will be read by title, Dr. Weisenburg not being able to be present: "The Education of a Neuropsychiatrist," by T. H. Weisenburg, M. D., Philadelphia, Pa.

We will now hear Dr. Kindred's paper, which will be brought forward from the session of Thursday afternoon.

"Neuro-Psychiatric Wards of the United States Government; Their Housing and Other Problems," by John Joseph Kindred, M. D., New York. Discussed by Drs. Treadway, Willhite, Lorenz and Kindred in closing.

THE PRESIDENT.—We have tomorrow morning a rare pleasure in having presented to us a paper by a distinguished psychiatrist from London, and he will speak to us on the subject—"The Biological Significance of Mental Illness.

Adjournment.

#### EVENING SESSION.

##### BOSTON PSYCHOPATHIC HOSPITAL.

THE PRESIDENT.—The subject of this evening centers around what the laboratory contributes to the hospital, and the first paper is by Harold I. Gosline, M. D., Howard, R. I., on "The Laboratory Service in State Hospitals for Mental Diseases." Discussed by Drs. Myerson, Miller and Gosline in closing.

The following papers were read:

"Report of a Case of Epidemic Encephalitis with Cord Changes Suggestive of beginning Syringomyelia," by Ada F. Harris, M. D., Worcester, Mass. Discussed by Drs. Miller, Myerson, and Harris in closing. "An Aspect of the Distribution of Blood Constituents as Related to Mental State," by H. S. Newcomer, M. D., Philadelphia, Pa. (Read by title.) "The Platelet Count and Bleeding Time in Cases of Catatonic Dementia Præcox,"\* by Schichi Uyematsu, M. D., Hathorne, Mass. Discussed by Drs. Norbury, Gregg, and Uyematsu in closing. "Sugar Tolerance Tests in Dementia Præcox," by W. F. Lorenz, M. D., Mendota, Wis. Discussed by Drs. Norbury, Gosline, Uyematsu, Strecker, and Lorenz in closing.

Adjournment.

WEDNESDAY, JUNE 1, 1921.

MORNING SESSION.

The Association was called to order by the President, at 10.00 a. m.

THE PRESIDENT.—We will listen to the report of the Council by the Secretary.

REPORT OF THE COUNCIL JUNE 1, 1921.

The Council recommends that the following-named physicians be elected to associate membership in the Association:

Merner H. Evans, M. D., Boston, Mass.; Robert R. Janjigian, M. D., Norristown, Pa.; Charles A. McDonald, M. D., Providence, R. I.; Harriet Wiley Whitney, M. D., Northampton, Mass.; George B. Wilbur, M. D., So. Dennis, Mass.

The Council has received and considered the applications of the following-named physicians for active membership in the Association. In accordance with the provision of the constitution, final consideration will be deferred until next year:

Charles Arthur Baragar, M. D., Brandon, Man., Canada; George Henry Benton, M. D., Miami, Fla., Mabel D. Ordway, M. D., Jamaica Plain, Boston, Mass.; W. J. Upton, M. D., Burlington, Vt.; Leon N. Wilbur, M. D., Chicago, Ill.

The following resolution was adopted by the Council:

"Resolved, That the publication of the Transactions of the Association be discontinued with the 1920 volume; that the dues of active members be

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\* AMERICAN JOURNAL OF PSYCHIATRY, Vol. 1, No. 1, p. 15, July, 1921.

raised from \$5.00 to \$7.00, the dues of associate members be raised from \$2.00 to \$4.00 a year, and that a copy of the *AMERICAN JOURNAL OF INSANITY*, the official organ of the Association, be furnished free of charge to each member of the Association."

Respectfully submitted,  
H. W. MITCHELL, *Secretary*.

THE PRESIDENT.—A motion to accept and adopt the report of the Council will be in order.

DR. WOODSON.—I move that we accept this report and adopt it also.

Motion seconded.

THE PRESIDENT.—It has been moved and seconded that the report of the Council be adopted; is there any discussion?

DR. HAMILTON.—I suppose this motion carries with it endorsement of the change in dues. I wonder if the Association could not have a statement of the increases in expense on which that change is based. Time was when a dollar or two sometimes made a difference in the question whether I joined an association, and it might be the same now in the case of assistants. This organization has depended very largely for its scientific work and papers on the assistant physicians and every time the dues are raised there is a tendency for some to stay out who otherwise might come in. If, therefore, the need of increase was not entirely convincing it might be that the Association would prefer, when the market is falling, not to raise its dues for at least that group of physicians who form the associate membership.\*

THE PRESIDENT.—This action will be for the ensuing year. The matter will come up again next year if there is need for modification.

The question is before the house; is there any further discussion? If not, all in favor of the motion say aye; opposed, no.

It is a unanimous vote.

The next order of business is election of new members, whose names were presented before the Association yesterday.

DR. WOODSON.—I move you that the Secretary be authorized to cast the ballot of the Association, electing these physicians to membership, both active and associate.

Which motion was duly seconded and unanimously carried.

(The list will be found in the first report of the Council.)

The Secretary announced that the ballot had been cast, and the physicians named in the list were elected to membership.

\* The necessity for raising the dues of both active and associate members was shown on page 109 *AMERICAN JOURNAL OF PSYCHIATRY*, Vol. I, No. 1, July, 1921.

**THE SECRETARY.**—I sent out, as required by the constitution, a printed notice of proposed changes in the constitution and by-laws, which was placed in the hands of every member three months ago. The proposed changes were presented before the Association a year ago for final action this year.

**THE PRESIDENT.**—The question is as to the adoption of the constitution as revised. A motion to that effect would be in order.

**DR. BRUSH.**—I move you, sir, that the constitution, as revised and amended and sent to the members of the Association several months ago, be now adopted.

**THE PRESIDENT.**—Dr. Wagner, will you make a statement as regards some minor modifications?

**DR. WAGNER.**—I would simply say this: That when the revised constitution as printed was received from the printer some slight errors were found in the phraseology, and some minor corrections were thought to be necessary by the committee—simply the addition of a word here and there to clarify, but not to change the meaning. These changes it was believed by the committee, of which Dr. Copp was chairman, were not of sufficient importance to delay action upon the new constitution, but the chairman thought it desirable to mention that there were some slight changes to be made in the final printing which will not change the meaning but will clarify it to some extent.

**THE PRESIDENT.**—If there is no objection we will act on the motion to adopt, with the understanding that such minor modifications may be made before printing.

**DR. W. G. RYON.**—I second the motion.

**THE PRESIDENT.**—It has been moved and seconded that the constitution, as revised, be adopted; is there any discussion?

This motion was unanimously carried.

The Constitution and By-Laws as amended and adopted are as follows:

#### CONSTITUTION.

##### *Article I.*

This organization shall be known as The American Psychiatric Association and is continuous with the organization known from 1844 to 1892 as The Association of Medical Superintendents of American Institutions for the Insane and from 1892 to 1921 as The American Medico-Psychological Association.

*Article II.*

The object of this Association shall be the study of all subjects pertaining to mental disease and defects, including the care, treatment and promotion of the best interests of the insane, epileptic, feeble-minded and allied classes.

*Article III.*

There shall be five classes of members: (1) Fellows, who shall be physicians, resident in the United States or British America, especially interested in subjects pertaining to mental disease and defect: (2) Members; (3) Life members; (4) Honorary members; (5) Corresponding members.

*Article IV.*

The officers of the Association shall be a President, Vice-President, Secretary—who shall also be the Treasurer—three Auditors, and twelve Fellows or life members of the Association to be called Councilors; these officers together shall constitute a body which shall be known as the Council. The retiring president shall be nominated for Councilor for three years and other ex-presidents shall be ex-officio Councilors without power to vote.

*Article V.*

The Fellows of the Association shall include the active members in the official list published in 1921 of members of the American Medico-Psychological Association.

Physicians who by their professional work or published writings have shown a special interest in the care and welfare of the insane and allied classes are eligible to Fellowship.

The Class, Members, shall include the names of Associate members published in the above mentioned list.

Those eligible for membership in this class are regularly appointed assistant physicians of institutions for the insane that are regarded to be properly such by the Council and such other physicians as are deemed suitable for membership by the Council. After three years a Member may become a Fellow by making application in writing to the Council and upon its approval being elected in the manner hereinafter prescribed.

Life members shall be such Fellows as shall have been Fellows or Active Members of the Association for a period of thirty (30) consecutive years.

Among Honorary members shall be included the names of such published in the above mentioned list. Physicians and others who have distinguished themselves by attainments in branches of science pertaining to mental disease and defect, or who have rendered signal service in philanthropic efforts to promote the interests of persons subject thereto, shall be eligible for Honorary membership.

Corresponding members shall be those hereafter elected as such.



Physicians not residents of the United States or British America, who are actively engaged in the treatment of mental disease or defect may be elected Corresponding members.

The above mentioned lists for 1921 shall be corrected by the Council as may be necessary to carry out the intention of the Constitution as to continuance of existing membership.

Every candidate for admission to the Association hereafter as a Fellow shall be proposed to the Council, in writing, in an application addressed to the President, at any annual meeting preceding the one at which the election is held; provided that any such candidate, whose name has been properly presented to the Council at its first session Monday evening and to the Association at its first business session on Tuesday may on unanimous recommendation of the Council, if no objection be made, be elected the following Wednesday or Thursday.

Members, Honorary and Corresponding Members, may be elected after approval by the Council of applications, which shall be made in writing, and addressed to the President, at least two months prior to the meeting of the Association.

Every application of whatever class must include a statement of the candidate's name and residence, professional qualifications, any appointments then or formerly held, and certification that he is a fit and proper person for Fellowship, or Membership.

In the case of a candidate for Fellowship or Membership, the application shall be signed by three Fellows or life members of the Association; and the proposal for an Honorary member or Corresponding member by six.

The names of all candidates approved by majority vote of members of the Council present at its annual meeting shall be presented on a written or printed ballot to the Association at its concurrent annual meeting, at least one session previous to that at which the election is made, which shall be by ballot at a regular session and require a majority vote of the Fellows or Life members present and voting.

#### *Article VI.*

Fellows and Life members only shall be entitled to vote at any meeting or be eligible to office in the Association. Life members, Honorary members and corresponding members shall be exempt from the payment of annual dues to the Association.

#### *Article VII.*

Any Fellow or member of the Association may withdraw from it on signifying his desire to do so in writing to the Secretary: Provided, That he shall have paid all dues to the Association. Any Fellow or member who shall fail for three successive years to pay dues after special notice by the Treasurer shall be regarded as having resigned membership, unless such dues are remitted by the Council for good and sufficient reasons.

The name of any Fellow or member declared unfit for membership by two-thirds vote of the members of the Council present at an annual meeting of that body shall be presented by the Council to the Association from which he shall be dismissed if it be so voted by a number not less than two-thirds of those present at the annual meeting, registered and voting.

*Article VIII.*

The Officers and Councilors shall be elected at each annual meeting. They shall be nominated to the Association on the second day of the annual meeting in the order of business of the first session of that day, by a committee appointed for that purpose by the President during the first day's session; and the election shall take place immediately. The election shall be made as the meeting may determine, and the person who shall have received the highest number of votes shall be declared elected to the office for which he has been nominated.

The President, Vice-President and Secretary-Treasurer, shall hold office for one year or until the beginning of the term for which their successors are elected. One Auditor shall be elected annually for a term of three years. The Secretary-Treasurer and the Auditor whose term expires at any annual election are eligible for re-election. Four Councilors shall be elected each year to hold office three years, or until their successors are elected. The President, Vice-President, and the four retiring Councilors are ineligible for re-election to their respective offices for one year immediately following their retirement. All the officers and Councilors shall enter upon their duties immediately after their election, excepting the President and Vice-President and Secretary-Treasurer. When any vacancies occur in any of the offices of the Association, they shall be filled by the Council until the next annual meeting.

A quorum of the Council shall be formed by six members thereof; and of the Association by twenty Fellows or Life members.

*Article IX.*

The President and Vice-President and Secretary-Treasurer for the year shall enter on their duties at the close of the business of the annual meeting at which they are elected. The President shall prepare an inaugural address to be delivered at the opening session of the next meeting. He shall preside at the annual or special meetings of the Association or Council. In his absence at any time, the Vice-President shall act in his place.

The Secretary-Treasurer shall keep the records of the Association and perform all the duties usually pertaining to that office, and such other duties as may be prescribed for him by the Council; and under the same authority he shall receive and disburse and duly account for all sums of money belonging to the Association. He shall keep accurate accounts and vouchers of all receipts and payments on behalf of the Association, and of all invested funds, with the income and disposition thereof, that

may be placed in his keeping, and shall submit these accounts, with a financial report for the preceding year, to the Council at its annual meeting. Each annual statement shall be examined by the Auditors, who shall prepare and present at each annual meeting of the Association a report showing its financial condition. The Council shall have charge of any funds in the possession of the Association, and these shall be deposited or invested under its direction and control. The Council shall keep a careful record of its proceedings, and make an annual report to the Association of matters of general interest. The Council shall also print annually the proceedings of the meetings of the Association and the reports of the Treasurer and Auditors.

The Council is empowered to manage all the affairs of the Association, subject to the Constitution and By-Laws; to appoint committees from the membership of the Association; to expend money out of its surplus funds for special scientific investigations in matters pertaining to the objects of the Association, and to publish reports of such investigations; and to apply the income of special funds, at its discretion, to the purposes for which they were intended. The Council may also engage in the regular publication of reports, papers, transactions, and other matters, in an annual volume, or in a journal, in such manner and at such times as the Council may determine, with the approval of the Association.

#### *Article X.*

Amendments to the Constitution and By-Laws shall be considered at the first session of the second day of any annual meeting, and may be made by a two-thirds vote of all the Fellows or Life members present and voting: *Provided*, That notice of proposed amendments has been given in writing at the annual meeting preceding that at which the amendments are submitted for action. It shall be the duty of the Secretary to send to every member at least three months previous to any annual meeting a copy of any proposed amendment.

#### BY-LAWS.

#### *Article I.*

The meetings of the Association shall be held annually. The time and place of each meeting shall be named by the Council, and reported to the Association for its action at the preceding meeting. Each annual meeting shall be called by printed announcements sent to each Fellow or member at least three months previous to the meeting.

The Council shall hold an annual meeting concurrent with the annual meeting of the Association; and the Council shall hold as many sessions and at such times as the business of the Association may require.

Special meetings of the Council may be called by the order of the Council. The President shall have authority at any time, at his own discretion, to instruct the Secretary to call a special meeting of the Council;

and he shall be required to do so upon a request signed by six members of the Council. Such special meetings shall be called by giving at least four weeks' written notice.

*Article II.*

Each and every Fellow and Member shall pay to the Treasurer such annual dues and assessments as shall be determined by the Council at its annual meeting.

*Article III.*

The Council shall make arrangements for the meetings of the Association and appoint and define the functions of such auxiliary committees from its own body, and from the membership of the Association as may be necessary.

THE PRESIDENT.—Next is the report of the Nominating Committee.

DR. BLUMER.—At the cost of prolonging the suspense of this audience for a moment or two, the Committee is sorry to have to make an announcement that refers to its nomination for the position of President. It has been customary in this Association for some time past, as you know, for the Vice-President to be promoted to the higher position. It is with great regret that the Committee announces that the Secretary has received from Dr. Sanger Brown, the Vice-President, a letter of final and decisive tone stating that his health has been so indifferent of late that it would be impossible for him to assume the duties and responsibilities of the Presidency in the event that he should be nominated for that position. I am sure that the Committee's regret is shared by every member of this Association.

The report of the Nominating Committee is as follows:

For President, Dr. Albert M. Barrett, Ann Arbor, Mich.

Vice-President, Dr. H. W. Mitchell, Warren, Pa.

Secretary-Treasurer, Dr. Floyd Haviland, Middletown, Conn.

Councilors: Dr. Owen Copp, Philadelphia, Pa.; Dr. Herman Ostrander, Kalamazoo, Mich.; Dr. Francis E. Devlin, Gamelin, Que.; Dr. Ross McC. Chapman, Towson, Md.

Auditor, Dr. L. V. Guthrie, Huntington, W. Va.

(Signed) G. ALDER BLUMER, *Chairman*,  
CHARLES G. WAGNER,  
JAMES V. ANGLIN,  
*Nominating Committee.*

THE PRESIDENT.—You hear this report; what is your pleasure?

DR. BRUSH.—I move you, sir, that the report be accepted and the recommendations of the committee be adopted, and that the Secretary, although he is on the ticket, be authorized to cast the ballot of the Association for the Officers nominated.

THE PRESIDENT.—I would substitute the name of Dr. Brush in the above motion.

Motion seconded.

THE PRESIDENT.—It has been moved and seconded that Dr. Brush be instructed to cast the ballot for the election of this list of officers as read.

Motion unanimously carried, and the ballot cast.

THE PRESIDENT.—We will listen to the report of the Auditors.

May 31, 1921.

The accounts of the Secretary-Treasurer of the American Medico-Psychological Association have this day been examined and found to be correct.

The accounts of the Publishers of the American Journal of Insanity have this day been examined and found to be correct.

(Signed) J. C. CLARK,  
WALTER G. RYON,  
Auditors.

THE PRESIDENT.—What shall be done with this report?

DR. WAGNER.—I move that the report be duly accepted and recorded.

Motion duly seconded and carried.

THE PRESIDENT.—We will now have the report of the Committee on Statistics—Dr. May.

#### REPORT OF THE COMMITTEE ON STATISTICS, AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, JUNE 1, 1921.

This Committee has continued to have the cooperation of the Bureau of Statistics of the National Committee for Mental Hygiene in the work of introducing the Association's classification of mental diseases and uniform statistics.

A second edition of 3000 copies of the Statistical Manual has been printed, and the first four tabular forms have been revised and reprinted. At the present time about 160,000 statistical record cards have been distributed, and 67 hospitals are known to be using these cards.

The Bureau of Statistics of the National Committee for Mental Hygiene has published one study based on the uniform tabular forms received from all the state hospitals in twelve states for the fiscal year 1919. This report appeared in the April number of *Mental Hygiene*, and a second study, dealing with first admissions to these same state hospitals, will be published in the July issue of the same magazine. At the present time a statistical monograph is being prepared, in which will be included data from all hospitals that have sent in to the office of the National Committee for Mental Hygiene uniform statistical tables for the year 1920. There will be over 75 hospitals included in this study.

The Dictionary of Races is being sent to superintendents of all co-operating hospitals upon their request.

New maps of Europe will be ready for distribution as soon as the boundaries affected by the World War have been settled.

The Committee plans to draw up a statistical system for institutions for temporary care, and also to outline a system of records for clinics.

The Committee would again urge that central statistical bureaus be established by state departments having supervision over hospitals for mental diseases. To these bureaus could be sent statistical card reports for every patient admitted, discharged or deceased. The bureau would compile from these cards annual statistical tables for each hospital in the state, as well as other tables concerning the general operation of the hospitals. As stated in the report of this Committee last year, the advantages of this method over the system of separate compilation by each hospital, would be: (1) the possibility of employing a trained statistician, (2) uniform method of preparation of statistics, (3) greater accessibility of data, and (4) the cumulation of a larger amount of uniform statistical material from which special studies can be made.

The Committee wishes to express its appreciation of the co-operation that has been shown by the great majority of hospital superintendents, and would strongly urge all others to join in this movement for uniform statistics for mental diseases.

Respectfully submitted,

ALBERT M. BARRETT, *Chairman*,  
 THOMAS W. SALMON, *Vice-Chairman*,  
 E. STANLEY ABBOT,  
 JAMES V. MAY,  
 C. MACFIE CAMPBELL,  
 ADOLF MEYER,  
 GEORGE H. KIRBY,  
 SAMUEL T. ORTON,  
 FRANKWOOD E. WILLIAMS,  
*Committee on Statistics, American  
 Medico-Psychological Association.*

THE PRESIDENT.—A motion to accept and print this report will be in order.

DR. J. C. CLARK.—I move that the report of the Committee on Statistics be accepted and printed as usual.

Motion seconded and carried.

THE PRESIDENT.—I will appoint a Committee on Resolutions: Dr. Herman Ostrander, Chairman, Dr. James M. Forster and Dr. Albert C. Buckley.

We have now come to the program of the session, which will be on "Dementia Præcox." Dr. Adolf Meyer of Baltimore, Md., will present a paper on "A Constructive Formulation of the Facts and Problems of Schizophrenia." Discussed by Drs. Campbell, Abbot, Orton, and Meyer in closing.

**THE PRESIDENT.**—Owing to Dr. White's inability to be present, the next paper will be read by title: "Some Considerations Bearing on the Diagnosis and Treatment of Dementia Præcox."

We are fortunate indeed in having with us to-day a distinguished English psychiatrist, Dr. Richard G. Rows, who needs no introduction to this audience. We all know of his splendid work and results at the London Neuro-Psychiatric Hospital. Dr. Rows will speak to us on: "Biological Significance of Mental Illness."\*

Dr. Rows presented his paper, which was received with applause.

**THE PRESIDENT.**—I am going to take the liberty of transposing the order, and I will now ask Dr. Greene to read his paper. The next paper is so related to this one that the discussion of both papers will be at the same time.

The following papers were read:

"Dementia Præcox and Syphilis," by Ransom A. Greene, M. D., Hathorne, Mass. "Dementia Præcox from the Organic-Visceral View-point as Regards Prognosis and Therapy," by Daniel J. McCarthy, M. D., Philadelphia. Discussed by Drs. Hawke, Strecker, Kirk, Solomon, Greene, and McCarthy in closing. "Reversible Schizophrenia; and Analysis of Delirium, Schizophrenoides and Other Post-Infectious Syndromes and Data," by Karl A. Menninger, M. D., Topeka Kans. Discussed by Dr. Witte. Adjournment.

#### AFTERNOON SESSION.

The meeting was called to order by the President at 2.30 p. m.

**THE PRESIDENT.**—Our program opens this afternoon with a continuation of the subject of Dementia Præcox.

The following papers were read:

"Emotional States and Illegal Acts in Connection with Schizophrenia," by John R. Oliver, M. D., Baltimore, Md. Discussed by Drs. Lorenz, Witte, Greene, Starkey, and Oliver in closing. "Acute Psychoses with Symptoms Resembling Dementia Præcox," by Theodore A. Hoch, M. D., Waverley, Mass. Discussed by

\* This paper, an abstract of which appears in *Hospital Notes and News*, *AMERICAN JOURNAL OF PSYCHIATRY*, Vol. 1, No. 1, p. 115, July, 1921, will be published in full, by the Governors of the New York Hospital, in a volume commemorative of the centennial of the founding of Bloomingdale Hospital, at the celebration of which it was read.

Drs. Coriat and Hoch in closing. "A Preliminary Study of the Precipitating Situations in Two Hundred Cases of Mental Disease," by Edward A. Strecker, M. D., Philadelphia, Pa. "The Prognosis of Involution Melancholia," by the late August Hoch, M. D., and John T. MacCurdy, M. D., New York. (Read by Dr. MacCurdy.) Discussed by Drs. Meyer, Abbot and MacCurdy in closing. "Mental Defects in the Offspring of Epileptics," by Douglas A. Thom, M. D., Boston, Mass. Discussed by Drs. Myerson, Hodskin and Thom in closing.

THE PRESIDENT.—The meeting is adjourned.

#### EVENING SESSION.

The Association was called to order by President Copp, at 8.30 p. m.

The Annual Address, entitled "Medicine and Psychology," was delivered by William McDougal, F. R. S., Professor of Psychology in Harvard University, which was received with much applause.

THURSDAY, JUNE 2, 1921.

#### MORNING SESSION.

The meeting was called to order by the President at 9.30 a. m.

THE PRESIDENT.—We will first hear the report of the Council by the Secretary.

#### REPORT OF THE COUNCIL JUNE 2, 1921.

The Council recommends that the following named physicians be elected as Members in the Association:

E. W. Allen, M. D., Milledgeville, Ga.; H. D. Allen, Jr., M. D., Milledgeville, Ga.; Harold A. Bancroft, M. D., Hartford, Conn.; Sidney M. Banker, M. D., Waverley, Mass.; Richard Binion, M. D., Milledgeville, Ga.; G. L. Echols, M. D., Milledgeville, Ga.; John Raymond Frank, M. D., Boston, Mass.; Earl W. Fuller, M. D., Rome, N. Y.; George A. Gaunt, M. D., State Farm, Mass.; Otis F. Kelly, M. D., Hathorne, Mass.; Appleton Howe Pierce, M. D., Boston, Mass.; James Stuart Plant, M. D., Waverley, Mass.; Howard W. Potter, M. D., Thiells, N. Y.; George C. Randall, M. D., Hathorne, Mass.; Cornelia B. J. Schorer, M. D., Foxboro, Mass.; Wilmarth Y. Seymour, M. D., Bridgewater, Mass.; Richard L. Shea, M. D., Crownsville, Md.; Freeman A. Tower, M. D., Waverley, Mass.; William H. Walker, M. D., Hartford, Conn.; Augustus S. Keefe, M. D., Lakeland, Ky.; Edward H. Wiswall, M. D., Wellesley, Mass.

The Council recommends that Arthur B. Coleburn, M. D., Norwalk, Conn., be transferred from Member to Fellow in the Association.



The Council has received and considered the applications of the following named physicians for Fellowship in the Association. In accordance with the provision of the constitution, final consideration will be deferred until next year :

Alfred Peter Chronquest, M. D., W. Roxbury, Mass.; George B. Coon, M. D., Howard, R. I.; Guy G. Fernald, M. D., Concord, Mass.; Alberta F. M. Greene, M. D., Fergus Falls, Minn.; William N. Keller, M. D., Fort Steilacoom, Wash.; Louis V. J. Lopez, M. D., New Orleans, La.; James C. O'Neil, M. D., Waterbury, Vt.; Clifford G. Rounsefell, M. D., Exeter, N. H.; Frederick R. Sims, M. D., Melrose, Mass.; Henry R. Viets, M. D., Newton, Mass.; O. C. Willhite, M. D., Philadelphia, Pa.; Fred Harrison Works, M. D., Boston, Mass.

The following named physicians have been proposed for Honorary membership in the Association, and are recommended by the Council for election, in accordance with the provision of the constitution :

Pierre Janet, M. D., Paris, France, and Richard G. Rows, M. D., London, England.

The Council makes the following recommendations :

That the annual meeting of the American Psychiatric Association be held in Quebec, Canada, in 1922, and with Detroit, Mich., as an alternative in the event that Quebec is unable to accommodate the meeting, the date to be announced later.

That the following delegates be appointed to represent this Association at the dedication of the George Alder Blumer Research Laboratory at the Utica State Hospital, Utica, N. Y., on June 4, 1921: Dr. Edward N. Brush, Dr. Charles G. Wagner, Dr. George M. Kline, Dr. Adolf Meyer, Dr. Max E. Witte and Dr. H. W. Mitchell.

That an honorarium of \$50.00 be given William McDougal, F. R. S., of Harvard University, who delivered the Annual Address on Wednesday evening.

That a complete financial statement covering the estimated cost of publishing the AMERICAN JOURNAL OF INSANITY, together with a definite statement of the reasons for raising the dues of Fellows and Members in the Association, be printed in an early number of said JOURNAL, and that in the same issue the new constitution, with the slight verbal changes approved by the Association, shall be published.

Further, that the necessary seal and wood-cuts shall be prepared from the photograph of Dr. Benjamin Rush, furnished by Dr. Brush.

That the sum of \$3.50 for each Fellow and Member of the Association be paid to the Publishers of the AMERICAN JOURNAL OF INSANITY.

Respectfully submitted,

H. W. MITCHELL, *Secretary.*

DR. WOODSON.—I move that the transfer of Dr. Arthur B. Coleburn from Member to Fellow be made.

Motion seconded and carried.

**THE PRESIDENT.**—A motion to accept and adopt this report will be in order.

**DR. WOODSON.**—I move the adoption of the report of the Council.

This motion was seconded and carried.

**THE PRESIDENT.**—We will now proceed to the election of new members presented to the Association yesterday. The Secretary will read the names.

The following names were read by the Secretary:

Merner H. Evans, M. D., Boston, Mass.; Robert R. Janjigian, M. D., Norristown, Pa.; Charles A. McDonald, M. D., Providence, R. I.; Harriet Wiley Whitney, M. D., Northampton, Mass.; George B. Wilbur, M. D., So. Dennis, Mass.

**DR. ABBOT.**—I move the Secretary be instructed to cast the ballot for the election of these members.

Motion duly seconded and carried.

The Secretary announced that the ballot had been cast and the physicians whose names were read are elected to membership in the Association.

**THE PRESIDENT.**—We will now listen to the report of the Committee on Nursing, Dr. Ruggles, Chairman.

#### REPORT OF COMMITTEE ON NURSING OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

It is the consensus of opinion of the Committee on Nursing that the time has come when more attention should be paid, in the training of nurses, to a knowledge of nervous and mental diseases and their care, and that a certain fundamental knowledge of this branch of nursing should be made a required part of the examination for state registration throughout the country, and that, as rapidly as possible, the general hospitals should require their nurses to have some experience in psychiatric nursing.

It is also the consensus of opinion of the Committee that in the training of the psychiatric nurse, bedside care of the patient is still the most important function of the nurse, and that this should not be relegated to a position of secondary importance to the theoretical part of the training.

We believe that the training schools in the mental hospitals should be continued and that the work of these nurses should be supplemented by affiliated nurses taking a short course in this special branch of nursing, and also supplemented by certain practical workers who shall relieve the nurses of some of the minor details of work, and that this class of helpers should receive a practical training in the care of mental patients, but shall not be qualified as registered nurses.

(Signed) ARTHUR H. RUGGLES, M. D., *Chairman.*

DR. ANDERSON.—I move the report of the Committee on Nursing be accepted and adopted, and recorded.

The motion of Dr. Anderson was seconded and carried.

DR. BRUSH.—I desire to make a motion: The Committee of Arrangements has prepared, after very careful study of the situation and examination of several pictures of Benjamin Rush, our psychiatric progenitor, this button. I, therefore, move that this button be adopted as the emblem of the Association, and the thanks of the Association be conveyed to the Committee of Arrangements for their painstaking care in preparing it.

DR. WAGNER.—I would like to second the motion.

Dr. Brush's motion unanimously prevailed.

THE PRESIDENT.—We will now proceed to the reading of papers.

The following papers were read:

"A Rating System for Conduct," by James S. Plant, M. D., Waverley, Mass. Discussed by Drs. Abbot, Meyer and Plant in closing. "Environmental Influences in Relation to the Development of the Juvenile Delinquent," by Percy L. Dodge, M. D., Boston, Mass. Discussed by Drs. Stearns, Smith, Myerson, Coriat, and Dodge in closing.

DR. BRUSH.—I have some resolutions to offer, which should have been offered at the beginning of the program of the morning, and which I shall ask the Association to consider as having been offered at that time:

"WHEREAS, This Association has learned that the Board of Managers of the Utica State Hospital, Utica, N. Y., has erected a laboratory at the hospital, which is to be named 'The George Alder Blumer Research Laboratory' in honor of a former Medical Superintendent of the Utica Hospital, and an honored Fellow and Ex-President of this Association:

"Resolved, That the American Psychiatric Association, desiring to unite in honoring one of its most valued and beloved Fellows and to signify its appreciation of the act of the managers of the Utica State Hospital, having appointed delegates to represent it on the occasion of the dedicatory exercises, directs these delegates to convey to Dr. George Alder Blumer, on the occasion of the dedication, its greetings and its warmest wishes for his continued health and activity, and to the managers its highest commendation of the course which they have pursued in honoring Dr. Blumer in connecting his name with a building dedicated to scientific purposes."

DR. FRANKWOOD E. WILLIAMS.—I should like, if I may, to have the honor of seconding this motion. As I think most of you here know, I am interested primarily in mental hygiene, and sometimes the younger men are inclined to feel that the things they are doing bear little relationship to what has been going on in the past, although all these things, of course, are

not true. All of you here know that when mental disease was first cared for in this country, the men who organized the hospitals and this Association were men of great scope and men of great ideals. We know also that in later days the hospitals fell upon evil times; then there arose a group of men, of whom Dr. Blumer was one and of whom there are others in the Association, who rescued the hospitals from those times and placed the standard again high upon the basis that we know it to-day, and we are all aware that the advance in the past ten years which has led to the organization of mental hygiene, has a very direct bearing upon Dr. Blumer and others in this Association. It would not be possible to do the work that is now being done had it not been for the work done in 1910, and all the things we are planning and doing foreseen by men like Dr. Blumer and others. I would like to speak as one of the younger men of the Association—one who is giving his entire time to this work—and I desire to have the honor of seconding this motion.

**DR. CHARLES G. WAGNER.**—As a close friend of Dr. Blumer for nearly 40 years, and one who is very familiar with his brilliant work, I would like to add my second.

**DR. CHARLES P. BANCROFT.**—As one of the older men of the Association, I would like to add a word to what has already been said. Because of Dr. Blumer's long identification with the Utica State Hospital, his position as President of this Association, his valuable contributions to psychiatry and his great assistance to the cause of psychiatry, that this splendid institution should be honored with his name is very appropriate.

**DR. R. H. HUTCHINGS.**—As the Superintendent of the Utica State Hospital, I take great pleasure in seconding the resolution of Dr. Brush. When I went to Utica two years ago I at once realized the firm foundation upon which the essential things about that institution had been established by Dr. Blumer when he was the Superintendent, and the managers, in recognition of that fact, have dedicated the new laboratory building which has just been completed, in his honor and is to be named the "George Alder Blumer Research Laboratory." I heartily second the resolution offered by Dr. Brush.

**THE PRESIDENT.**—For approval of these resolutions and transmitting them to the Utica State Hospital, I will ask you all to rise.

The audience rose and the vote was unanimous.

**THE PRESIDENT.**—The Secretary has received a telegram from G. Stanley Hall, LL. D., of Worcester, Mass., stating that he was unable to be present at the meeting.

The next paper is "On the Nature of Thinking Disorder," by F. Lyman Wells, Ph. D., Boston, Mass. Discussed by Drs. Abbot and Wells in closing.

Adjournment.

## AFTERNOON SESSION.

MCLEAN HOSPITAL, WAVERLEY, MASS.

The meeting was called to order by the President at 2.30 p. m.

**THE PRESIDENT.**—The first order of business this afternoon is the election of new members whose names were read this morning.

**DR. WOODSON.**—I move that the Secretary be authorized to cast the ballot of the Association for the election of these gentlemen as members.

Motion seconded and carried.

(This list will be found in the report of the Council for June 2, 1921.)

**THE PRESIDENT.**—Dr. Brush, have you a matter to present to the Association?

**DR. BRUSH.**—For 77 years the *AMERICAN JOURNAL OF INSANITY* has been published; for 27 years it has been published under the auspices of, and as the property of this Association, then known as "The American Medico-Psychological Association." We have now taken unto ourselves a new name, and have a re-baptism under the name of "The American Psychiatric Association." It seems to me, as it seems to others who have conferred with me on the subject, that it would be very proper at this time—with the July number—to change the title of the Journal to "THE AMERICAN JOURNAL OF PSYCHIATRY." I would present this suggestion to the Association. I have only had opportunity to confer with one of my fellow editors—Dr. Barrett; Dr. Blumer is in favor of the change; I know Dr. Campbell heartily sympathizes also, and I am quite sure the other members of the Editorial Board will agree. If proper, Mr. President, I will put this as a motion, directing myself and my associates, that with the July 1921 number of the Journal—the oldest journal but one in the world devoted to mental diseases—the title be changed to "THE AMERICAN JOURNAL OF PSYCHIATRY."

**DR. ANDERSON.**—I second this motion.

**THE PRESIDENT.**—You have heard Dr. Brush's motion, is there any discussion?

All in favor of changing the title of *THE AMERICAN JOURNAL OF INSANITY* to *THE AMERICAN JOURNAL OF PSYCHIATRY*, signify by aye.

It is a unanimous vote.

If there is no "Unfinished business" we will proceed to the reading of papers. The first paper this afternoon is: "The Importance of Endocrine Therapy in Combination with Mental Analyses in the Treatment of Certain Cases of Personality Deviation," by Edith R. Spaulding, M. D., New York City. Discussed by Drs. Oliver, Miller, and Spaulding in closing.

**THE PRESIDENT.**—The next paper will be the presentation of "A Case of Psychasthenic Delirium with Reference to Mechanism of Will and Belief,"

and I have the pleasure of presenting Professor Pierre Janet of Paris, France, to you, who will now address us.

Dr. Janet presented his paper in French, as he announced that he was not sufficiently familiar with the English language to give it in English. Discussed by Drs. Meyer, McCarthy and Devlin, and Dr. Janet in closing (in French).

**MR. WALTER RAPP.**—I have been asked to perform a very pleasant duty and I am sure that I shall receive the endorsement of every one of the delegates here this afternoon. I move a very hearty vote of thanks to Dr. Packard, the Trustees and members of the staff of McLean Hospital, for the kindly and courteous way in which they have taken care of the delegates this afternoon.

Before I sit down I would like to say this: I am a layman and a business man. For four years I have been honored by being sent as a delegate to your conventions. I take a great deal of interest in your meetings and also in your papers. The way it strikes me as a layman is that you have advanced wonderfully in the care of the insane, but when it comes to the scientific part of it I don't see that you have progressed very much, and I believe it is the fault of the laymen—we have not given you the money to do it. We spend millions of dollars for the care of the insane and only a miserable pittance for scientific research. We are doing very well in Massachusetts. Go back to your homes and stir them up and make your trustees and managers do something besides attending their monthly meetings once in a while, and then I believe you will accomplish something more.

I have very great pleasure in moving a hearty vote of thanks to Dr. Packard and the members of the staff of McLean Hospital.

**THE PRESIDENT.**—I am going to ask that we postpone this for a few minutes and then make it doubly hearty.

The next paper is entitled "Magnesium as a Sedative," by Paul G. Weston, M. D., Warren, Pa.

**THE PRESIDENT.**—If there is no discussion of this paper, this closes the literary program of the afternoon.

I am sure that we have all enjoyed this beautiful afternoon and that we all feel as Mr. Rapp has expressed it, the greatest sense of pleasure, and desire to extend our thanks to the Trustees and the Superintendent of McLean Hospital, and to all others who have ministered to our pleasure and comfort. I am sure you will be glad to express it emphatically by a rising vote of thanks. (Applause.)

The vote was unanimous.

**THE PRESIDENT.**—The meeting is adjourned. We will assemble again this evening at the Hotel Somerset, at 10.30 p. m., for the closing session.

## EVENING SESSION.

## ROUND TABLE CONFERENCES.

At 7 p. m. the Round Table groups met in conference under the following moderators: Administration, Dr. C. Floyd Haviland; Clinical Psychiatry, Dr. C. Macfie Campbell; Laboratory Investigation, Dr. Samuel T. Orton; Occupational Therapy, Dr. Richard H. Hutchings; Nursing, Dr. Arthur H. Ruggles. The discussion in the Administration Group was opened by Dr. G. Alder Blumer, who spoke as follows:

The subject "Hospital Morale" which our moderator has assigned to me on the program is so broad that one must deal mainly with general principles in opening the discussion. Doubtless the specific will receive due attention from administrators as the discussion proceeds.

Dr. Haviland has told me that in suggesting the topic his thought was the importance of co-ordinating the various activities of a hospital, and especially the cultivation of *esprit de corps*, to the end that one may look to voluntary action on the part of individuals to secure desired results rather than through the exercise of the old-time restrictive discipline. This conception has been brought home to all of us as an instructive experience of the war in the demonstration of certain advantages to be obtained in the promotion of morale by avoiding, so far as possible, the rigid policy of "Verboten" with which our enemy identified himself.

At the risk of seeming to emphasize what is obvious and trite one may state a few propositions:

1. Hospital morale is fostered and maintained by a high ideal of what a hospital should be, both within and without. The hospital is designed as a benefit to the whole community and every person connected with it should feel that he is engaged in a philanthropic work which calls for a much larger amount of individual energy and good will than any mere form of business.

2. Hospital employees need to be imbued with the spirit of the hospital and deserve and should receive kind, careful, considerate personal treatment at the hands of all officials.

3. The hospital head should feel the necessity of holding not only himself and his staff but his employees up to the same standard of efficiency and good will. Kindliness should always characterize the doings of charitable work and no one who is engaged in such work has a right to exact from others more than he exacts from himself.

4. Morale being attitude towards one's work, it is our duty and our business to shape mental attitudes to desirable ends and to include hospital employees within the scope of that modifying process. The attitude of employees is naturally reflected in that of patients and to correct maladjustments of the former is part of our duty to the latter.

I have never seen the whole theory of morale more succinctly stated than in the words of an American army officer in the following paragraph :

“Condition is to the athlete’s body what morale is to the mind. Morale is condition, good morale is good condition of the inner man. It is the state of will in which you can get most from the machinery, deliver blows with the greatest effect, take blows with the least depression, and hold out for the longest time. It is both fighting power and staying power, and strength to resist the mental infection which fear, discouragement, and fatigue bring with them. . . . It is the perpetual ability to come back.”

These words, “perpetual ability to come back,” may be a counsel of perfection but they are none the less a golden ideal which all of us should strive to realize.

As this is the last time I shall attend a meeting of this Association as a medical superintendent, perhaps I may be pardoned if I indulge in this place, as having a practical bearing upon morale, in certain farewell reflections. No man who would be honest with himself after a service of over forty years in hospitals can fail, in looking back, to see wherein he has fallen below his own ideals of service. And, in that retrospect he may indeed run the risk of acquiring ideas (possibly delusions) of personal unworthiness.

One of our members wrote a few years ago an excellent monograph on the “Pitfalls of Adolescence.” I wish he might be induced to write the like excellent purpose on the pitfalls of superintendents. Nearly thirty years ago, when I was in the heyday of my own superintendency, I was much impressed by Dr. Mercier’s admirable chapter on prohibitions and injunctions in this connection. Of course on an occasion like this one cannot go far beyond the fringe of the subject. The first pitfall to which that great man called attention in his book on Asylum Management and Organization, was the danger that besets the superintendent in allowing the administrative part of his duties to occupy a preponderant share of his time and attention to the exclusion of his purely medical work. That is a pitfall which few men can wholly escape. But looking back to hospital management as it obtained three or four decades ago, it seems to me that the administrator of to-day has some safeguards that did not then exist. The staff conferences have served to keep alive the scientific spirit, and the superintendent, while not abating his sense of official supremacy, is a less arrogant, or at least a less self-complacent, person than he used to be. Personally I believe, and I rejoice in the belief, that the most modern superintendents have a proper sense of their functions as physicians-in-chief, not forgetting that they are primarily medical men and responsible ultimately for the care and treatment of patients as their chief concern.

A second pitfall against which Mercier warned us is the danger, as the superintendent approached his grand climacteric, of settling down in the end into the conviction that the institution of which he is overlord is perfect. That is a parlous state against which we have also been warned by Osler, who knew better than most men the limit that age sets to energy and



enterprise. But I will not labor this point for I know I am on dangerous ground.

Still another pitfall is one which few medical superintendents seem able entirely to avoid. "Most of them," says Mercier, "have slipped one foot at least into it. It is that of regarding themselves and their post in a reversed aspect, and tacitly assuming that the asylum is founded and maintained for the benefit, not of the patients, but of the medical superintendent. Doubtless, if the question were put to them thus in plain terms, they would be startled into the admission that after all, the care of the patients is the prime object of the institution, but this verbal confession is contradicted by the general tone of their speech and conduct."

Following Dr. Blumer, Dr. I. G. Harris, Superintendent Brooklyn State Hospital, New York, discussed The Relation of Trustees or Managers to the Hospital, He said in part:

At a meeting of this association in Baltimore in 1853, certain propositions relative to the organization of hospitals were submitted for discussion. Among other things, these propositions included that the "general controlling power of the hospital should be invested in a Board of Trustees or Managers, that these trustees or managers should be persons possessing the confidence of the public, of distinguished liberality, active benevolence, above all political influence, and should willingly and faithfully attend to the duties of their station."

Opinion has not changed greatly in regard to the qualifications of good managers, and I believe, most of us will subscribe to this particular proposition.

All members of the Board should live in the district in which the hospital is located.

I believe seven is the limit of the number of managers for an institution for mental cases.

The membership should consist of men and women of the highest type and they should be non-political, non-partisan and non-sectarian in their relation to the hospital.

Not more than one member's term should expire during one year.

The members of the Board should meet at the hospital at least once a month and to whom the superintendent should render a full and faithful report of the conduct and operations of the hospital during the calendar month.

Members of the Board should form themselves into standing committees, viz: (1) On buildings and repairs—including sanitation and general hygiene. (2) Care and treatment of patients and inspection of wards. (3) Food supplies, inspection of kitchens and dining rooms, etc. (4) Occupations, amusements, diversions, etc. (5) Legislation and requirements.

The Board should have the final say in the appointment or discharge of a superintendent; but the appointment of all other officers and employees of the institution should be left to the superintendent, or at least to his nomina-

tion and no officer or employee should be placed in the institution over the protest of the superintendent.

The members of the Board should be interested in research and scientific work and use every endeavor to stimulate progress and keep the physicians and employees interested in that kind of progress which comes not altogether from routine work. We do not believe that members of the Board should receive pay for their services but should be remunerated for all expenses incurred in the performance of their official duties.

The relation, of course, between the superintendent and the members of the Board of Managers should be frank, intimate and confidential, and one of the duties of the superintendent is, of course, to give that information which is necessary and essential for the members of the Board to form judgments. In other words, it is an educational process from a hospital point of view.

Dr. Isaac Ray (*AMERICAN JOURNAL OF INSANITY*, Volume 30) gave a very succinct account of what he considered "A Good Director," and the ideal character drawn by him may be studied to advantage to-day.

The topic assigned to Dr. Harris was further discussed by Drs. Kilbourne, Clark, Gundry, Brush and others.

Dr. Clyde R. McKinniss, Superintendent Western State Hospital, Torrance, Pa., discussed "Classification of Patients." He said:

Classification offers much to the mental patient and especially to those of that large group which the state hospitals, large county and municipal hospitals are called upon to treat. Closer attention to this matter has gone hand in hand with the advance in our methods of treating mental illness.

One of the first things to urge the necessity of classification has been the need of nursing care for the acutely sick patient. This with scarcity of competent nurses forced a concentration of patients requiring the most attention, into groups, where they could be treated efficiently and economically. The next tendency has been to group the aggressive and troublesome into wards where a greater proportion of nurses or attendants are on duty. It is in this group that requires constant attention of the medical and nursing staff to avoid the evils that can readily creep in. The admission to this group is too commonly the result of some violent or impulsive act, and when once admitted it is difficult for the patient to again reach a more favorable grouping.

In our psychopathic hospitals and the reception service of the large hospitals for insane the admission must often be classified more rapidly than is desirable. We have our ideals of what such a service should be; a building large enough to house the admissions for 60 days if necessary, before patients are separated into different groups. Around this service should be grouped the most skillful medical and nursing staff we can obtain, with all the equipment required for intensive study and treatment.

Some states have carried the idea of classification into the building of their hospitals, having the psychopathic hospital, which is the center of

scientific work in the state, then the large hospitals for longer periods of treatment and also hospitals for chronic insane.

Dr. Arthur H. Harrington, Superintendent State Hospital for Mental Diseases, Howard, R. I., discussed "Food Service" from several standpoints. He said:

The subject of "Food Service" offers almost as wide a scope for discussion as one may desire. "Food Service" may fairly be interpreted as including the purveying, the conveying, and the preparation, as well as the actual serving of food, itself. It may be considered from the angle of the energy and the heat productive value of food stuffs, its nutritional results, while the economic aspects connected with the subject of food as applied to institutions is all important. The scientific aspect of the subject of food is one that has called for profound researches by those fully equipped for such work.

It is doubtful, if, in relation to many of the considerations of "Food Service," any propositions can be laid down which would apply to all institutions alike. In a country as large as the United States conditions in different localities present such a wide diversion that methods of purchasing, transportation, and food requirements are varied.

The issuing of food materials on a ratio allowance per day, per patient, offers a fruitful subject for discussion. This might seem to be one of the instances in which local conditions might have a bearing, for instance, the character of patients, physically, might enter into the problem. The ration allowance in an institution where a considerable percentage of patients are engaged in out-door and manual labor might differ from a ration allowance of an institution with a large infirmary population.

"Food Service" in its specific and limited sense discussed. That is the placing of the prepared food before the individual who is to consume it.

Mention is made of the cafeteria method for serving employees. The object in suggesting this type is to invite anyone who has had experience in this method to inform us about it. (The speaker has had no experience with this method, but know that it was inaugurated in two Sanatoria for tubercular patients where the method is still continued. The speaker knows that it was tried in one large general hospital but given up. The class of persons in this latter institution who were served in this way were nurses. It proved unpopular with them.)

"Food Service" as applied to the Congregate Dining Hall and as practiced at the State Hospital for Mental Diseases at Howard, R. I., described. The congregate dining hall for hospitals has been largely condemned. The reason for this in the opinion of the speaker is that certain principles in conducting a congregate dining room for several hundred patients must be carried out. If they are omitted the congregate dining room becomes a dismal failure. One of the first principles is that the congregate dining hall should become one of our therapeutic measures, just as much as occupation is a therapeutic measure. This can be done by carrying our certain

architectural features, making the hall a light, airy and inviting place to which to come. No food should be placed on the tables until after every patient is seated. Every process in serving a meal, as for instance, the distribution of knives and forks, should go on throughout the room at all of the tables at the same time. Nothing else should be done at this time, and the next step in serving a meal should not be begun until this distribution is completed.

The above may give a hint or suggestion as to how a congregate dining hall may be managed with satisfaction to patients and to the management. The congregate dining hall should not be condemned before everything which can be said for it has been heard. To explain this matter in full would require more space than can be given to it here. (The speaker showed a large number of photographs illustrating the methods of conducting the congregate dining hall at the State Hospital for Mental Diseases at Howard, R. I.)

Dr. George A. Smith, Superintendent Central Islip State Hospital, in opening a discussion on "Fire Protection" said:

There is no part of the administration of a hospital for the insane that requires more careful consideration than the matter of fire protection. There is no question more frequently asked by visitors than "What means have you for meeting a conflagration and of saving life?" Fire in any building where people are housed is a cause of great anxiety; how much more the anxiety when it occurs in a building crowded with insane individuals! Yet, with proper caution, equipment, properly trained employees and well drilled patients the possibility of a fire occurring is very remote and of loss of life about nil.

He divided the subject into three parts: First, Prevention; second, Equipment; third, The Saving of Life.

*Prevention of Fires.*—Faulty electric wiring is often the cause of fire in buildings and to obviate this danger all interior wiring should be put through iron conduits, the junction boxes should be fireproof, frequently examined by electricians and kept free from dust and dirt. Braided cords used for drop or stand lamps should be carefully watched to see that they do not become damp or abraided, as a cross current is liable, resulting in the burning of the cord. Oils or paints should be kept only in out-buildings designated for that purpose and only issued in quantities required for immediate use. Painters should be instructed never to leave their paint pots or brushes in the buildings when they finish their day's work. Brooms or brushes used in oiling or waxing floors should not be kept in the wards; oil stoves or alcohol lamps should not be allowed in wards or attendants' rooms. Safety matches only should be used and issued with care to employees who require them, only one box at a time and no stock should be kept in the wards or pavilions. Patients should be allowed to smoke only in places designated for that purpose and the attendants in charge to furnish the light. Attendants should not be allowed to smoke in their rooms,

especially cigarettes. A burnt hole in the pillow case or spread has often given evidence of the disobedience of this rule. Patients who are allowed to smoke pipes should be watched closely to see that they clean them before putting them in their pockets.

If you wish to save the laundry the drying room should be flushed out daily and kept free from dust and lint, and the steam turned off every night; cellars, garrets and steam subways should be kept free from rubbish and papers, and weekly inspections to be made to this effect. If all these precautions are taken the chances of fire are very remote.

*Equipment.*—The question of having water and plenty of it close at hand and without delay is the principle of the equipment. As required by law, each ward should be equipped with fire extinguishers, not less than six to a floor, and stand-pipes with sufficient hose attached to reach any part of the ward. These fire extinguishers should be placed in different parts of the wards, accessible and in plain sight, though possibly in some of the disturbed wards it would be necessary to place them in closets during the day, but removed at night and placed within easy reach of the night attendant. Both fire extinguishers and hose should be frequently tested. All bath tubs should be kept filled with water, with pails ready for use placed near them, and fire pails filled with water should be kept in the garrets. This equipment should exist in all buildings of the hospital. Outside of the buildings there should be connected with the water main, hydrants sufficient in number and within easy distance from every building, and frequently flushed; there should be a central fire department, with fire apparatus, hose wagons, hook-and-ladder, with a trained crew of employees under an experienced fire chief. At Central Islip we have a retired fireman from the New York Fire Department, whose duty it is to inspect and to keep in good condition all the equipment of the hospital as mentioned above, and train his crew.

Hospitals should be equipped with electric fire signals with stations within and without the buildings, as well as telephone connections. There should be a sufficient number of outside night watchmen to visit all out-buildings, kitchens and hot-houses at least four times a night.

*The Saving of Life.*—The building of hospitals for the insane on the cottage system of two story disconnected buildings, well separated and properly equipped, eliminates the danger of extensive fires or consequent loss of life. All buildings over two stories should be of fire proof construction.

The law well covers the matter of fire escapes although I consider the Kirker-Bender fire escape more practical, and frequently used, patients rather enjoy the slide down the chute. It consists of a spiral chute and the most helpless can be removed from the ward very rapidly and with no trouble. There should be at least two exits from every ward on every floor and these exits marked by red light at night. All doors connected with these exits should open outward.

In connection with the doors the question of locks and keys comes up for consideration. I believe there should be uniform lock and key through-

out the entire institution so that every officer and employee is armed with a key that can open any door where patients are housed. It is a mistake to have so many styles of locks and keys. An employee called to a fire might not be able to open a certain door for the want of a proper key. Matrons or supervisors in hospitals having a variety of locks and keys would be obliged to go through the bunch before selecting the right one and during the excitement of a fire might cause delay and possible loss of life. While visiting a hospital some time ago, the superintendent and myself were delayed at the foot of a stairway leading to an exit several minutes while the matron with a bunch of keys was trying to find the right one.

Every ward, pavilion or building should be a local fire department in itself and the nurses and attendants should all be trained in the matter of giving signals, handling the fire equipment and clearing the ward of patients. The patients should become accustomed to fire drills, and to seeing the fire apparatus of the fire department in operation. At Central Islip, as mentioned before, we have a special fire department consisting of 10 picked employees under a fire chief, who is a retired fireman of the New York City Fire Department. They all sleep in the engine house, which is equipped the same as the New York Fire Department.

It is the duty of the fire chief to visit every ward, examine all equipment, teach the attendants how to handle extinguishers and fire hose, to give alarms, and drill them with the patients in clearing the wards. He does this daily, taking certain wards each day. Once a week he drills the fire company, taking the apparatus to different parts of the institution for practice, so that the patients become familiar with the sound and sight of the fire apparatus without excitement. I have seen the benefits of thus familiarizing the patients with the operations of the fire department in two small fires at Central Islip. In each there was plenty of smoke but not much damage, both of these fires occurring at night after the patients had retired. The patients left the wards through the fire-proof corridor, in the smoke, without any excitement, and returned after the fire, retiring to their beds and slept the rest of the night. One patient complained that Chief Wagner was trying to show off his fire department. The fire company is also trained to handle the life net.

In giving fire signals there should be no unusual excitement or cry of fire. It is not necessary to disturb the entire hospital or call your entire force to one center to the loss of help in another, for it may mean a fire in one portion and a tragedy in another from disturbed, excitable patients without sufficient help to quiet them.

Fire signals should not be too complicated or noisy. In large institutions spread over considerable territory, with many buildings, electric alarms with indicators would seem the best and limiting the call for help to districts and the special fire department. Too much help causes confusion at small fires and it is easy to give a second or third alarm if more help is wanted. This matter could be governed by telephone. We have the Gamewell System at Central Islip, also siren whistle, blown only when outside help is re-

quired. Still alarms are given only by telephone, and to test the alertness of the fire department, these alarms are usually given at night.

Weekly inspections of every pavilion in the hospital, from cellar to garret, are made by physicians, and reports of the same placed on file in the office.

The matter of fire protection that I have just presented should be considered one of the routine workings of the institution, and when the fire signal is given, it should not cause alarm, but be the signal for activity in one of the principal branches of the administration.

Dr. J. Allen Jackson, Superintendent State Hospital for the Insane, Danville, Pa., in discussing "Local Paroles of Hospital Patients," said in part:

In an old contribution "Lunacy in Many Lands," edited by G. A. Tucker, published in 1882, the following quotation is *apropos* to the subject of local paroles on hospital premises.

"In America, Scotland, and some parts of Germany, it is worthy of special mention that a large number of the asylums are unprovided with yards, or even a fence around the estate, the patients being allowed free access to the well-kept grounds, under charge of their attendants. At many such places, I have seen patients walking unattended. The view entertained is that it is much better to risk the occasional escape of a patient, than that a large number of sick should be injuriously confined and unnecessarily restrained.

The arguments used in favor of as much freedom as possible are applicable in relation to suicidal patients. It is maintained that because some few may commit suicide, that is no good reason why all should suffer close confinement and harassing restriction; and it is contended that the probable number of suicides under the more wholesome and less repressive conditions would not be found to exceed the ratio of those in the outside world."

It is reasonable to infer that the granting of paroles or ground privileges made its appearance in hospital administration during the period of reformation, and the troubles confronting us to-day in granting paroles are the same as then, to wit namely, elopements, suicides, homicides, destructive tendencies, incendiary tendencies, etc. We would, to-day, also infer that local paroles are granted by all hospitals to a more or less degree, depending upon the size of the hospital, the location, its architecture, its grounds, presence or absence of enclosures and the character of the patients housed in the particular hospital.

In order to approach the subject of local parole in a systematic way, please permit me to review the subject in the usual medical form of presentation, to wit namely, definition, indications, contraindications, and method of application.

A local parole may be defined as granting to a patient, on his honor, certain rights and privileges, which he will not abuse. If the definition of

parole could thus be interpreted, the word would not be objectionable. A parole however, to the layman has been accepted as being released from a place of confinement, or incarceration, on condition that the individual returns. The term "furlough" or "visits" as applicable to the patients return home and the term local privileges would possibly to a great extent serve our purpose and remove the suggestion of confinement that goes with the word parole.

The indications for parole are (1) The rights of individuals; (2) therapeutic indications.

*The Rights of Individuals.*—Regardless of the statutory commitment, a hospital for mental disease is in no sense to be interpreted as a place of incarceration or confinement. The individual is primarily suffering from a disease and as a result, he is entitled to such rights and privileges, which he may enjoy and at the same time not be harmful or prejudicial to his health or the comforts of others.

*Therapeutic Indications.*—It is not necessary for me to review to this audience, the therapeutic advantages gained by granting to a patient certain rights and privileges. That which stimulates self confidence in an individual is the confidence reposed in him by others. Such privileges arouse within the patient self confidence, honor and respect, which so frequently are lacking in mental cases. Local parole offers this opportunity and is therefore therapeutically valuable. The types of psychoses to which local parole is applicable comes within no definite classification, but depends largely upon the individual case, regardless of the psychosis.

*Contraindications.*—The contraindications to local parole may be well understood. Patients suffering from psychoses in which suicidal tendencies, homicidal tendencies, incendiary tendencies, and tendencies to elopement would necessarily be denied the privileges of local parole. They should not, however, be denied these privileges unless these manifestations are active and a mere history of such existing tendencies should not be held against the patient, especially if there has been intervening a long period of time. Unfortunately there are no doubt cases in institutions to-day, who are rather restrained in their activities owing to the fact that some time in their past history extramural or intramural they have tried to elope, or threatened suicide or homicide.

The question of granting privileges to cases who have been committed to an institution for observation by the courts, cannot be disposed of so easily and in these cases it would be well to obtain the full sanction of the court before any special privileges are granted to the patient.

*Application of Parole.*—The architecture of the hospital, building arrangements, the presence or absence of enclosures, buildings closely situated to highways, railroad tracks, rivers and close proximity to cities, must be taken into consideration. Undoubtedly the convalescent type of building, separate and distinct and at a distance from the treatment buildings offers the best opportunity for parole privileges to a larger group of patients. The colony type of building offers a similar advantage. In those types of buildings are housed the better class and the most trustworthy



patients who are undoubtedly entitled to all rights and privileges of this particular group of patients. In this building there is absence of the atmosphere of restriction and confinement, the patients may go to and from their rooms to the grounds enjoying unaccompanied such diversion as they may choose, the doors to the buildings being locked only in the evening.

The employable type of patients, those assisting in utility departments, laundry departments, agricultural departments, etc., carry with them necessarily wide freedom of parole such as coming to and from work unaccompanied, running errands and various other chores. In some instances some of those so called trusties are given keys, especially those who run errands, etc.

In this entire matter of local parole, exclusive of the employable type of patients, the question arises if the patient who is able to enjoy all of these privileges, is he a hospital case or is he a case for boarding out with friends, or a case suitable for employment under supervision of the social service or after care department of the hospital. All things being equal, those cases who enjoy to a great extent the parole privileges as suggested by some hospitals, to my mind are not suitable cases to be charged against a commonwealth, but on the other hand should be placed in employment and supervised by our social service department. This statement does not apply to the convalescent cases or the cases who have violent recurrent episodes or those patients whose mentality is such that they could be employed only under the supervision of a hospital.

It would not be amiss to interject at this time, the subject of the mingling of the two sexes, or that probably certain types of employees would either take advantage of some erotic patient or be vamped by some female patient, who to the layman seems to possess normal intelligence. Unfortunately incidents have occurred under all these headings: occasionally male and female patients mate; occasionally employees of low mentality have taken advantage of weak minded patients and one case has come to my attention where a stable, staunch cook, of years of faithful service to his credit fell a victim to the vampish ways of a very attractive high grade moron female and paid the penalty. His defense was "to him she appeared mentally normal." It is needless to add however that this particular phase of the question is always considered before granting paroles to female patients.

In concluding, I cannot emphasize too strongly, the granting of privileges to the selected types of patients and would recommend to those who would defend the restriction of these privileges, on account of the "uncertain quantities" of a mentally deranged person, a review of the comparative ratio of broken pledges found in the mentally afflicted of this type and normal individuals. That we be cautious and not necessarily timorous and to remember that if an error in judgment occasionally occurs, we should not be dismayed for we have erred in a humane cause.

"Parole System and Field Work" was discussed by Dr. W. C. Garvin, Superintendent King Park State Hospital, Kings Park, N. Y. His remarks are presented in full as follows:

On July 1, 1919, out of a total population of 4775, we had 343 patients on parole, or 7.18 per cent. On May 28, 1921, our census was 5121 and the total number on parole was 753, or 14.7 per cent. This increase in paroles was accomplished only after careful planning, numerous conferences of the medical, social service and nursing staff. In later conferences, the heads of the outside services were also present. Without the understanding of the problem of parole and after-care and the co-operation of all, our results would never have been obtained.

In 1919, the legislature allowed us one social worker. Upon the recommendation of the State Hospital Commission, the 1920 legislature allowed us two additional workers. Seeing the results accomplished by our out-patient clinics and social service department, the 1921 legislature granted us three additional workers, making six in all. The chief worker receives \$1200 to \$1500 per annum and the assistant workers \$900. We have an evening out-patient clinic at the Eastern District Hospital in Brooklyn, Friday evenings for those who may be employed during the day. Ninety-six per cent of our patients are committed from Brooklyn. We also have a clinic in connection with the Mineola Hospital on Mondays for our Nassau County patients. Our hospital is located in Suffolk County and our parole patients from this county report at the hospital at stated intervals. All our patients are paroled for one year.

They can be re-paroled for a second year by simply visiting one of our clinics or the hospital, if such procedure seems indicated.

As our experience became augmented, our plans were revised from time to time to meet new problems as they arose. At the present time our parole and after-care organization consists of the following personnel:

(a) A senior assistant physician designated as parole officer, who devotes all his time to the supervision of parole, after-care and employment departments. This officer works in connection with and under the direction of our clinical director, Doctor Rosanoff.

(b) A chief social worker.

(c) Two assistant social workers. (After July 1, 1921, we will have five assistant social workers.)

(d) A male and a female nurse detailed temporarily to assist in the work. These nurses also act as employment agents, visiting homes, general hospitals, charitable institutions and business concerns in order to secure employment for patients whose relatives are unable to do so. Where necessary, they accompany patients to places of employment and talk over the patient's condition and abilities and arrange for remuneration.

(e) We have assigned a male and a female attendant to act as transportation agents to return patients to the hospital whenever this is necessary. This relieves our regular transportation service of this work and keeps it within the province of our parole and after-care bureau.

In passing, I would state that approximately one-third of our patients who are paroled are returned for various reasons. This percentage is not much greater than the usual percentage was before the intensive effort to parole patients began. We frequently find that a patient will not get along well in one position but will do well when tried in another.

(f) A special attendant detailed as record clerk who has charge of the statistical records of the department. This employee also acts as librarian and general statistician of the hospital.

(g) We soon found that the records of the department could not properly be kept up in longhand, so we assigned two ambitious young women attendants who had some knowledge of stenography and typewriting to assist in the work. Had we waited until the legislature made special appropriations to cover all these items, we would never have been able to accomplish the results attained.

We arranged our staff meetings (physicians, social workers and employment agents being present) so that on Tuesday mornings the female patients to be considered for parole are presented at 9 o'clock and the male patients at 11 o'clock. The physician presenting the patient for parole reads the summary of the case history brought up to date, the final diagnosis, condition, and home, employment, and after-care features are discussed. If it is necessary for us to secure employment for the patient, this is also carefully considered. A stenographer takes down the discussion and the notes are added to the summary.

Our Brooklyn cases are requested to report at our Brooklyn clinic twice a month. If they object, for one reason or another, to report at the clinic, they are visited once a month by one of our social workers. Those patients living in outlying districts report once a month by letter and are always visited by one of our social service department before discharge. If at all feasible, we endeavor to get them to report at the hospital or one of the clinics in person before discharge so that a medical estimation of their condition may be determined.

We have found that the establishment of our out-patient and mental hygiene clinics in connection with general hospitals is of great value, in that we can refer our patients needing other than psychiatric treatment to the various general clinics, established in connection with such institutions, for examination and treatment. At our clinics, during the course of the year, we examine a considerable number of cases referred to us from schools, charitable organizations, general hospitals and practicing physicians.

As soon as a patient has left the hospital on parole, a special after-care blank is filled out in duplicate: a copy is forwarded to the clinic at which the patient is to report, and the other filed in the records of the social service department of the hospital. Notes are made on these forms when the patient visits the clinic.

Since the establishment of our out-patient clinics and social service department, we have found it much easier to parole patients than heretofore. The relatives feel more comfortable knowing the patient will be under

the supervision of the hospital during the parole period. Relatives are also much less likely to object to our placing patients in a job for this reason.

One of the most important features of our social service department is in visiting the homes of patients *before parole* in order to learn the attitude of the family toward the patient's impending parole, arranging for the proper degree of care, supervision, amusement and occupation, and in allaying family friction when present in case the patient is to be cared for at home. Very frequently this step is essential in order to secure the proper environment necessary for the well-being of the patient and in order to avoid a quick return of the patient to the hospital. We could cite numerous cases where such adjustments before parole insured success which otherwise would not have been the case were not all these factors considered. We make every endeavor to consider both the favorable and the unfavorable points in the patient's mental attitude and his or her probability to remain on parole at the staff meeting presentation. To parole patients indiscriminately simply to increase the number on parole is bad practice and the probability of an early return to the hospital is increased.

Before a patient is placed in a job, every effort should be made to see that the work is within his or her capabilities and that the employer understands the patient's limitations and that the patient receives proper remuneration. It is much better to secure simpler forms of employment for patients who have not fully recovered. Otherwise, the strain may be too much for the patient and harm may be done. One sad mistake on the part of a paroled patient, such as homicide, suicide, entanglement in the courts, etc., may cause unpleasant public and newspaper comment and engender public prejudice to such an extent that we may be compelled to change our liberal attitude in the matter of the parole of patients. It is, therefore, essential that each case be carefully considered before a patient is permitted to leave the hospital on parole, having always in mind not only the condition of the patient but the attitude of the public as well.

Another feature of our social service department is the performing of field work of a preventive nature. For example, we are making a study of the immediate families of our syphilitic and general paralytic patients. At the hospital and at our clinics we are taking specimens of the blood of the various members of the families of such patients. The State Board of Health has consented to perform the Wassermann test and report the results to us. We have arranged, too, with the City Board of Health to furnish modern anti-syphilitic treatment for all cases which show positive reactions, provided they do not have a family physician and are unable to pay for the same.

The personnel of our parole and after-care department may seem rather extensive, but when it is borne in mind that we have 753 patients on parole and that many of these patients require careful supervision, the force will not then seem excessive. In smaller institutions, the clinical director or physician in charge of the clinical work can readily assume sole charge of the work. The main thing is to place an interested physician in charge and look to him for results. When the number on parole lags, further con-

ferences of the medical staff and social service department, nursing force, etc., may be held to advantage. The parole officer should make frequent visits to the various wards to be on the lookout for parole possibilities. The fact that a patient is useful to the hospital should not be a deterrent to his or her parole. A substitute to fill the position can always be found. The breaking in of a new patient to fill the job vacated through the parole of a patient has tremendous therapeutic value. This has not been fully realized in state hospital practice. We have met the objections of our nursing and outside services through the ward physician assigning a patient to learn the work of the patient about to be paroled before the latter leaves the hospital.

Of the number of patients on parole, 47 per cent are cases of dementia præcox, 24 per cent manic depressive insanity, and the rest psychopathic and inferior and miscellaneous types. It will be seen, therefore, that the dementia præcox group offers the largest field for extension of paroles. Many of the latter cases have been insane for years prior to entering the hospital. Frequently, some specific episode has caused commitment. Under hospital care and treatment the acute phase often subsides and so long as the relatives are not especially interested in the parole of the patient, he or she is allowed to remain in the hospital, especially if the patient is performing some form of work of use to the institution. There are enough other cases of dementia præcox in all institutions to take their place, and when improvement occurs, *the ward physician* and not the relatives should take the initiative in the matter of parole. State hospital physicians differ vastly in this respect, hence the necessity of the clinical director or parole officer making frequent visits to the wards in order to seek parole possibilities, studying the case history of such patients and ascertaining home conditions either through personal talks with relatives or through the social service department.

Special care should be taken in paroling women of the child-bearing period, particularly those of the dementia præcox class. Our problem here would be much easier if our laws permitted sterilization.

Our employment bureau has secured 149 positions in the last two years for our patients. We have been, perhaps, fortunate in not having any untoward accident occur among our paroled patients. This, I believe, shows the care and consideration given to each case before the patient is paroled.

We have proven the economic value of our out-patient and mental hygiene clinics and social service department. We plan to extend this work, especially in the case of those patients who are maintained at home and are unable to employ themselves for financial gain. We believe we can aid the relatives in maintaining the more difficult patients at home, through more careful supervision by our social service department, by visits at intervals by our physicians who can interview the patient and talk over with the family the knotty problems involved in home care, through the prescription of proper diet, work, exercise, recreation and amusement. A considerable number of parole patients, while in the hospital, were members of our re-educational classes. I see no reason why this work, to a

certain extent, cannot be carried on in some homes, why cannot one of our re-educational teachers visit the homes of such patients from time to time and lay out work within the capabilities of such patients? The families need advice and instruction along these lines and are generally willing to co-operate in any plan of procedure to keep the patient at home. There is a big unworked field in the problem of after-care of patients. You may say all this takes money and our legislatures are not willing to appropriate funds for this purpose. If, however, we can convince them through a practical demonstration that re-educational work, clinics for preventive work and after-care of patients pays, we will have no difficulty in securing funds. Too often we speak in general rather than in specific terms. We should endeavor to demonstrate by concrete cases what we have already done with the limited facilities at hand and not wait for ideal personnel and equipment to start to work. We have shown our legislature that our clinics and social service departments are the best investments they can make. Our parole statistics demonstrate this point. Every patient on parole saves the state the cost of maintenance; with us, \$6.00 per week, obviates the necessity for new construction and equipment, and relieves our over-crowding to the extent of the number of cases on parole. The problem of making provisions for assisting financially those families who have unrecovered patients on parole, in those cases where the family income, for one reason or another, has become diminished, should be carefully considered. A small sum paid to the family each week or month might enable them to maintain the patient in the home, where otherwise a return to the hospital would be inevitable. New York State has not adopted the boarding out system. I believe it might profitably do so in certain selected cases.

#### CLINICAL PSYCHIATRY.

The Round Table Conference on clinical psychiatry was held in the ball-room of the headquarters hotel.

Directed by the moderator, Dr. C. Macfie Campbell, the discussion turned to the subject of classification of the functional mental diseases, a topic which, once under way, monopolized the evening.

The matter was approached from many different angles, but in general four principal questions were under consideration:

1. Is formal diagnosis into rigid groups necessary or desirable?
2. Is the present outline for diagnosis, contained in the Statistic Manual, satisfactory or should it be revised?
3. Does dementia præcox, as the term is now used, represent a real clinical entity or entities?
4. Does a formal classification help or hinder the medical student and younger psychiatrists?

Dr. Adolf Meyer told of the work he was at present doing in trying to develop a practical grouping of cases from study of material accumulated at Phipps Clinic over the past eight years.

He emphasized the fact that neurological knowledge is of no aid in approach to the functional psychoses, and discussed his own tentative classification.

Under the minor psychoses he included hysteria; the obsessive tension group; hypochondriasis; anxiety states, and neurasthenia.

The major psychoses would cover the affect group, the schizophrenias, and the various paranoic and paranoid states.

From the practical standpoint he felt that a sufficient number of cases fit so completely into these ordinary groupings that it is probably wise to use them.

It seemed to him equally true that a large number of cases can only be properly classified by individual consideration, taking into account the symptoms presented, the facts of the history, and the dynamic factors involved, and that it is only by such diagnostic procedure that advance in prognostic accuracy can be secured.

Dr. S. W. Hamilton stated that he disapproved of the "allied groups" used in other classifications, and felt a distinct gain had been made when they were eliminated from the standard outline. The present manual for diagnosis he found fairly satisfactory, particularly for the organic and toxic groups. He agreed with Dr. Meyer that every functional case might well be formulated separately.

He suggested the advisability of revising the present classification from time to time.

Dr. Campbell pointed out that there were various points of view to be considered, such as that of the hospital superintendent with the necessity for statistical grouping, and that resulting from the rigid requirements of the government relative to the medical records of its psychiatric wards. As to the medical student, he said it usually proved easier for the latter to memorize than to think.

Most of the speakers agreed that the term dementia præcox suggested a meaning quite unfair, and to the majority of physicians, psychiatrists and otherwise, implied incurability.

Dr. Henry A. Cotton emphasized causal factors, physical and otherwise, in mental disease as deserving of more attention. He urged that diagnosis be not made the main object of examination,

and felt that unless a case was chronic and demented, it was difficult fairly to diagnose dementia præcox in its generally accepted meaning.

At Trenton, among 800 routine admissions, only 9 per cent of the cases were diagnosed dementia præcox.

To him dementia præcox was not an entity. There were, at least, two distinct groups; those who get well and those who do not. Infections, endocrine, environmental and psychogenic factors may be concerned.

Concerning infections, while they may not be the most important factors, they often are most easily modifiable.

Dr. D. J. McCarthy expressed his opinion on the great value of formal classification for statistical purposes, and the use of terms with which everybody is familiar. On the other hand he felt it of equal importance to get away from a stereotyped classification in order to stimulate thought and investigation.

He recommended that the present system of classification be left as it is for statistical purposes and, that in addition a more comprehensive and elastic outline be prepared to use for intensive clinical study. He felt that the main class of adolescent insanity particularly needed revision. The præcox syndrome might be left to stand for a certain definite group characterized by deterioration; while another group with similar clinical picture in the beginning but with different origin, possibly toxic, should not be classed with the first.

An appeal from the chair for some one to rise in championship of dementia præcox as a clean cut definite disease was responded to by Dr. Stanley Abbott.

He stated a firm conviction that dementia præcox was not simply a name to mark the grouping of several special symptoms, but that there was something behind, perhaps not yet understood which marked a well-established entity. He drew a parallel with certain old terms used in internal medicine. In the gradual classification of the dementia præcox group he expected to find throughout them all an analogous common bond.

Dr. Smith, Dr. Edward Strecker, Dr. Francis Devlin, and Dr. Harry C. Solomon contributed briefly to the discussion.



## OCCUPATIONAL THERAPY.

The Conference on Occupational Therapy was well attended and the interest was sustained throughout.

Dr. Hutchings introduced the speakers who were selected to open the discussions.

Miss E. Kathleen Jones spoke of the hospital library as a therapeutic agent. The following is a résumé of her remarks :

Any department of a hospital, to be of value, must be therapeutic—concerned in some way with the cure of the sick, whether physically or mentally ill. Books are therapeutic because whatever tends to take a patient's mind off himself and his own troubles, tends to get it out of the rut of false or morbid thinking or the vicious circle of self-analysis, does help towards recovery.

As a laboratory analyses, dissects, experiments, labels, classifies, so must the library. Its tools are books instead of acids and instruments. We all know certain types of books which depress or haunt us who are well; whose unpleasant influence we cannot shake off for hours. These are extremely pernicious in a hospital and must be labelled "poison" and banished from the library. Among these are stories dealing with suicide or insanity, physical deformity if it warps the moral nature, sex problem novels, gruesome stories and tales of horror. On the other hand, light, cheery, wholesome stories, books easy to hold and of good print, are of the greatest value in any hospital, whether mental or general. The "big, brave books," as a McLean patient called those "which tell of people who had battles to fight and won through," are invaluable for drug or alcohol addicts or others who are making a fight for their mental or moral health. Poetry, outdoor books, travels, and books of pictures, technical books for the man who wants to keep up with his trade or profession, also books in foreign languages for the alien patients whose hard-won English deserts them when ill—these should be provided as well as fiction, but at least 75 per cent of the books called for in any hospital will be fiction: When one realizes that for many of our mentally sick all the romance and adventure they ever will know in all their lives must lie between the covers of a book one does not begrudge the proportion of fiction to non-fiction and call it a waste of time to furnish books to the sick.

No hospital would consider for an instant putting in a well-equipped laboratory without a director to organize and run it and funds to furnish him with the proper tools. So the library, if it is not to revert to a mere collection of books, must have a director (trained librarian), organization and an appropriation sufficient to provide her with tools (books).

Here we meet our great obstacle. While the large private mental hospitals are equipping their libraries with all these requisites, the state hospitals seldom have funds for the salary of a librarian or for buying books. However, there are ways of meeting this problem. Several states,

notably Iowa, Vermont, Minnesota and Nebraska, have secured legislation whereby the State Library Commission or the Board of Control organizes, supervises and aids the state institution libraries. Another way to get funds is for the superintendent to demand in his budget 50 cents per capita of his hospital population to be spent on the library. Surely no one would or could object to 50 cents a year for books for each patient!

Unless there is supervision at least, by a trained librarian, the library will not be carefully selected, its books will not be circulated with any system, the patients will not be encouraged to read; thus the library will fail of its purpose, which is to get the patients interested in things outside themselves and to bridge the gap between them and the normal, outside world. Books are a very real link with their former and (it is to be hoped) their future life; often their first normal reactions can be traced directly to their reading. In order to have a carefully selected library there must be funds, available to buy the proper books when needed—new books and old favorites replaced.

There should also be system—organization. That is, the books should be classified, catalogued, circulated efficiently, effects studied and recorded. All these technicalities are as essential in the library as in the laboratory.

To sum up, these three things are absolutely essential to a library which is to be of any therapeutic value to the hospital: First, A trained librarian, either employed by the hospital or sent by the state (or possibly the city public library) to organize, supervise and aid, and to select the books. Second, An annual appropriation for these books. Third, Organization. Of these three the first is the most important, because upon the personality and knowledge of books of the librarian will depend three-fourths of the success of the hospital library; the other fourth will depend upon the backing she receives from superintendent and trustees. And it should be remembered that three-fourths of anything does not constitute a whole, be it ever so good.

Before the war only three or four mental and one general hospital maintained organized libraries and salaried librarians. McLean Hospital, Waverley, Mass., first called attention to the value of libraries for patients and established a model library. Iowa, Vermont, Nebraska and Minnesota secured state legislation by which the State Library Commission or the State Board of Control organized and supervised libraries in their state institutions.

During the war the American Library Association established and maintained libraries and librarians in every large army and navy hospital.

Since the war the American Library Association has retained its service in the U. S. P. H. S. hospitals. The navy maintains libraries and librarians in five hospitals. The general hospitals are organizing their libraries in two ways: *Group* and *Unit* systems.

*Group System.*—Libraries developed in each hospital and ward service given by a hospital librarian provided by (a) the city public library or (b) an organization of the city hospitals.

Examples of (a): Sioux City, the first; Newark, N. J., Salt Lake City and Cleveland; of (b) St. Paul.

*Unit System*—Massachusetts General Hospital, Boston, was the first, in 1904. Barnes Hospital, St. Louis, and Lakeside Hospital, Cleveland, have followed her example. Under this system each hospital maintains its own library and its own salaried librarian. In the children's wards of the Boston City Hospital, the medical social service department maintains a library and librarian.

McLean, Bloomingtondale, The Sheppard and Enoch Pratt, Butler Hospital and the Pennsylvania Hospital for the Insane—all private, mental hospitals, maintain libraries and librarians.

Dr. Herbert J. Hall of Devereux Mansion, Marblehead, Mass., gave an informal and interesting talk having for its title "Dollars and Cents in Occupational Therapy." The doctor's remarks were devoted to showing how occupational therapy might be made an asset to the hospital, instead of a burden, financially. He spoke of the methods employed at Marblehead for the manufacture and sale of fancy articles, particularly toys. He spoke of the interest which patients have shown in the manufacture of these articles, and of the comparative cost of manufacture and the market value when well done, and exhibited an interesting collection of mechanical and other toys and articles which had been manufactured at Devereux Mansion.

Mrs. Eleanor Clarke Slagle, who is so well known as the Executive Director of the Occupational Therapy Society of New York gave an interesting and practical discussion on the organization of occupational therapy in state hospitals for the insane. Mrs. Slagle seems to know, almost by intuition, though it may be also because of her experience in the work, the difficulties which everyone encounters in the beginning of this work and is able to show how they may be overcome and good results obtained. She warned her hearers that the organization of this work, to be successful, means a departure from the routine and urged them to endeavor to take a new start from a fresh point of view. An adequately trained director for the department should be the first consideration and who should occupy a position which will make possible close and active cooperation of all who have to do in any way with patients. Success, the speaker believes, requires that there should be an immediate program for a beginning but beyond that a carefully thought-out ultimate program towards which all should bend

their energy. Some of the subjects which she discussed were: Hours of duty; assignment of service; buying and selling; appeals to community interest; and possible voluntary service. These she regards as necessary and practical features of the work. All have a part to do in the real object of occupational therapy which is a retraining for deteriorated patients, orderly habit formation, and improvement through creating a wider and higher interest in the individual.

#### NURSING.

The round table conference on nursing presented the following program:

1. The Consideration of Classifying or Grading Nurses. Dr. E. H. Cohoon, Superintendent Medfield State Hospital.
2. What Can be Done in the Nursing Field from the Standpoint of Educational Propaganda. Miss Helen Sinclair, National Committee for Mental Hygiene.
3. Nursing in Relation to the Nation's Needs and Requirements. Dr. Donald Gregg, Channing Sanatorium.

Those taking part in the discussion of the papers were: Dr. D. H. Fuller, Philadelphia; Dr. L. V. Briggs, Boston; Dr. J. H. Forster, Whitby, Ont.; Dr. A. H. Ring, Arlington, Mass.; Mrs. Hopkins, Boston, Mass.; Miss McMahan, Boston State Hospital, and several of the Superintendents from Massachusetts' Training Schools.

The principal points brought up in the discussion of the papers were as follows:

The training of both men and women as attendants with a one year course might fill a practical need in the care of patients in the mental hospitals, but workers with such limited training should never be considered as nurses and any such program would have to be very carefully prepared and have the closest oversight.

While it is desirable to have nurses entering the training schools have as broad an education as possible, we are not in a position to insist upon more than one year's high school work, and we must work gradually toward the higher standards of training of the nurses in nervous and mental hospitals.

It is desirable that all trained nurses should receive some instruction in nervous and mental nursing during the course of training.

It was the consensus of opinion of the Conference on Nursing that the time has come when more attention should be paid in the

training of nurses to a knowledge of nervous and mental diseases and their care, and that a certain fundamental knowledge of this branch of nursing should be made a required part of the examination for state registration throughout the country and that, as rapidly as possible, the general hospitals should require their nurses to have some experience in psychiatric nursing.

It was also the consensus of opinion of the Conference that in the training of the psychiatric nurse, bedside care of the patient is still the most important function of the nurse and that this should not be relegated to a position of secondary importance to the theoretical part of the training.

It was also the consensus of opinion of the Conference that the training schools in the mental hospitals should be continued and that the work of these nurses should be supplemented by affiliated nurses taking a short course in this special branch of nursing and also supplemented by certain practical workers who shall relieve the nurses of some of the routine work, and that this class of helpers should receive a practical training in the care of mental patients, but shall not be qualified as registered nurses.

No abstract of the remarks of any of the speakers at this Conference has been furnished with the exception of those of Helen C. Sinclair, R. N., of the National Committee for Mental Hygiene, who spoke upon the subject "What Can be Done in the Nursing Field from the Standpoint of Educational Propaganda."

Miss Sinclair said:

The increasing demand for nurses in the many fields that are now open to them, together with the shortage of pupils in training schools, has demonstrated the need of an appeal to the public, and a campaign for the recruiting of student nurses for accredited training schools is now in progress in different parts of the country. Although the limited number of applicants for training schools may, to a certain extent, be attributed to the existing conditions in the world to-day, the nursing profession realizes that the system of training may be partly responsible, and that the present apprenticeship system may have to give place to newer methods.

There may be some regret at the passing of a system that was originally designed to be educational and, as applied to the arts and crafts, to give an opportunity to the student for self-expression, but in the art of nursing the educational side of the system was soon lost sight of, and the pupil nurse was considered in her service to the sick as a means of supplying cheap labor to the hospitals. Moreover, the militarism of the modern training school system gives practically no opportunity to the pupil for

individual expression or the development of resourcefulness, which is such a necessary asset for the psychiatric nurse. For this reason physicians and nurses interested in the care of the mentally sick will probably have less to regret in the passing of the apprenticeship system than other physicians and nurses.

Realizing that a change in the method of training nurses is inevitable, the National League of Nursing Education has under consideration various plans for the further development of the training schools. In all of these plans there is a general trend toward the establishment of central training schools of nursing and higher educational requirements for entrance to the schools, as well as a definite movement in favor of affiliated and elective courses. With such a movement in progress, it would appear that this would be the propitious time for the accredited training schools in the hospitals for the mentally sick to raise their standards of training and to prepare their special field for the training of pupils from affiliated general hospitals and for graduate nurses who may desire a post-graduate course in psychiatric nursing.

As the best propaganda will come from the nurses who have had training in the hospitals for the mentally sick, suitable living conditions should be provided for the nurses in these hospitals and the training in psychiatric nursing should be presented in a form that will be interesting and instructive to the student nurse.

As only training schools with an adequate number of students can grant opportunities to pupils to take a special course during the three years of training, the number of applicants for training in psychiatric nursing will depend on the success of the general campaign for student nurses. It is worthy of note that a school which was organized some years ago for the purpose of training nurses in psychiatric nursing could have had more pupils for the affiliated courses but for the fact that the affiliating hospitals were so short of nurses that it was impossible for them to allow all the students who desired psychiatric training to leave their own schools during the three years' course. It was gratifying to find that each group of students returning to their respective schools was the means of interesting other students in the course. It is also encouraging to know that during the past year other schools giving similar training have been equally successful.

May we not hope that as the training school system broadens and gives opportunity to students for elective courses, nurses will specialize in psychiatric nursing, and the course for affiliated students, which will at least familiarize nurses with this branch of nursing and serve to interest others in the work, will ultimately lead to the development of nurses highly trained for this important branch of nursing?

The advent of state registration for attendants, the demand for attendants in general hospitals and in the community, together with impending changes in the labor conditions of the country, may serve to attract women to hospitals that give a well planned nine or twelve months course of training

in simple bedside nursing and the care of patients suffering from chronic mental disorder.

Granted that the hospitals that give these various courses have their fields prepared for the training of student nurses and attendants, it will be necessary to bring this fact to the notice of graduate nurses in general, superintendents of training schools, pupils in training schools, and the general public. Towards this end, each hospital could enlist the interest of its graduates in the plan of propaganda for recruiting students and gain their active co-operation in the campaign. A well gotten up prospectus presenting the curriculum, with definite statements as to the hours of duty and living conditions, though an old means of advertising training schools, is as far reaching as any. These prospectuses could be mailed to the local physicians, the clergy, leading business men of the community, principals of high schools, and senior high school students.

Superintendents of training schools and other nurses who are familiar with mental nursing and interested in its development could give talks to the following groups: state graduate nurses' associations; state leagues of nursing education, second-year pupils in general hospital training schools, girls in their last year of high school, members of the Young Women's Christian Association, and girls' clubs.

Pictures could also be used to show the advancement in the care of the mentally sick, with special reference to what nurses have done and can do in this work; also pictures showing the wards, cottages, and hospital grounds, and the nurses' quarters and classrooms. The graduating classes from the local high schools, and colleges and other groups of young women could be invited to visit the hospital on special days. They could also be invited to attend the nurses' graduating exercises. Nurses' organizations could be invited to hold their meetings at the hospitals, and the superintendents of the training schools and their assistants could take that opportunity to show them the modern methods of caring for and treating mental patients. An effort could be made by the superintendents of the training schools to get the physicians and board members to co-operate in the recruiting campaign. Leading women of the community might be asked to become patronesses of the training schools and lend their aid in procuring invitations for the superintendents to address young women's clubs. Each student of the school should be asked to assume the responsibility of recruiting at least one pupil. Superintendents of training schools could be given time and opportunity to meet the people of the community and thus be a means of interesting them in the work of the hospitals, especially in the advancement of the nursing work. Training school announcements and short papers on nursing published in the local newspapers might also be used as a form of propaganda.

The development of the Mental Hygiene Section of the American Nurses' Association into a nursing organization similar to the Medico-Psychological Association would more definitely place the nursing of the mentally sick as a work demanding special study and consideration and would give nurses who are dealing with these problems an opportunity to confer and co-

operate for the advancement of psychiatric nursing. This would help to retain in the service of the mental hospitals registered nurses who have graduated from accredited training schools. Although the Mental Hygiene Section has no doubt been helpful to the public health nurses and others, it deals little with educational and hospital problems, and it is all too true that nurses interested in psychiatric nursing receive neither help nor inspiration for their special branch of nursing from the various nursing conventions.

No doubt much that has been suggested has already been tried as a means of influencing young women to become interested in the work for the mentally sick; but whatever has been done in the past, the number of nurses attracted to this field of work in the future and the successful development of psychiatric nursing will greatly depend on the high standards of training schools in the hospitals for the mentally sick and on presenting the nursing of the mentally sick as a branch of nursing that demands not only a broad education and altruistic ideals, but a real active interest and sympathy for the sick in mind.

#### LABORATORY INVESTIGATION.

No report of this Conference group has been furnished.

Following the Round Table Conference the Association was called to order by the President at 10.30 p. m.

THE PRESIDENT.—We will listen to the report of the Committee on Resolutions.

#### REPORT OF THE COMMITTEE ON RESOLUTIONS.

With a deep sense of inadequacy your Committee on Resolutions has set about its task, which on this occasion presents some unusual difficulties. The Association expected to receive the usual amount of courtesy and attention, such as given at such gatherings, from our Boston brethren, but we were quite unprepared for the overwhelming hospitality which has so generously been lavished upon us.

We find not only were the members from Boston and its environs our hosts, but that this may be truly termed New England's meeting. The commonwealth, the municipality and every institution in the state have contributed in some way to the meeting's success.

The sentiment in every quarter seems to be that unprecedented hospitality has been extended. The prominent feature has been the gracious entertainment of the members' wives by the ladies interested in the Association: in fact, they have made it a continuous holiday for their guests.

The program, which was evidently given much thought in its preparation, was well balanced and brought us many lessons. In reviewing these—there appears one great outstanding thought. We are engaged in a problem which deals with a living subject, the life problems of an individual—an individual who, by reason of some defect in his inherited potentialities, has



failed to adequately adapt himself to the environment in which we find him. This is partly due to his heritage and largely due to an insufficient organization which has become a prey to physical disease or disorder. Our problem is fundamentally biological, largely a problem of internal medicine and finally psychological, if we hope to bring about this individual's readaptation. Whether we belong to the school of organists or to that of the behavioristic psychologists, or are exponents of the psychogenists, we leave the Massachusetts meeting laden with pabulum to be digested at our leisure.

The thanks of the Association are extended to the Presiding Officer, on whose shoulders has rested the responsibility of the conduct of these meetings. The Association also regrets that its Vice-President found it necessary to decline the nomination for President with which the Association was prepared to honor him.

To our distinguished guests, Dr. Rows and Professor Janet, the thanks of the Association are due for honoring us with their presence at the sessions of the Association and for their valuable contribution.

The Association closes its sessions experiencing a complex of most pleasing emotional tones, the outcome of stimuli received under most favorable conditions of environment.

(Signed)

JAMES M. FORSTER,  
ALBERT C. BUCKLEY,  
HERMAN OSTRANDER, *Chairman,*

THE PRESIDENT.—The time has come when I have finished my duties—pleasant they have been—not without anxiety, which has always been relieved by the efficiency of our committees; at every gap has stood our Secretary—always alert and efficient. Your forbearance, consideration and confidence have sustained me throughout. I thank you for the honor you have conferred upon me, and I take pleasure in inducting the new President into office. Will Dr. Blumer and Dr. Woodson escort the President-elect to the chair?

THE PRESIDENT.—With great pleasure I present to you this symbol of your office, with the knowledge that it will never be unjustly or unwisely used. This honor has come to you, not by accident, but in recognition of your great service in the laboratory, in the clinical study and treatment of your patients, in teaching in the university chair, and for your zeal in community psychiatric service.

THE PRESIDENT-ELECT.—Members of the Association: I cannot tell you how deeply I appreciate the honor that you have shown me. It has come so unexpectedly that I cannot help feeling somewhat overwhelmed by all that this means in the responsibilities that must be assumed to maintain the standards that have been set by your long series of presidents. In particular it will be very difficult to approach the skill and ability that has been shown by Dr. Copp, our retiring President, in all that he has done to make this meeting so successful.

The task, however, will be easy and pleasant, if I may be assured the same individual co-operation that you have given to Dr. Copp and that did so much towards providing the excellent meeting just finished.

It will be my aim to try to the best of my ability to maintain the standards and the traditions of the past, and I bespeak your assistance in the preparation of the program for the coming year, feeling that if this is given with the same cordiality you have shown previously, we can be assured of a successful meeting.

Members of the Association, I thank you most sincerely. (Applause.)

DR. KILBOURNE.—I know that I express the sentiment of this Association when I move a vote of thanks for the delightful and efficient manner in which our President has conducted this meeting, and the great work of our Secretary, and we welcome our incoming President and our new Secretary.

Motion seconded.

THE PRESIDENT-ELECT.—You have heard the motion of Dr. Kilbourne, expressing appreciation for the excellent service of Dr. Copp and of the retiring Secretary, Dr. Mitchell. All those in favor of this motion of Dr. Kilbourne will so signify by a rising vote.

The vote was unanimous.

THE PRESIDENT-ELECT.—Is there any further business to come before this Society?

DR. BRUSH.—I move that we adjourn.

DR. MEYER.—I second the motion.

THE PRESIDENT.—It has been moved and seconded that we adjourn; if there is no objection, the Society is adjourned.

The Association adjourned at 11.30 p. m., to meet in Quebec, in 1922.

H. W. MITCHELL, *Secretary*.

## Notes and Comment.

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DIAGNOSIS AND STATISTICS.—There are several problems connected with statistics and with diagnosis in regard to which the members of the American Psychiatric Association may have different opinions. It would be well if greater unanimity could be obtained, or, in its absence, if there could be greater liberty for individuals to carry out their own opinions in a practical way. The difficulties of the subject are obvious. It would be gratifying to have accurate information with regard to the extent of mental disorders throughout the country, and with regard to the different types of mental disorder. Such country-wide statistics, however, can only be obtained if there is agreement as to what the main types of mental disorder are, and if all patients are classified according to the same scheme. Unfortunately we are not entitled to assume that we have at present a really useful scheme for classifying all cases of mental disorder. At any rate, there is a very large minority of cases with regard to which opinion is still very fluid. It is, therefore, a doubtful advantage to have a rigid scheme of classification worked out in considerable detail while many physicians regard this scheme as inadequate, and in part misleading. Yet even those physicians who consider the scheme faulty, feel bound in loyalty to their co-workers to use it provisionally until something more satisfactory is elaborated. The physician is between the devil and the deep sea. He has either to use a rigid scheme which may appear to him to be unsatisfactory, or he has to group his cases in his own way, which would mean the abandonment of any statistics on a large scale.

A physician runs a certain danger in using a scheme of classification which does not conform to his views. Words have a powerful influence on thought. No one can use words or phrases habitually without coming under their sway. The physician who habitually uses the term "dementia præcox" and labels cases so termed with one of the labels provided for this group comes not only to talk, but, to a certain extent, to think in these terms. He may cease to think in terms of the complicated forces involved.

He is apt to attribute to the diagnostic term a solidity to which it is not entitled. He begins to assume a prognostic finality which is not justified by the present state of our knowledge. The influence of the term may even lead to him being less alert to the possibility of helping the patient in directions which ordinary common sense might suggest. On the other hand, if the physician does not use these definite diagnostic terms supplied after the careful deliberation of a special committee, he is responsible for supplying a more satisfactory mode of grouping his cases, and he is liable to find that many cases baffle him from the point of view of systematic grouping. He also finds that to do justice to his cases he has to make rather complex formulations, which cannot be summed up in single terms or in substantives with only one qualifying adjective.

To the physician in charge of an institution, to the teacher at the medical school, a rigid scheme of classification gives considerable comfort. The physician in charge of the hospital may feel, after he has given names to all his cases, a comfortable feeling of having understood them, because he has classified and thus disposed of them. Any cases not so diagnosed remain as problems to be thought over and, therefore, involve more effort, and a feeling of discomfort that the task has not been finished. There are many who, having diagnosed a case as one of "constitutional inferiority" feel a comfortable sense of having settled the problem, and are not bothered with the feeling that the main problems connected with the case have still to be solved. The fact that a name has been given to it in many cases tends to discourage further study of the case. To leave many cases without clean-cut diagnostic terms affixed to them would be an admission of the difficulty of the subject, of the complexity of the problem before the physician, of the necessity for further strenuous work in dealing with individual cases. The superintendent of a large institution with very limited medical assistance, realizing that he is unable to study intensely many of his cases individually, is inclined to accept with relief a rigid diagnostic scheme, and thereby defends himself against that feeling of discontent and hopelessness which might develop in view of the inadequate medical force.

The teacher in the medical school also feels great comfort from a rigid diagnostic scheme. There is nothing which students like

better than a somewhat schematic formulation which can be memorized, and which does not necessarily entail thought. It is much more difficult to teach the student to think that it is to give him material to remember. The teacher, therefore, will be naturally encouraged by his students to supply them with a classification and a symptomatology which is a little more schematic than the actual complexity of the facts warrants. To refuse to give the student such a diagnostic frame work, is to leave him floundering in the bog of clinical detail. It means that in face of the actual patient he cannot find salvation by spotting one or two familiar signs or symptoms. He has to take the complexity of the patient's reactions, study them and their development in a painstaking way, think over the biological factors and the environmental stress and strain, and, after much thought, come to some conclusion about the meaning of the reactions which he observes and the possibility of bringing about a better equilibrium.

With the present crowded state of the medical curriculum the prospect of having to give so much thought to a subject appals the student. Thought requires time, rumination, digestion. The medical student of to-day has little time for rumination. He is only too glad if the teacher will systematize the subject in such a way that he can easily remember what is provided, and if, for the sake of the systematization, some violence be done to the facts, the student is willing to pardon the instructor. He knows that later on when dealing with his patients he may not thoroughly understand his case, but he will, at least, be able to give it a name. He may not see the interest and the fascination of the biological problem, but he will know under what heading to look up the disorder in a text-book.

The psychiatrist most interested in studying the mechanisms of mental disorders and in tracing the general principles underlying the individual cases, feels he can get along in a more satisfactory way with a flexible classification rather than with one which has a premature finality. One has to remember, however, that in the absence of a standard official classification, while some psychiatrists would present their material in a more profitable form, many others would utilize their freedom for the purpose of neglecting careful clinical analysis. There are many to whom classification of their patients according to an official scheme repre-

sents the high-water mark of their clinical endeavors. No classification is likely to be final, and the classification at each period is likely to represent the consolidation of the gain in knowledge during preceding years, while the most recent knowledge has so far failed to be woven into the classification. Some will be in advance of the stage of progress represented by the classification; some will be toiling in the rear. To those who are behind the times in their clinical outlook the demand made by an official classification is a stimulus and an incentive. It is something that is not lightly to be discarded, and serves a valuable purpose for many. Whatever one's personal attitude towards an official classification in relation towards one's daily work, a review of the situation shows that the problem of a uniform classification for statistical purposes has many sides, that classification is a living issue, and one to be constantly kept in mind by the members of the Association.

C. M. C.

AGE LIMIT FOR FRENCH SUPERINTENDENTS.—The Ministry of Hygiene and Social Welfare has issued, and published in the *Official Journal* of May 22, 1921, the following decree:

ART. 1. Article I of the decree of March 1, 1921, is hereby repealed, and the following provisions are substituted: The age limit for the office of physician-in-chief and of medical director in public asylums for the insane is fixed at sixty-five years.

ART. 2. The Ministry of Hygiene and Social Welfare is charged with the execution of this decree, which shall be applicable from July 1, 1921. Done in Paris, May 7, 1921,

By the President of the Republic.

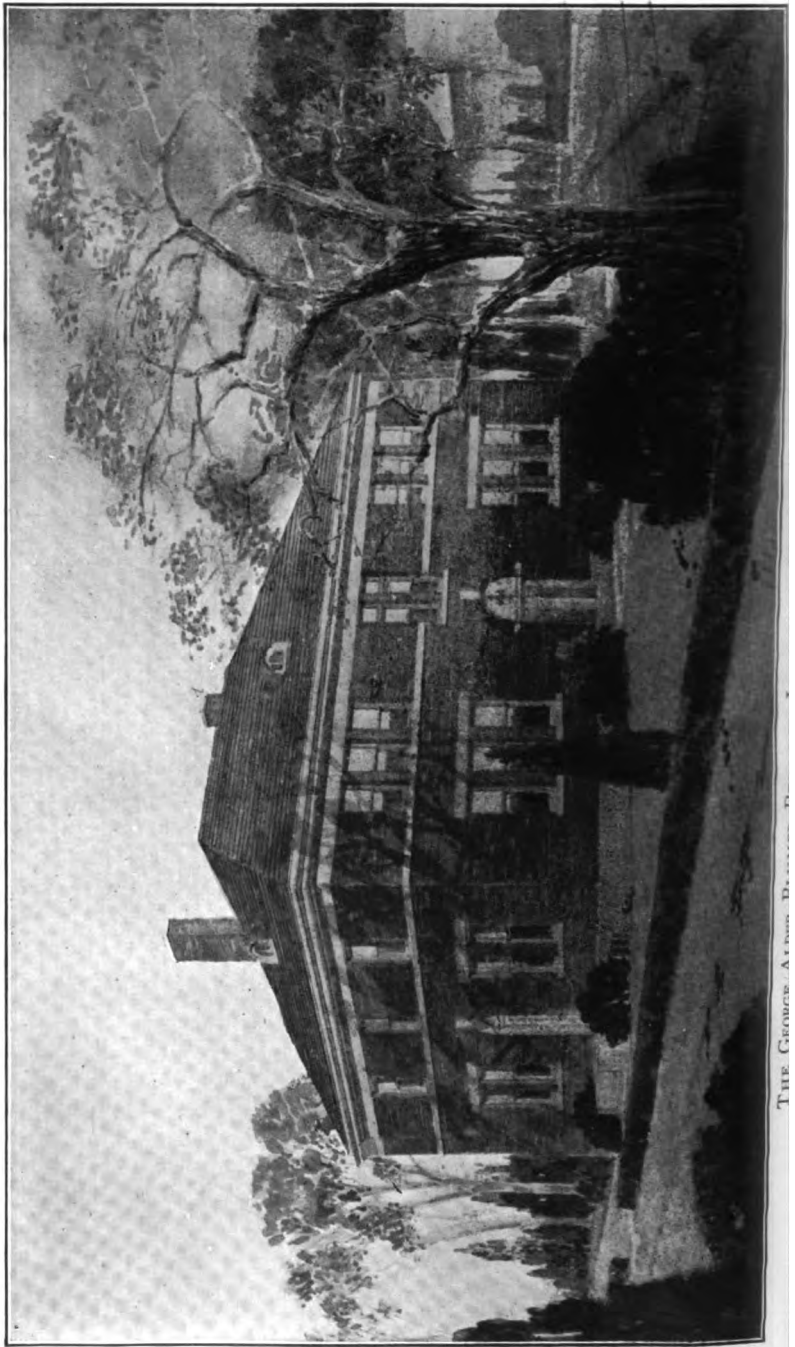
A. MILLERAND,

*The Ministry of Hygiene and Social Welfare,*

G. LEREDU.

OCCUPATIONAL THERAPY.—The National Society for the Promotion of Occupational Therapy holds its fifth annual meeting in Baltimore, October 20-22, 1921. An interesting program has been provided and the exhibit of handicraft is expected to be most instructive. This Society has developed in a most vigorous manner and promises to be an effective force in its special field.





THE GYMNASIUM AT BOSTON



## Association and Hospital Notes and News.

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**THE DEDICATION OF THE GEORGE ALDER BLUMER LABORATORY AT UTICA.**—Reference has already been made in the July issue of this JOURNAL to the dedication of the laboratory at the Utica State Hospital in honor of Dr. Blumer, but neither the material at our disposal nor space in our pages permitted as full an account of the occasion as it deserved.

The exercises in the morning in the hospital auditorium have been fully detailed, with the program of scientific papers presented. These papers it is impossible to present in abstract. They have been published in full in the New York State Hospital's Quarterly, August, 1921.

In the afternoon the exercises in the open air in front of the laboratory building, a picture of which is published in this number, were opened by Mr. George E. Dunham, President of the Board of Managers who spoke as follows:

This is really in the nature of an old home week. You will pardon us if we indulge in reminiscences which are especially entertaining to us and amusing, though not necessarily attractive to you.

Among the speakers listed for this occasion was Dr. Stephen Smith. I suppose a man who is in his ninety-ninth year may be pardoned for not keeping all of his engagements. I am sure had he come to-day he would have been on time, but he sent a letter—part of which I will read:

I beg to acknowledge the receipt of your invitation to the ceremonies attending the dedication of the laboratory in honor of Dr. George Alder Blumer. It would give me infinite pleasure to accept your invitation but in my ninety-ninth year I find some restraints necessary to meet the increasing loss of vitality. I must, therefore, be content with expressing in this note my high appreciation of the services of Dr. Blumer in the field of practical psychiatry and the appropriateness of the honor about to be conferred on him by the Utica State Hospital, which he served so long and so well.

I long had a special interest in the "Utica Asylum," owing to my appointment as first physician on the staff of Dr. Gray when he assumed the posi-

tion of superintendent. In 1881 I was appointed a commissioner of the State Board of Charities by Gov. Cornell and assigned to the chairmanship of the Committee on Insane.

The duties of this position made me an official visitor and afforded the opportunity to become acquainted with the members of the several medical staffs. It was during this period that I became familiar with Dr. Blumer's special equipment, mental and practical, for the duties of the superintendency where he had served faithfully in a minor position.

It was a critical period in the management of institutions for the insane as the question of physical restraint was being fought to a finish both at home and abroad.

In this fight the Utica institution became a central figure owing to the prejudice against what was known as Dr. Gray's Utica crib, a slatted box intended for patients whose condition required that they should remain in a recumbent position.

It seemed to me harmless to the patient but it had a most repulsive appearance to visitors. It was not in the nature of Dr. Gray to heed public clamor, but Dr. Blumer took the wiser course and removed the offensive practices and relieved the asylum of criticism which long impaired its usefulness.

Dr. Blumer was deeply interested in the campaign of education which these reforms required to secure the necessary legislation. After going to Butler Hospital he maintained his reputation as one of the leading alienists of this country.

#### MR. DUNHAM :

I suppose that some serious attention should be given to chronology in an institution of this kind and an occasion of this character and so we will begin by calling on the eldest—but his age is no concern of yours or mine—one of those long ago connected with this institution, and serving as one of the assistant physicians with Dr. Blumer. I will now present to you Dr. Edward N. Brush.

Dr. Brush said in part: It is with an emotional reaction which I find it hard to analyze, and difficult to describe that I find myself in this position to-day.

I little thought, when a trifle more than 43 years ago I came to this hospital, then the New York State Lunatic Asylum, as a temporary assistant, attracted by its laboratory facilities, unique at the time in an institution of this kind, that I should, nearly half a century later, be asked to take part in the dedication of a well-planned and thoroughly equipped laboratory building.

I came here, as I have said, for temporary service. My training and four years of postgraduate work had been in a wholly different field, surgery; but I was so attracted by the work here and its

opportunities and by the environment, Utica and its hospitable people, that when Dr. Gray offered me a permanent appointment on the staff I was very glad to accept.

Dr. Judson B. Andrews, afterward Superintendent of the Buffalo State Hospital, now deceased, was senior assistant, Dr. Willis E. Ford, now a leading practitioner of medicine in Utica was second in order on the staff and Dr. Alfred T. Livingston, a fellow alumnus in medical college, third, while I became the fourth assistant.

This occasion is a notable one and I am most happy to take part in an event of such importance to my psychiatric *Alma Mater* and of such signal honor to one whom I have known and loved these many years.

From June, 1880, when he came to Utica as an assistant physician, down to the present time Dr. Blumer and I have been most intimately associated in one way or another:

First, here in the wards, and in social intercourse, then on the editorial staff of the *American Journal of Insanity* and in medical and other affairs, we have been in constant touch with one another. Never has there been a moment of misunderstanding or mistrust.

When honors have come to my friend, as they come to-day, I have rejoiced as much as if they fell upon my less deserving shoulders. When Dr. Blumer joined the Utica staff in 1880 he came in at the bottom of the list and as his senior I had part of the task of inducting him into the mysteries and art of the position. It appears to me, therefore, incumbent upon me, and due this audience, to draw a picture, imperfect though it may be, of those early days in his career.

I know that he receives this honor, as he has others, with due and becoming modesty. Notwithstanding the fact that he was plain spoken and out spoken, traits which I know from personal experience with members of his family in England, are inherited, he could on occasion exhibit a proper degree of self-effacement, to such a degree indeed, that Dr. Gray was known to have told him more than once that he must "speak up." This admonition his fellow-members of the staff used toward him not infrequently in a jocular way.

We lived the simple life in those far-away days and one of my first lessons given to him was to teach him how and where he could blacken his own boots. In these days I imagine the members of the staff are relieved from such menial tasks.

Dr. Blumer early demonstrated, as he has done on many notable occasions since, in papers, addresses and reports that he knew his mother tongue to perfection, and several others as well. He had, as he still has a tendency to write rhymes and jingles, at that time in the style of Gilbert and Sullivan and Oscar Wilde.

In these he often depicted with accuracy the fads and foibles of his associates, to the great joy of all of us. The names applied to some of us, as well as to some of the towns people linger in my memory.

In wonder whether, if O'Brien's delightful book "White Shadows in the South Seas" had been published in those days, he would not have adapted to local needs such names as "Mouth of God" a Marquesan celebrity or that of his wife "Malicious Gossip" or better still the patronymic of O'Brien's youthful man servant, Nakohu which was in English "Exploding Eggs."

I am sure these names would have been applied with as unerring accuracy of description as were some of the titles bestowed upon us by Dr. Blumer, with the exception of "Malicious Gossip"; I can recall no one to whom that title could apply.

Dr. Blumer, was not always in the lighter mood. He could be and was serious and positive, but he had the charm of youth, a charm which he still retains. We have the certificate of the Trustees of Butler Hospital to this in their report of this year. They say the solution of the question of his retirement is rendered difficult "by his continued presentation of the aspect of perpetual youth."

When Dr. Blumer became superintendent at Utica in 1886, he at once proceeded to put it upon the "hospital" basis. His first report, September 30, 1887, spoke of Hospital *versus* Asylum and of the Abolition of Mechanical Restraint which was put into effect as one of the first acts in his administration here.

In 1899 he assumed charge of the Butler Hospital at Providence, R. I. His work there has stood forth as an example of what can be done in literally rejuvenating and almost reconstructing an old hospital.

In view of the character of the building dedicated on this occasion the following from his first report to the Trustees of Butler Hospital is of interest:

"The hospital that is without a properly equipped laboratory in these latter days of scientific precision much needs hang its head in shamefaced confusion."

In conclusion he said: "Gentlemen of the Board of Managers, Dr. Hutchings: You have done wisely in erecting here, at the home of the first laboratory work in a mental hospital in this country, this well-planned and equipped laboratory. You have honored yourselves in honoring a former assistant physician some time also the medical superintendent of this hospital in giving it his name. Dr. Blumer, my dear friend and former associate, I have spoken in much that I have said in a humorous strain, perhaps because thus and thus only could I hide my real feelings, perhaps because I could not trust myself to speak as I would and as you and this occasion deserve."

Bacon in an essay on Friendship says: "How many things there are which a man may not with comeliness or any face say of himself. But all these things are graceful in a friend's mouth which are blushing in a man's own."

Alas, what I have said is far from graceful—I lack your vocabulary—but you and many who are here know what is in my heart. That tablet yonder tells of your wisdom, foresight and humanity, which have contributed to the advancement of your profession, to the sum of human happiness and the dignity of life.

It will long endure, and we your friends are here to show by our presence our appreciation of the honor done you, and our joy that the honor has come to you. The tablet is open for the world to read—but there is in the hearts of each of us a tablet not open to public gaze upon which is engraved a most affectionate regard, a most sincere admiration.

MR. DUNHAM:

I remember my first official visit as a manager to this institution. Dr. Blumer had been made superintendent a few months before, and knowing that his new manager was coming this afternoon he absented himself and turned me over to the tender mercies of Dr. Pilgrim. During my 34 years or more of service I think I have never made a more thorough search of this property. If there was any ward we did not see, and stairway we did not go up or down or any patient we did not see, it was an oversight. We had to write our remarks in the book those days and I will never forget my remarks, and I am glad to say that the book has been discarded and a new one in its place. No one will ever know how absurd Dr.

Pilgrim made a blushing, bashful, much-embarrassed young manager feel with his flowery speech. Since then he has gone from one position to another—a hospital superintendent, and now President of the State Hospital Commissioners, to whom all knees must bow and to whom we all pay tribute and in whose presence we tremble. You will have opportunity to tremble yourselves, while you listen to Dr. Pilgrim.

DR. PILGRIM :

As I have been limited to five minutes I will try to get through in that time. First of all I want to say that I am very glad to be here to-day for the purpose of assisting in honoring Dr. Blumer who has done so much to honor this hospital and this city and state. It was my good fortune to be associated with Dr. Blumer in the early years of his work here and I know as much as any one about his efforts to secure the abolition of mechanical restraint, and the training of physicians and nurses for the proper care of the mentally sick. I think I can also say without fear of contradiction, that no one deserved so much praise as Dr. Blumer for brining about the enlightened care of the insane. It is fitting that we should honor him as we are instead of waiting, as is so often the case, until the obituary. Those old days were strenuous, but I do not want you to think that we did nothing but work and worry for there were many pleasant days and nights. I should like to recall one instance with which my mind was refreshed this morning. It was Dr. Blumer's practice to put his shoes outside the door on the stairway every night so that they might receive attention. This was considered a certain sign that he had gone to bed for the night. Some thought that when they saw his boots there that they could devote an hour or two to recreation. I looked over the bannister one night and saw the shoes in their usual place and carried the news to the rest of the men and we proceeded to a little room where we locked the door and prepared for a few hours innocent amusement. Suddenly while everything was at its height we heard a noise and looking up to the transom saw through the glass the amazed eyes of Dr. Blumer. He descended from the stepladder and demanded that we open the door. He delivered a lecture and after he

had gone we held a council and decided that we would then and there destroy every instrument of temptation.

The Utica Hospital, as you know, has always been in the lead in every advance movement in caring for the insane and the studying of insanity and the dedication of this laboratory to-day is but a continuation of its best and I can assure you that under the present enlightening superintendency of Dr. Hutchings the future will be as successful as its past has been. Its board of managers has always been a tower of strength, and to prove my assertion it is only necessary to recall the names of Campbell, Walcott, Rogers, Symonds, DeAngelis, and Mr. Dunham of the present board. This hospital has long been known as the home of superintendents and it is easy to recall the names of Andrews, Mabon, Brush, Wagner, Chapman, and others, and the name of Gray was known wherever the history of psychiatry was known, and now to these notable names we must add Blumer, whose name, like Abou ben Adhem's, leads all the rest.

**MR. DUNHAM :**

Many years ago the town of Whitestown was everything in the state of New York west of Albany. It has had some very prominent residents and after the family of Wagner came there things began to pick up and have been doing better ever since.

This institution has indeed been the father, mother and grandmother of superintendents and the next speaker is to be one of those who have gone out from it and who has improved the condition of the institution over which he has presided so many years.

**DR. WAGNER :**

I presume we ought to feel properly intimidated in the presence of our August President of the Board of Managers of the oldest institution in the state, but I knew him before he was president. I knew him before he was editor of one of the greatest dailies of the state, a power in politics, social affairs and business. I knew him when he was just a country reporter, when he used to come to this institution and ask for me in order that he might be permitted to come inside, and then ask me how he might approach Mr.

DeAngelis, one of the Board of Managers. Then the report of the Board would appear next day in the paper.

I am also very much pleased to be here on this occasion for many reasons. One of them is that my boyhood, as stated, was spent in the village of Whitesboro, where Mr. Dunham and I went bare-footed and invented reasons why we could not go to his father's church, when the fishing pool was more attractive. I am pleased to be here because Utica was the scene of my boyhood, and I attended school here, and because this institution was the home of my early professional life. I came here out of college and a hospital in New York, and spent eight years here—very delightful years, I assure you. I am particularly glad to be here because the occasion is an honor to a life-long friend and associate, Dr. Blumer. I shall never forget the moment when I first saw Dr. Blumer—it was a cold morning in late November, in 1884: I had just been admitted by Dr. Gray, to his official family. He took me into the library—there were two desks by two windows. At the one on the left I saw what I thought was a most austere figure, sitting. A man apparently well advanced in years, a bristling mustache, black, bristling whiskers, bald spot, a picture of the first Emperor of Germany, old King William. I was properly embarrassed, but learned later that he was only the second assistant, and a very social, good fellow. There was an amount of facetiousness in his makeup which led to my discomfort on more than one occasion. One evening he came in rather late, and as he went to his room he said to me, "Come in." After we were seated he said, "I want your advice on a very important matter. You know that I have been paying attention to a very attractive young woman in this city for some time and one of my associates has been paying attention to her too. He is in love with her, and I have reason to think he is very much in love with her, and if he does not win her it will be very serious for him." After a proper amount of thought I gave him the best advice I could think of. I said "You should look out for yourself—your own interests come first and I do not think you should stand aside for another man." He thanked me and bade me good night. The next morning all Utica knew that Dr. Blumer was engaged. I have never quite forgiven him for taking advantage of my innocence.



The dedication of this laboratory to-day may be considered the erecting of a milestone in the history of insanity: a history that has interested the world from the earliest time, since the days when Saul was said to have been afflicted with mania and cured by the music of David's harp. In 1778 a statute was placed upon the law books of the state of New York which stated that any two justices, if they found an insane person who appeared to be dangerous could lock him up in a jail and put him in chains, if they thought best. Half a century later a great change had come over the public mind. The medical profession was begging for better care for all kinds of dependents, especially insane. Out of this agitation grew the law establishing this institution. Now no insane person is allowed to be confined in a jail in the state of New York, or lockup or room with any person convicted of or even charged with criminal offense. This is far in advance of many of our sister states and separated the insane forever from the criminal. It is a familiar story of how the other institutions have been built until the state now houses 40,000 insane and now has 13 state institutions all of which are modern hospitals. I said that this laboratory might be considered a milestone in the history of insanity. The opening of this institution was another milestone. The laws of 1873 created the State Commissioner in Lunacy, was another milestone; and so might the inauguration of the training schools, be termed; but the most important of them, I believe, is the milestone that we are commemorating to-day in the erection of this laboratory. The history of the remarkable progress of the medical science during the past two or three decades has been largely due to the study of pathology, physiology, chemistry, etc., and I can assure you that psychiatry has not been a laggard in this great movement, and with the knowledge thus obtained we are better able to prevent insanity and also we are better able to cure it than ever before in our history.

I offer my congratulations likewise to the superintendent for securing the necessary funds to erect this splendid laboratory and I congratulate the commission on securing the services of such an able man as Dr. Russell to direct it. I know Dr. Russell—he was one of my assistants. He received part of his training in Binghamton and it is a matter of great pride that he is the man who is

going to achieve great results in this laboratory. Finally, I would congratulate Dr. Blumer in being recipient of this signal honor, and I would congratulate the state of New York on having the honor of having Dr. Blumer's name on this building.

MR. DUNHAM :

It seems to be fashionable on this occasion to relate interesting experiences in connection with Dr. Blumer, of which there are a million, I imagine, and perhaps the next speaker, an eminent jurist, will have some to relate too. When Judge DeAngelis was appointed a manager on this board he took the precaution to read the law covering the organization of the board, and for the first time in the history of the institution the proper books and proper records and proper procedure was put into effect. He read the law regarding the legal and correct management of this institution, thereby rendering a great service.

JUDGE DEANGELIS :

I regard it as privilege to be present on this occasion and to say a word appreciative of an old friend's splendid service in the cause of humanity.

For some forty years Dr. Blumer has labored in his profession, having chosen that branch of it where he has ministered to those who are sick in mind. He now stands in the front rank of the alienists of this country. It is appropriate that this building should be named for him both on account of the many years of service that he rendered in this hospital and on account of his eminence in his profession.

I was a member of the Board of Management of the Utica State Hospital when Dr. Blumer was chosen its superintendent. I well remember a slight circumstance that largely influenced a member of the board to cast his ballot in favor of the election of Dr. Blumer. It happened that one evening this member of the board was engaged with Dr. Blumer in one of the administration rooms of the hospital. This room was lighted by gas. Upon their leaving the room Dr. Blumer turned down the gas. It was not the doctor's gas, he did not have to pay for it, it might have gone on burning until the lights were extinguished for the night. It was a slight circumstance but it indicated the character of the man.

I observed Dr. Blumer's administration of the office of superintendent for some seven years and in that time had an opportunity to form a pretty accurate estimate of him. During that time I was a member of the Board of Management of the hospital and saw him frequently in our official relations and in other relations. He has the courage of his convictions. He has length and breadth of view. He has the sense of proportion. He grasps a situation in its entirety. He has vision which enables him to make plans the carrying out of which is not limited to a day but reaches far into the future. He possesses in a marked degree the rare habit of preparedness.

In an address delivered in the Harvard Union a few years ago, Viscount Grey related an experience which he had with Colonel Roosevelt. The Colonel had planned a visit to England and months before that visit had requested that he should be afforded an opportunity to hear the song birds of England. Viscount Grey was chosen to accompany the Colonel to the haunts of the song birds. Viscount Grey described his visit with Colonel Roosevelt and the great pleasure manifested by the latter in listening to the songs of the birds. The Viscount related this incident to show that, busy as the Colonel was, he took those little side paths which brought him in contact with nature for rest and recreation, and to show the Colonel's habit of preparedness even in matters of this kind. I may note in passing that the song of the English black bird, a species of the thrush, was the song of the English birds which most appealed to Colonel Roosevelt. As I have said, Dr. Blumer possesses in a marked degree this rare habit of preparedness.

I need not add what every one who is acquainted with Dr. Blumer knows, that he is a gentleman and a scholar. I think that he must have faults because he is human. I should be sorry to believe that he had no faults but I must confess at the same time that in all my experiences with him I have never discovered one.

I have asked some of Dr. Blumer's friends what they regarded as his chief characteristic, and, after putting their various answers together, I am able to describe it as devotion to duty. Alas, how many of us fall short in the fulfillment of our duties! What could be said of a man that is finer than that his chief characteristic is devotion to duty! This recalls to my mind the apostrophe to duty

contained in Wordsworth's "Ode to Duty" in which the influence of that great power is so beautifully expressed.

"Stern Daughter of the Voice of God!  
O Duty! if that name thou love  
Who art a light to guide, a rod  
To check the erring, and reprove;  
Thou, who art victory and law  
When empty terrors overawe;  
From vain temptations dost set free;  
And Calm'st the weary strife of frail humanity!

\* \* \*

Stern Lawgiver! yet thou dost wear  
The Godhead's most benignant grace;  
Nor know we anything so fair  
As is the smile upon thy face;  
Flowers laugh before thee on their beds  
And fragrance in thy footing treads;  
Thou dost preserve the stars from wrong;  
And the most ancient heavens, through Thee, are  
fresh and strong."

It is my belief that the subject of this fragmentary and inadequate appreciation is enjoying the reward falling to him whose life has been guided by that great power.

MR. DUNHAM:

It was perfectly natural that the splendid accomplishments of Dr. Blumer here in Utica should attract people of other states and the time came when he was like the woman who was tempted to go away with a handsomer and wealthier man, and he went to Butler. It has been my good fortune to have seen that institution and its improvement under his hand and as well to meet some of his managers, and in entire confidence, in the presence of one of them, I may say, that they, like the managers he left in Utica, are eating out of his hand and doing his bidding. It is the way he has, and there is no overcoming it. Speaking for the managers and for Dr. Hutchings, the superintendent, and for all the physicians and nurses I want to express our appreciation for the kindly courtesy exhibited by one of those Butler Hospital managers in coming up from Providence for the purpose of saying a word of congratulation from that institution to this, on the occasion of the dedication

of the George Alder Blumer Research Laboratory. You will all be right glad, I am sure, to hear that word from Professor W. G. Everett.

PROF. EVERETT :

*Ladies and Gentlemen:* In the regrettable but necessary absence of Mr. Gardner, president of the Directors of Butler Hospital it becomes my privilege to extend to you the congratulations from that institution.

We present our greetings because you are engaged in the same task of helpfulness to those unfortunate beings who suffer from the sorest ills that afflict humanity.

We offer our congratulations because you have completed and to-day dedicate to its high uses this research laboratory.

Our heartfelt thanks are due because you have given to this building the name of the man who 22 years ago was taken from you by the trustees of Butler Hospital to direct the work of their own institution.

We recognize that an invitation which so generously includes those who robbed you of Dr. Blumer's service is a real exhibition of Christian charity. We appreciate your magnanimity. I cannot, however, pretend that we come here in the spirit of repentance for our deed. Our attitude, I confess, is rather one of exultation that Butler Hospital was able to secure and so long profit by Dr. Blumer's service.

By his professional and administrative skill he has advanced the standards of our hospital work. By his devotion to the interests of our city and state he has won a high place as a citizen. By his love of literature and his mastery of English style, he has entered into the intellectual life of the community.

By his personal qualities he has made hosts of friends who, could they express their pleasure on this occasion by their presence to-day would severely tax your hospitality.

We may all therefore congratulate the Board of Managers of the Utica State Hospital upon the form of their tribute to Dr. Blumer. The thought and the execution are alike happy and we may all unite in special felicitations to the man whose name and work are thus perpetuated by a monument more noble and more enduring than any private memorial.

**MR. DUNHAM :**

At the meeting of the American Medico-Psychological Association in Boston this week resolutions with reference to the dedication of this laboratory in honor of Dr. Blumer were introduced, and unanimously passed. The Association selected one of its distinguished members to be the bearer of those tidings on this occasion. He is here and I am calling upon Dr. Mitchell the Secretary, and the chairman of a delegation, of the Association appointed to attend this dedication to the platform to read in your hearing those resolutions.

**DR. MITCHELL :**

My motive in being here has been told to you by your president, and I will read to you the congratulatory resolutions unanimously adopted at the meeting of the American Psychiatric Association in Boston this week.

I wish to add an expression of my own personal regard and congratulations to Dr. Blumer.

(These resolutions with the remarks of various members in seconding them, are published in the Proceedings of the Association on page 259 of this number of the JOURNAL.)

**MR. DUNHAM :**

You are waiting to hear from Dr. Blumer rather than to hear repetitions. I remember very well at the first meeting of the board which I attended, only a few months after Dr. Blumer's induction into the superintendency and when mine was the deciding vote in favor of putting uniforms upon the nurses and attendants. Previous to that time strangers found it difficult to tell which was the nurse and which the patient. You can imagine, you nurses who are here now, what a wave of rebellion that started. It was not three months when all the attendants would have been in much greater rebellion had anybody suggested that they discard those uniforms. For years, and that was the custom of that time, physical restraint was used; patients who were violent were put in camisoles, strapped in chairs, and one of the forms of restraint was to compel the patient to take a recumbent position and be locked in their bed. Dr. Blumer has been one of those to whom we could refer, with the slang phrase, "that he is not afraid of the cars." I remember times when I wished his affairs were a little more on the surface.

When he was in the right he stood by it. He simply abolished physical restraint in this institution. All the people who learned of that order, or most of them, held up their hands in holy horror and said that he had started a dangerous business for the patients and attendants, and even the visitors, the like of which had never been heard of before. There are many people who would pay high tribute to Dr. Blumer if they realized that he was the one who here abolished physical restraint. In the old days this was called the Utica Lunatic Asylum. It was known, as all such institutions were, by that name. It was Dr. Blumer who said that this was an institution, a hospital to mend broken minds—as Faxon and St. Lukes are to mend broken bones or regulate interior disturbances, and that people who came here were sick and it was not right or fair that they should be branded with a name that was fearsome. Later on it was called a hospital. The name has been adopted by this and every other institution, even the Lunacy Commission has had its name changed to the State Hospital Commission. This is a place where people sick in their minds can be cared for and treated and if possible helped on to recovery. Holidays come to this institution just as they do to all of us. Christmas was never observed here in any form until Dr. Blumer wrote a letter to the correspondent or the relatives or friends of all the patients whose names could be learned, to ask them to send some present, with the promise that there should be a Christmas tree and exercises, and something of the Christmas spirit introduced in an institution which necessarily is more or less dark, dismal and depressing. From that first Christmas tree it came to be an established fact and other institutions took it up. All the years of his connection here were years of gain and growth and improvement. I remember sitting in his office with other members of the executive committee in those golden days when managers managed and he started the conversation by saying what is very true: "It is an unusual Saturday when the superintendent of this institution has nothing to suggest that the managers should do." Sometimes it involved trouble, sometimes money, but always it meant a step ahead in the care and comfort of the patient. If the hundreds and thousands of people affected with mental disturbance could ever know and appreciate their obligation to our august and honored friend, it would be the finest tribute ever put to any man in his profession. Under the very splen-

did superintendency of Dr. Hutchings we were enabled to get this building for laboratory purposes, which means a great step ahead in the care and treatment of the insane. It occurred to Dr. Hutchings that there was but one name to be attached to this building, and that was the name of the man to whom this institution and all the other institutions and all the unfortunates in this class, owe so much. The managers were unanimous in approving the suggestion of Dr. Hutchings and we feel that it is fitting that this special building should bear his name, at this institution where his first superintendency was experienced, where he was first given the opportunity to show the stuff of which he is made. Better here than anywhere else, should it be, that the research laboratory should bear the name of Dr. George Alder Blumer, whom I present to you.

Dr. Blumer, on rising to respond, referred to the embarrassment that attended his sentiment of gratitude in attempting to acknowledge the tribute of his too kind friends. He was reminded of a shrewd North African, Apsephas by name, who, thousands of years ago, having the ambition to be voted into heaven and worshipped as a god, hit upon the plan of catching and teaching parrots to proclaim his prowess, which birds, when liberated, taught others to take up the cry till the Libyans, believing the voices to be from heaven, were persuaded of his divinity. It was evidently by some such conspiracy, though not of his own creation, that a somewhat similar result had been brought about in his behalf in a city bearing an ancient African name, and he had no difficulty in identifying the leading conspirators against his modesty. He referred also to the English essayist, John Earle, who, three hundred years ago, writing on the value of modesty had said, "You shall hear him confute his commenders, and giving reasons how much they are mistaken, and is angry almost if they do not believe him. Nothing threatens him so much as great expectation, which he thinks more prejudicial than your under-opinion, because it is easier to make that false than this true." It was unusual to have the mortuary experiences, which that day were his, without the incidental inconvenience of dying, on which account he was all the more grateful to his indulgent friends. He recalled some of the incidents to which reference had been made by the previous speakers but rejoiced that his memory as to details, in some respects at least, was less retentive than theirs. He was sure that his record, no matter how long he lived, could never



justify the encomiums of the Board of Managers and Superintendent as set forth on the bronze tablet, but as that would endure through the ages it would at least serve the useful purpose of stimulating him to strive hard for the rest of his life to approach the ideal relation in which his services as superintendent had been conceived. He concluded his remarks with a feeling and an expression of deepest gratitude for what he deemed the greatest honor of his professional life, opining, however, that, after all the most enduring memorial that any man can have is what is recorded in the hearts of men.

**A REQUEST FROM THE PROGRAM COMMITTEE.**—Dr. E. Stanley Abbot, Chairman of the Program Committee, has sent out under date of October 1 a communication to the fellows and members of The American Psychiatric Association which is now in the hands of every fellow and member, and which deserves prompt attention and study and a full and careful reply.

Dr. Abbot places emphasis upon the fact that the Association belongs to its fellows and members, that it is *their* Association, implying that its success and usefulness and the interest of its meetings lies, not in the hands of officers and committees, but in the membership.

Every one connected with the Association should bear this in mind and loyally and earnestly support every effort to make our meetings of value not only to the membership, but to medical science and to the public.

The Program Committee in order to formulate a program for the meeting must know not only what topics appear to the fellows and members of most importance and what work is being done in hospital wards and laboratories, but the names of the men who are doing this work so that they may be invited to lay before us and the profession the results of their labors.

We trust that Dr. Abbot's appeal for information will meet with a prompt response. The time between now and the meeting in Quebec in June is none too long for the formulation of a program and the preparation of papers and every aid should be given Dr. Abbot, and given promptly. If any of our readers who have received Dr. Abbot's communication have not replied thereto we hope this reminder will insure immediate action on their part.

May we not, at this early date, add a plea on behalf of the editors of the JOURNAL? We hope that every one assigned a place on the program for our next meeting will appear at the meeting with his paper fully completed and in form to be at once placed in the printers hands. Papers which after presentation are taken home by readers for revision or additions are often very late in getting to the editor's work table. Important duties, unexpected interruptions, summer vacations are all alleged excuses for delays which would not occur if papers were presented in the form their authors wished them put in type. At this time, four months after the meeting in Boston, some papers are still in the hands of their authors,

We would say to the fellows and members of the Association in imitation of Dr. Abbot, this is *your* JOURNAL. The character of its contents, the prompt appearance of the papers you read, and its general interest and value depend upon you. We would also remind them that its pages are open to papers not read at the meetings.

The Proceedings of the Boston meeting which appear in this number, together with several papers read at its sessions will convey to those who were not fortunate enough to be present, an impression of the character of that meeting and will, we hope, incite in them a determination to contribute, by their presence at least, to the success of the meeting in Quebec, which the Program Committee hopes will "surpass in interest all previous ones."

Dr. Abbot's communication and questionnaire are as follows:

PHILADELPHIA, October 1, 1921.

*To Fellows and Members of the American Psychiatric Association:*

This is *your* Association. Your Program Committee wants the Quebec meeting to surpass in interest all previous ones. You can help make it so by filling out and returning the enclosed Questionnaire at once or before October 15.

Your committee aims to have the scientific program present the results of the latest advances in the field of psychiatry. It regards this field as including mental diseases, mental defects, epilepsy, drug addictions, the psychoneuroses, and such other mental states or mechanisms as may or do lead to maladjustments to the environment.

There are many subjects about which there is disagreement, or on which we all feel a need of further enlightenment. Presentations of different points of view or different experiences will help to clarify our concepts or enlarge our knowledge of these. Dementia præcox was selected as such a

subject for several papers at the Boston meeting. Your committee wants to know what subject you would select for the coming meeting on which to base a sort of symposium.

Your committee would also like to know what you regard as the live and important topics in psychiatry to-day.

Much valuable and creditable work is doubtless being done by men who have not got into print, as well as by well-known writers. The Association should benefit by their work. Who are they, and at what are they working? Your committee is especially desirous of getting this information.

The return of the enclosed Questionnaire filled out by each member of the Association will greatly assist your committee in making up the program.

The committee will welcome suggestions from you as to any matters connected with the program.

Hoping to get your reply by October 15 at the latest, I am,

Very truly yours,

E. STANLEY ABBOT, M. D.,  
*Chairman, Program Committee,*  
 419 S. Fifteenth St.,  
 Philadelphia, Pa.

#### AMERICAN PSYCHIATRIC ASSOCIATION QUESTIONNAIRE

- A. (a) Are *you* doing special work or making special studies in any of the following fields, as related to psychiatry in any of its branches?
- (b) *Who* is doing such work or making such studies?
1. Histology.
    - Pathological anatomy.
    - Chemistry.
    - Hæmatology.
    - Serology.
  2. Heredity.
  3. Developmental factors.
    - Personality.
    - Constitution.
  4. Environmental factors (family, industrial, etc.).
  5. Syphilis or other infections.
  6. Alcohol or other drug intoxications.
  7. Endocrine dysfunctions.
  8. Vegetative nervous systems.
  9. Central nervous system.
  10. Other general or special somatic conditions.
  11. Clinical groups.
    - Clinical syndromes.
    - Clinical symptoms.
    - Behavior disorders.

12. Mental mechanisms.
    - Interpretation.
    - Psychoanalysis, mental analysis.
    - Psychological experiment.
  13. Statistics.
  14. Classification.
    - Nosology.
    - Terminology.
  15. Treatment.
    - Various therapies (drug, water, work, etc.).
    - Sociological.
    - Institutional.
  16. Administrative problems in institutions.
  17. Legal aspects.
    - Commitments.
    - Expert testimony.
    - Juvenile courts.
  18. Educational aspects.
  19. Industrial aspects.
  20. Preventive work.
    - Mental Hygiene in its various branches.
  21. Other subjects (please specify).
- B. What subject do you prefer as a major topic for a sort of symposium, as dementia præcox was last year?
- The following have been suggested:
1. The psychoneuroses.
  2. Neurosyphilis.
  3. Endocrine and vegetative nervous disturbances.
  4. Backward and defective children.
  5. Types of dementia.
  6. Psychoanalysis.
  7. Other suggestions.
- C. (a) In what fields in psychiatry do you think significant advances are being made?
- (b) Which do you regard as the most important?
- D. What suggestions have you in relation to any matter concerning the scientific program, especially as to (a) speakers whom you would like to hear, and (b) subjects you would like to hear them discuss.
- (c) Other suggestions are also welcome.

Name .....

Address .....

Please return on or before October 15, 1921, to DR. E. STANLEY ABBOT,  
419 South 15th Street, Philadelphia, Pa.

## Appointments, Resignations, Etc.

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- ABBOT, DR. FLORENCE HALE, formerly Assistant Physician at Taunton State Hospital at Taunton, Mass., died August 1, 1921, aged 54.
- ARCHETTO, DR. ANGELO, appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., July 5, 1921.
- AYVAZIAN, DR. HAIG A., Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned March 17, 1921.
- BAKER, DR. AMOS T., appointed Superintendent and Psychiatrist to Bedford Reformatory for Women at Bedford Hills, N. Y.
- BALLANTINE, DR. EVELYN P., Senior Assistant Physician at Rochester State Hospital at Rochester, N. Y., died May 19, 1921.
- BARKER, DR. WILLIAM L., formerly Superintendent of Southwestern Insane Asylum at San Antonio, Texas, died May 1, 1921, aged 68.
- BELK, DR. JOHN M., appointed to Board of Governors of State Hospital for the Insane at Raleigh, N. C.
- BETTS, DR. JOSEPH B., Senior Assistant Physician (Pathologist) at Buffalo State Hospital at Buffalo, N. Y., died January 29, 1921.
- BOLLINGER, DR. EDWARD, appointed Second Assistant Physician at Central State Hospital at Lakeland, Kentucky, April 12, 1921.
- BOLTZ, DR. OSWALD H., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., May 24, 1921.
- BROWN, DR. HARRY H., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., July 3, 1921.
- BRYAN, DR. WILLIAM A., Assistant Physician at Danvers State Hospital at Hathorne, Mass., appointed Superintendent of Worcester State Hospital at Worcester, Mass.
- CASEY, DR. MARTIN R., appointed Assistant Physician at Eastern Shore State Hospital at Cambridge, Md.
- CHARLES, DR. JOSEPH R., Dentist at Utica State Hospital at Utica, N. Y., resigned to enter private practice at Johnstown, N. Y., June 30, 1921.
- CHATARD, DR. J. ALBERT, appointed member of State Lunacy Commission of Maryland, June 1, 1921.
- COHN, DR. EUGENE, Superintendent of Kankakee State Hospital at Kankakee, Ill., has resigned to take effect October 15, 1921.
- CHRISTIE, DR. JEAN B., appointed Medical Interne at Buffalo State Hospital at Buffalo, N. Y., May 20, 1921.
- DONAHUE, DR. ROBERT A., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., June 21, 1921.
- ELLINGSWORTH, DR. JOSEPH H., appointed Superintendent of Watertown State Hospital at East Moline, Ill.
- EVANS, DR. LESLIE B., appointed to Board of Governors of State Hospital for the Insane at Raleigh, N. C.
- FELD, DR. NATHAN, Medical Interne at Brooklyn State Hospital at Brooklyn, N. Y., resigned June 15, 1921.
- FIALKO, DR. NATHAN, Medical Interne at Manhattan State Hospital at Wards Island, N. Y., promoted to Assistant Physician, June 1, 1921.
- FRANZ, DR. SHEPHERD IVORY, Psychologist at St. Elizabeth's Hospital at Washington, D. C., resigned as Professor of Physiology at the George Washington University Medical School.
- FUCHS, DR. JOSEPH, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., January 25, 1921, and promoted to Assistant Physician, June 1, 1921.

- GREENE, DR. RALPH, formerly Chief Physician at Florida Hospital for the Insane at Chattahoochee, and recently State Health Officer of Florida, has resumed the practice of medicine.
- HALSEY, DR. LUTHER M., a member of the Board of Governors of New Jersey State Hospital at Trenton, died March 20, 1921, from uremia, aged 62.
- HALTERMAN, DR. CHARLES W., formerly Superintendent of Weston State Hospital at Weston, West Virginia, died May 11, 1921, aged 53.
- HANLEY, MISS MARIE C., Social Worker at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned April 30, 1921.
- HATCHE, DR. F. W., State Superintendent of State Hospitals and Asylums of California, resigned.
- HENDERSON, DR. ARCHIBALD B., Dental Interne at Hudson River State Hospital at Poughkeepsie, N. Y., resigned April 30, 1921.
- HENDERSON, DR. DAVID K., formerly Resident Psychiatrist at Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, Baltimore, and recently Clinical Director at the Glasgow Royal Asylum, Garthnavel, Glasgow, Scotland, promoted to Physician Superintendent.
- HOGAN, DR. THOMAS J. G., appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., April 6, 1921.
- HOLROYD, DR. SAMUEL R., Superintendent of State Hospital for the Insane at Spencer, West Virginia, resigned.
- HORTON, DR. H. V., appointed to Board of Governors of State Hospital for the Insane at Goldsboro, N. C.
- HURD, DR. HENRY M., for thirteen years a member of the State Lunacy Commission of Maryland, resigned May, 1921.
- KING, DR. OSCAR AUGUSTUS, formerly Assistant Physician at Wisconsin State Hospital for the Insane and founder of the Lake Geneva Sanatorium, died September 11, 1921, aged 70.
- KUNZ, DR. PHILIP, Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned June 15, 1921.
- KING, DR. ROBERT, Senior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., appointed Pathologist at Central Islip State Hospital at Central Islip, N. Y., April 1, 1921.
- KIRBY, DR. GUY S., appointed to Board of Governors of State Hospital for the Insane at Raleigh, N. C.
- LONDON, DR. LOUIS, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned March 9, 1921.
- LYNCH, DR. M. G., appointed Medical Interne at Sheppard and Enoch Pratt Hospital at Towson, Md., June 15, 1921.
- McAVOY, DR. J. R., appointed Medical Interne at Sheppard and Enoch Pratt Hospital at Towson, Md., July 1, 1921.
- McCLUNG, DR. DENNIS, appointed Superintendent of State Hospital for the Insane at Spencer, West Virginia.
- MARKER, DR. JOHN J., Superintendent of Wayne County Insane Asylum at Eloise, Mich., was killed when his automobile was struck by a train, September 2, 1921, aged 58.
- MORRIS, DR. JAMES H., appointed Dental Interne at Hudson River State Hospital at Poughkeepsie, N. Y., April 6, 1921.
- MURPHY, DR. CHARLES S., Dental Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned June 30, 1921.
- MURPHY, DR. OWEN L., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., July 5, 1921.
- OWENS, DR. EDWARD S., Medical Interne at Brooklyn State Hospital at Brooklyn, N. Y., resigned May 17, 1921.
- PARLATO, DR. SALVATORE, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., February 1, 1921.
- PARSELL, DR. LOUIS A., appointed Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., July 5, 1921.

- PEASE, DR. CAROLINE S., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., for 27 years, was retired on pension June 30, 1921.
- PETTINGILL, DR. ELOISE M., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned March 31, 1921.
- PIKE, DR. WALTER R., first Medical Superintendent of State Mental Hospital at Provo, Utah, died June 10, 1921, aged 73.
- POTTER, DR. EZRA B., First Assistant Physician at Rochester State Hospital at Rochester, N. Y., died June 24, 1921, aged 73.
- POTTER, DR. HOWARD W., Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., resigned July 1, 1921.
- PRESTON, DR. GEORGE H., formerly Interne at Henry Phipps Psychiatric Clinic at Baltimore, Md., appointed Superintendent of Georgia School for Backward Children at Gracewood.
- PRITCHARD, DR. J. A., Senior Assistant Physician at Binghamton State Hospital at Binghamton, N. Y., resigned January 18, 1921, to accept appointment of First Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y.
- READ, DR. CHARLES F., Superintendent of Chicago State Hospital at Dunning, Ill., appointed State Alienist.
- ROBINSON, DR. JOHN D., appointed to Board of Governors of State Hospital for the Insane at Goldsboro, N. C.
- ROBINSON, DR. JOSEPH, formerly Superintendent of Missouri State Hospital No. 3, at Nevada, died April 9, 1921, aged 74, at the Nevada Sanatorium from prostatic disease.
- ROOT, DR. MANLEY B., Medical Interne at Utica State Hospital at Utica, N. Y., resigned June 30, 1921, to enter a general hospital.
- ROWLAND, DR. E. A., appointed Medical Interne at Kings Park State Hospital at Kings Park N. Y., March 13, 1921.
- SAHLER, DR. S. LEROY, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., January 27, 1921, and resigned April 3, 1921.
- SALMON, DR. THOMAS W., Medical Director of the National Committee for Mental Hygiene, appointed Professor of Psychiatry at College of Physicians and Surgeons, Columbia University, New York City, July 1, 1921. Dr. Salmon has resigned from the staff of the Rockefeller Foundation but will continue to serve as Medical Director of the National Committee for Mental Hygiene.
- SANDERS, DR. SAMUEL, JR., appointed Assistant Physician at Binghamton State Hospital at Binghamton, N. Y., January 27, 1921.
- SCHNEUR, DR. MARTIN, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., January 17, 1921, and promoted to Assistant Physician June 1, 1921.
- SMITH, DR. DONALD R., appointed Superintendent of Mendocino State Hospital at Talmage, Calif.
- SMITH, DR. GILBERT T., formerly Assistant Superintendent of the South Dakota Hospital for Insane at Yankton, South Dakota; recently Assistant Superintendent of the Mansfield State Training School and Hospital, Mansfield Depot, Conn., was appointed in April Chief Surgeon S. S. "Mount Carroll," United American Lines, Inc., 39 Broadway, New York.
- SOMERS, DR. ELBERT M., appointed Senior Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., July 1, 1921.
- STEWART, DR. ERNEST S., appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., June 14, 1921.
- STOKER, DR. WILLIAM A., formerly Superintendent of Anna State Hospital at Anna, Ill., appointed Superintendent of Kankakee State Hospital at Kankakee, Ill., to take office October 15, 1921.
- TENOFFER, DR. OTTOKAR, Assistant Physician at Brooklyn State Hospital at Brooklyn, N. Y., resigned February 28, 1921, to take up medico-administrative work at Kings County Hospital.
- TROM, DR. DOUGLAS A., Chief Medical Officer, Out-Patient Department, Boston Psychopathic Hospital, appointed Instructor in Psychiatry at Harvard Medical School.

- THOMAS, DR. VICTOR D.**, appointed Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., May 12, 1921.
- TIGHE, DR. LEO R.**, Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y. resigned March 31, 1921, and was reappointed May 5, 1921.
- TOWNSEND, DR. ALLEN B.**, appointed Dental Interne at Middletown State Hospital at Middletown, N. Y., April 15, 1921.
- TRENKLE, DR. HENRY L.**, Senior Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., resigned June 30, 1921.
- WECHSLER, DR. MENDES S.**, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned June 6, 1921.
- WILLIAMS, DR. BENJAMIN F.**, formerly Superintendent of Nebraska Hospital for the Insane at Lincoln, appointed Consulting Director of Nebraska Child Welfare Bureau.
- WISNER, DR. WILLIAM DORR**, appointed Medical Interne at Buffalo State Hospital at Buffalo, N. Y., July 1, 1921.
- WITT, DR. SAMUEL**, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned April 9, 1921.
- WONG, DR. HEUNG Y.**, Medical Interne at Manhattan State Hospital at Wards Island, N. Y., resigned January 31, 1921.
- WORK, DR. HUBERT**, of Pueblo, Colorado, appointed First Assistant Postmaster General by President Harding.
- YOUNG, DR. NELSON H.**, formerly Assistant Superintendent at Toledo State Hospital at Toledo, Ohio, appointed Senior Physician at National Sanatorium for Veterans of the World War at Marion, Ohio.







# AMERICAN JOURNAL OF PSYCHIATRY

## A CASE OF PSYCHASTHENIC DELIRIUM.\*

By PIERRE JANET, PH. D., M. D.,

*Member of The Institute of France; Professor of Psychology in The College De France.*

*(Translated from Professor Janet's French Manuscript by Dr. Francis E. Devlin, Montreal, Canada.)*

Several years ago, now more than fifteen, the opportunity was accorded me of being present at the reunions of the scientific societies of Boston; it is with great pleasure that to-day, I again find myself in your midst and I almost confess to a feeling of not having aged at all in meeting former friends who greet me with the same warmth that welcomed me when last we met.

Permit me to present to you in a much summarized form, a report of a case which I find most interesting, both from a medical and a psychological point of view, inasmuch as it enables us to penetrate more deeply into the mechanism of doubt and belief.

Formerly, the general opinion of psychiatrists postulated a fundamental opposition, a real incompatibility so to speak, between the obsessions characterized by a sufficient consciousness on the part of the patient of their existence, and the delirant ideas believed by the patient to be true.<sup>1</sup>

Jules Falret, Magnan and Legrain maintained that an obsession never became the starting point of a delirium properly so called: this clinical opposition would seem to indicate a great psychological difference between obsessional ideas accompanied with doubt and delirant ideas expressed with conviction and transformed into

\* Read by invitation at the seventy-seventh annual meeting of The American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31-June 1-2-3, 1921.

<sup>1</sup> F. L. Arnaud, psychasténie et délire. Congrès des médecins aliénistes et neurologistes; Genève, Lausanne, Août 1907. P. J.

action. Since that epoch, many authors have shown examples of obsessions accompanied with deliria. I myself already have had occasion in the past to especially call attention to this passing of obsession to delirium and to point out that this evolution plays an important rôle in the evolution of the delirium of persecution. I also desire to draw your attention to the interesting papers published by M. F. L. Arnauld, the distinguished superintendent of the Vanves Sanatorium on the subject of the different combinations of psychasthenia and delirium. It is from this point of view that the observation of the case I wish to submit has its importance as it plainly shows the evolution of a real psychasthenic delirium in which the transition from the obsessional state to the delirant state with regards to the same ideas takes place by degrees, yet frequently.

### I.

The patient whom I will call Sophie is a young woman of now, 36 years of age, whom I knew for the first time when she was 20 and whose case I have followed without interruption for over 16 years. I have been able to note in a regular manner, during this long period of time, the evolution of her mind and the pathological phases which it goes through. In a general way, leaving aside a fairly good state of moral health which existed in her childhood and which seldom reappeared, this patient oscillates between two pathological conditions of mind. Most often, she remains in a first neuropathic condition with a fair amount of depression which condition of mind we will call the psychasthenic state; and secondly, she will remain in a more serious condition of mind, which condition of mind has only appeared three times in the course of 16 years, and we will style it the state of psychasthenic delirium. It will be necessary to describe these two states before studying the relations they bear the one to the other. Sophie's family history is most characteristic; her paternal grandmother suffered from periodical attacks of melancholia; her maternal grandmother, rheumatic and gouty, was affected with Basedow's disease; her father and mother, although apparently normal, both, suffered from a marked lack of will-power. Moreover, Sophie's brothers, likewise, have the same weak, vacillating character, devoid of energy. In her childhood, Sophie's health was poor; she

was a victim to ever-recurring attacks of enteritis which only completely subsided at the outbreak of her nervous trouble. From the age of 15 she complained a great deal of stomach trouble, of difficult, slow, often painful digestion, with acid regurgitation.

For years, she was submitted to a rigid diet and underwent all the known treatments for stomach disturbance. This disturbance, strange to say, only definitely cleared up at the onset of her nervous trouble. Her menstruation was irregular and often very painful. She was susceptible to the slightest change in temperature: in a word, Sophie's health was poor and she could not undergo the slightest effort without a consequent feeling of fatigue, which was quick to appear and exaggerated in form. At the age of 20, following a long period of gastric disturbance, precisely when the cure of the same had begun and very likely also under the influence of sorrow brought about by the death of a sister who had succumbed to pulmonary tuberculosis, Sophie displayed a change in her former disposition and manifested the beginning of the first form of her neurosis and entered that period of it properly called psychasthenic.

Constantly sad and worried, she was ready to shed tears for the slightest cause, remaining perfectly still almost always in a recumbent position, dreaming her sad thoughts, in a state of idleness, and making no effort to overcome it. Or again, she would rise, walk incessantly, talk at the top of her voice, of her remorse, but not making the slightest effort to do any useful act. The ideas which torment her in this state are scruples, remorse of every description, self-accusations for "she cannot help but feel that anything she does is bad and despicable." She is constantly striving to improve her behavior. "I know," she says, "what is right, what should be done, but I have neither the will nor the courage to put it into practice; I should change my mode of living, but I have not the courage to struggle against myself. I feel the need of doing something wonderful, something extraordinary, in order to free myself and get back all my will-power." On one hand, she feels the need of advice and is constantly seeking for some one who might influence her. "I need to be looked after and I only feel safe near a person who watches over me." But on the other hand, she fears the loss of her independence; she fears that any influence exerted over her might be likely to make her vacillating.

Likewise, she refuses to listen to any advice given her and considers it her duty to oppose everybody. "I do not want anyone to influence me when it is I who should seek to gain influence over others, but I have as little courage to struggle against others as I have to struggle against myself. I lack initiative and I must succeed, despite the world, in doing something wonderful in order to rid myself of this condition." Her remorse is even still more keen and dwells upon all the moral obligations which she has been neglecting. She accuses herself of failing to do useful things for others, of being a selfish person, of lacking in her devotion for the other members of her family. She imagines that she is impolite, that her conversation is wanting in amiability; she accuses herself of vulgarity which she abhors. She should merit, she says, terrible punishment for the manner in which she behaves. She has scruples as to her intelligence and is constantly asking herself if she be not very stupid. "It seems to me that I do not clearly understand what I see, what I read. Things go on existing, they are not precisely unreal, but they lack meaning and interest and above all they are never as beautiful and pretty as formerly. It seems to me I am crazy and I will end in a sanatorium." One of her most intense scruples bears upon the cleanliness of her body. It seems to her that she is never clean. She feels that she is constantly soiling herself and that at every instant she must clean herself. "I feel like going to the toilet to urinate, is that not an unclean act likely to contaminate everybody?" But her gravest fears bear upon the subject of modesty; she reproaches herself with being immodest, with her brain being crowded with obscene thoughts and of being tempted to excite men by exhibiting herself. She is never satisfied with the way her chemise is placed on her body and with the manner her clothing is fastened on.

At this moment, whilst in the period we are considering, all these ideas which are ceaselessly present in her mind and ceaselessly repeated by her are only simple obsessions. In the beginning, none of these ideas are followed by a single act; the patient does not commit any immoral action neither does she utter a single rude word; no more does she perform one of those acts of kindness, one of those extraordinary acts of which she is constantly talking. At most what we might note would be some additional care in the buttoning of her corsage, some excessive washing of her hands, all of which are more symbolical endeavors

to reassure herself than any overt attempt to put her ideas into act. Whilst it is a fact that these ideas are never followed by any act, equally is it a fact that despite appearances, they are never accompanied with belief. Sophie pretends at times to assert those ideas, but rather does she plead what is false in order to help what is true. She is in reality constantly questioning concerning them and if they be contradicted she is thankful for being reassured for the moment. She is forever oscillating: in one breath she declares she is guilty, in the next she affirms she has always done her best. In short, these ideas ceaselessly present themselves with hesitation as to action and with doubt as to belief and Sophie avows herself that she is stupid to so torment herself and that she must be ill.

## II.

The above-described condition of mind, more or less serious, lasts for years: from the age of 20 it can be considered chronic and constitutes the most normal life of this person. So much so that we are completely taken by surprise when we note a complete change in Sophie's behavior. At three different periods of time, as I have said, the first at the age of 26 during 5 months; the second at 29 during 18 months and very recently, during the last two years at the age of 35, she begins an altogether different condition of mind which we have called her state of delirium, the exterior aspect of which we will now study.

To describe it in a few words we might say that Sophie enters gradually into a condition of mind wherein she puts into violent execution and wherein she affirms with the most positive conviction, all the ideas which during the preceding years presented themselves under the form of obsessions accompanied with hesitation and doubt. Behold now, she proceeds to give the poor she meets on the streets all the money she has in her pocket, her handkerchief and even her hat. She no sooner sees anyone quietly seated than she rushes in his or her direction with pillows which she wants to place under the individual's head, arms or feet. She demands that you eat some cake and if you refuse to do so, she will force it into your mouth and smear it all over your face. Should Sophie see a person walking, she takes hold of the individual by the waist and makes an attempt to lift him or her off the

ground and wants to carry that person to an easy-chair or a bed. "She must see that people get some rest; she must carry them and put them to bed." What is more, these acts of devotion soon become absolutely absurd and delirious and in the sanatorium wherein it has been found necessary to place the patient at this stage of her disease, she continues to go through a make-believe motion of carrying people in her arms although her arms are empty; she covers up the corners of all the pieces of furniture with pillows, carpets, towels, so that her mother will not knock herself against these corners when she carries her to her bed. If any of the persons present or the nurses attempt to prevent these stupid actions, Sophie violently attacks them, beats them and strives to throw them down on the ground. "I must" cries she, "impose my will over others and have the courage to struggle against them. I must get the better of my nurse in order that I perform an extraordinary act." She then begins to fight with the nurses, fights which last for days and nights with incredible violence. As these struggles are exhausting, it becomes necessary to leave the patient by herself and then, even whilst under restraint, she furiously seeks to strike the doors, the walls, in order to have someone come and stop her and struggle with her.

The idea of asceticism, of imposing sacrifices, punishments upon herself is mixed with the preceding idea of battling with others: "Passions should be bridled," she cries, "one must impose privations and sufferings on oneself." Not only does she refuse all food and does it become necessary to feed her with the tube, but more still, she tries to choke herself by holding her breath, to harm herself by butting against everything, etc. She assumes strange and absurd postures in which she remains motionless for hours. She imposes upon herself tasks which she declares to be terribly hard and complicated. She spits on the floor and declares that this spittle, coming from her body, is her mother's milk, since her body has been nourished by her mother's milk and that this spittle is sacred, sacred, sacred and that she must spend hours licking it off the floor. "I must suck up my mother's milk," and she spits upon the floor and licks it up indefinitely. She wishes to improve her mind by looking up all the words in the dictionary or by repeating the same sentence thousands of times: "Give me the letter, the letter. . . ." in order to well understand it herself and to have herself well



obeyed. Her shouting during the day and night is heard at a great distance off. What is most strange is the fact that the very ideas which were formerly repugnant to her and of which she spoke with fear, which she strove not to heed in her obsessions, are now precisely those which she puts into execution with a sort of fury. Before, Sophie was tormented by the fear of the asylum, or the sanatorium for the insane; at the approach of her delirant period she speaks constantly of the sanatorium of Vanves she knows so well and constantly expresses the wish to go there, and she has even the impression of entering that institution. "Every act she performs, even the most simple one, as that of the brushing of her teeth, are accompanied by the feeling that they lead her to Vanves." Sophie wishes to atone for all possible sins, so that it will be necessary to bring her back to Vanves.

We have seen that she abhorred vulgarity; she becomes surprisingly vulgar with the doctors and the nurses and conjures up the most insulting epithets to hurl at them. She was much worried about her modesty; she now falls to the lowest degree of obscenity, she undresses herself, attempts to give a nude exhibition of herself, strives to be seen in disgraceful poses, and masturbates ceaselessly if she be not stopped. She was terrorized by the idea of uncleanness and had a mania for exaggerated washing of herself; from time to time in her delirium, she still has a tendency to clean and wash herself, but most often her behavior is quite different. She now spits everywhere, drivels on her dress, urinates and defecates in her clothes, on the furniture, in every direction. If she possibly can, she gathers up the feces, rolls them between her fingers, smears them over her hair and face and endeavors to cover her body with them. What is more, she succeeds in inserting them into her vagina and masturbates with them. Or she takes them and eats them, screaming out that "It is bad and repugnant but that she must do her duty at all costs."

If one stops to think that such scenes are repeated day and night for a period of 18 months or two years, that the attendants cannot remain anywhere near Sophie without arousing her to fearful struggles, that they cannot leave her for fear of her being guilty of some filthy actions, that she cannot be placed under restraint without her doing herself injury, it will readily be understood, that Sophie, during her delirium becomes a case of the greatest

difficulty to handle and to treat and at the same time, she presents the strangest and the most characteristic picture of mental disease.

### III.

A succession of disturbances of this kind gives rise to numerous problems for solution; let us in a few words point out the clinical problem, how can such a condition of delirium be classified?

To my mind, there can be no question of a real state of dementia; nor can there be a question of a state of mental confusion. One of the essential characteristics of this delirium is that the patient wholly retains her intelligence, at least her elementary intelligence; this can be observed even in her most stupid act: her actions are never brutally put into execution without thought or consciousness, such as reflex actions. They are prepared and combined. Sophie, who wants to place her feces in the middle of her bed which has just been made, waits a moment of distraction on the part of the attendants, removes with her teeth the coverings of the bed and defecates on the white sheets. As she herself declares: "She does it on purpose." These acts, moreover are preceded and accompanied by words which indicate her object. "I must suck the floor because the spittle I have thrown on it comes from my body and is the sacred milk of my mother." Such acts leave conscious and detailed memories which Sophie can express during and after her crisis. What is more these acts are accompanied by reasoning, at least by apparent reasoning. These patients attempt to explain a great deal; they passionately argue their own case. As M. Arnaud has well said in his paper presented to the Geneva Congress, "They reason out their delirium more than they undergo it whilst ordinary delirants suffer their delirium much more than they reason it out." We find in this delirium, the breaking down of logical sub-structures, of preparatory processes of reasoning. We also find the "mental rumination" which I have described as existing in cases of psychasthenia.

In studying the lucid intervals which occur very often during the course of Sophie's most violent deliria, we observe the preservation of the intelligence. One can always, if possessed of sufficient influence over her, interrupt her, distract her, console her. She agrees to follow me in the little garden, to chat with me of

other matters. On such occasions, she plainly shows us that all the memories of the past are still fresh in her mind and she is well aware of all that goes on around her in the hospital. She takes in everything regarding the patients, the attendants and the doctors. At this moment the actions she performs are marked with doubt and hesitation and I will discuss them presently, but they are correct and her thoughts are perfectly lucid. This condition of mind widely differs from that observed in the mental disease we call mental confusion (*confusion mentale*), in which malady patients suffer from disorientation as to time and space and have a very imperfect insight as regards their situation or their acts.

One might feel more inclined to consider that we are dealing with a crisis of agitation akin to that which patients suffering from a periodical neurosis present, an agitated crisis such as is observed in manic-depressive cases. Let it be well understood, if we consider as constituting manic-depressive insanity any psychological disturbance occurring many times during the course of life and having the appearance of being periodical, Sophie's mental state should be so named, but that would be simply reasoning on the surface. If we bear in mind the psychological characteristics of periodical maniacal states, we do not at all discover them in Sophie's mental make-up. Without doubt she is now and then agitated, she moves rapidly, she passes from one absurd act to another still more absurd; she cried aloud a great deal; but she was also subject to agitation during the course of her ordinary psychasthenic state without delirium, when she strove in every manner to act in some way that might tranquilize herself and wherein she began acts almost without number and without termination. She is not always agitated in this manner whilst in her long period of delirium. She will remain for weeks at a time sad and depressed, puzzling her brain over some absurd act without going any further and without giving it much attention, especially if no one observes her. Lastly, the essential characteristic to point out is the absence of any of the joy, the euphoria of the maniac; rather is she in a somber mood, and sad and unhappy in thinking over all that she believes she must do and worried over her failure in accomplishing the same. No more can we say that we are dealing with a case of real melancholia.

Doubtless, depression exists to a certain degree, if the perfection of ordinary psychological processes be considered, but every psychological depression cannot be called melancholia; there are lacking in this case, the fixity, the monotony, the moral pain of real melancholic deliria. Sophie has not, as is the case with patients suffering from melancholia, lost the faculty of desiring, of believing, of willing. Psychological processes with her, do not give way to agonies of distress as they do so give way in cases of melancholia. She desires and believes in an absurd manner but she is capable of desiring and of believing and she is not really in a state of anguish.

It seems necessary for me to define her condition, to insist on the character of this voluntary action which is preserved, but which takes a form evidently abnormal. What is most remarkable to those accustomed to observe Sophie for any period of time, is the fact of the great change in her behavior during her ordinary psychasthenic state and during her delirant state. In her first state which prolongs itself for years, Sophie is above all a sluggard, who takes hours to dress herself, to write a word in a letter, who begins the same action over and over a hundred times and who most often does not complete it. She speaks slowly, leaving her sentences unfinished, becomes confused in the midst of a narrative and starts all over again; not only does she act slowly, but her actions are marked by hesitation and oscillation. She stands for hours near a door uncertain whether she wants to enter; she moves her hands to and fro for hours, not knowing whether she wants to or does not want to light a lamp; she frequently anxiously asks herself "if she is on the right road, in the moral path," when she merely wants to begin to urinate. She is subject to terrible fits of hesitation in the shop where she intends to select some article and she has to be turned out before she can decide what her purchase is to be. At last, when she has performed an action of whatever kind, she is filled with regret and interminable remorse. It seems to her that she has done wrong, that she has lied, that she has done the opposite of what she should have done, that she has committed a dishonorable deed, etc. All these characteristics are also found in her belief which is sluggish, hard to define and gives rise to doubt, hesitation, regret and shame. This form of behavior is altogether peculiarly characteristic of her.

When Sophie is in a state of delirium and when she performs one of those filthy actions, her demeanor is altogether different and seems most strange. Her act is rapidly done, without oscillation, with no second thought. She must eat her feces; of this she is absolutely certain and it must be done immediately, the moment the idea crosses her mind. "It is holy, holy, holy, even as my mother's milk" and she rushes at it and devours it, in saying: "No doubt, it is bad and vile, but I have done well in making the effort, and I shall do the same thing over again whenever I am able to do so." These two modes of action are entirely opposite. We gain a clear insight into this opposition on comparing one mode of activity with the other, the delirant act with the act we can make her perform a few moments later during one of those lucid intervals of which I have spoken. Sophie, who but a few moments ago was rushing at her attendant or striving to get hold of her feces, is now walking with me in the garden. She drags herself along slowly, turns about saying: "What you are now asking me to do may not be what is right; are you sure that I am not guilty of an immoral act in following you here? It seems as though I were lying, as though I were losing God, as though I were insulting my mother." She stops and suddenly begins to make all sorts of noises. "There, I had to imitate a locomotive, I did it well." She oscillates thus between correct but slow uncertain and remorseful acts and acts that are absurd but rapid, clear and satisfying to her conscience.

Both these forms of behaviors are marked by voluntary action and belief, but will and belief of a different psychological level. The study of psychasthenics and of their strange deliria, has taught us much about this distinction of different degrees of will and belief. It has shown us that will and belief consist essentially in a binding together of the spoken word and movement; between the verbal form of the act and the act itself done by one of the members of our body. They are essentially operations of assent, but this assent, this liaison between the spoken word and the act may be put in operation at first hand in an immediate manner, the moment that the tendency which accompanies the spoken word has some power. It is then *immediate assent* which functions in this form of suggestion. It is this assent which exists solely with higher grades of

imbecility (les débiles mentaux). It is in truth the will and belief of primitive peoples; this immediate assent constitutes the essential note of prelogical psychology upon which sociological philosophers like Mr. Levy-Bruhl have laid special emphasis. It is the first form which will and belief take when action accompanied by spoken language has separated itself from the simple reflex of animal action.

Above this first form of assent, a second form has developed which may be styled *reflective assent*. The result of the operation is the same. It has always to do with the liaison between the spoken word and the action. But the liaison only takes place after a process of deliberation and reasoning which tries out the relative force of diverse tendencies in placing the latter in comparison the one with the other. This reflective assent does not obey to a momentary and accidental force of a particular tendency; it expresses the average force of all the tendencies of the whole mind. It is the starting point of a mass of important notions, in particular of the feeling of the reality of things and persons. It is exactly on this second form of assent, on the operation of reflection, upon which all the disease of the psychasthenic rests. That which is disturbed within them is reflective action, choice and decision after reflection. They retain more or less well the first part of reflection, the enumeration of motives, of reasons. They seem to passionately reason, but they cannot reach conclusions. They carry forward their ideas and their reasoning in an indefinite manner. They arrive at extreme and absurd ideas (they play the game of extremes), as I formerly stated, because they cannot call a halt to them by applying the last process of reflection, namely, decision, conclusion. It is this disease of reflection, this difficulty of the application of a reflective decision, which characterizes the first phase of the disease in the subject whom I have just described.

Psychasthenics for the most part, remain there. They only suffer from this disturbance of reflective decision, from this difficulty of drawing a conclusion, but they continue, at least in part, to reflect. The study of cases analogous to the one Sophie suffers from reveals a very curious fact, and that is that the disease can descend lower, that it can completely suppress reflection and even cause to disappear any attempt at reflection. The patient then falls into a state of immediate assent which is much easier to

exercise, stronger, more defined, taking place without hesitation and without regret but also without control. Without doubt this immediate assent of primitive peoples, of fairly high grade imbeciles (*des débiles*), of easily suggestioned individuals may fall in wise directions and Sophie shows at times a devotedness which is praiseworthy, but it falls at hazard and may fall in wrong directions. Immediate assent contains more elements of danger for individuals who formerly enjoyed higher mental capacity with reflection, than with the constitutional imbecile who has always been subject to it. The first category are, in truth, much richer in ideas than the second. They have elaborated during their attempt of preceding reflection a mass of extremely absurd and dangerous ideas. These are all the extreme ideas built up during mental ruminations which now disclose themselves and which are put into operation without control: It is that which we have seen in the strange delirium of Sophie wherein her ideas which constituted her obsessions, the extreme of immodesty and of filth, foreseen in, and dreamed of in the ruminations are accepted and put into action by her without hesitation during her delirium.

In the above, we undoubtedly have to consider that we are dealing with a depression, but at the same time, it is a depression which has more to do with the psychological tension of the acts than with the strength of the acts itself. It is a lowering in the hierarchic degree of actions, which falls to a lower, more primitive level. The knowledge of these deliria strikes me as important: they occur in this form in a great number of psychasthenic patients when their depression increases under the influence of fatigue or emotion. The latest crisis of Sophie's delirium is evidently connected with two grave events: a surgical operation performed upon her for the extirpation of a uterine fibroma, and besides, the emotion caused by the death of her mother. The exhaustion arising from these causes determines a quite prolonged disturbance, lasting for over a year, but which, at the present moment, has changed by a return to the former phase of depression. With other patients whose observation I cannot follow here, the psychasthenic delirium which succeeds at a certain time in life, to the psychasthenic state, becomes chronic and continues itself until death. A delirium of this kind plays a more considerable rôle than we are prone to believe in the delirium of persecution. In many patients, the obsessions of

love and domination are followed by delirant ideas of hate, following a lowering of mental level identical with the above-mentioned cases. In other cases the depression is still deeper and causes the conditions which are involved in the problems of the so-called "dementia præcox." I have not the time to deal with all the consequences of psychasthenic delirium. My only wish was to call your attention to an observation of a strange case, and to point out to you the deductions to be drawn from it, relative to the degrees of perfection of will and belief.

#### DISCUSSION.

DR ADOLF MEYER.—It is a great satisfaction to have the privilege of hearing such a remarkably lucid and artistically perfectly presented case of such extreme interest; it is to me indeed a very unique casuistic contribution. Occasionally we meet families in which we find periodic attacks, perhaps of depression, or of depressions and excitements, and an occasional individual with periods depression-like, but not real depressions, but rather with the complete symptom complex of psychasthenic obsessions.

At the Worcester State Hospital some twenty years ago, there was a young woman with classical mysophobia, whose father also was in the institution from time to time, with a clear cut simple inhibited depression. Her attacks ran about the same length of time as her father's depression. From the age of 16 she has had periods of a self-doubting and mysophobic type.

What Doctor Janet has described is that his patient actually, in periods of excitement, with a great deal of cunning, asserted herself and carried through things which in other periods showed as doubt, scruples and hesitations in her. He sees in this above all a disorder of the reflective sphere of mind. There is here something similar to what we see in many cases of pure depression, and then periods of complete swaying into surrender to impulses, viz., a temporal separation of the tendencies which might normally balance each other, Whether we would want to take a kind of dynamic viewpoint and would want to try and bring those two stages together by seeing whether it might be possible to bridge over and fuse these contrasts, that I suppose is a matter which must have presented itself in any effort at treatment. At any rate the development is decidedly illuminating. We see here what in many other cases is very much more mixed, perhaps where obsessions and impulses go side by side in separate periods of one and of the other. The point of ultimate interest is to determine the dynamic factors leading to such inadequacies of balance and possibilities of re-establishing a normal control between the two phases and a therapeutic fusion.

DR. MCCARTHY.—It is a great privilege to hear such a well-presented case from Professor Janet, who is the father of modern psychology. It is a



relief also to have him point out to us a method of study which he has used in explanation of conditions with which we have to do. The attitude of the modern psychoanalyst who would take a case of this kind and study it from his angle. There is, however, a series of problems that need study and elucidation quite apart from a study of mechanisms and complexes. I refer to a study of such components of mental states as confusion, scrupulosity, delirium, etc. I had the privilege of watching Professor Janet's early work in Paris along these lines. Professor Janet is again leading us back to this important angle of psychologic interpretation and analysis. In the case he here presents scrupulosity and perversion of will function are essential components.

In my own work I have made practical application of another side of the problem of the will. I have divided the will function into a voluntary process, the conscious willing function, and an automatic will a component of normal central functioning. In the treatment of the neuroses with a defective will power or a perversion of it, I base my treatment on the assumption that the total will power is a fixed quantity; that the maximum that a person can do to overcome a habit or impulse is the most that they can do at a particular time; this however, can be reinforced to a larger quantity from without, by the physician. As an example, a patient will not be able to stop smoking cigarettes, and honestly so, and yet if the privilege of a mother seeing her husband or child is withdrawn, she will bring a greater effort of the will in order to secure the greater desire.

Scrupulosity may occur as a clinical entity, a fatigue phenomena, I see it frequently as such in Catholic priests and Catholic divinity students. It may be either a simple phenomenon on a part of a complex mental disturbance as in the case here presented. While it is associated with disease of the will and willing functions it is not necessarily so and is much more than this. It is a manifestation of a split personality in the nature of introspection and hypochondriasis.

Confusion as an element of mental states is very much in need of study and analysis. While disease and perversion of memory and attention and faulty orientation as to time and place and personality, with defusive memorization in relation to these, are largely concerned in the process, it is a very complex mental state.

It has been a great privilege and a great satisfaction to have heard the splendid analysis and beautiful address of Professor Janet.

DR. DEVLIN.—It has been a great pleasure to listen to the paper of the distinguished professor who has just addressed us, and needless to say, its scientific value has been enhanced by the clarity of the French language, of which Doctor Janet is a master.

I think the moment not inopportune to stress the importance of a more thorough knowledge of the French tongue to enable us to follow the French mind in medical science in general and in psychiatry in particular.

PROF. JANET.—(Closing discussion in French.)



## THE NATURE OF FUNCTIONAL DISEASE.\*

By WILLIAM McDOUGAL, M. B., F. R. S.,

*Professor of Psychology, Harvard University, Cambridge, Mass.*

I thank you for the honor you have done me in inviting me to give this address before this assembly, so fully representing one great branch of American medicine. I feel that this honor has fallen upon me largely because I have recently come across the water; and because you, in the true spirit of science, are glad to welcome among you a man who has labored under other skies, but in fields closely allied to your own great field of medicine. I can assure you that in England we have found much to admire in American developments in this field of medicine. We have admired your great well-organized psychopathic hospitals; your development of the principle of after-care of cured cases; your carrying of the principles of mental hygiene out beyond the walls of your hospitals. We have admired and envied your great national association for mental hygiene, and especially, and above all, we have admired and envied your success in gaining the confidence of the public in your institutions for the treatment of mental and nervous disorders; a success which enables you to come in contact with mental troubles in the early stage, when they are most amenable to treatment, especially to treatment of the psychological or psychotherapeutic kind.

It seems to me that in thus leading the way in mental medicine along the lines of mental hygiene, of prevention rather than of cure, and of early treatment of cases of mental disorder before they have reached the certifiable stage, you in America are founding your practice upon, and are assuring the validity of, the conception of functional disorder or disease. I believe that this conception of functional disorder is entirely valid and extremely important. Yet this view is by no means universally accepted. It has still to strug-

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gle, to make its way against a very wide-spread and deeply rooted prejudice, one which I believe has acted, especially perhaps in my own country, and more especially, perhaps, in Scotland, as a clog and a hindrance to the development of psychiatry. In so far as I can claim any practical acquaintance with, and any competence to speak on, medical matters, it is through experience in the field of those disorders which are commonly spoken of as functional. I have therefore chosen as the topic of my address this evening "The Conception of Functional Disorder," in the hope that I may clarify a little this important but disputed conception, may fortify its theoretical foundation and help to establish it as the base of the most important line of progress in mental medicine. Nor is the importance of this conception confined to the field of mental and nervous diseases as commonly recognized. There are indications that the field of functional disorders is likely to be recognized in the future as comprising a very much larger part of the total field of medicine and surgery than has yet been generally suspected; that, as knowledge increases, so the range of functional disorder will be seen to comprise much that has been regarded as organic disease.

In considering this topic, we are really taking up one aspect of a very large philosophical problem upon which all through the ages opinions have been acutely divided, and which has been keenly disputed from various points of view. It may be defined as the problem of structure *versus* function. It has sometimes been stated as the question—Does structure determine function? or does function determine structure? It is the fundamental biological problem of mechanism *vs.* vitalism.

If an organism, and especially if the human organism, is in every way strictly comparable to a machine; if the principles which suffice for the making, the control, and the repair of a steam engine or an automobile, suffice for the understanding, the control and the repair of the human organism; then, it is held, and with some reason, that the conception of functional disorder is mistaken; that it is at the best a temporary stop-gap which must be given up as knowledge grows; and which at the worst is a mere cloak for ignorance and a serious bar to progress. For, it is argued, the perfect working of the machine depends upon the perfection of the spatial adjustment and of the reciprocal pushes and pulls of its material constituents; whether these be large rigid

masses, or particles of the molecular, or atomic, or ionic orders, dissolved in fluids or colloidal solutions. And, it is said, every disordered working of the machine must be due to some maladjustment, some spatial displacement, of the material elements or masses of the mechanism. And, if in the disordered organism no such structural defect is visible, that is because it is on so small a scale, affecting elements of the atomic order, rather than molar masses. And, if the powers of our microscopes could be sufficiently increased, we should always be able to discover the mechanical defect which is the primary and essential cause of the disorder which in our ignorance we call functional disease.

The great advances made by biology in the 19th century, especially the Darwinian theory of organic evolution, and the new insight into the physics and chemistry of the body achieved by a series of brilliant physiologists, tended very strongly to establish this strictly mechanistic view of organisms; and in consequence it has become the dominant and popular view. For the Darwinian theory seemed to give a purely mechanical explanation of the long process of organic evolution; and the success of the physiologists in revealing the mechanical and chemical factors at work in organisms seemed to justify the faith that even the human organism is nothing but a machine of marvellous complexity and nicety of adjustment; and that we only need to push on with our physical and chemical and microscopical researches, in order to discover the mechanisms underlying all human activities.

Medical science has been profoundly affected by these triumphs of mechanistic biology. They seemed to bring to a definite decision the age-long dispute between the claims for primacy of structure and of function; and to settle it in favor of structure. Medical men began to believe that all those disorders that we call diseases are at bottom and primarily defects of the mechanical structure of the organism. And many of the great advances of medical science itself contributed to confirm them in this way of thinking. The discovery of the microbic origin of so many diseases showed that these at least are due to the introduction of foreign bodies into the organism, which thereupon becomes deranged, just as a clock is deranged, if sand or other foreign matter penetrates among its cogs and springs. The demonstration of the chemical causes of other diseases, such as lead poisoning, alcoholic neuritis and cir-

rhosis; of the chemical factor in yet others, as, for example, the excess of sugar in diabetes; all such instances strengthened the faith that we were progressing steadily towards a complete understanding of diseases in terms of defect of material composition and structure.

Mental medicine or psychiatry showed the effect of these influences perhaps more strongly than any other branch of medicine. Research was for a time turned almost wholly in the direction of attempts to discover the defects of brain-structure which were assumed to underly all mental disorder. An immense amount of energy and time was devoted to the minute examination of the brains of the mentally diseased, as well as to the study of the normal brain. And chemical theories of mental diseases became fashionable, and led to elaborate chemical studies of mental patients.

It would be untrue to say that all this immense output of energy was misdirected, or that it yielded no valuable results. But I think that many of you will agree that these efforts seem to have remained relatively sterile; that the results for psychiatry have not come up to the expectations that inspired those efforts. Not only did this way of thinking and these efforts prove relatively sterile as regards new insight into mental diseases; but also it led to the neglect of the psychological study of mental disorders. The research workers in mental medicine concerned themselves little with the psychological study of their patients, the study of their mental functions; they concentrated their efforts rather on the study of their brains after they were dead. And, if their theoretical foundation was sound, their practice was justified; for they were following the sound principle of seeking out the causes of symptoms; their theory was that all symptoms, all disorders of function, merely result from and express disorders of structure.

Whatever we may think of this theory of the primacy and all-importance of structural defect of the brain in mental diseases and of the practice founded on it; it must be admitted that, during the latter part of the 19th century, when this theory and practice held almost exclusive sway, and when other branches of science were making very rapid progress, advance of the theory and practice of psychiatry was disappointingly slow; relatively speaking, it was a period of stagnation. There is, I think, good reason to

seek the ground of that stagnation in the prevalence of the structural theory. For this led to neglect of psychological study among psychiatrists, a neglect which is reflected clearly in the meagre and inadequate chapters devoted to psychology in most of the psychiatric text-books of that period.

Another consequence of the prevalence of this theory, which contributed to that stagnation, was the strict separation of the psychoses, or mental diseases proper, from the neuroses or functional nervous disorders. And, while the secrets of the former, the psychoses, were indefatigably besieged with the microscope, and with wonderful methods of staining the nervous tissues, the neuroses were, especially perhaps in Britain, but also, perhaps, in this and other countries in a lesser degree, neglected and despised; for they were regarded as merely functional; and that meant that they had no structural basis which the microscope might reveal; and therefore, according to the prevailing mode, they were unreal; they were merely fanciful or imaginary; they were products of the patients' imagination, and therefore to be treated by scolding, derision or other disciplinary measure; or, if the patient could afford it, by a stay in some expensive institution or watering place, the financial penalties entailed by this being regarded no doubt as an important part of the treatment. Thus we had two great branches of the profession, the organic neurologists and the organic psychiatrists, who studied the organic nervous diseases and the psychoses respectively; while the neuroses or functional nervous diseases fell between in a despised no man's land, neglected by all, with a few distinguished exceptions, such as Dr. Morton Prince in this country and Dr. Pierre Janet in France.

We seem now to have entered a period in which this unfortunate state of affairs is being rapidly abolished. We owe the change in the main to two influences. Firstly, the immense number of severe cases of neurosis or functional nerve disease produced by the war. These have made it clear to the profession at large that neuroses are not merely the fanciful productions of idle women of inferior constitution; but that they may affect in very severe and distressing forms men of originally healthy and vigorous constitution. These war cases have served also to break down the artificial distinction between the psychoses and the neuroses. For we have seen many cases presenting symptoms which, if they had occurred

in civilian patients, would have secured for them admission to mental hospitals with a diagnosis of grave psychosis and a bad prognosis; very many of which cases have nevertheless cleared up in a wonderfully satisfactory way, especially when they have been treated with a little psychological understanding.

The second great influence which is bringing about this change, and which began to operate in this way before the war, is the work of the psycho-analysts. Whatever opinion one may hold of the doctrines of Freud and Jung and of the other schools of psycho-analysis—and I for one am convinced that they all contain much error and vague speculation as well as some truth—it must, I think, be admitted that this work has had at least this good result, namely, it has quickened the interest of the profession and of the world at large in psychological study; it has already brought the study of the functional nervous diseases to the front from out of their place of neglect, directing the attention of many keen minds to them; and it is helping to break down the artificial and restrictive barrier between the psychoses and the neuroses.

But if this reform is to be completed and if we are to make satisfactory progress in psychological medicine, we still need, it seems to me, to recognize fully and frankly the claim of functional disorder to a place of equal importance and reality with the organic or structural disorders; and that recognition can only come from a revision of the conception of organisms as pure mechanisms or machines which has dominated the biological and medical sciences and even psychological science for more than half a century.

I am not asking you to accept a dualistic philosophy, which would regard man as a union of material body and immaterial spirit. That is a view of man's nature which is not merely a popular view of the past; some great philosophers in all ages have held it; and it is at the present day philosophically defensible. The reaction of science against this view played a considerable part in bringing into vogue that mechanistic theory of the human organism whose unfortunate consequences in medicine I have just now sketched. But the acceptance of the reality of functional disease, or disease of functional origin, does not commit us to adhesion to that dualistic philosophy.

I believe that, even if we regard the human organism strictly as a machine, the conception of disorder or disease of functional



origin may still find a place in medicine. For even a machine is a purposive structure, it is an orderly arrangement of parts designed to achieve or fulfil a purpose. It is for this reason only that we can properly speak of disorder in a machine. Any material system of moving parts or masses which does not express a purpose, which is not the orderly embodiment of a purpose or design, cannot properly be said to be subject to disorder. Thus, unless we regard the planetary system as designed and set in motion for the achievement of some purpose of its creator or designer, we cannot regard any irregularities of its motions as disorders. If, for example, two planets collided, or a comet swallowed up one of the planets, that might be described as a catastrophe, or a violent departure from previous regularity or recurrent phases; but to describe the event as disorder would imply acceptance of the view that the motions of the planets express some purpose or are working out some design.

Let me illustrate the conception of functional disorder in a machine by reference to the familiar automobile. If your machine is adjusted to run at a normal temperature and the temperature falls to a low point, the machine may work badly or may cease to work because the explosive mixture becomes too poor in gas. That is a functional disorder, consisting essentially in a disturbance of the normal balance of functions; in consequence of the disturbance of balance of functions, the machine no longer fulfils the purpose which is embodied in it. Or again, when your automobile slowly climbs a steep hill, the spark requires to be retarded; if you do not retard it, the machine becomes a prey to functional disorder and no longer fulfils the purpose embodied in it; and, as we know, this timing of the spark is a very delicate matter. In these two ways, then, this machine, even though all its parts be in perfect order, requires adjustment under the varying conditions of its work; and if these adjustments or regulations are not made, it suffers from functional disorder. If the machine had to work only under one fixed set of environmental conditions, it would work perfectly or normally, so long as its structure was perfect; only a structural defect would produce disordered action.

Now, if we regard the human organism as a machine, we must admit that it is one that has to work under environmental conditions which frequently vary and often vary very widely. Hence it

requires frequent adjustment or regulation, if it is to avoid functional disorder. And the functional disorders from which it is most liable to suffer, perhaps all its functional disorders, are just of the two kinds which are illustrated by the automobile; namely disturbance of the balance of functions, and inappropriate timing of its functions, of its sparkings.

But the organism differs profoundly from the machine; firstly, in that the purpose which it expresses, and in the service of which its parts operate, is in some sense its own purpose; the purpose is resident in the organism; secondly, the adjustments or regulations which are necessary to enable it to meet the frequent environmental changes of conditions of work are made from within. The organism, in so far as it is a machine and fulfils a purpose, is a self-regulating machine. And functional disorder arises when the environmental changes demand adjustments which exceed the organism's powers of self-regulation or purposive adjustment; it is then we see evidence of disturbance of the balance of functions, or of ill-adjusted timing of its reactions.

For example, when the organism is exposed to unusually high temperature, it continues to work normally by effecting the required adjustment of the balance of functions, just as your automobile will continue to work well under changed temperature if you nicely adjust the mixture of air and gas. But, if the exposure to high temperature be prolonged and excessive, there comes a time when the organism's power of self-regulation in this respect is no longer adequate to the task, and functional disorder, with rapid rise of temperature, sets in.

Or again, under the demands of heavy muscular work, the timing of the heart-beats and of the successive phases of the systole is adjusted to the increasing demands; but, if the strain becomes too great or prolonged, the capacity for such adjustment seems to be inadequate; the heart-beat becomes irregular and feeble, and we have the functional heart-trouble so frequent among the soldiers in the late war.

We may see another type of functional defect, due to break-down of the organism's power of adjusting the timing of its processes, in the functional defects of the voluntary muscular system. The normal performance of even a very simple action of a limb re-

quires a very nice adjustment of the timing of the muscular contractions, an adjustment which seems to be effected in the main at the synaptic junctions in the nervous system. Under excessive strain the power of adjusting the timing seems to reach its limit and to fail. It is, I suggest, not improbable that all the functional paralyses and contractures, which play so large a part in the picture of functional disorders, may properly be regarded as due to just such break-down of the power of adjustment of the time relations, the power of timing the spark.

In this connection it seems worth while to remind you that several great thinkers who have grappled with the problem of conceiving the organism as a machine endowed with the capacity of purposive self-regulation—or more generally with the problem of conceiving how purpose can make itself effective in the material world, without breach of the mechanical law of the conservation of energy—have suggested that purpose works, not by adding or subtracting the least quantum of energy to or from the mechanical processes it controls, and not even by guiding or directing the path or incidence of physical energies, but by controlling their time-relations, by timing the spark, determining the moment of the conversion of potential to lumatic energy, suspending or precipitating the moment of release or conversion.

Now purpose implies mind or mental activity. To speak of purpose without implying mind is meaningless. Commonly, when we speak of purpose, we have in view our most clearly defined and self-conscious purposes. But we must recognize that mental purposive operations go on on very different planes of consciousness; that, beside our most fully conscious purposes, our organs express and are controlled by purposes of which we may be only very obscurely aware, and also by purposes which operate wholly on the subconscious plane. And functional disorders are commonly the expression of subconscious purposes, or of the failure and disharmony of conflicting purposes which may be wholly or in part subconscious. This fact has been increasingly recognized by all who study the neuroses, especially hysteria. But however little the conscious subject may be aware of the purposes at work within him, they are essentially of the type of mental activities. It is therefore through mental influences that functional disorders are brought about. They are the consequence of dis-

harmony, conflict, or failure of mental or purposive adjustments. That is to say they are essentially *psychogenic*. This is now commonly admitted of those disorders which are officially classified as functional, the hysteric, neurasthenic and psychasthenic disorders. But it is just for this reason, just because they are so clearly the result of mental activities, mental conflict, disharmonies, and failures of mental or purposive adjustments, as well as because they do not commonly involve any discoverable lesion or structural defect, that they have been in the past so commonly neglected and regarded as unreal or imaginary. Therefore my particular purpose this evening, namely my purpose of persuading you of the reality of diseases of functional and psychogenic type, cannot be achieved or promoted by dwelling upon these admittedly functional diseases.

I will only point out in passing that hysterical disorder may be very grave, endangering the life of the patient; that purely mental influences, which produce profound emotional disturbance, such as grief or deep resentment of injury or insult, may very gravely disturb the health, taking away sleep and appetite, grave disorders which may even issue in death. I believe it is true that even animals sometimes die from mental influences of emotional nature. Certainly savage men are liable to death from such influences; and sudden death from great emotional shocks is not unknown. In the last type of case we are apt to say, "Oh, he must have had a weak heart"; and so we dismiss the fact, with the implied assumption that the trouble or cause of death was after all organic, refusing to see that, even if the heart was weak, the primary and essential cause of the death was the mental influence. And, in the emotional disturbances of the more chronic kind, we dwell upon the bodily changes, the glandular secretions and the changed nutrition; again losing sight of the essential fact, that the mental change was the primary condition of the trouble.

In this connection also I would insist in passing upon the great significance for our present topic of the organic effects producible by suggestion. These are too often neglected or thrust aside, just because they cannot be reconciled with the prevailing prejudice in favor of purely mechanistic explanations of biological facts. I refer more especially to such effects as the production of blisters and ecchymosis. This has been abundantly proved to be possible

in some subjects. There is no clearer example of organic disorder of purely functional, purely psychogenetic, origin.

It is in relation to the mental diseases proper, the psychoses, that the question of functional origin or psychogenesis is of greatest interest, and especially to this Association; and it is in relation to them that the question is most acutely disputed and opinion most divided. Some authorities continue to scout the notion of psychogenesis of real psychoses; a few stoutly maintain it; while others take up an uncertain and vacillating position. Prof. Kraepelin is, I suppose, generally regarded as the highest authority in psychiatry. I have tried to discover from his great *Lehrbuch der Psychiatrie* to which of these three groups he belongs. I think he must be placed in the third group. He writes that "in general we must grant to the really causal significance of mental influences only a very restricted scope." He devotes some twenty pages to the discussion of mental or psychical causes of mental disease. And he puts alongside hysteria a group of mental disorders which he calls the psychogenic diseases and to which he devotes some 150 pages. Yet, in spite of this, he cannot be claimed perhaps as a thoroughgoing exponent of the conception of psychogenesis or of disease of functional origin. In all the great types of psychosis he is disposed to postulate a material or structural cause, rather than a functional; and in discussing the relation between bodily and mental changes, he writes: "If in view of the fundamental difference between the processes of the two orders (bodily and mental), a true explanation of those of the one order through those of the other is not possible, nevertheless it appears that we may hope to attain the goal of inferring certain bodily changes from observed mental disturbances and inversely." And on another page he writes of "the bodily foundations of madness" which we are told to conceive as "alterations of the brain cortex, which though widely diffused are yet of quite determinate character." Such passages seem to leave the question open; though on the whole this great authority seems to incline to the side of those who would dogmatically exclude the possibility of a truly functional or psychogenetic origin of real mental disease.

It is in relation to *Dementia Præcox* that the problem presents itself most definitely, and in relation to which opinions are most

acutely opposed. No one questions that the typical cases of this disorder are true psychoses; and, if such cases can be shown to be psychogenetic, the argument is closed in favor of the exponents of the possibility of psychogenesis.

Dr. C. G. Jung of Zurich has argued forcibly in favor of the psychogenesis of this disease, citing various cases in which the disorder seems to have been induced by mental conditions and to have been changed and improved mental influences.\* A particularly striking case of this sort was recently described to the Psychiatric Section of the Royal Society of Medicine in London by Dr. D. Forsyth—the case of a boy presenting a clear picture of *dementia præcox* of the paranoid type, in which it was possible to trace the origin to unfortunate mental influence, and in which complete restoration to health followed, when better and wiser mental influences enabled the patient to effect a readjustment or adaptation to his social environment.†

Against the powerful argument founded on such cases we have such work as that recently published by my friend, Sir Frederick Mott.‡ I have the warmest admiration for Mott's work in general and for this piece of work in particular. In this research, Mott and his pupils have shown that in many cases of *dementia præcox* there is evidence of maldevelopment of the sex glands, and that in some there are distinct departures from the normal in the appearance of the neurones of parts of the brain. They have shown also reason to believe that certain endocrine secretions are in many cases disordered. Mott's observations on the nervous tissue confirm and extend the findings of other observers to the effect that there occurs a parenchymatous degeneration of the neurones in various parts of the brain. From these facts Mott infers that the disease is primarily and essentially an organic and structural disease. He writes: "We have thus two morphological conditions which will account for the fundamental disorders, and the nature of these disorders will depend upon the cerebral structures

\* "The Problem of Psychogenesis in Mental Disease." Proc. Roy. Soc. Med., Aug., 1919.

† "A case of early dementia of paranoid type." *Ibid.*, 1920.

‡ "Studies in the Pathology of Dementia Præcox." Proc. Roy. Soc. Med. (Section of Psychiatry, Aug., 1920.)

affected." Mott is, in fact, as I know from many personal discussions with him, an uncompromising advocate of a purely mechanistic and materialistic conception of the mental diseases. But, if we examine his language closely, we find that even he drops into modes of expression which seem to be concessions to the functional view. For example, he speaks of "a progressive failure of the *élan vitale*" as the first symptom of the disease; and he supposes that the predisposition to *Dementia Præcox* may consist in a deficiency of "vital energy." Further, he shows that the earliest microscopic change in the affected neurones is the presence of an excess of lipoid granules, and that these indicate hypofunction or abnormally diminished metabolism in these cells. Here we seem to be right up against the essential problem—namely, are these degenerative processes in the neurones which are correlated with diminished metabolism, are they always the primary cause of the hypo-function? Or may not the hypo-function, the continued diminution of function, be the cause of the lowered oxidation, of the accumulation of lipoid granules and of the other degenerative structural changes.

Mott and the other structuralists, in whom the materialistic prejudice is strongly fixed, would, I know, dismiss the second alternative with contempt; yet such dismissal seems to me entirely unreasonable. Various observers have shown that excessive and prolonged activity, maintained through strong appeals to such instinctive tendencies as fear and rage, excited and maintained, that is to say, by mental impressions, may produce visible changes in the neurones concerned, due to excess of metabolism. That is a clear case of structural change functionally induced by mental impressions and mental activity. Why then should circumstances which induce the opposite kind of mental effect, namely a checking and depression of instinctive activities, why should these not induce structural changes of the opposite kind, namely the accumulation of lipoid granules and so forth, in consequence of diminished oxidation and metabolism? Such depression of instinctive activities through unfortunate mental influences is just what seems to be the history of the genesis of *Dementia Præcox* in many cases.

No doubt in all cases in which the disease develops, and in which the structural alterations of neurones are induced, there is some

constitutional predisposition which renders the patient peculiarly liable to such checking and depression of instinctive emotional tendencies; either an original defect of the vital energy or that constitutional peculiarity which Jung calls "introversion"; peculiarities which, however, are perfectly consistent with a normal and healthy life, in the absence of the unfortunate mental influences and circumstances which lead to depression of these functions. It may well be that in some persons these constitutional defects are so marked that, in the absence of any peculiarly unfavorable circumstances, the defect of function will manifest itself and will be followed by structural degeneration. In such cases the disease would still be psychogenetic, though not traceable to any unusual mental strains, shocks, or depressing influences.

It so happens that this very morning I received a copy of a lecture, recently delivered by Sir Frederick Mott, on "The Influence of Song on Mind and Body," and in it Mott seems to give away the case of the structuralists, and to embrace the functional theory. It is true that the lecture was designed for a popular audience; yet even in a popular lecture truth may be conveyed; and in this case I think, Mott, speaking under circumstances which relieved him from the influence of his fixed scientific prejudices, has spoken more truly than in his more strictly scientific utterances. He says: "The great war has shown the extraordinary influence of the mind on the body when it has been affected by experiences causing contemplative fear." Again, "Singing, by producing an individual and collective sense of joy and well-being, promotes digestion, assimilation and nutrition, thereby aiding convalescence of all forms of mental and bodily disease." And again, "Inasmuch as music is associated with pleasure and the nobler feelings and passions of love, tenderness, joy, mirth, the martial spirit and rhythmic dance, rather than with pain, fear, terror, grief, horror, anger and rage, it tends to initiate and energize the former and drive away the latter. These latter emotions and passions are associated with particular changes in the bodily state. . . . Not only are there those changes in personality of which we are conscious by bodily feelings, but associated therewith are subtle bio-chemical changes in the blood caused by an increased production and outpour of adrenalin, which plays an all-important part in the defensive mechanism of fright and fight."



You may notice that even in this popular lecture Mott's scientific caution does not wholly desert him. He does not say that music excites or causes pleasure and the beneficial emotions, or that these emotions produce favorable changes in the bodily state. In each case he cautiously uses the phrase "is associated with." But in seeking to determine, among associated changes, which is cause and which effect, we rightly attach great importance to the time-relations of the "associated" changes; if one of these is the cause of the others, it must be that which precedes the others in time; and here the time order is (1) impressions on the sense-organs, (2) appreciation of these as music, (3) pleasure and various emotions, (4) favorable bodily changes. Is not the attempt to disguise the order of dependence by using the phrase "associated with" in so clear a case of causal sequence, is not this clear evidence of an obstinate prejudice that blinds those who hold it to obvious facts?

One of Mott's pupils sums up the evidence by saying: "The failure of the sexual instinct . . . may be correlated with the regressive atrophy of the reproductive organs and the bio-chemical changes of the neurones." But, if we accept this correlation as established, we are not compelled to follow Mott in assuming that the organic changes described are the primary and essential causes of the mental disease. This conclusion, which Mott so confidently draws, seems to me to be quite illegitimate. The mental and the bodily life are admittedly closely related; so that grave disorder of either must, if it be continued, seriously affect the other. If there is serious and long continued maladjustment of the sex functions, or other instinctive activities, on the mental side, this can hardly fail to react prejudicially on the development of the sex glands and on the endocrine secretions which they influence, and through them perhaps upon the development of neurones in the brain concerned in these functions. That is to say, the demonstration of organic changes in a case of mental disease of some standing does not by any means prove the disease to be of organic, rather than functional, origin. Only the demonstration that changes of one order precede in time all changes of the other order could suffice to establish the primacy of the functional, or of the structural, derangement. No such evidence is at hand for *Dementia*

*Præcox*; and it seems probable that such precedence of either factor can never be fully established for this disease.

Let us turn then to a disease which presents organic changes but in which nevertheless the functional disturbance seems, in many cases if not in all, distinctly to precede the organic changes. I refer to Grave's disease, or exophthalmic goitre. It is an old belief that emotional shock, and especially fear, may play a part in bringing on the symptoms of this disease; and experience in the war-hospitals has, I think, strongly confirmed this view. My own experience certainly convinced me of it. During more than four years service in the war-hospitals for nervous troubles, I saw many hundreds of cases which presented in various degrees some or all of the combination of symptoms characteristic of Grave's disease. It was noteworthy that the frequency of these cases seemed to increase greatly in the later stages of the war, when many men had been subjected for long periods to the strain of active service. Practically all of the men had been subjected many times, in some cases almost continuously for considerable periods, to conditions of a kind well suited to excite fear. And there can be little doubt that the fear-instinct was very strongly and frequently excited in them, although in most cases its expressions in behaviour were subdued and controlled by resolute effort. In some of these cases, the part of fear in bringing on the symptom-complex was unusually clear, namely in some few cases an excessive timidity, with exacerbations of acute fear, continued for a considerable time after the patient's admission to hospital, in spite of all therapeutic efforts. War-dreams and, more rarely, terrifying hallucinations were both the occasions of such attacks of fear and the expression of such continued timidity. And in some of these cases it was notable that slight symptoms of Grave's disease became steadily more pronounced, while the excessive timidity endured. On the other hand, it was noticeable that as the patients recovered from their abnormal timidity and ceased to suffer from fearful dreams, the bodily symptoms subsided; and in the vast majority of cases the symptoms passed away completely.

Now the recent discoveries of the important part played by the endocrine secretions, especially the work of Prof. W. B. Cannon, enables us to give a very satisfactory interpretation of these facts.

This work has shown how the impressions which excite fear stimulate the adrenal and other glands to throw into the blood secretions which maintain all the bodily reactions of fear—the rapid pulse, the tremor, the dilated pupil and staring eye; and the excessive activity of the thyroid gland is one of the chief of these effects. Thus a vicious circle is established in which the emotion excites the bodily and especially the chemical reactions of fear; and these in turn render the organism more sensitively responsive to all impressions of a kind capable of exciting fear. Is it then not in accord with all physiological principles that there should result an hypertrophy of the organs and functions concerned, especially of the thyroid gland? And the symptom-complex of Grave's disease is exactly the picture of such hypertrophy and fixation of the normal effects of fear.

We have then an organic disorder resulting from and maintained by mental impressions; an organic disease of functional origin; a true example of psychogenesis of a disease which, at first purely functional, later becomes organic. The fact of the reality of the chemical and organic changes of pathological character in such cases clearly does not in the least detract from the truth of the statement that the disease is of functional and mental origin; further, in such cases purely mental treatment may be the most essential and effective means towards preventing or cutting short the organic disorder. It is a case of disturbance of the balance of functions brought on by an excess of mental impressions of one particular kind.

If then such pronouncedly organic changes as those of Grave's disease may be psychogenetic and of truly functional origin, why should we hesitate to assign a similar origin to mental diseases, if the facts point that way? No one, of course, would attempt to claim a functional origin for general paresis. But besides all cases claimed as *Dementia Præcox*, I think we are justified in looking for functional origin of manic-depressive and epileptic insanities; even though we recognize that, when these are well established, structural and chemical disorders play an important part. I strongly suspect that, in both these last-named disorders, fear plays a larger part than is commonly supposed, and that it may in many cases have been an essential psychogenetic factor.

That in the onset of some mental diseases, some true psychoses, psychogenetic factors play an essential part seems to me beyond dispute; and I believe this fact is being and will be increasingly recognized; with corresponding benefit to therapeutic and especially preventive practice. And this advance will go on the more rapidly, the more thoroughly we repudiate the reactionary psychology and biology of the purely mechanistic type; that is to say the more fully and frankly we recognize that biology and psychology are sciences which should not allow themselves to be wholly dominated by and confined to the use of the conceptions and theories in use among the physical sciences; that the biological sciences have the right and the duty to evolve and use their own fundamental conceptions, and that, for psychology and, I would say, for biology in general, the most fundamental working conception must be that of purposive activity.

If the answer to the question of the functional origin of some diseases seem clear and positive, there remains a deeper and more difficult question, which has commonly been confused with the question of the functional origin of disease. Namely the question—can mental disease be not only psychogenetic in origin? Can it also be essentially functional in nature, without there having been set up any organic change, secondary to the functional disturbances? We might put the question in this way—Granting that mental impressions may disturb the balance of functions, and that, if they are frequently repeated, they may, by unduly depressing or stimulating some bodily function, set up secondarily pathological changes in the tissues concerned, is it not possible for the state of disorder to continue after the mental impressions cease to be received from outside the organism, without there being any pathological change in the tissues concerned? It is reasonable, I suggest, to suppose that habitual excess or defect of one function, having been induced by mental impressions, this excess or defect may perpetuate itself, perpetuating the disturbance of balance of function, and constituting a truly functional disease; even though there should be no tissue which any microscopic or chemical investigation, no matter how far refined beyond our present means, could show to be diseased or abnormal in its structure and operations; that is to say, every tissue might be perfect in structure and

every chemical process might be perfectly normal in quality; and yet, by virtue of a disturbance of the quantitative relations of the chemical and other functions, a state of true functional disorder might obtain.

But there remains still another and more difficult question; and it is, I think, the positive answer to this question which is often assumed to be involved in the assumption of the reality of functional or psychogenetic mental disease.

In bygone times those disorders of conduct which are the symptoms of mental disease were supposed to be due to disorder of the mind alone, and to involve no disease or pathological alterations in the body. It is as a reaction against this old-fashioned conception that the modern prejudice against the notion of functional disease has arisen; and it is against this old-fashioned view that the dictum has been set up "every mental disease is a disease of the brain."

Well, I am going to be excessively rash and to risk my reputation for sanity, such as it is. I am going to say that I think we should not altogether close our minds to that old-fashioned view. I believe that the mind has a nature and a structure and functions of its own which cannot be fully and adequately described in terms of structure of the brain and its physical processes. And, if this be true, it does not seem logically impossible that this nature of the mind itself may be disordered or impaired or defective. I confess that I cannot point to any empirical evidence that clearly supports this view. I only venture to say that this remains a possibility, which is not definitely excluded by any philosophically or scientifically established truth; and that therefore our minds should be open to it, rather than dogmatically closed.

Under the conception of functional disease, as opposed to disease essentially involving organic or structural defect of the bodily organs, I have distinguished three *possibilities*: (1) Diseases which, though involving structural and chemical abnormalities, are of functional origin. (2) Diseases which are of functional origin and of functional essence, involving no strictly pathological tissue change, but only a disturbance of the quantitative balance of functions. (3) Mental diseases which are of the mind only and not at all of the body.

The first and second seem to me not only possibilities, but to be abundantly realized in numerous cases. The third theoretic possibility I leave at that; urging only that in this obscure realm, in which our ignorance so far outweighs our knowledge, we cannot afford to accept dogmatic negatives. The path of progress is that of the cautious and critical, but open, mind.

## CONSTRUCTIVE FORMULATION OF SCHIZOPHRENIA.\*

BY ADOLF MEYER, M. D., BALTIMORE.

It is the impression of the speaker that Kraepelin's obliteration of the concept of terminal dementia was a premature and hasty reaction with nosological methods to Ziehen's lack of nosological ambition. None of the recognizable types of psychotic reactions are wholly exempt from the possibility of chronicity or even a certain amount of deterioration. Among the conditions that are suggestively covered by the term schizophrenic reactions there are enough instances of recovery to make it desirable to avoid the term "dementia præcox" suggested by the unfavorable course of a varying percentage of cases. It would seem wiser to describe and formulate the conditions with principal attention to the actually observable facts and the accessible determining factors, so that we may focus our work on the potentially modifiable points and develop methods to determine the existence and extent of the non-modifiable points.

It is hard for me to believe that it is 25 years since the Worcester State Hospital, under Dr. Quinby, gave me the opportunity to spend several months in Europe, and of this time six weeks with Professor Kraepelin at Heidelberg. I had made for myself a certain program for work in psychiatry, aiming at a conscientious and unprejudiced study of the facts—*anatomical, and histological, and physiological, and clinical in the sense of internal medicine; and in addition to this, fundamentally distinct from the contemporary scheme of Van Gieson, my common sense demanded an equally objective and thorough study of the attitudes and behavior of the person, including the life-situations, with all the care of critical observation we have been trained to give to the other aspects of the cases.*

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

I was distrustful of the application of ultra-technical academic psychology, and equally distrustful of the over-specialized psychopathology, and decided to work pragmatically with the best possible use of critical common sense. I was ready to put aside all preconceived traditional classification; I wanted to take the facts as I found them and as I could use them, and to group them without adulteration or suppression of any available data.

The great innovation I found in Kraepelin's clinic was the disappearance of terminal dementia, owing to the coming in of prognostic diagnosis in the sense of manic-depressive insanity and dementia præcox—dementia præcox, strangely enough, being for the time thrown together with thyrogenous psychoses and general paralysis as "metabolism disorders." My review of Kraepelin's 5th edition in the *JOURNAL OF INSANITY*, vol. 53, p. 298, shows to what extent I accepted Kraepelin's teaching as a workable scheme, no doubt first used outside of Heidelberg by the Worcester Hospital from 1896 on. I stated then: "It *may* be that clinical methods will reach safe conclusions before the strict proof is brought by chemical and experimental pathology, just as the micro-organisms were recognized to exist before the culture methods existed, even before the pathogenic organisms were seen." I am, however, now inclined to think that safer clinical methods should be used than the largely prognostic considerations of Kraepelin, and that *dynamic formulations* come closer to the needs of both physician and patient than the formal and peremptory dichotomy claimed by those who see but one of two fates, either manic-depressive disorder or dementia præcox.

In this country we never participated in the wild boom which for a time led the Heidelberg clinic to diagnose 51 per cent of its admissions as dementia præcox, after its excessive general paralysis diagnosis had become reduced from 31 per cent to less than 10 per cent by the advent of the spinal fluid studies.—See Kraepelin, *Psychiatrie*, 8th ed., vol. I, p. 527.—We soon provided for transition cases under the heading of conditions allied to the standard entities, where the facts were not sufficient or presented complicating admixtures; and we gradually worked again towards the original plan of letting classification adapt itself to the facts, instead of the reverse. Neither the Worcester material nor the Ward's Island material could be followed up so as to serve for



what I had in mind, viz., an unprejudiced complete survey of the clinical experience of a hospital service; and the clinical material of the Henry Phipps Psychiatric Clinic comes from such widely scattered sources that with the very limited means at our disposal the necessary follow-up work has only recently been taken up. But even if I cannot give you as definite a proof and demonstration of the foundations of my practice and principles of psychiatry this year as I hope I shall be able to give in a few years, I did not, when Dr. Abbot asked me to take part in this discussion, want to shirk my responsibility to tell you simply and directly where I stand and what I work with.

It did not take me long to realize that even clearly circular and periodic cases did not by any means give a uniform picture or a uniformly favorable prognosis. There are always some manic-depressive cases which become chronic and even some which show more and more a constitutional deficit and others actually a certain decline in the course of years not altogether distinguishable from that in more clearly schizophrenic states. Similarly there are a fair number of cases with manifestations clearly of the type usually giving the unfavorable prognosis of the standard dementia præcox process, that get well. There were a number of families in which some patients had recoverable "manic-depressive" attacks and others in whom the condition became chronic with a definite dementia præcox picture, clearly suggesting transition forms. A review of the cases in the light of the ultimate outcome made it clear that at times greater circumspection and better observation of detail might have led one to anticipate what actually happened; but I felt decidedly averse to the frequent practice of throwing the cases from one pigeonhole to the other according to whether the outcome *looked* promising or not, with the sacrifice of the facts as one actually found them. There were always cases in which there was justified doubt, and, often enough, the formal diagnosis seemed arbitrary and artificial, leading one's attention away from what appeared most important in the actual management and understanding of the case.

Mental disorders cannot profitably be studied with an excessive emphasis on a prognostic classification according to outcome. It would seem best not to consider the course and outcome as a fixed fate in any of the disease-types, unless we should be able

to get at the nature of the "process" so as to be able to measure it with reasonably unmistakable evidence of the facts in each case. If prognostic facts *are* distinctive and decisive, every one will be glad to use them. If they are shifting and evasive, everybody ought to know it. In many cases, the existence of deterioration is unmistakable; in others, it is uncertain—and the principles through which it is produced is still uncertain and not necessarily unitary.

Not even the histological side is safe. I doubt whether many of us would dare to make our diagnoses from sample sections of the nervous system. Until we shall deal with more or less experimentally controlled anatomical changes, we cannot profitably use the heterogeneous findings. Even the uniformly fatal prognosis of the paradigm of Kraepelin's nosology, general paresis, can hardly be said to be altogether safe in the light of present experience, with or without intensive treatment. Serological tests may be suggestive; but they, too, cannot be claimed as absolutely solid and decisive ground in our experience. The Abderhalden tests certainly are not unequivocal. Somatic facts such as the blood-pressure, the coagulability of the blood, and the whole series of chemical and endocrinological reactions are of interest but give contradictory data.

The best facts still are the data of observation of behavior and mentation, *i. e.*, the facts we can observe from the beginnings of the disorders. But even there it is best not to lay too much stress on the formal facts but to work from the start with the *dynamic* as well as the descriptive data. The consequence has been that, for a long time, I have not been as much interested in the question: Is the patient one of dementia præcox or manic-depressive insanity? as in the question: What combination of facts and factors does the patient present? What are the reaction groups and the factors at work? What are the facts I have to reckon and work with? What are the assets? What is the group tendency of the reactions, and the individual prognosis?

In the scrutiny of any patient, I first look for the facts which point to structural (and not merely functional) alterations. Speaking in terms of ergasia or behavior, I eliminate or determine first the existence of *anergastic* and *dysergastic disorders*; amnesic disorders and defects states constituting the anergastic (organic)

data standing for a lasting structural deficit, and the delirious-toxic reaction-type illustrating the usually transitory dysergastic changes. The more clearly *functional* disorders are then reviewed from the angle of mere *part-disorders* (such as the dysmnesic hysterical reactions, the obsessive tension states, the anxiety states, and hypochondriasis and asthenia) and the *more sweeping disorders*, in which I first look for the *affective* involvement and the *content* disorders without, or with, evidence of *substitutive reactions*, and *symbolizations*, *dissociations*, and *distortions*.

Among the more sweeping conditions, I therefore consider first the *affective reactions* which in their more or less pure forms are apt to appear as depressions or elations. When we find content disorders of the nature of preoccupations, delusions, hallucinations, etc., they must be examined as to whether they are compatible with the affect disorder; whether they are part of it or whether they point to special topical reactions, to complexes and substitutions, with or without actual dissociations, or actual distortions.

Where the affects are *impure*, described as nervousness or tension, or fear and apprehension or suspicion, more or less corresponding distinctive *content disorders* are usually also predominant. We then can single out the *delirious reaction and the hallucinosis*, and the *paranoic episodes and developments*. The closer we come towards autistic thinking, projection and more or less leading hallucinations, *without* adequate excuse by affect or without dysergastic (*i. e.*, delirium-like, usually toxic) disorder of the sensorium, the more likely do we deal with *schizophrenic reaction*: consisting of more or less forced action under tension, with varying degrees of dissociation, passivity reaction, compensations of a more than merely affective type, and distortions of varying degrees of ominousness. A few years ago Dr. Phyllis Greenacre formulated the reactions which we speak of as schizophrenic (The Content of the Schizophrenic Characteristics Occurring in Affective Disorders, AM. JOURNAL OF INSANITY, vol. 75, p. 197) as:

- (1) Distortions and misinterpretations of actual occurrences (delusions of reference and persecution).
- (2) Influence and passivity feelings as expressed in automatism, mind-reading, electrical influence and similar phenomena.

(3) Hallucinations (especially when vague and of more or less odd and incongruous content).

(4) Gross distortions of body sense and body appreciation.

(5) Incongruous behavior, occurring either episodically as "antics," or more persistently (as ill-connected mannerisms) but not in keeping with, or apparently motivated by, any prevailing affect.

The greater the incongruity of affect and content and the consequent distortion, the more ominous the condition. But under no circumstances do we consider the mere formal material adequate for a prognostic forecast without a survey of all the dynamic or causal factors and a thorough trial of the responsiveness of the patient to a distributive analytical and reconstructive study. In all these conditions special attention is given to the evidences of specifically somatic components without trying to make one factor or feature responsible for everything else.

The making of a prognosis depends upon the formulation of all the factors at work, the reactions present, and the response to one's efforts at adjustment.

In contrast to Kempf's scheme of starting with a discrimination of suppression, repression, compensation and dissociation, I thus consider first: the amount and type of *affect* and its specific content and complications. Where the deviation of content is not clinched or explained by a definite and consistent affect-type, I consider the presence and extent of uncontrolled fancy, day-dream and projection, and then the type of *dissociations* as seen in hallucinations, hysteroid and hypnoid reactions, passivity, complex-determined activity and automatisms, and actual discrepancies and distortions of reactions, judgment and insight.

It is undoubtedly often difficult to ascertain the nature of the affect and its relation to the much more prominent component of rumination and day-dreaming characteristic of the schizophrenic reaction. The older psychiatrists tried as far as possible to distinguish primary and secondary affect. I am inclined to put the emphasis on the purity of affect, as opposed to the presence of tension disorders, and the latter are then scrutinized for evidence of the occurrence of forced-looking reactions, and especially the tendency to incongruities. Schizophrenic reaction, as I see it, implies a disorder not characteristically and specifically accounted for by a diffuse and sweeping affect; it presents a more topical

type of disorder, akin to the psychoneurotic part-disorders, but not adequately systematized.

It is not always easy to say when an incongruity or oddity of dissociation or association is to be called schizophrenic. The peculiar feature seems to me to be a peculiar lack of distinctiveness, ambitemencies, and an irregularity of the processes of fusion and differentiation in the available associative material—the kind of thing which happens occasionally in the normal through short-circuiting of thought or through uncritical drifting of imagination; through taking in impressions too narrowly without any of the ordinary supplements and by seeing connections too easily where the normal would keep aloof owing to the spontaneous or semi-spontaneous critique. As a rule, there is little difficulty where the perversions and oddities form unintelligible and chopped-up activities and mannerisms, carried on as if for their own sake, without an adequate excuse by push or unrest or preoccupations, etc.

Bleuler's attempt to distinguish fundamental and accessory symptoms is difficult to carry through. I should much rather look for more or less definitely somatic-archaic types and processes on the one hand and more clearly accessible psychogenic types and processes on the other.

The prognostic issues depend undoubtedly on the severity and aggressiveness of the incongruous tendencies and on the aptitude of the *balancing* resources to assert themselves inwardly and outwardly, and on the seriousness of any metabolic deficit.

For the metabolic factor we have no measure so far. In general we can say that the more we deal with a serious endogenous involvement of the metabolic and visceral functions and unaccountable antics of the special organs and antics and oddities of the psychobiological processes, the more profound is the process likely to be. I refer to unaccountable fever, pernicious refusal of food and evacuation functions, retention of urine, incongruous pupil phenomena, etc. It is probably a pity that we try to throw together under one heading many essentially psychogenic and other far more definitely exogenic facts. The five- or ten-day observation laws often tend to force the physicians into committing themselves to a nosological verdict where an open formulation of the facts at hand would be much safer and more

in harmony with the needs of both physician and patient and the present status of our knowledge.

In the main I emphasize prognostically the positive and constructive promising points and lines of attack, and avoid fatalistic pessimism. But in speaking to the family and in directing the treatment I always warn against incurring unwarranted expense where time and mainly custodial and hygienic routine prove to be the main available resources.

It is my contention that both for the practical handling of the patient and the original and ultimate nosological comprehension of the condition, it is best that one should work with a summary *formulation* of the *facts* as they are found and used from case to case. Terminology is an absolutely secondary issue, to be subordinated to actual demonstration of, and working with, the facts found in the patient, in the situation, and then in the reaction under treatment. Adaptation problem, reaction, and response to a distributive understanding and disentangling of the factors, is our fundamental interest in the condition. How many groups we may ultimately want is a matter of subordinate importance. The classification of the individual cases will always need various qualifications.

I hope in the coming years to be able to discuss more specifically, in connection with clinical records, the nature and importance of the various etiological factors and the reactions, and the extent of their accessibility to therapeutic or spontaneous modification. For the time being I should like to propose that we abandon the prognostic factor as a nosological criterion, replace the term "*manic-depressive*" psychosis by *affective reaction group*, giving in each case the type and the number of the attacks and, wherever present, the admixtures; replace the term dementia præcox by schizophrenia for the full-fledged forms, recognize transition forms and specify the topical and formal characteristics, the episodic or protracted or progressive character, and the extent of any deterioration, if it is present. By doing this, we free ourselves from the nosological obsession of premature classification, without in the least slighting any actual gain either of Kraepelin or of any other investigator.

## DISCUSSION.

**DR. CAMPBELL.**—The presentation which Doctor Meyer has given us brings us back to the realization of the concrete problems. The material which has been specially studied in these diseases has very largely consisted of advanced cases, cases serious enough to be sent to hospitals for the insane. Too little attention has been given to the incipient cases of the disorder, and to the problems of similar patients who may never be committed, but who are treated in out-patient departments. Too much emphasis has probably been laid upon the search for signs which are of diagnostic importance, and too little attention has been paid to the analysis of the complex mechanisms underlying the individual case. Conscientious analysis of the individual case may make one more uncertain as to the prognosis than if one merely contents oneself with the search for pathognomonic signs.

Over-emphasis on classification has gone along with inadequate analysis of the whole evolution of the case, of the constitutional equipment and of the environmental influences. The less emphasis one places on the classification, the more chance one has of being useful to one's patient. The daily use of the ordinary stock diagnostic terms, although carried out in the interest of statistical co-operation, has a detrimental effect on one's thought in dealing with the individual case. It is an important step forward, to realize the limitations of formal classification, and to formulate the disorder in terms of definite dynamic forces. Work along these lines will do much to narrow the gap which tends to exist between the psychiatrist and the worker in internal medicine. The conceptions which Doctor Meyer has emphasized are of fundamental value, and lead to accuracy of thought rather than to vagueness which is concealed by pretentious diagnostic terms.

**DR. E. STANLEY ABBOT.**—I am very grateful to Dr. Meyer for presenting his admirable paper. We all are trying to solve the same problems but we approach them from different angles. I, too, approach them from what I regard as the medical point of view. The question which arises is not primarily, Is this a case of manic-depressive or dementia præcox, but, What is the matter with this patient that he does not behave as he used to? One seeks to learn what are his capacities for reaction and what are his incapacities. The latter is very important, for all psychoses there is a lack of a capacity to react, in some sphere of mental or physical activity. We need to learn what the patient cannot do that he was able to do before his illness. That is one of the most helpful points of view that I have.

To the solution of the question as to what is the matter with the patient, the same methods and the same scientific attitudes should be used that one uses in any medical case. Wholly secondarily one gives a name, by word or phrase, to his concept of what he concludes is the matter with the patient. The method we use in general medicine, applied to all psychotic conditions, is the method that will teach us most. The difference is that in the psychoses we are dealing not only with physiological, but with psychological reactions and the latter are very intangible. One cannot see an

affective reaction; all one can see is the behavior, or some physical changes which are the result of it. This greatly increases the difficulty of studying psychotic conditions.

DR. ORTON.—I feel that in the presence of all this nosological Bolshevism and this nihilistic discussion it is probably not out of place for some one to make a few remarks from the standpoint of the organisist. We have heard only from the functional standpoint of the institution, and what this functional standpoint means in the application of the individual case. I confess it is difficult for me to understand what Dr. Meyer is talking about often simply because he does not use terms that I understand. I feel that we must in some way or other reach a common understanding, so that when one speaks of schizophrenia the other man understands what is being aimed at, and ultimately feels himself come down to the organic understanding.

I want to take this opportunity to object, as it were, to a complete nihilistic attitude toward diagnostic classification. Our ideas may be wrong; I quite sincerely believe that some of our psychoses followed to-day are wrong; on the other hand, we must depend to some extent on some such scheme so that we may understand what the other man is talking about, in order that our approach to the fundamental organic factors may be an intelligent one.

DR. ADOLF MEYER.—Just a word with regard to this problem of mutual understanding. I am not nihilistic, nor too optimistic, but if it has not been my good fortune to express myself so that Dr. Orton was able to understand it, definite questions on his part might readily relieve any tendency to a lack of understanding. I want to have the formulation of any group of facts as nearly as possible as we find them and as we work with them. I am delighted with any possible discussion of the organic factors, or with the discussion of any definite factors, and I then put the patients into a group as presenting that specific factor. There is no desire to place them purely in the arbitrary groups. We do not want to begin with our groupings at the wrong end; we must begin where we can mutually understand them, and in this I really think that Dr. Orton cannot possibly be on any very different ground from that which I hope we shall be able to express in deed rather than in word. Some of our decisive facts may be structural—and discussed as such as soon as we shall be able to make them intelligible and reproduce them experimentally; and others will be of a functional order, and in that case none the less organic and structural, but best expressed in terms of functions and situations.



## ACUTE PSYCHOSES WITH SYMPTOMS RESEMBLING DEMENTIA PRÆCOX.\*

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It is not my purpose to make a statistical review of acute psychoses with dementia præcox-like reactions but to call attention to the intricacies of diagnosis which present themselves when unusual syndromes are present and to review briefly a few cases in which the diagnosis depends partly on an understanding of the personality and idiosyncrasies of the patient.

About the classical picture which characterizes a definite psychosis, there is always grouped a cluster of atypical traits, varying in kind, number and intensity in different individuals, or in the same individual at different periods of the psychosis, so that diagnostic difficulties are often great, and the errors which result from faulty observation or wrong interpretation of isolated symptoms, which in the onset of a psychosis dominate the picture, are common so that our original diagnoses many times need prompt revision when these earlier predominant symptoms are fitted into the reaction as a whole. During any psychosis, and particularly during the formative stages before the disorder has fully developed, we find the patient's ideas and his reactions thereto varying greatly from time to time. Depressed emotional states, delusions of various kinds, hallucinations in any field, confusional episodes, silly affect or periods of exhilaration, may be found in bewildering array or in surprising combinations. It takes painstaking analysis and a considerable lapse of time before the main current is discovered and the isolated facts are properly assembled and their true relations established.

The psychotic picture is undoubtedly subject to a considerable variation in its evolution which is dependent partly on the causa-

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tive agent and on the environmental factors, and it is occasionally given a certain twist by accidental suggestions or happenings of an emotional character. Thus it has been shown, for instance, that under the stress and strain of war-time conditions many young men developed psychoses with the symptom-complex of dementia præcox predominating, yet they made unexpected recoveries when they were returned to their normal environment. Had these cases under normal conditions appeared in our hospitals we would have considered them prognostically bad and rightly so.

Dementia præcox-like reactions, hallucinations and delusions, commonly associated with dementia præcox, frequently confuse the picture in an acute psychosis. Isolated symptoms should be given their proper value, but no psychosis is so simple that a diagnosis can be made with a certainty on the presence of some single phenomenon, no matter how conspicuous. Pathognomonic symptoms as such can hardly be said to exist in mental diseases which are not of definite organic origin. The difficulty in making a diagnosis is especially great in early and atypical cases of dementia præcox and manic-depressive insanity. Sometimes the picture is so confusing that the true nature of the psychosis can be established only after months of observation, or as must unfortunately be admitted after a clearing up of the psychosis, or after the appearance of positive dementing signs. Theoretically the distinction between the two psychoses seems simple, but practically the differentiation is often very complex. We cannot simply say that because of the presence or absence of certain hallucinations or delusions we have the key to the situation. The important thing is: what is the basis for these ideas? how have they evolved and what is their relation to the other mental symptoms? To have hallucinations of sight or hearing must be viewed in an entirely different way under different conditions. Occurring during acute febrile or toxic states, they are of course of no serious import. when found in deep confusional states, as they frequently are in manic-depressive psychoses of a severe grade, they are likely to pass away with the first sign of improvement. If present in psychoses following acute exhaustion, the hallucinations are likely to disappear when the general condition improves, but when a patient hallucinates and is otherwise clear, it points of course to a splitting

off or disintegrating process. The same may be said of delusional ideas. Those that appear insidiously and develop slowly and systematically have an entirely different meaning from those of a like character which are founded upon the feelings of inadequacy, self-accusations and self-depreciation so common in distressed states. The same ideas may be expressed, but the reaction to them and the mechanism back of them are totally different. Even with apparent clearness at times during hallucinatory episodes, it is not uncommon for patients during convalescence to admit that after all they had a distinct feeling of mental confusion and thinking difficulty at the time and that they could not sort out the real from the unreal. To put it briefly, therefore, the mere presence or absence of hallucinations or delusions does not speak for or against dementia præcox and, again, the actual content of the delusional ideas may be of less significance than the mechanism back of it. However, one is forced to the conviction in reviewing many cases that the more atypical manic-depressive cases, especially those suggesting strongly traits of the dementia præcox character, have in general a more uncertain outlook, both as to the duration of the attack and as to the character and outcome of future attacks.

Where the history shows difficulties in making adjustments, eccentricities, peculiarities in conduct, suspiciousness and other oddities in the make-up, these idiosyncrasies are naturally carried into the psychosis when it appears. Thus the personal history may strongly suggest dementia præcox, the delusional ideas and reactions may also be suggestive of a deteriorating type of disorder and yet we may be dealing with a pretty pure type of acute psychosis, such as a simple depression, into which the slightly odd personality has obtruded itself and has been prominent enough to confuse the picture.

Out of 88 patients now at McLean Hospital with a diagnosis of dementia præcox, 63 were so diagnosed on admission. Fourteen who were diagnosed manic-depressive insanity later turned out to be dementia præcox, and in practically all of these, dementia præcox traits were so strong that the original diagnosis of manic-depressive insanity was made with the reservation that later developements or additional information might prove them to be cases of dementia præcox. On the other hand, in only a few

cases where a preliminary diagnosis of dementia præcox was made, did the case finally turn out to be manic-depressive in type. In other words, where dementia præcox traits are of sufficient prominence to suggest themselves in an early diagnosis a guarded prognosis is indicated.

In passing judgments on types of conduct and reactions which suggest dementia præcox, it is necessary for us to inquire into types of reactions and adjustments which the individual has made in his normal prepsychotic period. A careful character study and critical analysis of his make-up will materially aid in interpreting unusual conduct types and delusional trends. So often our impressions that a certain case will not do well are founded upon traits which superficially appear to belong to the dementia præcox group, but searching analysis later reveals them to be but atypical reactions depending on the bringing up, the social level, education, environment, opportunity, the inherited make-up and beliefs and superstitions.

There are certain types of individuals who meet and overcome all obstacles in their developmental life and who not only make their adjustments in early adult life but actually attain a degree of proficiency and prominence in business or professional pursuits which stamp them as leaders. Suddenly, after fatigue or other stress, a breakdown occurs, with the early symptoms of a typical depression plus possible delusions and suspicions.

In the following instance what superficially appeared like a manic-depressive depression coming on at the age of 40 turned out later to be a dementing process. The patient showed no hereditary taint; she had a normal make-up and made her adjustments well. After becoming tired in war activities, she became sleepless, self-centered, restless, depressed, apprehensive and self-accusatory with periods of confusion and transitory hallucinations of hearing. With physical improvement her sleep became better and all the symptoms of her depression were less in intensity when suddenly she began to hallucinate actively and without apparent confusion; she reacted to the hallucinations by impulsive violence, profanity, negativism and irritability. Her abnormal reactions became fixed, and for the past year she has shown a typical picture of dementia. She is resistive, impulsive, profane, violent, untidy and irritable with stereotypy and marked narrowing of the mental horizon.

A careful history and thorough clinical observation seemed to point without a doubt to a manic-depressive depression. The confused episodes and hallucinosis during these periods did not seem prognostically bad, as they are frequently encountered in depressed states, and only after physical improvement had taken place and the depression had given way to an hallucinatory irritability was an unfavorable outcome suspected. At an earlier age, the picture which is now shown would have been interpreted as dementia præcox. The same holds true in many cases of depression with a late onset, which after a more or less typical course rather abruptly give way to stereotypies, habit formations, hallucinations, untidiness and impulsiveness. The resemblance to dementia præcox in these cases is so great that we are often at a loss to know whether we are dealing with an involuntal psychosis or a late dementia præcox.

This is exemplified in another instance in which a typical agitated melancholia developed in a single woman of 56. The onset was more or less abrupt after she had overworked and had lost some weight. An acute hallucinosis developed with a reaction of marked apprehensiveness. After a few weeks the hallucinations subsided, her fear gave way to irritability, the depression disappeared, she showed a marked gain physically, but this hopeful turn of affairs soon took on a coloring of suspiciousness, delusions of persecution and poisoning and reference which were associated with her environment and from which she as yet shows no signs of emerging. The anamnesis in this case showed her to have been a healthy, normal woman, of pleasing personality with considerable musical ability who had always made her adjustments.

Similar is the case of a woman whose early life was wholly normal and who at the age of 26 had completed courses in good colleges and held the degrees of A. B. and B. S. For 16 years she held a good position as librarian in an educational institution when she became fatigued and insidiously there came on a depression at 42 marked by self-accusations, apprehensiveness, some agitation and somatic delusions. Gradually the active psychosis narrowed down till she became a slave of practically a single idea and the servant of a closely circumscribed habits of life. In each of these patients, the momentary impression which one gained in conversation with them and the observation of their conduct and

the reactions suggested dementia præcox. Likewise one is also impressed with the fact that the histories showed that in each instance for more than 40 years they were more successful than the average, and displayed no psychopathic tendencies or peculiarities of make-up. In these cases whatever there was of a psychotic nature to suggest an unfavorable outcome was so obscure during the beginning of the attack that it passed unnoticed, especially since the anamneses disclosed no striking abnormalities.

Another patient at McLean Hospital, who passed through a typical deep depression with retardation, difficulty in thinking, etc., had a history for nine months before the onset of the definite depression, of becoming suspicious and of feeling that people avoided her and slighted her and her children. She withdrew more and more and had worked out a fairly definite system of delusions. At that time her depression was scarcely in evidence, yet her ideas were undoubtedly based on certain feelings of unworthiness, and she discovered the slights which she expected. She made a good recovery with insight. She made the interesting observation after her improvement that she was afraid to think for fear that others might know what she was thinking about, suggesting that it was like mind reading or that her thoughts were audible to others. Yet these ideas, which are not much different from what in dementia præcox is called mind reading or thought transference, or possibly auditory hallucinations, are usually considered prognostically bad.

In another case an unusually complete anamnesis showed an individual heavily burdened with hereditary taints, including mental disease, alcoholism, criminality, tuberculosis, and eccentricities of character. The patient himself was described as being unsocial, pessimistic, suspicious, moody, often sullen, egocentric, at times untruthful, unstable and for many years strongly alcoholic, culminating just before his admission to the hospital in a typical acute alcoholic hallucinosis. Large quantities of sedatives for some weeks before the onset also contributed to the confusion. In the early stage of the illness, there were present certain suspicions and persecutory ideas. He recovered fully in a short time. His alcoholic delirium was typical. He is an educated man, and he has been successful in his work since his discharge some years ago. He came to the hospital with a diagnosis of dementia præcox,

but while he had a distinctly bad heredity and make-up, yet the outstanding features of excessive alcoholism and drugs were not apparently given their proper value. The patient now continues to make his adjustments and to overcome his handicaps, as he did in the past while preparing himself for his career.

A more common experience is exemplified in the case of a young woman who is now at the hospital in an absolutely typical maniacal attack from which she is expected to recover. A previous attack two years ago of about six months duration, however, strongly suggested dementia præcox. She had a bad hereditary history and an impressionable, unstable, self-centered, emotional and hysterical make-up. Her first attack was characterized by hallucinations, stereotypies, inaccessibility, lack of initiative, mannerisms, grimacing, negativism and ideas of influence and thought transference. At times there were short outbursts of violence, and after six months recovery took place preceded by a short typical hypomaniacal state.

In the last case we are dealing with a psychoneurotic young man with a make-up which is timid and fearful, who was self-centered, never at ease with people and depended upon others for support in all things. He was unable to make decisions and always had difficulty in making adjustments. He had a shut-in personality, was bashful, seldom mingled with his classmates at college and had no intimate friends. After his entry into military service he became tired, neurasthenic and depressed. Then he became introspective, blue and self-accusatory. During his stay at the hospital he was very impulsive and suicidal. After about four months he improved. He went home where he finished his convalescence. He then took up his college course which was interrupted by the war, made his adjustments at school, finished his studies and finally realized his ambitions. He had a bad make-up. The depression was very atypical. His prepsychotic history was suggestive of dementia præcox, yet all his symptoms could be accounted for on the basis of his melancholy state of mind and on his self-blame and the unusual reactions to his ideas were the result of his timid and unstable personality, while the environmental factors at the onset furnished the material for the content of his ideas.

Thus we could go through the entire list of acute toxic and functional psychoses and find among them many suggestive and

bad traits. which when they have stood the test of a careful analysis of the personality, are reduced to simple and readily understandable clinical variations.

#### DISCUSSION.

DR. CORLIAT.—I was very much interested in what Dr. Hoch had to say concerning the schizophrenic reactions because his statements show the difficulty of diagnostic and prognostic problems, as those who are in private neuro-psychiatric practice know. The most important problem is in the question of diagnosis in these acute cases which show schizophrenic reactions. That brings up the most important question of all in neuro-psychiatric work—the question of recovery in those acute cases which clearly show schizophrenic reactions. How do these cases get well? Is there an actual real recovery, and can this complete recovery take place spontaneously? Now, spontaneous recovery, as I understand it, means resolution of the conflict in the unconscious, and takes place in several ways: first, by evasion of the complex; second, by correction of the delusions; third, by resymbolization. When any of these three take place in the acute psychosis there is no complete recovery in a purely fundamental sense. The case is likely again to show at some future time the same acute psychosis with the schizophrenic coloring. It appears to me that the only recovery that can be called a recovery, is a breaking up of introverted attitude of the schizophrenia; therefore, the only recovery that can be a recovery is that in which there is a return to reality and to normal social adjustments. We must remember, therefore, that in these acute cases showing schizophrenic reactions, after recovery takes place, that this so-called spontaneous recovery is merely on the surface. Until that patient is made fully aware of his conflicts; until it is pointed out to the patient, through an analysis, that his resolution of the conflict is necessary, there is always a danger of having a future attack, and I do not believe that any of these acute psychoses can be termed absolutely recovered if they are allowed to spontaneously recover.

DR. HOCH.—I have nothing further to add, excepting to say that I did not wish to imply that these were cases of dementia præcox that had spontaneously recovered. They were cases more particularly of other psychoses in which the affective of the personality had so cleared the picture that there were certain schizophrenic reactions, which, after the psychosis itself disappeared, also disappeared spontaneously, and I think they will probably stay away until the patient again breaks down, if he does.



THE IMPORTANCE OF ENDOCRINE THERAPY IN  
COMBINATION WITH MENTAL ANALYSIS IN THE  
TREATMENT OF CERTAIN CASES OF PERSON-  
ALITY DEVIATION.\*

By EDITH R. SPAULDING, M. D.

It is with the group of cases in which other organic disease has been as far as possible ruled out but which still show the presence of glandular imbalance that we are primarily concerned in this paper. At the present time the patient who suffers from an endocrine disorder which is associated with mental symptoms, rarely is given the benefit of both glandular treatment and a mental analysis, utilized concomitantly as necessary elements of a rational scheme of re-education. The endocrinologist, even though he may appreciate the close relationship between the personality and the glands of internal secretion, is anxious to control his treatment and estimate its results by eliminating as many confusing factors as possible. If the case shows signs of glandular imbalance which he considers sufficient to cause the mental symptoms, he naturally enough wishes to show the value of endocrine therapy alone in correcting the condition. The psychiatrist who approaches the problem from the point of view of its psychogenesis is, on the other hand, usually able to find sufficient cause in the life experiences of the patient and in his adjustment to them to account for much of the abnormality found. Even as unsubstantiated as some of the psychogenetic theories may still be considered by certain physicians, the psychiatrist may criticize, to even greater extent, the supposed rationalizations of the endocrinologists. Many psychiatrists will prefer to trust the known uncertainties of the mental theories than to risk, what seem to them, the unknown uncertain-

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ties of the endocrine theories. Furthermore, the amount of time required to enable the examiner to consider either aspect of the situation thoroughly is so great that it may easily be made an excuse for having but one aspect considered at a time. For the endocrinologist has not often the time to devote to the intensive delving into the past that is necessary in a thorough mental analysis, while the psychiatrist as well as the patient may consider the extensive metabolic studies and X-ray examinations an unnecessary luxury.

If the psychiatrist is not familiar with the practical application of glandular therapy he will doubtless feel the need of consulting the endocrinologist, in which instance he may fear a division of the "transference" and a consequent lessening of his power to obtain results on a purely mental basis. For these as well as for other reasons the patient is but too often treated from one point of view or from the other only and even when both forms of therapy are utilized, they are seldom used synchronously. Again there is among the general practitioners as well as among the various specialists, much prejudice to be overcome, which prevents in many instances the thorough utilization of either of the two forms of treatment.

While the experimental work that has already been done has shown the close relationship between the emotions and the glands of internal secretion, it has not been carried far enough to give in many instances a satisfactory basis for treatment. It is probable that from the involved and obscure nature of the problem it will always be necessary to base therapy to a certain extent on data obtained empirically. However, the fact that certain relationships between the sympathetic nervous system and the emotions are found to be fairly constant gives in itself a basis on which to build, while the therapeutic results already obtained in definite conditions such as myxedema, hyperthyroidism, hypopituitarism and status thymico-lymphaticus suggest a promising foundation for the treatment of the innumerable deviations which individual cases present.

While a close relationship is recognized in such types as these, between the emotions and the vegetative nervous system, a similar relationship of great importance is also observed between the vegetative nervous system and the personality development. For instance, in the hyperthyroid condition there is often found a sluggish mentality and slow physical response while the overactive

mental state and rapid physical response is associated with the hyperthyroid condition. Associated with such increased activity are frequently found fears and apprehensive states, great susceptibility to noise, and periods of excessive fatigue when the too quickly used energy is exhausted. With the resulting temperament there is great difficulty in making the adjustments of everyday life. Such patients soon lose confidence in themselves when they realize the erratic things they do and say when under the tension of their over-activity; and their physical and mental incompetence, when the fire has burned out and they show temporarily a glandular under-activity, is equally undermining to their fund of courage.

Again, in the Froelich type of dyspituitarism as well as in certain other types of glandular imbalance, the secondary sex characteristics of a reversive type are frequently associated with the mental characteristics and tendencies which correspond. The boy is soon known as a sissy among his playmates. He is not up to the standards of the others in sports. He seeks the protection of his home, oftentimes of his mother, or he tries to compensate for his inadequacies through books or the world of his imagination and emotion. Later on in life such types are found making difficult marital adjustments or perhaps experiencing emotion only for members of their own sex. While the Freudian theories will undoubtedly explain and help in untangling certain types of homosexuality there are others that may be explained by glandular deviations. Such personalities may easily feel that society is failing to give them a fair deal since their spontaneous emotions are facilely dubbed perversions.

According to Timme there is frequently associated with hypopituitarism a lack of inhibition of the emotions. Such cases show excitement on little cause which alternates with sluggishness, frequently have phobias and compulsions, such as kleptomania, and show moral and sexual obliquities.

In cases which habitually have low blood pressure, inadequate circulation, frequent headaches perhaps migrainous in type, enteroptosis with insufficient intestinal activity, and great fatigability, it is quite natural that there should follow a feeling of general inadequacy in meeting the problems of life and making adjustments. The attitude that results is not one which welcomes difficulties but rather one which more and more tends to establish protective

mechanisms until the individual's activities are limited to the narrowest possible circle of physical, if not also of mental, endeavor.

These are a few of the more obvious situations in which there appears to be a close relationship between glandular imbalance and personality development. Adler has pointed out the many traits that may result from glandular inadequacy and the various adaptive mechanisms to which the child resorts in his efforts at compensation. Other aspects of the inter-relationships have been shown, but there still remains an almost unexplored field in the study of personality to be reached by the psycho-physical route.

The following five cases are cited to demonstrate the value of endocrine therapy together with mental analysis in (1) a case of manic-depressive psychosis, (2) a psychopathic personality with episodal attacks, (3) a psychoneurosis showing anti-social tendencies, and (4) a case showing emotional imbalance in a girl who had utilized physical conditions in which there was a glandular element to protect herself against unpleasant social situations. I am indebted to Dr. Elizabeth Sullivan for help in compiling the following histories:

CASE I.—Miss S., aged 17, presented a mild depression of the insufficiency type with some physical and mental inadequacy, mental retardation, decreased psychomotor activity, suicidal ideas, and ideas of self-accusation and self-depreciation. There was gradual improvement and finally complete recovery following the combination of glandular therapy and mental analysis. The patient had three depressive attacks, two of which were precipitated by mental stress and one by influenza. There was a history of irregular menstruation, inadequate intestinal action and great fatigability.

The physical examination showed a girl of small stature, small hands and feet, small blood vessels, and hyperextension of the joints. Examination of the blood showed the sugar content to be 108 milligrams per cubic centimeter. The coagulation time of the blood was 11 minutes and the carbon dioxide combining power of the plasma was 61.7 per cent. The differential cell count showed polynuclear neutrophils to be 44.4 per cent, small lymphocytes 46.6 per cent, large mononuclear lymphocytes 3.8 per cent, and eosinophiles 3.2 per cent. The blood pressure was 110/80. The X-ray examination of the skull showed a normal sella turcica. The increase in coagulation time, decreased leucocyte count and increased lymphocyte count in an absence of organic disease, the history of irregular menstruation, inadequate intestinal action, fatigability, and the low blood pressure were some of the symptoms that point to a disturbance of glandular activity.

This case was considered one of hypopituitarism in which there had also been a subinvolution of the thymus. In spite of the psychogenetic factors

which called for a rather intensive and extensive course of mental analysis, the mental sluggishness was helped by the administration of whole gland pituitary. During the year that this patient has been holding a position of responsibility in the community, the mental retardation has tended to recur whenever the pituitary has been discontinued for any length of time.

Case 2.—Margaret B., aged 14, who presents a combination of physical, mental, and endocrine symptoms, is a defective, psychopathic girl of fourteen who was subject to daily episodal attacks of excitement which were precipitated chiefly by her inability to have her own way. Although the constitutional defects in this case must be regarded as of importance, the social behavior was aggravated by an injudicious home training.

This girl was brought reluctantly by her mother because of her increasing number of tantrums and screaming attacks, her violent temper and her assaultiveness. The family were afraid that she would do some permanent injury to her younger brother and sister whom she had often kicked and attacked with heavy sticks of wood. She injured herself by biting, pounding her legs and breasts, and sticking a small nail file into her breasts, all to gain her mother's sympathy. The mother admitted that the child masturbated excessively.

The family history showed a tendency to thyroid and pituitary disorders although there were no other cases of mental defect.

As a child the patient was never as strong as her two sisters and her brother, her musculature was not well developed, and at an early age an internal strabismus was noted. The general feeling of the family is that she was not normal from birth, and although she did not cry much, she slept little. At three and one-half years she was hit by a speeding automobile, had a fractured clavicle, and was unconscious for a short time. When five years old she was operated on, with rather poor results, for strabismus but refraction has tended since then to decrease the defect. There was a history of chronic intestinal stasis with distension and much mucus in the stools. The periods of irritability were aggravated by the intestinal condition. The voluntary retention of urine was also a factor in her irritability.

Physical examination showed a girl 14 years of age who was nearly 6 feet tall and much over-developed sexually. There was over-development of the bony structures, disproportion in the leg-torso ratio, long thin hands and feet, a nasal brow, absence of one lateral incisor, slight facial acne, oily skin, excessive perspiration, cold bluish extremities, hair of coarse texture, a hairy growth on the extremities, a masculine distribution of the pubic hair and tendency to mustache. The thyroid was enlarged and there was a tremor of the hands and a rapid pulse, which increased with exertion and apprehension and was associated with no organic heart lesion. There was cessation of the menstrual period for several months at a time. On stroking the chest there was a marked red line with a pronounced white border. The psychomotor coordination was exceedingly poor.

Examination of the blood showed a high color index and hemoglobin content although the patient looked anemic at times and was especially

pale after exertion and fright. She showed a fatigability out of proportion to her robust appearance. The cell count showed an increase in large mononuclears and a decrease in polynuclear leucocytes. The blood sugar was 1.33 per cent and the carbon dioxide tension was 60 per cent. X-ray of the skull showed a slightly enlarged sella turcica with marked erosion of the dorsum sellæ. The blood Wassermann and Wassermann of the spinal fluid were negative.

According to the Binet Simon scale the patient graded eight years and six months while her chronological age was thirteen years and eleven months. This gave her an intelligence quotient of .65 which placed her in the feeble-minded group. Margaret showed considerable ability in drawing and much appreciation of good music, both of which traits could be utilized to advantage in her daily schedule. A psychological examination at the end of three months training and treatment showed that she had gained six months in mental level, and gave evidence, besides, of much improvement in attention, effort and judgment.

Although there was evidence of much glandular imbalance in this case, the endocrine factors were considered by the endocrinologist who saw her as a small part of the cause of the total picture. (Margaret threw herself on the floor in rage during the consultation when she felt that sufficient attention was not being paid her.) However, without the help that was received from counteracting the overactivity of the thyroid, the task of reconstruction would have been even more difficult than it was.

During the first few weeks of Margaret's residence with us it required continual effort to prevent situations from occurring which would precipitate tantrums. She was in a constant state of restlessness and irritability, and frequently expressed the desire to be at home where she "would not have to behave," and where she could have her own way. During this time she was untidy in her habits, considering the most primitive of acts the greatest possible joke. When reprimanded for something she was doing she would scream loudly and continuously, throw anything within reach, especially hair brushes, pound herself and threaten to cut off her breasts.

The most important part of her re-education was the facing of each situation as it arose every minute of the day. Wet packs proved helpful and deprivation of privileges contributed their share toward correcting the screaming and assaultive behavior, the self-mutilation, the teasing and the incessant repetition of questions and answers, all of which had been used as secondary mechanisms to obtain what was considered unobtainable by less forceful methods.

The episodes of excitement decreased very gradually until from being almost continuous she was having only one a day and, at the end of her residence with us, none. As the improvement continued it was possible to keep her up to a higher standard of behavior and help her to face greater issues. There was a definite improvement in psychomotor coordination and in posture. The educational procedure utilized in this case besides academic work was gymnasium, typewriting, piano playing and dancing.

With the treatment administered the pulse came down from 120 to 80, the palpitation decreased, there was much less dyspnoea, the pink line on the chest became less intense and the white border less marked. The blood pressure was reduced from 128/85 to 110/80. More important still was the fact that the general mental and physical tension decreased. The patient was not so apprehensive at night and when walking through traffic. Furthermore, there was not so much actual distress at noise. The sleep was increased from four or five hours to nine or ten. The sedatives which were used in the beginning seemed to have little effect and were soon discontinued.

While this case presented a congenital defect the cause of which could not be determined, the re-educational procedure that proved most beneficial was one which took into consideration both the endocrine imbalance and the need of mental therapy.

CASE 3.—Mrs. M., a woman of forty, was referred because she had taken small amounts of money and articles of clothing from the home in which she was employed as a matron. She was also found to be corresponding rather energetically with a married man whose wife objected.

The patient had slept but a few hours each night for a period of months and had had continual headaches with migrainous crises, very severe in nature at frequent intervals, irregularities of the menstrual function and a continual feeling of tension, hot flashes, palpitation, and apprehensiveness.

Physical examination showed a fairly well-developed woman of the tall thin type. The eyebrows showed very perceptible thinning over the outer third. The teeth of the lower jaw were crowded. The pupils were large and reacted slowly to light. The reflexes were exaggerated and there was a tremor of the hands. The blood pressure was 160 systolic and 110 diastolic. The Wassermann of the blood, the blood count and the urine examination were negative.

X-ray of the skull showed the sella turcica to be of average size with no visible erosion. There was, however, a tipping forward of the posterior clinoids. There was a marked limitation of the visual fields, most marked in the left temporal region, which improved under treatment. The patient complained of unconsciously walking toward the left on the sidewalk, a symptom which disappeared as the condition improved. The fundi were normal. Timme has reported a case of dyspituitarism\* similar to this in which there was limitation of the fields which responded to pituitary feeding.

The following social history was obtained. The patient was a widow with two children who were dependent on her for support. Her husband had had tuberculosis of the larynx, had been alcoholic the last years of his life and finally after months of threatening, had committed suicide by turning on

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\* Timme, Walter. Dyspituitarism with limitations of the visual fields; symptoms disappearing under the use of internal glandular therapy; with a return of the visual fields to normal. Contributions of the Neurological Institute, Vol. III, Page 151.

the gas. He had had during their entire married life nocturnal epileptic attacks following which he had been irrational and had clutched at her wildly filling her with terror. All of this she kept to herself, being ashamed to admit it even to members of her family. She had devoted herself to him hoping that she might be able to protect him and his reputation from them all. She was, furthermore, a very repressed person who still felt inhibited in the presence of her mother, had never been able to make a satisfactory marital adjustment and was over-conscientious in most of her judgments of life.

Following her husband's death she had indulged the maternal instincts, that were not exhausted in the care of her children and the babies in the home, by listening to the domestic difficulties and business troubles of a man who had been a family friend. The friendship had no further emotional content than this notwithstanding the fact of its being the source of some discomfort to the wife. It was easily abandoned. In spite of much economy and hard work it was difficult to make ends meet in caring for her family, for besides the regular expenses there were debts of her husband's that she dreaded to have known and was trying by degrees to pay off. The combination of physical and mental pressure was so great that she lost her sense of proportion and was tempted to take things to help out the home situation, acting in a way that was incompatible with the type of woman she represented.

It is doubtful if either mental analysis or endocrine therapy alone would have helped to regain her social equilibrium. The pain in the head and associated feelings of confusion responded to endocrine therapy (pituitary and corpus luteum being utilized with sodium bicarbonate) and the feelings of tension, the sleeplessness and the vaso-motor disturbance disappeared. It was possible through mental analysis to give great relief to this woman who had repressed her emotions to such an extent since her earliest childhood. As she said, "I suppose the medicines do good" (she had a strong prejudice against them) "but it is the talks that seem to help me most." Considering the improvement in the visual fields as well as in the other subjective symptoms, it may be inferred that the physical help was quite as important as the mental therapy.

The following case was referred through the courtesy of Dr. Ludwig Kast to whom I am indebted for permission to make use of his records in this paper.

CASE IV.—Elizabeth F., a girl of fourteen, had had intestinal attacks causing such distress that it had been necessary for her to leave boarding school. As the attacks recurred when she was separated from her family, she had remained at home most of the school term where she had frequent tantrums and had even thrown books at her mother of whom she was exceedingly fond. One year previously she had on two occasions set fires, which nearly resulted seriously.



The following history was elicited. Ten years previously the mother had become somewhat estranged from the father and had made up her mind to devote her life in the future to her two daughters. As she expressed it, she gave to the older all her intellect, to the younger all her emotion. Elizabeth, who was the younger of the two, grew up in the warmth of this great emotion and, furthermore, was able to obtain whatever she wished from both parents. There existed with Elizabeth, however, considerable jealousy of the older sister who was closer to the father in her sympathies than Elizabeth was. Early in life she learned that she could rule her parents through her emotions, and she continued to take advantage of this until the maelstrom of her adolescent emotions became so great that it was no longer easy to separate cause from effect. After the fires occurred she was examined by a psychologist who advised her going away from the family and especially from the mother. She was consequently sent to a summer camp but for one month only. She then went away to boarding school. While there, however, she cried most of the time and was very dependent on the daily letter she sent home. She admitted that she missed greatly the constant demonstration of affection with which she was surrounded when at home.

Her menstruation stopped for a period of three months and she began to have intestinal attacks in which there was intestinal stasis associated with distension. Cathartics and enemata were of no avail. It seemed necessary for her to return to her mother which was the thing above all others in the world that she desired. Fearing that she might have a return of the symptoms the parents allowed her to remain at home for four months of the term.

Physically Elizabeth presented symptoms of glandular imbalance including some of the characteristics of hypopituitarism. She was small and stocky in build having gained some forty pounds in weight during a short period following an operation for appendicitis. The eyes were somewhat near together and there was a tendency to a nasal brow. There was some disproportion in the leg-torso ratio. On stroking the chest there was but a faint pink line. There was a history of urticaria, nose bleeds, extreme fatigability, painful and irregular periods from the time menstruation was established and intestinal attacks which increased in severity during the menstrual period. She also showed a predisposition to frequent infections of the respiratory tract. The appendix had been removed two years previously but no adhesions or constrictions of the intestines could be found by X-ray or seen fluoroscopically. The sugar content of the blood was .94 and the hemoglobin was .75. The other laboratory tests were all negative.

Intellectually Elizabeth was fourteen months retarded which gave her an intelligence quotient of .91. Although she had moved much from school to school it was in the tests of native ability and those requiring reasoning power that she did poorly as well as in those that were dependent to some extent on training.

In this case there apparently occurred, because of the extreme homesickness from which the girl suffered, a general glandular inactivity which was evidenced by the cessation of the menstrual periods as well as by the intestinal inactivity. The girl's early history gave evidence of a predisposition to glandular imbalance. When a means of escape from an intolerable situation was presented through physical symptoms they were magnified more or less consciously until they became a means to the end desired, namely, again living in the atmosphere of intense emotion and adoration offered in the home.

Elizabeth was given small doses of pituitary with the result that for the first time in months her digestion returned to a normal condition. When this excuse was removed she was helped to see how much was to be gained by returning to school in the way of preparation for a course in nursing later on. Elizabeth then made a satisfactory adjustment at school for the first time stating that the thing that helped her most was looking forward to the time when she could become a nurse. Her mother was made happier than she had been for years because of her attitude when she returned from school. Although the improvement is marked, a plan of procedure has been mapped out for the next two years which will help her keep her balance through the difficult years of adolescence. The glandular therapy is being continued with the same good results.

A case similar to this, also referred by Dr. Ludwig Kast, was that of a boy of nine, who made use of an intestinal condition in the same way in order to avoid an intolerable situation in his school by exaggerating his symptoms which were definitely physical in nature. He had remained at home most of the winter. He, too, admitted frankly that his symptoms would not have been sufficient to keep him at home, had the school situation been a pleasant one. There was evidence of glandular imbalance in this case as well, and correlated with it, a strong tendency to compensate through a world of imagination for the everyday adjustment with his schoolmates which he found too difficult to make.

In such cases as these the underlying physical inadequacy is too often underestimated in its effect on the social life of the child. The greatest possible emphasis should be laid on the social adjustment which is necessary to counteract in the most constructive way any associated feelings of inferiority.

#### CONCLUSIONS.

There are a large number of psychoneurotics and social deviates of various kinds who have been socially inefficient for years. They

have gone from medical man to surgeon, from neurologist to psychiatrist, but have failed to regain their nervous equilibrium because their need has been so definitely twofold in nature. For when their glandular balance has been recognized, the fact has not been appreciated that they have formed compensatory mechanisms and conditioned reflexes that must be treated from the mental side alone. It is only when the twofold adjustment is made that they can reach their highest degree of efficiency as intergrated personalities.

#### DISCUSSION.

**DR. OLIVER.**—I have some of the same emotional reactions which Dr. Spaulding has mentioned—especially a feeling of “inadequacy” in attempting to discuss her paper. I suppose that I shall try to “compensate” by using a great many words which do not mean very much. Her paper has been a great help and encouragement to me, for it does help, to find some one working in another field who comes to more or less the same conclusions which you have reached yourself. During the last talk that I had with the late Dr. Southard, three years ago, he said to me: “The time is coming when there won't be any psychiatrists or psychologists left. The endocrinologist will eliminate us all. He will take all your ‘mental diseases,’ and explain them on the basis of misbehaving ductless glands and will cure them.” It looks as if this prophecy is to be fulfilled. But not for a long time yet. Nevertheless, it is a great satisfaction to know that Dr. Spaulding has reached her conclusions from certain definite cases, and that she has seen the necessity of not laying too much stress on one side of the question. She has recognized the importance of mental care of analysis and of mental re-adaptation, together with polyglandular therapy. We all err by giving too much value to one particular element in our problems. One of the many things that I admire in Dr. Spaulding is her own mental balance in not allowing herself to be drawn too far away in any one definite direction. She has presented a balanced statement of endocrinological treatment on the one side, and of the value of mental analysis on the other. This reminds me of a prominent man in New York who constantly deals with difficult cases of delinquent boys. He told me: “I use mental readjustment by giving my boys ‘big brother’ talks. But I find that although this helps, it does not really complete the readjustment of a difficult personality. I have discovered that I must go to the doctor—to the physicians that you call ‘ductless gland doctors’—and must have my case treated by him. My talks and my mental care combined with what the doctor can do, usually are able to reconstruct my most difficult cases and put them back into the proper adaptation with society and with their social duties.”

**DR. MILLER.**—I have been observing for the past two years the work of Dr. Timme and his co-workers on endocrinology at the Neurological Insti-

tute in New York, and I want to state that they are taking this problem very seriously. They are approaching it in the manner you have observed in Dr. Spaulding's paper, and they are getting results. This is a very important field of investigation which we have somewhat neglected, which is of interest, not only to those working with congenital and early defects, but also to those who treat the insane. It strikes me that the underlying motive in these sessions is the fact that we are not trying to get our results by going along one line of investigation; that we are broadening out and are willing to accept what is being done along various lines: The psychogenic, the physical side, the anatomical side, the endocrinological side. There is a large field for investigation along these lines and we should take advantage of it. We are broadening out and looking for results from various angles of approach. The importance of the paper is that it demonstrates the significance of endocrine disturbance in types of cases which we formerly might have overlooked as endocrine cases.

DR. MENNINGER.—I want to call attention to the fact that Dr. Spaulding's excellent paper absolved her from the crime of absolutism since she assumes as a fact that other things may enter the human system besides complexes. It seems that this very pragmatic point of view, which I am going to try to expand on the board in diagrammatic form, as a tri-dimensional conception of psychiatric study.

(Remainder of discussion illustrated on blackboard.)

DR. SPAULDING.—I should like to say that the scheme which Dr. Menninger has just presented makes it possible to express the difference between the cross-section of a glandular case found at a given period of its development and the life history which has preceded it. It is important to remember that even though several cases may present the same clinical picture at the same time, their journeys to the condition attained may have varied greatly. Furthermore, certain symptoms that represent a pathological condition in one patient, in another may represent a physiological attempt at over-compensation which has brought the patient to a state of glandular balance. It is this very complexity in the significance of individual symptoms which is responsible to a large degree for the intricacy of the entire problem of endocrinology.

DEMENTIA PRÆCOX AND THE ADOLESCENT PSYCHOSES FROM THE ORGANIC VISÇERAL VIEW-POINT AS REGARDS PROGNOSIS AND THERAPY.\*

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This paper will include a study and classification of the adolescent insanities as worked out from the viewpoint of underlying toxic factors. The practical results from a therapeutic standpoint are based upon such a classification. The fundamental grouping of the psychoses of adolescence is into (a) a degenerative group, and (b) a non-degenerative group.

The latter group which we would consider the curable group under proper conditions of therapy we would further sub-divide into:

(a) Those whose toxic factors were dependent on pulmonary disease, at the first development period, leading to constitutional and endocrine disturbances at the adolescent period.

(b) The syphilitic group when early acquired, or inherited syphilis produces a similar reaction as in (a).

(c) Steadily progressive infections in the early adolescent period, belonging in a general way to the focal infections, and leading to reactionary states in the endocrine field.

(d) Non-determined infections with thyroïdal disturbances.

(e) Stress reactions in the moron groups, due either to infections or overload leading to a præcox syndrome.

The therapeutics of the various mental states, is determined by an intensive study of the above factors.

In a discussion of the adolescent insanities and their curability it is necessary to keep in mind that we are dealing with a subject somewhat broader and more inclusive than dementia præcox and

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manic-depressive insanity. It is just this group of border-line psychoses, *i. e.*, border line between the dementia præcox group and simple types of toxic and other psychoses that makes it difficult to speak definitely and in percentages as to the curability of dementia præcox. In addition to this difficulty there is that undefined group of mental cases that are neither dementia præcox nor manic-depressive, and yet may with reason be classed as either the one or the other.

It is not the function of this paper to define these types of mental disease. I think that all alienists will recognize easily, and agree with each other in certain typical cases of dementia præcox; this is equally true of cases of manic-depressive insanity. One may on the other hand go far afield in making a diagnosis in certain ill-defined cases that approach the classic picture. Schwab, some years ago, pointed out that all or nearly all the symptoms of dementia præcox could be found in embryo in the normal adolescent. Buckley has recently called attention to this. We find from this as a starting point that the accentuation of any one of these symptoms may lead to marked conduct disorders. From the boy at college who becomes so introspective to the shade of his hair as to lead to neglect of his work and withdrawal from his companions, to the fully developed præcox is a wide gap that needs filling in our nosology and a more thorough understanding in relation to the fully developed adolescent insanities.

It would be interesting to take a thousand individuals at maturity and determine how many perfectly normal men and women had symptoms that led to change or alteration of conduct, and led to some extent to an alteration of their future life. I feel sure from my own experience that we would find a fairly large number. The great majority of these balance themselves without outside assistance. It is only when a definite dissociation of personality occurs that the cases find their way to the doctor's office.

We could classify the definitely pathological group into:

- (a) Those whose symptoms are referable to introspection concerning some personal physical characteristic.
- (b) Those where problems of a neuro-sexual nature are the disturbing factors.
- (c) External problems in relation to family affairs leading to a feeling of instability in reference to life and other matters.

(d) Visceral disease, with an attempt at adjustment for insufficiency, either in purely social matters, at school or in business affairs.

In all of these a psychological bloc of more or less consequence occurs. These cases all become of serious import, when the introspection and the attempts at self-analysis lead to such failure of attention as to make further constructive work at school or in business impossible. The mind drifts away from the work, and cannot be brought back either by conscious effort or external disciplinary measures. The boy or girl may finally arrive at the stage where they refuse to leave their room, sitting for hours staring into space, refusing to make the effort to take food or exercise. Objectively these cases resemble the primary dementia of Wernicke and yet present a simple problem of therapy.

It is only when two factors are continuously at play that these cases assume such serious import as to constitute a continuing complex problem of therapy. These are a fundamental instability and a continuing intoxication. Both of these factors are interchangeable as to intensity and effect. A continuing intense intoxication may cause derangement in a relatively normal mentality; or a relatively slighter continuing intoxication may cause an equally intense psychoses in a brain sensitized by disease, defect or bad heredity.

When these factors are at play we approach the problem of dementia præcox. A certain group of these cases if permitted to continue develop into typical classic præcox. In any one case it is impossible to say what would be the eventual outcome. I am not here referring to that type of case which presents all the classic symptoms of dementia præcox early in the disease but the vague adolescent psychoses that resemble in their development the more slowly developing group of præcox cases. The fundamental problems of therapy do not differ essentially in the two groups. Whether we are dealing with an adolescent psychosis that belongs evidently to the præcox group, or one that is practically such, it is necessary to have some understanding of the factors that are producing the mental disease.

I lay down for myself the principle that in a human being who has functioned normally to the 15th, 18th, or 24th year of life and

then becomes deranged, there must be something more at work than a purely psychologic factor. If I am going to get any result from treatment of such an individual I must find out what has gone wrong, what is the source of the intoxication or other drag producing the condition, and to base my therapy upon some working hypothesis consistent with modern scientific medicine.

In other words the fundamental problem of therapy is the diagnosis of the case; not of the type of insanity, but the diagnosis of the entire machine, with an estimate of the functional efficiency of every important organ of the body as far as this can be secured. In these adolescent insanities, as indeed in all types of insanity, we concern ourselves not with the type of mental disease so much as with:

- (a) The physical machine as a whole.
- (b) Disease and physical damage of organs.
- (c) Functional derangement of viscera.
- (d) An estimate of the effect of these on the nutrition of the brain through damage to its nutritional medium (the blood) by alteration in its content (anemia, etc.), or by the addition of toxic material from one or more organs.
- (e) Psychogenic factors.
- (f) Mental symptoms.

When all of this information is at our disposal the case automatically classifies itself for therapeutic purposes.

My attention was first called to the influence of visceral factors in mental disease and particularly in the adolescent insanities in the study of the effect of tuberculosis on the nervous system. At the Henry Phipps Institute cases of neurasthenia that I had seen treated years before at the Orthopædic Hospital by the Weir Mitchell School presented themselves as fully developed cases of tuberculosis of the lungs, and some of these cases at autopsy showed evidence of a disease of long standing as the source of their nervous disease. In the wards for advanced dying cases, as the case progressed to advanced anæmia, emaciation and mixed toxæmia we could follow, in some cases, from month to month the advance from a normal mentality, to suspicion, transient, and finally firmly fixed delusions of persecution.

In an intensive study of mental states in tuberculosis, I was convinced that some of the adolescent mental states met with in



sanitaria for early tuberculosis were the result not of the lesion of the lung, which often as not was negligible and frequently not active, but the result of damage to the machine early in life.

It is accepted I think that in the vast majority of cases of tuberculosis of adults the implantation of the germ occurs in childhood. In one of these cases of adolescent insanity of the pulmonary type the life history of the disease, so to speak, may be worked out as follows:

In the first year of life a serious infection with a disease occurs that takes several months and frequently two to three years before the infection is overcome by the defenses of the body. During this period of active growth of the body and the rapid growth of brain and mentality the main function of the organism as a whole and the defensive mechanism in particular is concerned with throwing off the infection. The facts are: (a) the vital tone of the organism at this period is very low, (b) there is marked disturbance of function of the gastro-intestinal tract, (c) a well-defined anæmia, (d) chronic febrile state of low grade, (e) marked nervous irritability, (f) lowered blood pressure. As to theory if we assume, as I think we are so justified, that the endocrine system at this time should be primarily involved with growth and balancing the metabolism of the organism, and is now by disease switched to a defense of the organism, and an attempt at balancing a complex intoxication from deranged visceral function, or to a double or even multiple function comprising all of these, we can understand that such a stress on this system so necessary for growth and development will be felt through the life history of the organism. The work of Stanton and others as to the thyroid and my own work on the pituitary have shown the direct effect of tuberculosis on these organs. The effect on the adrenals is well known and need only be mentioned. We can well understand the effect of such a diseased blood state nourishing the brain at its most important period of development.

As a direct result of this infection in infancy or early childhood as we progress to adolescence we have in this marasmic group, the conditions as follows:

(a) Arterial hypotension with systolic blood pressure from 90 to 110.

(b) Physical and vital undertone, with lessened physical vitality, and underweight.

(c) Visceroptosis, as a result of the shock to the system from the intensity of the infection.

(d) Dropped, phthisenoid type of chest.

(e) Flat feet from relaxed muscular tone.

(f) A tendency to general catarrhal conditions of mucous membranes, particularly of the gastro-intestinal tract.

(g) A tendency to a development of the chlorotic types of anæmia.

(h) Marked increase of the tendon reflexes.

One could well theorize on these facts as to the development of a shut-in type of personality; of the attempt at compensation for physical inadequacy by the development of the book-worm temperament, the development of an asocial and isolated attitude.

In certain types of individual the exaggerated tendon and mental reflexes, leads these individuals to work at school and college far beyond their strength. They frequently are compelled to give up work from time to time, or if they attempt to push through, either have a mental or nervous break.

It is not difficult to understand why in these cases in an attempt to explain to themselves their inability to keep even with their ambition, the normal symptomatic introspection of fatigue should develop into a partial or completely dissociated personality.

At the adolescent period there is a readjustment of the endocrine system and its functions due to the advent of the active sexual reproductive function. As a working theory I assume that the early stress of disease at infancy or early childhood, when the original infection occurred, has led to such damage to the endocrine system, that now at the second critical period, this system fails in its normal complex function and leads to a complex intoxication, that fixes the split personality, and that may cause præcox or other types of adolescent insanity.

In insanity found in such cases in addition to the factors enumerated above, not infrequently we find focal infection in the teeth, tonsils, accessory head sinuses, appendix or gall bladder areas.

Environmental factors, repressed sexual traumata, etc., find a fertile soil in such a personality and have to be estimated with the

physical factors in their influence in the development of the psychoses.

I have detailed the development of the pulmonary type as an example of what may happen to any serious infection in infancy and childhood if it continues sufficiently long. This is true of pertussis, or syphilis, or chronic focal infections in tonsils, teeth, sinuses, appendix, or gastro-intestinal tract.

Unless the case is studied from the life history of the machine as a whole and the effect of early disease, in addition to estimating the functional efficiency of the organism as a whole and its individual visceral components, it will be difficult to understand the complex mental case at adolescence, and any treatment will necessarily be empirical and a stab in the dark.

In other words we must estimate not only what disease the patient has but also what patient the disease has.

How do I treat a case of adolescent insanity? I diagnose it and then the treatment takes care of itself. What percentage of cases of præcox recover? That depends on whether you will agree that, in the course of 20 years of active practice, 80 per cent of adolescent insanity that have recovered would have been præcox or not if they had not been diagnosed in detail and treated intensively.

Therapeutics is an art, not a science; diagnosis is a science; and an art only in reference to its expertness and thoroughness. Therapeutics cannot be learned out of a book; one must serve ones time under the direction of a teacher. In the beginning of the treatment of a case we employ psychotherapy. A man can never cure mental cases who does not believe he can cure them. This is the fundamental psychotherapy, but it must be based upon intensive diagnosis and experience. In some cases an attempt is made at a biological readjustment at the beginning, but this in my experience fails and a detailed analysis does more harm than good; it should be delayed until a certain progress is made and a complete understanding and co-operation based on confidence effected between patient and doctor.

As a rule a patient should be placed on the rest treatment. A careful detailed study of the case is made for all possible infections of the body, either local, focal, or general, and an estimate

made of disease or functional inefficiency of all the viscera when this is possible, and also of the endocrine organs.

It need not here be stated that as soon as possible all diseased conditions should be cleared up and focal infections eliminated. The tonsils are such a frequent source of infection, and the impossibility of a definite determination of whether an active infection is present or not, that I have little hesitation in any case, when there is even a suspicion of a doubt, in ordering the removal of the tonsils. I think in institutions for the insane we would not make a grave error in removing the tonsils of all cases admitted to the hospital. Focal infections about the teeth are so easily determined by careful dental examination and X-ray studies that they need only be mentioned. Inspection of the accessory sinuses of the skull are not infrequent and X-ray studies are here essential. In the region of the gastro-intestinal tract, the gall bladder, the appendix and the colon should be studied by the X-ray; the Lyons and other methods.

In the genito-urinary tract, cervix uteri, the tubes and ovaries, and in men the prostate, bladder and seminal tract should be studied.

It is quite useless to proceed with the treatment of a mental case while a continuing infection exists. Here again we might well say that the greatest danger the patient will ever have to face already exists, *i. e.*, insanity, and one is justified in taking extreme risks, if the problem is worked out on a strictly scientific basis, in removing any one or all possible factors in order to prevent the continuation of the disease to the point of permanent damage to the brain tissues.

With a relief from infections there is a general tendency of the body functions and of the deranged functions of the various viscera to return to normal. This is equally true of generalized infections such as tuberculosis, colonic or streptococcic septicæmia, if the proper treatment be instituted. I know of no better aid to visceral readjustment to the normal and the elimination of generalized infections and toxæmias than the Weir Mitchell rest treatment on a full open air régime. This is the best modern treatment for such an intense infection as tuberculosis.

I can state that I have never visited a large institution for the care of the insane where I saw a single case on anything that

approximated the Weir Mitchell rest treatment. This may well be due, as I think it is, to a lack of nurses, equipment, and re-educational methods necessary. Nevertheless, it is a sad commentary on the modern tendency to reach out for fads and neglect a known and valuable method of treatment. To put a patient to bed is not the rest treatment. The rest treatment implies that an attempt should be made with the patient in bed to bring every function of the body up to the normal, by diet, massage, electrical treatments, hydrotherapy, and psychotherapy. This is neither the time nor the place to go into the complex detail of this treatment, except to call attention to the fact that it is not practiced. The fight against time; the well-regulated, systematic, therapeutically and mentally filled day of the patient, requiring the attention of a skilled nurse to one or at the most two patients, is probably the type of treatment of a psychopathic hospital and not of the custodial institution.

What I have said of the rest treatment applies equally to the fresh air treatment. The only hospital where the fresh air treatment is practiced as a scientific method of therapy is in the hospitals and sanatoria for tuberculosis. I know of no tonic that equals cold fresh air for the full 24 hours of each day. In mental cases with marked vaso-motor atony and reduced nerve tone, more harm can be done, than good accomplished, by simply putting the patient in the fresh air. The effort required to stabilize the body temperature may consume so much nerve energy, as to negative any good that may come from it. Here special training of both doctor and nurse to many details of bed arrangement, clothes, porch building sun exposure, bathing, massage, etc., are necessary if good results are to be obtained. I have seen more cases of influenzal pneumonia die from the chilling of fresh air than were ever cured by it. Not that fresh air is not of great value in this type of pneumonia, but body heat and nerve reserve are prerequisites to its employment.

Again, opening a window or two or even all the windows in a ward is not the fresh air treatment. It is something more complex than this, it is all that is practiced in institutions for tuberculosis with additions and modifications necessitated by the peculiar individual necessities of mental cases.

All of the students of the Mitchell School early recognized that the most difficult part of the rest treatment was the convalescence. The getting the patient out of bed and standing on his own feet, physically and mentally. This is the period of re-education.

At the beginning of this period we employ graduated adapted exercises. Occupational therapy is a much more complex science than would appear at first blush. It includes:

(a) Physical therapy, massage, gymnastics, setting up exercises, all studied out and adapted to the physical and mental needs of the individual patient.

(b) Postural therapy. The application of exercise and exercises to posture visceral defects along the lines that Dr. Goldthwaite has employed in orthopædic work.

(c) Disciplinary occupation, studied and adapted to a re-disciplining of the mind and nervous system and body.

(d) Constructive occupation to stimulate the ambition and help with a reconstruction of the personality.

A physical culture expert should be a part of the therapeutic armamentarium of every institution. He should be a doctor, an athlete and a student, and able to direct the individual occupational workers. In my own practice I have given up all class work, and assign a nurse or medical student or doctor to the study and occupation of the patient. A convalescent dementia præcox patient is held to his occupation definitely short of the fatigue point, or short of where his attention begins to wander. He is started with the setting up exercises, the operator in the beginning, if necessary, placing the arms or legs in the required postures until the patient is able to follow the commands of the operator. Strict military setting up exercises trains the attention, disciplines both mind and body, converts deformities and malposition and gives the required muscular exercise. From setting up exercises the patient is graduated successively from simple to more complex occupations, but always under close personal supervision and direction of the operator working with the patient. Class work has its own value, but it is impossible for a leader to know the fatigue point of a large number of patients. Mental occupation has to be graded by minutes of increase and settled as carefully as the physical occupation. It all may be done amateurishly and crudely or

expertly, but the results are in proportion to the expertness employed.

Hydrotherapy internally and externally is of great value. Gastro-intestinal auto-intoxication must be carefully treated. Flushing of the colon by lavage of the colon, and of the entire intestinal tract by hydrogogue purgation is of great value in many cases. Cotton has called attention to the rôle that colonic stasis and colonic disease plays in many cases. The value of the usual forms of hydrotherapy depends largely on how scientifically they are prescribed for the individual case. The shot-gun prescription, applying the same prescription to all cases twice a week, never impresses me as either scientific or of much value. Unless the doctor follows his patient and studies his reactions he might as well omit its application.

Our knowledge of the endocrine system, its functions, its pathology, is so deficient even in essentials that one approaches this subject on paper with fear and trembling and doubts. Here to separate fact from theory is difficult. Notwithstanding the Abderhalden tests for function, the application of endocrine therapy must necessarily be experimental and empiric. That there is a group of thyroid cases, plus and minus, a group of pituitary cases, a group of adrenal cases, a group of gonadal cases, there can be little doubt. How to stimulate these organic derangements back to the normal is the problem, and here is where we step into the field of experimentation. For example, in some dementia præcox cases with large thyroids, rapid unstable pulse, etc., I have looked upon these manifestations as an attempt on the part of the thyroid to overcome or compensate for some underlying infection, and to treat the patient by the removal of the infection when possible and the use of the extract of thyroid in small doses, instead of the removal of the gland as has been practiced at times. This may seem rational or irrational depending on the way you look at it. In my cases it has given good results, but this is no test of the correctness of my theory. I quote it separately as an example of the empiricism of glandular therapy apart from mere substitution. It is not entirely empiric because I am never satisfied with a diagnosis of endocrine glandular derangement such as hyper- or hypothyroidism, but must be satisfied that this is not a reaction to a focalized or generalized infection, and if it be, then the

rational treatment is the removal or treatment of the underlying cause. In the gonodal group in women, for years I have uniformly, in the adolescent insanities, practiced the rapid cervical dilatation with the use of the Wylie drain for six weeks to two months, with the idea of a reflex stimulation of the ovarian and a secondary stimulation of the collateral endocrine organs. Whether this theory be true or not, there is no question in my mind as to the value of this method of treatment. At all events the preliminary examination under an anesthetic helps to diagnose and eliminates other disease of the pelvic organs. I employ other glandular derivatives in suitable cases, but I must confess I am never quite sure of exactly what I am doing and whether to expect results or not.

Drug medication has its own value. Much has been written on this subject and it is not my purpose to add to it, except to suggest that an expert in drug therapeutics will obtain results where an amateur fails, and I must confess my lack of knowledge of drug therapy. It has, however, been my practice to employ the mercurial and arsenical preparations extensively in this group of cases. Quite apart from the possibility of any specific infection, they are of great value in two groups of cases. In cases of liver inefficiency the continued use of mercury as a tonic, in fairly full doses, has more value than other alteratives. How far they influence the liver function depends I think on their method of use.

Unquestionably, the best preparation of arsenic, when its need is indicated, is salvarsan. I employ it much in the same way as I use the cacodylates, *i. e.*, I give it in fairly full doses .3 to .5 mg. intravenously twice a week for a period of six weeks to two months. In this under-nutritional group, with poor blood picture, vague intoxication, low nerve and vaso-motor tone this treatment appears to me to be indicated and to have a decided stimulant and alterative value.

Salvarsan has of course a special value where one or both parents have had syphilis, although the children may be Wassermann free. While the percentage of positive Wassermans in (Group b) is relatively small (3 per cent), children of syphilitic parentage are often of the marasmic type even though they give a negative result to the Wassermann test.



There is nothing I have here stated in the treatment of the adolescent insanities that all the doctors I talk to do not tell me they too have employed. How then does one account for the success of treatment in the one group and its failure in the other. It is largely I think a case of relative expertness. Twenty years ago in the early days of the Tuberculosis Crusade the expert was curing tuberculosis when the general practitioner was failing with the same cases, although he thought he was employing the same methods of treatment. He therefore said that the expert who reported his cures was a liar and a faker. It was largely because he did not know the science of diagnosis, overfeeding, fresh air and rest and their application and largely because he had no confidence in himself or his method of treatment.

In mental diseases the doctor in private and specialized practice sees the cases early in their development; he has at his disposal highly specialized experts for the study of the various organs, and usually has at his disposal trained nurses and expert physical culturists, that the state will not provide for its institutions. The success of the private practitioner of mental diseases depends upon his ability to cure his patients outside of an institution, to keep them free from the stamp and stigma of insanity, whereas the doctor in the institution is not so obliged; his patients are already so stamped; his duty to the state, from the state's standpoint is to keep the patient in, so that they will do no harm, and only secondarily to cure them and get them out; and while this attitude is changing it is largely true and takes away from the institutional alienist that intense incentive that is always with the private practitioner.

How many cases of dementia præcox can be cured? I am sure I do not know. What per cent of cases of the adolescent psychosis? Here a very high percentage if taken early, studied properly and treated properly. The percentage of these cases which would have progressed to dementia præcox is impossible to define, because one is not justified in a comparative experiment.

I have dealt in this paper with the organic visceral side of the psychosis. That there is a psychogenic side needing treatment and re-adjustment there is no question, such re-adjustment is made almost automatically during the progress of the treatment. To

the doubting Thomas who does not believe in infections, their results on the brain, and the general organism, I would refer him to a careful detailed study of the index of 1180 Post-Mortems of the insane from the State Hospital for the Insane at Norristown, by Dr. H. J. Sommer and Allen J. Smith, 1908.

## DEMENTIA PRÆCOX AND SYPHILIS.\*

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In reading the last translation of Kraepelin<sup>1</sup> on dementia præcox, I was impressed with the statement made under the heading of external causes that Steiner and Pötzl believe acquired syphilis could, in certain circumstances, bring on an outbreak of the disease. In the next sentence he stated that "it cannot be disputed that recent syphilis is often found in our patients but that it is not to be wondered at as it has mostly to do with young people in the third decade, and who are in part very much excited sexually and very much inclined to excesses."

I have recently examined a case, on admission, who presented a history of syphilis approximating the onset of his undoubted dementia præcox psychosis. He had been treated apparently effectually, for there was no evidence of syphilis in blood serum or in spinal fluid findings. I could not recall that such cases had occurred, in my experience, with any degree of frequency. I did not consider that syphilis, in this case, was a causative factor, but was an incident. I was impressed, however, with the statement of Kraepelin that syphilis is a common occurrence in dementia præcox and that recent syphilis is often found in our cases.

I, therefore, thought I would investigate the cases admitted during a period of time since Wassermanns have been taken in our hospital as a matter of routine, and spinal fluids examined also as a routine measure.

In going over these cases I was interested to find out how many or what per cent of admissions in this period were diagnosed dementia præcox, that I might check our findings with the statistics I had recently seen.

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

In an admission of 2117 cases I found 495 cases of dementia præcox, or 23+ per cent. Kraepelin's figures range from 10 per cent to 80 per cent, according to type of hospital and the legal formalities required for admission, the private institutions having the highest per cent. In this country state hospital reports from Michigan, 1918, Newbury gives 24.7 per cent; Kalamazoo, 12 per cent. All New York state hospitals for 1909 amounted to 25 per cent.

In our classification I found that the paranoid type of dementia præcox group forms 41 per cent, catatonic 25+ per cent, hebephrenic 30+ per cent, and simple 4+ per cent. Indiana State Hospital Reports<sup>3</sup> for 1915-1917 give 19 per cent dementia præcox admissions: of these, 46 per cent hebephrenic; 21.5 per cent paranoid; 18.4 per cent catatonic; 13+ per cent mixed or indefinite.

The above figures indicated to me that we were finding dementia præcox in approximately the same proportion as others except that our paranoid types of dementia præcox was higher. Having found that our figures agree, approximately with others as to frequency of dementia præcox, I was anxious to find out how many cases of dementia præcox had evidence of incidental syphilis, cases that would not be confused with neuro-syphilis of any type, bearing in mind the articles of Lowrey<sup>4</sup> and Horseman.<sup>5</sup>

Lowrey finds 7.5 per cent of admissions, including all types of psychosis, that have syphilis. In 240 cases 5 per cent show syphilis in dementia præcox with negative spinal fluid findings.

Of our 2117 admissions 495 of which were dementia præcox, I found a much lower per cent of cases showing syphilis, only eight cases or .016 per cent. These cases were without evidence of neuro-syphilis as regards spinal fluid findings. In searching the records of the hospital I found only 12 cases in all that were definitely dementia præcox with positive Wassermann and negative spinal fluids. Four of these cases were outside the period of admissions taken when Wassermanns were routinely done.

In studying the cases at hand I found that the incidence of onset of psychosis in relation to onset of syphilis was in the 12 cases as follows: five unknown; two cases approximately one year; three cases less than five years; one case 14 years; one case 24

years, indicating that in at least two of these cases there was systemic syphilis existing for a long period without evidence of neuro-syphilis. One case lasting for a period of 24 years, before appearance of psychosis, and this psychosis not neuro-syphilis. Of the 12 cases noted, it may be of interest that five were paranoid type; three undetermined paranoid type preferred; one undetermined; two hebephrenic and one catatonic. Eight of these cases may come within the group described by White and Jelliffe as syphilitic psychoses simulating paranoid types of dementia præcox.

These cases, however, did not present any attacks of fainting, dizziness, transitory aphasia, mild epileptiform lapses or was there any increase in the lymphocytes of the spinal fluids.

Inasmuch as there are a certain number of cases reported by Lowrey, Horseman, Southard and Solomon,<sup>8</sup> presenting dementia præcox symptoms and showing neuro-syphilis findings, I was interested to find out if any of these cases might show mental symptoms of the intellectual, memory or character defects commonly observed in the neuro-syphilitics, or if their mental deterioration was largely confined to the emotional and volitional fields found in dementia præcox. In none of the cases did there appear, at any time, any suggestion of mental aberration characteristic of the neuro-syphilitics.

It being my contention that few cases of dementia præcox have syphilis, instead of many, according to Kraepelin, and undoubtedly exposed to the disease through reason of their age at onset excited sexually and inclined to excesses, I was anxious to see what their personal history would reveal as to characteristics previous to onset. I found that six were classified as personality normal; two were easily influenced, both of these females; one was considered normal until after he had acquired syphilis and became seclusive on account of eruption which appeared on his face; one very social, one melancholy and reserved and only one seclusive, a male, who shunned females, indicating to me the reason for these few cases having syphilis was on the basis described by Kraepelin as only one was considered seclusive in temperament.

The infrequency of syphilis in dementia præcox leads me to believe that the dementia præcox is primarily a shut-in personality, is seclusive, and his sex conflicts and sex excitements take the form of onanistic or masturbatory excesses rather than pro-

miscuous cohabitation. The majority of dementia præcox cases presenting syphilis are anomalies to the rule in this respect. I think they may be compared to the epileptic in relation to this. Their abnormalities are brought to the attention of friends and relatives early, if not to the care of an institution, and thus protected from exposure to sources of infection. Statistics from Monson State Hospital,<sup>8</sup> Massachusetts, approximates 2 per cent of syphilis. Shannaham,<sup>9</sup> Munson and Shaw, Craig Colony, New York, find in 1475 cases of epilepsy, 1.56 per cent having syphilis. In this same study they give statistics on approximately 27,000 from the general public showing that syphilis is to be found in the community in 5.4 per cent of the population. Figures from general hospitals range from 10 to 20 per cent.

Figures from paper on Syphilis and Pregnancy by Dr. Walters,<sup>10</sup> of Boston, show that in routine examinations of patients in maternity hospitals the frequency of syphilis ranges from 3+ per cent to 11+ per cent, there being 9+ per cent in the Robinson Memorial Hospital of Boston.

These figures seem high and we all appreciate the difficulty of obtaining any satisfactory statistics regarding syphilis in the general public. Kirby<sup>11</sup> in a recent article speaks of the encouraging situation regarding both alcohol and syphilis as a causative factor in the admission to mental hospitals.

I am inclined to believe the frequency of syphilis is exaggerated and certainly is in regard to dementia præcox.

As regards heredity in the cases, there were none in which there was evidence of hereditary syphilis in the individual from symptoms or physical findings and the history of heredity was negative to syphilis in all cases. Five cases presented negative history to nervous or mental disease and alcoholism. Three of the 12 had history of epilepsy in family; four had history of insanity in family other than dementia præcox.

I have intentionally left unconsidered neurological findings until now. In all cases the spinal fluids were examined, as matter of routine, following the finding of positive Wassermann in the blood, and not by reason of apparent mental symptoms indicating neuro-syphilis. I did find, however, that there were slight, and in some cases, several neurological abnormalities.

Six cases were negative to neurological abnormalities; four cases presented abnormalities of pupils, one of these was accompanied by diminished knee jerks and one, hyperactive knee jerk, with tremor of extended fingers; two of the four had neurological abnormality limited to the eyes alone. The two remaining had diminished knee jerks or neurological abnormalities not involving the eyes and trivial in character. White and Jelliffe<sup>7</sup> say that a fully developed Argyll-Robertson syndrome, loss of direct pupillary light reflex with free and ample reaction to accommodation in one or both eyes, represent, for the most part, a fairly positive evidence of syphilis of the nervous system. Presence of Argyll-Robertson pupils is sufficient evidence for therapeutic purposes.

The cases I have selected, however, do not present, as stated previously, serological findings that warrant a diagnosis of tertiary nerve syphilis. I think that many who examined soldiers in great numbers were impressed with the frequency of pupillary changes and abnormalities approaching Argyll-Robertson type, as well as other neurological conditions that led them to suspect syphilis, which, upon serological examination, was not corroborated. I feel that it is quite possible we may have localized gliosis from toxic conditions accompanying acute infectious diseases, and this may account for the neurological conditions found frequently in the army and possibly in my cases. None of these cases have come to autopsy and neuro-syphilis cannot be ruled out on this basis.

As regards anti-syphilitic treatment: Up to the present time only three cases have become serum negative; one is serum doubtful; two have had no treatment as they are too disturbed for its administration; one is deceased; four have been transferred and at last report are still positive as to blood; one blood Wassermann remains unchanged.

*Conclusions.*—In considering syphilis as a causative factor in relation to insanity, I cannot believe it has any relation in this respect to dementia præcox. Five of the 12 cases were paranoid type and three paranoid preferred. These may be cases, called by White and Jelliffe, syphilitic psychoses resembling paranoid types of dementia præcox. They do not show any spinal fluid abnormalities, however, nor do they have any mental symptoms indicative of psychosis other than dementia præcox.

The evidence is definite that we must not rule out possibility of neuro-syphilis because our patients are apparently dementia præcox. On the other hand, we may not always find that clinical and neurological evidence of tertiary nerve syphilis is to be relied upon if we are to use the spinal fluid findings for a criterion.

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#### DISCUSSION.

DR. HAWKE.—For several years I had the pleasure of watching Dr. McCarthy's work. Many of you probably do not know that at the beginning of the World War Dr. McCarthy was in France, and remained there during the war. He has had a most varied experience in a general way. In a clinical way he and I worked together for some 20 years. In 1907 Dr. McCarthy published a work on symptoms as seen in tuberculosis, etc. Incipient tuberculosis, active tuberculosis and all the different types are most frequent in dementia præcox, and we find many other diseases concerned with internal medicine associated with dementia præcox. The first thing to be done is to know your case thoroughly from the internist's standpoint. Very few psychiatrists go into internal medicine as they should.

In regard to the rest treatment, I can thoroughly endorse what Dr. McCarthy said on this line. It is not a question of sleep but a question of rest.

DR. STRECKER.—I think we are very much in the dark as to the psychiatric position in general in regard to the study of symptoms in dementia præcox. The ideal method of attack would be simultaneously from the avenue of internal medicine, as Dr. McCarthy has indicated, together with psychological study by analysis and interpretation, but it seems we are not to have this combination of methods. When we examine a patient he presents a certain



group of mental symptoms which we designate as dementia præcox, and we also find certain physical factors, certain indications of organ disorder. We can view our findings in a number of different ways. We can say it is entirely a matter of coincidence; the patient has dementia præcox and also has tuberculosis; on the other hand we can say that in the tuberculosis we have the cause of the dementia præcox. That also seems a rather extreme view of looking at the problem. We can take a stand between these two extremes. We have a patient with a set of symptoms resembling dementia præcox, and he also has some physical disease and we can assume an interconnection between these two facts. In the meantime we can use this knowledge in two ways: In the first place we have an avenue of therapeutic approach to the individual; we can collect our facts for a future time and forge a link in the chain of a complete study of this case, other cases and the disease as an entity. We might take a little exception to the statement that institutions and hospitals are principally concerned with merely the physical care of the patient. A hospital which dare be called a hospital, is primarily concerned with the recovery of its patients.

I think the type of work indicated by Dr. McCarthy, and it seems the most valuable point of view we have to-day, can only be done on a large scale in the ideal hospital which will be developed in the next few years.

DR. KIRK.—I want to express my hearty appreciation of the opinion Dr. McCarthy has expressed relative to the cure of mental diseases. It has been my opinion for some time that there has been too much pessimism among all of us as to the cure of the insane. Years ago we were taught that dementia præcox was almost a hopeless mental disorder and that if a præcox case recovered it was done at the expense of the personality. There was an inclination on the part of many of us to assume that patients showing mannerisms and stereotype movements were invariably dementia præcox. It was not difficult for us to make the other symptoms fit into our preconceived idea that we were dealing with dementia præcox. Unfortunately many of these patients were looked upon as hopeless and often very little effort was made to promote a cure. However, regardless of our neglect of these cases many of them recovered and were kept in the institution month after month. Dr. McCarthy's inference that state institutions were inclined to hold patients in the institution after they recovered may be true in some instances, but certainly does not hold true in all institutions. Arkansas, with a population of 1,750,000, has but one hospital whose capacity is less than two thousand. This institution takes care of the acute and chronic insane, feeble-minded, epileptic, drug and alcoholic addicts, criminals of both the black and white races. With an admission service of 1000 to 1200 new patients each year, the problem of how to parole a sufficient number of patients to keep the doors open to new admissions is at times well nigh overwhelming. We have been paroling between 700 and 800 patients every year. The percentage of returns has been about twenty-five, which is in accordance with the per cent in other institutions whose paroles are from

50 to 100 per cent less than ours. It has been surprising to me to see how many of these patients have made adjustments. In regard to Dr. McCarthy's criticism of institutions not paying more attention to the physical defects of patients, I believe this holds true only in certain institutions that have not been progressive. The question of labeling patients is no longer of very much importance to me. Every one who works in a large clinic knows there are many atypical cases that do not fit into any of the various Kraepelin types.

DR. SOLOMON.—I would like to say that Dr. Greene's paper seems to answer the question of the rôle of syphilis as an etiological factor in dementia præcox. He has shown conclusively that it plays very little, if any, part as a primary factor as far as can be shown from a statistical study. As to Dr. McCarthy's paper, if I recall correctly, he said that 50 per cent of his cases of adolescent psychoses recover. I had expected to hear him say that he had recoveries in some 80 to 90 per cent of his cases of dementia præcox and therefore I was very much disappointed to hear him say that he had recoveries in only 50 per cent of the cases of psychoses occurring in the adolescent period. If one takes together all the cases that show mental symptoms between the ages of 15 and 30, a great many of these cases will recover no matter what is done. They are the cases that many of us call manic-depressive psychosis or hysteria or else we do not wish to classify them, but recognize that the prognosis is very good. I do not believe that we know what type of cases these really are but they are cases of mental disease that get well.

As to Dr. McCarthy's theory concerning the rôle of tuberculosis in the etiology of dementia præcox it seems to me that this is still in the realm of hypothesis. One cannot argue away such a hypothesis but it seems to me that sufficient facts have not been adduced to put it on a firm basis. I believe that the situation in regard to tuberculosis will dwindle down something like the rôle of syphilis when subjected to the same careful scrutiny as Dr. Greene subjected the syphilis hypothesis as the etiological factor in dementia præcox. However much I would differ from Dr. McCarthy as regards the theoretical aspects I would say that I have the heartiest regard for his results and his methods of handling patients. I know from personal experience that he treats his patients in a way that we could all copy with advantage to our patients and ourselves.

DR. GREENE.—I do not think there is any question as regards syphilis being an active causative factor in dementia præcox. I was impressed, however, with Dr. McCarthy's point that syphilis, while not necessarily directly passed along to the descendant, that it along with tuberculosis and many other conditions, may be precursors of a defective, and while in my paper I could not very well indicate any such thing as that, I feel that it is true; that the defective germ plasm is at the base of dementia præcox, and I do think that we must group our cases in order to treat them, and after we have

grouped them then we may treat them individually; no matter what treatment we use—whether physical, psychological, biochemical or what-not.

DR. McCARTHY.—I did not mean to reflect in the least upon the usual big type of institution. I referred to a type of commercial institution which is not concerned whether a case stays 10 years or a few months. I think everybody in the modern institution in the United States is only concerned with one thing, and that is to get the patients well. In private practice you can individualize the cases, whereas in the institution you cannot do this. I would hesitate to be so optimistic as to say that I could cure 80 per cent of the præcox cases. However, 80 per cent of the cases which you get of the adolescent psychoses do get well. I am talking about the cases in my private practice. Cases in which there is plenty of money to carry out the treatment as you wish.

The endocrine group is not based on a theory. Go into any hospital for advanced tuberculosis; go to the autopsies of those cases and study the pathology. I have investigated the autopsies and studied 500 autopsies at the Phipps Institute in Philadelphia, and I know what I am talking about when I talk about the effect of tuberculosis on the endocrine system.



## THE LABORATORY SERVICE IN STATE HOSPITALS FOR MENTAL DISEASES.\*

By HAROLD I. GOSLINE, M. D.,

*Pathologist to the State Institutions, Howard, R. I.*

The present condition of state hospital laboratories may be considered from three angles, namely, their internal arrangements, their physical arrangements, and their relation to the community.

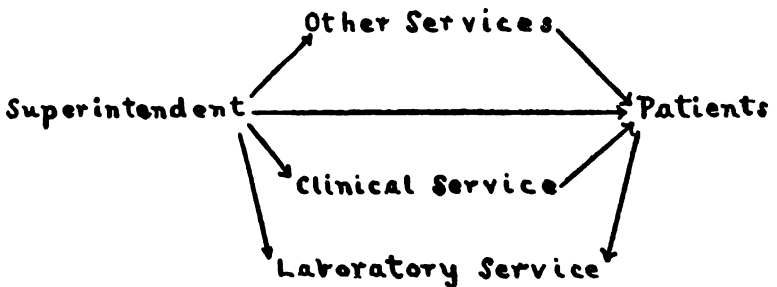
With regard to their internal arrangements we find that such laboratories occupy one of three positions, seldom a mixture of two, to any extent. They are either outside the machinery of the rest of the hospital, or they stand between the clinical staff and the patient; or they have a dominating position in the hospital, or life of the institution.

I can think of several examples of the first sort of arrangement. In fact, it may be said without being far from the truth, that the majority of laboratories in this class of hospital fall into this first group, as far as their internal arrangements are concerned. They are research laboratories primarily, and serve the patients present in the hospital only in a very subordinate and secondary manner. They make post-mortem examinations and section the tissues obtained from such examination. Some compare the findings with those already set down in the literature on the subject, and publish their results. In some instances the histological report as well as the gross autopsy findings is filed with the case. A few laboratories do microphotography; still fewer photograph gross anatomical specimens, such as whole brains. One laboratory, to my knowledge, is culturing the abscess pockets and the eroded areas at the roots of extracted teeth. One laboratory is making a special study of staining methods for use in neuropathology. Another is making a special study of

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

syringomyelia; still another of the brains and the glands of internal secretion in a certain class of mental disorders. One has studied the brains and the bacterial flora in one class of cases; another is researching in chemistry and in psychology. I cannot mention those special institutions which are devoted entirely to research, because they are not connected with any state hospital primarily. I am considering only laboratories of the state hospital sort. This leads me to pass over such institutions as the one at Ward's Island, or here in Boston, or that of Kraepelin in Munich.

Most of our state hospital laboratories will also examine urine if sent down by a member of the clinical staff. Some will examine sputum or stools; very few will do any bacteriology, especially

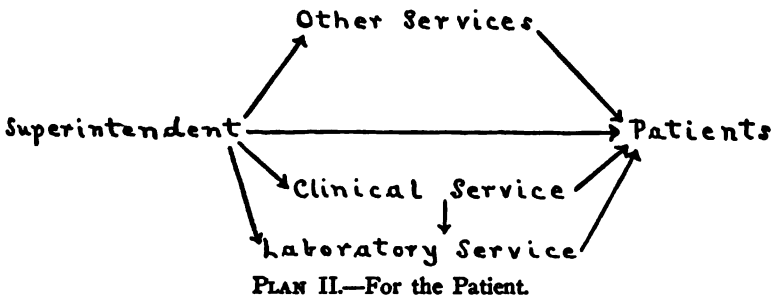


PLAN I.—Research.

if it assumes the proportions of a survey of the hospital population, such as took place constantly in the army and with such admirable results in plotting epidemiology. In this function, little as it is exercised, the laboratory stands between the patient and the clinical staff, in that the clinical staff modifies its procedures to conform to the data obtained by the laboratory.

There are a number of laboratories in psychopathic hospitals and their equivalents which stand in the second group with regard to their internal workings; that is, they stand between the patient and the clinical staff in certain matters of procedure. These are outside the scope of this paper. Laboratories in state hospitals, in only two instances to my knowledge, stand in this position in all cases where an accepted laboratory procedure is in use. In most laboratories, as we have said above, the relation to the patient

is only of secondary importance. But in these two the relation to the patient stands first. They not only do the urine analysis, but it is done as a routine procedure on all incoming patients and in one of them on the entire hospital population, and this survey of the entire population is repeated at intervals. One of these laboratories also does a blood count on most incoming cases; the other does them on every patient in the hospital as well. So with the other procedures that are of recognized scientific importance from a laboratory standpoint, one does them on new cases, the other on all cases. The Wassermann is the chief one, with the various spinal fluid tests where indicated by a positive blood or the examination of the patient. On the basis of these examinations selected

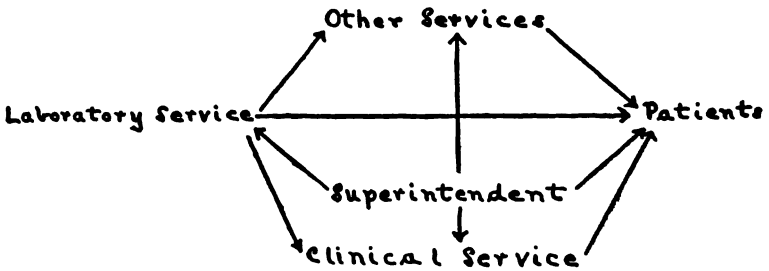


cases of syphilis are treated in the one and practically all cases in the other. In addition one of these laboratories does bacteriology, various forms of complement fixation, fecal examinations, vaccine manufacture, X-ray.

The third group in which the laboratory dominates the rest of the hospital has no representative to my knowledge in the state hospital service, and only one in a psychopathic hospital. Even here I may be misinformed or uninformed, for this hospital is not in complete working order, I believe.

So much for the internal arrangement of this class of laboratories. The physical arrangement is just as important and in many instances may be considered to be the essential cause of the internal conditions set forth above. In the matter of personnel and of buildings, of relation to the other hospital services and to the superintendent there are issues of vital importance to the safe

conduct and the successful conduct of this class of laboratories. The pathologists, in many instances, are untrained and inexperienced. There are no medical schools which prepare essentially for this work. Only recently Harvard has made preparations to give the degree of D. M. S. to give the man with this type of mind an opportunity to recruit an adequate laboratory service which has suffered everywhere owing to tremendous opportunities in more attractive fields of medicine. Not only are pathologists few and more or less difficult to attract to state hospital laboratories, but their places are left vacant for other reasons best known to superintendents and governing boards. In addition, most laboratories of this sort lack a sufficient number of properly trained technicians.



PLAN III.—Laboratory Dominant.

There are a few training schools for technicians now, but so far we have seen little of the graduates. Most of the technicians we have are trained by the pathologist in the few duties which devolve upon them. I have not seen one thus far who could have been an officer in the sanitary corps of the army and few who might have been sergeant in the medical department. Most of them would be privates, I believe. (There are probably some exceptions to this rule.) In one instance, a former janitor was made the laboratory bacteriologist after some personal training and supervision of the medical director. (I am not saying these things to disparage, I am merely stating facts. So far, such conditions as those presented have been physically necessary.)

In the matter of buildings, and equipment, many of our laboratories have not suffered. Others still occupy "holes in the ground," so to speak—that is to say, they consist of a single room



in the basement, isolated from the rest of the hospital. Fortunately this condition does not obtain in most places. Several laboratories occupy spacious buildings of one, two or three floors. Practically all of them are equipped to do routine histopathology by the paraffin or celloidin methods. Some do frozen sections. All are equipped to do the simpler tests on urines, and the blood counts. A few are equipped for the Wassermann and spinal fluid examinations; still fewer for the simpler bacteriological procedures, and the X-ray procedures. In no instance, in my experience, is a qualified roentgenologist in charge of that work, or an experienced bacteriologist in charge of that work. In every instance the work is being done by the pathologist who has been fortunate enough to "pick up" the other line, or by some one else trained as a technician and in one instance given the power to make a diagnosis of the organism found.

Similar differences exist in different hospitals, in the relation of the laboratory to the other services of the hospital. I recall hearing a certain pathologist at last year's round-table on laboratory work say that a certain piece of work had to be discontinued because the attendants got the specimens mixed up. Let me say that I do not believe that a state of affairs should exist in which the laboratory is dependent on attendants. The laboratory itself should have sufficient help to enable it to collect its own specimens. This is desirable from the standpoint of the laboratory, because no laboratory can feel certain of its results when it is not certain in the first place that the label on the specimen is that of the correct patient. It is desirable also from the standpoint of the ward services because such services naturally feel that they are being loaded up with the work of another department. Since they have no obligations to the laboratory and are entirely outside its control naturally, the service that they render is not of the most acceptable sort.

The success of the laboratory once its existence is granted by the governing bodies, depends largely on the superintendent of the hospital. In this matter we shall leave out of consideration the question of appropriation, personnel, equipment and relations to the other services of the hospital. If a superintendent is hostile to the laboratory idea there are as many ways for him to render its operation ineffective as there are in the army to discipline a

subordinate. On the other hand, if he favors the plan, a laboratory can be built out of bricks without straw, so to speak.

This leads me to another matter; that of appropriations. Figuratively speaking, many laboratories under the direction of such a superintendent have been built out of bricks without straw. The apparatus is home-made, except for a few essentials like a microtome or a microscope, the building is a "hole in the ground" constructed from second-hand lumber and out of the appropriations for repairs and maintenance. The technicians are on the nurses' and attendants' pay-roll; and yet the work is done, the rapport with the other services is excellent, the laboratory morale is maintained; everything moves. Such superintendents deserve considerable credit for they are rendering a real public service in advance of the times, in many instances.

Other laboratories have their own appropriations. Naturally, this method of maintenance is preferable all 'round. It removes the burden from the shoulders of the superintendent, and it allows the laboratory director to know when he may ask for more without bothering his superintendent.

There is finally the relation of the laboratory service to the rest of the community. This grows out of all the other conditions which I have mentioned up to this point and it is of the utmost importance not only to the laboratory, but far more to the hospital served and to psychiatry in general. There are two sides to the picture; I will point out the less fortunate side first, leaving the more agreeable one to follow and lead us into another aspect of this subject.

State hospital laboratory work so far has made little impression on the public or on that specialized branch of the public—the medical profession. The following facts bear out this statement. Surgeons are dabbling in psychiatric problems, bacteriologists are meddling, neurologists are trying their hands at it. I submit that if psychiatrists were to enter surgery, bacteriology or neurology with the same degree of unconcern shown by the former gentlemen, they would meet with a tart reception. Yet a surgeon playing bacteriologist, once claimed to have found the cause of epilepsy, another cures dementia præcox by surgical methods; another makes misleading remarks about glands of internal secretion, and psychosis, and the latest star in the psychia-

tric firmament is a gynecologist who has much to say for such glands in mental disease. These men are misdirected by others in our own profession who make unfounded claims of cure in paresis, or the value of the Abderhalden reaction, of the efficacy of antitoxic sera in various forms of meningitis, and of the etiological rôle of focal infections in the production of the psychoses. In making these statements you may think you recognize personalities. However, it is the thing I wish to attack and not them. In every case it is not one person, but many who do these things. Some stand out more conspicuously than others, owing to the advertising they naturally get in the newspapers. I think it only fair to say that the intentions of these gentlemen do not come into question. It is not the motives but the propriety of their acts that I question. Contributions from other branches of the profession are always welcomed by psychiatrists. I think I may say that contributions from other fields are welcomed by psychiatrists with more grace than contributions from psychiatry are received by other branches of medicine. But the serious side of this matter is plain when I say that in certain instances directions of policy have been shaped for psychiatry by men whose chief interests and chief knowledge is outside this science. Thus, on excellent authority we have it that two eminent bacteriologists stated that psychiatry was not at present a worthy object for donation because its problems offered no tangible point of attack. Thus, for ten years to come psychiatry was robbed of a donation for research on the word of men who knew nothing of the matter personally, or who were ill-advised.

There is only one method by which these undesirable developments can be averted as they arise and that is the method of science, the patient record of objective observation—that is to say, by hard work. What place is better suited to the patient record of objective observation than the laboratory service? The laboratory service is the scientific service of the hospital. More of it would be an antidote for various panaceas. More of it in psychology would have averted the psychopathic epidemic we are happily passing through, most of us without being scarred. More of it will avert the endocrinopathy we are to pass through.

The more pleasant obverse side of this picture is known to all of you. We have on one hand the researches of Nissl and Alz-

heimer and of many workers in England, France and America, on the other, the final refutation of the bacillus epilepticus, the proper placing of focal infection now in progress, and the evaluation of therapy in paresis. Moreover, we have physiological psychology. To be sure much of this important work has been done elsewhere. But in this pleasant picture the state hospital laboratory has nevertheless played an important part. From the routine histopathology done in these laboratories some very important conceptions may be formulated concerning tissue reactions to various noxious agents. One of them is that tissues react in precisely the same way to numbers of such agents as far as we can determine by present methods. Thus, noxious agents may be grouped according to the tissue reactions they produce. This data is corroborated by the data from general pathology and biology in general. The organism in spite of its complexity, is after all capable of only a finite number of reactions. If we were to characterize these phenomena further into a law we might call it the "Law of the non-specificity of reaction of biological tissues and substances." A corollary of this law is that biological tissues and substances have a certain number of ways of reacting that are peculiar to the tissue or substance in question. A second corollary is that exciting agents produce certain common tissue reactions and certain common reactions in other substances by reference to which said exciting agents may be grouped. An addendum to the law would be that tissue reactions and the reactions of other biological substances are specific within the very wide limits allowed by the law.

I want to proceed now to the second part of this paper to point out what may be reasonably expected from routine laboratory work in the case of the mentally sick in state hospitals.

We find in the simplest procedures, such as urinalysis, not so many albumens or sugars, or casts but we find numerous samples with pus cells and bacteria. We ought to determine the nature of these bacteria and more especially their virulence. We ought, in other words, to know how many bacteria it takes, from these specimens, to kill a given number of grams of guinea pig, let us say. We might reasonably expect first, then, to know whether the bacterial flora of the genito-urinary tract in the insane is of

any moment or is merely saprophytic. The importance of this point must be self-evident.

In ordinary blood counts we find reduction in the total number of red cells, reduction in the whites with an occasional increase, a reduction in the percentage of polymorphonuclear cells and an increase in the lymphocytic elements. There are frequently present myelocytes and transitional cells. These last named elements do not exist in normal blood. Work in blood chemistry, in metabolism, in bacteriology, we might reasonably expect would throw light on the meaning of these changes. This is the second point.

We might expect thirdly to learn more about the treatment of paresis or the significance of the Wassermann reaction. Why, for example, does treatment seem to make certain cases distinctly worse so that some writers are now calling attention to what they term a salvarsan paresis? Would other forms of treatment, in addition to the antisyphilitic, aid other forms of psychosis suffering also with syphilis? What criteria should be used in pursuing the treatment of luetics? Are we to treat those who will have irreparable defects even if their syphilis is abated? How are we to determine which cases will have irreparable defects, though the lues is abated? I believe that we may reasonably expect a sane answer to all these important questions from a combination of routine histopathology and routine psychological examination plus the present methods of history-taking and physical examination.

I do not believe that we shall ever find the "cause of mental disease" in blood and urine chemistry. In the first place the search is absurd as stated. But from the chemical examination of the blood and urine in the psychotic we may reasonably expect to shed light on their metabolic processes. I do not believe that we shall ever find the "cause of mental disease" in bacteriological examinations. But from the study of the bacterial flora of the oral cavity and so on, we may reasonably expect to know more about the patient studied than we would know without such examination. I personally expect to hear something of value in the case of those who are found to be carriers and more especially if the organisms isolated really prove to be virulent. I do not believe that we shall ever find the "cause of insanity" in X-ray

studies. But the Roentgen rays do show changes in density in the alveolar processes and in the roots of teeth. Extraction, culture and animal experimentation may show whether these are of importance. The X-rays do show changes in the sella. Experimental glandular therapy and post-mortem examinations may tell us what these changes in the sella mean. The X-rays do show changes in density in the lungs, thus revealing processes that are not shown by the usual clinical methods. Anyone who has studied tuberculosis knows that the type which spreads through the lungs by way of the lymphatics often gives no signs that can be detected by percussion or by auscultation. The skiagram is invaluable in these cases when checked up later with post-mortem findings so that the examiner knows how to interpret his plates. The X-rays do allow us to study the rapidity of movement of the meal through the gastro-intestinal tract, thus giving information as to the functional condition of this neuromuscular apparatus. Knowledge of the condition of this large tract of highly important neuromuscular apparatus might be of great moment, might furnish us a valuable bit of information and a tremendous insight into the whole physical state of the individual. You will all recognize that this is a surmise, but when I say that the entire mental personality can be reduced on the basis of introspective psychological analysis to sensation, association, reaction and inhibition, you will see at once the importance of knowing something about the condition of this tremendous stretch of reaction-inhibition mechanism, known anatomically as the gastro-intestinal tract.

Likewise, I do not believe that we shall ever find the "cause of mental disease" in electrocardiographic studies. But the electrocardiograph does give us information not only as to the conduction of the impulse through the heart muscle, the use ordinarily made of it, but it also gives us a written record of the heart rate. Here is another bit of information, the chance for another glimpse into the depths of the physical make-up, into the functional state of the cardio-vascular neuromuscular apparatus. Again we would have physical information to aid or refute a rational bit of psychoanalysis by the method of introspective psychology.

Again, I do not believe that we shall ever find the "cause of mental disease" by psychological analysis whether of the interpretative or of the physiological sort. Rather, we shall get from psychology information that may be thrown together with all the other bits of information and finally we may know what constitutes the state of abnormal mentality. I believe that mental abnormality and mental deficiency like mental normality and mental efficiency are not conditions produced by causes but are rather states, the sums of conditions. I think that we may reasonably hope from routine laboratory work in the care of the mentally sick to be able to describe and explain the conditions whose sum total is the state of abnormality or defect and once having adequately described these conditions, we may reasonably expect to instruct the public on how to avoid the causes which underlie them.

To sum up this part of this paper, I would reiterate that we may reasonably expect from routine laboratory work to be able to prevent mental disease and defect. Laboratories in state hospitals are the most tangible tools yet placed in the hands of mental hygiene for this purpose and in time they will render her the same service that general hospital and research laboratories have rendered public health of which mental hygiene is but a branch. I believe that public health measures and eugenics measures will go far toward eradicating mental disease and defect, and their related branches of poverty, crime and delinquency, and we may reasonably expect that routine laboratory work will play the most tangible part in this progress as it has in all other forms of progress, when linked up with research.

In accordance with these ideas the laboratories at the State Hospital for Mental Diseases at Howard, Rhode Island, are being developed.

With regard to the internal arrangement, the laboratories will not stand aloof from the rest of the hospital, or will they assume a dominating position. We are planning to make them stand between the physician and the patient with the purpose of serving and conserving the interests of both. Naturally, a laboratory with the equipment and personnel that we plan will be able to do considerable work of a research nature from time to time. Numbers of lines of research will present themselves merely from our

statistical compilations. Undoubtedly also, numbers of physicians interested in research in mental disease will come to us for the purpose of studying our material or of working up data of their own.

As for the physical side, we confidently expect in time to have a laboratory building, conveniently located, connected with all parts of the hospital by sub-way or corridor for the easy transport of patients or specimens to and from the laboratory. Such a building should consist of three floors with proper placing of the various departments. Each should have its own library, its own head, its own technicians and supplies, but the entire plant should be co-ordinated through the pathologist's office where a copy of all records should be kept and where statistics should be compiled.

For a fourteen hundred bed hospital it seems practicable and reasonable to ask for the following quota of personnel: one pathologist, with four technicians, one stenographer, one statistician, one roentgenologist, with one technician, one bacteriologist with one technician, one chemist with three technicians, and one electrocardiographer with one technician. I believe this complement adequate but not excessive as I shall point out later.

The technicians of the pathological laboratory, four in number, will work on blood counts, urinalysis, Wassermann reaction and spinal fluid examinations and on histopathology. The technicians of the chemical laboratory will work on the preparation of culture media for the bacteriologist (under the latter's direction), on metabolism work of various sorts and in other branches of biochemistry. The other laboratories each have one technician to whom technical details can be taught and by whom they can be carried out when known sufficiently well.

I do not believe that these numbers are excessive because we hope to repeat our examinations at regular intervals on the resident population of the hospital and because there will always be work of a purely research nature going on at all times. I believe that this force is adequate because it will give us a sufficiently rapid overturn of routine material. I mean by that, that I do not believe the period between examinations should be too long.

In the statistician's office every record should be itemized so that we may know at any moment what cases should have shown



pathological data. These data are to be classified by groups so that anyone coming for study or interested in research can find out at once what cases show respiratory lesions by X-ray, positive Wassermann reactions, and so on.

We expect that a laboratory of this size will cost about \$25,000 a year to run. This is a large sum in the aggregate and it will be thought at once that the scheme is impracticable for such states as Massachusetts, for example, where there are several state hospitals and where the upkeep of these institutions now amounts to several millions of dollars per annum. But let us approach the question on the basis of cost per patient. If we have fourteen hundred permanent population and from three hundred to five hundred new admissions per year, the cost per patient per year is between \$13.00 and \$15.00. I will not pause to play on your emotions by asking whether the state cannot afford to spend \$15.00 per patient per year for study with the chance of learning something of benefit to the patient or in the prevention of mental disease. But I will go at once to the comparison with salvarsan therapy where the public has responded so generously that we have cost the state for the administration of salvarsan only \$215.00 for nine months' treatment of over one hundred cases. Patient's relatives have responded with \$15.00 every fourteen weeks, many for the third time. I believe that if we were to ask for every patient the sum of \$20.00 per year for the study of his or her case while in hospital, that we would get enough from those who could pay to make the scheme practicable without costing the state a cent. However, the plan would have to be backed by the state and with the chance of the same thing happening that has already happened where the payment of board is largely voluntary, that is, the pauperization of the insane. Such an outcome would be highly undesirable as state subsidy for pauperization of any class is poor social or political policy.

In this physical plan the only element that I am aware of having omitted is the psychological laboratory. It has not been practicable to introduce this element at this time. However, I personally have great hopes that psychology will make it possible for the psychiatrist to go directly from the symptoms shown by his patients to the psychological elements involved. To make the transfer to

physiology and anatomy, I think will be comparatively simple if the first can be effected. The hope then is to link the physical findings with the data from the psychological laboratory. When this is effected we shall be in possession of a complete understanding of each individual patient.

Such then is the outline of a plan proposed for the extension of laboratories in the State Hospital for Mental Diseases at Howard, Rhode Island. The final thing that we may reasonably expect if this plan is carried into effect, is a change in the attitude of the public toward our hospitals. The public will look upon these hospitals as hospitals indeed. It does so now with much hesitation in spite of tremendous propaganda to stamp out the asylum feeling. The medical profession will not, in its ignorance, proclaim to the business man, that there is no point of attack in the study of mental disease. And last but not least the medical student will be attracted to us with the same force that takes him to other branches of medicine, instead of being rather repelled from us as he now is, on the whole.

#### DISCUSSION.

DR. MYERSON.—I want to use the hammer rather vigorously on Dr. Gosline for one main reason, and that is, he has used the term "insanity" as if speaking of an entity. There is no such *thing* as insanity. We have many different types of mental disease which are not at all necessarily related to one another. Once upon a time we could not separate general paresis from other mental diseases. To-day we know that this is infectious in origin, and we certainly are developing chemical treatment for it. As time goes on we are spreading out mental diseases on the biological-serological basis. Undoubtedly, we shall some day spread some of them out on an endocrinal basis. There is no reason to expect that we have come to the end of our rope chemically or bacteriologically in psychiatric diagnosis and treatment. It is important for the sake of our sciences that we do not make predictions about something that does not exist, and that we make our predictions about each entity as it arises.

DR. H. W. MILLER.—I just had a word or two to say. I was very much interested in hearing what was being done in laboratories in state institutions. I noticed in Dr. Gosline's paper something to the effect that there was a little difficulty in always establishing the laboratory. I really had thought we had passed that stage. I know it is sometimes difficult with the administrative side, but I did not think there was any difficulty with the medical side of the public insane institution.

There is one point I would like to make, and that is that it is very necessary that the laboratory should be so arranged or so constructed that we could take up new problems as they arise. We are always having new problems in connection with mental diseases. At the present time we have the endocrinological work, and there is no phase of this work of the internal glands which is more important than the post mortem pathology in connection with the insane. I think the investigation can come largely from the institutions for the insane and feeble-minded.

DR. GOSLINE.—I can only say that I appreciate these criticisms, but that certain of them are answered in the paper. In regard to what Dr. Myerson says, I am perfectly well aware that insanity is a legal concept, yet those are the cases which we get in the state hospitals and those are the cases which we are studying. I might take issue with the statement that the discovery of the spirochete explains the whole of paresis; it does not explain why the clinical picture of paresis is such a kaleidoscopic one. I think more knowledge of the anatomical locations involved in the syphilitic process would go a long way to clear up our ideas of paresis on the clinical side.



A NOTE FROM SAMUEL TUKE TO THE NEW YORK  
HOSPITAL (1811).

By HENRY VIETS, M. D., BOSTON.

There has recently come to my notice a manuscript of 16 pages,  $19\frac{1}{4} \times 25\frac{1}{2}$  centimeters, written on paper with a watermark 1805. At the top of the first page appears the inscription, "For The Governor of the New York Hospital." On page 13, at the end of the manuscript in pencil, appears the following in another hand: "Application having been made to Lindley Murray for some information on the subject of Asylum, he requested S. Tuke to prepare some remarks for which he wrote the following." On the back of the manuscript, page 16, is another note in pencil by the same hand, as follows: "1811. 3 mo. Hints on the treatment of insane persons, by S. Tuke. To the Governor of the New York Asylum." The manuscript is written in a neat, clear hand, and signed in still another hand, "S. Tuke." The pages are bound together without a cover. The manuscript may be the original, dictated by Samuel Tuke, or perhaps is only a contemporary copy. The "3 mo." for the month of March is suggestive of its Quaker origin. If this is a copy, the original cannot be found at the Bloomingdale Hospital (New York Hospital), White Plains, New York, Mr. Crane, the secretary of the Society of the New York Hospital, has made a thorough search for it. Dr. William L. Russell, the present superintendent of the Bloomingdale Hospital, states that "Mr. Thomas Eddy, a member of the board of governors of the society, who was especially active in the establishment of the Bloomingdale Asylum, received in 1815 a letter<sup>1</sup> from Samuel Tuke, of the York Retreat. We have a printed copy of this, and so far as I know, the only one in existence. In this letter reference is made to a publication by Mr. Tuke on 'The Construction and Economy of Pauper Lunatic Asylums.' This was evidently something different from the document which you have."

<sup>1</sup>"A Psychiatric Milestone. Bloomingdale Hospital Centenary, 1821-1921." Privately printed by the Society of the New York Hospital, 1921.

The history of the Tuke family is of great interest to both the medical historian and the psychiatrist. William Tuke, the first of the famous line, was born in 1732 and died in 1822. He founded, with the aid of his son Henry, the "York Retreat for the Insane" near York, England, about 1792. He was a Quaker, and the retreat is often spoken of as "The Quaker Retreat." It was the first attempt at the humane treatment of the insane before the time of Pinel. His grandson, Samuel Tuke (1784-1857), was not a physician, but continued the work of his grandfather at the York Retreat. He wrote, in 1813, "The description of the Retreat," two years after the manuscript described here. In this book are embodied the ideas expressed in the manuscript. His son, Daniel Hack Tuke (1827-95), was a distinguished physician who collaborated with J. C. Bucknill in "The Manual of Psychological Medicine" (1858), the outstanding book of its time on this subject.<sup>9</sup> In 1892, at the celebration of the centennial of the York Retreat, D. Hack Tuke delivered a lecture on its early history, published the same year in London.

It is not surprising, therefore, that the board of governors of the newly formed New York Hospital, in 1811, requested Samuel Tuke to send them some notes to aid in the establishment of a new hospital in White Plains. The York Retreat had been a pioneer institution in the care of the insane.

The advice given by Samuel Tuke in the notes was "chiefly drawn from the experience of the Retreat in York." He tells the hospital authorities in New York that in the selection of a manager for their hospital they should be careful to pick out one with "a natural quickness of perception, a tendency to observe the varieties of mind which will enable him to perceive with readiness and apply with address such moral treatment as the different cases may require." In other words, he insists that actual experience in the care of the insane ought to be the best teacher.

Under the heading "Medical Treatment," he states that the experiences of the retreat up to that time have not thrown much light on the medical treatment of insanity; it has led him to believe that one can expect to accomplish little by its aid and has convinced him of the folly as well as cruelty of forcing upon the

<sup>9</sup> Fourth edition published 1879.

patient a large quantity of nauseous draughts. Furthermore he says that "the warm bath has been much used at the Retreat for several years in all cases of melancholia with the happiest effects." In place of large doses of opium, he suggests that much can be accomplished by a liberal supper as an effectual anodyne. Patients with violent excitement who are indisposed to sleep are "supplied freely with meat or cheese and bread, and good porter," also, "in cases where the patient is averse to taking food, porter alone has been employed with great advantage." Cupping he uses occasionally, but he is averse to the use of general bleeding and other evacuations. He thinks that the high situation of the retreat, with its very dry air, is an important feature in treatment, and insists that patients should be exposed to the open air, or at least kept in well-ventilated apartments. He is against the use of low diet or violent evacuations.

He insists further upon the use of uniform kindness to patients and "never to deceive them, either by promise or threat." He states that the idea of commencing an acquaintance with a mentally deranged person by "an exhibition of strength, has been found at the retreat extremely erroneous, and to be a part of that cruel system dictated perhaps by timidity, which has so long and unhappily still prevails in many of the receptacles for the insane."

In the paragraph on "Modes of Coercion" he notes that "kind, yet firm, treatment has been found to supercede the necessity of much coercion of any kind, and neither chains nor corporal punishments have ever been allowed on any pretense at the Retreat." Certain methods of restraint, however, were used occasionally, such as the straight-jacket or a belt around the waist.

Before the time of the first Tuke, the history of psychiatry is too well known to warrant description here. An excellent account of this period is found in Garrison's History of Medicine.

In contra-distinction to the mediæval ideas regarding the treatment of the insane so common throughout the eighteenth century, we find William Tuke in 1792 founding the York Retreat on a definite humane basis. The advice given by Samuel Tuke to the New York Hospital clearly carried out the ideas of his grandfather. The treatment of the insane in this country, therefore, was founded on the principles established at the Quaker Asylum. Slightly after the time of the earlier Tuke we have the great

work of Pinel and his successor Esquirol at the Salpêtrière in Paris. Some of this work in France was done about the same time as the work at York, but William Tuke knew little of it. Pinel's great work of insanity (*Traité Médico-Philosophique, Sur l'Aliénation Mentale*), appearing in 1801, must have affected somewhat the founding of the New York Hospital. Esquirol's work, "*Des Maladies Mentales*," did not appear until 1838. The work of John Connolly "The Treatment of the Insane without Mechanical Restraints," 1856, and that of Gardiner Hill, 1839 and 1840, carried out the ideas already established by the Tukes, and laid more emphasis on the "non-restraint," or open-door methods.

This manuscript is therefore of interest because of the ideas expressed by Samuel Tuke in the first decade of the nineteenth century, many of which were directly incorporated into one of our great institutions for the care of the insane. The manuscript itself will be found deposited in the library of the Bloomingdale Hospital, White Plains, New York. A complete copy is appended to this note.

1811

3 mo.

HINTS ON THE TREATMENT  
OF INSANE PERSONS BY  
S. TUKE.

*To the Governors  
of the New York Asylum.*

For the Gov<sup>rs</sup> of the New York Hospital. The following general hints on the treatment of insane persons have been chiefly drawn from the experience of the Retreat in York. The Compiler however is fully aware that after all which can be learnt from others, much must remain for experience to teach. The modes of insanity and consequently its treatment, will be found to vary in no small degree with all the varying characters, manners and habits of the human mind, and therefore, the object to which those concerned in the establishment of Lunatic institutions ought most peculiarly to direct their attention, is the selection of a manager who possesses, in addition to other qualifications, a natural quickness to perception, and tendency to observe the varieties of mind which will enable him to perceive with readiness and apply with address such moral treatment as the different cases may require.

*Medical treatment.* It must be confessed that the experience of the Retreat has not thrown much light on the medical treatment of insanity. It has however led the manager to believe that but little is to be done by its aid, and convinced him of the folly as well as cruelty of forcing upon the patient a large quantity of nauseous draughts at a time when probably his



aversions are more than usually strong, and when he is with difficulty induced to take the food necessary for his support. The use of medicine is however far from abandoned at the Retreat. In all cases where the disease has supervened, or is attended by any obvious bodily disease, however slight, advantage may reasonably be expected from the removal of such complaint. The warm bath has been much used at the Retreat for several years in all cases of melancholy with the happiest effects, indeed, there has not been any recent case in which it has been employed without relieving or removing the complaint. The patient usually makes use of the bath every other day, and continues in it about 20 minutes at a temperature of about 85 degrees. The time of continuance is gradually advanced to nearly an hour, and the temperature to about 96 degrees.

The difficulty of obtaining sleep for maniacal patients, and that opium taken in large doses frequently produces no effect is well known. It suggested itself however to the sensible mind of the superintendent that all animals in a natural state repose after a full meal, and, reasoning by analogy, he was led to imagine that a liberal supper would perhaps prove the most effectual anodyne. He therefore caused a patient whose violent excitement of mind indisposed him to sleep to be supplied freely with meat or cheese and bread and good porter. The effect answered his expectation, and this mode of obtaining sleep has since been generally and successfully employed. In cases where the patient is averse to take food porter alone has been employed with great advantage. Medical attention to the general bodily health during convalescence and in the lucid intervals of the patient is of great importance. The return of the disease may frequently be suspended if not prevented by this kind of attention. The operation of cupping applied to the head, temples, or neighbouring parts, has very frequently been attended with great advantage where any pain or heat has been felt in the head. General bleeding and other evacuations have been found injurious at the Retreat, and are therefore not used except where their necessity is indicated by the state of the bodily habit.

*Air and Regimen.* The situation of the Retreat is high and affords a very dry air, which there is reason to believe is of very great importance to lunatics, but more especially for those of the melancholy class. All the patients should as much as their cases will allow be exposed to the open air, and particular care should be taken that their different apartments be well ventilated.

The regimen of lunatics should be regulated by a consideration of the nature of the disease and the state of the bodily habit. The experience of the Retreat has fully convinced the manager of the general impropriety of reducing the patient, however violent, by a low diet, or violent evacuations. The following is the general diet of the patients, viz. Breakfast. Milk and bread or milk porridge. Dinner. Pudding & flesh meat six days in the week, fruit pudding and broth one day. In the Afternoon the men have bread and beer, the women Tea or Coffee. Supper is generally the same as breakfast, sometimes bread, cheese, and beer. The parlour patients when

sufficiently well partake of whatever comes to the superintendent's table, and some are supplied from it in their own apartments.

*Moral treatment.* It will naturally occur to most persons that the first objects to which the attendants upon lunatics ought to apply is, to obtain their entire confidence and good opinion, and for this purpose it is necessary to treat them with uniform kindness and never to deceive them, either by promises or threats. The idea, which has too much prevailed, that it is necessary to commence an acquaintance with lunatics by an exhibition of strength, or an appearance of austerity, has been found at the Retreat extremely erroneous, and to be a part of that cruel system, dictated perhaps by timidity, which has so long and unhappily still prevails in many of the receptacles for the insane. Perhaps, in general, much familiarity when a patient first enters the house would have a tendency to lessen that authority which it is in some cases necessary for the attendant to possess and exert, but let it be remembered, that in most instances of mental depression, the behaviour, though it ought to be firm, cannot be too kind, conciliating, and tender. There may however, be particular cases in which the attendant may, perhaps with advantage, assume a distant and somewhat important manner, but it must be done with extreme judgment, as the observation of maniacs is frequently morbidly acute.

It rarely happens that all the faculties are deranged at the same time, and the moderate exertion of those which remain sane, is calculated to correct and strengthen those which are diseased. The patient on all occasions should be spoken to and treated as much in the manner of a rational being as the state of his mind will possibly allow. By this means the spark of reason will be cherished, and that painful feeling of degradation which must be felt in a greater or less degree by all who recover the loss of their rational powers, and which cannot fail materially to depress them, will be greatly lessened. During the state of convalescence attention to this hint is peculiarly important, and the greatest advantage has been found to arise at the Retreat from introducing the patients who appear to be recovering into the society of the superintendent and the other rational parts of the family. This liberty is afforded to the Poor as well as the more opulent patients, as it has been found very materially to accelerate the recovery, if indeed it be not essential to it. Of the modes of employing the minds of maniacs, those are to be preferred which are accompanied by bodily action, which are of the amusing kind, and are most opposite to the illusions of their disease. When the patient is himself inclined to any particular employment, if not very unsuitable, it should be seized as a favorable circumstance, and carefully encouraged. Conversation with those who can condescend to their weaknesses and walks into the country under suitable care has been found of essential benefit to the different classes of patients. The salutary effects of air and exercise, the variety and the beauty of the objects of nature and rural life, as well as the subjects on conversation which these excite, have a strong tendency to still the effervescence of an overheated imagination, and to inspire the anxious and

melancholy mind with tranquil and pleasing emotions. The experience of the Retreat has fully shown in melancholic and hipocondriac cases, close confinement is of all things the most unsuitable. Hence we may explain why so few cases of melancholy are cured in lunatic asylums in general, and hence, happily, we may also in great measure explain why so many labouring under these most effecting complaints have been restored by their treatment at the Retreat to their families and society.

Several of the convalescents are made useful in assisting the attendants, and the females in general are employed in needle work where they can be safely entrusted with the necessary implements. The use of books and pen and ink are generally allowed, and the indulgence has been found generally beneficial. It must however be allowed that a suitable mode of employing the men patients is still a desideration.

The principle of honour is often very strong in the minds of lunatics: I have often known patients who were under a voluntary engagement of good behaviour, hold a successful contest for a considerable length of time with the strong wayward propensities of their disorder, and even conceal all marks of aberration of mind. The attempt is highly beneficial to the patient, and ought to be sedulously encouraged by the attendant.

Several of the patients are permitted to attend the meetings for religious worship in the city, and all who are suitable are assembled together on a first day afternoon when the superintendent reads to them some chapters of the Bible. A profound silence ensues, during which as well as the reading it is curious to observe the order with which the patients conduct themselves and control their different propensities. In cases where the patient is disposed to be violent, advice given in a friendly manner is very often successful in preventing the necessity of harsh measures, which ought never to be employed without absolute necessity and then with obvious marks of regret on the part of the attendant.

It is proper however to observe that no advantage has been found to result from reasoning with maniacs on their particular hallucinations. One of the distinguishing marks of insanity is a false conception, which of course occasions an incapacity of conviction. The attempt therefore generally irritates the patient, and rivets the false perceptions more strongly on his mind.

When a patient proves refractory, and coercive measures are indispensable, it is advisable to have an ample force employed, as it prevents in general any attempt at resistance, but, where such force cannot be obtained and the case is urgent, courage and confidence will usually overcome the violence of the patient, for there are hardly any instances in which maniacs have displayed true courage. The superintendent of the Retreat was one day walking in a field adjacent to the house with a patient who when opposed was apt to be vindictive, an exciting circumstance occurred, the maniac retired a few paces and took up a large stone which he held up as in the act of throwing at his companion. The superintendent in no degree ruffled, fixed his eye upon him, and in a resolute tone of voice, at the same time

marching towards him, commanded him to lay down the stone. As he approached, the hand of the Lunatic gradually sunk from its threatening position and dropped the stone to the ground. He then submitted to be quietly led to his apartment. One motion of timidity on the part of the superintendent might have cost him his life.

*Modes of coercion.*—Kind, yet firm treatment has been found to supersede the necessity of much coercion of any kind; and neither chains or corporal punishments have ever been allowed on any pretext at the Retreat. The strait-jacket, or a belt round the waist which has straps that confine the arms close to the side are the only instruments of coercion made use of when the patient is not in bed. When it is necessary to confine the patient in a recumbent posture, the superintendent has invented a mode of fastening which allows a change of posture and the bending of all the joints of the body. As it would be difficult to describe this excellent contrivance a model is intended to be sent. If in any instances chains are necessary for the confinement of lunatics, it is much to be feared that the highest pitch of maniacal fury has been excited by the cruelty or improper treatment of the attendants, very few of whom are fit to be entrusted with much power. It should therefore be as limited as it can be with safety, that they may be obliged to use every means to govern, rather by esteem than severity, and avoid everything likely to exasperate the patient.

S. TUKE

## THE PROGNOSIS OF INVOLUTION MELANCHOLIA.\*<sup>1</sup>

By AUGUST HOCH, M. D.,

*Late Director, Psychiatric Institute, New York State Hospitals*

AND

JOHN T. MACCURDY, M. D.,

*New York.*

"Involution melancholia," sometimes spoken of simply as "melancholia," is one of the most frequent forms of mental disease, and the term is one of the oldest in psychiatry. Nevertheless, the clinical position of this group and the outcome of the psychosis are still matters of dispute. Until 1907 the disease was generally held to be a clinical entity with variable prognosis. For instance, in the seventh edition of his text-book, Kraepelin says: "It includes all pathological states of anxiety in more advanced age, which are not episodes in the course of other forms of insanity. Delusions belong also to this clinical picture in addition to the mood disturbances." As to the prognosis, he found that 32 per cent of his cases were chronic, while 19 per cent died within two years after the onset.

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<sup>1</sup>This is a problem which interested the late Dr. Hoch for many years. In the spring of 1919 he began a review of some 108 cases which he had examined between the years of 1895 and 1905 at the McLean Hospital in Waverly, Mass. Through the courtesy of Dr. Packard of the McLean Hospital and the superintendents of a number of other hospitals to which some of these patients had been transferred, it was possible to learn the outcome of the majority of the psychoses observed. Together we began an analysis of this material and reached some tentative conclusions. Since the untimely death of the originator of this work, a reexamination of the case histories seems to confirm these first formulations and justify a published report.—J. T. M.

Only one important objection was made to the view that involution melancholia is a disease by itself. Thalbitzer<sup>1</sup> asserted that melancholia was related to the "angry mania" of Kraepelin and that the latter's third "mixed condition of manic-depressive insanity," the "depressive excitement," was practically identical with melancholia. These views, however, were not widely accepted.

In 1907 appeared a work by Dreyfus<sup>2</sup> which was rather revolutionary in its effects. He investigated the later development of 85 cases in which the diagnosis of melancholia had been made in the Heidelberg Clinic since 1892. He found that a large number of patients whose condition had been considered irrecoverable, even deteriorated, finally recovered, although the favorable outcome might not appear for almost ten years. The conclusions he drew have had much influence on psychiatric classification, for many physicians have followed him in regarding these cases as belonging to the manic-depressive group. He argued that many patients give a history of prior attacks and some pass from melancholia into a manic phase. This would indicate that the behavior of the psychosis is the same as that of the recognized forms of manic-depressive insanity. Patients failed to recover only in rare instances where the melancholia passed over into arteriosclerotic dementia. The ultimate prognosis is therefore as good as in manic-depressive insanity except for the frequency of death in these advanced ages. Finally, the clinical picture is made up of manic-depressive symptoms, particularly those of the circular "mixed conditions." Specifically these are, of the manic group: emotional variations (sometimes in the direction of euphoria but often as cessation of the depressive mood in the latter part of the day); excitability and irritability; need of communicating troubles; pressure of speech; flight of ideas; inflation of the ego; even with expansive ideas. On the depressive side the symptoms in common with melancholia are obvious: painful emotions of sadness, anxiety, etc., and inhibition of thought.

Both his evidence and arguments have carried much weight with psychiatrists, particularly in Germany. Kraepelin, for in-

<sup>1</sup>Thalbitzer, S.: *Melancholie u. Depression*, Allg. Ztschr. f. Psychiat. 62: 1905.

<sup>2</sup>*Die Melancholie*, Jena, 1907.

stance, has accepted them, practically *in toto*, and in the eighth edition of his text-book has eliminated melancholia as a separate nosological category. One effect of this has been to make Kraepelinian depression a complex and puzzling picture. In it all kinds of clinical entities are assembled and many varieties of emotion, the one constant feature being an unpleasant affect, whether this be of sadness, anxiety or a painful tension.

Argument, however, may be directed against Dreyfus' assertions. The most crucial question is that of prognosis. Since his work psychiatrists have been more on their guard against making pessimistic prognostications, yet they know that some patients do not recover. For instance, in our series there are patients whose psychoses persisted practically unchanged for as long as twenty years without the development of symptoms pointing to arteriosclerosis. Invariability of recovery is, therefore, not a feature of involution melancholia. A history of prior attacks certainly tends to make one expect the psychosis in question to be benign, but we get the impression on reading his case reports that Dreyfus' zeal outran his judgment. In a number of cases he ferreted out a history of depressions so mild as to seem to be neuroses or merely more or less normal mood swings. Variations of the emotional status are of great theoretic, psychologic importance, but they should not be called "psychoses" as long as their manifestations remained within certain limits. Otherwise nearly the whole world is, or has been, insane. As to his claims for the appearance of manic and other manic-depressive symptoms, we cannot find this convincing. There are, in psychiatry, few pathognomonic symptoms. Clinical types are made up of certain groupings of symptoms. For instance, by selecting and putting together the proper features of a number of manic-depressive cases, one could easily paint a fair picture of dementia præcox. Yet no one would ally dementia præcox with manic-depressive insanity for that reason. Similarly, intensive study of a normal person may enable one to recognize in him all these symptoms. If sad, happy or worried, should he be called insane? Some of the symptoms he mentions are peculiarly nonspecific. For instance, emotional variations, excitability and irritability appear not only in normal reactions but in general paralysis, epilepsy, deliria, dementia præcox and manic-depressive anxiety. Other symptoms are extreme rarities in in-

volution melancholia. Of these we may cite grandiose ideas (in pure form) and flight of ideas.

In spite of these objections, however, one feels that there is evidence for believing that some relationship with manic-depressive insanity exists. When a psychosis occurs, that is one of a series in the same person, that is characterized by emotional disturbance and ends in recovery, it is hard to deny its kinship with manic-depressive insanity. On the other hand, if the chronic cases are to be included with the benign, this forces a modification of our ideas about manic-depressive insanity in an essential point. If the bar of good prognosis be let down, one would have to admit many cases of dementia præcox as well. An alternative is thinkable. It may be possible to differentiate between the benign and malignant melancholias, relating the former to manic-depressive insanity and the latter to dementia præcox. This could be done only if it were found that the prognostically bad symptoms were of a kind which we already view as schizophrenic in tendency. The results of our studies would seem to point in this direction.

Our program was to study the patients who recovered and thus determine what symptoms were benign. We then examined the histories of the patients who did not recover to discover the differences in their symptoms from those of the first group. Sufficient data were available in sixty-seven cases to justify their inclusion in this report. Of the others, it was either impossible to learn what the outcome of the psychosis was, or death ensued too early to justify any conclusion as to the chronicity of the disease. Among the patients who had recovered it was found that the average period before improvement was nine and one-half months; thirty-three improved during the first year of the psychosis, five during the second, one during the third and three during the fourth. One patient improved markedly after two years, then relapsed and began to recover only eight years after onset. The last was considered so anomalous a case as to justify the rule that patients with recoverable melancholias begin to improve in less than four years. We, therefore, have included among the chronic cases all those patients who died more than four years after the psychosis began without showing any signs of recovery. Justification for this was evident when it appeared that the patients



who died unimproved after this lapse of time showed the symptomatology of the chronic type.

Regardless of whether these cases shall be grouped with manic-depressive insanity or not, we believe it leads to the greater clarity of understanding to discriminate between the typical manic-depressive depressions of early and middle life and the psychoses characterized as involution melancholias. We would define the former as reactions consisting of feelings of sadness, hopelessness, wickedness, incapacity and unreality on the subjective side, with objective evidence of physical and mental sluggishness and an appearance of dejection in attitude and facial expression; such delusions as appear are concerned with the moral obliquity of the patient, while hallucinations are extremely rare. In the melancholias, on the other hand, on a general background of such symptoms, appear fearful delusions and marked anxiety, often with terrifying hallucinations; a strong tendency to hypochondria sometimes leading to fantastic delusions; gross anomalies of conduct with much irritability, perversity and sometimes filthiness; finally, some patients show a loss of adequate emotional response to their environment or to their own ideas. Between these two types there are innumerable transitions, but between their extremes a marked contrast exists. (In the same way transitions are seen between manic-depressive insanity and dementia præcox.) What we will term the manic-depressive depression appears in later periods of life just as in youth and middle age. When there is no complication these patients recover and present no greater problem at this than at other ages. Our task lies with the cases of melancholia proper.

In his seventh edition, Kraepelin outlines the prognostic data of involution melancholia as follows: In general, an unfavorable outcome is to be expected with a loss of emotional reaction unaccompanied by a recession of delusions or with the development of absurd ideas. In milder cases, the emotional disturbance gradually disappears in company with the delusions, although the patients, in spite of an uncertain insight, become duller, their will power is weakened and they become less active, often assuming an inferior or whining attitude. With greater deterioration delusions gradually fade away. The patients develop a poverty of ideas, their minds become unclear, and they become forgetful,

indifferent and incapable of work. They have no insight but stand around dully, complaining monotonously. In some the definite picture of senile dementia develops. From this it will be seen that Kraepelin gives no criteria for predicting deterioration but rather describes what happens when deterioration takes place. We have attempted to study in retrospect the symptoms of the patients who recovered and of those who did not, in order to discover, if possible, what features in the earlier stages of the psychosis have a bad prognostic import.

#### SYMPTOMS OF INVOLUTION MELANCHOLIA.

In order to present our material in concise form, the cases are arranged in tables showing the presence or absence of symptoms which we have come to regard as peculiar to involution melancholia and essential in the prognosis, while a supplementary table gives a synopsis of all or most of the symptoms presented by the same patients.

A brief description of these essential symptoms may make the tables clearer. The type of emotional reaction is briefly indicated so that no further explanation of this is needed. Different categories of delusions are given in the next three columns. The first category of death and poverty ideas is important because these fancies are highly typical of any kind of involution melancholia. Death is usually represented in a violent form—the patient is going to be hanged, electrocuted, cut up, burned, buried alive, and so on. The wild fear so characteristic of these cases apparently is often a response to these thoughts. Sometimes the fancies appear in disguise as a delusion of immortality. The patient cannot die, no matter how he may suffer from starvation, torture or injury. In other cases there may be an elaboration of the theme into thoughts of wholesale murder. All relatives, all friends, all nurses, patients and physicians have been killed or are going to be; dead bodies are piled around, and so on. Probably related psychologically to loss of life is the delusion of poverty. In its mildest forms this is merely a worry about expenses; in the most exaggerated types the patient is convinced that the family fortune is dissipated and his relatives are all in the poorhouse. None of the death or poverty delusions seems

to have any bearing on the ultimate psychosis. Three-quarters of all patients have them.

*Hypochondria.*—Even more frequent are the hypochondriacal fancies. We have divided these into two groups which seem to have some fairly definite relationship with the outcome. In the first group, which we term "mild hypochondria," there are worries and complaints about health, pains, queer sensations, indigestion, constipation, etc., which are identical with, or analogous to, the complaints every physician is constantly hearing from his non-psychotic but merely neurotic patients. In involution melancholia, such imaginations simply tend to be more stressed. In the second type similar ideas are exaggerated into senseless and ridiculous delusions which often are associated with anal practises or other auto-erotic practices or fantasies. For instance, the patient declares he cannot swallow, although he may just have eaten; that his organs are all gone; that his bowels never move, that he passes so much by rectum that all the sewers are plugged; that an odor from him defiles the world; that he is paralyzed (while making movements); that he is only a foot high, and so on with endless variations. Such patients are often filthy in their habits, pulling feces out of the anus with their fingers, smearing the furniture and themselves. Frequently they masturbate shamelessly, pull ceaselessly at their lips, etc. One practice which might be considered auto-erotic but which occurs often in convalescing patients is that of picking at the fingers, which may be more of an expression of restlessness than of indirect onanism.

*Irritability.*—Some discrimination between the conduct of the recovering and the chronic cases may also be made. Although a certain degree of irritability is frequent in the more serious benign psychoses, there is a tendency to constant peevishness only when the prognosis is grave. These patients seem to resent any attention with rude words, scratching, biting and striking, sometimes with surly expressions of a desire to be left alone. This conduct is extraordinarily like that of a spoiled child in a tantrum.

*Inadequacy of Emotional Reaction.*—Deserving separate listing is the inadequacy of emotional reaction which occurs frequently in deteriorating cases. The psychoses with good prognosis show, as a rule, strong, even violent, affective symptoms. It

seems to suggest a bad outlook when a patient has thoughts of being killed and is indifferent. A more serious sign is a narrowing of the mental horizon when interests one by one disappear and attention is focused more and more on the patient's body or on his troubles. These patients wander around monotonously whining a stereotyped complaint. A small but rather definite subgroup is that of patients who have what we have been accustomed to term Organic Insufficiency, since the whole picture seems to reflect a fundamental and general senescence rather than a localized cerebral abiotrophy with senile dementia or a largely psychogenic disturbance, such as characterizes so many of the involution melancholias. These cases usually begin with insomnia followed by a gradual loss of interest. If there are any self-accusations or paranoid or death ideas, they are in the background of the clinical picture. There are hypochondriacal ideas, but these usually are concerned with the patient's condition in a vague, general way. Specific complaints are usually about constipation, with slight exaggeration, but they are never absurd or ridiculous. The patients usually wander aimlessly around, whining, unoccupied and apathetic. Sometimes there is mild restlessness, not accompanied by poor sleep, however, as in the benign cases. Organic Insufficiency seems to have an invariably bad prognosis.

#### BENIGN CASES OF INVOLUTION MELANCHOLIA.

##### (TABLE I.)

Examination of Table I reveals some interesting data. Both death and poverty ideas and mild hypochondriacal notions occur often, not infrequently dominating the clinical picture. In only one case (Case 26) were these fearful ideas expressed without anxiety, but this patient, on the other hand, sometimes showed affect. Some mention of severe hypochondria occurs eight times, but in four of these cases the remarks thus catalogued were occasional. Of these, three patients made such complaints only during a short episode, two of them showing at this period a special agitation. In one case (Case 4) the remarks were apparently similes rather than delusions, while in two more (Cases 27 and 43) it seems on reviewing the records that the patients may have been using comparisons rather than expressing con-

victions. In Case 8 the hypochondriac notions were sometimes delusions and sometimes only metaphorical. This patient and the patient in Case 43 were the only ones who frequently expressed these ideas and neither had a consistent and obvious belief in the fancied disability. In no case do we find well-developed severe hypochondria to be a dominating, permanent symptom, so that we can assert that benign cases fail to show this common feature of involution melancholia prominently or consistently. The only patient (Case 8) who gave frequent utterance to unquestioned delusions of this nature was at the menopause. This deserves notice as will appear later.

As to the symptoms which we list under the heading of peevishness, only seven of the forty-three patients who had recovered showed anything of this nature, and in most of them it was confined to mere irritability; in only one (Case 43) was this more than an occasional phenomenon. It is interesting that only one in this series had a longer psychosis than this patient.

To summarize the material presented in Table 1, these patients showed marked emotional reaction, usually anxiety with restlessness, and they had prominent delusions of death and poverty. Peevishness and severe hypochondria were isolated symptoms which were never sufficiently well developed to be consistently dominant features in the psychosis. Patients began to recover after an average duration of nine and one-half months, while recovery occurred from four months to six years after onset with an average total duration of twenty and one-half months.

#### CHRONIC CASES OF INVOLUTION MELANCHOLIA.

(TABLE 2.)

Table 2 shows a marked contrast in symptomatology. The cases recorded in this table are of those who did not recover during many years, the duration of the psychosis up to the last report being noted in the "Chronic Years" column. Included also are the cases of patients who died without having shown any sign of recovery within four years after the onset or who seemed to have reached a chronic state some years later. As has been explained, all those who recovered showed improvement within this period, so that one is justified in assuming that death terminated a chronic psychosis.

In general, the emotional states and behavior of the patients with malignant melancholia are different from those of patients with benign cases. Instead of frank fear reactions, there were much moaning, whining, seclusiveness, surliness and often insufficient affect. Restriction of interest or affect occurred in ten out of the twenty cases. In each of these patients this loss was permanent, not subject to variations as in Case 26 who recovered, and it was always a prominent feature of the clinical picture.

About the same proportion of chronic cases and those recovering shows death or poverty ideas, and these are of the same type roughly, so that probably these ideas have no significance for prognosis.

A marked contrast is evident in the incidence of hypochondria, however. Roughly, three-fourths of the benign cases showed this symptom, but in only one-sixth was it a dominant characteristic. Of the chronic cases, on the other hand, eighteen out of twenty made such complaints and of the two who did not, one had a case of pure manic-depressive depression complicated by arteriosclerosis (Case 49<sup>4</sup>), so that one may say that hypochondria is almost always present in the more serious cases. It tends also to be more pronounced in its form, for in fourteen cases of the twenty it was a dominant symptom. The same tendency to exaggeration of interest in the body is evident in the frequency of severe hypochondria (an occasional symptom in the recovering patients) and of actual auto-erotic practices, fifteen, or three-quarters of the patients, manifesting this preoccupation; in thirteen of these it was a dominant symptom.

Another minor symptom in recovering patients which is prominent in this second group is the exaggeration of irritability which we speak of as peevishness; fourteen of the twenty showed it, and in these it was a dominant feature.

It is evident that the three symptoms of attention to the body, peevishness and restriction of interest or affect are definitely

<sup>4</sup>This patient showed some improvement nearly three years after the onset of his psychosis and might, of course, have eventually recovered had he lived. But since this improvement did not continue during the next four years, this seems unlikely. The case is included because it probably is one type of chronic psychosis—a benign reaction in which recovery is prevented by purely physical factors.

associated with a bad prognosis. Not one of these occurs as a persistent or dominant symptom in the recovering melancholias, while with two exceptions every fatal or chronic case showed one, two or all three of these malignant symptoms in marked form. The two exceptions rather go to prove this rule, for neither showed a typical picture of involution melancholia, one being a manic-depressive depression with arteriosclerosis and the other very much like the picture of a dementia præcox with constant delusions and hallucinations.

#### DOUBTFUL CASES OF INVOLUTION MELANCHOLIA.

(TABLE 3.)

If these two tables included all our material, dogmatic statements might be allowable. Unfortunately, however, simplicity and rigidity of definition are rarely justified in psychiatry and this study of involution melancholia offers no exception. In Table 3 appear data which seem to render doubtful the finality of the foregoing conclusions. Four cases are represented here which were not placed in the first two tables because the question of complete recovery was settled merely by report from relatives. We would have been justified in eliminating these from the series, were it not that three of them might have been expected to develop chronic psychoses according to the foregoing criteria. Whether these patients recovered fully or not cannot be demonstrated, but this, for our present purposes, is not so important. They certainly improved enough to return home. Had they been thoroughly examined by a competent psychiatrist and found to have still some psychotic tendencies, this would mean little. Mild mental abnormalities are so frequent in old age as to be almost universal, so that our standard of normality, high for youth and middle age, must be lowered in considering cases of the senium. On purely theoretic grounds we might say that nearly all old people have symptoms of involution melancholia, with their worries about health and property of themselves and of their families, but practically, we are dealing with exaggerations of these tendencies which proceed to such development that the unfortunate ones become incompetent and intolerable burdens in the home. If, then, a patient becomes well enough to return home

and stay there, the presumption is that the accentuation of senile traits—the psychosis in this narrow sense—has disappeared. Let us consider these cases one by one.

Case 64 showed no insufficiency of affect, but there were constant complaints of the type which we have come to regard as malignant. She thought her rectum was broken off, that the urine came out of the wrong place, that nothing could pass to her stomach, etc. In addition she was occasionally peevish. She was, however, at the menopause. If one examines the two climacteric cases in Table 1, it is seen that these patients tend symptomatically toward the malignant type. For instance, Case 8 frequently indulged in extreme hypochondriac delusions and was sometimes peevish. Case 28 constantly complained that her sexual organs were shriveled up. These three patients, being at the menopause, constitute a small group, the members of which one might have expected to have chronic psychoses, who recovered or improved markedly. Although this group is small, the presence of demonstrable physical factors probably allows us to regard them differently from the usual patients with involution melancholia. It is not difficult to imagine that the endocrine disturbances of this period may facilitate a graver degree of mental disintegration than is possible without deterioration in normal physical health.

Case 65 is a complicated one, in which the patient had mood variations like those of younger manic-depressive patients. She had many sexual delusions reminiscent of dementia præcox. She thought she had been made pregnant by her brother-in-law, that men visited her room at night; she also complained of vaginal sensations. Had she been 30 or 40 years younger one would not have hesitated to make a diagnosis of dementia præcox. It was not until she had been ill for eight and one-half years that she began to improve and was taken home. We have only her sister's word to support belief in her recovery. It may well be that—at the age of 77—a senile or arteriosclerotic dementia wiped out the delusional and emotional symptoms. At any rate this patient's clinical picture did not coincide with that of involution melancholia, so that we are probably justified in disregarding it in our general conclusions.

Case 66 was that of a patient who was frequently peevish but who showed no other unusual or malignant symptoms. Her case was not included in Table 1 chiefly because the dates of her improvement and recovery were not known. Her continued resentment at having been placed in a hospital may have been merely indicative of a character change rather than of an unrecovered psychosis in the narrow sense.

Case 67 presents real difficulties. Self-accusations dominated the clinical picture with tremendous restlessness—a mixture, as it were, of manic-depressive depression and involution melancholia. For a long period she continued to smear feces over her clothing and even to pull them out of her rectum with her fingers. Later she became quiet and uncommunicative. By all our



standards this patient should have remained in a state of deterioration, and it was with surprise that we learned of her improvement in a state hospital to which she was transferred, and of her removal to her home. No argument can explain this case. It remains, quite frankly, an exception. But in any series of sixty-seven psychiatric cases, is not at least one exception to general rules encountered?

#### COMPARISON OF DREYFUS' FINDINGS WITH THOSE OF AUTHORS.

One is naturally interested in comparing the foregoing findings with the observations of Dreyfus. This is a difficult matter because data such as the exact nature of false ideas are not carefully noted in his case histories in many instances. Further, it must be remembered that his patients were under treatment at a time when melancholia was generally thought to be frequently a chronic disease, so that patients not showing early improvement were regarded as chronic and quite possibly observed superficially and at long intervals. This may account for the statements that Case 13 and Case 20 did not show signs of improvement until after eight and six years, respectively. In general, his material seems to follow the rules which we have deduced from the series here reported. The possible discrepancies alone deserve mention.

In Case 3 the patient complained for a month of being filled with feces and of being unable to defecate. Whether these ideas were qualified does not appear. At the end of the month doubt was admitted as to the validity of these complaints. We would probably have listed this case as showing an episode of bad hypochondria. Case 6 during a period of four months often smeared feces. One suspects, however, that the clinical picture was more like that of manic-depressive insanity than that of involution melancholia. No false ideas are reported; for one day, at least, elation was present. Smearing is, of course, a frequent symptom with manic patients, particularly with those who become absorbed in their unexpressed thoughts.

In his group of fatal cases no patient with fantastic hypochondriacal delusions had recovered before death.

Most of the patients in his "not yet recovered" group were apparently on the way to normality.

One patient (Case 32), who apparently had the benign type of melancholia, developed arteriosclerotic dementia and was, therefore, a chronic case like that of the patient in our Case 49. In Case 31, although there were com-

plications, the patient showed no definitely malignant symptoms and apparently recovered. Apparently she did not leave the hospital because she had become "institutionalized" as so many old people do, and was apprehensive of quitting that comfortable environment. Case 30 only during the onset had the delusion that her stomach was closed and that nothing could pass through it. After many variations in her clinical picture she began to recover three and one-half years after onset and was apparently improving steadily when reported. This case we would classify as showing merely an episode of extreme hypochondria. Case 29 is interesting. The patient showed for a year, while under observation, persistent and dominating hypochondriacal delusions. She was then taken home. Eight years after the onset she was reexamined. She was still hypochondriacal, was careless of herself and her home, did not go out, and had a feeling of insufficiency. This picture looks like that of chronic deterioration, yet Dreyfus calls it "manic-depressive insanity with hysterical tendencies!"

#### COMMENT.

In general, then, a review of Dreyfus' material gives us no urgent reason to doubt the validity of our conclusions.

A word should be said about the nosological position of Involution Melancholia. This analysis of symptoms tends to throw the material into two groups. In one, with a good prognosis, there is as a rule, a strong affective reaction and the delusions are of the same order as those appearing in manic-depressive insanity. In the other, the patients deteriorate and show symptoms distinctly of the kind we associate with dementia præcox; the affect is apt to be insufficient, the behavior is auto-erotic and negativistic in the extreme, and the delusions are ridiculous, expressing perverse sexuality. Plainly, then, "Involution Melancholia" belongs in two markedly opposed psychiatric divisions. There are two ways of meeting this difficulty. It may be regarded as a separate division with a variable prognosis or as two related psychoses. In the latter case one would regard the benign melancholic psychoses as a type of manic-depressive reaction (like mania, depression, stupor, etc.) and the deteriorating psychoses as a type of dementia præcox. It is probable that individual taste is likely to determine the classification adopted by psychiatrists, at least for many years.

An argument in favor of looking on involution melancholia as a reaction type of manic-depressive insanity is found in the clinical pictures of many manic-depressive patients. Conditions of marked fear of death, of loss of property, or of moral destruction,

with hypochondria but accompanied by no real sadness or retardation are common as episodes or as entire psychoses in persons of early as well as advanced years. If space permitted we could, for instance, detail the history of a patient, aged 33, whose case caused much difference of opinion as to diagnosis. He recovered completely. On reviewing the full and accurate notes of the case it appears that symptom for symptom the clinical picture was a duplicate of that of involution melancholia. Had he been twenty or thirty years older there would probably have been no confusion of opinion among those who observed him.

It is not within the scope of this report to discuss the psychology of involution melancholia. It may be remarked, however, that the regressive mechanisms of the malignant psychoses seem closely related to those of dementia præcox, while the analogy holds just as strongly between the psychology of benign cases and that of manic-depressive insanity.

One point should be mentioned of theoretic and, possibly, great practical importance. In both Dreyfus' and our own material it seems a rare event for a melancholic patient to recover fully while still in the hospital. The return to complete normality occurs at home in the patient's normal environment. This is in marked contrast to the phenomena of recovery in most cases of manic-depressive insanity, with the exception, perhaps, of the stupors.

#### SUMMARY.

We may state the following as the result of our work: The results in a series of sixty-seven patients in whom the final outcome was determined in all but one case, cause us to conclude that patients with involution melancholia recover unless they show as dominant symptoms: marked insufficiency of affect, peevish or auto-erotic behavior, or ridiculous hypochondriac delusions which usually are concerned with the alimentary tract. These prognostically bad symptoms may be present for a short phase of the psychosis in women at the menopause without their prejudicing the outlook for recovery. All patients who eventually recover show some improvement within four years after the onset. The others run a chronic course or die unimproved.

TABLE 1.—RECOVERED CASES.

No.	Sex.	Age.	Emotional state.	Death or Poverty ideas.	Mild hypochondria.	Severe hypochondria.	Peevishness.	Improvement, years.	Recovery, years.	Variations.
1	♂	47	Moaning, restless	++	+	.....	.....	7/12	1	Typical manic depressive.
2	♂	46	Retardation	.....	.....	.....	.....	1/12	1 1/2	Typical manic depressive.
3	♂	66	Retardation	.....	.....	.....	.....	3/12	5/12	.....
4	♂	64	Complaining	++	+	As similes only.	.....	1/2	3	.....
5	♂	68	Retardation	.....	+	.....	.....	5/12	9/12	Typical manic depressive.
6	♂	59	Retardation, then anxiety	++	.....	.....	.....	3 3/4	4 1/4	Mixed manic depressive and involution.
7	♂	56	Agitated anxiety	+++	.....	.....	.....	4/12	8/12	.....
8	♂	48	Retardation, anxiety, fidgety	+++	.....	++ often only similes.	+	2/12	4/12	Menopause.
9	♀	51	Retardation with spells of elation, sometimes apprehensive.	++	.....	.....	.....	1+	1+	.....
10	♂	45	Dullness and anxiety	+	+	.....	.....	5/12	6/12	Manic depressive type.
11	♂	66	Retardation, restlessness	.....	+	.....	.....	1 5/12	1 6/12	Manic depressive type.
12	♂	61	Agitation and despair	++	.....	.....	.....	10/12	1	.....
13	♂	46	Apprehension, restlessness with some restraint.	++	+	.....	.....	6/12	8/12	.....
14	♂	47	Retardation, inadequacy, self-blame.	.....	+	.....	.....	5/12	8/12	Typical manic depressive.
15	♂	56	Apprehensive, restless, reticent	++	.....	.....	.....	2/12	1	.....
16	♂	45	Inadequacy, guilt, apprehensive, episodic agitation.	++	.....	.....	.....	5/12	9/12	.....
17	♂	55	Fear, agitation	++	.....	+	.....	10/12	1	Bad hypochondria, episodic.
18	♂	45	Fearful, agitated	++	+	.....	.....	2/12	3	Bad hypochondria, occasional during brief period of agitation.
19	♂	68	Dejected, listless, episode of agitation.	++	.....	+	.....	1/5	1/3	Recovered after manic episode.
20	♀	54	Languid complaining, agitation with hallucinatory episodes	+	++	.....	.....	1 9/12	4	Manic depressive type.
21	♂	63	Retarded, dejected at times early	++	++	.....	+	3/12	6/12	.....
22	♂	45	Varying retardation and apprehension.	++	+	.....	.....	3 1/2	4	.....
23	♂	64	Hopeless, worrying, episode of agitation.	++	+	.....	.....	1	1 1/2	.....
24	♂	56	Restless, fretting	++	++	.....	.....	5/12	6/12	.....
25	♂	51	Retardation, negativistic	++	.....	.....	+	4/12	5/12	.....
26	♂	59	Apprehensive or calm	+++	+	.....	.....	4/12	3 1/2	Fearful ideas often expressed without affect.
27	♂	61	Sad and hopeless, then apprehensive	++	++	.....	.....	6/12	7/12	.....

TABLE I.—RECOVERED CASES—(CONTINUED).

No.	Sex.	Age.	Emotional state.	Death or poverty ideas.	Mild hypochondria.	Severe hypochondria.	Peevishness.	Improvement, years.	Recovery, years.	Variations.
28	♀	45	Crying, hopeless, inactive.....	.....	+++	Idea that sex organs were shriveled up may have been a simile.	.....	2	2 5/12	Menopause.
29	♂	66	Hopeless, inadequacy, worry.....	.....	++	.....	.....	4/12	6/12	.....
30	♀	50	Variable depression with worry and compulsive thoughts.	.....	+	.....	.....	Constant variation.	5	.....
31	♀	46	Retarded, episode of mild stupor, depressive worrying.	+	+	.....	+	6/12	3	Content mainly self-accusations.
32	♀	39	Distress with many somatic complaints.	+	+++	.....	+	5/12	7/12	.....
33	♀	52	Retardation, discouraged, a little restlessness.	.....	+	.....	.....	7/12	6	.....
34	♂	49	Periods of agitation, otherwise winning lassitude and feeling of inferiority.	++	++	+	+	1 9/12	2 3/12	Extreme hypochondria only once during a spell of agitation.
35	♂	46	Discouraged, inadequacy.....	++	+	.....	.....	4/12	1 4/12	Manic depressive type.
36	♀	42	Sad, gloomy, crying, slight restlessness.	+++	.....	.....	.....	5/12	6/12	.....
37	♀	58	Gloomy, worrying.....	++	++	.....	.....	1 2/12	1 4/12	Two subsequent attacks with recovery.
38	♂	54	Some inadequacy, feeling of sin and worry.	++	+	.....	.....	7/12	1 3/12	.....
39	♀	50	Listless, retarded, occasional queer smile, at times fear.	+	.....	.....	.....	8/12	10/12	.....
40	♂	47	Mild retardation.....	.....	.....	.....	.....	5/12	1 7/12	Typical manic depressive.
41	♂	51	Retardation with some restlessness.	+	.....	.....	.....	2/12	7/12	.....
42	♂	50	Crying depression, inadequacy.....	.....	+++	+transient.	.....	3 8/12	4 3/12	.....
43	♂	48	Great restlessness with moaning and vague distress.	+	+++	?	++	11/12	5	Frequent complaint that she could not swallow, may not have been meant literally.

+ = Occasional.

++ = Frequent.

+++ = Dominating the clinical picture.

+ = Manic depressive = Ordinary depression characterized by retardation with feelings of sadness, wickedness, inadequacy and unreality.

TABLE 2—CHRONIC CASES.

No.	Sex.	Age.	Emotional state.	Death or poverty ideas.	Mild hypochondria.	Severe hypochondria or auto-erotism.	Peevishness.	Restriction of interest or affect.	Improvement, years.	Chronic, years.	Variations.
44	♀	63	Extreme irritability; mumbles to self; complains of fear.	++	++	.....	+++	.....	12, following hemiplegia.	14 Died.	
45	♀	52	Tremendous agitation; later seclusive, apathetic, with irritable periods.	.....	.....	+++	++	.....	7 1/2	8	
46	♂	68	Unoccupied, insufficient affect.....	+	+++	.....	.....	Narrowing of mental horizon with shallow affect. Usually insufficient affect.	.....	12 Died.	
47	♀	66	Restless, moaning, marked agitation, wants to be left alone.	+++	.....	+++	.....	.....	.....	6 3/12 Died.	
48	♀	56	Restless, moaning, distressed; episodes of great agitation.	++	.....	+++	++	.....	.....	8+	Constant hallucinations of hearing. Typical manic depressive but arteriosclerotic.
49	♂	64	Great retardation with sadness and feeling of unreality.	.....	.....	.....	.....	.....	2 10/12	7 Died.	
50	♀	50	Constant restless fusing, peevishness and demand for attention.	.....	+++	+++	+++	.....	.....	18 6/12	
51	♀	59	Sometimes restless, constant stereotyped moaning and affectless complaints.	+	+	.....	.....	Narrowing of mental horizon with shallow affect.	.....	11	
52	♀	43	At first retardation; later restless, apprehensive complaining; finally spells of irritability.	+	.....	+++	++	.....	5	20	Prominent ideas of diminution.
53	♀	60	Restless, distressed moaning, very uncommunicative.	+++	.....	+++	+++	.....	3?	18 Died.	
54	♀	48	Monotonous complaints, with shallow affect, except when delusions are questioned, then irritable.	++	+	+++	+++	Shallow affect as a rule.	.....	5 Died.	
55	♀	68	Three stages: (1) Restless, hopeless, vague apprehension; (2) agitation, one week; (3) chronic peevishness.	+++ (For one week.)	+	+	+++	.....	.....	6 Died.	
56	♀	59	First, depressed; later, restless with shallow affect.	+++	.....	+++	+++	.....	.....	11 7/12 Died.	
57	♀	54	Inadequacy onset; restless and vague fear; finally chronic moaning and complaining.	++	+	+++	.....	Narrowing of mental horizon.	.....	4 3/12 Died.	
58	♂	56	(1) Worry and suspicion; (2) mild retardation; (3) chronic suspicion.	+++	.....	.....	++	.....	.....	11 Died.	Constant hallucinations and delusions of dementia praecox type.

TABLE 2.—CHRONIC CASES—(CONTINUED).

No.	Sex.	Age.	Emotional state.	Death or poverty ideas.	Mild hypochondria.	Severe hypochondria or auto-erotism.	Peevishness.	Restriction of interest or affect.	Improvement, years.	Chronic, years.	Variations.
59	♂	54	Unoccupied, surly, seclusive.....	.....	+	+++	+++	.....	.....	4 2/12 Deteriorated.	Marked change of character 9 years before psychosis.
60	♂	57	Worry at times restless, at times subdued, chronic uneasy muttering.	++	.....	+++	.....	.....	.....	9 6/12 Died.	
61	♀	52	Restless, complaining, peevish.....	++	+	+++	+++	.....	.....	5 Died.	
62	♂	60	Listless, slow but insufficient affect.	+++	.....	+++	+	Insufficient affect.	.....	12 Died	
63	♀	52	Great restlessness, hair pulling, etc., with vague apprehension; later no affect, still restless.	.....	.....	++	+++	Gradual loss of affect with narrowing of mental horizon.	.....	19 Died	

TABLE 3.—DOUBTFUL CASES.

No.	Sex.	Age.	Emotional state.	Death or poverty ideas.	Mild hypochondria.	Severe hypochondria or auto-erotism.	Peevishness.	Outcome.	Variations.
64	♀	53	Great restlessness .....	+	+	+++	+	Observed 14 months; discharged to another hospital; returned home, much improved, 3 2/12 years after onset.	Menopause.
65	♀	69	Retardation, then apprehension, then elation, then retardation and anxiety.	+++	.....	.....	.....	years after onset improved enough to be taken home from another hospital; in 6 months sister reported her well.	Sexual ideas suggestive of dementia praecox.
66	♀	49	Dejected, peevish .....	+	+	.....	++	Observed for 6 months; then taken home; 4 years later husband reported she was well except for resentment at having been put in hospital.	
67	♀	62	Great restlessness, with self-accusations, later, quiet with same ideas but uncommunicative.	.....	.....	Constant anamero-tism.	.....	First improvement noted 2 years and 8 months after onset; well enough to go home 7 years after onset; not heard of since.	

TABLE 4—C

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.	Negation.	See hypn.
1	47	o	Restless, moaning.  Restless.	Suicidal attempt.  .....	People plot against her.  Will be taken away.	.....  .....	.....  .....	.....  .....	.....  .....
2	46	i	Gloomy, unoccupied; sometimes restless; marked inadequacy.	.....	Worries over inadequacy; will not get well; what will become of family?	Blames self for condition.	.....	.....	.....
3	66	4+	Unoccupied; inadequacy with slight restlessness.	.....	Nothing to live for; fears losing mind; worry over condition.	.....	.....	.....	.....
4	64	o	Unoccupied; fussy manner and complaining.	I will be dead to-morrow.	.....	.....	.....	No cars running; no fire, no water, no clothes.	No re- fect stomach not t all as not delu
5	68	i	Inadequacy; dejected.	.....	Will not recover; worry over condition; wife will come to want.	.....	.....	.....	.....
6	59	o	Inadequate for her work. Depressed two weeks. Sometimes restlessness; worry, jealous of husband and friend, ashamed of it; confused, "I change my mind so often." Much distress.	Will be killed, hanged, for killing husband.  Will be buried alive; will be put in dark place, death to-night and terrible punishment, ideas of reference in connection with death; putting flowers in water means will be drowned, etc. Fears poison.	Losing her mind. Will not get well. Husband dead.  Home broken up, husband has remarried; in prison.	Killed husband by her jealousy; not religious enough; will be taken to court.	.....	.....	.....
7	56	s	Agitation, wringing hands, tense, anxious, suspicious (tastes food), indefinite dread.  Two weeks: More agitated, shouting, breaking glass, throwing furniture. Quieter, still suspicious and having feeling of dread.	Nurses going to put him under ground, going to burn him, going to murder him.	Will go to ruin; everybody against him; indefinite dread of something to happen.	Has not done business well.	.....	.....	.....
8	48	o	Inadequacy, retardation, some fear, fidgety.	Place in hell for her.	.....	.....	.....	Real world? real people? suspended in space; everything elongated and enlarged.	No sto no mou head, s en, no o to body not be through only s when circ
9	51	i	Depressed; retarded; exhilarated spells.	Fear of burning, dogs will eat her, may be hung or dissected.	.....	.....	.....	.....	.....

\* Manic circular.



## D BY AUTHORS.

dria.	Analerotism.	Autoerotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
..	.....	.....	.....	Husband un- true; later he accuses her of infidelity.	Will be poor.	.....	Begins with menopause.
ric ca.	.....	Picking fingers.	.....	.....	Idea of poverty. Worry over expenses.	Poor sleep when rest- less.	
..	.....	.....	.....	.....	.....	.....	
: in ad.	No passage down her throat; noth- ing passes her; both as similes.	Picking fingers.	.....	.....	No money to stay here; no money to buy clothes.	Marked insomnia.	
sen- and rough h.	.....	.....	Complains about condi- tions on ward.	.....	.....	Poor.	
...	.....	.....	.....	.....	.....	.....	Sister's throat is cut.
...	.....	.....	.....	.....	.....	.....	Attacks of indigestion; heightened blood pres- sure also some months after dis- charge.
...	.....	.....	Spat food out of mouth, knocked dish out of nurse's hand; quar- reled over trifles.	.....	No money, no clothes, pov- erty, scared about luxuri- ousness; re- fuses food because can- not pay; later because no stomach.	.....	
...	.....	.....	.....	.....	.....	Mild sleep- lessness.	

TABLE 4.—CASES 5

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.	Negation.	
10	45	0	Rather dull, not retarded; apprehensive.	.....	Something terrible might happen; people waiting outside; will be arrested.	Thought "somebody might have led me astray."	.....	.....	
11	66	2	Marked inadequacy, with some restlessness.	.....	.....	Never amounted to anything, did not take enough interest; degenerate; never had a decent trait.	No affection.	.....	
12	61	1	In despair, colossal restlessness, moaning, rocking.	Something is going to destroy her; markedly suicidal.	Going to lose her mind; frightful thoughts.	"I have wrecked their lives, killed them all, shall lose my mind and it is my fault."	"Can't sympathize, can't enjoy."	.....	
13	46	0	Worried, restless, apprehensive.  Restlessness, with immobile face, certain constraint, slow in answering questions referring to her worry.	Fears will be tortured.  Will be cut up.	Something dreadful will happen.  Afraid will be punished; police waiting; will be harmed.	Disgraced sister; said she stole from employer; then "not guilty," never did any harm.	.....	.....	
14	47	3	Depressed, dull, inadequacy.	.....	No hope, no salvation.	Defaulted money; no salvation, people know his real character.	.....	.....	
15	56	1	Restless, hard to say what she worries about, confused.	"Are they going to kill me?"	Fears poison and reading, of her letters; worry about home and children.	Is wicked.	.....	.....	
16	45	2	Inadequacy, guilt, episodic agitation.	Suicidal.	Family branded for life; prison; something will happen to husband; arrested; police spies about.	.....	.....	.....	
17	55	3	Depressed, listless.  Often marked restlessness and moaning.	Going to die.  Will be thrown on dump, naked, torn to pieces, head cut off, eyes dug out, murdered, tortured; husband torn up.	Dreadful calamity. Poison in food; vitriol in wash water.	.....	"Sometimes think I am not alive, I have so little feeling for others."	.....	Contag case; effect by breath; daughter; positive; husband; hang; account; odor; does as a holio
18	49	0	Marked restlessness, whining, wailing, especially in spells, looking very distressed; complaints of being discouraged.	.....	Feeling as if world were going to fall on her; mind going. "will be like my father" (had melancholia).	.....	.....	.....	
19	68	1	Dejected.	Onset: Will die, last day on earth.	Onset: Arrested; house will fall down.	Has done much harm, dishonest.	.....	Has destroyed the world; no life.	For five substans stomach corruption, senten- conf.

AUTHORS—(CONTINUED).

Hid ondria.	Analerotism.	Autoerotism.	Irritability, peevisness.	Adult sexuality.	Poverty ideas.	Sleepless- ness.	Variations.
....	.....	.....	.....	.....	" Money gone."	Good sleep.	
l ants in nities; feeling throbbing in fullness lomen. sensa- n head.	.....	.....	.....	.....	.....	Some.	
le strain le heart.	.....	.....	.....	.....	In poverty, will be put on street.	Poor sleep at first only.	
d feel- head.	.....	.....	.....	.....	.....	.....	
....	.....	Picking and biting nails.	.....	.....	No money; will starve.	.....	
ess in ad.	.....	.....	.....	.....	.....	.....	
stion; sach ma.	Food is urine; fed by rectal tube.	.....	.....	.....	.....	Insomnia.	Severe hypo- chondria, merely epi- sodic.
r aches s and with a o move. motional ring ng.	.....	.....	.....	.....	Money going.	.....	
....	.....	.....	.....	.....	.....	Good sleep.	

TABLE 4.—CASES ST

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.	Negation.
30	54	0	Languid, tired.	.....	Mental powers gone; won't get better; sister insane, will be blind, will be electrocuted for killing somebody; mad like a mad dog.	Why was I born? Am I to blame?	.....	.....
			Sudden marked restlessness, distress, fear, suffering, excitement.	Devil said he would murder her; she will be electrocuted.				
			Quiet, marked depression, crying occasionally; gradually hopeful but anxiety about sister.	Gang waiting to kill him (once).	Things going wrong at home; has been ruined by syphilis.	.....	.....	.....
31	63	4	Retarded; sometimes restless, often surly.	.....	Will be tried; something will happen to husband and children.	Killed husband, children and sister.	.....	.....
32	45	0	Marked restlessness with unequal retardation.	.....	.....	.....	.....	.....
33	64	1	Lethargy, worry, depression, restlessness, hopeless of recovery. Depression, but occupation and better evenings.	.....	Never get well, what will happen to family.	.....	.....	.....
			Two days stirred up, reticent, suspicious, began at night suddenly when he got restless "to be kept for life." Improvement 1 month, though still gloomy without special ideas.	Will be used for vivisection.	Will be tortured, will be experimented on; says ideas are wild, though not losing suspiciousness.	.....	.....	.....
			Depressed, languid, unoccupied but can smile.	.....	Never get well.	.....	.....	.....
			Depressed, languid, unoccupied but can smile.	.....	Apprehensive but not without insight; will be left on street; at police station; it will kill his family, etc.	.....	.....	.....
34	56	1	Restless, moderate fretting over trifles.	.....	Afraid of becoming insane.	.....	.....	.....
35	51	4	Retardation, negativistic (probably result of suspiciousness).	.....	.....	.....	.....	.....
36	59	0	Worried, restless, anxious. Sometimes composed, speaking of apprehensive ideas, often guilt, anxious and appealing to physician. After three weeks, following visit of husband, sudden improvement, henceforth variations.	Will be cremated, crushed to death.	Put in dark hole, will be burned, put in lake of fire; wild animals tear her to pieces; also delusional interpretations of things heard.	.....	.....	.....
37	61	1	Depressed, hopeless, then apprehensive.	Will be killed, burned, drowned, strangled.	Will never recover.	Ought to be an outcast.	.....	.....
38	45	0	Depressed, cried; said had no ambition. Unoccupied, lack of energy, especially in forenoon, better evenings, much bitter crying.	.....	.....	.....	No interest, no affection for family; does not care about appearance; sleep unnatural; ability to appreciate is dulled; pain sensations and touch different; no natural feeling in head.	.....
39	66	0	Typical inadequacy feeling of awful depression; worry.	.....	.....	Life a failure; neglectful of duties.	.....	.....

HORS—(CONTINUED).

ria.	Anal- erotism.	Auto- erotism.	Irrita- bility, peevish- ness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
cin. ck, (es, ling, " in mind	....	....	.....	.....	.....	Fair sleep.	" Worms crawling over her," prob- ably a death idea.
bdo- in dry. cep.	....	....	Often surly.	.....	Family extravagant.	" Does not sleep."	
..	....	....	.....	Onset: Calls herself whore because she ex- posed herself in tear- ing clothes; stayed in bed and attracted men.			
nsa- dy. ces rm.	....	....	.....	.....	Property to be taken to de- fray expenses of keeping him in asylum and family will be desti- tute; money going; when all gone will be turned in street.	At first fair, later excellent sleep.	
scn- easc a.	....	....	.....	.....	Family are paupers, daughter go- ing to poor- house.	Consid- erable insom- nia.	
..	....	Picking of fin- gers.	Frequently negativ- istic.	.....	.....	Poor sleep.	
able in d	....	....	.....	.....	.....	Poor sleep.	
of had in	....	....	.....	.....	Poorhouse.		
eling h as d not ttom; exual d of ions.	....	....	.....	" Sexual organs shriv- eled up"; attributes this to coitus inter- ruptus; sex feeling gone, clitoris petrified also accounts for lack of energy.	.....	Usually quite poor sleep.	Dry skin and lack of perspi- ration in hot bath.
, can- ep, ing on.	....	....	.....	.....	.....	" Can't sleep."	

TABLE 4.—CASES 5

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.
30	50	4	Constant variations; quiet, some inadequacy, slightly depressed; worry compulsive thoughts.	.....	.....	Innumerable trivialities.	Things do not look natural; cannot cry; feels as if turned into stone.
31	46	2	Much retardation at first, also stupor symptoms, gradually freer, sometimes somewhat restless; agitated with self-accusations.	Ought to die, cannot die.	Has to pay for everything.	(When freer) the vilest wretch, has dragged family into poverty, has terrible disease.	.....
32	39	0	Gradual neglect of work and appearance; attacks of restlessness with marked sensations, writhing, pinching herself, pulling mouth, crying for help, "do something." Intense restlessness, gradually diminishing with great distress; constant sensations.	Onset: Asks to be killed; fears suffocation; is afraid will be put into a box.	Is afraid will have a fit, a stroke or go insane.	.....	.....
33	52	1	Moderate retardation, sometimes slight restlessness with "suffering." Melancholy without content but great tedium vitæ.	.....	She and daughter will be punished.	Misappropriated money.	.....
34	49	0	Depressed, gradual improvement. Sudden agitation, cannot swallow food, everybody dead, etc. Unoccupied, whining, discomfort, distress, and weak apprehension, much lassitude and feeling of inferiority.	Attempted suicide. Will never die, will be left on earth alone (as punishment for misdeeds); voices say he will be taken into dark, broken on stones; thought he would be boiled when some one said "lobster."	Never get well. Will be put on a paralytic's water bed; people here have their teeth knocked out. Human bodies ground up downstairs; this with strangeness of things made him think buildings were made of suffering human bodies; also that food and wicker chairs were flesh; ideas of reference.	"Why am I so wicked? I don't want to do such a dreadful thing." (Retrospective) everything seemed unreal—general dissolution; everything changed—room bigger.	.....
35	46	0*	Quiet, inadequacy, discouraged.	.....	Everything looks bad; borrows trouble.	Ought to be ashamed of himself.	.....
36	42	0	Dread constantly complained of, especially marked at night; moderate restlessness shown in picking, some crying; sad gloomy appearance.	Fears she will die before night; food poisoned; going to be cut up; four men will kill her.	Fears something may happen to husband or son; poison in food; to be taken away at night; her teeth will be extracted; all to be burned; husband to be killed; wind signifies this; toast passed in queer way means she wants to kill husband with toast; tea brought to her while husband is there means she is going to kill him and it is to brace her up, etc.	Cross stitches mean to keep the cross before her; odd things others say are to implicate her so that she is blamed.	.....
37	58	0	Gloomy, worrying.	.....	.....	.....	.....

\* Depressive makeup.

## HORS—(CONTINUED).

Mild hypochondria.	Anal-erotism.	Auto-erotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
Epigastric uneasiness.	....	.....	.....	Sexual feeling when another (female) patient touched her breasts.			
Has terrible disease.	....	Urines and defecates.	Resistive to treatment.	.....	Dragged family into poverty.	.....	Pregnant at entrance.
Throat feels contracted as though some one was grasping it; he feels as though eyes were coming out of socket, tongue pulled down, palate swollen; numbness and pricking in jaw and throat; feels hollow inside; numb all over as though dying; prickly feeling; discomfort in stomach; head dull, big as drum, something boiling it in, band sensation, numb.	....	.....	Struck, scratched and kicked nurses.	.....	.....	Sleep disturbed at first.	Improved as she understood sensations had not significance she ascribed to them.
Throat filled up; stomach growing upward.	....	.....	.....	.....	.....	.....	Everybody knows her thoughts because things happen when she thinks of them.
Pains all over body; lets himself fall, says he is too weak to get up; afraid of falling and breaking in pieces.	....	.....	Often desires not to be disturbed; begs to be left in his room; whining with skewed up face; often has to be dressed.	.....	Worry over money.	Poor sleep.	
Head heavy.	....	.....	.....	.....	His people will come to want.	Sleep, good.	
For year fussing over stomach trouble, idea of cancer or heart disease.	....	.....	.....	.....	.....	Poor sleep.	
Constant fear of going blind, also thought was growing deaf or paralyzed.	....	.....	.....	.....	Cannot pay bills.	Irregular.	Two subsequent attacks with recovery.

TABLE 4.—CASES ST

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.	Negation.
38	54	0	Mild restlessness, some inadequacy, feeling of sin and worry.	No right on earth.	Soul is lost, has committed unforgivable sin, is in devil's power.	Sinner, unpardonable sin, lost self-control, touched his wife's genitals.	Spirit taken out; does not worry enough about family.	.....
39	50	1	Listless, retardation, occasional queer smiles; sometimes fear.	Speaks of leaving the world soon.	Something dreadful going to happen; microbes on her.	Contaminates people with microbes.	.....	.....
40	47	2	Mild retardation.	.....	.....	Wicked but cannot be made to say what she worries about.	.....	.....
41	51	0	Restless with inadequacy.	Going to die.	Afraid will be taken away.	.....	.....	.....
42	50	2	Depressed, inadequacy, somewhat agitated, crying.	.....	Will never get well; mind failing; teeth decaying; hair falling out.	.....	.....	.....
43	48	2	Restless, moaning, marked agitation, will not answer questions, wants to be left alone.	.....	Something dreadful to happen; hopeless condition; asks to be protected.	.....	.....	.....
44	63	0	Dull and restless.  Extreme irritability; sometimes complaints of fear.	Will be blown up with dynamite. "Come and cut my head off."	Put on street, never see daughter again; dominated by fear of being left alone.	.....	.....	.....
45	52	0	Worry, then outbreaks of agitation. Tremendous agitation; no aimless acts, running about; later seclusive with periods of apathy and irritability.	.....	.....	.....	.....	No one about her, is a dressed up form; in a wilderness; no daughter, no husband; (orientation?) "I don't know anything, about it."
46	68	0	Depressed, agitated spells, again natural. Dull depression; feeling of going to pieces; apathy.	Suicidal tendency. Can't die.	Soul lost.  Apprehensive ideas about harm to daughter and son-in-law.	.....	.....	.....
47	66	0	Worry over things said and expenses. Restless, moaning, afraid in spells, otherwise quiet; moaning, worried, with insufficient affect.	.....	Police coming, people waiting to take her; food poisoned. Carriage to take her to funeral or wedding. House falling to pieces.	.....	.....	No water about, no home, "no anything."



## AUTHORS—(CONTINUED).

Case	Analerotism.	Autoerotism.	Irritability, peevish- ness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
trial ms.	.....	.....	.....	.....	Will lose everything and go to poorhouse.	Good sleep.	Ideas of refer- ence; <i>e. g.</i> , spoons rap when he does not eat well; attributed to higher power and to others.
dis- afraid wer; preg- nt.	.....	.....	.....	Claims as- sault and pregnancy; again cancer.	.....	Poor at first only.	
de- hair out.	.....	.....	Fussing about eating.	.....	.....	Usually good.	
g sen- n in can- wallow, ardly the.	.....	.....	Peevish, complaint about no treatment, wants to be left alone.	.....	Worry over financial affairs.		
.....	.....	.....	.....	.....	All property lost.		
feeling over, t dry, ch on feels and ed up.	.....	.....	Peevishness with dissatis- faction, irrita- bility; hit nurses, threw furniture; surly expres- sion, swore, obscene.	.....	.....	Poor sleep.	Spelling words backward and constant mumbling; improved after a stroke.
.....	(After three years) may urinate anywhere.	.....	Assaultive at times; always irritable; often resent- ed treatment.	.....	.....	Sleep some- times good, sometimes bad.	
ck of tion ow- to poor ; semen g all the e from him.	Stomach full, crowded by bowels (no physical basis).	.....	.....	.....	Patients took his money, will be destitute.	Insomnia.	Constant narrowing of mental horizon and insufficiency of affect.
.....	Soiled, re- fused to go to closet, "bowels don't move," "they are coming out."	Marked tendency to strip.	.....	Fear of men coming into room to assault her. Letter sent to say she is a bad woman.	Bills can't be paid; thou- sands ex- pended on her. No clothes, no home.	Poor sleep.	

TABLE 4.—CASES STUDIED

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.
48	56	0	Inactivity; depression.  Restless; distressed.  Spells of blind excitement, with intense distress and fear (sex content). Moaning, frightened, still sexual, also hypochondriacal; intention paralysis.	Can never be killed.  Will be killed or burned.	.....	.....	Body different, can only see and know. Patient says "recede," "elongate," and then shrinks up. Periods when everything looks queer.
49	64	7	Played out; restless. Quiet, retarded, immobile, has to be dressed, etc.	.....	.....	Worst man in world.	Everything is wrong, nothing is right.
50	50	1	Worry over condition. Marked restlessness, fussed up, constant demands for attention.	.....	Harm coming to husband and self.	.....	.....
51	59	0	Easily fatigued, worry. Standing, walking restlessly, moaning; marked narrowing of mental horizon; affect seems stereotyped and shallow.	Cut up.	Heating apparatus will explode; prison; ruined; exposed on street in glass case; terrible thing to happen; dear ones in the cold, etc. "I am afraid."	.....	.....
52	43	1	Depressed, retarded; moderate restlessness; suicidal, almost mute, with decided restlessness. Moderate restlessness with freer speech; apprehensive; finally spells of irritability.	Cannot die, repeated attempts at suicide; asks if will be hanged.		Wicked, responsible for all wickedness in world; made all my people sin, lost my soul.	"No life in me, seems as if my limbs were dead"; body different; throat not right; things do not look right, are larger.
53	60	0	Distressed, dejected, moaning, restless, some perplexity.	Can't live or die.	"Afraid of everything," feeling of responsibility about everything.	"Have lived on false pretenses."	.....
54	48	1	Nervous, crying, then "I changed in one night when all my power was taken away"; much depressed, in utter despair; later shallow affect except when delusions questioned, then irritable.	Tried suicide; can't die; asks to be cut up and put in bottle.	Will never get well, no use to anybody; legs numb and paralyzed, dead.	"God changed me and I don't know why."	Shriveled up, face drawn up, mouth shrinking; dissolved, only an image, dead; a ball of wire, a little ball, grown blind; "I think only when I speak and when I stop speaking there is not a thought in my head."

## IRS—(CONTINUED).

	Mild hypochondria.	Anal-erotism.	Auto-erotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
is n-be er y ta, id p.	Head feels hardened. She feels as if she could not breathe on account of blocking in throat.	Incontinence during limp spells.	Strips at bidding of voices.	Kicked, bit, struck in episodes associated with great excitement; later struggled against tube feeding, then relaxed and urinated on floor.	Hears man, hypnotized, sexual commands, feels vaginal sensations; frequent stripping and coming into hall naked.	.....	Insomnia.	Constant hallucinations of voices.
ce; on-ff; .	Head not right, "sad all over," have not been made right. Pain, discomforts, hands stiff, heavy feeling in neck; will have cancer.	.....	.....	.....	.....	.....	Good sleep.	Arterio-sclerotic.
. .	Leprosy.	Bowel trouble.	Much shameless masturbation and occasional involuntary urination; talks to self, "why don't you get out of window dearie?" "don't you want to see how you look?"	Constant fault-finding; sometimes aggressive, violent to nurses with irritation, constant demands for attention.	Exposes herself.	.....	.....	.....
nt, ght, ge. two et; , no g l ing :msa- ing her :ry, "g," igh b, t. wed, oat sed- very dead walk.	.....	Untidy.	.....	Spells of irritability.	.....	Ideas of poverty.	Irregular.	.....
ad wn ned ans a n ely sily hre, , a of	.....	Wilful bed wetting.	.....	Sometimes resistance and desire to be left alone; pronounced muscular negativism; increasing secretiveness.	.....	No money, a pauper.	.....	Insomnia at times.
	Legs numb and paralyzed.	.....	Pulls at lip until it is deformed.	Highly irritable when ideas are questioned.	.....	.....	.....	Insomnia at onset.

TABLE 4.—CASES

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	U- reality.
55	68	*	Depression, restless, worry over condition. Restless movements, looks worried, craving sympathy, moaning. One week of intense agitation, not even time to eat properly, shouting "murder."	..... Will be burned, tortured, furnace ready, cremated, can read it in faces about him.	I shall go to pieces, I feel so badly. .....	.....	.....
			Only slightly restless but very fault finding; no ideas.	.....	Will not get well owing to bad treatment.	.....	.....
56	59	0	Depressed, inactive.  Gradual restlessness but shallow affect with delusions of violent death.	..... Will be poisoned; will be thrown out of window; cannot die.	I am crazy; I will kill myself.  Will be put in dungeon with crazy man; "you are going to crush the life out of me," will be thrown out of window, into a cellar, heavy chains rattle which will be put on her.	Reproach for not having cared better for son. "They say I have killed my boy by giving him strychnin, but I did not do it, the doctor did it."	.....
57	54	1	Onset with inadequacy, then restless writhing; gradually more monotonous affect and narrowed interests.	Will be suffocated, buried alive, isolated.	.....	.....	.....
58	56	1	Make up: Apprehensive about health; since 14 nervous dyspepsia, often thought he was going to die; for 20 years had to have wife constantly with him even on business trips; hypersensitive and retiring. Worry, anxious. Two weeks: languid, slow action, never constant; moderate restlessness, moaning, suicidal tendency, suspiciousness. One year: Unoccupied, restless, then settled down; sometimes perplexed expression; suspicious watching, and tendency to withhold information, feeling of mental restriction and that he does not understand what things mean. Then chronic hallucinations and delusions with insufficient affect and perfect orientation.	.....  Suicidal ideas, going to be killed to-night; thought he was dying because his hands felt numb; eggnog makes him feel numb, and he does not want to die without his senses.  Many ideas about self and others being killed, world destroyed, etc.	.....  Indefinite dread of something to happen; thought incorrectly written check scheme to injure him and family; conspiracy, spies. Afraid to take bath; after refusal thinks friends are sacrificed in his stead and killed; they don't get home; ditches in garden are made for them; wife dead; all non-Catholics destroyed.  Feeling of significance which he does not understand. "There is a clearly definite movement the only one who does not understand its significance when to move." His actions prescribed; life occurrences have meaning; appliances and destroying friends and world; mind reading thinking. "Why do you keep putting men from South America and South United States on the ground? Why do you take them to the shoot them down the chutes?"	.....	.....

\* Many for ten years.

## HORS—(CONTINUED).

Idria.	Mild hypochondria.	Anal erotism.	Auto-erotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
.....	Throbbing sensation in head.	For years afraid of soiled things, ashes and dust, and afraid she might step in something that was not right.	....	.....	"It will kill my brother when he hears cause of my disease. People will think my disease is of a private nature. I brought the disease on myself; law says, 'Thou shalt not lust.'"	.....	Always insomnia.	
ortifying.	.....	.....	.....	Fault finding, peevish, irritable; treatment, food, etc., bad.	.....	.....	Usually very poor.	
neck brok- dead; odor ead inside cats and re after s ruptured ago, morti- iff spreads air is full has caused l accident of her boy, every one er patients fying; has bia; is an nal. can't swal- does not go smach.	.....	.....	.....	Peevish, chafing, petulant at times, irritable to nurses yelling at them when prevented in her restlessness from disturbing them.	.....	.....	Marked insomnia.	
.....	Will be blind; things blurred before her eyes.	.....	.....	.....	.....	.....	Irregular, usually poor.	
.....	Head does not work well.	.....	.....	At times very interfering and troublesome.	.....	"Have I been stripped of my property?"	.....	Expansive ideas; voices say "He ruled the world and all the people in it. He settled the world. When he eats they say 'He eats a king, a queen, a prince. When he took something out of a candy box, 'He is eating his children.'"
.....	.....	.....	.....	.....	.....	.....	.....	Hallucinations and delusions of dementia præcox type.

TABLE 4.—CASES ST

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality.
59	64	3	Curled up in room; surly expression, certain restlessness unoccupied, untidy.	.....	Afraid of harm; conspiracy to give him "pox."	.....	.....
60	57	0	Worry, ruined self by taking poison, uneasy, restless, will be taken to court, family, etc., will be indicted. Quiet, subdued. Restlessness. Restlessness more marked; "O God, I have to get out of here." Restless, much worried; had to get out; everything troubled him but could not describe it; finally chronic muttering.	Attempted suicide (oxalic acid); going to be hung.	Held here for criminal trial "will astonish everybody." Something with post office. All gone. "O God, O God, the whole business is gone, it is awful, awful, all gone to pieces."	.....	.....
61	52	0	Nervous hypochondriacal. Marked restlessness, talking incessantly, repeating words and sentences; gradually more exclusively interested in hypochondriacal ideas, with irritability when questioned.	Will be buried alive.	Will be tried for crime of which she feels innocent; refused food at first because covered with poison, later because organs are gone.	.....	.....
62	60	2	Depressed about business. Inactive, gloomy, listless, slow in speech and act, "I have no life, no force." No restlessness, same listlessness and inactivity, pauses in speech, decidedly apprehensive ideas but accepts these hopelessly and resignedly; insufficient affect throughout.	Will be killed in various horrible ways.	Ruined fiancée's life; certain forebodings not crystallized. "They are coming to take me away." Heard team drive up in night, knew family in it, dead, and they would get him when they came back (hallucinations); going to be killed, "and then voices came and called my name." Will be burned in furnace, new one to be built because old one filled with ashes of dead men. "enough men for a month." Cut up in a machine, killed by electricity, thrown down a hopper lined with knives; conspiracy to destroy him and friends and others; mentions two men who he thinks have already been killed; gases collecting inside him and when they accumulate he will explode.	"It seems as though all my life the mainspring of my actions was not right." Has been selfish all his life but was not so bad as people thought.	.....

HORS—(CONTINUED).

	Mild hypochondria.	Anal-erotism.	Auto-erotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
dor mells ing.	"Has "pox."	Filthy.	Much masturbation.	Objects to everything, sneering manner at examination; surly expression.	.....	.....	Poor sleep at first.	
....	Pain in head.	Smears will fill toilet or pipes (worry of expense stopped when this came); had diarrhea and tried to defecate all over place so as not to fill up pipes; complained often of being covered with feces; throughout tendency to defecate and urinate on floor.	Rubs head or buttocks.	.....	.....	The bills are not paid; they must be running up into the thousands; did not eat on account of expense.	Insomnia.	Always poor performance with intellectual test.
one, can't stopped bones ily 16 only 3 ; no rgans, out in and spoon; oken; nsation body res her tantly, d to in bed ves. or food, illect urther on will explode: e gases n him.	Burning sensation all over; worried about heart disease.	Will not go to closet; digs out her feces.	Strips constantly.	Whining, petulant tone, with much irritability; can also be made to smile at times; complains of this awful treatment (poison put in her bed by nurses).	.....	.....	Fair sleep.	
	No life; no force.	.....	.....	Refusal of food.	.....	Lost all property; has tangled up estates entrusted to him and will never be able to settle it; hospital people will take all his property away.	Good.	

TABLE 4.—CASES

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unreality
63	52	o	Lost interest, restless, more so when husband goes away; duller, in bed; ideas. Marked restlessness, pulling out of hair or motions of hands, considerable distress; unchanging expression, at times puzzled (Basedow complex); little spontaneous talk, slowness in answers; later free, "my thoughts are not on it" to questions; finally practically no affect and stereotyped talk about going home or being in hospital.	.....	Will be arrested, "don't take me down there."	Wicked, had not treated husband right to be arrested; inadequately formulated guilt; did wrong in coming here, etc. "Don't think I am insane, I am not." "I was thinking I would tell you why I came and what I did to my brother-in-law and sister." "I was going to tell you of my coming here, I ought to have told you, I knew I was doing wrong but I kept on staying." "I want to confess, my people are innocent and I am guilty (repeatedly), can't seem to tell what I worry about; it seems gone from me now; I have put it off so long that now I can't tell, I have forgotten."	.....
64	53	o	Restlessness, so that feet get swollen.	"If I can live without eating, can't die, can't even be killed."	Something may happen to son.	.....	Hands feet different, feeling in them; entirely different from any one else.
65	69	o	Languid, sad. Retardation, shame (sexual), and mildly apprehensive.	..... Will be killed; brother will be killed; she will be put into dark hole.	..... House will tumble, last meal.	..... Is bad.	.....
			Apprehensive.	Same.	.....	.....	.....
			Exhilaration, volubility slight flight. Well behaved.	None.	None.	.....	.....
			Gradual return of apprehensive ideas, restless, moaning and depressed.	Will be killed.	Will be tortured; she and family will be put into black hole.	Has done dreadful things.	.....
66	49	o	Gloomy depression, peevish.	Onset: Will be hanged; later, "let me die," or "why don't you chop me up?"	Electricity, poison in food. "I suppose I have to go to jail." Ideas of reference about objects.	Projected; accused of being hypocrite, thief, prostitute, living with man not her husband. Wicked.	Everything strange; husband not her husband; is not Mrs. H. does not know who she is doctor and hospital not doctor and hospital. nurses are paper girls. "I thought we had a real war."



DRS—(CONTINUED).

	Mild hypochondria.	Anal-erotism.	Auto-erotism.	Irritability, peevishness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
	.....	Occasionally soils when mentally deteriorated.	.....	Reactive with final deterioration.	.....	.....	Sleep almost normal in spite of diurnal restlessness.	Short episode of exophthalmic goiter.
of l of ing y o; m and ill at : es : ied	.....	Rectum broken off; urine comes out wrong place.	.....	Whining, peevish.	.....	.....	Often poor sleep.	Loses flesh.
	Poor health .....	.....	.....	.....	Brother-in-law at instigation of sister had made her pregnant. Every forenoon says somebody had visited her at night. Vaginal sensations.	.....	Poor sleep.	
	.....	.....	.....	.....	Some one in room at night.	.....	.....	Drops sexual ideas with greater anxiety.
	.....	.....	.....	.....	None.	.....	.....	
	.....	.....	.....	.....	Men come in at night; pregnant; vaginal sensations.	.....	.....	
Malaise, pain, vomited; is given medicine to keep bowels from moving; somebody has spoiled her body.	Food is offal (as a metaphor).	.....	Disinclined to answer, "Please go away." More and more reticent, "said too much already." Wants to be left alone, pulls away petulantly when touched; irritability with striking and tearing things.	Did not put curtain down when took bath. "If different men came every night, I did not know it." "It was shown to me that I practiced self-abuse."	No money to buy anything.	Poor sleep at first only.	Reported well four years after onset but could not forgive husband for taking her to hospital.	

TABLE 4.—CASES

Case No.	Age.	Previous attacks.	Emotional state.	Death ideas.	Other apprehensive ideas.	Self-accusation.	Unre
67	63	0	<p>Uneasiness, fretful. Restless, cannot sit down; intensely worried; voluble; cannot give data of life "because constantly thinking of wicked deeds done."</p> <p>More restless, temporarily quite intense; striking head against wall, crawling into fireplace, putting hand to throat as if to choke herself. Restlessness marked, also marked curiosity, going around house looking into other people's rooms, reading their letters, etc.</p>	Attempted suicide.	.....	<p>Sin; is the evil one; spoke of remorse of conscience; niece and boarder did not get along, should have separated them, greatest crime in history, such wicked deeds. "When I was a child we played we were killing each other, then we acted angry and later I could not help doing the same and feeling the same, and now it has gone on until it has come to this." Not insane, has killed many people by pretending to be—predominant theme.</p>	.....

## HORS—(CONTINUED).

	Mild hypochon- dria.	Anal- erotism.	Auto- erotism.	Irritability, peevish- ness.	Adult sexuality.	Poverty ideas.	Sleep.	Variations.
...	.....	Constant putting of fingers in rectum and smearing feces; asked why did so, "Must have something to do."	.....	.....	.....	Her clothes all stolen.	Poor sleep.	

## DISCUSSION.

DR. MEYER.—I cannot refuse an invitation to say a few words with regard to this extremely interesting paper, which I consider one of the type of studies that will bring us further. It is a very careful analysis of cases that obviously belong together not merely because of the age at which they occur, but owing to the leading characteristics of the depression. We deal here with depressions at a period of life when there are so many chances of families being dissolved; of appearances of certainty passing into uncertainty; of an overwhelming feeling of inability to rise any longer to such emergencies, and with reactions that in the main are tremendously true to what occurs in the normal individual, and also liable to draw in a good many things which without such a psychosis probably never would have come to the surface of the personality. The analysis which Dr. Hoch and Dr. MacCurdy have made of their cases shows a good many features in the content that we see in the other periods of life and in the more constitutionally involved cases. In the main I cannot quite sympathize with the tendency to emphasize an obligatory identification of unfavorable symptoms with schizophrenic tendencies. Certain life conditions will bring about similar life reactions that suggest bringing them closer together under one heading and some undoubtedly less favorable than others. I cannot help but feel that interesting studies might result from a more intensive observation also of the somatic factors. I also remember the studies of Dr. Mitchell and Dr. Southard, and realize that in a psychosis of that period of life there is very decided tendency for regression, or for defects of anabolism, and we should try to find out how they are produced.

After all, what we want to push forward to is to understand the intimate workings of some of the concrete damaging influences as to prognosis. I cannot help but think that in a certain number of cases constitutional assets are of influence, and I also am impressed by the differences that may result in persons finding themselves in unfavorable places as compared to those who have somewhat better advantages and outlook. Nevertheless, the interpretation can never be made merely on the ground of the external situation. It is best to study the facts in their own light and not to feel that we must develop the whole problem under the two terms of schizophrenia and manic-depressive insanity.

DR. ABBOT.—I want to say a word or two about these cases because many of them I had talked over with Dr. Hoch, and we had discussed the diagnosis, prognosis, etc. Personally, I believe that there is a small group of cases that we may properly call involution melancholia. A great many cases of depression occurring at the so-called involution period, that show symptoms of a manic-depressive depression or some other atypical set of symptoms, do not belong to that group. Now, we have to make our diagnoses on the symptomatology—what symptoms does the patient show? Dr. Hoch and I talked over the possibility of these cases that did not recover, as to whether or not they were related to dementia præcox. The reasons why we thought they were

late dementia præcox was that they all showed a certain degree of negativism, stereotypy, and shallow, superficial emotional response; they lived a very routine life; many of them were untidy, somewhat destructive, etc. The fundamental change in dementia præcox, as I see it, is a loss of the inner drive or urge to normal activity in life; the patient is content to sit down and let his mind think what it pleases. His life is conducted on a basis of autistic thinking. He has permanently lost, to a greater or less degree, the capacity for rational thinking, planning and adjustment. The involution cases, however, do not lose that urge in the same sense; they do adjust themselves to their environment, but it is a narrow environment; they concern themselves with the trivial things about them—as to whether the weather is good or not, and other minute details; they busy themselves about such little things without any very effective use of their business; they reiterate the same things every day, giving the impression of being stereotyped, but the repeated acts do not have for them the symbolic significance which such acts have for the præcox case. That, I think, is the difference between the dementia of these cases and that of dementia præcox. These involution cases do not have a thinking difficulty; they are quick in their responses; there is not a psychomotor retardation, and for that reason I do not regard them as belonging to the manic-depressive group. It is a small group and by no means co-extensive with that of the cases which occur at the so-called period of involution.

DR. MACCURDY.—I must say that I am gratified by the discussion this paper has received, particularly since the points brought out have been just those which I was obliged to omit from the paper. There are two of these which are of great importance, *viz.*, the question of the existence or non-existence of the definite reaction type which we speak of as involution melancholia. As to this we were very much struck after formulating just those symptoms which we considered to make up that type, to find how frequent they were at other ages than the senium or presenium. We had one striking case of a man 33 years of age, whose diagnosis caused a great deal of discussion at Ward's Island. He finally recovered completely, although the case was first viewed by the staff as one of dementia præcox. When we studied the case in retrospect we found the symptoms were typical of the involution melancholia reaction. The thing that puzzled us was his age, so it probably is a reaction type that occurs at all ages, but most frequently in advancing years, for the reasons that Dr. Meyer has mentioned. The second point has to do with the relationships of this to other psychoses or groups of psychoses. As to this, I would like to make it plain that we did not mean to say that there was an identity between the reactions of the malignant involution cases with the dementia præcox, but that they were analogous.



## Notes and Comment.

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PSYCHIATRY AND ITS RELATION TO PUBLIC HEALTH.—Psychiatry has reached a position where it has much to offer the public in practical help in the treatment of many of its social and medical problems.

Public interest in psychiatry has until recent years been limited to furnishing provisions for the care and treatment of the more seriously disabling types of mental disorders, as the insane and defective. But, its field can no longer be limited solely to problems centering in the institutional aspects of mental disorders. Its experience justifies a claim to an interest in mental disorders in all their relationships.

No one factor so vitally concerns the economic and social efficiency of a people as their mental health and whatever prevents the preservation of this should be a matter of deep concern to the administrative interest of a state. Mental disorders are so intimately matters of public health that one wonders that their consideration from this aspect has been so generally neglected by the special agencies of the state that are specifically concerned with public health problems.

When one recalls the tremendous expenditures that now burden a state for the care of the insane and defective, the serious influences that mental abnormalities have in relation with school problems and family training of children, their interrelation with problems of crime, dependency and social maladjustment, their deteriorating influence upon the character of the population; when all these are considered do not mental disorders stand out as perhaps the largest public health interest that a State should have?

Many of the factors directly concerned in the production of mental disorders have long been recognized as within the interest of state public health organizations and attacks upon these from any direction will reduce the total amount of health problems that a state must deal with. We are concerned at the present time not only with harmful influences that are still active in our com-

munities but we bear an additional burden from the accumulated effects of these coming to us from previous generations. Unless this is appreciated and intelligent efforts made towards their prevention our present difficulties will continue and we will pass on to our descendants the ever increasing load.

While the experiences that have been gained in hospital treatment of the psychoses have given to us a clearer understanding of psychiatric problems, we cannot avoid the feeling that curative results from hospital treatment are not as hopeful as we may have been led to expect. There has, however, come from these experiences the very definite conviction that many of the disorders that come into hospitals might have been prevented or were amenable to cure had this been undertaken earlier in the disease.

There must often come to one concerned in the medical administration of a state hospital for mental disorders a feeling of too much isolation from many of the aspects presented in the problems of his patients. He has been impressed with the fact their disorders have wide ramifications in respect to causes and effects but with which he has no contacts. His daily work brings him in relation with mental abnormalities in his patients that he knows have much in common with those shown by many in the communities who are given trouble in the schools, in social relations, and are often coming in conflict with the laws.

On the other hand, there has in recent years been an increasing appreciation by those concerned with problems of conduct, and social and economic situations that mental abnormalities have an intimate relation to the problems with which they are dealing.

The time seems at hand when there should be developed a more systematic co-operation between state hospitals for mental disorders and the public agencies concerned with problems in which mental abnormalities may have a disabling influence. In its mental hospitals the state has organizations that have accumulated a rich experience in understanding problems of mental abnormalities and have acquired a technical skill that should be made widely available.

The initiative for the development of this interest on the part of the state, in mental disorders in their relation to public health problems must for some time come largely from the state hos-



pitals. They already know from their experiences growing out of the problems of their medical work, what may be undertaken.

The extramural activities that have been developed by a considerable number of hospitals in this country are definitely approaches to an interest in public health problems. These have as yet had little co-ordination in relation with any general program on the part of the state. They are beginnings of what must later be operated as a state service. Much has been accomplished by the National Committee for Mental Hygiene and affiliated state societies in directing attention to the importance of mental abnormalities in a wide range of medical and social relationships. Their many reports and surveys have furnished concrete data on which to base discussions regarding these matters. But health problems, whether mental or physical, are fundamentally obligations of the state and we are coming to an era in which the state is to assume a far greater concern for the health of its citizens. Already this has taken form in some states in rather far-reaching efforts. But, these so far concern problems only of physical health.

No future program will be adequate that does not recognize that mental disorders in wide relationship are matters vitally influencing for bad the health and social order of the state, and that the state must undertake active efforts towards their prevention and early treatment.

It might be helpful in keeping before the public the relative importance that mental disorders have among health problems of a state, if the reports of departments of health might include a consideration of some of the statistical matters of the state institutions for mental disorders and those for penal and reformatory purposes.

The experiences of the war, both in its mobilization period and in its aftermath, with its serious influences upon readjustments have shown in very specific ways how mental abnormalities and disorders become health problems in periods of great crises. The recognition by the national government of the importance of nervous and mental health for military efficiency gave to those who were interested in psychiatry hopes that mental disorders might assume a permanent position co-ordinate with other health activities in which government agencies were interested. But, unfortunately this has been only partially realized.

As hospitals extend their activities into the health problems of the communities of a state they come closer to the people. The dreads of contacts with a mental hospital will be greatly lessened and their treatment facilities will be more freely sought.

A. M. B.

**RESIGNATION OF DR. PILGRIM.**—Dr. Charles W. Pilgrim who since September, 1916, has been a member and president of the N. Y. State Hospital Commission has sent his resignation to Governor Miller of that state and it became effective on December 12, 1921.

Dr. Pilgrim has had a long and active career in the state hospital service. He was born in Monroe, Orange Co., N. Y., March 27, 1855, and was educated in the Monroe Institute and the public and high schools of Jersey City, N. J., and under private tutors.

In 1881 he received the degree of M. D. from the medical Department of the N. Y. University and subsequently served for eighteen months as interne and house physician in Bellevue Hospital, New York. During the latter part of that period his service was in the observation wards for mental cases and it was there that his interest and work in psychiatry first began.

While on duty at Bellevue as ambulance physician Dr. Pilgrim contracted typhus fever and for a time a fatal termination of the disease was feared. In February, 1882, he became assistant physician at the Asylum for Insane Criminals at Auburn, N. Y., under Dr. Carlos F. MacDonald and in December of the same year became a member of the staff of the State Lunatic Asylum at Utica, now the Utica State Hospital.

Here he remained until 1885 when he went to Europe for further study and experience, remaining abroad nearly two years, studying in Munich, Vienna and Berlin. In the summer of 1885 he was resident assistant at the Munich Frauenklinik.

On his return he resumed his duties as an assistant physician at Utica and in 1889 was appointed medical superintendent of the Willard, N. Y., State Hospital. In 1893 he was appointed medical superintendent of the state hospital at Poughkeepsie, N. Y., where he remained until May, 1906, when he became a member of the State Hospital Commission, resigning in a year to return to the superintendency of the hospital at Poughkeepsie,

to be called again to the State Hospital Commission, from which he has just resigned, in 1916.

During his service on the State Hospital Commission Dr. Pilgrim has rendered notable and valuable service to the state and to its insane wards. In conjunction with the legislative committee of which Senator Sage was chairman, he aided in formulating plans for the future and orderly development of the state hospital system, which, when fully carried out will be of inestimable benefit to the state, and will place the care of its mentally disordered patients upon a plane which will establish a standard to be emulated by other communities.

In 1906 Dr. Pilgrim succeeded the late Dr. E. C. Dent as secretary of the American Medico-Psychological Association, serving until 1910, when he was elected President of that organization. He is a member of the N. Y. State and the Dutchess County, N. Y., Medical Societies and a fellow of the N. Y. Academy of Medicine; also vice-president of the N. Y. Psychiatric Society.

Dr. Pilgrim, in laying down the cares and responsibilities of public office, does not propose to cease his activities in medicine. He has assumed the control and management of Dr. MacDonald's House, at Central Valley, N. Y., a private sanitarium for mental cases and will in the future devote his time to this and to consultation practice in psychiatry.

On the evening of December 8, 1921, a complimentary dinner was given to Dr. Pilgrim in New York on the completion of forty years continuous service in psychiatry and in N. Y. state hospitals. An account of this dinner appears elsewhere.

**APPOINTMENT OF DR. HAVILAND.**—Governor Miller of N. Y. State has appointed Dr. C. Floyd Haviland, for some time medical superintendent of the Connecticut State Hospital, Middletown, Conn., to succeed Dr. Pilgrim in the N. Y. State Hospital Commission, and he assumed the duties of the position on December 19 last. Dr. Haviland was born in Spencertown, Columbia Co., N. Y., August 15, 1875. He was educated in the public schools, graduating at the Fulton, N. Y. High School in 1893, and received the degree of M. D. from the Syracuse, N. Y., University in 1896. He was medical interne, junior assistant physician, assistant physician and second assistant physician at the Manhattan State Hos-

pital, Wards Island, New York, 1897-1910. From 1910 to 1915 he was first assistant physician at the Kings Park State Hospital, Kings Park, N. Y., and has been medical superintendent of the Connecticut State Hospital since July, 1915.

For some time Dr. Haviland served as clinical assistant in psychiatry in the medical departments of Columbia and Cornell Universities. In 1914 he made a survey of the state of Pennsylvania as to conditions relating to the care and treatment of the insane. The results of the survey, which was one of the most thorough of its kind, were published by the Public Charities Association of Pennsylvania. Dr. Haviland is a member of several medical societies, among them, the American Medical Association, the Connecticut State Medical Society, the Connecticut Mental Hygiene Society and the American Genetic Association. At the meeting of the American Psychiatric Association in Boston in June last he was elected secretary-treasurer.

The state of New York is to be congratulated upon securing a man of Dr. Haviland's experience, executive and medical ability as a member of the State Hospital Commission, of which he has been elected president.

**INTERNATIONAL CONGRESS OF MENTAL HYGIENE.**—At a meeting of the Council of Administration of the French Ligue D'Hygiène Mentale, as reported in the *Bulletin Mensuel de la Ligue D'Hygiène Mentale* for November, 1921, the president, Dr. Toulouse proposed that the Ligue take the initiative for the organization of an International Congress of Mental Hygiene to be held in Paris in connection with the celebration in 1922 of the discovery by Bayle of general paralysis.

The Council received the proposition with favor and a committee was appointed to consider and take steps toward the practical realization of the proposition of Dr. Toulouse. The committee is composed of Drs. Antheaume, Cazeneuve, Colin, Genil-Perrin, Lahy, Georges Renard and Toulouse.

Although the time is short for the organization of an International Congress of Hygiene the proposition is one which deserves careful consideration.

## Association and Hospital Notes and News.

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**CHANGE OF ADDRESS OF SECRETARY-TREASURER.**—As noted elsewhere Dr. Haviland has resigned the Medical Superintendency of the Connecticut State Hospital, Middletown, and has been appointed by Governor Miller a member of the N. Y. State Hospital Commission. His address will be in the future Drawer 18, Capitol Station, Albany, N. Y.

It is hoped that every member of the Association will take note of this change and make the necessary correction in the printed list of members.

Dr. Haviland reports that there are several members in arrears in the payment of their annual dues, and desires us to urge upon all who have not remitted their dues to do so at once.

It should be remembered by all that a certain proportion of the sum paid for dues is for subscription to this JOURNAL which is sent to each member, also that the Association's expenses, as well as printers bills must be met. It is hoped that this appeal on behalf of the secretary-treasurer will obviate the necessity of a direct or personal appeal to any delinquent member. Act at once on reading this notice if you find you are in that class.

**THE ANNUAL MEETING OF THE ASSOCIATION.**—The American Psychiatric Association will hold its seventy-eighth annual meeting at the Chateau Frontenac, Quebec, Canada, on June 6-7-8-9, 1922. Twenty years ago the Association met in Montreal, and in 1913 its sixty-ninth annual meeting was held on the Canadian side of the river at Niagara Falls. Both of these meetings were well attended and were full of interest. This year we again meet with our Canadian members in one of the most interesting cities on the Continent.

Quebec and its surroundings are full of historical interest, and the old city is unlike anything on this continent in both its architecture and situation.

The program committee is working most energetically to secure papers and we are assured that those who attend the meeting will find an intellectual feast.

We urge upon our members to make a special effort to attend this meeting and to make the reservations at the Chateau promptly.

**FIRE IN THE MIDDLETOWN, N. Y., STATE HOSPITAL.**—A fire occurred at the Middletown Hospital shortly after midnight on October 18, 1921, which did much damage, and but for the prompt and efficient work of the nurses and other employees of the hospital might have resulted in loss of life.

Dr. Ashley, the medical superintendent, has furnished us with the following account of the fire:

A fire occurred in the attic, or sixth floor, of the Administration building, at one o'clock on the morning of the 18th instant. The origin of the fire is unknown, but it is supposed that it probably occurred from a short circuit of an electric wire, though so far as we know all the electric light wires were inclosed in metal conduits. A system of automatic fire extinguishers had been installed in the attic, and the fire was discovered by the night watchman, who heard the water running from the automatic sprinklers, and on entering the attic found considerable of a blaze. Efforts were made immediately to subdue the flames, but because of lack of water pressure we were unsuccessful. The entire fire-fighting force of Middletown and two companies from Goshen, eight miles distant, responded and were successful in extinguishing the fire, but not until after a damage of \$150,000 had occurred in the roof and interior of the building.

The women patients, who occupied the three upper floors of this structure and who were practically all of the aged and more or less infirm class, were promptly removed from the building; in fact, all were out in ten minutes, and though a number had to be carried, there were no casualties and no one was injured. A large amount of the furniture, furnishings and personal clothing was also gotten out, together with the records and office fixtures which were on the first floor, and the drygoods from the basement.

The main walls of the building are intact and in good condition, and it is planned to put a temporary roof on the structure at once, and later to reconstruct the building and put a reinforced concrete floor in the attic.

The employees of the institution are to be commended for their bravery and discipline during the fire.

For a number of years we had recognized the danger of a fire in this particular building and had at several times requested of the Legislature an appropriation for additional fire protection and fire-fighting apparatus

for this building, but unfortunately we had not been successful in securing the appropriation.

There are some lessons to be learned from this occurrence. The first is the necessity of a frequent and expert examination of all lighting and other electric wire circuits. If this fire arose, as is suspected, from short circuiting of the wires, an examination made some time before the fire would have probably revealed a ground somewhere in the wiring which could have been traced and corrected. The second lesson is the absolute necessity of an ample water supply with sufficient pressure to reach any part of the hospital buildings with streams of water of sufficient force and quantity. Most institutions of this kind are isolated and before the fire department apparatus can arrive, if there is lack of water and pressure the fire gets beyond control. If on the contrary, these requisites to fire-fighting are at hand a fire of threatening proportions can often be controlled or at least kept from spreading until the arrival of the fire department apparatus, when of course a liberal supply of water must be on hand.

DINNER TO DR. CHARLES W. PILGRIM.—On the evening of December 8, 1921, about 130 of the personal and professional friends of Dr. Charles W. Pilgrim assembled at the National Republican Club, New York, at a testimonial dinner to the doctor on the occasion of his retirement from the N. Y. State Hospital Commission and the conclusion of 40 years service in the state, in the care of the mentally disordered.

Dr. Charles G. Wagner, medical superintendent of the Binghamton, N. Y., State Hospital, and an old associate of Dr. Pilgrim's at the Utica State Hospital, presided and performed the duties of toast master in a most acceptable manner. He revealed to the dinner guests some of the secrets of Dr. Pilgrim's early excursions into literature in the way of dramatic criticism, and verse, though we suspect some of the verses which were read as samples of the honored guest's style were really the production of Dr. Wagner's versatile pen.

Remarks were made by Dr. George A. Smith, superintendent of Central Islip State Hospital; Dr. Carlos F. MacDonald, a former president of the State Hospital Commission; Dr. Walter G. Ryon, superintendent Hudson River State Hospital; Dr. Isham G. Harris,

superintendent of the Brooklyn State Hospital; Messrs. Arleigh D. Richardson and Cyrus E. Jones, Dr. Pilgrim's associates in the State Hospital Commission; Mr. Homer Folks, secretary of the State Charities Aid Association; Dr. Edward N. Brush, of Baltimore, who served on the staff of the Utica State Hospital with Dr. Pilgrim; and Dr. Mortimer W. Raynor, director of clinical psychiatry of the Manhattan State Hospital.

In conclusion Hon. Frank B. Lown, president of the Board of Managers of the Hudson Run State Hospital, with some most appropriate remarks presented to Dr. Pilgrim a silver tea service. The inscription on the silver reads "1881-1921, Charles Winfield Pilgrim. By his friends as a token of affection and esteem upon the completion of forty years continuous service in New York State Hospitals."

The following minute, expression of the sentiments of those at the dinner, was read and unanimously adopted:

WHEREAS, The resignation of Dr. Charles Winfield Pilgrim, chairman of the State Hospital Commission, at the conclusion of 40 years of continuous public service on behalf of the insane and other mental defectives, has severed the official relations which have long existed between him and his associates in the state hospital system, we, his personal and professional friends assembled at a testimonial dinner in his honor, desire to express our appreciation of his splendid achievements as a commissioner, a physician and a man.

When Dr. Pilgrim assumed the duties of State Hospital Commissioner, to which position he was called by the governor of the state, he brought to his work in that office a broad knowledge of the great field he was to cover, gained in the school of experience as an assistant physician in the State Asylum at Utica, as superintendent of the State Hospital at Willard, and as superintendent of the Hudson River State Hospital at Poughkeepsie. Throughout the long period of his public service he devoted his great abilities as a physician, a psychiatrist and an administrator, to the problems before him with unstinted zeal. As a physician he has been indefatigable in his efforts to ameliorate the condition of the sick, as a psychiatrist he has sought to establish the study and treatment of insanity on a secure scientific basis, and as a commissioner he has encouraged the highest possible standard of care of the insane in the state hospitals of the state of New York. He has sought, by the establishment of out-patient departments, including mental hygiene clinics in connection with the state hospitals, to prevent the development of insanity and to encourage right living in the families of the poor, to the end that better citizenship should result in the rising generation.



Dr. Pilgrim has actively encouraged the development of scientific interest in psychiatry on the part of the state hospital staffs, and with this object in view he has consistently supported the psychiatric institute as a highly important part of the educational work in the state hospital system, and has encouraged the younger physicians in the service to avail themselves of the opportunities for self-improvement it offers. His sympathies have been keenly alive to the needs of the insane and he has listened to their complaints and requests with unfailing kindness and courtesy, always offering assistance to relieve their distress wherever he found such action possible. Dr. Pilgrim will long be missed in the state hospitals by those who have known and admired the great work he has done, not only for his scientific attainments, but for his genial and kindly personality which has endeared him to all with whom he has come in contact.

CHARLES G. WAGNER, *Chairman*,  
I. G. HARRIS,  
W. G. RYON,  
M. B. HEYMAN,  
F. W. PARSONS,  
M. C. ASHLEY,

*Committee.*

The after dinner speeches, enlivened as they were by frequent humor in the way of reference to some of Dr. Pilgrim's supposed fads and foibles, bore one sustained note of commendation and congratulation to the guest of the evening on the completion of 40 years work, well and faithfully performed. Dr. Pilgrim in his speech of acknowledgment met a difficult situation with modesty and grace.

NOTICE.—Several copies of the twenty-seventh volume of the *Transactions* of the American Medico-Psychological Association recently sent out to members have been returned to Dr. Haviland, the Secretary, because of defective address. Members of the Association prior to the meeting of 1921, who have not received their volume should notify Dr. Haviland, Drawer 18, Capitol Station, Albany, N. Y.

## Book Reviews.

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*The Manner of Man that Kills.* By L. VERNON BRIGGS, M. D. (Boston: Richard G. Badger, 1921.)

Dr. Briggs has laid before his readers in "The Manner of Man that Kills" all the information obtainable regarding the lives and personalities of three abnormal persons who inflicted grave injuries upon society. He has traced the precise manner in which defects in the nervous structure, training and moulding by the forces of the environment in which these men lived culminated in startling crimes. Had Dr. Briggs stopped there he would have made an interesting contribution to the literature of criminology but, fortunately, he went further and pointed out the loopholes in the protective walls that the community tries to build around its members that permitted the abnormal mental processes of each of these three slayers to exact a human sacrifice before those processes could be brought under scientific investigation and the possibility of control.

Quite apart from the absorbing interest of this book to the criminologist and student of abnormal behavior, the wealth of material gathered and the clear, almost reportorial, manner in which it is presented make it of more than usual interest to any reader who is willing to face reality in the course of obtaining information about some of the people of the world in which he lives. It would detract from the interest of readers to say more about the material that Dr. Briggs has brought together than that he has told the stories of three murderers—Czolgosz, Spencer and Richeson—from the cradle, indeed from the heredity that shaped the patterns of their brains, to their execution by the commonwealth whose security they had attacked. These men represent, on the surface, the types of murderers that kill for greed, for lust and for the overthrow of government. Delving beneath the surface, as Dr. Briggs was able to do, with the aid of the mass of information that he so patiently and skillfully gathered, this convenient grouping is destroyed and different motives, arising from special mental abnormalities, are seen to have determined not only the nature of the crimes themselves but almost detail of the criminal lives in which the murders formed episodes.

The observations upon which Dr. Briggs' book is based were made from 10 to 20 years ago. The conclusions now presented were reached by him, however, while the men studied were still living. It is of some interest to consider for a moment what the reaction of intelligent public opinion to these conclusions would have been had they been presented at the time that

they were reached and to guess what the reaction might be 10 years hence, were the first publication of this book delayed that long. It is safe to say that, except by a minute part of the public, most of these conclusions would have been regarded 20 or even 10 years ago as justifiable from a purely scientific point of view but too widely at variance with general opinion and especially with public sentiment to have any practical bearing upon the understanding of the crime or upon its management. To-day, so rapidly have the main factors regarding the relations between abnormal mental states and abnormal behavior been accepted by a considerable body of enlightened persons, that not only judges, penologists, psychiatrists and social workers, but many among the general public would find in Dr. Briggs' observations and conclusions confirmation of views already held. Ten years from now, if the present trend of thought regarding crime and criminals is read aright, Dr. Briggs' book will be regarded as an interesting account of one of the phases through which public opinion has passed in its changing attitude toward criminals and their crimes.

"The Manner of Man that Kills" is a valuable addition to the literature of criminology. Many lessons, medical, social and educational, are to be drawn from these twisted lives, so faithfully and minutely described. Not the least important of these lessons is the need for studying the intrinsic and extrinsic factors that, working upon a human being in most respects like all other members of his species, can make him one of the most dangerous animals that walk the earth. If one-tenth of the amount of money spent annually in trying to reconstruct some of the vanished life of former ages could be spent during the coming years in the study of children showing a tendency toward deviations such as those which characterize these three men who killed, society might reap a rich harvest from the funds invested of our knowledge of fundamental factors that determine the emotional life of human beings might receive enormous additions.

T. W. S.

*The Major Symptoms of Hysteria. Fifteen Lectures Given in the Medical School of Harvard University.* By PIERRE JANET, PH.D., M.D. Member of the Institute of France, Professor of Psychiatry in the College de France. Second Edition With New Matter. (New York: The Macmillan Company, 1920.)

The medical profession in America is familiar with this work through the first edition published shortly after the lectures were delivered at Harvard in 1906.

The lectures met with a very hearty reception at that time and a second edition will be welcome, particularly because of the added matter. The author very wisely says of the work in its new edition, "It does not seem to us very useful to modify it profoundly, for the interest of a scientific work resides almost always in the date at which it was drawn up, and one should not confusedly mix the ideas of one period with those of another."

He therefore has refrained from any very material modification of the original text contenting himself with showing how certain notions set forth in the lectures delivered in 1906 have spread, and played a great part in the interpretation of hysteria. In addition he has attempted briefly to show in his introduction to the second edition how and in what direction he has in other published works developed his earlier interpretations.

Janet has been a pioneer in the exploration of the field of the psychoneuroses, and his interpretations of the observations there made have been the foundation upon which have been built many of the more recent works bearing upon this subject. He has always maintained a sane and conservative attitude and has not been inclined to give out as scientific truths the results of imaginations and speculations. The lectures are still to be commended as safe guides to further study and observation as well as aids in the interpretation of observed phenomena.

*The Unconscious. The Fundamentals of Human Personality, Normal and Abnormal.* By MORTON PRINCE, M. D., LL. D., etc. Second Edition Revised. (New York: The Macmillan Company, 1921.)

Seven years have elapsed between the publication of the first edition of this work and the appearance of the present one. The first edition met a most favorable reception. The subject matter of the lectures was based upon most careful observations made often under unusually favorable circumstances.

The studies which Dr. Prince has made of the "unconscious" have attracted wide attention and this edition of his book contains material of much interest not found in the first edition.

Four additional chapters have been incorporated. Lecture XVII, one of the new chapters, deals with the structure and dynamic elements of human personality. Human personality, the author says, may now be considered as "a composite structure built by experience upon a foundation of performed, inherited, psycho-physiological dynamic mechanisms (instincts, etc.), containing within themselves their driving forces." Again he describes personality as "the sum total of all the biological innate dispositions, impulses, tendencies, appetites and instincts of the individual and of all the *acquired* dispositions and tendencies acquired by experience."

With this chapter as a background, a sketch of the structure and dynamic mechanisms of the normal personality, the author presents in the succeeding three lectures or chapters, which are also additions to this edition, a study of the psychogenesis of multiple personality, the case of B. A. C.

This most interesting case has been described in an autobiographical manner by the subject herself in the *Journal of Abnormal Psychology*, Vol. 3, Nos. 4-5, 1908-9, under the title "My Life as a Dissociated Personality"; this chapter was also published in the same journal for October, 1919.

Dr. Prince has made, as was recognized when the first edition of his work appeared, an important contribution to the study of the unconscious. He has not permitted himself to indulge in theories which were not based upon observation and study. He has followed as far as is possible in a field of research of this kind the inductive method. He has reached certain definite conclusions, conclusions which must be accepted.

These conclusions may in time be subject to modification or they may be further developed. They are presented in a sane and reasonable manner and deserve careful consideration.



## **Obituary.**

WALTER CHANNING, M. D., LL. D.

Dr. Walter Channing died at his home, Brookline, Mass., on the 23d of November last at the age of 72.

He was born in Concord, Mass., on April 14, 1849, being the oldest son of William Ellery Channing, the Concord poet, and a great-nephew of William Ellery Channing the founder of Unitarianism in America. Dr. Channing's mother was Ellen Kelshaw Fuller, a sister of Margaret Fuller (Countess Ossoli). His mother died when he was seven years old and he lived thereafter much of the time with his grandfather, Walter Channing, the first Professor of Obstetrics in the Harvard Medical School. Walter Channing the grandfather (1786-1876) was also Professor of Medical Jurisprudence and sometime editor of the *New England Journal of Medicine and Surgery*, holding that position when it became the *Boston Medical and Surgical Journal* in 1828.

Dr. Channing after spending some time in medical study abroad, after his graduation in medicine, served as an assistant physician in the N. Y. State Asylum for Insane Criminals at Auburn and in the Massachusetts State Hospital, Danvers.

In 1879 he opened a private hospital in Brookline which soon became widely and favorably known. In 1916 he opened a new sanatorium at Wellesley, carrying into effect in its construction and subsequent management many novel ideas the result of years of experience and observation.

He was a man of wide public spirit and became interested in many matters relating to public welfare in which he was a moving spirit and in which he brought about results of far-reaching importance.

The Boston Society of Psychiatry and Neurology, of which he was founder and the first president, has adopted the following minute concerning his death:

To the members of the Boston Society of Psychiatry and Neurology, both individually and collectively, the death of Walter Channing, its founder

and one of its most valued members comes with a peculiarly deep sense of loss. It is given only to men of far sight and unusual powers of mind to serve the cause of humanity as did Dr. Channing by initiating and furthering large and practical public measures for the benefit of the insane and feeble-minded.

He died at his home in Brookline on November 23d at the age of 72. He came of distinguished ancestry and was born in Concord, Massachusetts. He was educated at the Chauncy Hall School and the Massachusetts Institute of Technology, and began the study of medicine at the College of Physicians and Surgeons in New York and the Harvard Medical School, becoming later an interne in the Massachusetts General Hospital. Then began his career as a practical psychiatrist by service as assistant physician in certain state hospitals. In 1879 he established his widely known and successful sanitarium in Brookline, and now in Wellesley.

He was from the first a frequent contributor to medical and other journals, and became a consultant and medical expert of high repute. Among other important cases he testified in the trial of Guiteau the assassin of President Garfield.

He was a member of many national, state and local medical associations and societies, chiefly those devoted to psychiatry, and was the founder of the Department of Mental Diseases of the Boston Dispensary and Professor of Mental Diseases in the Tufts Medical College, Tufts conferring upon him the degree of LL. D. in 1900.

It was, however, in his more public work that his remarkable capacity as organizer, planner and advisor found full scope. He was foremost in setting on foot measures which resulted in the formation of the then State Board of Insanity. In securing legislation which resulted in placing the dependent insane of Boston, formerly city charges, under state care he was a large factor, and was a powerful influence in shaping the subsequent reorganization of the Boston State Hospital. In the establishment of the Boston Psychopathic Hospital also, he was one of the prime movers. He could be relied on to inform and mould professional and public opinion in behalf of any good measure or policy. He had surprising success in turning all interests into helping to pass the laws required to meet these changes.

His great interest in all matters pertaining to the insane and feeble-minded and his unflinching zeal and persistence in every effort to promote their welfare brought him constantly during many years into close contact with state and institutional officers responsible for their supervision. His advice was most helpful and always impersonal and altruistic.

In these general relations the real Channing was not always revealed. Dr. Copp, formerly executive officer of the Board of Insanity, writes:

"I came really to know him in our more intimate relationship while he was Chairman of the Trustees of the Boston State Hospital during the period of its transition from a municipal to a state institution, its reorganization in adaptation to the new status, the study of its development and especially the planning of the Boston Psychopathic Hospital. Here were



revealed the sympathy, self-effacement, good judgment and unswerving adherence to right policies, principles and methods of administration which made it a joy and inspiration to work with him. His great forcefulness sometimes obscured the warmth and friendliness of his nature. It is one of the deep satisfactions of my life to have known him and enjoyed his friendship."

As a citizen, Channing was equally enterprising and valuable to the town of Brookline in promoting lasting educational improvements and public health measures.

He was a man of calm exterior but superabundant energy. Although somewhat cold and aloof in manner, he formed warm friendships and possessed a lively sense of humor. He was unusually quick to recognize and applaud worth in others whether of character or achievement, and invariably ready with active help or counsel to his fellow workers. His private charities were many. In short, it may truthfully be said of Channing that in his life and work

... "he did with cheerful will  
What others talked of while their hands were still."

HENRY R. STEDMAN	} Committee
G. ALDER BLUMER	
HERBERT B. HOWARD.	

Mrs. Channing died less than two weeks before her husband. He is survived by three sons and two daughters. He leaves also a brother, Edward Channing, Professor of History at Harvard University, and one sister.

#### SIR GEORGE H. SAVAGE, M. D., F. R. C. P.

Sir George H. Savage, well known to many American physicians, died at his home in London on July 5, 1921.

*The Journal of Mental Science* publishes in its October number an obituary notice from the pen of Dr. R. Percy Smith, who succeeded Dr. Savage as resident physician at Bethlem Hospital, from which we extract the following:

By the death of George Henry Savage on July 5, 1921, at the ripe age of 78, English psychiatry has lost one of its most widely known representatives, the Medico-Psychological Association a former president and one of its most prominent members, English medicine one of its most remarkable personalities, and a large number of the profession and the public a most trusted friend and counsellor.

Dr. Savage had the advantage of a father interested in science and a mother who was a great reader, a woman of deep religious convictions and one who recognized the value of cultivating ob-

ervation. She took up the study of botany for the benefit of her two sons and the summer holidays were often spent on the Sussex downs hunting out the name of plants. Thus at an early age Savage's well-known love of botany was founded.

In 1861 he entered Guy's Hospital as a student. In 1864 he qualified as M. R. C. S., and in the following year as L. R. C. P., graduating the same year as M. B., London, becoming house-surgeon at Guy's.

All his life he took an interest in out of door life. He took walking tours in his vacations visiting Austria, Norway and the Tyrol—and later became a mountain climber in Switzerland. He was a member of the Alpine Club and at one time its vice president.

While at his cottage in Hampshire (Hurstbourne) his week ends were spent in golf, fishing and botany.

In 1866 he spent six months at Bethlem Hospital as "resident student," but resigned the post to become medical officer to a lead mining company in Cumberland. Here he spent four strenuous years doing surgery, obstetrics and a general medical practice.

In 1868, Dr. Savage married Miss Margaret Walton, but the following year she died, shortly after the birth of a daughter, of pulmonary embolism.

This changed, Dr. Smith, in his very full and appreciative notice says, the whole course of his life and when in 1872 a vacancy occurred at Bethlem Hospital he became assistant medical officer there, having been elected unanimously from over 100 candidates.

He entered upon the work with that enthusiasm which characterized him, studied the literature particularly the journals devoted to psychiatry and neurology; made sections as far as the limited opportunity for morbid material permitted.

In 1873 he became a member of the Medico-Psychological Association of Great Britain and Ireland and about the same time lecturer on insanity at Guy's Hospital, a post which he retained for 30 years.

In 1878 he became resident physician and superintendent of Bethlem Hospital and the same year was elected one of the editors of *The Journal of Mental Science*, his associates being Drs. Thomas S. Clouston and D. Hack Tuke. This position he held until 1894.

He was a very regular attendant at the meetings of the many medical societies of which he was a member and his papers and discussions were always listened to with interest and respect.

In 1887 he attended the International Medical Congress held in Washington and opened a discussion on "Syphilis and its Relation to Insanity." His paper appeared in the October, 1887, number of this JOURNAL, then the AMERICAN JOURNAL OF INSANITY.

In addition to his numerous papers in journals, hospital reports, transactions of societies, systems of medicine and encyclopædias, he published in 1884 a textbook "Insanity and Allied Neuroses." Reprinted in 1886 it was revised in 1890 and after several re-printings was in 1907 revised and enlarged. In the last edition Dr. Goodall brought the pathological section up to date.

He resigned from Bethlem in 1888 and became a consultant in psychiatry. In 1912 he had the honor of knighthood conferred upon him. Sir George continued active almost up to the close of his life. During the war he took an active part in medical work of an advisory character. We wish we were able to reproduce here his reply to a meddlesome female who wrote him protesting against the use of the mental hospitals which had been turned over to the government for general hospital purposes, lest a stigma be attached to the soldiers who were sent to these hospitals for care.

In the *Journal of Mental Science* for April, 1921, is a note of appreciation from his pen concerning the late Dr. David Yellowlees, an obituary notice of whom appears in this issue of the JOURNAL.

Increasing deafness made attendance at medical meetings uncomfortable, but he was present at a meeting less than six months before his death at which Sir Frederick Mott read his paper on the pathology of dementia præcox. In May last he retired from all work. He died following an attack of hemiplegia from which he did not regain consciousness.

#### DAVID YELLOWLEES, M. D., LL. D.

Dr. David Yellowlees, formerly physician-superintendent of the Glasgow Royal Asylum, Gartnavel, died in Edinburgh, in his eighty-fifth year, on January 19, 1921.

Dr. Yellowlees was a native of Stirling, and studied in Edinburgh University, where he graduated M. D. in 1857. After graduation he served as a house surgeon in the Edinburgh Royal Infirmary. He continued his studies in Paris, and on his return he became assistant to Sir William Gairdner, one of the physicians to the Edinburgh Royal Infirmary. Later he determined to take up the study of mental diseases, and was an assistant to the late Dr. Skae at the Royal Edinburgh Asylum, Morningside. The late Sir Thomas Clouston and the late Sir John Sibbald were assistant physicians at Morningside along with Dr. Yellowlees. Following his experience in Edinburgh, he was appointed medical superintendent of the Glamorgan County Asylum, and during his tenure of office there he established himself as an accomplished administrator and physician. In 1875 he was appointed physician-superintendent of the Glasgow Royal Asylum, Gartnavel, which post he held until his retirement in 1902. On his retirement he was appointed honorary consulting physician to the asylum.

It is not too much to say that his name was known throughout the British Isles as a specialist and consultant in mental diseases. He was lecturer on insanity at the University of Glasgow, he was elected president of the psychological section of the British Medical Association which met in Glasgow in 1885, he was president of the Medico-Psychological Association in 1890, and president of the Faculty of Physicians and Surgeons, Glasgow, for the three years—1892 to 1894. In 1888 he received the degree of LL. D. from the University of Glasgow. He was an honorary member of the American Medico-Psychological Association.

In addition to his scientific attainments he took a profound interest in philanthropic work, and one would particularly mention the fact that he was one of the founders of the Glasgow Association for the Care of Defective and Feeble-Minded Children.

Apart from all these things he was a genial, kindly man, whose fearless commonsense, whose humor, whose strong moral and religious character left its impress on all who came into touch with him.

He is survived by his wife and two sons and one daughter. One of the sons is Dr. David Yellowlees, of Stirling, and the other, Dr. Henry Yellowlees, has recently been appointed physician-superintendent of the York Retreat.

## ROBERT HOWLAND CHASE, M. D.

With the passing of Robert Howland Chase on the 13th of March, 1921, the field of practical psychiatry has lost one of its active workers, one who continued his efforts in behalf of the mentally sick for nearly half a century with unflagging devotion.

Born at Salem, Massachusetts, January 30, 1845, Dr. Chase moved with his parents to Union Springs, N. Y., where he received his early education at Oakwood Seminary. Upon the completion of his academic work he was sent, as was common among members of the Society of Friends, of which he was a member, to enter Haverford College near Philadelphia. He was graduated from Haverford in 1865, when he elected to seek the added educational advantages to be gained by European travel.

After Dr. Chase returned to this country he entered upon his medical career, matriculating at the University of Pennsylvania where he received his degree in medicine in 1869. His post-graduate education was continued at Blockley Hospital (now the Philadelphia General) where he served an internship and also at the old Philadelphia Dispensary.

Returning to New York, Dr Chase settled in Auburn to enter the practice of general medicine but continued in this field only a short time, by reason of his acceptance of the opportunity offered in the post of assistant physician at St. Elizabeths Hospital in 1872. Here he remained until he was called to open the then new State Hospital at Norristown, Pennsylvania, and to take charge of the male department in the same.

In this capacity Dr. Chase served until 1893 when he was appointed to the superintendency of Friends Hospital at Frankford, Philadelphia, where twenty-five years of medical and executive activity marked this important part of Dr. Chase's career. He contributed liberally to current literature both in periodical publications and in his works on "General Paresis" (1902), "Mental Medicine and Nursing" (1912-14), and "The Ungearred Mind" (1918).

Dr. Chase acquired a wholesome reputation as an expert in the Courts of the Commonwealth, and was frequently called upon for advice and testimony by the state and by individuals. His manner and bearing on such occasions was invariably such as to

indicate his deep appreciation of the responsibility placed upon him, and his opinions were presented in a clear and forcible style which brought him the respect of his listeners.

When Dr. Chase assumed charge at Frankford, psychiatric matters were passing through rapid changes both in theory and in practice; he was therefore occupied in executing plans for the improvement of his institution's affairs, and in keeping pace with the progress of the medical aspect of his specialty. He created the first position to be filled by a woman physician at Frankford, and was the organizer of the Training School for Nurses in 1894. Although useful occupations "calculated to interest and please the patients" were a part of the hospital equipment as early as 1836, Dr. Chase became actively interested in the development of that part of the institution now known as the department of occupational therapy.

Always a close student of his patients and a careful analyzer of their symptoms Dr. Chase was a strong believer in the aid which a well-trained psychologist could give him in the study of the patient's mental trends and was particularly interested in the morbid aspects of psychology, as indicated in his publications on delusion formation, disorders of emotion and disturbances of volition.

As is true of many men who have gained a position of prominence, their most attractive characteristics become known only to those who have the opportunity of close association with them. Among the more conspicuous personal characteristics was his remarkable composure in the face of difficult situations. The more serious the occasion the more calm he appeared to be. When pressed for an opinion that he was not quite ready to give, it was sometimes difficult to determine from his answer just what view he might hold, but when the occasion arose necessitating an expression, there was rarely a doubt concerning his opinion. Dr. Chase was known among his friends and associates as a man of unusual qualities and qualifications—a rare combination of keenness, alertness, quietness of manner, modesty and reserve, a strong sense of humor that was often hidden under a controlled guise of seriousness arranged for an occasion. He was a teacher without posing as such. His clarity of thought, soundness of judgment and firmness of decision combined with a rare degree of

modesty made his counsel valuable. His scientific broadness was manifested in his willingness to hear the opinions of others and often by his readiness to seek the advice of his subordinates.

When Dr. Chase retired from active institutional life, those who had the rare opportunity of daily contact with one so gifted, felt that we had been deprived of much that we would fain have held, yet that parting was softened by the thought that he still carried at heart his interest in the progress of the institution in which he served, and was always ready with advice to be given for the asking.

#### DR. JOSEPH BARTON BETTS.

Dr. Betts was born June 10, 1872, at Brunswick (a suburb of Troy), Rensselaer Co., N. Y. He attended the public school at Brunswick and the Troy Academy, Troy, N. Y., and obtained his medical education at Albany Medical College, graduating in the class of 1894. After a year's service as house physician and surgeon in the Albany Hospital he entered the service of New York State as assistant physician at Buffalo State Hospital, December, 1895. He soon became interested in pathological work and remained continuously at this institution until the time of his death which occurred January 29, 1921.

At the outbreak of the world war Dr. Betts joined Base Hospital No. 23 as pathologist, receiving a commission as captain. He went overseas with this organization November, 1917, returning with the rank of major, in command of the unit, May, 1919. While in France, he had a severe illness from which he never fully recovered. Although able to return to duty at the State Hospital he suffered several relapses which so undermined his constitution he was not able to resist an attack of erysipelas.

He was a painstaking worker, a clear thinker and a well informed man, with an unusually pleasing personality which won for him many friends. He was an able psychiatrist and his ability as a pathologist was widely recognized.

He is survived by two brothers. Interment was at Troy, N. Y.

Dr. Betts was a member of the American Medical Association, the Medico Psychological Association, the Erie County Medical Society, the New York State Medical Society, and the Buffalo Academy of Medicine.

## DR. JOHN WILLIAMS DUKE.

Dr. John Williams Duke was born on the fifth day of June, 1868, near Scobey, Mississippi, and grew to manhood on a cotton plantation there. His preliminary education was obtained in private schools and academies, and his medical education at the Memphis Medical College, from which he graduated in 1891.

He also graduated from the Medical Department of the University of New York, in 1893, where he was clinical assistant to the chair of mental and nervous diseases.

The following year he was appointed a member of the medical staff of the Manhattan State Hospital, Ward's Island, New York, which place he resigned in 1895, to accept a position as assistant physician in the Connecticut State Hospital at Middletown, Connecticut. He remained at this institution until 1900, when he went to Oklahoma to live, locating at Guthrie.

During the time of his service at Middletown he spent several months attending clinics at the University of Heidelberg and visiting other institutions in Europe, thereby completing and laying a very broad foundation for his future work in his chosen field of medicine.

Soon after coming to Guthrie he established a sanitarium for the treatment of mental and nervous diseases, known as The Duke Sanitarium, which he owned and conducted until his death, October 10, 1920.

As a physician his influence soon began to radiate in an ever-widening circle until his services were in demand in every part of the state, and as his acquaintance extended, his personality and influence began to be exerted not only in his profession but also in public affairs of the state.

In 1911 he was appointed secretary of the State Board of Medical Examiners, and during his term of office in this capacity he established reciprocity with many states, and did much toward raising the standard of the medical profession in the state of Oklahoma.

In 1912 he was elected professor of mental and nervous diseases and medical jurisprudence in the Medical College of the University of Oklahoma.



In 1914 he was appointed State Commissioner of Health by Governor Robert L. Williams, and was given a free hand in the reorganization of this department. His weekly "Health Letters," which were published in more than four hundred weekly newspapers throughout the state for four years, were a source of unmeasured profit in uplifting health ideals in the state.

Through his recommendation and influence the State Legislature passed a law, which placed municipal water supply and the sewage disposal under the authority of the State Board of Health.

The State Lunacy law reorganized the management of the state hospitals for the insane, and regulated the commitment of patients to same, and under this law he was elected chairman of the State Commission in Lunacy, whose duties it was to have general supervision of the care of all the insane in the state.

During his administration a pathological and chemical laboratory was established at which all chemical and pathological work, including the Wassermann test for syphilis, was done free of charge, thus bringing the benefit of this laboratory within the reach of everyone. He also reorganized and vitalized the vital statistics department.

In May, 1920, he was elected president of the Oklahoma State Medical Association, which position he held at the time of his death.

During the war he acted as chairman of the District Exemption Board for the Western District of Oklahoma, which in addition to his duties as state commissioner of health and the supervision of his own private affairs, undoubtedly very largely contributed to his early death, as he was unfaltering in his devotion to his duties in this work.

#### DR. KENNETH M. FERGUSON.

Dr. Kenneth M. Ferguson, an assistant physician at the Central Indiana Hospital for Insane, died on April 24, 1921.

Dr. Ferguson was born in Cameron, North Carolina, where he received his preliminary education. His medical degrees were from Bellevue Medical College, New York, and the College of Medicine and Surgery at Baltimore, Maryland.

He joined the staff of this hospital June 24, 1920, after having served as a physician in the State Hospital for Insane at Nash-

ville, Tennessee. Previously he had been with the State Hospital for Insane at Logansport, Indiana, and the State Hospital for the Insane at Massillon, Ohio.

He was a member of the American Medico-Psychological Association, the Indianapolis Medical Society, the Indiana State Medical Association, the American Medical Association and the Masonic Fraternity. He was a thorough gentleman as well as a qualified physician. His work at this institution was of such character as to reflect credit not only upon himself but the institution as well.

He was devoted to the interests of his patients and had their confidence and esteem. His relations with the management and medical staff were such that they commanded respect.

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## A PRELIMINARY STUDY OF THE PRECIPITATING SITUATION IN TWO HUNDRED CASES OF MENTAL DISEASE.\* †

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### INTRODUCTION.

The thought which prompts this paper is not naive enough to consider it a contribution to the study of etiology of mental disease. With but few striking exceptions and in spite of promising progress, actual and incontrovertible evidence of psychiatric causation is still lacking. This is particularly true of the emotional and schizophrenic psychoses.

We have merely made an effort to formulate some judgment concerning the precipitating situations in 100 cases of dementia præcox and in a similar number of manic-depressive psychoses. The cases were unselected and practically constitute consecutive admissions. We were fortunate in being able to deal with rather complete histories. Usually there were several sources of information; relatives, friends, medical attendants and sometimes the patient.

A situation was considered precipitating when it seemed to have a probable or even vaguely possible influence on the production of the psychosis. The length of time over which it was supposed to have been operative was very liberally interpreted. This was done in order to avoid a faulty cross-section viewpoint and to eliminate the possible error of overlooking slowly unfolding contributory elements. The addition and summation of a number of irritative and recurring difficulties probably reaches or may even exceed in importance the effect of a single dramatic incident.

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† The author is indebted to Miss Harriet Kift for her assistance, particularly in the preparation of the charts.

The precipitating situation was regarded as somatic or psychic when it dealt with organic or psychogenic reasons and somato-psychic or psycho-somatic according to the apparent relative importance of one or the other of these features in a combination case.

A second grouping was significant, important, doubtful, insignificant and absent. We took into account, principally, the intrinsic value of the entire situation and its chronological bearing on the onset of the mental disease. Here, of course, the investigation is open to criticism. What may have appeared significant or important to the author may seem doubtful or even insignificant to another observer. Though we have tried to eliminate bias yet the personal equation cannot be wholly set aside. A physical factor is exceedingly difficult to evaluate and a psychogenic element presents almost insuperable obstacles to sound judgment. For instance, an unfortunate love affair may seem causal in a given instance, yet it cannot be judged only in such a restricted sense, but broadly as to the influence it might exert on the normal, or better still, average man or woman.

#### SCOPE OF INVESTIGATION.

This study embraces a comparison between 100 manic-depressive psychoses and 100 cases of dementia præcox from the standpoint of the significance of the precipitating situations and a further comparison as to whether the organic or the psychogenic aspects were more emphatic. An attempt has also been made to ascertain how often and how clearly pre-psychotic emotional feelings or tones were carried into the actual attack of mental disease. The length of time over which the situation was operative was considered in its possible relationship to the type of causation (?) and to the diagnosis. When the psychosis recurred the most recent setting was compared to the one which existed before the initial attack. Finally, an effort was made to discover whether the doubtful, insignificant or absent groups contained a higher percentage of patients whose heredity was heavily charged or whose personality was abnormal.

#### SUMMARY OF SITUATIONS.

The actual situations are presented in the following list. In the first column is given the case number and the initials P, S, PS, or SP, indicating respectively psychic, somatic, psycho-somatic, or somatic-psychic:

SIGNIFICANT.

Manic-depressive.			Dementia praecox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 1 PS	1st	In constant fear of drunkard husband who abused and beat her.	Overworked and fatigued to an extreme degree. Weight down to 97 lbs.	No. 1 SP	1st	Death of brother and favorite aunt. Worry about sick sister.	Appendectomy and kidney operation. Several years of indigestion and dysmenorrhea. Influenza, pneumonia, and pleurisy. Second attack of pneumonia and pleurisy. Exhaustion.
No. 2 SP	1st	Husband a drunkard who abused patient. Very poor. Four small children.	Very poor health. Had arthritis, nephritis, chronic cough (probably tuberculosis) and hyperthyroidism.				
No. 3 SP(?)	2d	Worry about husband's immoral relations with her sister.	Influenza one week before onset. Climacteric. Lacerated and infected pelvis.				
No. 4 SP	1st	Worry about secret illegitimate pregnancy and criminal operation.	A combination of septic infection and an attack of influenza.				

IMPORTANT.

No. 5 PS	1st	Husband lived with another woman.	Climacteric.	No. 2 S	1st		Two surgical operations. Severe influenza followed by toxic state.
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## IMPORTANT—(CONTINUED).

Manic-depressive.			Dementia præcox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 6 SP	2d	Had to bear brunt of difficult family situation. Worried about sister's insanity and brother's death.	Post-typhoidal high blood pressure and nephritis. Taught both day and night school and became extremely fatigued.	No. 3 SP	1st	Husband not congenial. Worried during pregnancy.	An attack of influenza without medical attention. Childbirth succeeded by severe gastro-intestinal symptoms and physical depression. Two miscarriages.
No. 7 SP	2d	Worry about poverty. Came home from psychopathic hospital to find that her four children had whooping cough. Oldest and favorite child died. Worried about family.	While pregnant developed whooping cough. Reached a point of extreme fatigue nursing infant and four sick children. Practically no sleep. Always over-worked, often 16 hours daily. Pericarditis; probably tuberculosis; surgical operation and artificial climacteric.	No. 4 PS	2d	Husband worthless and probably drug addict. Treated her badly. Child to support.	Two miscarriages.
No. 8 SP	2d			No. 5 SP	1st	Two unhappy marriages. Poor circumstances.	Severe attack of influenza.
No. 9 PS	1st	Pregnant. Husband unfaithful and alcoholic. Unable to provide for three children.	Ill-health. Fractured, painful coccyx. Surgical operation.	No. 6 SP	1st	Married foreigner and could not accustom herself to his mode of living.	An instrumental labor. Two attacks of influenza followed by "glandular swellings" and gastric symptoms.
No. 10 S	1st	.....	A severe attack of toxic influenza with return to work before complete recovery.	No. 7 SP	1st	Constantly worried about children. Grieved by death of one of them.	Two attacks of erysipelas. Had three children in three years. Overworked nursing sick child.

Manic-depressive.				Dementia praecox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 11 S	1st	.....	Influenza. Returned to work too soon. Had as sequels—infected throat and ears and abscessed teeth.	No. 8 PS(?)	1st	Husband ill-treated her. Died and left her penniless.	Difficult, instrumental labor followed by severe hemorrhage.
No. 12 PS	1st	Worried because of illicit sexual relations through which she contracted Neisser's disease.	Fatigued from overwork. Anemic. Probably had infected tubes and ovaries. Automobile accident.	No. 9 S	1st	.....	Severe attack of influenza.
No. 13 PS	1st	Worried constantly about her husband who did not support her. He committed suicide a year ago.	Climacteric. Very much run down physically.	No. 10 S	1st	.....	Miscarriage. Severe attack of influenza for which patient took "serum treatment" and continued working.
No. 14 PS	1st	After being married for two years, her husband, to whom she was deeply attached, developed tuberculosis and the patient nursed him for 10 years until his death.	Toxic thyroid.	No. 11 S	1st	.....	Mild influenza. Childbirth followed by septic infection and nephritis.
No. 15 S	2d	.....	Always delicate. Diabetes. Her attacks seem to be associated with the presence of dextrose in the urine. Was exhausted and careless of diet.	No. 12 S	1st	.....	Influenza. Childbirth two weeks after recovery. Heart and uterine disease. Hemorrhoids and chronic constipation.

## IMPORTANT—(CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 16 S	1st	.....	Secretly taking large doses of thyroid extract and was subsequently operated on (thyroidectomy) when toxic thyroid symptoms presented.	No. 13 SP	1st	Greatly shocked when son who was very young announced his intention of marrying.	Climacteric. Influenza.
No. 17 SP	1st	Worried about trouble with school board and hasty resignation.	Pneumonia and returned to teaching before complete recovery. Gastric symptoms, hives, and shingles.	No. 14 SP	1st	Worry about sick children.	Had three children in 3 yrs. Shortly after last confinement all the children were critically ill and patient lost much weight and sleep.
No. 18 SP	1st	Worried about poor circumstances, death of one child and ill-health of the other children.	Overworked. Severe influenza followed by nephritis.	No. 15 SP	1st	Disappointed over failure of theatrical career.	Poor hygienic surroundings, insufficient food, overwork, fatigue. Typhoid followed by heart disease.
No. 19 PS	1st	Following death of husband, his mother and an alcoholic son caused her constant trouble and worry and finally defrauded her of her property.	Ill health and climacteric with loss of weight amounting to 30 lbs.	No. 16 SP	1st	Love affair.....	Severe influenza followed by encephalitic (?) symptoms.



IMPORTANT—(CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 20 PS	2d	Constantly worried and frightened by husband's ill-treatment and his and her mother-in-law's threat to desert her and take the children. Frightened by fire in house.	Ill-health and under-nourishment.	No. 17 S	2d (?)	.....	Always had dysmenorrhœa. Influenza and pleurisy. Attempted to work before she was well.
No. 21 PS	1st	Left alone by death of two sisters and mother. Worried over loss of most of her life's savings.	Overworked nursing two sisters. Worked hard as banker's assistant.	No. 18 PS (?)	1st	Death of husband. Sudden death of convalescent patient.	Constantly nursed husband who became helpless cripple soon after their marriage. Exhausted physically but took up training course in nursing.
No. 22 SP	1st	Niece died following attempted abortion and this the patient associated with her own self-induced abortion.	Thyroid toxic symptoms. Thyroidectomy. Recurrence of symptoms. Nephritis. Climacteric.	No. 19 S	1st	.....	Tremendous amount of overwork, public speaking, etc. Poor food, loss of weight. Anemic. Went to France and contracted influenza.
No. 23 SP	1st	Husband died four years ago and left her destitute with 5 small children.	Very severe toxic influenza.	No. 20 SP (?)	1st	Husband's neglect. Poverty.	Difficult instrumental labor followed by infections.
No. 24 SP	2d	Worry about a son's secret and ill-advised marriage.	Advanced thyroid disease, heart disease and arteriosclerosis.	.....	.....	.....	.....

## IMPORTANT—(CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 25 SP (?)	1st	Worry because daughter cloped with deformed undersized man who became insane. Worried about health and studies.	Physical exhaustion and heart and kidney disease.	.....	.....	.....	.....
No. 26 SP	1st	Worried about health and studies.	Overworked first in college then as "phone" operator, at the same time taking many special courses. Poor food. Influenza followed by abscessed teeth and glands.	.....	.....	.....	.....
No. 27 PS	3d	Nursed mother who died of cancer. Worried about immoral sister. Was alone with this sister when she gave birth to a still-born child; later sister had to have craniotomy performed on child, and patient prepared body for burial.	In early life was physically defective and was ill-treated and neglected.	.....	.....	.....	.....

IMPORTANT—(CONTINUED).

		Manic-depressive.			Dementia praecox.		
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 28 PS	1st	Unhappy because of enforced separation from husband. Shocked by mother's death. Frightened at finding snake and tarantula in house. Worried by expected uprising of natives (Hayti).	Lost weight and men- ses became irregu- lar.	.....	.....	.....	.....
No. 29 SP	1st	Ill-treated by husband. Poor circumstances.	Healed (?) tuberculo- sis. Two attacks of influenza followed by childbirth.	.....	.....	.....	.....
No. 30 SP	1st	Neglected by husband.	Influenza while two months pregnant.	.....	.....	.....	.....
No. 31 SP	2d	Worried because she could not advance herself to a respon- sible position on ac- count of health.	Surgical operation. Influenza. Climac- teric (?).	.....	.....	.....	.....
No. 32 S	1st	.....	Never robust. Great- ly overworked, first by nursing a par- alyzed demented father and later by taking charge of her husband's office and assisting him during the influenza epi- demic. Climacteric?	.....	.....	.....	.....

## DOUBTFUL.

Manic-depressive.				Dementia præcox			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 33 PS	2d	Worried about a small growth which she was told might be cancer.	Climacteric.	No. 21 SP (?)	1st	Anonymous communications to the effect that her husband was unfaithful to her.	Protracted, difficult and instrumental labor.
No. 34 PS	3d	Worried about sudden death of daughter-in-law from post-partum hemorrhage.	Beginning climacteric.	No. 22 PS	1st	"Nervous" at establishment of menses. Love affair. (?) Frightened by incidents of Mexican revolution.	Mild hyperthyroid symptoms.
No. 35 PS (?)	1st	Death of most intimate friend.	Gradually became exhausted after 20 years of teaching.	No. 23 P	1st	Death of father.	
No. 36 P	1st	Shocked when she discovered her daughter had leucæ.		No. 24 S	1st		Mild influenza.
No. 37 PS	2d	Unhappy love affair. Serious illness of father.	Sub-acute appendicitis and oophoritis.	No. 25 S	.....		Appendectomy, oophorectomy. Extreme constipation.
No. 38 PS	2d	Serious illness of mother.	Climacteric.	No. 26 P	1st	As a child, often frightened by drunken father who abused family.	
No. 39 SP	1st	Worried about son in Navy. Poor circumstances.	Overworked, anemic, tired.	No. 27 P	1st	Deserted by husband. Planned to marry man who was to secure a divorce for her.	
No. 40 PS	1st	Worry about son with A. E. F. in France.	Climacteric.	No. 28 PS (?)	1st	Several love affairs.	Lost weight and strength and had insomnia.

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 41 P	3d	Worried because she was anatomically unable to have sex relations and because an operation failed to correct the condition.		No. 29 PS	1st	Love affair ending unhappily.	Dysmenorrhæa, D. and C.
No. 42 P	1st	Worried about illness considered and hastened marriage. Later unable to marry man she really loved. Death of patient whom she had nursed for a long time.		No. 30 PS	1st	Love affair. Worried about teeth.	Possible tuberculosis.
No. 43 SP	1st	Greatly interested in war activities and worried because she was not sent to France.	Gastric ulcer.	No. 31 S	1st	.....	Mild attack of influenza.
No. 44 PS (?)	4th	Sister's death .....	Overworked. Nephritis.	No. 32 SP	1st	Pregnant and worried for fear child might not live.	Normal labor. Nephritis.
No. 45 P	4th	Husband in poor health (gastric carcinoma). Sister had mental breakdown.		No. 33 SP	1st	Father has mental disease, making difficult home situation.	Mild influenza.
No. 46 PS	1st	Shock of finding mother unconscious from stroke.	Poor health. Appendectomy.	No. 34 PS (?)	1st	Worried about her parents.	Overworked at mental and industrial nursing.
No. 47 SP (?)	2d	Worried because daughter was away from home.	Beginning climacteric.	No. 35 PS	1st	Assaulted (?) by brother-in-law several years ago.	Normal childbirth.
				No. 36 S	1st	.....	Three miscarriages and two D. and C. operations.

## DOUBTFUL—(CONTINUED).

Manic-depressive.			Dementia præcox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 48 S	1st	Worried about school work.	Worked very hard at school; did all the housework and probably had insufficient food. Hyperthyroidism. Climacteric.	No. 37 P	1st	Monotonous life on farm. Conflict with parents about joining Mennonite religion and wearing garb.	
No. 49 PS	1st	Worried about death of mother and sister and illness of child.	Climacteric.	No. 38 S	1st		Suspicious pulmonary tuberculosis. Enlarged glands. Dysmenorrhea.
No. 50 PS (?)	1st	Worried about husband's serious illness and mother's blindness.	Overworked nursing husband. In poor health. Climacteric.	No. 39 S	1st		Physically run-down. Gastric symptoms and anemia.
No. 51 PS	2d	Probably unhappily married. Worried because she had not told husband of first attack.	Congenital heart disease. Overworked.	No. 40 PS	1st	Jealous of husband.	Miscarriages.
No. 52 PS	1st	Worried because she brought on abortion.	Hemorrhage from late abortion.	No. 41 S	1st		Pyorrhea and apical abscesses.
No. 53 PS	1st	After nursing mother through fatal illness, her father induced her to keep house for him. He was then dissatisfied and disagreeable.	Climacteric.	No. 42 SP (?)	1st	Frightened by fire on ocean liner.	Appendectomy. Elevator accident.
No. 54 S	3d	.....	Probable cancer cervix uteri.	No. 43 PS	2d	Lived with an eccentric sister. Worried about war news and because she was out	Climacteric. (?)

Manic-depressive.			Dementia præcox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 55 PS	2d	Jealous of brother's second wife. His marriage left her without a home.	Climacteric.	.....	.....	.....	.....
No. 56 S	1st	.....	Mild influenza.	No. 44 PS (?)	2d	Hindu and had trouble understanding American customs.	Overworked studying medicine.
No. 57 P	2d	Sudden death of husband.	.....	No. 45 PS	1st	Death of favorite cousin. Worried during pregnancy and then after childbirth because baby was fretful.	Normal childbirth.
No. 58 PS	1st	Worried about supporting family. Left destitute by husband's death several years ago.	Climacteric.	No. 46 P	1st	Death of father. Broken engagement. Work interfered with by war.	.....
No. 59 SP	1st	Worried about pregnancy.	Normal labor followed by slight infection and D. and C.	No. 47 P	1st	Love affair. Had to give up art studies and live in country to help family. Did not get on with mother.	.....
No. 60 SP (?)	1st	Fear of pregnancy....	Mild influenza.	No. 48 S	1st	.....	Markedly physically inferior from birth.
No. 61 P	2d	Worried about breaking up housekeeping and disposing of business after her husband's death.	.....	No. 49 PS	1st	Neglected by husband. (??)	Smoked and drank (?) to excess.
No. 62 PS	1st	Worry about love affair and disappointment in work.	Fatigue and poor appetite.	No. 50 S	1st	.....	Fatigue, insomnia, heart disease. Climacteric. (?)

## DOUBTFUL—(CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 63 PS	1st	Left without a position at age of 62 after working hard for many years. Worried.	Surgical operation.	No. 51 P	1st	"Was taught masturbation and woman love in Paris."	.....
No. 64 SP	2d	Worried.	Fatigued. Climacteric.	No. 52 PS	1st	Death of mother.....	Pelvic adhesions.
No. 65 SP	1st	Financial strain. Socially overactive.	Diabetes. Fatigued.	No. 53 PS	1st	Death of mother and father within four years.	Early climacteric.
No. 66 P	1st	Worried about husband's infidelity and her own immoral life.	.....	No. 54 P	1st	Unhappy marriage.....	.....
No. 67 PS	2d	Nursed an invalid mother for five years. Unhappy but felt it was her duty.	Climacteric.	No. 55 PS	2st	Love affair.....	Overstudy. Anemia. (?)
No. 68 P	3d	Worried about money loss and sister's mental breakdown.	.....	No. 56 SP	1st	Worried about spiritualism.	Overworked nursing mother and caring for brother's two young children.
No. 69 S	3d	.....	Surgical operation.	No. 57 SP	1st	Death of mother.....	Always physically inferior.
.....	.....	.....	.....	No. 58 PS (?)	1st	Worried about pregnancy and mental disease in family.	Normal labor followed by slight fever. Insomnia and loss of weight.
.....	.....	.....	.....	No. 59 PS	1st	Worried about child who was a musical prodigy.	Unrepaired infected lacerations of pelvis.
.....	.....	.....	.....	No. 60 S	1st	.....	Dysmenorrhœa surgical operation and "touch" of pneumonia.



DOUBTFUL—(CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
.....	.....	.....	.....	No. 61 PS	1st	Death of child in an accident. Jealousy of husband.	Unrepaired pelvic lacerations.
.....	.....	.....	.....	No. 62 P	1st	Husband would go away for several months at a time, leaving her alone with six children.	.....
.....	.....	.....	.....	No. 63 PS	1st	1st marriage unhappy; 2d husband died, 3d treated her badly.	Over work and climacteric. (?)
.....	.....	.....	.....	No. 64 S	1st	.....	Severe dysmenorrhea. Surgical operation.

INSIGNIFICANT.

No. 70 P	1st	Worry about an immoral sister.	.....	No. 65 P	1st	Worry about alcoholic irresponsible husband who died years ago. Worry because rent was raised.	.....
No. 71 P	2d	Serious illness and death of brother.	.....	No. 66 P	1st	Night-terrors	.....
No. 72 P	3d	Worry about son in A. E. F.	.....	No. 67 PS	1st	Disappointed because she had to give up art studies.	Dysmenorrhea.
No. 73 S (?)	2d	.....	.....	No. 68 PS	2d	Worried about responsibilities.	Poor health.
No. 74 P	5th	Love affair	.....	No. 69 PS	1st	Worry about poverty.	Fell, straining back.

## INSIGNIFICANT — (CONTINUED).

Manic-depressive.				Dementia præcox.			
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 75 P	1st	Worry about financial affairs and unsatisfactory (?) marriage.	.....	No. 70 PS	1st	Worry (?) during pregnancy.	Normal labor.
No. 76 PS	1st	Worry about sister's engagement and family responsibility.	Below par physically.	No. 71 P	1st	Upset by religious revival.	.....
No. 77 S	1st	.....	Poor health.	No. 72 P	1st	Disappointed about love affair.	.....
No. 78 PS	1st	Employer hard to please.	Lost weight.	No. 73 P	1st	Worried because daughter had to go to work.	.....
No. 79 PS	2d	Worried about husband's inability to support her properly.	Run-down.	No. 74 S	1st	.....	Insomnia and loss of weight.
No. 80 S (?)	5th	.....	Head pain.	No. 75 S	1st	.....	Normal childbirth.
No. 81 PS	1st	Worried during pregnancy.	Easy, spontaneous labor.	No. 76 S	1st	.....	Establishment of men- ses.
No. 82 P	2d	Financial worry	.....	No. 77 PS	1st	Worried (?) about studies.	Nursed mother.
No. 83 PS	1st	Secret love affair	Overwork.	No. 78 P	2d	Worried about her sister's broken engagement.	.....
No. 84 S	1st	.....	Normal easy labor.	No. 79 SP	1st	Frightened by dream.	Chronic constipation.
No. 85 S	3d	.....	Physically in poor condition.	No. 80 P	1st	Jealousy of sister and love affair.	.....
No. 86 PS	1st	Worried about religion.	Chronic appendicitis.	No. 81 P	1st	Love affair	.....

INSIGNIFICANT—(CONTINUED).

Manic-depressive.			Dementia præcox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 87 PS	6th	Excitement of preparing for daughter's wedding.	Tired.	No. 82 S	1st	.....	Invalid. Otitis Media.
No. 88 P	1st	Troublesome ward. Death of friend.	.....	No. 83 P	1st	Worried about attentions of employer and about mistake in deposit slip.	.....
No. 89 P	2d	Jealousy of husband.	.....	No. 84 S	1st	.....	Fatigued.
No. 90 P	11th	Dissatisfied with daughter.	.....	No. 85 P	1st	Jealousy of husband and worry about sister's love affair.	.....
No. 91 PS	2d	Worried about moving.	Very slight thyroid symptoms.	No. 86 PS	1st	Worried.	Overworked. (?)
No. 92 P	2d	Jealous of husband's secretary.	.....	No. 87 P	1st	Worried because husband was salesman and had to be away from home.	.....
No. 93 S	1st	.....	Irregular and painful menses.	No. 88 S	1st	.....	Normal easy child-birth.
No. 94 S	1st	.....	Anemia.	.....	.....	.....	.....
No. 95 S	5th	.....	Bronchitis.	.....	.....	.....	.....
No. 96 SP	1st	Financial worry. (?)	Poor health.	.....	.....	.....	.....
No. 97 P	1st	Worry about uncle's death.	.....	.....	.....	.....	.....
No. 98 PS (?)	1st	Psychic effect of "Twilight sleep" labor.	.....	.....	.....	.....	.....

## INSIGNIFICANT—(CONTINUED).

Manic-depressive.			Dementia præcox.				
Case No.	No. of attack.	Psychic.	Somatic.	Case No.	No. of attack.	Psychic.	Somatic.
No. 99	1st	.....	.....	No. 89	1st	.....	.....
No. 100	2d	.....	.....	No. 90	1st	.....	.....
.....	.....	.....	.....	No. 91	1st	.....	.....
.....	.....	.....	.....	No. 92	1st	.....	.....
.....	.....	.....	.....	No. 93	1st	.....	.....
.....	.....	.....	.....	No. 94	1st	.....	.....
.....	.....	.....	.....	No. 95	1st	.....	.....
.....	.....	.....	.....	No. 96	1st	.....	.....
.....	.....	.....	.....	No. 97	4th	.....	.....
.....	.....	.....	.....	No. 98	1st	.....	.....
.....	.....	.....	.....	No. 99	1st	.....	.....
.....	.....	.....	.....	No. 100	1st	.....	.....

ABSENT.

## GENERAL CONSIDERATIONS.

It may be interesting to make a general survey of the precipitating situations without respect to the type of mental disease involved. According to their assigned value 5 were significant, 47 were important, 81 were doubtful, 53 were insignificant and in 14 patients a careful study of the anamnesis failed to reveal even a trivial reason for the mental breakdown. When the component elements of all the situations were analyzed it was found that in 107 there was combination of psychic and organic factors, the former predominating in 65 and the latter in 42. In 40 the psychoses seemingly followed somatic disturbances alone and in 39 the pre-psychotic circumstances apparently were solely psychic.

The concrete situations in which the psychic element either stood alone or was emphasized, were, of course, very numerous and represented all the difficulties and troubles which ordinarily fall to the lot of humanity. Thus, we had to consider the mental effect of cruelty, poverty, marital infidelity, sexual assault (?), illegitimate pregnancy, undue responsibility, illness and death of husband, parents, children, other relatives or friends, unhappy marriage, illicit sexual relations and pregnancy, financial reverses, failure in the struggle for success, love affairs, jealousy, self-induced abortion, neglect and fright and fear precipitated by various agencies. Cruelty, poverty, illness, death of relatives, and unhappy love affairs were the most frequent factors.

There is very little to be gained by placing on paper all these psychic problems. Unless we have an accurate picture of the setting of the case and until we can gauge the mental resistance of the individual, we will be unable to correctly evaluate the psychogenesis of mental disease. We are dealing with something which cannot be weighed—a true imponderable. For instance, the death of a husband is a life incident which many women must meet. Under ordinary circumstances and presupposing a normal woman, we may anticipate a period of grief followed by a resumption of social life with its assuaging routine duties and new interests. But let us suppose that the husband's death is suicidal, that the wife is at the beginning of the climacteric and must face the world handicapped by the triple burden of broken health, poverty, and dependent children. The death of the husband is a simple, understandable fact, but the gravity of the situation which is thereby produced and

the ability of the individual to mentally withstand the strain and adjust are two things which cannot be measured, chiefly because they must vary in each instance.

The somatic situations were as varied as the psychic. Influenza, overwork and fatigue, childbirth, instrumental labor and the climacteric, tuberculosis, gastric ulcer, arthritis, heart and kidney disease, hyperthyroidism, whooping cough, pneumonia, diabetes, pleurisy, anemia, erysipelas, pericarditis, arteriosclerosis, hives, shingles, infected pelvis, chronic appendicitis and oöphoritis, septic infection, miscarriage, surgical operation, establishment of menses, dysmenorrhea, fracture, indigestion, hemorrhoids, chronic constipation, etc. Influenza which was present in 28 patients, overwork and fatigue, the menopause and childbirth were most often repeated. When we attempt to weigh these factors, our psychiatric scales are once more found to be defective. Only occasionally is the relationship to the psychosis direct and when it is less obvious we dare not assume that no connection at all exists. To invoke the fetich of the so-called psychopathic inheritance or tendency is only dodging the question. Everyone knows that such a tendency exists, but may we assume that every human being who is so handicapped will develop mental disease and that vice versa the mythical normal individual necessarily has such a strongly reinforced nerve resistance that it will easily turn aside every conceivable mental or somatic thrust?

#### COMPARISON OF SITUATIONS.

Chart I compares the intrinsic values (as they appealed to the author) of the situations in the psychoses which were studied.‡ Significant and important may be considered together. In manic-depressive insanity the histories of 32 patients showed serious and sometimes overwhelming pre-psychotic mental and physical problems. The same was true of fewer schizophrenics—namely, 20. Of the manic depressives 37 were doubtful and 29 “insignificant,” of the schizophrenics 44 and 24, respectively. The most striking difference is found in those patients whose life gave no objective evidence of either psychic or physical strain. Thus, “absent” could be applied to only 2 of the manic depressives and in neither of these were we dealing with initial attacks, while in 12 of the dementia præcox group no trace of any previous stress could be uncovered.

‡ See footnote, p. 525.

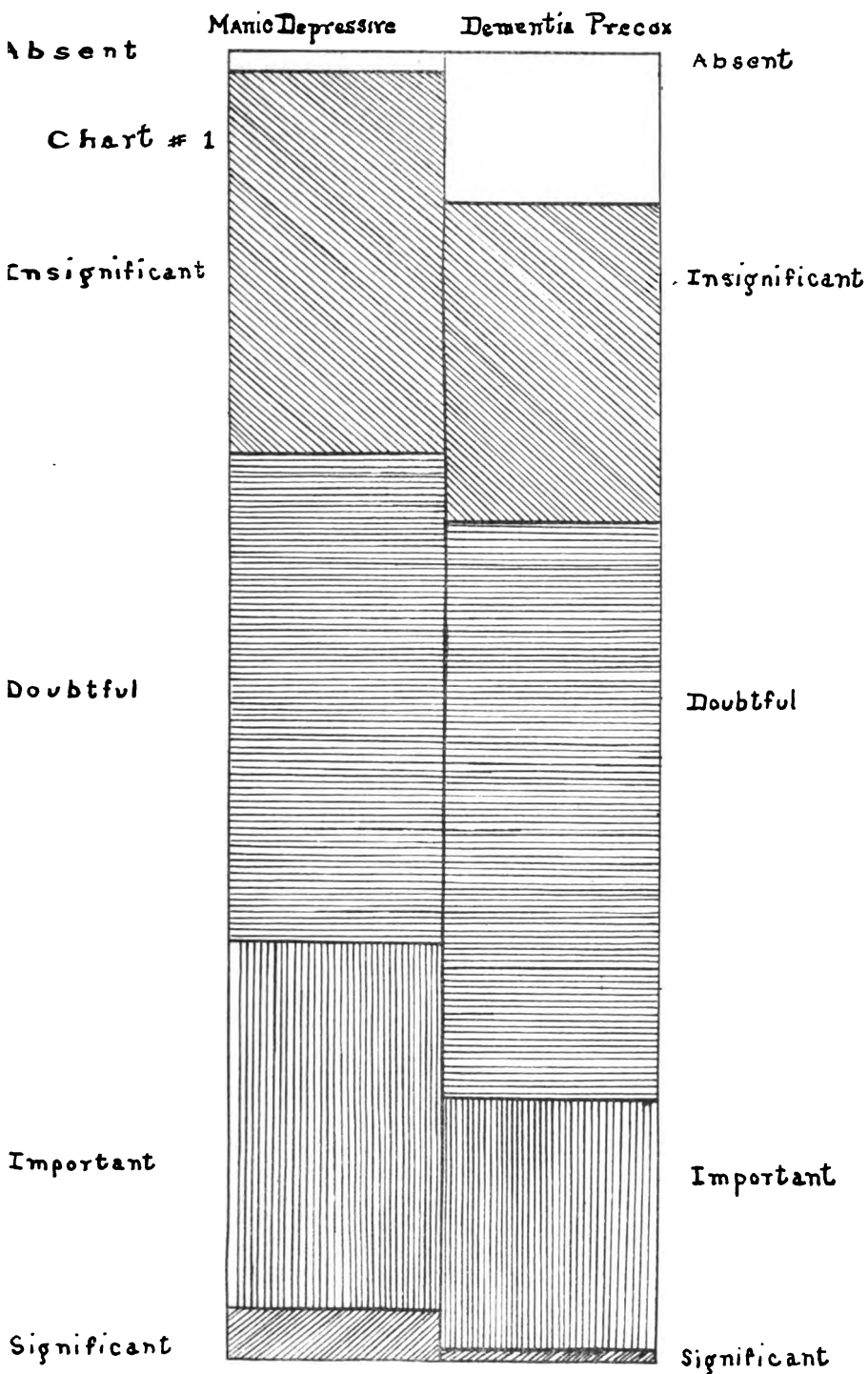
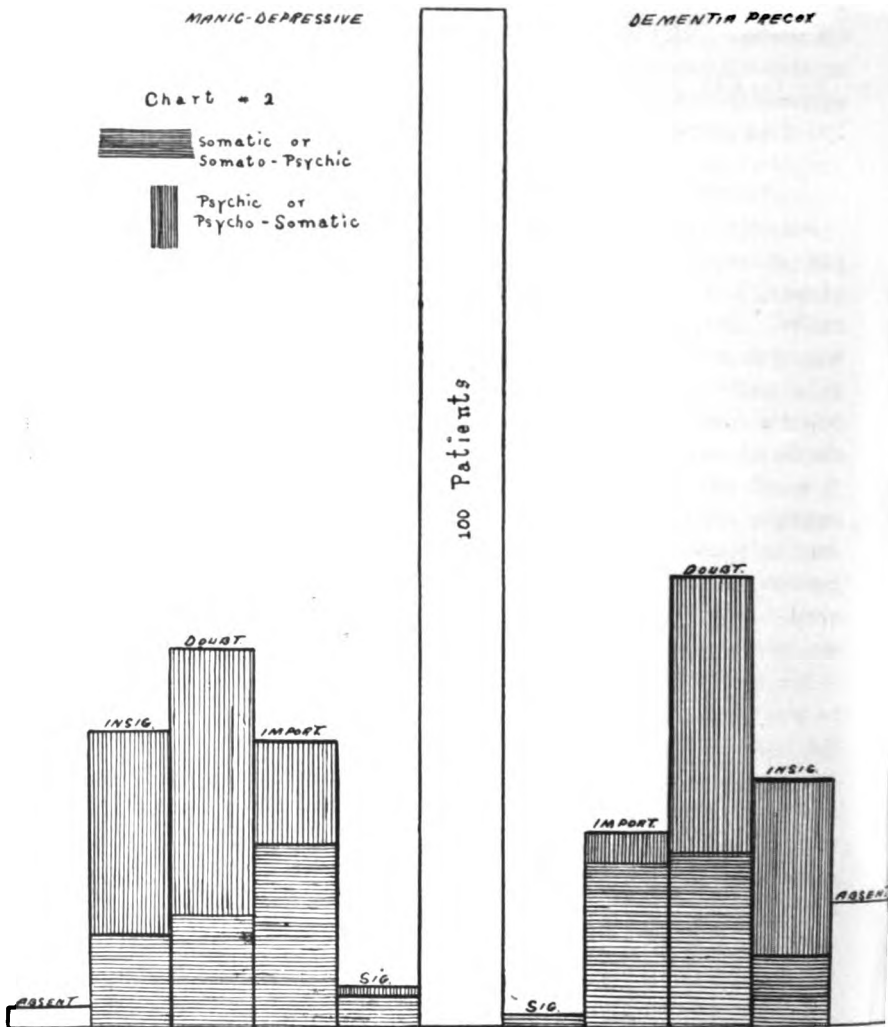


Chart 2 again contrasts the two kinds of mental disease and also attempts to give some idea concerning the frequency of psychic and



organic elements. In this respect the manic depressives and the schizophrenics were strikingly comparable. In the former psychosis, among the 32 significant and important situations, there were 21 in which organic disease was more emphatic than mental



insult and this also held for 17 of the 20 patients who developed dementia præcox. In the doubtful and insignificant groups we see a sharp decline in the significance and frequency of somatic factors. Of the manic-depressive doubtfuls 26 were psychic and 11 somatic; of the insignificants 20 and 9 respectively. This is in fairly close agreement with the schizophrenic: "doubtful," psychic 27, somatic 17; "insignificant," psychic 17, somatic 7.

#### THE AFFECT OF THE PRECIPITATING SITUATIONS.

An effort was made to ascertain how often and how definitely pre-psychotic emotional feelings were carried into the actual attack of mental disease. If it can be demonstrated that the affect which existed and was produced by the precipitating situation and which was at first essentially physiological was brought into the psychosis as a pathological and sustained emotional reaction, we have a possible argument in favor of the seriousness of the pre-existing circumstances. This may be illustrated by a concrete example. A woman of 40, married at the age of 25. There were five small children. Her husband, a drunken brute, who afterward committed suicide, always abused and frequently struck her. She lived in *poverty*, worked tremendously hard, was fatigued and lost flesh until she finally weighed only 97 pounds. For 15 years this patient was in a state of constant *fear*, and hopeless *worry* and *depression*. When her husband learned that probably she was again pregnant, he was particularly vicious in his treatment. Following this scene, the *psychosis made its appearance*. It was marked by an *intense fear reaction*, *agitated depression* especially referred to her children and repeated expressions of wretched poverty. It is, of course, realized that the psychotic content is influenced by incidental episodes, but when an emotional tone which existed previously is clearly transferred into the psychosis and actually constitutes the symptomatic picture, it is extremely likely that we are apt to find significant or important exciting factors. § Of the manic-depressive

§ Our group of cases may be too small to be conclusive about this point. Not infrequently we meet a complete reversal of the pre-psychotic emotional state, seemingly a compensatory mechanism. Sometimes, there is a curious commingling of affect. Thus, a patient who apparently was passing through a pure manic episode had very brief periods of irritable depression, and at such times the motif of her productions was her husband's marital infidelity.

group of 32 significant and important situations 20 or 62.5 per cent showed an extension of the pre-psychotic affect into the mental illness, but this was true in only 8 or 21.6 per cent of the doubtful and in none of the insignificant class. A similar condition was found in only 10 schizophrenics; 6 or 30 per cent relating to "important," 2 or 4.5 per cent to "doubtful," and 2 or 8.3 per cent to "insignificant." While dementia præcox is not essentially an affective psychosis, yet the earlier stages and milder types not infrequently reveal strong emotional currents, so that such an analysis is not entirely without reason.

#### DURATION OF PRECIPITATING SITUATIONS.

The length of time over which exciting factors were active and exerted their effect was studied. Of the manic-depressive patients only 12.5 per cent of the significant and important groups had to contend with difficulties which had existed less than one year; 40.5 per cent of the doubtful and 45 per cent of the insignificant. In dementia præcox the figures for the same three classes were respectively 25 per cent, 21 per cent, and 46 per cent. Thus an important precipitating situation is apt to have a longer duration than a questionable or trivial one. In one sense this means that in the production of a psychosis an accumulation of mental and physical strain or both may often exceed in importance a simple dramatic episode.

#### PRECIPITATING SITUATIONS IN THE RECURRENCES.

Of the manic-depressive psychoses there were 42 second or more frequent attacks, distributed as follows: In the significant group, one second attack or 25 per cent; in the important, seven second and one third attack or 28.6 per cent; in the doubtful, ten second, five third and two fourth attacks or 45.9 per cent; in the insignificant, seven second, two third, three fifth, one sixth, and one eleventh attack or 48.3 per cent; and in the absent, one second and one twenty-first attack or 100 per cent. It is evident that there was a steadily progressing increase in the number of repeated attacks as the intrinsic value or seriousness of the precipitating factors declined. It may be interesting to compare the situations in the

recurrences with those which existed at the initial mental disturbance. The following tables supply this information:

## SIGNIFICANT.

*2nd attack:* Marital infidelity, climacteric, influenza, lacerated and infected pelvis. *1st attack:* Marital infidelity.

## IMPORTANT.

*2nd attack:* Undue responsibility, worry, overwork, and exhaustion, post-typhoidal complications. *1st attack:* Practically the same.

*2nd attack:* Poverty, worry about sick children, death of favorite child, pregnancy, whooping cough, extreme fatigue. *1st attack:* Poverty, fatigue, worry, birth of fourth child.

*2nd attack:* Overwork, fatigue, pericarditis, tuberculosis, surgical operation, climacteric. *1st attack:* Overwork, fatigue, tuberculosis.

*2nd attack:* Physically depleted, diabetes, carelessness in diet. *1st attack:* Same.

*2nd attack:* Cruelty and poor health. *1st attack:* Cruelty.

*2nd attack:* Worry, thyroid and heart disease and arteriosclerosis. *1st attack:* Sudden death of grandson, climacteric, heart disease and arteriosclerosis.

*3rd attack:* Worry about immoral sister and shocked when she witnessed birth of still-born child and later craniotomy for second illegitimate child. *1st attack:* Death of mother.

*2nd attack:* Poor health, failure in work, influenza, surgical operation, climacteric. *1st attack:* Overwork and poor health.

## DOUBTFUL.

*2nd attack:* Fear of cancer, climacteric. *1st attack:* Miscarriage.

*3rd attack:* Sudden death of daughter-in-law, climacteric. *1st attack:* "Nervous."

*2nd attack:* Unhappy love affair, illness of father, appendicitis and oöphoritis. *1st attack:* Ovarian trouble.

*2nd attack:* Serious illness of mother, climacteric. *1st attack:* Serious illness of two cousins.

*3rd attack:* Anatomically unable to have sexual intercourse. *1st attack:* Worry about marriage.

- |  |  |
|--|--|
| <i>4th attack:</i> Sister's death, overwork, nephritis.                        | <i>1st attack:</i> Overwork and worry.             |
| <i>4th attack:</i> Husband's poor health, sister's mental breakdown.           | <i>1st attack:</i> No cause known.                 |
| <i>2nd attack:</i> Worry because daughter went away, climacteric.              | <i>1st attack:</i> No cause known.                 |
| <i>2nd attack:</i> Unhappy marriage, congenital heart disease, overwork.       | <i>1st attack:</i> Broken engagement, poor health. |
| <i>3rd attack:</i> Cancer (?) cervix uteri.                                    | <i>1st attack:</i> No cause known.                 |
| <i>2nd attack:</i> Jealousy brother's wife, no home, climacteric.              | <i>1st attack:</i> No cause known.                 |
| <i>2nd attack:</i> Sudden death of husband.                                    | <i>1st attack:</i> Death of sister.                |
| <i>2nd attack:</i> Death of husband breaking up of household, financial worry. | <i>1st attack:</i> Climacteric.                    |
| <i>2nd attack:</i> Worry, fatigue, climacteric.                                | <i>1st attack:</i> Normal childbirth.              |
| <i>2nd attack:</i> Nursing an invalid mother from sense of duty, climacteric.  | <i>1st attack:</i> Unhappy love affair.            |
| <i>3rd attack:</i> Financial trouble, sister's mental breakdown.               | <i>1st attack:</i> Unhappy love affair.            |
| <i>3rd attack:</i> Surgical operation.   | <i>1st attack:</i> Normal childbirth.              |

## INSIGNIFICANT.

- |   |   |
|---|---|
| <i>2nd attack:</i> Serious illness and death of brother.    | <i>1st attack:</i> Pan-hysterectomy.                    |
| <i>3rd attack:</i> Worry about son in A. E. F.              | <i>1st attack:</i> Influenza.                           |
| <i>2nd attack:</i> Climacteric.                             | <i>1st attack:</i> Death of daughter.                   |
| <i>5th attack:</i> Love affair.                             | <i>1st attack:</i> No cause known.                      |
| <i>2nd attack:</i> Poor circumstances, run down physically. | <i>1st attack:</i> Pregnancy.                           |
| <i>5th attack:</i> Head pain.                               | <i>1st attack:</i> No cause known.                      |
| <i>2nd attack:</i> Financial worry.                         | <i>1st attack:</i> No cause known.                      |
| <i>3rd attack:</i> Poor physical health, insomnia.          | <i>1st attack:</i> Serious illness of husband, fatigue. |
| <i>6th attack:</i> Preparing for daughter's wedding, tired. | <i>1st attack:</i> Gastroptosis.                        |
| <i>2nd attack:</i> Jealous of husband.                      | <i>1st attack:</i> Same.                                |
| <i>11th attack:</i> Dissatisfied with daughter.             | <i>1st attack:</i> Childbirth.                          |
| <i>2nd attack:</i> Worry about moving, hyperthyroidism.     | <i>1st attack:</i> Business failure.                    |
| <i>2nd attack:</i> Jealous of husband's secretary.          | <i>1st attack:</i> No cause known.                      |
| <i>5th attack:</i> Bronchitis.                              | <i>1st attack:</i> No cause known.                      |

*21st attack:* No cause assigned.

*1st attack:* Childbirth.

*2nd attack:* No cause assigned.

*1st attack:* No cause known.

It will be noted that in all but three of the significant-important group the precipitating circumstances of the initial attack had about the same weight as those which existed before the recurrences which were studied. In other words, we were dealing with a situation which was not only serious but was *not corrected*. The years which intervened between the separate periods of the psychosis only served to produce added factors and to intensify those which already existed.

In the doubtful class the character of pre-existing problems in later attacks was much the same as in the original mental disturbance. There was a difference in kind but scarcely in degree. The same holds true for the insignificant and absent categories, with one possible exception in which the onset of the primary psychosis was preceded by influenza.

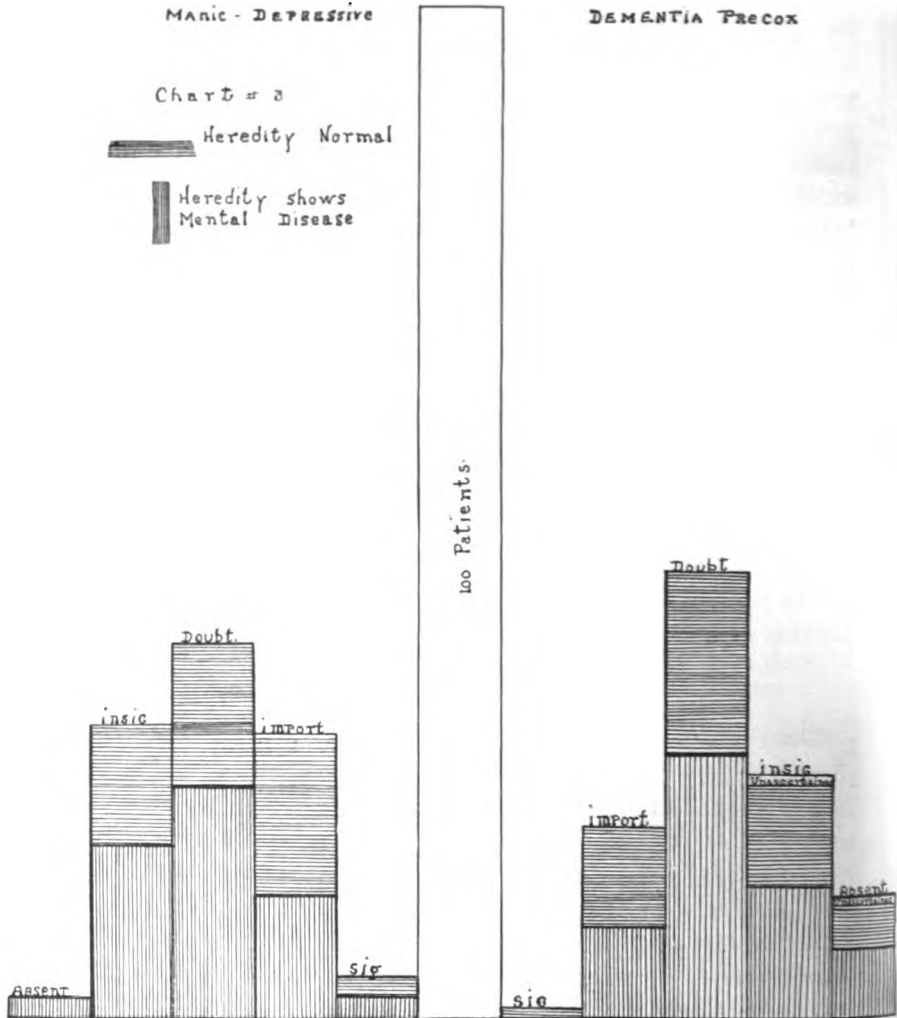
It may be worth while mentioning that while in the significant-important cases there is only listed a single third attack, under the doubtful-insignificant-absent headings we meet seven third, two fourth, three fifth, one sixth, one eleventh and one twenty-first separate episodes.

The number of distinct recurring attacks in the dementia præcox patients was too small to be studied statistically.

#### HEREDITY.

Chart 3 indicates the result of the heredity study. When the direct ancestry (either parent) showed outspoken mental disease or when the more remote or collateral relationship (grandparents, uncles, aunts, first cousins) was heavily charged, the heredity was considered psychotic. In the significant-important group where we were dealing with predisposing situations of considerable magnitude, the family history of insanity in the manic-depressive psychoses amounted to 43.75 per cent and in dementia præcox to 45 per cent; in the doubtful group it was 62.2 per cent and 59.1 per cent respectively; in the insignificant 58.6 per cent and 56.5 per cent and in the absent 100 per cent and 63.6 per cent. In the emotional psychoses the psychotic inheritance was increased more than 18 per

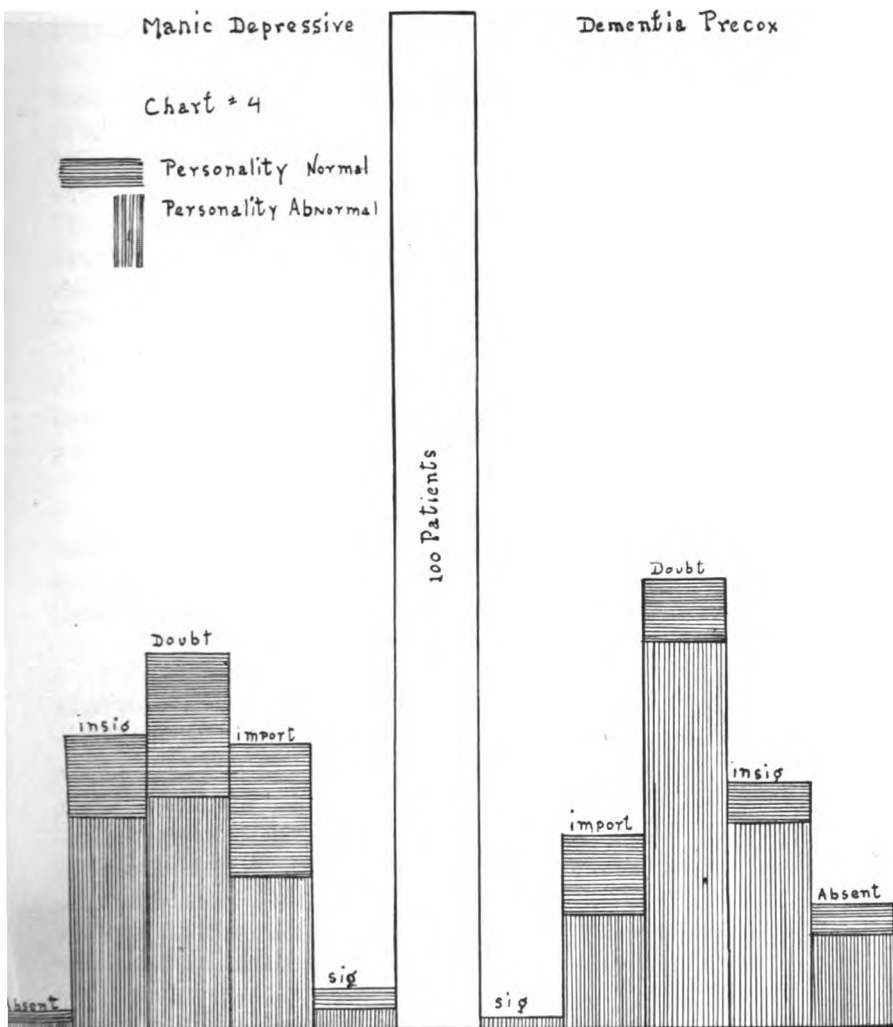
cent when we had to do with ill-defined or trivial pre-existing physical and mental problems or when none at all existed, and in schizophrenia the difference amounted to almost 14 per cent. It



seems to be indicated (as might, indeed, be expected) that the more defective the familial stock, the less likelihood there is of finding serious extraneous factors in the histories of mental patients.

## PERSONALITY.

In Chart 4 the personalities of the patients are contrasted. Our interpretation may have been too rigid but only 59 of the entire 200



had a normal make-up and 38 of this number belonged to the manic-depressive psychoses. If we compare the two types of mental disease we obtain the following percentages: Manic-depres-

sive, "significant-important" showed defective personality in 53.1 per cent, dementia præcox in 60 per cent; manic-depressive, "doubtful" in 62.7 per cent, dementia præcox in 86.3 per cent; manic-depressive, "insignificant" in 72.4 per cent, dementia præcox in 83.3 per cent; manic depressive, "absent" in 50 per cent, dementia præcox in 75 per cent.

In manic-depressive insanity the occurrence of an imbalanced personality was more than 13 per cent more frequent in those patients whose illness came on without an adequate precipitating situation and in dementia præcox it was under 24 per cent more common.

In manic depressives an emotionally unstable temperament was found five times (17.8 per cent) in the important group, ten times (27 per cent) in the doubtful and nine times (31 per cent) in the insignificant. In schizophrenia, a classical shut-in personality appeared once in the significant situations, once (0.5 of 1.0 per cent) in the important, nine times (20.4 per cent) in the doubtful, three times (12.5 per cent) in the insignificant and four times (33.3 per cent) in the absent.

Reviewing a smaller group of cases, Bond<sup>1</sup> reported normal pre-psychotic personal characteristics in 90 per cent of the manic depressives but only in 29 per cent of dementia præcox, Hoch's<sup>2</sup> findings for the latter psychosis were 40 per cent to 50 per cent abnormal.

#### LITERATURE.

In the present state of our psychiatric knowledge we cannot have final conceptions concerning the genesis of mental disease. There are still two distinct viewpoints, though both of them have been much modified. Hoch<sup>3</sup> felt that physical illness was a probable etiological factor in 24 per cent of his manic-depressive patients. Several of his conclusions are in accord with our own; namely, that there are two important groups, first those who possess a cyclothymic constitution and those in whom the outbreak appears to be accidental; when initial attacks have little or no cause (?) subsequent ones likewise present trivial precipitating circumstances or none at all; the accidental group is largely made up of normal individuals, and finally influenza was frequently found as a pre-psychotic element. Buckley<sup>4</sup> is impressed with the significance of infection and exhaustion resulting from physical disease as an



exciting cause. Although the mechanism of the various preliminary steps remains uncertain, the end result is exclusively organic, "an inability on the part of the cell to continue in reaction" (Verworn). Psychic exciting factors are considered relatively unimportant. On the other hand, Rosanoff<sup>8</sup> could not support this theory. In 202 cases of dementia præcox he found physical exciting causes in 26 and psychical in 35; in 148 manic depressives, organic in 8 and mental in 51. The most frequent somatic factors were alcoholism, pregnancy, childbirth, lactation, traumatism, surgical operations, influenza, and typhoid. The most common psychic insults were financial trouble, illness or death of relatives, sexual episodes and domestic difficulties. Combinations of precipitating elements in a single situation were only encountered in nine cases; dementia præcox one and manic depressive eight. The bulk of the cases, 520 or 66.9 per cent, were without assigned causes. This proportion is too large, but it may be probably explained by the fact that the investigation was carried on in a large public hospital where deficiencies in histories are unavoidable. Rosanoff felt that the "power possessed by the acute infectious diseases of producing insanity is at most slight and wholly questionable." The apparent considerable mental morbidity of influenza indicates that infectious diseases may have a more important rôle in the production of psychotic states. In our experience influenza was a prominent factor in 25 per cent of the cases. Harrington<sup>9</sup> states that a "psychosis is the patient's reaction to some experience or series of experiences to some situation in which he has been placed." While Jung<sup>7</sup> concedes the organic possibility of dementia præcox, it is to him largely a question of psychological motives, both in its onset and development. In a brilliant essay Wechsler<sup>6</sup> defines mental disease as "the tribute society is compelled to pay to the individual for having levied on his ego for the formation of a social organism" and he claims that it and its symptoms "can be reduced to terms of loss or disturbance of the normal balance between the primary emotions, and that this loss or disturbance called insanity is the direct result of the struggle between the individual and the species." Two diametrically opposed viewpoints are represented by Cotton,<sup>5</sup> who places heavy emphasis on focal infections, or by the statement selected from Bandler's<sup>3</sup> text book, "dementia præcox is a serious and extreme type of endocrine aberration or abnor-

mality evidencing its presence by psychic rather than somatic alterations," and the school of Freud, which stresses the subconscious psyche.

This is not the place to revive the ancient argument between the adherents of psychogenesis and somatogenesis. However, it may be permissible to express two personal beliefs. First, that even if future research succeeds in bringing to light single definite etiological agents for mental diseases, yet we will not be able to escape the doctrine of multiplicity of causes. The disease tuberculosis is primarily determined by the bacillus of Koch, yet without predisposition and incidental favoring conditions its mere presence will not be followed by pathological results. Paresis is indisputably due to the spirochæta, yet its occurrence is the combined effect of this specific organism plus inherent and extraneous exciting factors. Second, we cannot conceive that mental disease is ever a pure functional expression, neither antedated, accompanied nor succeeded by related ephemeral or permanent somatic changes. This would constitute too sweeping a disregard of data accumulated by clinical observation and physiological and bio-chemical experimentation.

#### CONCLUSIONS.

1. The number of cases is too small to permit positive conclusions and a margin of error must be taken into account.

2. A significant or important precipitating situation occurred in 52 or more than 25 per cent of the patients. Influenza, overwork, and exhaustion, the climacteric, and complicated childbirth were the most frequent somatic factors; the most common psychic problems were cruelty, poverty, illness and death of relatives, and unhappy love affairs.

3. Significant and important exciting factors were more frequent by 12 per cent in manic-depressive psychosis; there was little difference between the two forms of mental disease in the doubtful and insignificant groups, but the absence of favoring circumstances was six times more frequent in schizophrenia.

4. The proportion of somatic and psychic features was practically the same for manic depressive and dementia præcox; the somatic predominating in the significant and important situations; the psychic in the doubtful and insignificant ones.

5. An extension of the pre-psychotic emotional tone into the psychosis was noted in manic depressive in 62.5 per cent of the significant-important situations, but only in 21.6 per cent of the doubtful and in none of the insignificant. The same held true for 30 per cent of the schizophrenics having important exciting factors, but only in an extremely small percentage of the doubtful and insignificant groups.

6. There was a tendency for adequate precipitating situations to be of longer duration than inadequate ones. This was especially true in manic-depressive insanity.

7. In manic-depressive psychosis when the initial attack had serious exciting factors, later attacks were apt to show the same type of apparent causation. When only questionable or trivial reasons existed for the repeated episodes the original onset was also characterized by doubtful or inadequate pre-psychotic situations. An overwhelming majority, 78.6 per cent, of the recurrences appeared in the doubtful, insignificant and absent groups.

8. The proportion of normal heredity was considerably higher when we were considering serious precipitating circumstances both in manic depressive and dementia præcox. The difference was respectively 18 per cent and 14 per cent.

9. An abnormal personality occurred with greater frequency in those patients whose mental illness came on without adequate exciting factors. The percentage difference was 13 per cent for manic depressive and 24 per cent for schizophrenia.

10. Much valuable information may be gained by a consistent and thorough analysis of the pre-psychotic history.

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## ON THE NATURE OF THINKING DISORDER.\*

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A recent traveller from the Utopians has described a system of taxation among them based upon the use of language out of its proper and reasonable meaning. If anyone discourses upon a word for which he cannot give a right meaning, he is subject to a graded series of penalties, and these form a large item in the revenues of the state.

It is not mentioned that they have psychiatrists in Utopia, but one needs no highly colored imagination to sense how such limitations would have altered the growth of psychiatry among us. It would hardly be necessary to offer this paper—it might not be possible.

The term "thinking disorder," whose use synonymously with thinking difficulty should be very profitable to Utopian tax-gatherers, appears to be a rendering of the Kraepelinian *psychische Hemmung* or *Denkhemmung* used to denote a symptom especially characterizing the Kraepelinian Manic Depressive Depression. Kraepelin himself does not affect this concept so much as the more behavioristic *psychomotorische Hemmung*. He says:

The force and quickness with which a voluntary impulse is converted into action, is dependent not only on its own strength, but on the resistances it has to overcome. Thus we know that fear and fright may oppose hindrances to the carrying out of our purposes, which we can only overcome by the greatest efforts of will. Such an increase of resistances, a psychomotor *Hemmung*, is perhaps the most important primary symptom in certain depressive conditions of circular psychosis. Such patients are incapable

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\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

<sup>1</sup>The original experimental work is from the psychological laboratory of McLean Hospital. In the preparation of statistical data involved, a considerable part has been borne by Dr. C. M. Kelley and Mr. Gardner Murphy, then of McLean Hospital, and by Miss Madge Kennedy of Radcliffe.

of the simplest decisions, must laboriously rouse themselves to every action, cannot speak freely, but only with monosyllabic responses. Thus there naturally arises a marked slowing and weakening of action. Only very habitual activities can occasionally be carried on without resistance; sometimes also a violent emotional shock may suddenly break through them. As a rule it can also be shown, that under continual effort, the resistance gradually lessens. In severe cases, independent voluntary action may be almost abolished. In spite of all visible effort the patient cannot get out a word, is unable to eat, to get up or dress. Regularly they are quite sensible of the tremendous weight that lies on them, and which they are not able to overcome.<sup>2</sup>

In this there is no formulation of a specific thinking disorder or difficulty. The difficulty is figured as residing in the conversion of the thought process into its voluntary motor expression. Elsewhere, however, he says of the depressions:

The exact opposite of the flight of ideas appears to be constituted by *Denkhemmung*, which we observe in greater or less development almost always in depressions, also in certain manic-stuporous mixed states and in manic conditions related thereto. The patient shows an inability, often painfully evident to himself, to command his own ideas as he wishes. As it appears, the individual ideas develop slowly and only under strong stimulus. Accordingly, an impression does not arouse quickly and automatically a number of associations, among which it is necessary only to make an appropriate choice. Association takes place rather according to the content of the idea, than according to its external, auditory or vocal relationships. Often absolutely nothing occurs to the patient, and the stream of thought must be carried on with extreme voluntary effort. Thus arises a special difficulty and slowing of thought, lack of reflection in the answering of simple questions, lack of comprehension, poverty of ideas. "I can't think any more, cannot imagine anything more, not put my mind on anything any more, my head is empty," thus patients complain. . . . Sometimes one also hears the complaint that all mental images are colorless and faint, that they can no longer call to mind the impression of an event in their lives, of a landscape, a painting, or their intimates. They know well how these things look, and can describe them, but the sensory coloring of the memory image is lost.<sup>3</sup>

Attention is here directed especially to the remarks concerning the speed of the mental processes. This was the essence of the term "*psychomotor retardation*" as a rendering of Kraepelin's *Psychomotorische Hemmung*, but instead of psychic retardation, it has been more customary to speak of "thinking disorder" or

<sup>2</sup> Kraepelin, 8 ed. 1, 371-2.

<sup>3</sup> Kraepelin, 8 ed. 3, 1198.

“thinking difficulty.” The former of these terms is analogous to stomach disorder as an equivalent of appendicitis, or the conventional meaning of immorality. The symptom is a disorder of thinking, but many other disorders of thinking do not superficially resemble it. If this is the psychic side of a psychomotor retardation, it connotes a *slowing* of the thought process; the mental analogue of what is readily observable in the overt conduct of these cases, as though the stream of thought were actually more sluggish. One cannot say with certainty that anyone has thought exactly this. It is not easy to name something that has been thought exactly about it.

There is often an obvious slowing in the carrying out of the ordinary behavior patterns. Such responses may involve sense perceptions, almost certainly involve some associate elaboration, and finally the conversion into motor action. Ordinary experimental technique is most concerned with voluntary responses. The rate and force of such responses were early studied with Kraepelin's writing balance. The ergograph work, and that on reciprocal innervations measured experimentally a special characteristic of this psychomotor retardation, namely, its lessening under stimulus. The experiments made with the ordinary tapping test are perhaps, so far as mental adjustments are concerned, the simplest form of voluntary response it is possible to measure experimentally. This function is unquestionably slowed in the depressions as a group, with occasional marked lifting of the inhibitions during the experiment.

A step higher in the scale is the simple reaction time. This involves a definite though simple mental readjustment for each new reaction process. In McLean material the reaction time of depressions is found to average longer than normal, but the excited group is slower still, and the time is also longer in other psychoses, such as general paralysis. The observations on this point are not wholly in agreement, except as showing lengthening in the depressions. Other investigators, particularly Diefendorf and Dodge, have found shorter time in excitements, but the observations are much fewer than those here reported. There is nowhere a slowing of the process so great or so constant as to be of differential significance for the psychology of the depressive condition.

The next more complex process to have been observed with this type of material, is perhaps the Kraepelin addition test. Outside of manic-depressive and traumatic material, its pathology is little studied. Low efficiency and great fatigability have been observed in traumatic cases. Manic cases show slower fatigue loss and equal performance, depressed cases slower fatigue loss and poorer performance. The latter is the typical retardation phenomenon, but this experiment involves a considerable motor factor, as the response must be spoken or written. In the above cases they were written. The whole process is unquestionably slowed, and the progressive gain is a characteristic manic-depressive phenomenon, but this may be determined by the motor element in the test rather than by the exercise of mental functions.

When the individual is given a word as a stimulus, to which he is to react by speaking its opposite, this form of reaction is again more complex than the addition process. During the past year the writer accumulated at the McLean laboratory a fairly comprehensive material on this point. The normal time for establishing an association of this grade is about one second. For a group of nine manic-depressive excitements the score of this time is practically normal, averaging 1.2 seconds. For a group of 33 depressions the average is about two seconds, the women showing considerable greater length and irregularity than the men. No other diagnostic group takes as long as this, except a group of psychopathic inferiors, where there is again special length and irregularity among the women, and the average is over two seconds. With this exception, the depressions are longest, and the manic cases shortest. As this function is closely related to intelligence, it is appropriate to say that the intelligence quotients for these groups, by the Stanford scale, are about the same, and at the normal adult average. Thus a definite slowing, enough to dominate the average, has taken place in a number of depressed cases, but it is not peculiar to them, being observed to greater degree under the diagnosis of psychopathic inferiority. The women observed are more affected than the men, in line with the observations of Haggerty and Kempf.

Parallel to these opposites associations, there are series of observations under conditions of free association. The stimulus words used for the opposites are all part of the Kent-Rosanoff series, and



the free associations to these words were taken prior to the opposites experiments. Such words normally have a free association time of about twice their opposites time, in the most precise figure quotable, 1.85 times as long. Despite the name, there is much more chance for interference and blocking under free association conditions than under those of the opposites test. Theoretically, the amount of additional difficulty which the free association conditions introduce, should be a criterion of the degree to which psychogenic interference and blocking is lengthening the times of response. In this function of the experiment there is nothing to distinguish the manic-depressive depressions from certain other psychotic groups. Most of the psychotic groups, including the depressions, average over twice as long for free associations as for the corresponding opposites. That is, the psychotic condition increases the difficulty of the free association set more than it does that of the opposites set, conformably to theory. On the other hand, the diagnoses of general paralysis and psychopathic inferiority show relative increase in difficulty of the opposites associations, understandable in the last instance as the result of intelligence loss evident in the IQ's.

For the manic-depressive excitements the general free association time is practically normal. For the depressions it is about twice the normal, but so it is also for the schizophrenic group. The other groups lie between these extremes. It is to be noted, however, that these measures are based upon median scores. There are many cases where certain associations are accomplished with all the promptness characteristic of the normal individual. The slowing is not a general one, affecting all mental processes of this level. It is one that strikes in sometimes with normal persons, and only more frequently with the present psychotic cases; most frequently with the schizophrenics and the depressions.

One type of experimentation has been brought to bear on the problem, that eliminates the voluntary motor response. This concerns the latent time of organic reactions to stimuli whose content when perceived, should evoke such reactions. The reaction studied was the psychogalvanic reflex. If the registration of the impressions were slower in certain retarded cases, the latent time of the organic response should be correspondingly slowed. No abnormal

slowing of response in clinically retarded or even stuporous conditions was demonstrated under these conditions.

One is impelled toward the conclusion that a formal psychic retardation, or the conception of thinking disorder as such, however convenient as a rough and ready description of behavior, is not an idea that stands up well under objective analysis. It is impossible to cite any measured time function of the thought processes which is of service in the differentiation of the manic-depressive retarded state. A feature which does seem to distinguish it, is the lifting of inhibitions under continued work, but this seems associated with motor activity, being best shown in the tapping test or ergograph, as well as in the simple reaction or addition test. The exercise of motor functions seems the effective factor in releasing the inhibitions, rather than mental work.

To this point, the present remarks have been based on general tendencies observed in various groups of medical diagnosis, the presentation that appeals most directly to the worker having experimental traditions. There may be some gain in speaking of the question as it applies to one or two individual cases in whom the clinical "thinking difficulty" was a prominent symptom. All depressions hardly show this symptom; what is the quantitative, experimental situation, at various levels, in a case that does?

The best example coming to notice since this study was undertaken, is a young woman of about 20, a high school graduate, with a typical retarded depression from which there was recovery in a few weeks. A Stanford intelligence examination, at about the height of the disorder, took about twice as long as usual, and in several instances a test would have been accomplished, but that its time limit passed before a correct response was given. The obstruction to the thought processes was so great that the mental basal year was but seven, though the IQ was up to .70. In a Kent-Rosanoff free association test, no response was produced for one minute in the case of 41 stimulus words out of a hundred. The median time for all responses actually given is over eight seconds instead of the normal two seconds. At the same time, six of the responses made were of normal quickness, and there is continuous gradation up to the longest times, showing that the obstruction is not at all uniform over the thought processes. Opposites tests made at this time were slowed in somewhat the same way, those of

the four stimulus words *sweet, soft, light* and *long* being given relatively quickly, in less than three seconds. Those of six others, *man, black, girl, white, rough* and *beautiful* were not accomplished at all. The median score was 14.2 seconds. Four days later the opposites test was repeated. To the initial stimulus word *man*, she responded *woman* after just less than one minute with the query, "would that be the opposite sex?" Of the remaining 19 associations seven were less than two seconds, and none as long as 10 seconds. Her condition did not admit of an introspective account of her difficulty or its letting up, beyond that she thought she understood the problem better than at the previous trial. The sudden release of inhibitions here shown, is easier to understand in functional than in organic terms.

Further evidence to this effect is furnished by the behavior of this case in the simple reaction experiment. Here there was followed a standard procedure, totalling 216 observations. Perfect co-operation was given, and the result is wholly normal quickness and regularity. It was what might be described as an exceptionally "clean" record, even for a normal person. In this quite formal experiment there is no retardation, but it appears up to maximal degrees in association tests, where content is involved.

A more diffuse thinking difficulty appears in another woman of 20, also of high school education. Psychometric examination showed an intelligence quotient of 67, corresponding to an age level of slightly under 11 years, similar to that of the previous case. The reaction times, opposites and free association tests, were each about three times the normal. Ten days later the thinking difficulty had cleared considerably; another opposites test was made in which the time was practically normal. Simple reaction time as measured on this date was longer than normal average, though not necessarily abnormal for her.

While these cases show measurable retardation of mental processes, it is probable that this should not be formulated in terms specific to manic-depressive depression, but rather in terms that are a more general characteristic of mental activity, and may be exaggerated not only in manic-depressive depression, but in other clinical settings like dementia præcox or general paralysis. One is sometimes cautioned against confusing thinking disorder with

memory defect; but it is a question if analogy is not more helpful than distinction.

All knowledge of the thinking of other persons is, for practical purposes, dependent on that person's voluntary acts. An act is regarded as voluntary, when it is preceded by some consciousness thereof. In normal individuals this consciousness is integrated with the consciousness of the main personality. In some pathological states, complicated acts occur without the consciousness of the main personality, and we suppose by analogy, dissociated systems of consciousness to which these acts belong. In a normally integrated personality, voluntary and non-habitual responses do not take place unless and until there is consciousness of them. Few of us could recite the name even of the seventh cranial nerve without thinking of it. "Thinking of it" means the same thing as bringing it into consciousness. Now this process of calling to mind, bringing to consciousness, and making effective for voluntary response, takes time, sometimes little, sometimes much, sometimes infinity, when we say the idea is forgotten. The amount of time it takes is a criterion of where the particular idea at that moment lies with reference to consciousness. Current information, that which is closest to consciousness, is called to mind in a second or less. Other ideas, not so current, take up to five seconds and more. Still others are not recallable at all, that is, they have dropped into the unconscious, whence they may occasionally emerge of themselves, or be recallable by the technique of hypnotism or psychoanalysis. These are fundamental properties of ideas in consciousness, applying equally in normal and psychotic states, and it is not necessary or appropriate to go outside of these to cover all the phenomena of thinking disorder and memory defect. Both of them are essentially a sinking of ideas towards or into the unconscious, so that they are recalled less readily or not at all. Under the name of memory defect, it is generally associated with organic changes, and the ideas are affected according as the organic changes affect the nerve tracts on which they depend for getting into expression. It has been called thinking disorder or thinking difficulty when the same mental process has been associated with a more functional interpretation. It is considered that as organic changes have a selective action on recent memories, so are the effects of thinking disorder often also selective, and they are

selective according to the relation of the ideas to certain topics towards which the individual's condition has particularly sensitized him. Questions by authority in regard to autoerotic habits, would be apt to occasion such thinking disorder in many normal individuals. Beside the suppression of memories already taken place, the immediate affective reaction may obstruct clear thinking on the topic, even for ideas ordinarily accessible to consciousness. The thinking difficulty of the depressions is such a difficulty, in raising ideas to that level of consciousness to which academic psychology applies the term "clearness" or "attention." The intelligent patient also, very properly describes it as a difficulty in concentrating his mind.

Mental symptoms are very largely changes in the facility with which the normal stock of ideas is accessible to consciousness. In general paralysis, arteriosclerosis, senile dementia and Korsakoff, this has been formulated and described as memory defect. Save that recent memories are more affected, this type of disturbances is not especially related to the content of what is forgotten. Moreover, the losses are likely to have greater permanency. In the manic-depressive depressions we are disinclined to think of memory defect because the whole thing is more transitory, and because it is especially characterized by delayed rather than by lost recall. It is, however, the same downward thrust of ideas toward the unconscious, now perhaps more influenced by content than in the organic cases. In the manic state there is the reverse process of an upward thrust of ideas to the level of conscious expression. Psychoanalytic interpretation of these disorders might easily regard the depression as literally the "depression" of untolerated ideation towards the unconscious, carrying the remainder of the patient's activity along with it; the excitement on the other hand, tending towards a similar result by overlaying the complexes with the quasi-trivial ideation of the flight. In schizophrenic conditions there is an upward thrust of certain ideas into consciousness that has been spoken of as "autochthonous" ideation. The ideas are often bizarre, having less superficial association than the manic flight, and are believed by some to owe their appearance to symbolic relation with repressed ideas. There is a corresponding downward thrust of the more normal types of thinking, which is the mental side of the same process of which the apathy is the

behavior aspect. The result of these considerations is to co-ordinate the mental symptoms of diverse clinical pictures under a unitary concept of fluctuations in level of consciousness.

#### DISCUSSION.

DR. ABBOT.—I have been interested in this study of thinking disorder because it is one of the more important conditions which we find in all fatigue states and in the manic-depressive depressions. My general impression has always been that in these states there is a diminution of the richness of associations that arise in response to a given stimulus or situation. Given a stimulus, how many ideas arise immediately in response to it? Many experiments deal with the first idea that comes to one's mind, but some persons think in pictures rather than in individual words. What is the size of that picture and what is the variety of its features?

I would be very glad to know if experiments have been devised to test this richness of association, as well as the speed with which individual reactions can be made, come to the surface and be expressed. Emotional states determine quite largely the content of the associations that do arise, and it may be that they serve as blinders, as it were, to narrow and lessen the richness of associations that would ordinarily arise.

DR. WELLS.—I do not recall any experiments on the richness of associations, and it is doubtful if the present technique of experimental psychology would lend itself to satisfactory determinations along that line.

## RATING SCHEME FOR CONDUCT.\*

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### ORIGIN OF THE PROBLEM.

The fundamental problem involved was the bettering of nurses' notes in psychiatric hospitals. In combating the nurses' tendency to draw conclusions rather than state facts I prepared a set of instructions in which, in the various fields of the patient's conduct, certain definite objective facts were stated. This gave her some idea of the character of the material desired. The next step was simple—namely, the arranging of these objective facts in each "category" of conduct in a definite order.

### THE SCHEME.

This gave rise to a definite scheme of nurses' notes. At the present time the entire field of inquiry is divided into 19 "categories." These are:

#### *Physical:*

1. Weight.
2. Sleep.
3. Physical exercise.

#### *Mental:*

4. Attitude towards taking food.
5. Room and attire.
6. Reaction toward the nurses.
7. Care of self ("tidiness").
8. General knowledge as shown in conversation.
9. Emotional reaction.
10. Resourcefulness and ingenuity.

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11. Rapidity of habit formation.
12. Span of attention.
13. Hallucinations.
14. Delusions.
15. Orientation.
16. Insight.
17. Recent memory.
18. Reaction to visitors.
19. Judgment.

It is not claimed that these fields cover the entire conduct of the patient. Obviously the inclusion of a new field must depend upon our ability to sub-divide that field in an orderly fashion, and the exclusion of fields must depend upon the difficulty attending the nurse's fitting of the patients into the various sub-divisions of that field. I undertake a revision every month or two. At present we are having more trouble with "judgment," "habit formation" and "insight" than with any of the other fields. The latter two of these I am convinced can be rearranged satisfactorily—perhaps we must permanently drop the first one.

In each one of the above fields there occur sub-divisions as illustrated below:

#### ROOM AND ATTIRE.

1. Patient stuporous or uninterested in appearance of room. Absolutely no interest in appearance of person or room.
2. Room and person very untidy. Patient destroys clothes and furniture. May or may not smear person and furniture.
3. Room and person very untidy. Does not destroy clothes and furniture. Smears person or walls or furniture.
4. Room distinctly untidy. Patient does not dress.
5. Patient unwilling to dress—but does not remove clothes if coaxed or forced to put them on.
6. Patient dresses but there are distinct evidences of untidiness in his dress and room.
7. Little evidences of untidiness about the room or clothes. A few buttons unbuttoned, spots on clothes not removed, etc.
8. Room and clothes neat but patient makes no effort to make them attractive.
9. Room and clothes neat. Patient willing to have tasteful decorations, but has none.
10. Active effort to obtain objects to decorate tastefully room and attire. Always "well dressed." Room "attractive."



11. Over-decorates room and self. Foppish. Red Cross buttons all over clothes, or room decorated in outlandish fashion.

#### ATTENTION.

1. Stuporous.
2. Can't hold attention long enough to do even commonest things such as completely dressing self or eating a meal.
3. Dresses self but can't hold attention long enough to do any particular work.
4. Can do only childish pieces of work. Cannot fit a picture puzzle of more than 15 or 20 pieces.
5. Can do only childish pieces of work if they are new. Will do very long and complicated pieces of work along lines he has been working on—as picture puzzles.
6. Can sew for half an hour or so. With the men—those who can play a game of checkers or billiards but does nothing requiring a longer time. Leaves task half finished—to take up some other task.
7. Remains interested in a piece of work until the end of the day, but next morning has forgotten it or has no interest in it.
8. Will work for a day, or day and a half, on a piece of work, and finish it.
9. Often stops, even for days, in a task requiring a long time but goes back to it over and over again until it is finished.
10. Plans and carries out a piece of work requiring a long period of time, as weaving a rug or making a piece of pottery.

As shown in the above examples the sub-division is attempted upon an orderly and rational basis. The basis is 10, although 11 and 12 occasionally appear within that particular category where an *over-function* of the faculty is involved. On its face we are dealing with a facultative psychology, long since discarded. That is, however, not the case since the terms are social and not psychological.

The orderliness of the sub-divisions depends upon two factors, the first of which is an attempt to give the nurses some rational basis upon which to work in place of a hit or miss group of statements. Secondly, and this seems by far the more important factor, we have attempted to recapitulate ontogeny in the order of the sub-divisions. This is comparatively easy for those categories which may be termed "asocial." By such categories I refer to those in which there is a lack of appreciation of society rather than a definite anti-social conduct. Thus we would call the fields of

hallucinations and delusions "anti-social" categories, whereas those which picture the growth from infancy to adult life are of the "asocial" variety. Merely from another angle, if we are to consider the ego and alter as two distinct opposing factors in conduct, then No. 1 in any category of this system should describe the ego rampant, and as we progress towards 10 there should be a progressive increase in the value of the alter in defining conduct. As we go on to 11, 12, etc., the alter becomes the predominant influence.

#### COLLECTION OF MATERIAL.

On a given day the nurse simply enters 19 numbers for each patient involved. These numbers correspond to the statements in each category which she feels come nearest to fitting the given patient's condition. These charts are filled out at intervals of time differing in accordance with the patient's residence at the hospital. All new patients receive a complete entry every three days, whereas every patient receives an entry at least once every four weeks. The system is of course highly elastic so that for very rapidly changing patients of any term of residence we may make entries as frequently as we desire. As I collect the finished entries it is my custom to challenge certain numbers. This always tends to continue the freshness of interest. By setting aside Tuesdays and Fridays for the collection of all material we consolidate the nurse's work and my own.

#### TREATMENT AND MATERIAL.

I make three calculations; the average for the three physical categories; the average for the 16 mental categories; and the standard deviation for the 16 mental categories. This is a fairer figure than the mean error because the standard deviation much more emphasizes the wider scatterings. These very wide scatterings I consider of importance. Through the construction of special tables this mathematical work is not arduous or time consuming.

From these figures I construct charts. We must emphasize the value of stating the mental condition of the patient as a zone rather than a line. The width of this zone is determined by adding and subtracting the standard deviation from the average.

## THE NURSE.

The nurse is relied upon for all of the material. This is because she, and she alone, knows the 24-hour per day patient. Usually after filling out one complete chart for two or three patients she does very well. I consider this due in a large part to our attempt in the system to use the vocabulary of the nurse. These charts constitute a matter of interest and stimulation to her. She finds them more interesting than "written notes," because they represent her efforts graphically; more satisfactory because they include a great deal of material she otherwise has not time to record; more helpful in that in the low numbers she sees immediately where her efforts must lie; more stimulating because in the progress of her own numbers she sees the patient's progress; easier and quicker. The whole thing translates vague wishes and desires, or vague fears and disappointments into concrete, tangible numbers and this the nurse appreciates. Not that for her it does not have its difficulties. Some patients "don't fit at all"—other patients are "two people."

The charts are the subject of frequent discussion and various interesting points of the system are taken as subjects for lectures given about every three weeks. Just as in any other system I believe that we will maintain a freshness of interest in the nurses as long as we retain *our* freshness of interest. Unfortunately, there is nothing kinetic in any system.

## STATISTICAL TREATMENT.

We are dealing with a rating system. It has been in operation on 227 patients over a period ranging from two to six months. Revisions to date have been so frequent that exact statistical statements can now not be made. We are in possession of something over 1000 complete entries, which means a total of about 20,000 figures. As far as the average and the standard deviation are concerned the revisions have not been such as to prevent our making a fair comparison throughout the period of six months.

Is the average fair? The psychologist considers it just as unscientific to add "judgment," "taking food" and "emotional reaction" as it is to add cows, houses and apples. On its face this represents an absolutely unscientific procedure. On the other

hand a striking fact presents itself, namely, that if we *do* average these figures and *do* make a chart on the basis of that average we arrive at a beautiful picture of the progress of the case. From an apparently unscientific basis we have arrived at an excellent practical result. This being the case it is for us to develop a theory which is sound. Such I have attempted in the following. This system is a *conduct* system. We are not dealing with psychological factors, but in every case the thing judged is conduct as pertains to these various factors. To go back to our analogy, it is impossible to add apples and pears, but if we call both of these "fruit" we can add them and accurately do so. Various charts accompany the article and they seem to the writer to substantiate the practical value of the average and standard deviation. Whether this theory be correct or not, I don't know, but it seems to me at the present time to be the simplest explanation of the accuracy of our results.

Assuming for the time that we have a rational rating system, and assuming that the average is fair, we must meet the following mathematical requirements—that is, as a purely mathematical scheme there are the following requirements:

1. Mental condition must in each case be expressed in conduct entities. In the complexities of normal life this is perhaps not possible, but in hospital life the variable factors are few since we largely remove the environmental complexities. Wherever the constants are so predominant, the interrelation of the remaining variables becomes simpler. Practically, and I am inclined to think that there is a sound theoretical basis for the statement, the variables *themselves* tend to become simpler also. Whether this is a reflex from the simpler environment or whether it is due to a blunting process which so frequently accompanies mental disorders one cannot definitely state.

2. There must be a high and positive correlation between the groupings in the different categories in recovering cases. I recognize that this involves a departure from the accepted theory of rating systems. The psychologist would say that in such a system there is a redundancy of information. If he finds in a group of tests that there is high correlation between any two or three he throws out all but one of these highly correlated categories. By seeking this high correlation in convalescing cases and by calcu-

lating the standard deviation for *all* cases, I have arrived at a figure in this same standard deviation which we will see later is of the greatest importance. This part of our scheme represents a marked departure and, to my mind, an undoubted improvement upon the fundamental theory of previous rating schemes.

3. The steps in each category should represent an approximate equality of difference. Only experience and revision will consummate this. On the basis of some 16,000 entries I have attempted to adjust the scheme to fit this requirement, but as the data grows there must be further revision.

On the basis of these three mathematical considerations we consider that the average is a figure fairly arrived at and of real value. On the basis of practical considerations, namely, its ability to picture an actual process, we had arrived at the same conclusion.

What does the standard deviation indicate? It is an even more labile figure than is the average. We can only judge its meaning by comparing it with the clinical data that we have on the case at the time. Up to the present time there has been a very high correlation between the presence of a high standard deviation and the amount of internal mental confusion the clinical man judged at the time that the patient had. If as we go on this should continue to be the case we have in this figure an intensely valuable tool. If the average falls through confusion we know clinically that the prognosis is not necessarily bad, and we have found so far that *where the average falls accompanied by a marked increase in the standard deviation*, the case has been one in which we expect an *ultimate recovery*. Especially in the accompanying charts of manic patients one can see that as the average falls the confusion (if our standard deviation does indicate confusion) increases. On the other hand in the accompanying charts of dementia præcox or Schizophrenic patients one can see *a fall in the average accompanied by a marked diminution in the standard deviation*. In a scheme which is highly mathematical we hesitate to validate the standard deviation on theoretical grounds, although I believe that this can be done; rather do we establish its validity on its basis of high correlation with clinically observed phenomena, and I must reiterate that up to the present time the amount of standard deviation has shown an exceedingly high correlation with the amount of internal mental confusion judged to be present at the time. We

have also noticed in several cases that a marked drop or rise in the average has been preceded a week or two by an increase in the standard deviation. The problems involved are in some respects different from those at the basis of other rating schemes employed. Regardless of this we do not hesitate to recommend the careful consideration of this alteration of the fundamental theory of rating systems in general.

#### ACCURACY OF THE SCHEME.

The accuracy of this system may be tested in three ways.

First test of accuracy. You may ask the nurse to fill out repeated charts on essentially chronic patients. These patients of course change from month to month, but in many the change is very slight so that we may consider the results as pertaining to essentially the same patient. Such a set of results I have studied statistically for 100 cases. We may also ask several nurses to fill out a chart on the same patient for the same day. In testing this latter I used a group of nurses from the Army Training School for Nurses. Nineteen of these nurses with absolutely no previous instruction were asked, each to fill out a chart with no help, on any patient whom they might choose. This was done on the same day that the regular McLean nurses filled out charts for these patients. The average deviations for the two groups follow:

	McLean nurses, 100 cases.	Army nurses, 19 cases.
Reaction to visitors .....	1.25	1.4
Judgment .....	1.22	2.9
Delusions .....	1.01	2.3
Insight .....	.91	1.8
Hallucinations .....	.81	1.4
Habit formation .....	.72	1.9
Recent memory .....	.69	1.0
Social reaction .....	.55	2.2
Attention .....	.52	.6
Resourcefulness .....	.50	1.7
Room and attire .....	.48	1.2
General knowledge .....	.42	.7
Orientation .....	.27	.8
Taking food .....	.21	.3
Care of self .....	.17	.9

It will be noted that the deviation for the army nurses is far greater than that for McLean nurses, but the reader must remember that they had had absolutely no instruction or experience with these charts and that they were asked to fill them out before they had had but a few of their psychiatric lectures. Even in consideration of this in five of the categories they averaged a difference of less than one point from returns of McLean nurses. In only three cases did they average a difference of more than two points. As stated earlier in the paper, the McLean nurses have the greatest trouble with the categories of "judgment," "habit formation" and "insight." It seems fair to state that at least 10 of the categories are at present in such a state as to be employed with considerable accuracy to all patients.

The second test of accuracy. We present to the clinical man the finished charts with a request that he name the patients involved. This test can be applied only to new cases since the chronic cases change very little in the period involved. Unfortunately I have not made a scientific application of this test—frequently simply at an opportune moment exhibiting an interesting chart to the clinical man. In about 50 per cent of acute cases he gives the correct name. An even less scientific application of this test is later to give the name and then inquire of the clinical man as to whether he considers the picture a fair one. By this test about 90 per cent of our charts are accurate. It is unfortunate in the test which is so final that its application is necessarily of a somewhat hit or miss character. At the present time the test cannot be applied because after the clinical man has once seen a chart we have the factor of memory entering.

The third test of accuracy. In the laboratory we take the facts of an old system and see whether those facts adduced from a new system fit the known data. If they do we assume the new system to be accurate. The results to be quoted below were arrived at through some mathematical procedures which we carried on without the slightest knowledge of pre-conception even on my own part as to the results to be obtained. I made a sub-division of the 16 mental categories into the following groupings:

## GROUP 1.

Taking food.  
 Room and attire.  
 Social reaction.  
 Conversation.  
 Reaction to visitors.

## GROUP 2.

Resourcefulness.  
 Habit formation.  
 Attention.  
 Orientation.  
 Insight.  
 Recent memory.  
 Judgment.

## GROUP 3.

Hallucinations.  
 Delusions.

## GROUP 4.

Emotional reaction.

## GROUP 5.

Care of self.

If we consider only Groups 1 and 2, it seems quite evident that Group 1 deals with the social reactions of the patient, whereas Group 2 deals with inherent mental qualities present. If we want to consider the whole thing on the basis of conduct, Group 1 represents the patient's conduct or reaction towards society and Group 2 his reaction to his psychosis. These things overlap. Group 2 to a certain extent controls Group 1. More than that, in both groups there is a certain amount of both social and individual factors and yet on the whole we may say that Group 2 represents the patient's mental capacity, whereas Group 1 represents what he does with that capacity. Now if we go through the 220 cases involved, patently they would fall into four classes. One class will show the average of Group 2 *always above* the average of Group 1—no matter how many entries the nurse makes. The second class will show the average of Group 1 *always above* the average of Group 2 no matter how many entries. There will be two other classes in which the averages will oscillate. In one of these latter two classes the average of Group 2 will tend to be above that of Group 1, and in the other the average of Group 1 will tend to be above the average of Group 2.

Now the people in these four classes may be sub-divided on the basis of the diagnoses on which they are carried at the hospital. This allows of the construction of Table I, in which the figures represent the number of patients of a given diagnosis in each class.

Looking at Table I from a purely mathematical point of view, or we may say from the point of view of nurse's conduct charts,



we notice a steady progression as we go from top to bottom, of a movement of the larger numbers from left to right. In other words the table is constructed on the basis of the nurse's conduct scheme in such a way that there is a certain mathematical progression of the predominating numbers from left to right. Does this fit the clinical diagnosis? If one draws a line between diagnosis

TABLE 1.

	Average of group 2 higher than that of group 1		Average of group 1 higher than that of group 2	
	Always Class 1	As an average Class 2	As an average Class 3	Always Class 4
Psychopath .....	11	2	..	1
Psychosis on strong psychopathic basis.....	5	6	..	1
Manic depressive depression .....	5	4	1	1
Chronic circular manic depressive .....	9	5	1	2
Manic depressive excitement .....	1	2	1	..
Catatonic dementia præcox .....	..	2	..	..
Acute infective exhaustive .....	1	2	2	1
Paranoia without dementia .....	2	..	1	..
General paresis .....	1	1	3	3
Paranoid dementia præcox .....	4	5	9	2
Involution melancholia .....	7	5	6	16
Dementia præcox .....	9	9	10	40
Arterio sclerotic dementia .....	1	1	..	5
Senile dementia .....	1	..	..	7
Epileptic dementia .....	..	..	1	1
Feeble-minded with episode .....	..	..	1	1
Feeble-minded .....	..	..	..	2
Sum of upper half .....	34	23	6	6
Sum of lower half .....	23	21	30	77

"paranoia without dementia" and "general paralysis" he will see that everything above the line is of a diagnosis precluding dementia, whereas below the line we have the dementing and feeble-minded group. There are two exceptions to this. Above the line occurs the catatonic dementia præcox group, whereas below the line occurs that anomalous catch-all, involution melancholia. The latter has been a long sufferer at the hands of a great many queer conditions which have their onset or exacerbation at the involution period. This much may be said of the catatonic dementia præcox group,—both cases involved in Table 1 are very

young, and in both cases the episodes have been of such a character that at one time or another they have been diagnosed as manic depressive episodes. There is little dementia in either of the cases as yet.

It is apparent, if one has followed the mathematical procedures, that the results obtained from an analysis of the nurse's conduct scheme fit with beautiful accuracy the diagnoses made by the hospital staff. In that this analysis involved procedures certainly unguessed by the nurse, Table 1 seems to me to represent a beautiful and very satisfactory proof of the accuracy and value of the scheme involved. There is not an absolute fitting of the numbers with the diagnoses, and I have considered that perhaps this was due to the factor of age. The average age of all persons in Class 1 is 50; Class, 2, 50; Class 3, 49; Class 4, 55. Within each diagnosis there is a marked tendency to progress in age as one progresses from Class 1 to Class 4. This is brought out in Table 2, which is the same as Table 1, except that in parenthesis are given the average ages of the patients involved.

TABLE 2.

	Average of group 2 higher than that of group 1		Average of group 1 higher than that of group 2	
	Always Class 1	As an average Class 2	As an average Class 3	Always Class 4
Psychopath .....	11(47)	2(49)	.....	1(41)
Psychosis on strong psychopathic basis..	5(44)	6(48)	.....	1(46)
Manic depressive depression .....	5(47)	4(51)	1(69)	1(55)
Chronic circular manic depressive ....	9(51)	5(59)	1(47)	2(75)
Manic depressive excitement .....	1(33)	2(59)	1(27)	.....
Catatonic dementia præcox .....	.....	2(30)	.....	.....
Acute infective exhaustive .....	1(42)	2(36)	2(18)	1(40)
Paranoia without dementia .....	2(68)	.....	1(79)	.....
General paresis .....	1(38)	1(40)	3(53)	3(55)
Paranoid dementia præcox .....	4(38)	5(44)	9(42)	2(53)
Involution melancholia .....	7(56)	5(63)	6(60)	16(65)
Dementia præcox .....	9(50)	9(45)	10(46)	40(42)
Arterio sclerotic dementia .....	1(63)	1(68)	.....	5(76)
Senile dementia .....	1(74)	.....	.....	7(78)
Epileptic dementia .....	.....	.....	1(54)	1(36)
Feeble-minded with episode .....	.....	.....	1(45)	1(22)
Feeble-minded .....	.....	.....	.....	2(47)
Average .....	57(50)	44(50)	36(49)	83(55)

If in Table 2 we exclude the dementia præcox groups—and we may fairly do so since the diagnosis demands a comparatively early dementia—we get the following averages for the ages in the different classes :

Class 1.....51 years.	Class 3.....54 years.
Class 2.....54 years.	Class 4.....67 years.

So that it seems evident that over and above the factor of diagnosis there enters to a considerable extent the factor of age in which factor probably enters the matter of beginning dementia. Unfortunately I have not as yet had time to change this absolute age of the patient into length of psychosis.

We have considered the accuracy of the scheme on the basis of three possible tests. It is not accurate if we are considering accuracy in the order of chemical or physiological experimentation, but from a clinical point of view and by the order of clinical tests it seems that this system very satisfactorily meets such tests of accuracy as we have applied. Moreover this scheme, since it is a rating scheme, is possible of refinement. In comparison with such other schemes of nurses' notes as I am acquainted with, we are here peculiarly able to make readjustments. This I think is the case beyond question for every category except that of "emotional reaction." I can only say from experience, asking that the reader picture the theory for himself, that the nurse's judgment of the emotional reaction of the patient in reality—mayhap very unconsciously to the nurse—constitutes the nurse's diagnosis of the patient's condition. That is, if an apparent depression enters the house I find the nurse filling in, in *B* (depression with retardation). As the patient shows up more præcox symptoms sooner or later I find the nurse changing her entry to *D* (changing emotional reaction, irritability, unreasonableness). If it be true that medical men differ in their diagnoses, so much the harder is it for the nurse to arrive at some definite conclusion as to the patient's underlying condition. Thus it is that as long as the chart is left absolutely in the nurse's hands, and this I consider essential, it is quite impossible to expect a completely satisfactory handling of the category of emotional reaction. It is possible of course to indicate in

advance under which division the entry should be made, but if this is done any increase in accuracy that we obtain is more than offset by our interference with the nurse's judgment. These charts are nurses' charts. They represent *her contribution* to our research work. To the extent that you give the nurse full rein do you get her best co-operation and after all her best observations, and we should accept a known inaccuracy rather than to in any way impair what I consider to be one of the most fundamental points of value in the scheme.

#### THE PRACTICAL VALUE OF THE SCHEME.

As to the value of the scheme we may say that :

1. In so far as it represents a distinct and valuable line of study, the nurses can feel, and rightly so, that they have a definite part in the research work being carried on at the hospital. The nurse sees in this present system a contribution from her point of view, and I always emphasize, and I do so with justice, that this is a contribution of a very special sort and one which no other than the nurse can possibly make. She knows a patient whom the doctor can never know.

2. The nurses are interested in the progress of their cases and they tend to note little things. We arouse the nurse's interest in taking up the little things that the patient says, in watching little acts for their indications, and to the extent that the nurse does this she becomes more and more a valuable asset to the hospital.

3. The results allow of their employment by the staff, of nurses' data, hitherto not permissible in the written notes. The notes in this scheme give easily referable data. Admittedly any given patient does not fit exactly all of the statements involved in the scheme, but how much more graphic is it to see an entry of "2" jump to an entry of "8" in the category of "taking food," for example, than it is to attempt to read two or three sentences of a note written in long hand. Given this data we may make our inquiries as to the why's and wherefore's of the change. This system makes us ask questions.

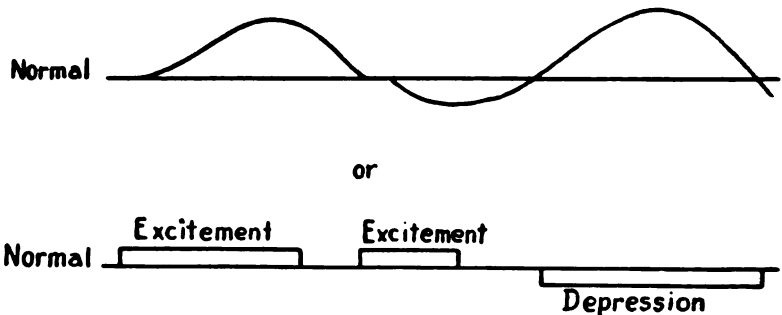
4. The results give a graphic picture of the "progress of the case," indicating, in the combat field, critical points.

## THE PHILOSOPHICAL CONCEPTS INVOLVED.

From almost the earliest philosophical thought comes the cry, "everything flows," nor have philosophical systems, with few exceptions, ever ultimately escaped this dictum. If everything flows, personality must flow. One searches psychiatric literature in vain for any other concept than that dementia præcox patients always remain the same and that manic patients during their excitements remain essentially the same. The blood sugar taken from 50 manic patients is compared with blood sugar taken from 50 dementia præcox patients. It is true that a patient who is dementia præcox holds that diagnosis a year from now just as truly as to-day, but I hold it is fundamental that that patient is a different personality to-day than she will be one week from now. To make a blood examination once, or—as some very daring experimenters have done—even three or four times, to make a mental examination once, or make a neurological examination once, and to consider that these results picture the patients seems to me to be fundamentally fallacious. If it be true that "everything flows" by that much is it true that the patient's condition to-day is of no interest nor is his condition one month from now of any interest—the only matter of interest being the *relation* of the condition to-day to that of one month from now. This seems a simple philosophical concept and yet the literature is full of "blood pressure of 100 manics as compared with 100 dementia præcox"—"blood sugar in manics as compared with dementia præcox," etc. In these studies the determination is made once or perhaps even twice on each patient. They are "cross-section" studies, whereas I am making an appeal for "long section" studies on psychiatric patients. If we are to know the patient, or indeed any person—because this problem is really the problem of the character of life—we must compare the patient with himself and not with any other patient. Where laboratory men have carried on recurrent procedures they have ascribed the variations to error. To a certain extent this may be true, but I doubt if it is half as true as the ascribing of these differences to these changes in personality. If personality changes, if the blood changes, the cells and the thoughts go through cycles as we all live, the study of these changes must be more fruitful in the field of psychiatry than in any other field because with apparent physical

preservation there occur marked swings in personality, so that if there be "curves of life" in all of us, so much more so must they occur in psychotic patients.

It is perfectly true that psychiatrists study the progress of their cases. They know the ultimate outcome of certain syndromes. Why, then, in their careful laboratory work do they compare one point in their progress with one point in the progress of another psychosis? Is there not an absolutely unique field for the laboratory comparison of the daily changes in any one patient? We make this appeal that we may escape from such figures as follow.



Now if it be true that an accurate plotting of the progress of the case represents a significant mode of studying psychiatric cases, it is evident that this rating scheme for conduct over and above its value in the practical realm attains the level of a valuable philosophical notion.

Providing that in conjunction with these curves which we plot for nurses' notes we also plot curves in the field of blood and urine chemistry, and in the field of psychology, it is evident that the possibility exists of plotting a complete organism or a complete personality. It is just as evident that with this the goal we have very much in the way of refinement to carry out in this present nurses' conduct system and we must of necessity add to our psychological and chemical fields of study at least that of a physiologist. However, these practical considerations do not invalidate the theory involved, namely, that it is an *ultimately possible thing to plot*, on given ordinates and abscissæ, *personality*.

Turning entirely to the realm of mathematics we know that any given curve if plotted on an ordinate and abscissa is:

1. Capable of expression by mathematical formulation.
2. Capable of sub-division in the simpler curves.

Fourrier in 1816 made the pronouncement that any curve is completely analyzable into a group of sine curves. The simplest expression of this is of course the analyzing of a sound into simple tones each of which is expressible by a recurring curve of constant amplitude and period. On the basis purely of mathematics we must be able to analyze our curve of personality into a group of sine curves. Whether these sine curves represent mere mathematical tools, or whether they are true expressions of unanalyzable phenomena remains to be seen only through experience. It is my belief that unanalyzable phenomena are expressible by sine curves. We know that in the realm of physics and chemistry this is true, nor should it be any the less true merely because the science of personality is more complicated. All of which things are mentioned because the minute that one assumes such a philosophy the implication of this nurse's rating scheme becomes of tremendous importance. It is our notion that the careful plotting, in the fields of conduct, in the fields of blood and urine chemistry, in the field of psychology, in the field of physiology, of various phenomena will give us curves which are amenable to the following considerations:

1. With weighting they may be added or superimposed to approximate personality.
2. They may be compared—with the notion that those which show a high coefficient of correlation represent phenomena closely linked.
3. Those, and we don't expect to find any of these right away, which are a form of simple sine curves may be considered to represent simple unanalyzable phenomena.
4. More complex curves may be considered to represent phenomena of a more complex sort, and to the extent that this complexity is simple these curves, and correspondingly these phenomena, may be considered as the most productive points of attack in the future.

I am attempting to indicate that this nurse's rating scheme is but the first expression of an attempt to introduce a new philosophy and a new method into the study of psychiatry. The epoch-making work of Fourier, which has been followed later by Galton, Pearson and Urban represents a philosophical notion to which the students of sociology, psychology and medicine have turned a deaf ear. If the doctrine of unanalyzable sine curves be sound, and if, as has been the case, it is applicable to the fields of physics and chemistry, and if mental phenomena represents no more than physico-chemical reactions, then the sooner that we accept Fourier's work and attempt to apply it the better off we are. One may say that the goal is impossible of achievement and admittedly it demands a tremendous amount of labor, but it does not seem that this invalidates the theory, nor should it deter us for what, as I see it, represents the only rational way of solving the fundamental questions involved.

As a practical matter we have our nurse's rating scheme and in conjunction with this in a selected group of cases we are carrying out chemical and psychological curves that represent the merest particle of the beginning, and it is mentioned here only as an indication that the scheme under discussion has as its basis an important philosophical doctrine.

If our mathematical notions are at all correct, it is not necessary to attain that final accurate plotting of personality involved in the previous paragraphs in order to arrive at a very practical result. For if we can with *any* degree of accuracy plot our personality over a period of time it then follows that merely as a mathematical procedure any sector of the curve preceding the time of study can be reconstructed as can any sector which is to follow. In other words, theoretically it should be possible for us on the basis of these and other mathematical studies to reconstruct the patient's past and in turn to prophesy as to the future. On its face the thing cannot be done. We do not hesitate to affirm that if it cannot be done, after thorough effort, we have a proof—and the only satisfactory one possible—of Helmholtz's assertion that the law of conservation of energy does not apply to mental phenomena. If after our curves are made—nor would I minimize that difficulty—



we cannot reconstruct a past psychotic life which fits the history of the patient, we know that we are wrong. Thus the checks upon such a system are applied with ease and accuracy since we know that, if a reconstructed curve based on six months' experience with the patient does approximately represent what the history shows the patient to have been, our system is working. It seems at present that a definite success or definite failure (and our checks are easily made) will give us important conclusions.

There is another, to me important, concept involved in this nurse's rating scheme. I have emphasized earlier that it is a partition, not an analysis of conduct. In so far as this is a *conduct* scheme in every particular it implies personality, thus representing a type of analysis which at no time destroys personality as a whole. As such a type of laboratory analysis over and above its other philosophical considerations, the theory of the scheme is of value.

#### SUMMARY.

We have in this rating scheme:

1. A graphic representation of the progress of the case.
2. A graphic representation of those fields of conduct which fall far below or rise above the general condition of the patient.
3. A system which increases the nurse's interest in her work and her sense of value to the hospital. These are times when every mental hospital is meeting face to face a serious problem as regards nursing. It is high time that we ceased blaming this situation upon economic conditions and on the "newer type of women" and that we accept the fault where it lies, namely, that too much have we considered the nurse as the caretaker, and have felt that our scientific research work might perhaps be more easily carried on without interference from "such a class of people." If this work can mean nothing more, I will be satisfied if it could go as an appeal for more co-operation between the medical man and the nurse in the mental hospital.
4. A fixing or crystallizing of the ever flowing personality so that now we have some replacement of the vague terms that we so frequently have to employ.
5. A chart of clinical progress for a comparison with recurrent laboratory procedures on a few cases. We are starting at McLean

a number of recurrent laboratory procedures and I have looked in vain for any other satisfactory clinical correlation. For instance, as we are studying attentional disturbances three times a week over a period of six months on certain patients and doing the same on quite a number of the factors of blood chemistry, we have in these charts a mathematical statement, however inaccurate it may be to-day, of the clinical progress of the case. We have applied certain tests of accuracy to this nurse's rating scheme and to some extent I have been satisfied with their outcome, yet it is full of mistakes, but if our theory is correct the system is such that it is amenable to correction and to the extent that the theory is correct, these corrections may be final.

6. Such an application of laboratory analysis to the clinical field as is acceptable to the clinician. So long as the consideration in such a system is one of the usual *conduct*, no matter how far you subdivide, it is of necessity also an expression of personality.

7. Such a use of highly correlated data together with the employment of the standard deviation as to yield important information. This may be offered, on a purely mathematical basis, as a distinct contribution to the recognized theory of rating schemes.

8. An application in the field of psychiatry of those philosophical notions which have in the last decade been upheld by Pearson and Urban and which go back to the work of Fourrier. If physics and chemistry and biology can accept and employ the doctrine of ultimate analysis on the basis of sine curves, why cannot we do the same? The search for the unanalyzable curves of psychiatry represent the rainbow's end—the pot of gold—but it is worth the trip and this nurse's rating scheme is serving as the first rough map at McLean Hospital for such a journey.

In the American Journal of Insanity, Vol. 71, page 761, appears a description of "The Behavior Chart in Mental Diseases" by Dr. Edward J. Kempf. This article describes a form of nurse's notes still employed at the Henry Phipps Psychiatric Clinic. There are certain valuable pictorial factors in this form of a chart, which, however, seem to the writer not to involve the same fundamental principles as appear in the chart described in this paper.

## CONCLUSIONS.

This rating scheme for conduct :

1. Interests the nurse in research work that is going on.
2. Makes the nurse and her data an integral part of this work.
3. Gives our psychologist, chemist and pathologist such a frame work and correlation for recurrent procedures as I believe he has had in no other hospital.
4. Approximately indicates critical points in psychoses.
5. Introduces into the field of psychiatric research new philosophical notions and a new mode of attack.
6. Introduces a type of laboratory analysis which does not destroy the wholeness, the unity, of the personality.

It is usual in conclusion to extend thanks to those who have been of assistance. I must do more than that. The nurses at McLean Hospital have more than helped me with this scheme. Without them it would have been absolutely impossible of accomplishment. Theirs has been the labor, nor could I begin to express my appreciation of the fine, loyal attitude they have assumed at a time when the nurses in all psychiatric hospitals are being over-burdened with work. In the way of innumerable valuable suggestions and of laboriously plotting many curves, my wife has been indispensable in carrying on this work. Nor could I let this opportunity pass to express my gratitude to my former teacher, Frederick M. Urban. Those philosophical notions which during his stay in this country he attempted to foster may fall by the wayside, but that will be no fault of his inspiring teaching. For what of value there may be in my philosophical notions I have only him to thank and for what there is of bizarre workmanship and myopic vision in this paper I can only accuse my faulty interpretation of his clear-cut notions on the mechanism of personality.

## EXPLANATION OF CHARTS.

The charts are to a large extent self-explanatory:

The solid black line shows the mental average.

The dot and dash line shows the physical average.

The short dash line shows the limits of the standard deviation for the mental categories. That is, the solid black line is always half way between the two short dash lines. The short dash lines are determined by adding to and subtracting from the mental average the standard deviation.

CHART I.—J. E. C. Female. Age 42. Acute confusional depression. Note:— (1) Early wide standard deviation. (2) Retention of some confusion (as shown by standard deviation) during February. (3) Failure to reach "10" even on discharge being a picture of patient's normal level (never has been above 8 or 9 in "room and attire"). Apparently a beautiful picture of the retention of vague fear and apprehension for some period after the major elements of confusion have disappeared.

CHART II.—E. M. D. Female. Age 59. Chronic circular. Marked manic attacks preceded by a month or so of mild depression. Manic attacks not so marked as formerly but now more frequent. Interval of "normalcy" about 4 or 5 months. Note: (1) During March some lowering of average picturing the mild depression. (1) Few days of normal level early in April. (3) Marked confusion during manic attack from which she is now recovering. If we had similar charts for her earlier attacks there would be many points of interesting and valuable comparison.

CHART III.—B. B. Female. Age 30. Catatonic dementia præcox. Note: (1) Late in January sudden appearance of catatonic stupor on top of what had simulated a manic depressive depression. (2) Marked reduction in standard deviation with the fall in the average. (3) Increase in standard deviation as the average rises again. Compare the reaction of the standard deviation in this type of case with that of the manic depressive or confused group. Notice the very high standard deviation and the wavering of the mental average that precedes the sudden fall.

CHART IV.—M. S. M. Female. Age 29. Dementia præcox who has lived outside for some 8 years despite irritability, unreasonableness, mild ideas of reference, etc. Note: (1) Period of improvement following admission. (2) Retention of fairly high standard deviation even at best period. (3) Steady fall during last three months of average accompanied by tendency for the standard deviation to decrease.

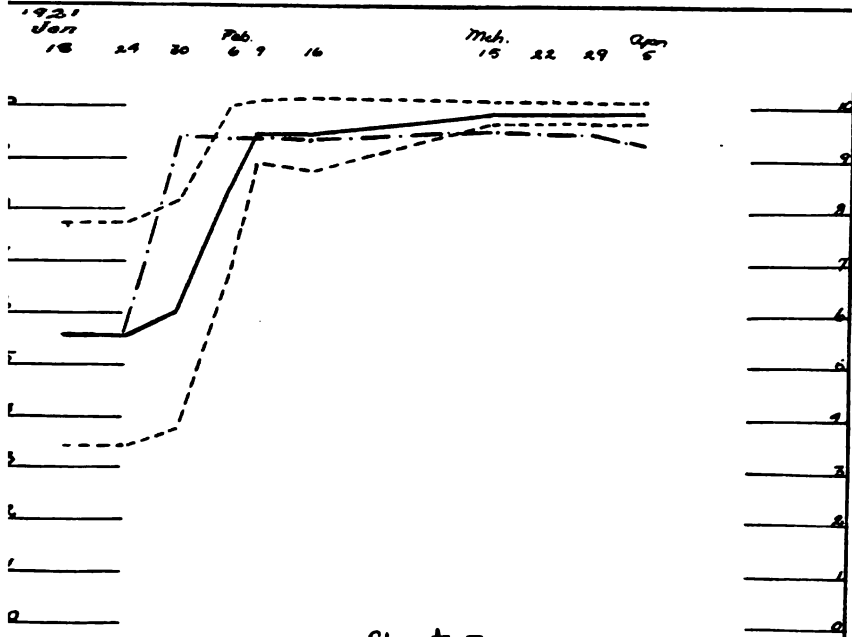


Chart I

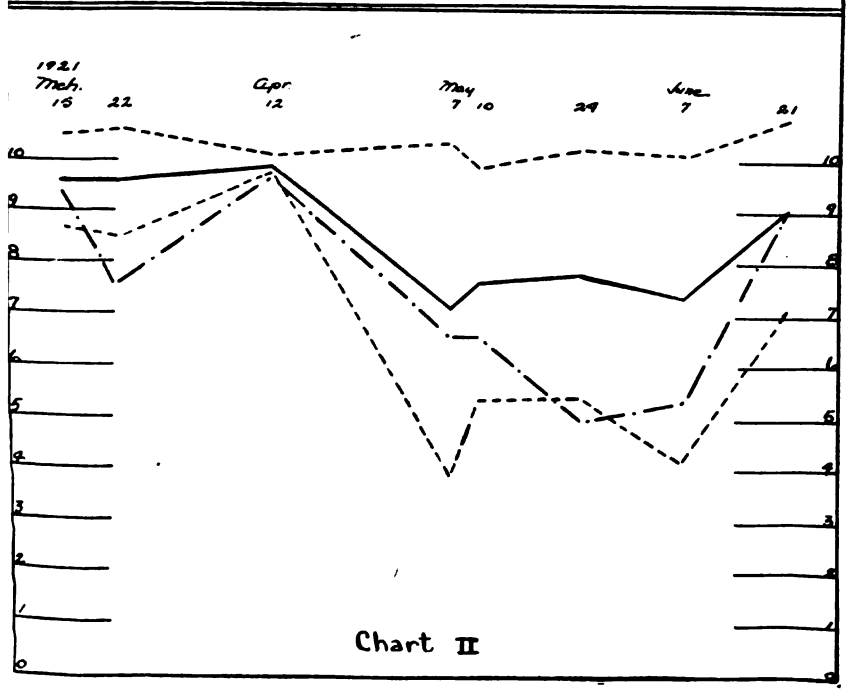


Chart II

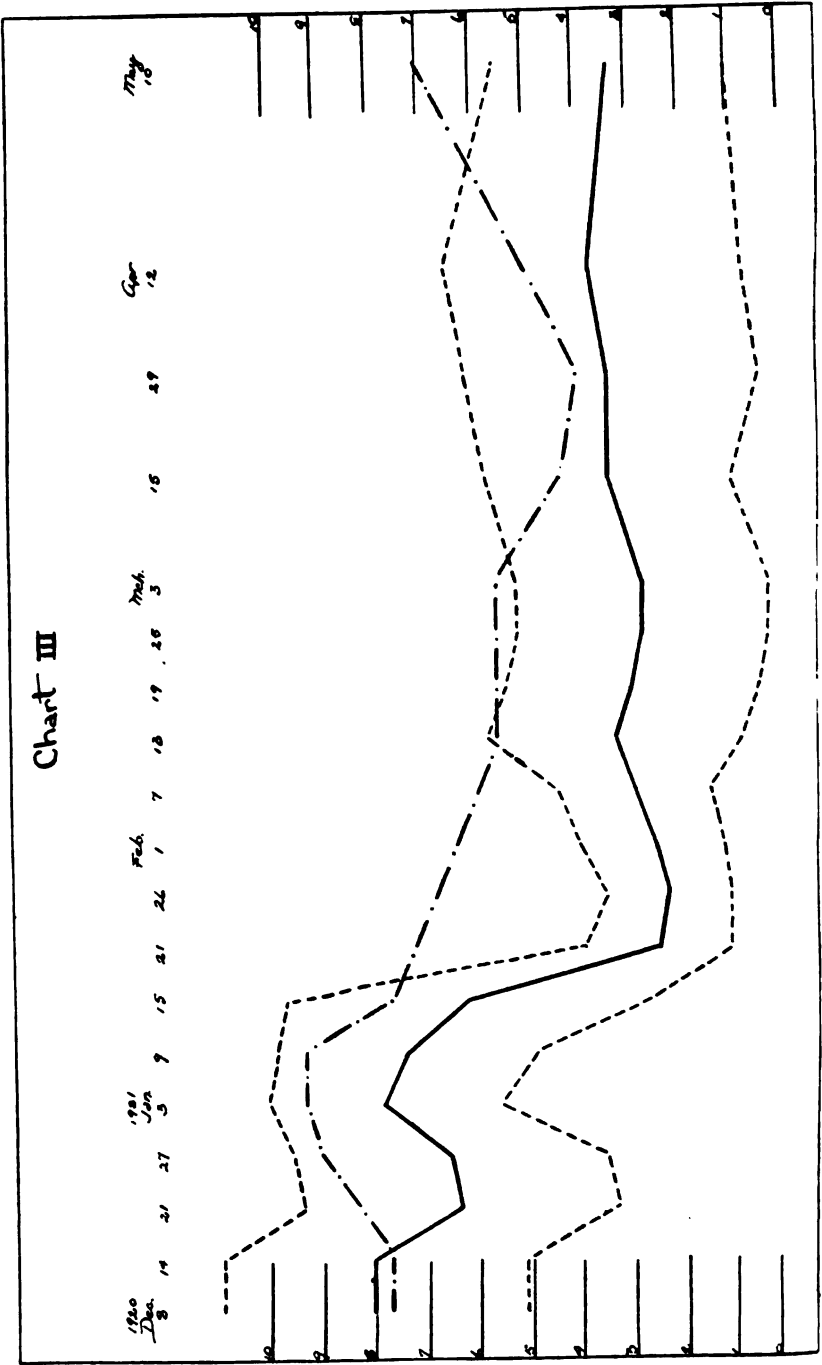
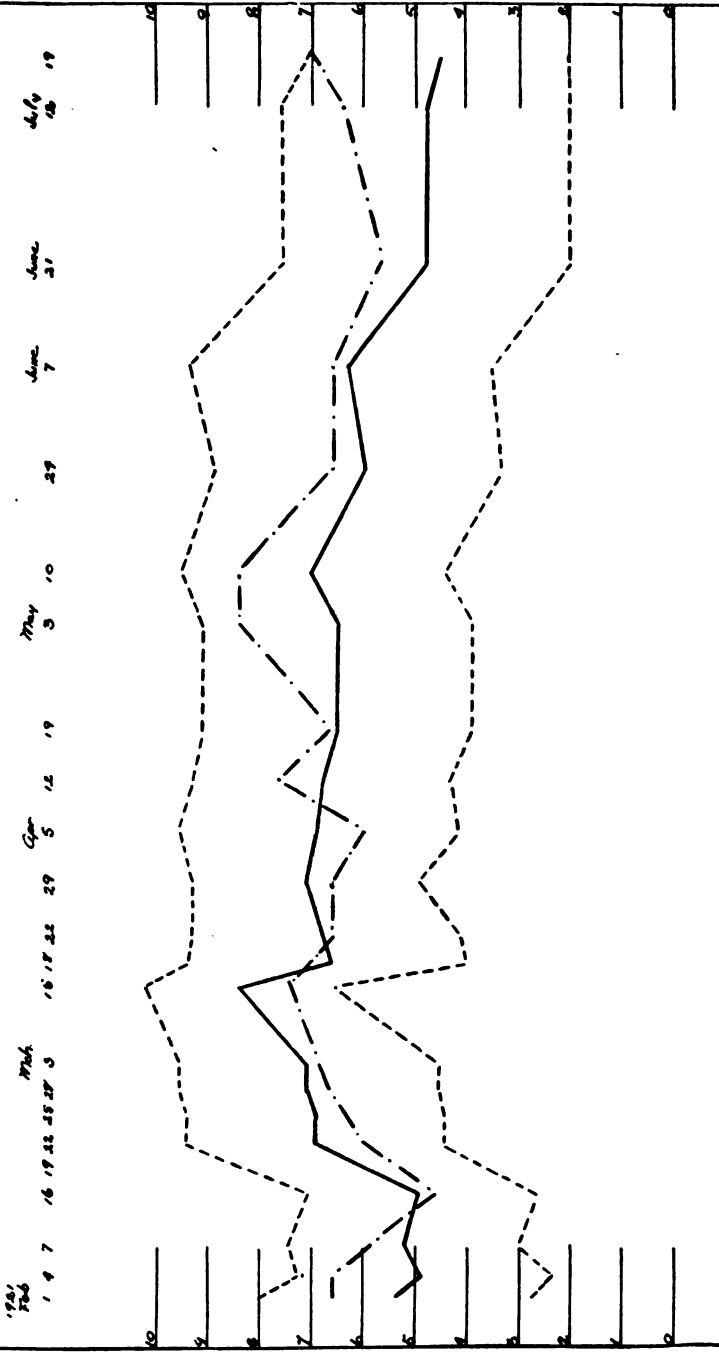


Chart IV



## DISCUSSION.

DR. ABBOT.—This is a very important contribution in this respect: Very many laboratory investigations are made and reported, but often there is absolutely no reference, or very little reference, to the clinical picture with which the laboratory findings are correlated. It has always been very difficult to get a picture, which one can visualize as one can here, of the actual status of the patient in such a way that other laboratory investigations can be correlated with a particular condition, which can be charted. I think it is a very valuable contribution—well worth being carried out and developed further. I want to congratulate Dr. Plant on starting something that is very good.

DR. ADOLF MEYER.—I would like to emphasize with Dr. Abbot the importance of graphic presentations. Most of us have not time to read, always, complete records of cases. If we can express in a graphic form things that happened to the patient, it is one of the best ways of keeping track of the facts and of bringing the physicians and nurses together. Some charts of activities have been kept since the Kankakee days of 1895, but this strikes me as being less static than the activity chart which is now used at the Phipps Clinic.

DR. PLANT.—I have nothing to add, except that I do feel as Dr. Meyer said. This is a much more “flowing” scheme than the others and to that extent it is valuable. The thing that I want to emphasize is that you must get away from the idea of the crystallizing “cross sections” of the patients.



## REVERSIBLE SCHIZOPHRENIA.\*

### A STUDY OF THE IMPLICATIONS OF DELIRIUM SCHIZOPHRENOIDES AND OTHER POST-INFLUENZAL SYNDROMES.

BY KARL A. MENNINGER, M. S., M. D.,  
TOPEKA, KANSAS.

#### ABSTRACT.

*Data.*—Type cases of post-influenzal schizophrenia arranged in ascending order of severity from delirium to dementia præcox. Pertinent literature.

*Deductions.*—Dementia præcox is apparently sometimes a *chronic delirium* (schizophrenia deliriosa). Delirium is apparently sometimes an *acute dementia præcox* (delirium schizoprenoïdes). Both forms are (sometimes) reversible.

*Inductions.*—These two forms may represent an identical process manifested by varying degrees of reversibility of the schizophrenia. The concept "Reversible Schizophrenia" (*cf.* the term "delirium schizoprenoïdes") is not a mere nosological quibble, since it may affect our conception of the nature of dementia præcox. It implies *conditions* of reversibility which we may discover to be under our control!

Delirium and dementia præcox have many points of contrast. Delirium is certainly the oldest psychiatric entity; dementia præcox the newest. Delirium is short, schizophrenia is long. Of dementia præcox books are filled with minute descriptions; of delirium there is scarcely a single satisfactory description extant. Of delirium we possess not even an adequate definition, yet agree unanimously upon its autonomy; of dementia præcox we possess precise definition, and still doubt its existence as an entity.

For all this contrast, we recognize their essential similarity. Thus ever the paradox. They are alike, as I shall endeavor to emphasize, in incidence, in appearance, in nature; and as I do not need to demonstrate, they are alike in that of these two the psychiatric world possesses less real knowledge than any other of the 12 great orders of mental disease.

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

## HISTORY OF DELIRIUM.

Our ignorance of the real nature of delirium is the more strange because of the hoariness of the conception. Perhaps because in its classical form it is of all mental disease pictures the most evanescent, the shortest lived, there is, as I have said, now no adequate definition or description of it. "What is delirium?" asks Hoch, and he remains unanswered.<sup>1</sup>

From the time *de* and *lira* were combined to mean literally "wandering from the furrow," this generic meaning has clung to the word. Through various stages it has passed, such as that now represented by the French word "delire," meaning delusional state, and many other prostituted uses, to this present moment of ambiguity and uncertainty.

It appears that to-day everyone takes it for granted that everyone else knows precisely what delirium is, or at least what he means by "delirium"—so no one defines it, and it remains vague in meaning and indefinite in conception. One recalls the day of Esquirol, Martini, Georget, and Burrows, who as Bonhoeffer points out, were unwilling to regard delirium as within the range of psychiatry!

Let us set down here that we will for the present regard "delirium" as a certain mental disease picture concomitant with and directly dependent upon a more general somatic disease, the psychological features being an irregular dissociated disturbance in all mental spheres—perceptual, ideational, emotional, volitional. The pathologists may insist that an encephalitis is inferred.

## DEMENTIA PRÆCOX AS A DELIRIUM.

Now of course it is not a new thought that dementia præcox may be a chronic delirium—the psychic manifestations of an encephalitis. Southard, Alzheimer and all the organicists in the dementia præcox controversy have held that general view unframed perhaps and not always so expressed. But here we are considering clinical aspects, and there have been clinicians of ability who insisted upon the relationship.

<sup>1</sup> The statistical manual prepared by the committee of this Association defines many syndromes, many pictures, many terms, but nowhere does it define or delimit "delirium," although the word is used on almost every page.

It was none other than the great French psychiatrist Regis, to whom I think it is not inappropriate to here render particular homage, who developed the conception of dementia præcox as toxic or infectious in origin, from a study of its clinical features. He said, they were essentially similar processes—"with the same fundamental symptoms of obtusion, torpor, psychic inhibition, confused and senseless delusions, alternating agitation and stupor. . . ." In his second edition he defines dementia præcox categorically as "the phase of chronicity of all mental confusion not recovering, particularly of those arising in puberty." In his edition of 1909 he flat-footedly asserts that "dementia præcox is essentially a toxic psychosis" and classifies it as a species of "mental confusion," a descriptive denominator of the aberrant mental states accompanying or following acute somatic disease. In this edition he confesses the essential inseparability of dementia præcox and "chronic" (i. e., prolonged) mental confusion. He circumvents the difficulty of pronounced predisposition in dementia præcox by allowing two forms, the "constitutionnelle" and the "accidentelle."

Following essentially the ideas of Regis were Dupre, Deny, and others of the French school, but the idea was perhaps most ardently advanced by Dide, who proposed "to give to the different states (of dementia præcox) the name toxic-infectious psychoses, sub-acute and chronic, primary (hebephreno-catatonic) and secondary (paranoid)." Deny was more conservative but freely conceded that "it is certain there exist very great analogies between the clinical picture of dementia præcox and the states of confusion, of torpor and dream-states which characterize the toxic infectious psychoses, and the autotoxic origin of that affection is rendered very possible by this fact."

It is possible that had Regis adopted Dide's excellent suggestions instead of cumbering his ideas with unwieldy names of cumulative adjectives, the idea would have been projected farther and its impression made more lasting. For the fact remains that for all its apparent plausibility the theory of Regis was left decidedly in the background. True, no less a man than Bonhoeffer (in Aschaffenburg's Handbuch, Leipzig and Vienna, 1912) concedes that "severe cases of catatonia not infrequently begin with the alterations wrought by a fever," and points out that many symp-

toms are held in common by dementia præcox and acute toxic psychoses.<sup>7</sup> But he does not admit of this etiology for catatonia, for dementia præcox, and he is in this negation distinctly in the majority.

In fact, little has been written in support of this work except by the French. Kraepelinian domination more or less eclipsed the French psychiatric products, with the result that an infection toxemia etiology of schizophrenia has been little considered. In more recent times we have been too much concerned with mental catharsis and salvarsan to give the cause of schizophrenia its due in consideration or research.<sup>8</sup> Occasionally an isolated contribution on the matter has appeared, *e. g.*, Cotton, Gosline, Knapp, Hoch. The only progressive work has been done in the field of neuropathology.

Thus dementia præcox in the rôle of a delirium has long been familiar to psychiatrists. Except by the French, however, there has been a tendency to dodge the issue of the phenomenon, by giving the syndrome a name neither delirium nor dementia præcox, to wit: Amentia, confusional insanity, puerperal psychosis, acute confusion, acute hallucinatory confusion, acute dementia, etc. Of a sudden, we in America seemed to recognize these syndromes as schizophrenic, whether associated with hyperthyroidism, which I have recently seen illustrated very beautifully, the puerperium, in the too familiar forms with syphilis, with typhoid, alcoholism, trauma, epilepsy and psychic trauma. I say we have all of a sudden jumped to the admission that these syndromes are *schizophrenic*, and of very late we have many of us made bold to declare them identical with what we call dementia præcox. It is a salutary sign

<sup>7</sup>“Of the infection psychoses and catatonia, it may be said that any and all symptoms of the one may occur in the other.”

<sup>8</sup>Thus it was, at least, until the very present. But note the sudden change in conception implied by the program of this very meeting. Of nine speakers scheduled for this date, dealing with the nature of dementia præcox, six are frankly taking the position that we speak only of a syndrome, and that this syndrome may be the manifestation of numerous somatic ills and exogenous toxins, as well as of an idiopathic endogenous psychosis of the familiar stamp. It is as if we had all been simultaneously converted from the conventional Germanic to the previously ignored French conception. Most striking is the fact that it would seem as if we were of a sudden all agreed in our revolt.

when we lay aside an assumed technique of discrimination and flatly declare that whether or not this or that picture *ends up* as our classical (Kraepelinian) dementia præcox is supposed to end up, it is nevertheless indistinguishable in cross-section from the picture which is schizophrenia.

#### A PROPOSED CLASSIFICATION BY PROGNOSIS.

A very practical standpoint is, I suppose, concerned more with prognosis than with diagnosis. Even those who are not disposed to favor my conception of a reversible dementia præcox will not gainsay the fact that influenza, the war, and an increase in the analytical approach to psychiatry had made the old conception of eventual dementia for all cases of schizophrenia no longer tenable. We must grant in view of such studies as those of McPherson and Hohman ("The Diagnosis of 'War Psychoses,'" *Archives of Neurology and Psychiatry*, August, 1919, Vol. II, pp. 207-224), Austregesilo and many others that many of the cases we have called dementia præcox have not deteriorated and will not dement. I propose to these pragmatic persons for whom facts are of more interest than theories that we are at the present time wholly justified in recognizing for dementia præcox three prognoses, or if you will, three types of dementia præcox based on the prognosis, viz.:

1. The type illustrating Kraepelin's original premise of ultimate irrevocable total dementia.

2. A group on which the acute manifestations of dementia præcox occur in waves or attacks clearing up in large part so that the patients are often discharged recovered, but return sooner or later in one or many subsequent episodes much after the classical fashion of manic-depressive psychosis.

3. A group of cases presenting the syndrome of schizophrenia, but arising upon variously constructed soils and precipitated by a variety of incidents; clinically called dementia præcox, but which, after a relatively short time, make what is apparently a complete and permanent recovery.

Obvious as this prognostic partition is, the fact remains that we persist in a grim determination to crowd our individual cases into a nosology of hebephrenic, catatonic, paranoid, and simplex pigeon holes regardless of the uselessness (to say nothing of the doubtful-

ness) of such classification. The pragmatic point to grasp is the existence of a phenomenon which I propose to ally to the chemical process known as *reversibility*. I contrast this chemical metaphor with the time-worn physical conception of organic and functional, the strictly clinical attitude of benign and malignant trend, and the futile fallaciousness of alleged cause and effect. It seems to me a grave question as to whether any of these have ever helped us very much. Abstractly chemistry, in so far as it can be considered apart from physics, is the realm in which brain processes carry on and there is at least some logic in looking to it rather than to physics for an explanation of fundamental phenomena. From the philosophic standpoint there is the pragmatic justification that a recognition of the reversibility of the schizophrenic process may stimulate us to a further study of the conditions favoring this reversibility.

#### DEDUCTIONS FROM INFLUENZA DATA.

It remains now to report the data from which these conclusions were drawn. The series of cases of psychoses associated with influenza 'upon which previous studies' have been published afford a splendid advantage in the study of schizophrenia with particular regard to its reversibility and its relation to delirium. Hence I turn with advantage to this material, presenting first a summary of our deductions and then a series of cases.

Influenza, like the other somatic ills discussed on this program, can apparently in some mysterious way so affect the brain, normal and predisposed, that the syndrome of dementia præcox unmistakably appears. That this psychosis is sometimes transient, sometimes permanent, will appear from further discussion. I submit that it appears in two (or more) guises, with a distinction but perhaps no difference. Sometimes we are faced by what seems to be a simple delirium, coming on with the somatic illness or directly after it, in the familiar, classical way. Delirious features, *e. g.*, perceptual obnubilation and active visual hallucinosis, are con-

\*These cases are taken from our series of post-influenzal psychoses, studied at the Boston Psychopathic Hospital, 1918-1919, in association with E. E. Southard and Lawson G. Lowrey.

\**Vide*, Arch. N. & P., September, 1919, and January, 1920; J. A. M. A., January 25, 1919, and October 16, 1920.

spicuous. But these symptoms persist, and there develop more and more the stigmata of dementia præcox, and of chronicity. Our usually too favorable prognosis is belied by this outcome. I have termed this form "schizophrenia deliriosa."

The foil thereto is the "delirium schizophrenoides" which others confirm having seen frequently in the recent epidemics. It is a psychosis arising in close association with the somatic illness, but so colored with the hues and tints of schizophrenia that one feels obliged to give a pessimistic prognosis which is usually belied by the further course of the disease, namely, its eventual disappearance.

I maintain that these two forms are not essentially different. It was our clinical experience that many of the acute post-influenzal psychoses were seriously difficult problems in differential diagnosis, and still more difficult problems in point of prognosis, and that our mistakes seemed to be largely mistakes along the lines indicated by the above two groups. We shortly profited by this, however, but found ourselves in the dilemma of being unable to decide at all as to whether specific cases were delirious or schizophrenic (*i. e.*, waiving the possibility of their being both, which of course was my ultimate conclusion).

Concisely, I may state my conclusion that between the mildest attack of simple delirium and the most profound dementia of late schizophrenia, there is a progressive gradation, not in the intensity of schizophrenic symptoms present (since these are variable products of little prognostic significance), but *in the degree of reversibility*. By the degree of reversibility I mean the potentiality for recovery. I am persuaded that dementia præcox (schizophrenia) is at least in most instances a somato-psychosis; *the psychic manifestations of an encephalitis*.<sup>9</sup> The acuteness or

<sup>9</sup> This conception is receiving unexpected support from the epidemic of encephalitis. There has been in the literature repeated mention of the cases of encephalitis closely resembling in symptomatology acute schizophrenia. There have been several articles specifically discussing this point, for example:

Bond, E. D.: Epidemic Encephalitis and Catatonic Symptoms. AMERICAN JOURNAL OF INSANITY, Vol. 76: 261, Jan., 1920.

Bourges, H. B., and Marcandier, A.: Catatonic Delirium in Epidemic Encephalitis. Bull. et mem. Soc. Med. d. Hop. de Paris, 44: 685, May 14, 1920.

chronicity, the benign or malignant nature of this encephalitis perhaps determines the degree of reversibility of the schizophrenia. In this it is allied to the clinical features of many other organic brain diseases, *e. g.*, cerebral hemorrhage. Even these, indeed, might be conceived as having degrees of reversibility.

It is on this basis that the pragmatic classification of dementia præcox by prognosis as proposed above is theoretically supported. Diagnosis is chiefly useful for prognosis. Prognosis depends on reversibility. It remains then to determine the conditions of reversibility. They are the touchstones of treatment!

#### CASES.

To concretely illustrate my point, I shall present a few representative cases of post-influenzal psychoses, schizophrenic in type, and varying in degree of reversibility from 100 per cent to 0.

CASE 1.—Illustrating the extreme form of "delirium schizophrenoides," a schizophrenia the reversibility of which was in this case canceled by death, but which is clinically so typical as to be a good illustration.

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Sicard and Bollack: Catatonic in Encephalitis. Bull. et mem. Soc. Med. d. Hop. de Paris, 44: 262, Feb. 20, 1920.

Wilson, S. A. K.: Epidemic Encephalitis. Lancet, 2: 7, July 6, 1918.

Hall, A. J.: Epidemic Encephalitis. Brit. M. J., 2: 461, Oct. 26, 1918.

Batten, F. E., and Still, G. F.: Epidemic Stupor in Children. Lancet, 1: 636, May 4, 1918.

Tilney, F., and Riley, H. A.: Epidemic Encephalitis. Neurol. Bull. 2: 106, March, 1919.

Some of this material has come to my attention since this paper was read. A very recent publication (Urechia, C. I., and Rusdea, N.: Schizophrenoid Cerebral Syphilis. Encephale, Paris: December, 1921, Vol. 16, No. 10) from Roumania from an entirely different standpoint adds a stimulating confirmation. In fact, so many of their points are directly confirmatory that a brief abstract (J. A. M. A.) is worth appending. They "cite authorities and their own experience to confirm the point that the symptoms of dementia præcox may be observed in the course of syphilitic disease of the brain and general paresis. These schizophrenoid symptoms may be transient or durable. In one case, from onset to death, the clinical picture was that of dementia præcox through the entire six-year course. Cases are known up to twenty years' duration, and lumbar puncture or necropsy first cleared up the diagnosis. Catatonia is evidently the result of a certain injury of a certain part of the brain, but the morbid agent causing the injury need not always be the same."



File No. 12157. F. H. A Spaniard of 25, whose family history was negative save for the following interesting point: Two months previously his brother, following influenza, had seemed queer and indifferent, then excited and suicidal, possibly homicidal. He was committed to a state hospital, where he cleared up and was discharged after a few days.

P. I. The patient himself had apparently always been well until 10 days before admission, February 14, 1919, he developed influenza. It was thought at the Boston Homeopathic Hospital that he would not live, his temperature remaining at 105 for two days. He was disoriented and actively hallucinated, "fighting and killing Germans and singing a good deal." He was brought to the Psychopathic Hospital strapped to a stretcher.

*Examination February 24.* He was admitted shouting, fighting, imitating numerous animals, laughing, making odd gestures with his hands, accompanied by snatches of singing. *Physical examination* so far as could be obtained was negative except that there was an absence of pupillary reaction to light and the knee-jerks could not be obtained. The spinal fluid was entirely negative, as was also the blood Wassermann. The blood culture was negative, the leucocyte count was 22,000, 91 per cent being neutrophilic polymorphonuclears.

*February 25.* The patient continued to be resistive and totally inaccessible. He was markedly denudative, stripping off his clothes. He exhibited countless mannerisms, rolling about the floor grimacing, gesticulating, etc. He was untidy in his personal habits. He kept up a constant stream of unintelligible speech, and was extremely noisy, yelling and pounding on the door at times.

*February 26.* Temperature returned to normal. Patient still nude, noisy and untidy.

*February 27.* Condition as before. He showed typical stereotypy and negativism. He lay in fixed position, *e. g.*, facing the sun, and would not be otherwise. At times seemed euphoric, laughing and grimacing, buzzing and gesticulating.

*March 3.* The patient remained in the same state. He was very destructive to his clothing and was kept most of the time in prolonged baths, splashing, shouting and muttering unintelligibly. A small abscess on the left knee had healed, but another on the inner side of the left arm increased markedly and was opened under ether.

*March 5.* His agitated, resistive negativism, destructiveness, untidiness and noisiness continued. He failed rapidly and died at 3 o'clock. Results of an autopsy were not furnished by the county examiner.

CASE 2.—Again illustrating delirium schizophrenoides; schizophrenia with fairly complete reversibility, recovery occurring shortly and completely.

File No. 11484. *Abstract.* An attractive girl of 12 contracted influenza, followed by pneumonia, terminating three days prior to her admission. Simultaneously with her recovery she became acutely psychotic, laughing, crying, excitable and unmanageable, deluded and hallucinated.

At the hospital she sang or chattered incoherently and unintelligibly most of the time, was deluded, hallucinated, noisy, silly, stereotypic, autistic, negativistic, constantly denuding self. She was superficially accessible, but so irrelevant as to make examination impossible. She was committed with a diagnosis of dementia præcox. (Author's abstract at the Psychopathic Hospital):

"Upon her admission October 20, 1918, she was apathetic, speech disconnected and irrelevant and she admitted both auditory and tactile hallucinations. She grew more disturbed, disorderly, noisy, much confused at times and had sudden outbreaks of violence. After a few months she improved, was pleasant and agreeable and in fact seemed fairly normal. Discharged August 3, 1919. Condition: Improved. Diagnosis: Dementia præcox, hebephrenic type." (Subsequent history from Westborough State Hospital, Dr. W. E. Lang, Superintendent.)

CASE 3.—Illustrating again the syndrome of delirium schizoprenoides, the schizophrenia probably equal in reversibility to those preceding, for the recovery, while somewhat slower, was apparently more complete.

*Abstract.* The mother of capable school girl of 20 had a psychotic episode during a premature menopause, but was normal thereafter. The daughter herself had recently been burdened by new duties of considerable responsibility. She developed influenza and was ill ten days, but not delirious. A few days after arising she became depressed and fearful of death, immediately following a chat with a "religious fanatic of the neighborhood." A week later she suddenly stopped conversing, and remained mute thereafter except for a few brief quasi-normal periods. Conduct disorder was limited to such as running into the street in her night clothes, misusing the piano, etc.

Here she was apathetic, resistive, stolid, mute, completely inaccessible, hypokinetic, occasionally smiling in a silly fashion, and completely indifferent.

A unanimous diagnosis of dementia præcox was made by the staff. (Author's abstract at Psychopathic Hospital.)

(Subsequent history from Westborough State Hospital):

"She was admitted November 19, 1918. At that time she was mute, resistive and difficult to keep in bed. Later became talkative, silly and much deluded. About nine months after admission, however, she improved markedly, had fair insight into her condition, but remembered practically nothing from the time she had influenza at home until she found herself in this hospital. Discharged September 6, 1919. Condition: Recovered. Diagnosis: Dementia præcox, hebephrenic type." (W. E. Lang, Superintendent.)

CASE 4.—Still another similar case; but one in which the reversibility, although of high degree in point of completeness, seemed slow.

File No. 11478. *Abstract.* A Jewish boy of 17 had influenza lasting 14 days. Three days after he arose from bed he was observed to be whispering to himself. This gave way to talkativeness and evidence of delusionary ideation, and this in turn to a state of hyperkinesis, exhilaration, flight of ideas with occasional emotional swings, and possibly some hallucinations and fixed delusions, all accompanied with much excitement. All these symptoms simultaneously subsided rather quickly on the fifth day. At that time a provisional diagnosis was made of "dementia præcox, 4; manic depressive, manic, 3; undiagnosed psychosis, 2." The diagnosis of dementia præcox was based on the fact that much, if not all, of the patient's excitement was autistic, and he seemed to react little or none to external stimulation. After the fifth day he was accessible, pleasant, but amnesic for recent events.

Final diagnosis: "Undiagnosed psychosis, probably dementia præcox." (Author's abstract, Psychopathic Hospital.)

(Subsequent history from Westborough State Hospital):

"Admitted to this hospital October 26, 1918. He was talkative, noisy, untidy in habits, disturbed the other patients and would not keep himself properly clothed. His improvement was gradual and he was furloughed April 10, 1919. Condition: Improved. Since that time he has reported at the hospital several times and has seemed in practically normal mental condition." (W. E. Lang, Superintendent.)

CASE 5.—A case in which the schizophrenic process was somewhat less completely reversible than in those above.

This case was described in full in a previous article. The essential facts are these: A woman of 34 of negative family history and previously normal personality (including rather hyper-sociability) developed influenza and during the second week began to be grossly deluded and hallucinated, screaming, laughing and singing, claiming supernatural power and insisting that she was God and her child the devil. Her temperature fell to normal, but her psychosis continued and she was very disturbed for a time, followed by a period of inert apathy. All the while, however, she was markedly schizophrenic. After 30 days she had become quite well behaved, but showed depression, suspiciousness and some slowness of grasp. She was seen two weeks later and her attitude was distinctly paranoid although she and her mother insisted that she was entirely well. She was seen subsequently in the out-patient department and has seemed about the same.

CASE 6.—A similar case of incompletely reversible schizophrenia. Recovery in this case was incomplete like the preceding and occupied somewhat longer time.

File No. 1177. *Abstract.* An Irish girl of 25 with negative family history was the second born of twins and the stronger of the two. She had had to repeat the 3d and 4th grades but had progressed as far as the 7th. Her

habits were good. Her own temperament and personality are described by her sister as follows:

"She was always quiet and does not care to go out very much. She is sensitive but not suspicious. Cares very much to have everything neat and clean—is good natured and always wanted to please others. She is usually melancholy and when happy is abnormally so. She had a few good friends. Liked music, theatre and reading."

During November she had been feeling rather "melancholy" and was in bed two weeks. She was "exuberant" upon being allowed to leave her bed, but the same day she had a chill and seemed frightened, thought she would die. Did not seem well, although was fairly quiet. The next day was nervous and excited, seemed to stare and was self accusatory. Continued so several days, then asked to be sent to a hospital. Said that her "nerves" were sick. She was sent to a private hospital. There she slept better, but seemed more "excited," never unmanageable. Heard a bell and thought it was the police coming for her. Self persecutory and paranoid. Said that she would be blamed for disturbing the patients, although, as a matter of fact, she had been quiet. No evidences of memory impairment or "irrational talk."

Here she was from the start practically inaccessible, making no coherent replies to questions. At times she expressed paranoid delusions, and had some self-accusatory ideas. Hallucinations were not proved. Memory was not tested. Thought processes were shattered. There was marked blocking, frequent irrelevancy, and much incoherency. Blocking, however, predominated. Emotional tone seemed to be that of apathy and indifference; some thought apprehension was more marked. Motor status showed a restlessness over rather a wide range, but no gross misconduct.

The physical examination and laboratory findings were entirely negative.

The following notes afford something of a side light on the picture presented:

When the patient was first seen she explained that she was "just very silly." She would run up and down the hall in a silly manner. She was sorry, but she hoped we wouldn't punish her for such silliness. In a brief interview at that time she seemed, while not thoroughly normal, in a much less disturbed state than later. Thereafter, she was never accessible; only at times was it possible to get anything whatever from her. At these times she would approach the examiner and begin some such phrases as this: "You are not going to punish me for all those things, are you, Doctor?" When examiner would ask what things she referred to, no reply would be elicited and nothing could be obtained. On one such occasion the nurse immediately afterwards inquired from her what misconduct she referred to and she said that she had left the room in a disorderly condition. This sort of a reply is typical of the few fragments which we were able to obtain. For the most part she wandered about with an expression of dazed bewilderment, her mouth half open, her eyes staring. She was a good example of what some writers describe as confusion. She would

obey simple commands, but slowly and irresolutely. She reacted with considerable diffidence and outcries to lumbar puncture procedures, for example. She wandered up and down the corridors a great deal, standing about in a motionless attitude, gazing at what was going on about her, always in a sense of bewilderment and yet with a distinct element of interest in her environment.

At no time was she noticeably misbehaved.

*December 10.* Patient continually tried to get up and walk away, explaining that she was "tired out," "has arranged with that fellow—told those folks, I would be there." She would explain none of these remarks. Wore a dazed, uncomprehending expression. Told the examiner to talk to the nurses. "I am all right." Moved slowly and irresolutely, but was persistent in trying to escape from the room. Frequently stooped over to adjust her stockings, without concern or embarrassment. Fumbled the door knob and told the nurses she had been turned out.

*December 12.* "Much the same. Nothing could be learned from her. She returned only a bewildered stare."

*December 14.* "Mute except for occasional irrelevant and incoherent remarks, such as 'You know, Doctor, those people that were in to see me were—I thought that was—you know. . . .' Wanders about mute, save for occasional fragments, *e. g.*, 'You won't accuse me of all those things, will you, Doctor?'"

*December 16.* "Patient to-day wandering aimlessly about the ward. For the first time responded rather freely to questions. Is approximately oriented for time, precisely for person. Has a dazed and bewildered air. Memory is unimpaired. Tells of hallucinations and of difficulty in thinking. This difficulty in thinking is objectively marked, as she showed retardation and at times what seems to be blocking. She is slightly suspicious of the examiner. There is a moderate cyanosis." (Author's abstract, Psychopathic Hospital.)

Ring's Sanitarium gave the following: "Patient was committed to Westborough from here December 28, 1918, with the diagnosis of toxic psychosis. Her condition had cleared somewhat and she seemed a little brighter. She would not eat unless urged. Did not think she was ill at any time and wanted to be at work. She resisted all efforts they made to care for her."

(Subsequent history from Westborough State Hospital):

"On admission, December 30, 1918, she was quite confused and inactive, refusing to answer questions. During the next three months she became gradually brighter and took more notice of what transpired about her; was retarded in speech and motion. Her improvement was continuous but slow and gradual. On May 9, 1919, she was deported. Diagnosis: *Dementia præcox, hebephrenic.* Condition: Improved."

CASE 7.—Illustrating the least positive degree of reversibility of the cases of schizophrenia here cited. This is a fair example of schizophrenia deliriosa.

File No. 11842. Female, born in Nova Scotia, age 18.

The family history is quite negative, except for poverty. Patient herself was considered "a very smart child," but left school at 15, seventh grade, because of a sick mother. She was pregnant when married, at 16. In personality she was "not like other children," but quiet, "no friends," irritable, but industrious.

Prior to influenza, three weeks before admission, however, no trouble was suspected. During convalescence she complained of being ill, but poured the doctor's prescription out. Soon afterwards she began to talk much of various delusions centering around an idea that she had been kidnapped from rich people, brought up with poor ones, and that she has been thus swindled out of her money. Shortly before admission, she suddenly jumped from the window and showed other impulsive manifestations.

Here she was irritable, very suspicious, deluded, probably hallucinated, and showing great variation in emotional tone, from abusive excitement to complacent calm, and in motor status from narrow range hyperkinesis to quasi-normality.

Physical and laboratory examinations negative.

She was committed December 30, 1918, as schizophrenia paranoides. (Author's abstract at Psychopathic Hospital.)

(Subsequent history from Worcester State Hospital):

"Attitude and manner: Patient is quiet, rather indolent, sits in chair with her hand on the back of her head complaining of some pain, neat in dress, quiet in her demeanor, slow in her answers.

"Oriented for person and place but not for time. Fair grasp on surroundings. Memory for recent events poor, for remote events good. Limited grasp on school knowledge. Calculation poor. Reads slowly, laboriously, and does not comprehend. Writing legible.

"She says she was taken to the Psychopathic Hospital because she had what she considers a bad disease; thinks it has been the cause of her trouble. Says that she gets along well with everyone except her husband. Accepts her situation in life rather indifferently. Denies that she ever thought her father had money, says he is a poor, struggling man. Says that she remembers jumping out of the window because she was afraid of her father, but does not know why she was afraid of him. At times she seems rather confused and unable to answer physician's question and a few minutes later can give a direct answer. Very sober and never smiles, inclined to be depressed. At present lounges around, unoccupied, at times confused—smiles foolishly to herself." Diagnosis: Dementia præcox, hebephrenic.

CASE 8.—A case illustrating total lack of reversibility.

*Abstract.* Female, 27, Irish. Had influenza six months ago, in bed 13 weeks. Previously she was happy and sociable and had not been considered peculiar. Since that time she had been very much so; for example, "purchasing four hats and tearing them up." She also expressed paranoid delusions, but when examined for these in hospital assumed a

suspicious manner and answered evasively. She showed mild indifference, but no disturbance of speech, psychomotor activity or thought processes. She practically admitted hallucinations.

Physical examination was essentially negative. Laboratory examination was wholly negative, including spinal fluid, urine, blood serology and cytology.

Psychometric examination gave her a mental rating of 8.6, with variation total of 15.

(Subsequent history Westborough State Hospital) :

"Admitted May 31, 1919, with a history of having been well until she had influenza in September, 1918. She was quiet in manner, depressed, tearful and at times practically mute. She grew gradually untidy, resistive and at times violent without provocation and was often seen laughing and talking in reaction to hallucinations. She continued to deteriorate. December 17, 1920, she was transferred to the Medfield State Hospital. Condition: Not improved." (Dr. Walter E. Lang, Superintendent.)

(Medfield State Hospital, Dr. E. H. Cohoon, Superintendent) :

"Our records show that Bridget is a case of dementia præcox, hebephrenic. Her physical condition is excellent. Mentally she is deteriorated. Consciousness is clear, but she is oriented only for person. She is destructive to clothing and untidy in habits and person. She is both hallucinated and deluded." (Case 131 in series.)

(For conclusions see section preceding case histories, Deductions from Influenza Data.)

#### DISCUSSION.

DR. WITTE.—I am interested in Dr. Menninger's paper, since I have in the last few years had considerable experience in that line. After the disastrous epidemic of influenza in the fall of 1918, and after the crest of the epidemic had receded, and the trouble had on the whole practically subsided, within a few weeks a considerable number of acutely delirious patients came under my observation and care. Some of the older people came in having a good bit of delirium with considerable psychomotor restlessness. With the younger people the delirium was intense, with deep confusion and great and sustained agitation, and very much similar to the grave delirium we formerly knew as acute delirium, grave delirium, or the typho delirium of Bell. And in a few, it must be said, some of the phenomena we associate with dementia præcox were also observed, but we did not look upon any of these cases as dementia præcox, but called it infection delirium, a poisoning of the cortical neurons by the toxins of the influenza bacteria. The first six weeks some 35 cases came in. Afterwards the number dwindled away rapidly. After experience with the first few cases I was able to assure the anxious friends of patients that they would get well, provided we could keep the patient alive. They did, without exception. We lost none of them; some were ill two or three months, however. One patient, whose trouble

was evidently aggravated by the flu, died, but as a result of the re-flaming of an ancient tuberculosis. It had been quiescent evidently previous to the onset of the flu. Besides those coming to the hospital, I was called into consultation by other physicians in the neighborhood, and some of these cases were very grave, apparently from the very beginning, but they also recovered very nicely.

As to dementia præcox, I personally know that cases of real dementia præcox do get well, and this in a considerable number. In a state hospital, with all sorts of patients coming in under all sorts of conditions, and many of them really unfavorable, we could hardly expect to equal the record of Dr. McCarthy, who had exceptional opportunity in the selection of cases. I want to be put on record that often in a state hospital, with no opportunity for selection, and perhaps some other handicaps, the record is not at all unsatisfactory or discouraging. Someone said to me some time ago: "It must be disagreeable to care for these patients; there is no outcome." I said: "You are mistaken; we send many of them home cured." As a rule, we send home as well one out of every three patients, and during one biennial period our record of the recoveries was as high as 45 per cent, calculated on admissions within the two-year period, many of these being incurable from the very beginning, such as senile and organic cases. These cases who get well go home and remain well at home, provided they find improved conditions at home. It must be said that often adverse and irremediable conditions contribute to bringing on mental disturbance, and the patient who gets well at the hospital may be unable to maintain his mental health under old conditions at home, which helped to bring on the trouble in the first place.



# EMOTIONAL STATES AND ILLEGAL ACTS IN CONNECTION WITH SCHIZOPHRENIA.\*

By JOHN RATHBONE OLIVER, M. D.

## INTRODUCTION.

Anyone who has labored through the "literature" dealing with the "psychobiology" of the late war must have noticed how many of these books and addresses deal with various types of emotional states or of peculiarities of behavior under great emotional stress, whether the books in question be written in English, French or German. It almost seems as if a great war had been necessary in order to supply us with the possibility of studying certain mental conditions that arise from the emotional overburdening of the personality. There is, however, another sphere of everyday life which is always with us, and in which interesting types of emotional states can be studied under conditions that permit an almost perfect opportunity for prolonged observation and analysis. There is another war, which is constantly being waged by the individual against society, in which the individual pits his intelligence, or his strength, or his shrewdness against the laws which society has evolved for its own protection. The thief who carries out a carefully planned burglary in the dead of night is subjected to the same emotional tension to which a soldier in the trenches is subjected when he creeps out with his few comrades for a night attack on the enemy. The man who commits murder, either with premeditation or on the spur of the moment, is exposed to emotional conditions similar to those of the soldier who kills an enemy in action. Indeed, the emotional stress and discharge connected with the commission of some crime is even more intense than that involved in the line of battle. In the latter, the soldier has a knowledge that he is acting under the orders of someone else, and that

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he is surrounded by comrades who are sharing the same dangers and obeying the same orders. The man or the woman, however, who defies the laws of society, acts on his own initiative and frequently alone.

The station house and the jails in which people are detained, who have been arrested while their minds are still in a turmoil after the commission of some illegal act, are the true laboratories in which the results of emotional tension, either of short or of long duration, can be most satisfactorily studied. It is because my own work as Chief Medical Officer of the Supreme Bench of Baltimore has been done for many years in just this type of human laboratory that I am bold enough to present to you a brief comparison of certain emotional states with the emotional disturbances of schizophrenia.

I find that certain types of emotional states in the non-insane can be most easily explained by postulating a disturbance of the normal balance that exists between the various functions and secretions of the ductless glands. At the same time, in examining those symptoms of schizophrenia, which are confined to the affective life of the patient, I find a lack of emotional balance and a disturbance of affective equilibrium, which suggests to me the possibility that these schizophrenic states may also be caused by some faulty functioning of endocrine activity. The facts involved in this similarity between these two types of emotional states are, at least, suggestive. At least they may lead us to suspect in our schizophrenic patients an impaired endocrine equilibrium. And our efforts at treatment should logically be directed toward a restoration of this equilibrium by such means as are present in our power, while we look forward to even more powerful methods which the laboratory of the endocrinologists will surely some day bring us.

#### TYPES OF ILLEGAL ACTS PERFORMED UNDER GREAT EMOTIONAL STRESS.

It is a common experience for the medical officer of a criminal court to hear from some delinquent accused of a serious crime that he has actually no definite memory of the act committed and to discover that he is unable to give any dependable description of it. In the old days such statements were brushed aside as a useless

attempt by the accused to exonerate himself when all other excuses failed. At present, in following up statements such as these, one can often demonstrate most clearly that the delinquent is simply stating a fact; that at the time of his illegal action he acted under such an overcharge of emotion that the higher centers of cerebral activity ceased to function and that a more or less complete amnesia is really a symptom of certain types of intense emotional reaction. Loss of all reasoning power, of all power of mental restraint; imperviousness to external stimuli, however painful they may be; intense physical exhaustion followed by a leaden sleep lasting for hours; all these are outstanding characteristics of the emotional states that may be observed in men and women fresh from the commission of some serious crime. I have studied and analyzed a large group of people exhibiting such symptoms from among the continuous stream of delinquents who pass through my hands as court medical officer from day to day. This group comprises all sorts of offenders, from the shoplifter, who steals a few yards of silk ribbon, to the most brutal and gruesome of murderers. It includes many types of mental reaction, from the sensitive, highly organized, somewhat neurotic woman of the leisure class, to the dull, uneducated laboring man of the lowest level. But the symptoms are almost always the same. And one is impressed by the similarity in reaction, which one discovers in all these people of such widely divergent mentalities.

#### A CASE.

On the morning of April 30, 1920, on a quiet street in the city of Baltimore and a few blocks from a police station, a woman of about 38 together with her married daughter of 20 were on their way to the station house, where they were to meet the woman's husband, whom she had had summoned by the magistrate on a charge of "nonsupport." As the woman and her daughter reached the corner of the street on the right hand side, going eastward, her husband, John Cort, age 38, appeared on the left hand side of the street, also going towards the station house. He attracted no notice by any unusual behavior, but it was remembered later on that he spoke to no one and did not seem to recognize some of his friends as they passed by. Seeing his wife on the opposite corner, he crossed to meet her. A few words were exchanged in an ordinary

tone of voice. Cort drew a revolver from his pocket and shot five times at his wife, who crumpled and fell at his feet. Then, opening a pocket knife, he bent over her and stabbed her once in the left side. There was no haste or excitement noticeable in his actions. After the shooting he turned quietly away and walked down the street towards the station house, staggering slightly, but otherwise apparently undisturbed. He made no attempt to hide either of his weapons, but held them openly in his hands.

Before the police could reach him he was seized by several enraged onlookers and somewhat roughly handled. He made no resistance. Two policemen finally rushed to meet him from the direction of the station house. He followed them without a word. At the station house he seemed dazed, but gave his name and address correctly to the desk sergeant. When placed in a cell he made no attempt to rearrange his disordered clothes, but lay down on a bench and fell into a deep sleep. He slept for three hours. When he awoke he asked where he was and what had happened. He had no recollection of having met his wife on the street, but knew that he had been on the way to meet her at the station house. When told that he had murdered her, he refused to believe the statement of the police. Transferred to the city jail after a preliminary hearing, he sat in a semi-dazed condition, from which he only gradually emerged. At the time of examination, 24 hours after the murder, his mind was still somewhat clouded and he was emotionally unstable, cried easily and showed persistent tremors of the extremities. This condition cleared up gradually and two days after the murder he was able to submit to a thorough examination.

This examination showed a heavy, well-built man of the laboring classes, with negative family history; with no neurotic traits in his childhood and no serious illnesses. Mentally he was, as regards intelligence, of a low level, although not mentally deficient. He could neither read nor write and had little education, but this was the result of a difficult economic situation at home and not of mental incapacity. His general information was good for a man of his type and he had behind him a history of exemplary conduct as a laborer. All the positions which he had held as foreman of construction gangs had been held for long periods and he had excellent recommendations from all his employers. On account of his illiter-

acy it was difficult to make any complete mental tests, but his powers of logical reasoning were intact and he might at the lowest be classified as subnormal with a mental coefficient between .78 and .8. In the emotional sphere he was somewhat badly balanced, yet he had never been prone to any habitual outbreaks of rage or ill-temper. His entire emotional life had centered about his wife and children. He was distinctly a "one-woman man." He had married early and had never looked at any woman except his wife. Had she been of the same emotional type, he might have lived happily with her for many years. Unfortunately, she was a "many-man woman" with definite sadistic tendencies. She rejoiced in her power over him and delighted in tormenting him. During the 19 years of their married life she had moved 38 times. He would return from work some evening to find her gone, leaving no address, having taken with her half of the children and most of the furniture and having left behind a few of the older offspring and a dismantled home. For these exhibitions of temperament she chose such days as Christmas eve or some other family festival. Her husband would then go in search of her; would find her often living under an assumed name, sometimes with another man. He would always plead with her to return, which she eventually did, as he earned good wages. After a few months of reunion she would repeat this performance. It is evident that these constant and reiterated emotional irritations gradually wrought up John Cort to an emotional condition which ended in a volcanic crisis. No doubt before the murder he may often have been in a condition of emotional stress in which he might have killed his tormentor, but either the weapon or the opportunity was lacking and the crisis passed. At the time of the murder, however, he was working on a job far out in the country. He had to return each night through a dangerous neighborhood where there had been a number of holdups, and acting on advice of his companions he bought a revolver for his personal protection. It was this revolver which he happened to have with him when he met his wife on her way to the station house.

A few weeks before the murder his wife left him again in the same way and he had found her living under an assumed name, as another man's wife, having several of the children with her. At the same time, as an example of her extreme barefaced love

of tormenting him, she actually had him summoned for nonsupport although she had left him of her own accord and was then living with another man.

These were the varying elements brought to bear upon John Cort, resulting in the emotional stress under which he acted at the time of the murder.

Repeated examinations showed that his amnesia was a real one. It was also retrograde in character and extended in a lessening level back to the incidents of the morning of the murder. He had no recollection of having fired the revolver—had no sensations of pain when attacked by the bystanders and had fallen into a sleep of absolute exhaustion as soon as he was locked up in a cell at the station house. It was evident that at the time of the murder intense emotional stress had thrown out of gear the man's normal mental balance. The endocrin equilibrium of his body had been overwhelmed by the action of the sympathetic division of the autonomic nervous system. The higher centers of consciousness had ceased to act and John Cort was like an automobile dashing along at a high speed with its chauffeur fallen in a faint over the steering wheel. In such a condition John Cort's actions were those of a mindless mechanism and at the moment of the murder he cannot be said either to have known right from wrong, or to have understood the nature and consequences of his act.

#### SUCH CASES SHOW DISTURBANCES OF EQUILIBRIUM BETWEEN THE HIGHER AND THE LOWER CEREBRO-SPINAL CENTERS.

*Or to put it more scientifically, the impulses of the sympathetic neurones have over-whelmed the conditions established by the neurones of the cranial division of the autonomic system.*

When the various outstanding symptoms of such cases are analyzed it is evident that something has thrown the personality in question out of gear. To those of us who stood on the street corner and watched John Cort shoot and kill his wife he acted like a normal man going about his murderous business without excitement and with purposefulness and apparently deliberate intention. Nevertheless, at the moment of the murder—for some moments preceding it and for several hours following it, John Cort was more or less a mindless machine, which lived and breathed and

murdered, without any knowledge of this living, breathing, or murdering, reaching up to the spheres of conscious thought from which the personality that we called John Cort, usually, directs John Cort's actions. The lower centers of cerebro-spinal activity were not interfered with and they were sufficient to carry on the ordinary muscular reactions which ended in the murder; but the higher centers, which are phylogenetically a much later achievement in the human structure and by which we exercise the powers of memory, of intelligence and of forethought, these were, in some way, suspended in their activity and cut off from all inhibitory action on the other functions of the body. Usually, of course, higher and lower centers together with the divisions of the autonomic nervous system act and interact in perfect balance, but under intense emotional stress this balance is somehow destroyed; the inhibitory centers are cut off from the rest and the lower centers, that is, the sympathetic neurones, act alone.

How does this interference with the normal emotional balance come about? Something was known of it as long ago as the days of Pythagoras. He wrote: "Anger and hatred create a poison in the blood." Our modern studies in the functions of the ductless glands have carried on this thought of his. I do not, however, wish to enter into a discussion of the exact rôle played by the various divisions of the autonomic system and of the ductless glands in producing a mental state such as I have described, as arising under the stress of a great emotional over-burdening. I am not an endocrinologist and I have taken to heart a statement in the *Bulletin of Endocrinology*, Volume 3, page 55, in which the editor makes the following statement:

There is no field of physiology that is so filled with speculation as is our field endocrinology. Investigators take a chance at being right rather than take the trouble of trying out their assumptions. No field has attracted a more diversely trained group of investigators: physiologists, pathologists, zoologists, physicians, psychologists and dentists are taking their turn. But when one attempts to study a subject about which one knows little, one is often led into fantastic speculations.

With this warning before my eyes, I am naturally chary of attempting to enter into the details of an analysis of these emotional states from an endocrinological point of view. But I can say, and I think with justice, that anyone who has studied such states of mind

as these will admit that the rôle played in them by the ductless glands is an important one, if not the most important one of all. (See Cannon's book on "Bodily Changes in Anger, Fear and Rage.")

Extreme emotional stress acts in some way upon the adrenal system, (which is composed of the posterior pituitary, plus the adrenals, plus the thyroid,) by way of the autonomic nervous system. The changes in the secretions of these glands under emotional stress produce certain physical and mental results. One of them is, without doubt, the destruction of the normal emotional balance, a disturbance in the normal chemical equilibrium between the secretions of the various ductless glands.

I may possibly be able to make my idea clearer to you by the use of a simile. We may compare an individual to a motorcar with its directing chauffeur. The higher centers of the brain, which consciously direct or inhibit the activities of the body are paralleled by the chauffeur at the steering wheel with his foot on the brake. The lower centers, which keep the vital processes of the body going without the interference of conscious thought, we may compare with the automobile itself, with its throbbing engines and its complex mechanism. Now, a man, who has suffered great emotional stress and whose endocrin balance has thus been disturbed, is like a motorcar running along a road with its chauffeur fallen in a dead faint over the steering wheel and without power to apply the brakes. That is, the power that guides or inhibits the mechanism is for the moment out of commission. If the road on which the automobile is running happens to be smooth; if no other automobiles chance to pass that way, our "chauffeurless" automobile may run along evenly without any accident, until the chauffeur comes to his senses, grasps the wheel and assumes direction of the mechanism once more. But if the road be somewhat uneven, if other vehicles are passing upon it, if in fact, one of a thousand possibilities arise, then our automobile may deviate from its course, may wreck itself in a ditch, may collide with other motors or carriages, may crash into the window of some dwelling place, and may in the end be the cause of some appalling tragedy. And then the chauffeur returns to consciousness to find that he is made responsible for the actions of a mechanism, which he was supposed to direct, but over which, in reality, he had not the slightest control.



## SYMPTOMS OF A DISTURBED EMOTIONAL BALANCE.

My simile of the automobile is perhaps a somewhat rough and ready one, yet it illustrates sufficiently well the disturbed affective balance that one notes in such cases as that of John Cort. The outstanding symptoms of these emotional conditions may be briefly summarized as follows:

1. An amnesia of a more or less retrograde character, which is practically complete for the illegal act itself. Associated with this is a complete loss of the usual powers of restraint and loss of all conception of moral standards and of any adequate realization of the natural consequences of the act committed.

2. An imperviousness to external stimuli; that is, stimuli react on the peripheral nerves of the body but do not reach consciousness. There is a complete blocking of the nerve paths, whether they be efferent or afferent, that transmit sense impressions to or from the higher centers of the brain. Men in such conditions of emotional stress, after committing a murder, have been brutally beaten and maltreated by the indignant public and yet when they come to themselves have no recollection of having felt either pain or discomfort. Let me suggest a somewhat everyday means of illustrating this blocking of the nerve paths. You may study such conditions in a small way at the theater. The "moving pictures" are also good laboratories, but the darkness presents certain difficulties in controlling your results. Pick out some play at the theater that is intensely interesting and contains exciting and dramatic situations. Go first to the play yourself, so that you may know of the exciting situations and so that your own emotions may not interfere with the clearness of your observations. Having seen the play once, take with you a second time your "object" for the experiment preferably a young person, an impulsive girl or youth. Watch her unobtrusively during the dramatic action. You will know from having seen the play before what the most exciting parts are. When one of these situations is nearing its climax, lean over to your companion and say distinctly in her ear, "I am feeling very, very ill," or "A man behind you has just dropped dead," or even "Your back hair is falling down." She will not even hear you, or she may turn her head and look at you blankly for a second, but an instant afterwards her face will turn towards the stage again.

Under the stress of her emotions she is no longer able to make use of the higher centers of her brain. Her hearing functions properly; the sound waves of speech reach her ear and set in motion the afferent auditory paths, but the path of reaction is blocked. The line of conscious thought that the stimulus of your speech should bring into action doesn't start at all. Either the stimulus does not reach the higher centers or else the higher centers themselves are not functioning normally. You can test her sense of touch in the same way. You can prick her hand with a pin and she will not notice it. Or, if she is given to the bad habit of eating candy during the performance, wait until the most exciting situation in the play arises and then hand her some chocolate coated lumps of cotton and she will chew away on them contentedly until her mental stress lessens and she turns to you in a rage. Her sense of taste is intact, but the stimulation of her taste nerve-centers, which should tell her thinking-centers that something is wrong with what she is eating, does not react on her consciousness at all. In a word, her intense emotion has cut her off for the moment from the stimuli of the outside world. She is like poor John Cort, when beaten up by the enraged crowd after the murder of his wife—she is not physically conscious of what is happening to her. If, now, in her emotional state some impulse rises in her mind to do some act from which she would ordinarily shrink, she will surely follow that impulse, as it rises from the lower centers of her consciousness, and will follow it mechanically, blindly without being able to distinguish between right and wrong, or to know the nature and consequences of her act. (See Spencer's Case, 69 Maryland Reports.)

3. Another interesting characteristic of these emotional states is the phenomenon of "the summation" of stimuli, as described by Dr. George W. Crile in his "Origin and Nature of the Emotions." In plain words each emotional state of this type results in a constantly increasing ease and violence of further reactions. A patient, for instance, has been operated on three times for the same disease. At the time of the first anesthetizing the muscular reaction of the patient when coming under the anesthetic may not be particularly remarkable, but at the time of the second operation the muscular contractions and struggles are much greater and they summarily increase with each administration of the anesthetic. The same phenomenon is noticeable when a sensitive person is tickled. The

muscular contractions and struggles of such a ticklish person are much greater if the tickling is repeated five minutes after the first stimulation and repeated tickling so sensitizes the reaction that it finally becomes overwhelming. The same thing is true of John Cort. No doubt his wife's persistent and cruel tormenting had produced in him many emotional states in which the possibility of killing her had arisen in his mind. With each recurrence of these mental disturbances there was an increased ease and strength of reaction. One may compare such conditions with a portion of one's skin which has been gradually rubbed raw by some persistent external stimulus, say, for instance, a place on one's heel that has been rubbed constantly by an ill-fitting shoe. The sensitiveness of this spot increases with each renewed stimulus until it becomes so sore that the slightest touch or even the fear of a touch upon it will result in the discharge of muscular contractions of escape embracing the whole body and entirely out of proportion to the size and painfulness of the small sore spot. It was in this way, roughly speaking, that the constant tormenting of John Cort's wife resulted in the evolution of one definite "sore spot" in his mind, which became with each new irritation more and more capable of releasing a volcanic outbreak of emotional activity and its unhappy results.

4. In these emotional states the emotionally disturbed person is capable of excessive physical exertion without apparent fatigue. This is a truism to everyone who studied the mental and physical reactions of men on active service at the front. The fatigue poisons which accumulate in the muscles go on accumulating normally in such mental conditions, but the warnings that usually reach the higher centers of the brain and which translate themselves into feelings of fatigue or exhaustion are not consciously registered by the personality until actual physical exhaustion supervenes and the person drops unconscious where he stands and falls into a leaden sleep. This leads us to:—

5. The period of absolute mental and physical exhaustion which follow these emotional states. In the case of John Cort it is typical, that after committing the murder—after walking to the station house and giving himself up—after answering mechanically such questions as were put to him, he fell into a deep sleep which lasted for six hours and from which he awoke, not knowing where he was nor what had happened.

## COMPARISON OF THESE EMOTIONAL STATES WITH THE DISTURBANCES OF SCHIZOPHRENIA IN THE AFFECTIVE SPHERE.

Let me now briefly sketch the emotional picture which all of us have studied so frequently in schizophrenic cases.

We are all familiar with the dulling of all emotional reactions in Schizophrenia. Bleuler calls this condition "Gemütliche Verblödung," or emotional idiocy. But there are many stages in this emotional degeneration and they are so varied that it is difficult to summarize them even briefly. However, one may distinguish the following elements in the process:

1. The absolute indifference in schizophrenic patients to emotional stimuli. Here it does not seem to be a question of disturbed emotional balance—not a disfunction, but rather a ceasing of function almost altogether.

2. The lack of unity in the expression of emotional reactions. The usual facial mimicry that follows normal emotional reaction is not what one would be led to expect. The forehead and eyes of a schizophrenic patient may be drawn into lines of suffering and depression while the mouth is laughing and suggests a contented reaction.

3. Lack of what we may call proper emotional modification, that is, the external reactions of the patient's face and body do not follow the changing content of the patient's inner emotional mood. The patient's expression may be one of pleasure when he is subjected to a painful emotional experience.

4. Great changeableness of emotional reaction without adequate external cause.

5. A sluggishness that is very marked in the manner in which emotional reactions follow upon the ideas which excite them.

6. Lack of all regularity in the appearance of emotional reaction. The patient who appears absolutely uninterested in anything may be within an hour excited and interested.

7. Most noticeable, perhaps, of all is the manner in which those emotional reactions which regulate the ordinary intercourse of people with one another become disturbed in schizophrenic patients. For instance, the loss of all affection for those nearest and dearest to them; failure to understand the ordinary conventionalities of life, and loss of the sense of decency and of shame.

8. The emotional disturbance which Bleuler calls "an ambivalent reaction." For instance, in a schizophrenia patient the same experience may be connected with pleasant and unpleasant emotions at the same moment. The husband loves and hates his wife at the same time.

9. Most important for this discussion is the fact that the lower emotional instincts seem to suffer less deterioration than the higher emotional reactions; that is, in schizophrenic patients the emotional activity of the higher brain centers seem to suffer more rapid deterioration than those more mechanical instincts which we associate with the lower centers of the cerebro-spinal system.

Finally, we must not forget that in this process of emotional deterioration in schizophrenic patients it is absolutely sure that the ability of the mind to react to emotional stimuli has NOT BEEN ABSOLUTELY destroyed.

#### COMPARISON OF THIS SCHIZOPHRENIC EMOTIONAL IDIOCY WITH THE NON-SCHIZOPHRENIC EMOTIONAL STATES OF DISTURBED ENDOCRIN BALANCE.

A comparison of the various gradations of schizophrenic emotional deterioration with the outstanding symptoms of the unbalanced emotional states already described in this paper, is somewhat difficult. Nevertheless, certain definite facts must impress themselves on the mind of any unbiased observer.

1. In both types of cases there is some definite disorganization in the whole system of emotional reactions. In the non-schizophrenic cases we know that the emotional states are the result of a temporary disturbance of the normal endocrine balance. Laboratory experiments on cases of extreme fear and similar reactions have satisfactorily proved this. In the schizophrenic cases, of course, the disturbance is not a temporary one, but a more or less *permanent* deterioration. I say "more or less" because I feel that it is unsatisfactory to map out in one's mind the progressive stages of what we call schizophrenia and then to fit each case that confronts us into this scheme, covering it with a sort of blanket diagnosis and tacking on to it a hopeless prognosis and an assurance of terminal dementia. Fortunately, there are many cases of schizophrenia which do not end in terminal dementia and in which the so-called

emotional idiocy never reaches its deepest level. There are various grades in schizophrenic affective disturbances just as there are various grades in the non-schizophrenic emotional states which we have described; so that it would not be fair to object that we are forcing the issue by comparing a temporary disturbance of emotional balance with an absolute emotional idiocy. There is perhaps no symptom of schizophrenia which varies as much in different cases as does the disturbance in the emotional sphere of the personality's reactions.

2. In both types of cases we are brought face to face with a disturbance of emotional reaction which involves changes in the most fundamental traits of human personality. In both types the emotionally disturbed person loses his grasp on the ordinary conventionalities of life. His normal distinctions between right and wrong are destroyed or absolutely annihilated. The natural powers of control exercised by the emotional dread of punishment, or even of annihilation, disappear. Indeed, the deepest of all emotional reactions, the sexual attraction which we call love, is so completely disturbed that love changes to hate and the desire for the well-being and preservation of the loved one is transformed into cruel attempts at inflicting pain, or even into actual murder. It is not so difficult as it seems to trace *similarities* between the two groups of cases. On the other hand, there are distinct and instructive differences.

#### DIFFERENCES BETWEEN THE TWO TYPES OF CASES.

In the case of the non-schizophrenic emotional disturbances, as has already been suggested, we are dealing with a temporary disturbance of a complicated emotional balance that is regulated by the autonomic nervous system and the ductless glands. Normally, when the emotional stress is removed, the balance returns to its usual level. It is like an elastic upright piece of thin steel bent to one side or the other by some impinging force, but which, when that force is removed, springs back to its former upright position. In schizophrenic cases, however, it appears as if there were some inherent weakness in the steel itself. When some external force impinges on the organically unsound metal, a force which would ordinarily not deflect a perfectly sound piece of steel, the unsound

metal not only deviates unduly from its upright equilibrium but does not return to its normal position when the external force has ceased to act. The more deeply one analyses the similarities between our two types of emotional disturbance, the more one is forced to believe that in schizophrenic emotional deterioration and in the disturbance of endocrin activity associated with it, there is some destructive element which does not appear in the non-schizophrenic emotional conditions. This is borne out by such pathological findings as those of Dr. Eva Rawlings, ("The Intellectual Status of Patients With Paranoid Dementia Præcox," in *The Archives of Neurology and Psychiatry* for March, 1921) who has noticed in her brain necropsies of schizophrenic patients a marked destruction of the nerve cells of the stellate layer of the brain. There are, therefore, in all probability more definitely organic changes in the schizophrenic anatomy than a mere temporary disturbance of endocrin balance. It is not so much a mere disturbance of endocrin balance as some definite cessation of function—some actual atrophy in one or more of the endocrin entities. In other words, in the non-schizophrenic emotional states one postulates a functional disturbance—a temporary impairment of endocrin balance, while in the schizophrenic reaction types it seems as if there had been some absolute destruction or some more or less permanent blocking in the organized chemical activity of one or more of the endocrin glands. The changes noted by Dr. Rawlings and others in certain layers of the brain cells may be secondary results of this failure in endocrin function.

#### ADDITIONAL SUGGESTIVE FACTS POINTING TO A POLYGLANDULAR DISTURBANCE IN SCHIZOPHRENIA.

At any rate it appears that in both types of emotional states we are dealing with disturbances of endocrin secretion. There are, of course, an entire group of other facts which endocrinologists have gathered together in their effort to elucidate the genesis of schizophrenia from the standpoint of a polyglandular disorder. These may be briefly summarized as follows:

1. Loss of weight in schizophrenic patients.
2. Disturbances in their involuntary nervous system.
3. Abnormal pharmacological reactions.

(a) The hypodermic injection of atropin and pilocarpin does not produce the same physiological reactions in schizophrenic patients that is produced in normal individuals.

(b) The hypodermic injection of adrenalin, which normally raises the blood pressure, lowers the blood pressure of schizophrenics.

4. Coagulation of the blood is retarded in schizophrenic patients.

5. The Abderhalden reaction in the serum of schizophrenics is positive in males with testicle extract and is positive in females with extract of the ovaries. One cannot lay any great stress nowadays on the Abderhalden reaction as a diagnostic symptom of schizophrenia. A long series of Abderhalden serum reactions was worked out a few years ago in the laboratory of the Phipps Psychiatric Clinic in Baltimore without any definite results. There were positive reactions to testicles and ovaries among normal patients with other psychoses, as well as among those with marked schizophrenic symptoms. It must also be confessed that thus far the theory of the polyglandular origin of schizophrenia has not helped us to any noticeable extent in the treatment of schizophrenic patients. I have never seen any satisfactory statement of the general results obtained by efforts to treat schizophrenia from a polyglandular standpoint. I do know that the experiences of myself and many of my colleagues in this direction have not as yet met with any very marked success. Nevertheless, these negative results do not necessarily disprove the theory of disturbed endocrin function in schizophrenia. On the contrary, our comparison between the emotional disturbances in schizophrenic and non-schizophrenic patients, as I have tried to sketch it briefly in this paper, seems to me to point persistently to some as yet undiscovered rôle which the endocrin glands must play in the evolution of schizophrenic reaction types. This is an additional reason for not losing heart and for persisting in our attempt to approach at least the affective disturbances of schizophrenia from the therapeutic viewpoint of disturbed endocrin function.

As I have tried to show, the symptoms of the schizophrenic emotional disturbances point not so much to an impaired endocrin balance as to some definite cessation of function of one or more of the endocrin unities. Our present therapeutic methods may some day be able to restore a disturbed endocrin balance, but these same



methods may prove ineffectual in recreating the activity of an endocrin system that has ceased to function properly on account of the inhibition or even of the destruction of some element in the complex chemistry of the endocrin system.

#### CONCLUSION.

This paper is the result of some five years of study, but no one is more conscious than I of the gaps in my research and reasoning. It is presented here with a deep realization of its failings. The warning of the editor of the *Bulletin of Endocrinology*, which I have already quoted, still rings in my ears. He said, you will remember, that no field has attracted a more diverse group of investigators than endocrinology. Physiologists, pathologists, zoologists, physicians, psychologists, and dentists are taking their turn. He does not mention students of legal medicine like myself. I am, therefore, adding to the various groups that have rushed in where even angels and trained endocrinologists fear to tread. But if zoologists and dentists have all taken their turn at a subject about which even the best of us knows but little, perhaps I may be forgiven if I have added another name and another type of investigator to this already overcrowded field. At least I shall have been in good company.

#### DISCUSSION.

DR. LORENZ.—It is very interesting the prominence given to the problem of endocrine disturbance in mental diseases during this entire session; however, I feel that we should be very careful in attempting interpretation. Well established facts bearing upon the endocrine system are really quite rare. Probably the most suggestive work has been that by Cannon and his associates, and it brings up an old question of which comes first, the emotional state or the bodily change associated with an emotional state. In our own work on sugar tolerance, this question arose and I must confess was entirely unanswered. That is, the disturbance in sugar tolerance found in some of our cases we were in doubt as to whether an emotional stress might have initiated an endocrine disturbance which in turn was manifested by disturbed sugar tolerance, or whether there was a primary endocrine disturbance without any emotional factor. This paper is an excellent product, indicating careful work and keen observation and suggesting a fruitful field of further research.

DR. WITTE.—It is with a pleasing sensation of satisfaction that I have listened to this paper, as well as others, on matters endocrine, for the

reason that I am not so lonely as I was once upon a time. As far back as twenty-five years ago I had the honor of reading a paper before our State Medical Society on "The Influence of the Body on the Mind," advancing and advocating the thesis that in the first place our mental activities are on an organic basis, and that the disorders taking place in the central nervous system, such as insanity and kindred ailments, very often have their seat originally even below the diaphragm. It was a time before we talked of endocrine or hormones, since little if anything was known about them. Then some ten years ago I had the honor of reading a paper before this Association at Atlantic City on "Psychological Observations in Involutional Melancholia," and the same ideas were advanced and contended for. I have seen no occasion since to recede from my position; more particularly that the affective side of our mental life is in a great measure depending upon influences coming from the glands and from the organs under the dominion of the *autonomic sympathetic nervous system*, and that in this realm we should seek for the beginnings of the disorder. We now begin to more fully know that the endocrines are the driving force for our emotional and, therefore, our volitional states, and it is a matter of gratification to have company in this particular view. It is such an extensive subject that I can only briefly refer to my own early and enduring views in the matter. I maintain that the affective part of our mental makeup is primitive, is basic and on which are reared the other realms, the thinking and the willing functions.

Way back in the faintest dawn in the early Eozoic Sea, life began in a little bit of jelly-like matter, which had the quality of *irritability*; which was capable of reacting to a stimulus coming from without, of being drawn by influences promotive of well being and of shrinking from those unfavorable to it. During the passing ages life reared on such humble beginnings expanded, increased, became intensified, and the capacity to respond to good and ill, became differentiated and integrated, until it is now that great part of us we call our feelings, our emotions, our passions, our affections, the directors and drivers to our thought and action; in other words, our *mind*, which, however, is still tied to primitive, nutritive functions anatomically located below the brain rind.

DR. GREENE.—It seems to me that after the large number of remarks on these subjects we are considering, the subjects are reduced to the old problem, that is, which was first, the chicken or the egg? Now, whether the action of the endocrine glands is due to the excitement and mental state, or whether the mental state is due to them, is the question we have to determine.

DR. STARKEY.—I believe that the question here is not so much which comes first, the chicken or the egg, but whether or not there is either a chicken or an egg. I have very little faith in these periods of amnesia which are said to immediately precede or follow commission of crime.

We speak volubly of the part played by the endocrines and the autonomic and sympathetic in this connection, but as a matter of fact we know little or nothing about it and our opinions have been highly colored by the claims set up by these malefactors and their unscrupulous attorneys. It has been so common for individuals who have committed offenses against society to come into court with their attorneys and make this claim of inability to remember what immediately preceded or succeeded the criminal act that we can anticipate it as a regular procedure, and the attitude of the courts, laity and even the medico-legal experts has been so influenced that it has become almost a tradition and I believe their state of amnesia has no other foundation than this tradition. These individuals realize they are in trouble and their great desire is to get out of their present embarrassing position and they do not hesitate to prevaricate to do so. There is no absolute way of knowing whether these states of amnesia exist. Therefore it is very easy for them to set up these claims. While I admit that it may be within the limits of possibility for this blank mental condition to exist as a great rarity, I am unwilling to accept it as a routine state of mind as the criminal and his attorneys would have us believe. I believe that this society should pause before accepting the claims of these individuals and their carefully built up medico-legal excuse for overt acts. I have had considerable medico-legal experience and have examined a great many persons who have set up this claim and have yet to encounter one in which I believe it to be justifiable.

DR. OLIVER.—I am very grateful to those who have spoken for what they have said. They have suggested many interesting matters. In the time allowed me, I was unable to read the paper as I had planned it, and could not place it before you in its original form. The question of which comes first, the chicken or the egg, I have not entered into because I do not know. I was simply trying to suggest to you that as emotional states which occur by surplusage of emotional reaction show lack of balance of the endocrines, so emotional results of the same kind based on similar states might be of similar origin. It is perfectly true that the criminal when he is face to face with punishment will try to elaborate an amnesia if he can. There is probably not one in twenty who has real amnesia. But there *are* cases of murders after long emotional strain in which there is, in my mind, no doubt of the real amnesia. This was found to be true during the war in the men who had been under long emotional strain. I am sorry I could not give you the history of a murder committed under emotional stress, which I think would have answered some of the questions, but which had to be omitted from the paper as read before you this morning.



## BLOOD CONSTITUENTS AND MENTAL STATE.\*

By H. S. NEWCOMER, M. D.,

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It has been the experience of ourselves and others that patients with mental disease, but free from organic disease, give blood analyses which do not overstep the usual normal limits. When the patients are classified on the basis of symptom complex or psychomotor activity the amounts of the usually determined constituents do not show distinctive differences. It is, however, an attractive conception which proposes that certain reaction types might have greater scattering, greater variation, in the amounts of the various blood constituents than do other states.

From this viewpoint one might analyze the data given by Weston<sup>1</sup> for patients with manic-depressive and dementia præcox reactions. If in the case of his data for the bloods of ten patients of the first group we average the values for each constituent, sum without regard to sign the differences of the individual figures from the averages, express this sum as an average deviation in per cent and then average the percentage deviation of all the blood constituents reported, we obtain a figure, 6.2 per cent, expressing the average total deviation of all the constituents from the means. This figure is a numerical expression for the amount of scattering of the individual values from the respective means. In the case of the ten patients with dementia præcox reported by Weston, the average total deviation is 8.3 per cent, a larger figure than that for the manic-depressive group. If we wish to analyze the data somewhat more minutely we may consider figures for the manic-depressive, depressed and excited separately. They are respectively 6.6 and 6.1 per cent. For the catatonic and hebephrenic dementia præcox

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\* Read by title at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

<sup>1</sup> Weston, P. G., *Archiv. Neur. and Psych.* III, 1920, 147.

individuals the figures are respectively 7.4 and 5.7 per cent. In each case those groups of patients with presumably greater psychomotor activity show within the group the lesser scattering of their blood constituents. It is, however, not fair from these small differences and the few cases to draw inferences, particularly since the comparison involves relations between different individuals.

In this laboratory an analysis has been made at weekly intervals over periods of from four to seven weeks, usually the latter, of the bloods of fifteen individuals showing quite clear cut reaction types.

No.	Age	Reaction type	Psychomotor activity	Blood deviation	
1	68	Quiet catatonia .....	0	11.0	
2	42	D. P., quiet .....	+		6.4
3	62	D. P., quiet .....	+	8.5	
4	41	D. P., quiet .....	+		6.3
5	27	D. P., quiet (excitements) .....	+(++++)	10.3	
6	29	D. P., excitements (quiet) .....	++++(+)		7.1
7	28	D. P. (?), moderate excitement..	++	7.5	
8	35	Delirium convalescence .....	++		5.5
9	82	Senile, restless .....	++	10.9	
10	79	Senile, restless .....	++		7.7
11	45	M. D., excitements & depressions.	+++0	9.6	
12	37	M. D., excitement .....	+++		6.8
13	25	M. D., excitement .....	++++	8.0	
14	35	M. D., excitement .....	++++		7.4
15	86	M. D., excitement .....	++++		7.8
				8.5	
				—	
				Av. 8.0	

There were determined the non-protein nitrogen, urea nitrogen, uric acid nitrogen, creatinine, sodium chloride, sugar,<sup>2</sup> and in half the cases the cholesterol.<sup>3</sup> The values found were within the expected normal limits. When averaged as above, but each patient separately so as to determine the variations shown by the individual rather than a group, the lowest average total deviation was 5.5 per cent and the highest was 11 per cent. The average of all the deviation figures was 8 per cent.

The patients are classified in the table according to reaction type of the psychosis and psychomotor activity. In the last column is

<sup>2</sup> Folin, O., and Wu, H., *J. Biol. Chem.*, 1919, XXXVIII, 102.

<sup>3</sup> Weston, Paul G., and Kent, Grace Helen, *J. Med. Research*, XXVI, 1912, 531.

given the figure for per cent average total deviation of the blood constituents. It is possible to arrange the patients in the order of psychomotor activity and at the same time group them somewhat according to psychoses. It is seen by inspection of the table that there is little basis for making any distinction in the amount of scattering which their blood constituents show, though there is a tendency here as with the Weston group for the quiet dementia præcox to show more rather than less variation than the others. The differences are hardly significant.

In a search for other demonstrable differences in the blood stream or reaction to changes in its content we have added to it adrenalin by the intravenous injection of 0.1 mg. Following the injection there is usually within a minute a rise of about 50 mm. of mercury in the blood pressure, the return to normal occurring in four or five minutes. There was usually, but not always, within the next few minutes a moderate rise in the pulse, the leucocyte count and the blood sugar, but no change in the pupillary diameter. Five cases of dementia præcox did not show any differences distinguishing them from eight other individuals.

The intramuscular injection of 0.5 mg. pituitrin usually produced no appreciable rise in the blood pressure or pulse, but gave a moderate increase in the leucocyte count and blood sugar. Here there was likewise no distinction between dementia præcox and other states.

In our experience there has been no relation between the content of the blood stream or reaction to changes in it and mental state.





## EPILEPSY IN THE OFFSPRING OF EPILEPTICS.\*

By D. A. THOM, M. D.,

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AND

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Many neurologists and psychiatrists are interpreting convulsions, loss of consciousness, changes in personality, and associated mental deterioration, or the so-called syndrome, that goes to make up the condition termed epilepsy, in terms of some underlying pathological process affecting the brain or some other bodily organ, while others are seeking solution for the same problem in conflicts, wishfulfillments, repressions, dissociation, and other psychogenic conceptions.

Regardless of the views that one holds regarding this baffling condition, it will undoubtedly be of interest and quite worth while to check up our present knowledge of the inheritability of the convulsive disorders and to determine if this aspect of the problem, as presented in literature, has not been made to conform to a greater or less degree with our preconceived ideas on the subject of epilepsy.

In view of our past experience and present knowledge, we are quite convinced that epilepsy as such, does not exist and is by no means entitled to the classification of a disease entity. This old conception of epilepsy and the search for some definite pathogenic factor with a no less definite anatomical location, accounts to a great degree, for our present day ignorancè regarding the etio-

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

logical factors producing convulsions and therapeutic measures with which to combat the same.

The syndrome which goes to make up the condition which has borne the name of epilepsy, is neither constant nor characteristic. The signs and symptoms may be as numerous and as varied as it is possible for any organic lesion, or psychogenic mechanism to produce, which need no definite pathology, no particular anatomical site, no specific toxin or pathogenic organism. The convulsions caused by lesions of the kidney are quite indistinguishable from those produced by an acute infection. In neither case, may they differ from the group called idiopathic epilepsy.

One cannot ignore the fact that an extremely high percentage of the cases which come to autopsy, have gross brain lesions and that many of these cases during life have been diagnosed as idiopathic epilepsy. It cannot be passed by unnoticed that the so-called epileptic personality is frequently not present in the epileptic and often found associated with other deteriorating diseases. Neither is epileptic dementia always a sequel to convulsive disorders. On the other hand, it is well recognized and definitely established that experiences to which excess of emotion is attached, frequently act as the etiological factor in producing convulsions.

In regard to the hereditary factors, again one feels that the present-day conception of the inheritability of epilepsy fails to represent the actual condition. The present study began at the Monson State Hospital in the spring of 1916, and was reported during the same year, calling attention to the fact that the first report was undoubtedly subject to many sources of error. Since that time the work has been carefully checked up and, we believe, represents, so far as any statistical work can, the actual findings in a large group of children born of epileptic parents.

The material dealt with in this study was obtained from the wards and records of the Monson State Hospital, supplemented by home visits on each case and a review of the case records of social agencies and hospitals which had known the families of these patients.

After a careful review of the available material one hundred and seventeen (117) cases were finally selected. The diagnosis of epilepsy had been determined in all these cases. They had all been married and had borne one or more living children.

The paper naturally divides itself into two parts, a study of the parents and a study of the offspring. An attempt has been made to correlate the findings in the two groups for the purpose of stimulating further observations along this and similar lines of work.

The total number of children resulting from these 117 matings was four hundred and thirty-one (431), of which two hundred and eighty (280) are still living and one hundred and fifty-one (151) are dead. These living children and their present mental status is the most important feature of the paper. Other data is included which appears to be of interest.

Of the parents seventy-six (76) were females; forty-one (41) males. Ninety-nine (99) cases were idiopathic; eighteen (18) organic. The onset of the convulsions began in fifty-nine (59) cases prior to marriage and in fifty-eight (58) cases after marriage. Of the total of 117 epileptic parents only twenty-two (22) gave birth to epileptic children.

#### PARENTS.

Tables I and II have to do with the exciting cause of the convulsions in the idiopathic group; number I with the 49 cases where the onset of convulsions was prior to marriage; number II with the group where the convulsions followed marriage.

TABLE I.  
EXCITING CAUSE OF EPILEPSY—ONSET BEFORE MARRIAGE.

Cause	Total	Male	Female
Dog bite.....	1	..	1
Drugs taken by mother to cause abortion.....	1	1	..
Fright .....	3	1	2
Indigestion .....	5	3	2
"Illness with delirium".....	1	..	1
Menstruation .....	9	..	9
Pneumonia .....	1	1	..
Rickets .....	2	1	1
Sunstroke .....	1	..	1
Teething .....	1	..	1
Unknown .....	24	5	19
	—	—	—
Total .....	49	12	37

TABLE II.  
EXCITING CAUSE OF EPILEPSY—ONSET AFTER MARRIAGE.

Cause	Total	Male	Femal
Alcohol .....	13	12	1
Fright .....	1	1	..
Indigestion .....	1	1	..
Mental worry .....	5	2	3
Mental shock .....	3	..	3
Menopause .....	2	..	2
"Over excitement" .....	1	..	1
Operation for prostate.....	1	1	..
Pregnancy .....	11	..	11
Sunstroke .....	1	1	..
"Too much sexual intercourse".....	1	1	..
"Too much headache medicine".....	1	..	1
Unknown .....	9	2	7
	—	—	—
Total .....	50	21	29

This arbitrary division quite naturally gives us two distinct groups of convulsive disorders. The average age of onset of the convulsions in Group I is 11.4 years, while in Group II it is 35.5 years. It will be noted that the etiological factors are quite different.

Table III deals in the same way with the eighteen (18) cases which belong to the organic group.

TABLE III.  
CAUSES OF EPILEPSY IN THE ORGANIC GROUP.

Onset before marriage		Onset after marriage		Total
Cause	No.	Cause	No.	
Head injury .....	7	Head injury.....	3	10
Injury to spine.....	1	.....	..	1
Encephalitis .....	1	.....	..	1
Infantile paralysis .....	1	.....	..	1
.....	..	Syphilis .....	2	2
.....	..	Arteriosclerosis .....	1	1
.....	..	Cardio-renal .....	2	2
	—		—	—
Total .....	10	.....	8	18

The age of onset in relation to marriage may be stated as follows. Of the 59 cases where the epilepsy began before mar-

riage, the duration is unknown in 2 females. The average length of duration before marriage in 16 males is 13.4 years, and in the remaining 41 females 10.6 years. The average duration before marriage was 12 years.

Of the 58 cases having the onset of their epilepsy after marriage, the number of years elapsing between marriage and the onset of the epilepsy is unknown in one male. The average number of years between the marriage and the onset of the epilepsy in the remaining 24 males is 14.4 years and in the 33 females 10.6 years. In the 57 cases the average number of years between marriage and the onset of the disease was 12.5 years.

It may be noted here that the number of females marrying with a knowledge of their epilepsy far exceeded the males (43 females and 16 males). This indicates that it is undoubtedly very much easier for the woman, who lives a comparatively sheltered life, to conceal the fact of her epilepsy than for the man.

TABLE IV.  
AGE AT ONSET OF EPILEPSY.

Age	No.	Per cent
Under 3 months .....	4	3.4
3 months—1 year .....	1	.9
1 year—2 years.....	7	6.
2 years—5 years.....	3	2.6
5 years—10 years .....	7	6.
10 years—17 years.....	27	23.1
17 years—25 years.....	25	21.4
25 years—30 years.....	8	6.8
30 years—40 years.....	12	10.3
40 years—50 years.....	11	9.4
50 years—60 years .....	5	4.3
60 years—70 years.....	4	3.4
Unknown .....	3	2.6
Total .....	117	

Table IV simply presents the age at onset of the convulsions in the two groups, idiopathic and organic, and will be drawn upon later when discussing the children. There is no age exempt from the convulsive disorders.

TABLE V.

## SEX PARENTAGE OF 22 CHILDREN WITH HISTORY OF CONVULSIONS.

Male Epileptics having Children with a History of Convulsions...	6	27.2
Female Epileptics having Children with a History of Convulsions.	16	72.7
Total <sup>1</sup> .....		22

Table V indicates the sex parentage of the 22 offspring who at some time, past<sup>2</sup> or present, had convulsions, and bears out the statement made in a previous paper,<sup>3</sup> that not only is the convulsive tendency manifested at an earlier date when transmitted by the female parent, but that the epileptic mother is much more likely to transmit traits of instability than the father.

In studying the heredity of the one hundred and seventeen (117) parents it was found that *in only 8 cases* was there a history of convulsions in the parents or grandparents of these epileptics.

## OFFSPRING.

The following tables will deal exclusively with the mental defects and other observations of interest in the offspring of the parents which we have just considered.

About one in six of every adult patient who enters the Monson State Hospital has been married and three-fourths of these matings have resulted in one or more offspring. The average number of children to each marriage in this particular group under consideration was 3.7 (117 matings; 431 children).

Of this total of four hundred and thirty-one children (431), two hundred and eighty (280) are still living, one hundred and fifty-one (151) dead. The causes of death and age at death, of this latter group, are given in Tables VI and VII.

<sup>1</sup> One male epileptic had 3 children who died of convulsions. One female epileptic had 1 child who died of convulsions and 1 living child who gave a history of having had convulsions. Two female epileptics each had 2 children who died of convulsions. One female epileptic had 7 children who died of convulsions.

<sup>2</sup> Boston Medical and Surgical Journal, Sept. 23, 1915. The Relation between the Genetic Factors and the Age at Onset in 157 Hereditary Epileptics.

TABLE VI.  
CAUSE OF DEATH OF 151 CHILDREN.

Cause	Total	Male	Female	Unknown
Convulsions .....	19	9	2	8
Diseases of childhood.....	16	8	8	—
Gastro-intestinal disorders .....	17	12	5	—
Influenza .....	4	1	3	—
Pneumonia .....	4	—	3	1
Cardiac disease .....	3	1	2	—
Marasmus .....	39	24	10	5
Meningitis .....	4	2	2	—
Encephalitis .....	4	—	4	—
Diabetes .....	1	—	1	—
Septicæmia .....	3	—	2	1
Accidental death .....	11	5	5	1
Unknown <sup>a</sup> .....	26	10	9	7
	—	—	—	—
Total .....	151	72	56	23

TABLE VII.  
AGE AT DEATH OF 151 CHILDREN.

Age	Total	Male	Female	Unknown
Under 6 months.....	80	39	19	22
6 months—1 year.....	18	15	2	1
1 year—3 years.....	22	12	10	—
3 years—5 years.....	8	1	7	—
5 years—10 years.....	4	—	4	—
10 years—15 years.....	4	1	3	—
15 years—20 years.....	1	—	1	—
20 years—25 years.....	2	2	—	—
25 years—30 years.....	4	2	2	—
30 years—35 years.....	3	—	3	—
35 years—40 years.....	—	—	—	—
40 years—50 years.....	1	—	1	—
Unknown .....	4	—	4	—
	—	—	—	—
Total .....	151	72	56	23

AGE AT DEATH—151 CHILDREN.

Under 6 months.....	52 per cent.
Under 1 year.....	64 per cent.
Under 3 years.....	78 per cent.

<sup>a</sup> In 21 of the 26 cases with an unknown cause of death, the cause was definitely stated as *not convulsions*. This leaves 5 cases in which there is a possibility that convulsions may have been the cause.

These tables are of interest to compare with tables charted from the offspring of normal individuals. In only 19 cases could the cause of death be contributed to convulsions but, as the note points out, there are five cases where the cause of death, as due to convulsions, could not be ruled out.

TABLE VIII.  
AGE OF 280 LIVING CHILDREN.

Age	Total	Male	Female
Under 1 year.....	1	—	1
1—3 years .....	1	—	1
3—5 years .....	8	5	3
5—10 years .....	31	12	19
10—15 years .....	51	32	19
15—20 years .....	49	21	28
20—25 years .....	46	26	20
25—30 years .....	25	12	13
30—35 years .....	20	7	13
35—40 years .....	15	9	6
40—50 years .....	12	7	5
50—60 years .....	3	2	1
Unknown <sup>4</sup> .....	18	10	8
Total .....	280	143	137

In Table VIII we find the present age of the 280 living children recorded under the various age groups. The point of interest here is the fact that two-thirds of these living children are past the age of 25, where between 75 per cent and 85 per cent of the epilepsies begin.

TABLE IX.

	Echeverria	Thom
Number of matings.....	136	117
Number of children.....	531	431
Died: in convulsions.....	195	19
Other disease.....	27	132
Developed Epilepsy .....	78	14
Insanity .....	11	2
Feeble-minded .....	18	14
Normal .....	105	238

<sup>4</sup> Eight of the 10 males—age unknown—are over 30 years of age. All of the 8 females—age unknown—are over 30 years of age.



Table IX is recorded briefly in parallel columns, the findings of Echeverria<sup>8</sup> and those of this study. As the statistics of Echeverria are quoted extensively on the inheritability of epilepsy, it seems worth while to make this comparison, leaving the discussion of this point for another part of the paper.

TABLE X.

SUMMARY OF CHILDREN WITH HISTORY OF CONVULSIONS IN IDIOPATHIC AND ORGANIC GROUPS.

	Idiopathic	Organic	Total
Number of epileptic parents.....	99	18	117
Number of children .....	367	64	431
Living .....	241	39	280
Dead .....	126	25	151
Number of children with convulsions.....	25	8	33
Living .....	14	—	14
Dead .....	111	8	119

Nine and four-tenths per cent of the total number of the children of the idiopathic cases had a history of convulsions. Eight and seven-tenths per cent of the dead children of the idiopathic died of convulsions.

Twelve and five-tenths per cent of the total number of children of the organic group had a history of convulsions. Thirty-two per cent of the dead children of this group died of convulsions.

Having considered in Table X these offspring as one group, we will now divide them up; first, those cases where epilepsy in the parents was considered the idiopathic type and, secondly, the offspring of the organic group. Here we note that convulsions among the offspring of the idiopathic are even less frequent than among those of the organic. Whether or no this statement would hold true in a larger series of cases might be questioned, but personally we believe that it would, or at least that the difference would be of minor importance.

<sup>8</sup> Journal of Mental Science, 1887.

TABLE XI.

## Total number of cases with epilepsy before marriage, 59.

Total number of these parents with children having convulsions	Total number of children	Total number of children having convulsions
9	39	A. Living ..... 7 B. Dead ..... 3

## Total number of cases with epilepsy after marriage, 58.

Total number of these parents with children having convulsions	Total number of children	Total number of children having convulsions
13	44	A. Living ..... 7 B. Dead ..... 16

Table XI presents several points worthy of note, which are difficult to indicate by the statistical method. We here divided our 117 cases again into the same groups as shown in Tables I and II, namely, those where the convulsions began before marriage and those where marriage preceded the convulsions. Of the 59 cases belonging to the former group only 9 had children who had developed convulsions up to the time that this study was made, while of the 58 belonging to the latter group, 13 had children who had had convulsions. The figures are most striking when we consider that of the parents whose offspring give a history of convulsions, the 9 having convulsions before marriage, bore a total of 39 children, of whom 10, or approximately 25 per cent, had convulsions, while 23 or nearly 50 per cent of the 44 children borne by the 13 parents whose convulsions appeared after marriage, gave a history of convulsions.

In looking over Table XII it is quite apparent that the parent suffering from the convulsive disorder cannot be held entirely responsible for the mental defects in the offspring. The mate in many instances, was either excessively alcoholic, syphilitic or feeble-minded and contributed his share to the instability of the offspring.

TABLE XII.  
22 PARENTS WITH HISTORY OF CONVULSIONS IN CHILDREN.

No.	Heredity	Exciting cause	Relation of epilepsy to marriage	Offspring
1	Mother nervous. Father alcoholic and syphilitic. Pat. uncle alcoholic. Spouse apparently normal.	Unknown.	2 mos. after marriage.	(1 boy and 2 girls.) 1 child died of convulsions at 1½ years.
2	None. Spouse normal.	Alcohol.	18 yrs. after marriage.	(2 boys and 2 girls.) 1 child died of convulsions at 3 weeks.
3	Father insane. Spouse normal.	Fright and quarrel.	? of yrs. after marriage.	(2 girls.) 1 child had conv. at 24—none since—present age 32. This child's 2d child has had conv. since teething—now 6.
4	Father epileptic. Mother migraine. Spouse apparently normal.	Unknown.	6 yrs. before marriage.	(4 boys and 7 girls.) 8th child has had conv. since 13—present age 19.
5	Mother epileptic. Pat. grandfather insane. Pat. uncle insane. 2 pat. great uncles and 2 pat. great aunts, suicidal. Spouse normal.	Pregnancy.	2 yrs. after marriage.	(3 boys.) Oldest child has had conv. since 12 yrs. of age. Present age 23.
6	Mother very nervous. Mat. cousin epileptic. Spouse alcoholic.	Fright.	4 yrs. before marriage.	(3 boys and 4 girls.) Oldest child has had conv. since a small child—now 25.
7	Mat. cousin insane. Spouse normal.	Alcohol.	5 yrs. after marriage.	(1 boy and 1 girl.) 2d child conv. from 1st to 4th yr.—none since—now 10.
8	None. Spouse alcoholic and immoral.	Pregnancy.	1 yr. after marriage.	(1 boy, 1 girl and 3 sex unk.) 1 child died of conv. at 8 or 9 mos. A 2d had conv. with chicken-pox at 14—none since—now 16 and feeble-minded.

TABLE XII.—CONTINUED.

No.	Heredity	Exciting cause	Relation of epilepsy to marriage	Offspring
9	Mother epileptic. Mat. aunt epileptic. Mat. grandfather conv. as a boy. Parents are cousins. Sister migraine. 2 or 3 pat. sibs died conv. Spouse alcoholic and did not support family.	Unknown.	24 yrs. before marriage.	(3 boys.) 2 children died of conv. at 5 mos. and 13 mos.
10	Mother epileptic. Mat. great grandfather epileptic. Mat. grandmother epileptic and insane. Mat. uncle chorea—in prison for robbery. Brother epileptic. His 3 sons insane and 1 daughter insane; 2 sons feeble-minded. Spouse feeble-minded and syphilitic.	Over excitement.	15 yrs. after marriage.	(1 boy.) Only child has had conv. since 3 yrs.—now 21.
11	Mother epileptic. Married 3 times. Father of 3d child immoral and a suicide.	Illness with delirium.	9½ yrs. before marriage.	(1 boy and 2 girls.) 3d child has had conv. since early teens—now 19.
12	None. Spouse's sister epileptic. Spouse normal.	Fright.	8 yrs. before marriage.	(1 boy and 1 girl.) 2d child had conv. at 10 years—none since—now 12.
13	Mother migraine. Spouse normal.		28 yrs. after marriage.	(2 boys.) 2d child has had conv. since 2 yrs.—now 38 or 39 yrs.
14	Sister epileptic. Spouse normal.		1 yr. after marriage.	(2 boys and 1 girl.) 2 children died of conv. at 3 mos. and 7 mos.

TABLE XII.—CONTINUED.

No.	Heredity	Exciting cause	Relation of epilepsy to marriage	Offspring
15	Brother insane. Spouse apparently normal.	Nephritis.	? of yrs. before marriage.	(1 girl and 7 sex unk.) 7 children died of conv. under 6 mos.
16	None. Married twice. Children by 2 men, not her husband, between marriages.	Pregnancy.	1 yr. after marriage.	(1 boy and 2 girls.) Oldest child had conv. "as an infant"—none since—now 25.
17	None. Spouse normal.	Alcohol.	20 yrs. marriage.	(4 boys and 1 girl.) 3 children died of conv. at 8 mos. and 2 at 5 weeks.
18	None. Spouse defective, shiftless, and cannot hold a job.	Menstruation.	5 yrs. before marriage.	(1 boy and 1 girl.) 2d child has had conv. since birth and is blind—now 4 yrs.
19	None. Spouse immoral and alcoholic.	Alcohol.	5 yrs. after marriage.	(2 boys and 3 girls.) 1 child died of conv. at 1½ yrs.
20	Father alcoholic and a bigamist. Mother insane. Spouse apparently normal.	Unknown.	11 yrs. before marriage.	(2 boys.) Oldest child has had conv. since a small boy—now 12 yrs.
21	None. Spouse syphilitic.	Syphilis.	12 yrs. after marriage.	(2 boys.) 1 child died of conv. at 10½ mos.
22	Two distant cousins insane. Spouse apparently normal.	Menstruation.	3 yrs. before marriage.	(6 boys and 2 girls.) 7th child had conv. while teething—none since—now 9 yrs.

## CONCLUSION.

In conclusion we would lay stress on the following points :

1. Epilepsy as a disease is not transmitted directly from parent to offspring, but rather, we believe, that it is the nervous system lacking in the normal stability that is inherited and the manifestations of this instability may be mental deficiency of all degrees, insanity of various types, neurological and psychopathic disorders, convulsions from various exciting causes, which would have little or no effect on a normally developed nervous system.

2. These mental and nervous disorders are less frequently found in the offspring of the so-called epileptic than we have heretofore believed and the future of the offspring borne of epileptic parents is not as hopeless as the pessimistic authorities on heredity record.

3. Maternal defects are more frequently manifested in some form or other in the offspring than are the paternal defects and, when present, are more likely to appear at an earlier age.

4. It was found that in only a few cases were we dealing with "pure cultures of epilepsy." In most instances contamination was brought about by some defect in the other partner such as feeble-mindedness, insanity, alcohol and syphilis.

5. In this study it was found that convulsive disorders were more frequently found in the offspring of the organic group as compared with the idiopathic group. The organic group is, however, so small that too much consideration cannot be given to this point. It should, nevertheless, stimulate further inquiry relative to the offspring of normal individuals and a larger group of organic cases.

6. This study indicates the necessity of research relative to the transmissibility of genetic defects in both epilepsy and psychiatry. We feel that the dogmatism regarding this aspect of mental diseases has not been justified.

## DISCUSSION.

DR. HODSKIN.—It is rather difficult to discuss Dr. Thom's paper because he is dealing with matters of fact. There is one thing that we must remember in epilepsy: That it is not a disease—it is simply a syndrome or a manifestation of some other cause. Another thing we must keep in mind is that epilepsy is a disease of infancy and childhood. In convulsions coming on later in life, if you can get a definite history of the patient's infancy

you will find that that person had convulsions in infancy or childhood. I have looked up some normal families, so-called, in regard to the convulsions in their offspring, and so far as I have gone, twenty or thirty of them altogether, the percentage of convulsions has run higher than the convulsions in the offspring of epileptics.

DR. MYERSON.—I am interested in this work because I think that nowhere have we muddled quite so badly as in the discussion of the inheritance of mental disease. I think that there are three words that have harmed psychiatry and these are "insanity," "feeble-mindedness," and "epilepsy." Not one of these words relates to an entity and there is no inheritance of insanity, feeble-mindedness or epilepsy simply because there is no unit corresponding to these words. We have to collect statistics on the various types of mental diseases, the various types of feeble-mindedness, and the various types of epilepsy before we get any result worth while, and we must compare these statistics with those concerning so-called normal people. Coming down to epilepsy, very often in practice we see patients who have epileptic attacks once or twice in their life and never have any more. Further, one sees one epileptic in a family of normal people, and one sees epileptics begetting families of normal people. If Dr. Thom could compare his figures as to the incidence of convulsions in the descendants of the epileptic with the incidence of convulsions in the descendants of the normal he would have something worth while talking about. The epileptic group of symptoms occurs in many mental diseases and in many organic brain diseases, and in the vast majority of cases represents, to my mind, an accident, trauma, or infection, and in such cases has no hereditary value whatever.

DR. THOM.—In reviewing the ancestry of the 117 cases which we have just been discussing, I found that there were evidence of direct heredity in but nineteen instances, that is, in going back, we found evidence of direct heredity in nineteen cases, and in going forward, twenty-three cases. It may be well to note that in discussing the offspring of the 117 cases, 66 per cent of these children were over twenty-five years of age or past what we might call the epileptic zone, where the 85 per cent of all the so-called epilepsies begin. A further study of this same group of cases in five years would undoubtedly bring to light additional information of value.





## ENVIRONMENT AS IT INFLUENCES THE DEVELOPMENT OF THE JUVENILE DELINQUENT.\*

By PERCY L. DODGE, M. D., BOSTON, MASS.

In writing on environment as it influences the development of the juvenile delinquent, I realize that there are many conditions included in the word environment, any one of which would afford material for a paper far too lengthy to be given at this time. I can, therefore, touch only upon many things going to make up the environment, so very often the factor that starts the child on the road to delinquency.

The delinquent arouses our sympathy because we realize that he has not had the best chance in life, perhaps because of poor physical health. He may be a cripple, he may have some chronic disease, or as is true in a large percentage of cases he may be backward mentally or even feeble-minded. Dr. A. Warren Stearns has brought this clearly before us in his paper—"What Recent Investigations Have Shown to be the Relation between Mental Disease and Crime." He states: "I think that every person who is called a criminal is now thought to have some mental variation from the normal. That variation may be slight, of course, but while it seems only too obvious, it is necessary to insist upon some attention being paid to this relation. Heredity must be given an equal consideration."

I wish to confine myself to the environment, the home and the neighborhood, which may be likened to the soil, the climate, and the sunshine which causes the healthy seed to spring forth and bear fruit. Unless the tree is pruned and kept healthy, the fruit will be bad; unless the soil is enriched and tilled, the good seed will die and weeds will grow.

Of 58 cases of conduct disorder considered at the Boston Psychopathic Hospital, 42 are girls, 16 boys. The large percentage of girls can be accounted for by the fact that most of them

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are sex offenders. Of the 42 girls, 12 were up to normal mental intelligence, 2 were above normal intelligence 1 to 5 years, 25 were below normal intelligence 1 to 5 years.

Of the 42 girls, 25 developed the same delinquencies as were present in the home; 17 developed different delinquencies than were actually present in the home, but the neighborhood environment easily afforded the stimulation and development of such delinquencies. They received little instruction or proper bringing up and were allowed to go out in the neighborhood where the influences were bad. Many of these 17 had drunkards for parents, some had to work like slaves and were finally driven from home to search for freedom, only falling into worse conditions at the hands of some person who for the moment appeared kind to them.

Of the 16 boys, 13 developed the same delinquencies, lying, stealing, truancies, etc., while 3 developed other delinquencies because of poor supervision and the fact that they associated with bad gangs in the neighborhood.

It is true that character is made up of impressions received during the formative period of childhood and these are closely woven into the life and will govern the actions of that child when he becomes more or less of a free agent as he grows older.

A home where morals are loose, where profane and obscene language is used, where drunkenness is rampant, where modesty never is given a thought, where even the chastity of the children is not considered, cannot help but turn out delinquent children.

The following case illustrates this sort of a home and accentuates the awfulness of such a situation:

CASE No. 10150 (Colored).—Father died in 1911 of heart trouble. Was illiterate and was reported to have been intemperate and immoral. Mother illiterate, drinks to excess, is immoral and has kept a disorderly house. Mother has had illegitimate children by white men. She has used tobacco all her life and has brought her children up to do so. She has been arrested for drunkenness and found guilty of keeping a disorderly house. One sister of patient is married, had an illegitimate child by a white man before her marriage. She drinks to excess and associates with disreputable people.

Sister No. 2 is married, had an illegitimate child before her marriage. Cannot read or write. Used to drink excessively but not for the past year because of ill health.

Sister No. 3 married a worthless white man, had an illegitimate child before her marriage by a white man. This child was taken away by the courts as neglected.

Brother No. 1 had a bad reputation and two smaller children, a boy and a girl, were taken by the State Board of Charity and are reported to be bright children.

*Environment.*—Home influences were bad physically and morally. She was allowed to attend dances and return home as late as late as three o'clock in the morning. She has had the usual diseases of childhood. Maturity was established at 13 years. Delinquencies first occurred at the age of 13. From that time on she has had illicit relations with several men and boys, drinks to excess with the family; at least once became intoxicated. Had a stillbirth at seven or eight months. Had an abortion November 16, 1915. Following this she still continued her immoral relations and on December 22, 1915, when during a family row the police came into the home, they found her in bed with a man and she was placed under the care of the M. S. P. C. C. In January, 1916, she was committed to the Industrial School for Girls at Lancaster. At Industrial School she made little progress and was considered very weak but pleasant, enjoyed reading and crocheting, took correction well. On December 26, 1919, she was placed on parole doing housework. She is giving no trouble and has had very close supervision. Her memory is slow. She cannot remember how to set the table for breakfast; has to write down everything. Of late has developed a habit of praying for her family and herself. She states that her mother knew of her immoral relations with men and that she told her how to keep out of trouble.

It is obvious that children reared under such environment must necessarily follow in the footsteps of the older members. The two younger children, however, who have been placed in a different home, are reported to be doing very well, which only goes to show what might have occurred to the other children if such a transplanting could have taken place.

The early influence which the environment makes upon the child is illustrated by the following case:

CASE No. 11199.—Mother and two sisters of patient kept an immoral house.

Patient remembers that: between five and seven she was brought up with two girls who were said to be her sisters. These girls received fellows in their rooms and while they were busy, the mother would make patient steal money from the pockets of clothing of these men whom the girls were entertaining. At about the age of seven was taken out of this environment. She has been brought up since that time in more or less luxury, even receiving music lessons and voice culture. Four years ago, or when she was 13 years old, she began stealing quite regularly. The most recent instance was in a boarding school. This girl is bright looking, attractive. She has always been excused for her stealing and has never felt any responsibility for her misdeeds and always gives the impression "someone will help me out of this." She shows much affectation and would like to study for the stage. She is

now becoming headstrong, and as she is receiving only limited supervision she is taking advantage of the opportunity to go with the boys. She is working in a shop in the city.

This case shows that early environment first made its impression which did not assert itself until five years later, while in the meantime she had a very good home in every way.

There is still the present home that is not very bad in any one thing, but where the training is at fault. Here the child soon learns that it can have its own way and little things are overlooked or laughed at as being cute. Suddenly there comes a time when things have to be viewed at a different angle and then trouble begins.

The following illustrates this kind of a case:

Father sickly all his life, died of pulmonary hemorrhage. Mother well.

*Personal History.*—Girl 16, normal birth. Mother unable to care for child so sister took her.

She always had a bad temper, had to be carried about by mother while she was doing housework. Now will do anything to gain her own way. The rigid rules have recently been put on tight. All her liberties were cut off, moving pictures or dances; "constantly nagged." "I wasn't contented at all." Ran away with a man whom she met at the movies. Lived with him in room. Later found that he was married. She is now a mother, unmarried.

This case additionally shows the bad influence which is placed about young girls and boys in the movies. The problem play, which always comes to a happy ending on the screen, does not work out so pleasantly in real life, but the young girl does not find this out until it is too late.

A few of the girls are just generally bad not because of the home environment, but because of their willfulness in deliberately running into wickedness. They are the ones who are bold, saucy, seem to have very little realization of their conduct. They are usually slightly subnormal and yet not feeble-minded. They are the ones who are border line cases. They do not seem to have mentality enough to reason out things in the normal way. Environment outside the home affords attraction which gradually but surely leads them to destruction.

Case No. 11138 is of this type:

CASE NO. 11138.—Mother died when child was three years old. The family moved from Canada and the father, who is a well-to-do mason, had a very comfortable home where the girl had all the necessities and some

luxuries. The aunt who kept house did not get along well with the girl, who seemed to be incompatible. Patient is fond of sports, skating, golf, dancing, tennis, and when visiting in Canada entered all the winter sports in Toronto. She does not care for housework.

She went through the 8th grade, but would not finish the course.

She left home, going to work in a good home, but soon left, then coming to Boston, where she worked as a waitress in a restaurant, receiving quite large "tips."

She has always been well except for a skin disease, psoriasis.

*Disposition and Character.*—Cheerful, not sensitive, insists on having her own way, will go out nights, crawling out the window when she thought her father would object. She has no fine moral sense and her companions are of low type. She has been engaged twice but left both men for a whim. Became infatuated with a sailor (married man) with whom she lived for several weeks. She has stolen clothing and different articles.

She is only sorry that she is deprived of her liberty but is otherwise not repentant.

Mentally she is 10 8/12 years against 18.

Boys present a different problem than girls, and because of their sex they escape many times and are only brought to the dispensary when some very out of the ordinary circumstance occurs.

Of the 16 boys whom I have considered, four of them are from Lyman School. They were sent there by a judge without any mental examination having first been made. One is eight years retarded, two are five years retarded and one is four years retarded. They were recently brought to the dispensary for examination as to their mental responsibility. They were the common juvenile delinquent, and in addition are considerably below par mentally, so that school for feeble-minded might better have been considered.

CASE No. 11232.—Mother died in poorhouse. Father living, is worthless, a hard drinker, dirty, coarse, and not mentally bright. He is the father of at least one illegitimate child.

*Personal History.*—Born June 2, 1907. Following mother's death was cared for by an aunt who lived in a ramshackle building; did not give ordinary care to the boy.

Because he played truant he was sent to a home and there he tried to set fire to the buildings. He was then committed to Lyman School as a stubborn child on January 26, 1917.

At the school he gets on well but when placed out in a home he is absolutely dishonest and unrulable. He has fits of violent temper and in one home threatened the lady of the house with an axe.

Mentally he is 8 10/12 years against 14 years. He says nobody understands him; that he is much imposed upon and everyone tells lies about him. Says he would like to have a good home and wishes to see his father, whom he just fairly remembers.

This sort of a case would require much time and study to adjust him to a good environment, but I believe before long we can have a series of homes where these cases can be placed and studied under the care and supervision of a trained person. Already a start is being made at the Psychopathic Institute in Cincinnati, and I trust that before long many states will be doing such for their juvenile delinquent.

#### DISCUSSION.

DR. STEARNS.—I think it is very well for psychiatrists to have environment brought to their attention as a factor in conduct disorder. A few years ago we were inclined to a point of view which assumed mental disease in every case. I think Dr. Dodge has expressed my opinion of a number of years ago. Since that time, however, environment has been creeping back and we now give it quite a definite place as an etiological factor. My own work at the Massachusetts State Prison has been at the opposite end of the scale from that of the cases mentioned by Dr. Dodge, for admission to the State's Prison often means the end of a criminal career. There we frequently see cases in which cultural influences appear to be the whole story. For instance, a Southern negro transferred to our Massachusetts community is unable to conform to our social requirements and the same happens to our primitive Italian. A very large percentage of our present prison population was born in Italy, but their children do not appear. So, in general, I think that as the cat thrown out of the window lands on its feet, so the perfectly normal man exposed to any environment is able to make adjustments. It is very wholesome for us to hear of environment as well as forms of mental disease in this sort of an audience. Because it seems that many, particularly newer disease groups, represent an hypothesis formulated for the sole purpose of explaining the particular conduct with which we are dealing.

DR. SMITH.—I was much interested in hearing this paper. I desire to emphasize the relationship of abnormal mental states as an underlying factor. In the past few years I have had many cases of delinquency, not those which had gotten into the courts, but rather those from problem cases brought to a psychopathic clinic. In each case it was the abnormal behavior reactions that caused the delinquency. Abnormal mental states are the primary points of attack. In substantiation of this fact we have tried to get hold of all the children in the family where there is an abnormal child for comparison. We find the other children of normal mental makeup do not react in a similar manner. There is a great deal in environment, but

environment does not altogether control the delinquency. Another point of the paper which I wish to discuss is the relationship of the mental age. In the cases of delinquency you often find the reason for the low mental age levels. It is due to the fact that the child stays away from school or the reaction to lack of proper instruction or guidance at home as often as it is due to a congenital defect of intelligence. If you consider the environment in all its phases, the fact that the individual missed school through truancy, etc., the relationship of the lack of members of the family, the amount and type of home training, you would find that, intellectually speaking, they are above the average mental age level. This does not mean that mental deficiency is not also a potent factor. Many types are frank cases, others borderline, but far too much emphasis has been placed upon mental deficiency as a cause of delinquency. The types of tests and reactions that these individuals fail upon are those requiring judgment, ability to plan out their lives independent of supervision whether it be that of the family or society in general. I might cite a case illustrative of this point. A girl of 15 years was brought up in a family through adoption and was never required to attend school. At the age of fourteen she went to work in a factory at mechanical labor. Her mental tests gave a perfect score; in fact, the third case to attain such a score. How did she do this? It was accomplished through picking things up here and there on her own initiative, and it was only through superior intelligence that she was able to do this. Her lack of supervision and instruction, however, accounted for her behavior reactions, but it was the superior intelligence that caused her to be the social problem that she was. In closing, juvenile delinquents usually have as a background superior intelligence or abnormal mental states that are so warped that maladjustments result. Those whose mental state is of average normality under the same environmental considerations do not become delinquent.

DR. MYERSON.—I happen to be the predecessor of Dr. Dodge in his clinic and so I saw a great many of the cases that he describes. I think the average psychiatric attitude toward the delinquent is puerile. It reminds me of my six-year-old son, who said to me one day: "So-and-so is a good boy." I asked: "Why is he a good boy?" He answered: "He does good things." I questioned further: "What are good things?" Said he: "Things done by a good boy." In psychiatry we say the chronic offender is a constitutional psychopathic individual. "Why," someone queries, "do you call him a constitutional psychopathic individual?" The answer is: "Because he is a chronic offender." There does not seem to be much difference between this type of reasoning and that evidenced by my six-year-old son. What we have to deal with is a conduct disorder and we might as well call it conduct disorder or character anomaly without tacking on to it a disease label. Personally, I am of the belief that most of the delinquency is environmental rather than hereditary or congenital. Of one hundred girls whom I examined for the Massachusetts Parole Department, nearly every one of them had homes and environment that made their

delinquency seem normal. I contend that it is the environment that must first of all be examined to explain phenomena of conduct. We do not know enough about heredity to ascribe conduct disorder to it in any sweeping fashion, but we can analyze the environment, and we had better exhaust a known factor before we invoke an unknown.

The thing that has saved most of us from becoming delinquents, as I review my own life and the life of others, is that we were not found out, or else that temptation, opportunity and desire did not coincide in time. Temptation and opportunity are futile of results if there is no desire. Desire produces little if temptation and opportunity are lacking. If temptation and opportunity coincided with every criminalistic desire, that thing that all of us have, then all I can say is, God help society.

DR. CORIAT.—Dr. Dodge's paper interested me very much, and the few words I have to say will be devoted chiefly to emphatically differing from his viewpoint. My experience with juvenile delinquents and their peculiar disorders of anti-social conduct has shown that environment plays but a small part. I believe most of these cases of disorders of conduct in juvenile delinquents which lead to unusual social behavior arise from within the individual as the result of long mental conflicts. Undoubtedly, I will admit that in a certain number of cases, possibly these mental conflicts have been precipitated by environment. Of course to label these conditions as a constitutional psychopathic state means nothing; it is merely the admission of our ignorance—the pigeon-holing of something we do not understand. My experience has shown that most of these cases arise from gross mental disorders, from the psychoneuroses or through feeble-mindedness, particularly in the cases in which stealing was a prominent symptom, and when these cases are carefully examined without the necessity of going into any detailed analysis, it will be found that the large majority of all of them are of the neuroses where the stealing is merely symptomatic of inner conflicts of the patient. To say that the patient is feeble-minded and does certain things likewise explains nothing, because all of us know how full of errors are these so-called intelligence tests which are used for the detection of feeble-mindedness. I am very skeptical when a young girl of 15 years who has been stealing and it is reported that her mental age is 7.4 years, because a failure to react to the intelligence test does not always mean a mental defect; it may be due to certain emotional conflict, and even if we do admit that the person is feeble-minded, this does not explain the peculiar anti-social conduct of the individual.

DR. DODGE.—All of these cases were the total number of what we termed at the Psychopathic Hospital "delinquents," and in looking over every case I found that there was an environment that caused the delinquency. I believe that environment is almost the prime element in the development of these juvenile delinquents, and the sooner we can get some sort of systematized education for the home the sooner we will be able to relieve and alleviate this condition of delinquency that we have to-day.



## MAGNESIUM AS A SEDATIVE.\*

By PAUL G. WESTON, WARREN, PA.

It was shown by Meltzer and Auer in 1905 that the primary effect of magnesium upon the nerve cells is that of paralysis without any preceding excitation. The effect seemed to be exclusively of an inhibitory character. They injected subcutaneously into rabbits varying amounts of a 25 per cent solution of magnesium sulphate. The effects depended on the size of the dose and varied from no effect to complete muscular relaxation with loss of cutaneous and corneal reflexes. Larger doses caused death by paralysis of the respiratory center. Calcium chloride even in small doses when given intravenously overcomes the inhibitory effect of the magnesium.

It would seem that here we might have a good inhibitory agent and that it might be of value in excited states. Also we know the antidote which is easily obtained and prompt in its action.

For the past few months magnesium sulphate has been used at the Warren State Hospital as a sedative. The salt was recrystallized twice and was free from calcium, sodium and potassium. It was administered hypodermatically in doses of one or two c. c. of a 25 or 50 per cent sterilized solution. There were no local effects, though one patient complained of a burning sensation at the site of injection.

In all more than 250 doses have been given to 50 patients. Half of these were agitated depressions; seven were dementia præcox cases; four were paretics, and there were one or two each of epilepsy, senility, organic dementia and hysteria. There was one actively manic case. All were noisy, talkative, very restless or resistive. In short, all were more or less agitated.

The result in nearly all cases was the same. The patient relaxed and slept from four to six hours. Some patients did not react at

\* Author's abstract. Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

all. One woman, an agitated depression, received three doses of two c. c. of a 50 per cent solution of the salt at half hour intervals. There was no apparent effect. This was repeated the following night with the same result. One actively manic patient received one cc. of the 50 per cent solution every three hours for four doses. There was no noticeable effect. Of the total 250 doses, 30 were without effect.

The most marked effect was obtained in simple agitated depressions. There has been no opportunity to give the salt to a sufficiently large number of very active, excited patients to know whether it is of value or not.

## INDUSTRIAL PSYCHIATRY.\*

By JAU DON BALL, M. D., BERKELEY, CALIFORNIA.

### INTRODUCTION.

What is industrial psychiatry? What is the outlook for industrial psychiatry? Are we to confine our activities in industrial psychiatry to mere recording of symptoms, placarding a case, or looking for true institutional cases?

The answer to the first question is not known at present; no attempt will be made to present it in form of a definition. The ultimate answer, however, will state in definite terms the problem of industrial and social unrest.

The other two questions are answered by the following discussion:

The philosophers of our profession have burned their souls out in seeking the whyfore of the mental disturbances which have not only wrecked the lives and smothered the careers of individuals, but have at times disturbed the peace of nations and unbalanced the equilibrium of the world. The result of their vision is being demonstrated in the accomplishments of especially trained men and women earnestly working in fields hitherto passed unnoticed. The facts that these workers are unearthing clearly point the future for the psychiatrist, the road along which he can be of greatest service to humanity. The state hospital service, the service in private sanatoria, the clinical experience in psychopathic hospitals and mental hygiene clinics act only as a stepping stone to prepare the student of abnormal human behavior for the higher, more practical, more glorious service of adjusting the mental ills of the nation's industrial life.

The superintendency of a state hospital, the establishment of a private sanitarium, the development of a private psychiatric prac-

\* Read (by title) at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31, June 1, 2, 3, 1921.

tice were formerly the only goals to which the young men and women in our specialty could hope to reach. Perhaps a few hope to convert the legal profession. This road is beset with obstacles of legal precedent and fictitious concepts that are oftentimes sufficient to discourage the strongest. Progress is being made slowly in the medico-legal field and the situation for the sake of comparison with the industrial field may be briefly stated as follows:

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.

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 persons 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 indiscretion, 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.

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.<sup>1</sup>

The mistakes of our specialists in the legal field should be a warning to those entering the field of industrial psychiatry. The pioneers in our work ever stand as monuments at our backs; their accomplishments are the spurs that are driving us into new fields. You have labored hard and long, but now you are coming into your own. The thinkers in industry, both industrial leaders and labor leaders, are awakening to the need for such men and women as can come only from the ranks of our specialty.

Just as the general physician and internist is applying the principles of preventive medicine for the welfare of mankind, so are we emerging from the chrysalis of the treatment of end results and are applying preventive measures which have developed within the bounds of our specialty. The extent of the application of the principles of mental hygiene (the prophylactic of psychiatry) are limitless, for we can rightly claim that every bit of abnormal human behavior comes within our jurisdiction. As aids in this wonderful work we have recourse to the observations of duly qualified psychologists, sociologists, our brother physicians working in other specialties, and the earnest, especially trained psychiatric social workers and nurses. The outlook for industrial psychiatry may be gleaned from the following quotation from a report, of a survey recently made by the author, to the president of one of the large oil companies of the world. The survey, parts of which constitute the basis for this communication, resulted in the establishment of a special personnel department in charge of a psychiatrist.

"The mental hygiene of industry" is no longer an elusive concept. Just as the efficiency of an individual is, to a great extent, dependent upon the attention he pays to physical hygiene, so to a much greater extent is his efficiency and success dependent upon the application of the principles of mental hygiene.

The betterment of industry is recognized by all thinking persons as the "cry of the age." As a man thinks, so will he work. The "drives" behind human behavior are beginning to be understood and appreciated at their true values. The value to industry of a careful study of the stimuli at work in all cases of abnormal individual and group behavior detrimental to the interests of employer,

employees, and consequently society in general, is beyond computation.

Industry is naturally interested in production cost. The cost of production is dependent upon the "*human factor*" which raises or lowers the cost of production, according to its moods, attitudes, tastes, appetites, disposition, temperament, character, and intellect. The cost is increased when the innate tendencies or instincts of this human factor are adversely and unwisely stimulated; and the cost can only be lowered when these elements are recognized as fundamental and as needing normal stimuli, direction, and guidance.

The high cost of production in any industry is in direct ratio to the behavior of employer and employee for the particular industry, and it must be realized that not only does the organization suffer, but the employee and consequently society suffers; which in turn rolls up resentment, disgruntledness, antagonism—all adverse and destructive *sentiments* which, had the individuals constituting the organization been properly studied and directed, would have never developed, or at least would have been swamped, submerged, and repressed permanently under the enlightening influence of mental hygiene. In the place of the costly adverse sentiments above mentioned would be loyalty—constructive thinking—and co-operation, the economic trio of industry.

Industrial unrest may make itself apparent in many ways. It is frequently indexed in the turn-over problems of a plant; the waste of material and time and consequent over-cost of production, and ultimately in paralysis of industries by strikes with their attendant necessary high cost not only to the individuals but to the industries involved, and to society in general. Strikes may be avoided by agreements, but unless close study is made of underlying reasons for abnormal conduct, and proper remedies applied, the high cost of production within the particular industry, will continue and little or no interest taken in the conservation of waste (material and time) and the instinct of workmanship, so essential for personal and industrial success and progress, will remain at low ebb.

Success of industry is measured in dollars and cents; but too often the dollars and cents income is in rational excess of dollars and cents out-go in spite of itself and not because of a loyal and efficient organization.

The personnel problem resolves itself into a study of personalities which necessarily means a careful study of intellect, temperament, and character—and the relation of industrial environment to the individual taking into careful consideration national and racial peculiarities and idiosyncrasies.

Progress in the field of industrial psychiatry will be measured by the degree of protest of non-progressive, short-visioned, self-centered, intellectually circumscribed persons who "protest against a program of more expert study of anything whatever, including human personalities wherever at work."<sup>1</sup>

The success of industrial psychiatry is inevitable. It will not only stabilize the personnel of industries, with consequent advantages, but will strengthen confidence and develop an unshakable loyalty wherever conscientiously applied.

Essential to industry is an outlet for the emotions and feelings of the workers. This outlet point must be a person particularly adapted, with understanding and sympathy to the man who, registering his complaint, is made to feel that it has not been in vain. Thus having this point for his outlet—mental relief is obtained and greater efficiency in his work will result. Not having an outlet of the right kind, the man goes to his work mentally disturbed—lessening his efficiency, and later, after working hours, seeks an outlet with his fellow workmen who, too, have similar troubles and the result is that agitation, resentment, and disloyalty thrive.

The tendency of the employee is either up or down according to the behavior of the employer. Up—when the employer is a stimulus. An ambition is then a goal to the employee who works towards or with the company. Down—when employee, after a time, develops an antagonism to things and persons above him and works against the company—thus forcing himself down and farther away from his interests and ambitions, which in time prove a greater menace to himself than anyone else; but in the meantime, through lack of foresight and unscientific management, the company pays the bill in increased cost of production.

Thus we have a prognosis for industrial psychiatry which is believed to be very conservative.

Industrial psychiatry should not be considered a "weeding out" method, but a method of conservation; therefore it behooves the psychiatrist who would enter the industrial field to increase his

range of vision—to take a look at conditions—industrial environment, wage schedules, etc. Such things as fire hazards, health and accident hazards, ventilation, housing, job-analysis, labor turnover, and community relations and recreational facilities are mentioned not as abstract things but as concrete factors affecting the individual and conditioning his behavior.

Upon the behavior of individuals (and groups of individuals) depends the successful operation of any organization. No organization is stronger than its weakest unit. Therefore, when unhealthy, abnormal, anti-social ideas begin to group themselves about the constellation of discontent, dissatisfaction and disloyalty, the whole problem becomes one of psychiatry or mental hygiene.

It is patent to the careful observer that the psychiatrist must needs be the director of personnel departments for industries if real success is to be attained.

#### PRACTICAL APPLICATION OF PSYCHIATRY TO INDUSTRY.

##### I. THE PRACTICAL APPLICATION OF PSYCHIATRY TO INDUSTRY HAS BEEN DEFINITELY ESTABLISHED.

There is no panacea for the ills that beset society. All of you are no doubt familiar with the various plans offered from time to time in the past to solve the social and industrial problems known generally by such terms as social and industrial unrest. Many solutions have been suggested to quiet the turmoil—but these plans have all been too general. Every nation has its problems, every community within each nation's bounds has its problems, every organization (industrial and otherwise) within each community has its problems, and so on until we arrive at the individual constituting a part of the organization. We have been studying groups for ages—now let us turn the spot-light of psychiatry on the individual. It is the opinion of the author that each and every industry will be able to solve its own problems only by carefully studying the individuals constituting its organization. This applies equally well to labor unions.

The most important part of an organization is the individual worker, yet he receives the least study and is considered the least in the general scheme of things. The mechanical devices and machinery of various sorts are carefully attended to, yet the man



who operates them is oftentimes overlooked. Visitors to our industries have pointed out to them this bit or that bit of wonderful mechanism, but seldom do they have their attention called to the worker, the actual producer. In fine we have been junking the finest piece of mechanism ever created—man. It is up to this venerable association to place its stamp of approval upon the psychiatry of industry and make every effort to duly impress industrial and labor leaders that there is no mystery enveloping their problems. The same instincts with their attendant emotions determine the behavior of all. Man is man the world over. He fears, becomes angry, manifests wonder, exhibits disgust, subjects himself to more dominating brothers, shows elation, and pours out tender emotion, in varying degree according to the potency of the stimuli and the strength of his resistance. He furthermore gathers together in groups for protection and takes pride in his accomplishments and seeks to provide himself with the necessities and comforts of life. He is amenable to suggestion—will do as his brothers do and responds to constructive sympathy. He loves and he hates, according to his treatment. Capital, labor, upper class, middle class, lower class, employer, worker, or whatever terms we choose to designate the various strata of life are fundamentally moved by the same innate tendencies. Whatever it is that determines the various groups we still must admit that within all we have psychopaths, psychotics, feeble-minded, epileptics, defects of character, temperamental peculiarities, individuals and groups manifesting high social ideals, differences in tastes, appetites, and interests. Psychiatrists well know that man under physical or mental stress may not respond in the manner called normal by society. The worker one day awakens to the fact that he is a worker only, and henceforth joins the hyper-sensitive multitude. The employer sleeps on oftentimes utterly oblivious to the fact that he is acting as the adverse stimulus to the particular sensitive group of workers in his employ. Through the urge of acquisition this group makes a demand. His pugnacity is aroused; he refuses or dickers, delays and evades, which in turn arouses the pugnacious instinct of the worker.

Uncontrolled and misdirected this pugnacity on both sides results in disaster, waste, and frequently frenzied destruction. The duty of the psychiatrist is plain. It is education for both groups and

not a weeding out process. If industrial leaders would overcome their fear (and fear it is) long enough to permit a rational comprehension of the situation from a psychiatric viewpoint and seek the aid of specialists in human behavior they would be astonished at the results. You are met with the statement that labor unions, labor leaders and the men would not stand for such a program. Let the first answer to that concept be noted in the following extract from a paper read before one of the strongest unions of this country by a highly intelligent labor leader, himself a truly conscientious worker :

As there is nothing new under the sun, so is the plan as proposed by the ——— Company for the employment and management of their men not a new one; at least not in its fundamental features, which are mainly copied after the army plan.

Without entering into the minute details of the problem which cannot accurately be stated now, inasmuch as they are largely experimental at this stage of development, which is always the case in the practical application of more or less new methods, it may be said, however, that first of all it means a mental as well as a physical examination of the applicant for employment. Then, it means a one-man employment system, which in turn means that the right to hire and fire will be practically taken out of the hands of the many foremen, who only too often abuse this privilege by being influenced by personal whims, caprices, and prejudices.

It further provides that the man in charge of the examination and placing of the applicant keeps track of him while employed. He knows how long every man employed on the lease works at a certain job, and how he does his work, and when his turn for promotion has come. This is to eliminate the present unfair method of putting a man to work, forgetting all about him and when a more desirable place is to be filled to either look for a man outside or to favor a man who happens to hold a place in the foreman's favor, leaving the rightful and deserving candidate to work out his salvation as best he can in obscurity.

Nor do the duties of this man end with the examination, employment and promotion of the individual worker—his duties embrace also the care of and control over the social, mental, physical, and sanitary conditions of the lease—in fact, everything pertaining to the welfare of the camp which is not designated by the wage memorandum as being part of the shop committee's work. A school for industrial and mechanical training may be established, wherein mechanics and mechanical drawing are to be taught for the benefit of those who are desirous of availing themselves of such an opportunity.

The object of this change in the company's policy is not an elimination or "weeding out" process as might be suspected on first thought, but it means improvement and promotion from within as against the former

haphazard way of hit-and-miss—hit the deserving ones in the weeding out process and miss them in the promotion process.

It is not to be considered a philanthropic move on the part of the company but an advanced business method, which must pay dividends to both parties if carried to a successful solution. To the employer it must result in a more competent working force with less waste and labor turnover, while to the employee it must bring a larger degree of contentment, satisfaction and interest in the work because of the assurance of impartial fairness and appreciation of his services by the recognition of his merits in the process of promotion.

To accomplish these desirable and laudable results a whole-hearted co-operation of both sides becomes an absolute necessity. On these conditions success is inevitable, while on the other hand failure is equally certain if interest on either side be lacking.

The reading of this paper was followed by considerable suspicion, protest and accusations against the reader. He firmly stood his ground and was, at a subsequent meeting, upheld by the chief adviser of the union (a man known for his intelligence and force, but by industrial leaders classed as a dangerous agitator) whose social ideal is nevertheless high and whose sole object is the betterment of conditions for the worker from whom in turn, for better wages and improved working conditions, he demands the amount of efficiency called for by his pay and workmanship instinct. The result of this educational program by intelligent labor leaders who caught the idea advanced by the psychiatrist that the study of the individual meant a brighter, more normal future for the worker, was absolutely astonishing. A spirit of co-operation which extends from management to lowest paid roustabout has been developed. The key has been in frankness, explanation of methods, the elimination of mystery, and the placing of the "cards on the table." The further value of this stimulus is evidenced in the following clipping taken from the official paper of the union. This article was on the front page in the center of other articles which were definitely belligerent to other industrial organizations:

If what Brothers X and Y say is true, and we have no reason to doubt it, the efficiency system initiated on the ——— properties of the ——— Company by Doctor ——— is one of which would bear looking into by other oil operators of the State ———.

Efficiency systems, the sole purpose of which is to extract the last ounce of energy from those coming under their operation without regard to their consequent physical and mental deterioration are too numerous, and it is

refreshing to hear of one, the chief essential of which is the practical and scientific conservation of the bodily and mental vigor of its subjects.

There has always been a terrible wastage of man power in industry, due in great part to the absence of the application of scientific principles of the question of the man at the job. The system inaugurated by the \_\_\_\_\_ Company would seem to be a long step toward remedying this condition.<sup>8</sup>

To demonstrate the difficulties encountered by a psychiatrist in industry the following important incident is given: A committee of workers, constituting a mixed shop committee and welfare committee, waited on the psychiatrist in charge of the personnel department—stating that one of the employees had been discharged for suspected bootlegging, that from the facts in their possession he was not guilty and had not been arrested. He had sought employment with neighboring companies, but had been unable to secure work. A black-list was suspected and they proved that a private detective agency had so listed this worker. An injustice had been done, the psychiatrist was under fire, for he was suspected of conducting an employment bureau along old lines. The situation demanded quick action. The friends of yesterday were about to discredit the new plan and revoke their sanction of a psychiatric personnel department. The situation was the result of an old policy and naturally not sanctioned by the psychiatrist or his executive sponsor. The "atmosphere" cleared with the establishment of the truth of the contention of the committee and the immediate restoration to work of the man who had been discharged. During the interview with the committee it became necessary to define the policy of the personnel department. This policy is definite and may serve as a suggestion for others entering the field of industrial psychiatry:

Absolutely all cases, whether employment, discharge, transfer, promotion, or grievance, will be dealt with individually. The judgment or opinion of no one man will be taken as to whether or not a worker applying for position is desirable or undesirable. This department, under my direction, will ascertain all the facts in any particular case, whether worker seeking employment or worker resisting termination or worker presenting a grievance, and render a decision only upon facts as actually ascertained, thereby eliminating prejudice, favoritism, petty jealousies, and judgment of persons unqualified to scientifically and justly prognosticate the behavior of others.

Furthermore, this department is undertaking a task for which it alone is responsible and that it intends to act according to the principles as just outlined. The problems which may confront it are to be solved according to

the constellation of facts surrounding each case and then only after a just, unbiased, rational, and ethical observation of all factors entering into the particular problem. Each and every case then will be treated individually.

This department definitely approves of law and order. Serious offenses against society, affecting this community in particular, should in all cases be dealt with through normal social channels by properly qualified civil authorities, and it is in no wise the function of this department to interfere or place obstacles in the pathway of the proper carrying out of the laws of society.

Many cases, however (speaking generally), of petty delinquency can be saved if properly handled, and should such problems ever face this department, it assures you that you will have its full co-operation in studying the individual with the object of salvaging him to society and to himself, should that be the desire of the injured person making the complaint, or should it appear that the facts so warrant.

The author's ideas of the psychology and "psychiatry" of a "black-list" situation was incorporated in a report, as follows:

This case, serious as it is, fully and clearly emphasizes the great need for a personnel department for this company, not only in this field, but to guide and direct the "behavior" of its employees throughout.

A little education and training in study of human behavior would save just such situations from choking the sentiment of loyalty, and would prevent them from developing. Briefly, then, this case demonstrates the adverse stimulation of normal instincts with a resultant undesirable and destructive attitude on the part of the worker, interfering with his interest in his work, his loyalty to his employer, and if continued and allowed to develop and grow, would react in a damaging manner to all concerned.

The reaction of the worker to this adverse stimulation in turn acts as an adverse stimulus to employer—and unless counter stimuli of a conciliatory nature are applied, a truly dangerous, vicious circle will be established.

The specific analysis is:

Adverse stimuli . . . . .	{ "Black-list" Private detective agency.	} Acting on certain instincts or innate tendencies.
Instincts or innate tendencies affected	{ Pugnacity (anger) plus Self-assertion (elation)	
	= { Resentment against the source of stimuli (the company)	} Developed the adverse sentiment

which if prolonged grows into vengeance against the company.

For the individual of the private detective agency the same thing applies, but also the following takes place:

Instinct affected . . . . .	{ Repulsion (disgust) plus Self-assertion (elation)	} Develops contempt, especially for private detective.
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Furthermore, flight, with its associated emotion of fear, also enters the heart of the worker and we also have repulsion (disgust) coupled with it to form the complex destructive sentiment or emotion called loathing.

So—~~then~~ this apparently trivial incident has aroused :

- 1st. Resentment (against the company with a possibility of vengeance if continued).
- 2d. Contempt for individuals.
- 3d. Loathing for individuals.

All the result of the combination of flight with its associated emotion, fear; pugnacity, with its associated emotion, anger; self-assertion, with its associated emotion, elation; repulsion, with its associated emotion, disgust.\*

\* There was no black-list except in so far as the detective agency notified other companies who could use their own judgment. Nevertheless, the petty activities of such agencies led to the rapid upheaval of mountains of discontent and antagonism. The detective agency ceased activities on direct orders from the management upon advice of psychiatrist. It had overstepped its bounds and the special activities of which it was accused were definitely not sanctioned by the company.

The above incidents demonstrate how it is possible to secure co-operation by explanation of methods and frank discussion of policies; and also it is made plain that any hedging about with mystery, extreme reticence, and general signs of distrust, will immediately create an atmosphere of distrust and antagonism.

Get rid of the element of fear and let the psychiatrist understand from the beginning that he must be as firm in his convictions regarding situations involving human behavior as the fictitious corporation is in building business. There is no half-way station in industrial psychiatry. The subtle agencies at work against you will be legion—but success will be attained if we keep our “backbone” in good workable condition. Always bear in mind the element of *fear* when dealing with both worker and employer. Be frank with both; point out the needs of the organization which you are attempting to advise. Frequently an employer will be found who will expect you to give the workers in his employ a dose of mental hygiene that will eliminate all of the problems of his organization.

He may be at fault and not the workers; so do not forget the management and chief executives in your enthusiasm. Look them over—know them well. One very important point must be made here, and that is that disloyalty, lack of co-operation, and destructive thinking is *not always* the direct result of abnormal factors in the

employee, but oftentimes is the immediate result of abnormal make-up and abnormal behavior of dominant persons in the management from the highest to the lowest. True it is that frequently an agitator, Bolshevik, I. W. W. or whatever you wish to call him, will, by sheer weight of personality and special leadership qualities, cause disturbance among suggestible employees. Such persons are usually paranoid and their anti-social ideas have usually been stimulated wherever they have been employed by dominant or pugnacious or psychopathic superiors.

The need for special study of industry from a psychiatric viewpoint has been demonstrated. Note that anywhere along the line a person in authority, manifesting abnormal conduct, may cause trouble in the ranks of industry. This trouble may manifest itself in open action such as *strikes*, or may be subtly present in such individual and mass destructive sentiments as disloyalty and lack of co-operation. Bear in mind that all human behavior depends upon the stimulation of innate tendencies by environmental factors which may be abnormal behavior in others. It behooves industry then to establish as its most important department a bureau whose business it shall be to see that the stimuli applied to its executives and subordinates is such as will cause normal reactions and consequently loyalty and co-operation.

## 2. ORGANIZATION AND FUNCTION OF A PERSONNEL DEPARTMENT FROM A PSYCHIATRICAL VIEWPOINT.

I. *Personnel*.—(a) Psychiatrist.† (b) Neurologist. (c) Psychologist. (d) Physician. (e) Psychiatric social worker. (f) Special stenographer (medical). (g) Engineer. (h) Employment manager.

II. *Function*.—The function of such a department should be specifically defined and should deal with all factors affecting the behavior of employer and employee, it being understood, however, that the psychiatrist is not to supplant the management, boards of directors, engineering force, or labor leaders. His function being

† The psychiatrist should be the director and to him should be brought all facts regarding particular situations and cases. It is his duty to co-ordinate them after conferences and to make final decisions. In small organizations the psychiatrist would have to act as neurologist and oftentimes make his own physical examinations.

to collect the facts affecting the human element and which condition human behavior. His decisions may be side-tracked, but he goes on record and subsequent events will prove the correctness of his conclusions in the majority of situations and cases.

III. *Equipment*.—Special office building of special design, including reception rooms, examination rooms, consultation rooms, psychological laboratory, industrial research laboratory (proper equipment); record blanks and folders, record files, psychiatric and psychological apparatus and necessary blanks. Desks, chairs, examination table, necessary stationery, and office requirements.‡

The viewpoint of the psychiatrist is necessary in all of the following: I. Industrial and labor audit. II. Industrial research. III. Planning. IV. Community relations. V. Force maintenance. VI. Morale. VII. Mental hygiene programs. VIII. Employing: (1) Sources of labor supply; (2) selection of interviewers; (3) group and individual test (psychiatric, psychological); (4) physical examinations; (5) trade tests; (6) work and job analysis; (7) selection of worker; (8) studies in terminations; (9) distribution of labor. IX. Education. X. Safety. XI. Group and individual relations. XII. Service (welfare). XIII. Grievances and complaints. Study of individual cases. Recognition and classification of types and conditions. Determining, if possible the predominating and contributing causes in any individual or group cases of disgruntledness and dissatisfaction. Determination of responsibility of individuals from a purely medico-psychological standpoint. Determination of prognosis; advice regarding treatment and placement.

One of the most important functions of the psychiatrist is to select employees, from executive to roustabouts. It is necessary for him to have in mind the physical, nervous, and mental qualities essential for each position. Rather I am inclined to the belief that the training of executives in psychiatric personnel work should be the first duties of an industrial psychiatrist. The following is an outline of the qualifications desirable for an executive to possess:

‡ Surely a psychiatrist knows how to adapt himself—so that if he is refused most of the above personnel and equipment he will get along with a good clerk and his own efforts until he is able to demonstrate his value, which he will do ultimately.



The nature of the work is executive and administrative, the requirements of which, if conscientious work is done, are very exacting and often include extraordinary accident and health hazards.

Conditions affecting the motor, sensory, and emotional reactions of the executive are such as would require at all times normal adjustments to most trying physical, nervous, and mental situations.

Mental characteristics for the field superintendent's work are: Above average education, high grade of intelligence, and especially does the job require: Attention, continuity of effort, planning ability, analytical power, accuracy above the average degree. Ability to observe and remedy defects in the organization; ability to recognize the relationship of the various departments and to properly interpret their importance to the entire organization; ability to discriminate carefully and justly; above average powers of observation and concentration and good memory. The output of energy in *work* and *play* must be noted in being active, pushing (quiet and forceful expression of these); habits of activity to show system, orderliness, punctuality, definiteness of purpose, precision, consistency, ability to shoulder responsibilities for his acts and not shift to subordinates, practical viewpoint; high moral standards, truthfulness, honesty, conscientiousness, with a great repulsion against shirking; a general cast of mood showing stability manifested in cheerfulness, "conservative" optimism, and rational sense of humor; also absence of abnormal conceit; ability to see mistakes. His attitude towards others should be sympathetic, kind-hearted, generous; his reactions to attitude of others should be frank, reticent if necessary, open make-up; self-assertion inasmuch as it requires ability to "shape things," manage difficulties well and ability to lead; adaptability enabling him to get along with other people and hold their confidence and respect; sociability and ability to make friends and readily get acquainted; a normal position towards reality; manifestation of normal interest in society, or in other words, his social ideal as well as his personal ideal should be well developed, and a great sense of satisfaction should be obtained from what he does.

The mental qualifications of the executive should conform in general to the above, but in addition his personality, in lay terms, should be "pleasing." In a more technical or scientific conception

the personality of the executive should be manifested in a high grade of intellect; a desirable temperament, and an excellent character (manifested in): (1) Normal control over, and rational direction of, innate tendencies or instincts; (2) satisfactory dispositions; (3) desirable habits; (4) reasonable *tastes*; (5) normal personal ideal; (6) highly developed social ideal; (7) above all an ability to back up his convictions with what is known as strength of character.

The relation of the position to the organization is most important, for upon the type of man selected depends the loyalty and co-operation of all workers in the organization.

Supplementing the foregoing the mental or personality qualifications could include such traits as: Courage, organizing ability, creative sober imagination (one might even say conservative instantaneous imagination if such a quality exists); also desirable are idealistic qualities of a practical workable trend; also essential is "the subtle efficiency of tact" manifested principally in courtesy.

The filling of such a position as above described is an "Art." "No concise definition can fully describe an art, but the relations between employers and men form without question the most important part of this 'art'" of management.

### 3. COPIES OF RECORDS AND CASES TAKEN FROM SUCH A PERSONNEL DEPARTMENT IN ACTIVE OPERATION.

The following cases will demonstrate some of the work that could be done by a psychiatric personnel department. Cases are divided into:

- I. Cases demonstrating standard methods of recording.
- II. Cases demonstrating methods used.
- III. Specimens of job analyses made in co-operation with the engineer. These job analyses demonstrate what should be done by psychiatrist in industrial field. These analyses are also only preliminary, but will serve as basis for future more intensive study.
- IV. Studies in causes of turnover.

#### *I. Cases Showing Methods of Recording.*

The scoring method is based upon the plan used in the United States Army for rating officers and is therefore a modification of

W. D. Scott's plan which featured a man-to-man comparison. It is explained as follows: Assuming that an arbitrary "normal" or "average" criterion is desirable, then the following qualifications as a tentative basis to rate from, either up or down, as the requirements of the *job* may indicate:

(1) At least average intelligence (to be determined by one or more of the standard tests for intelligence). (2) Good physical condition. (3) Good nervous condition (determined by neurological examination). (4) Good mental condition (determined by psychiatric examination). (5) Personality characteristics of special kind (aside from normal intelligence) as: (a) Normal control and activity of innate tendencies or instincts (according to McDougall's outline),<sup>8</sup> as well as bodily activity; (b) satisfactory dispositions; (c) good and desirable habits; (d) recognized normal personal ideals; (e) recognized normal social ideals; (f) normal tastes; (g) strength of character; (h) satisfactory temperament. (6) Speed. (7) Accuracy. (8) Good reasoning ability. (9) Good auditory memory. (10) Good visual memory.

The score for each individual is based upon the ten qualifications<sup>9</sup> enumerated above, but classed under five heads or topics which also serve for scoring other traits.

The score for each person is the total number of points obtained. In no case can this score be more than 100. It must be borne in mind that this is not a percentage score; that is, it is not on a percentage basis, but each grade of a quality or group of qualities has a special value which has been arbitrarily determined.

The values for each qualification or group of qualifications is indicated numerically after each one. The following list of qualities has been decided upon as a basis for scoring:

A. *Physical*.—(1) Physique. (2) Neatness. (3) Voice. (4) Endurance.

All gauged by physical examination and observation.

B. *Nervous*.—(1) Motor reactions. (2) Sensory reactions. (3) Special senses.

All gauged by neurological examination.

C. *Mental*.—(1) Ideation. (2) Judgment. (3) Reasoning. (4) Memory (auditory and visual).

All gauged by psychiatric and psychological examinations.

D. *Personality*.—(1) Innate tendencies. (2) Dispositions. (3) Habits. (4) Temperament. (5) Personal ideals. (6) Social ideals. (7) Intellect.

All gauged by interviews, histories, observations, and psychiatric examinations.

The values or rating was in each case as follows: Superior, 15; above average, 12; average, 9; below average, 6, inferior, 3.

E. *General values*.—(1) Intellect. (2) Learning ability. (3) Reporting ability. (4) Memory (auditory and visual). (5) Speed. (6) Accuracy. (7) Leadership.

All gauged by résumé and judgment of recorder after studying all facts.

The rating upon (E) was as follows: Superior, 40; above average, 32; average, 24; below average, 16; inferior, 8.

You will note that each qualification used for scoring has also a *descriptive* value and that the numerical value corresponds to the descriptive value: As superior, above average, average, below average, inferior, with the values 15, 12, 9, 6, 3, respectively, for each of the qualifications except *E*, which has a higher numerical value as indicated above.

The scheme for rating and numerical valuation is similar to the rating scale of the army, and the above idea is derived from it, but the values are arrived at by actual examinations and not by a man-to-man comparison, which latter method is used in the army.

The personality chart is explained as follows: The Roman numerals indicate: I. Very superior. II. Superior. III. Above average. IV. Average. V. Below average. VI. Inferior. VII. Very inferior.

The top row of letters indicate: A. Education. B. Intelligence. C. Physical. D. Nervous. E. Mental. F. Social. G. Auditory memory. H. Visual memory. I. Speed. J. Accuracy. K. Attention. L. Personality. M. Disposition. N. Temperament. O. Opinion. P. Special abilities: (1) Learning; (2) reporting; (3) planning; (4) follow directions; (5) expression or teaching.

Alpha army test was used as a group test. The Stearns and Thorndike tests were also used.

CASE I.—Male. Age: 27 years 11 months. Occupation: Clerical. Education: Eighth grade. Intelligence: Alpha test, 82C. High average.

Follows directions well. Slow decisions. Very poorly adaptable. Psychopath. Unstable.

## SCORE.

1. Physical .....	9
2. Nervous .....	6
3. Mental .....	6
4. Personality .....	6
5. General Values.....	8
	—
Total .....	35

*Recommendations.*—Mental hygiene. Study. Direct. Good man if encouraged.

CASE II.—Male. Age: 40 years 11 months. Occupation: Clerical. Education: Ninth grade. Intelligence: Alpha test, 74C. Average.

Very slow. Poorly adaptable. Above average arithmetical reasoning. Judgments slow and careful. Erratic—liable to permit anxiety to interfere with work. Physically ill. Blood-pressure 190 systolic.

## SCORE.

1. Physical .....	3
2. Nervous .....	3
3. Mental .....	5
4. Personality .....	5
5. General Values.....	8
	—
Total .....	24

*Recommendations.*—Needs medical treatment. Mental hygiene.

CASE III.—Male. Age: 22 years 5 months. Occupation: Clerical. Education: Eighth grade. Intelligence: Alpha test, 82C. High average.

Follows directions carefully. Slow. Careful, good arithmetical reasoning. Poor adaptability. Epileptic. Depressive. Irritable at times. Fatigues easily.

## SCORE.

1. Physical .....	6
2. Nervous .....	3
3. Mental .....	5
4. Personality .....	5
5. General Values.....	8
	—
Total .....	27

*Recommendations.*—Medical treatment. No responsible position. Dangerous to self and others. Advise.

CASE IV.—Female. Age: 32 years. Occupation: Clerical. Education: First year high school. Intelligence: Alpha test, 108B, superior.

Good auditory memory; good arithmetical reasoning; slow to make decisions, but careful and is quite sure before deciding; above average mathematical capacity; very slow to adapt to new situations and at first would be inaccurate, but after "learning" would be good. Has many headaches, dizzy spells and faints; suspicious; slightly negative; slight exophthalmos.

## SCORE.

1. Physical .....	5
2. Nervous .....	5
3. Mental .....	9
4. Personality .....	9
5. General Values.....	9
	—
Total .....	37

*Recommendations.*—Needs physical hygiene. Guidance. Good worker. Fainting spells should be inquired into. Study.

CASE V.—Male. Age: 46 years. Occupation: Clerical. Education: High school. Intelligence: Alpha test, 158A. Very superior.

Poor auditory memory; mathematical; good arithmetical reasoning; quick decisions; good common sense; superior language ability; superior mathematical capacity; rapidly adaptable, but would be more or less inaccurate and liable to form conclusions too quickly, and inaccurate at times. Poor physical condition; nervous breakdown. Blood pressure 182 systolic—diastolic 110. Pulse 96. Thyroid enlarged. Unstable.

## SCORE.

1. Physical .....	5
2. Nervous .....	5
3. Mental .....	6
4. Personality .....	6
5. General Values.....	9
	—
Total .....	31

*Recommendations.*—Needs treatment. Mental hygiene. With care would be good.

*NOTE.*—Much better after treatment. Is making good in position.

CASE VI.—Female. Age: 30 years 4 months. Occupation: Stenographer and typist. Education: High school. Intelligence: Alpha test, 107B. Superior.

Good auditory memory; above average arithmetical reasoning and above average mathematical capacity; good common sense; not as accurate in

decisions as desirable; some mannerisms; nervous (sciatica); not rapidly adaptable; credulous and inclined to be very suggestible. Physical condition below average. Nervous breakdown. Manic-depressive type. Blood pressure 118 systolic.

## SCORE.

1. Physical .....	5
2. Nervous .....	5
3. Mental .....	6
4. Personality .....	9
5. General Values.....	9
	—
Total .....	34

*Recommendations.*—Needs treatment. Could not advance to responsible position. Not adaptable. Unstable.

CASE VII.—Female. Age: 28 years. Occupation: Filing clerk (five years) with this company. Education: High school—2 years. Intelligence: Alpha test, 156A. Very superior.

Very superior auditory and visual memory. Rapid—accurate; careful and accurate decisions; very superior mathematical capacity; very adaptable with some jumping at conclusions; not a wide range of information and not suggestible. Physical condition and nervous condition below average. Low blood pressure 112 systolic—92 diastolic. Pulse 84. Arrhythmia. Psychasthenia.

## SCORE.

1. Physical .....	5
2. Nervous .....	6
3. Mental .....	9
4. Personality .....	9
5. General Values.....	12
	—
Total .....	41

*Recommendations.*—Needs treatment. Encouragement and physical and mental hygiene. Should be advanced.

NOTE.—This clerk was kept in position of filing clerk for five years. She was very desirable in this position because of her accuracy and speed. After examination she is being advanced and is making good although she lacks the trait of initiative and is not ambitious.

CASE IX.—Male. Age: 22 years 6 months. Occupation: Clerical. Education: Second year high school. Intelligence: Alpha test, 115B. Superior.

Many nervous symptoms. Nervous breakdown. In this country for health. Good auditory and visual memory; superior mathematical reasoning; supe-

rior mathematical capacity; slowly adaptable, but suspicious and has a lack of sense of responsibility which makes him untrustworthy.

## SCORE.

1. Physical .....	6
2. Nervous .....	6
3. Mental .....	9
4. Personality .....	6
5. General Values.....	9
	—
Total .....	36

*Recommendations.*—Does not intend to remain in United States. Such employees are bad risk. Untrustworthy. Unreliable.

*NOTE.*—Has unusually good musical ability.

CASE X.—Male. Age: 29 years 11 months. Occupation: Clerk. Education: Sixth grade. Intelligence: Alpha test, 93C. High average.

Many nervous symptoms. Follows directions fairly well; good arithmetical reasoning; rapid in decisions but a little careless. Tendency to question others' statements. Gossipy. Very poor adaptable. Visual and auditory memory fair. Somewhat suspicious.

## SCORE.

1. Physical .....	9
2. Nervous .....	6
3. Mental .....	6
4. Personality .....	9
5. General Values.....	9
	—
Total .....	39

*Recommendations.*—Fair average office man. Would be unwise to give responsibility.

CASE XI.—Male. Age: 32 years 5 months. Occupation: Clerk. Education: High school. Intelligence: Alpha test, 106B. Superior.

Good auditory memory; superior arithmetical reasoning; above average common sense decisions; slow to comprehend; good mathematical capacity; can interpret the concept of easily recognizable parts to a given whole readily; very slowly and inaccurately adaptable to new situations; very suggestible; willing; anxious to please; steady; trustworthy; reliable. Physically not well. High blood pressure. Nephritis. Range of information superior. Self-abasement predominates and is a factor in his decision in crisis which may be corrected by mental hygiene.



## SCORE.

1. Physical .....	4
2. Nervous .....	7
3. Mental .....	9
4. Personality .....	9
5. General Values.....	12
	—
Total .....	41

CASE XII.—Male. Age: 30 years 8 months. Occupation: Clerk. Education: First year high school. Intelligence: Alpha test, 165A. Very superior. Thorndike test, 96.3 per cent.

Very superior university intelligence. Superior auditory and visual memory; very superior mathematical capacity and arithmetical reasoning; decisions are slow but good; rapidly and accurately adaptable to new situations. Well liked; slow; depressive; diligent; stable; secretly ambitious but tied down by burden of family responsibilities. Through nervous condition has become inert, disgruntled, lost hope. Manic-depressive.

## SCORE.

1. Physical .....	6
2. Nervous .....	4
3. Mental .....	4
4. Personality .....	12
5. General Values.....	12
	—
Total .....	38

*Recommendations.*—Encourage. Study. Utilize abilities. A very valuable asset. With proper placement would do wonders for this company. Needs rest—change. Very valuable man in advisory position with clerical force in city office on account of his familiarity with details of camp. Should be encouraged. Mental hygiene.

CASE XIII.—Male. Age: 35 years 6 months. Occupation: Clerical. Education: High school. Intelligence: Alpha test, 140A. Very superior. Thorndike test, 83 per cent.

Very nervous. Willing up to a certain point, especially if something new presents itself. Interest soon wanes, however, and a general state of indifference comes to the surface. Has great tendency to be hypercritical, and is a "gossip." By reason of these traits, he becomes an "unconscious" agitator. He is industrious, spasmodically enthusiastic, accurate, has analytical power, facility in learning. His talents are wasted and his intelligence is not being properly utilized. Has too much time to discuss adverse conditions.

SCORE.	
1. Physical .....	5
2. Nervous .....	4
3. Mental .....	9
4. Personality .....	9
5. General Values.....	12
	—
Total .....	39

Cases showing standard methods of recording are as follows:

**CASE A.**—Male. Age: 38 years. Occupation: Executive. Former occupation: From roustabout, through all sequences of operation, up to and including general superintendent. Education: University. Intelligence: Alpha test, 172A. Very superior.

(a) Auditory memory good. Ability to follow directions superior.

(b) Arithmetical reasoning above average.

(c) Judgment and common sense very superior. Selective decisions made after careful consideration of all facts available, consequently may be apparently slow to arrive at conclusions, but as a result great accuracy is manifest.

(d) Knowledge of language is very superior.

(e) Ability to recognize easily recognizable parts to a given whole and to interpret the concept is very superior.

(f) Mathematical capacity is average.

(g) Ability to rapidly and accurately adapt to new situations and to resist suggestion is very superior.

(h) General intelligence is also indicated by range of interest and ability to resist suggestion in this test.

SCORE.	
1. Physical .....	9
2. Nervous .....	12
3. Mental .....	12
4. Personality .....	15
5. General Values.....	40
	—
Total .....	88

#### RATING OF SPECIAL TRAITS.

**Dominant (very desirable traits):** Alert, punctual, loyal, willing, veracious, discreet, tactful, neat, diligent, respected, temperate, dependable, considerate, responsibility for own acts, persistence, self-reliance, good bearing, initiative, accuracy, foresight, decisive, esprit, presence of mind, judgment of men, administrative skill, organizing ability, analytical power, co-operative spirit, facility in learning, sense of humor, ability to get results.

**Satisfactory:** Teaching capacity, dexterity, good voice, industrious, enthusiastic, energetic.

**Unsatisfactory:** Endurance, health.

CASE B.—Male. Age: 26 years. Occupation: Bookkeeper. Formerly musician. Education: Grammar school. Intelligence: Alpha test, 76C. Average.

- (a) Auditory memory to follow directions in executing fairly complicated orders poor.
- (b) Arithmetical reasoning fair average.
- (c) Ability to make proper decision requiring exercise of good judgment and common sense poor. Confusion often results when a decision must be made hurriedly.
- (d) Knowledge of language limited. Became confused on this test.
- (e) Ability to readily recognize easily recognizable parts to a given whole and to interpret the concept is poor.
- (f) Mathematical capacity fair average.
- (g) Ability to rapidly and accurately adapt to new situations very poor.
- (h) Range of information poor.

## SCORE.

1. Physical .....	6
2. Nervous .....	6
3. Mental .....	3
4. Personality .....	3
5. General Values.....	16
	—
Total .....	34

## RATING OF SPECIAL TRAITS.

Dominant (very desirable traits): Musical.

Satisfactory: Punctual, loyal, diligent, temperate, willing, veracious, neat, energetic, industrious, responsibility for own acts, good bearing.

Unsatisfactory (he does not possess the following traits): Alert, discreet, tactful, respected, considerate, enthusiastic, persistence, self-reliance, initiative, dexterity, accuracy, endurance, foresight, decisive, health, esprit, presence of mind, judgment of men, administrative skill, organizing ability, teaching capacity, analytical power, co-operative spirit.

Special Abilities: Musical. Above average auditory memory for digits.

Definitely a constitutional psychopathic inferior. Paranoid type with manic-depressive symptoms. Possibly epileptic, nocturnal attacks with frequent "blank" spells. Shut-in personality. World has not given him a "square deal." Misinterprets words and acts of others always to their detriment.

Physically, nervously, and mentally ill. Dangerous, morose, moody, suspicious type. Irritable, easily enangered, unfriendly, secretly, and at times openly, egoistical.

*Recommendations.*—Unreliable. Dangerous to others. Needs treatment, especially mental hygiene.

INDIVIDUAL VOCATIONAL GUIDANCE CHART.

Occupation. *Executive.*

M. S. W. D. *Married.*

Wage.....

Age. *38.*

Sex. *Male.*

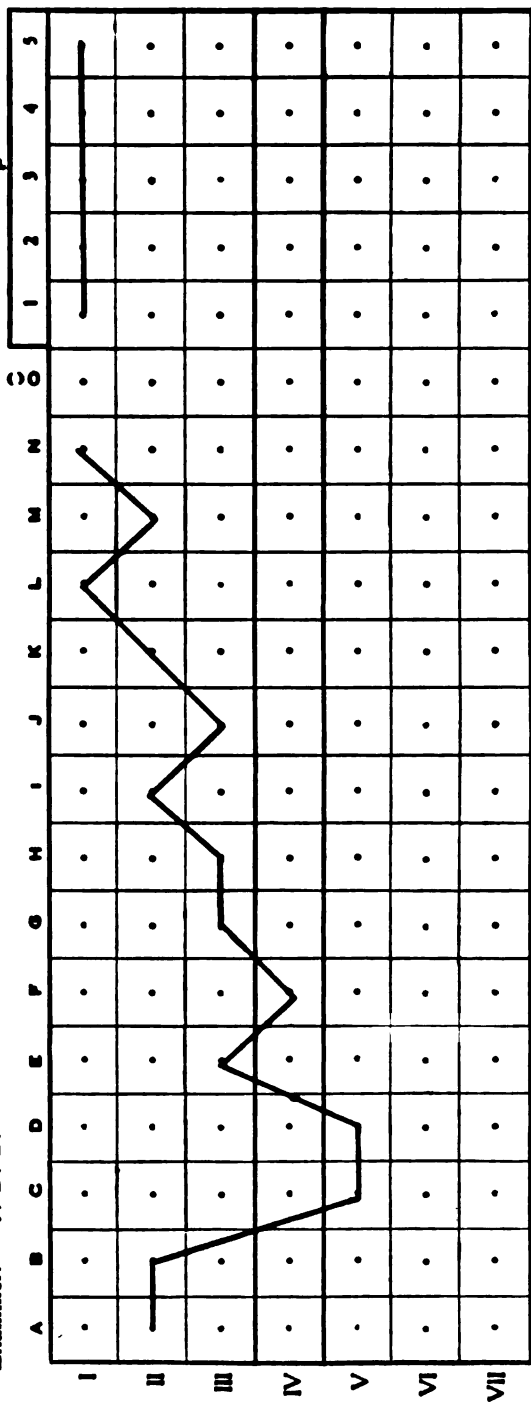
No. *A.* Sex. *Male.*

Organization. *X.*

Plant. *Y.*

Department. *Z.*

Examiner. *J. D. B.*



Recommendations:

Personality. *A.*

- Character. ....
- Habits. ....
- Traits } Desirable. *XXX.*
- } Undesirable.
- References. ....
- Labor } Especially Skilled. *X.*
- } Skilled.
- } Experienced.

Employed as *Executive.*

Organization. X.  
 Plant. Y.  
 Department. Z.  
 Examiner. J. D. B.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P					
I	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
II	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
III	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
IV	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
V	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VI	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VII	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Personality. D.  
 Character. ....  
 Habits. ....  
 Traits { Desirable. X.  
           { Undesirable. X X X.  
 References. ....  
 Labor { Especially Skilled.  
        { Skilled. X.  
        { Experienced. X.  
        { Unskilled.  
           Employed as .....

Recommendations:  
 See special report.

## *II. Descriptive Methods Used.*

CASE I.—*A*, a man of 76 years of age, acting as caretaker of drinking water plant, has many flights of ideas, lives in past, is very industrious (busy "fixing up" his environment). He is forgetful, dirty (personal); and inasmuch as he does considerable gardening and handles fertilizer and manure and also at frequent intervals leaves his gardening, ascends to top of storage tanks for drinking water—picks up a long wooden gauge in unclean hands, pokes his head in tank and measures the depth of water in tank with gauge, makes one think of possibility of serious contamination of drinking water supply as water is not open to sunlight after entering tanks. This man is in a very responsible position—is senile and is deteriorating. He is recognized as peculiar, queer, eccentric—has the usual defects in orientation, and his concentration and idea processes are defective. His interests are self-centered and narrowed, often irritable; is suspicious, forgetful of recent events. He is well liked and is not at all obnoxious, but on account of deterioration should not be given the responsibility of taking care of the drinking water of a community of this size. The dangers of contamination are too great. Relieved of position and given simple job not involving responsibility.

CASE II.—*B*, a man, aged 65 years, occupation a "pumper," necessary to oil machinery and be around moving parts. About a year ago caught his hand in a moving part of an engine. Immediately the arm was lacerated and paralyzed. Facts seem to be that he stumbled (supposedly on a piece of pipe) and put his hand out to support himself. The result is a permanent paretic condition of left arm and hand, especially for picking up fine or small objects. Compensation is being paid; working at same job at present. Examination showed: Dizziness—inability to think quickly; cannot concentrate or fix attention very long; poor emotional control and a little confusion when asked to execute a number of movements in rapid succession. Atrophy of muscles of left hand. Definite evidence of cerebral arteriosclerosis associated with senility. Conclusions: Probably correct that this man suffered slight "stroke," became dizzy—fell on machinery, lacerated hand. Later saw piece of pipe on floor and as is usual in these cases shifted responsibility to an inanimate object, when in reality the stumbling and subsequent accident was probably due to his nervous and mental condition. He is on job again and some day will be more seriously injured and the company receive blame and the state pay compensation.

CASE III.—*C*, a man, 52 years of age (looks 65), occupation, special mechanical, one year ago suffered from an attack of hemiplegia. History of symptoms and examination reveals that he has cerebro-spinal lues, probably of mixed form, but arteries of brain definitely involved. Examination: Headaches, dizziness, cranial nerve involvement; ethical sense dulled, changed personality noted in history: Pupils and all physical signs show organic destructive lesion of brain present. Judgment liable to be seriously

interfered with at any moment and in his position mistakes of vital importance liable to be made notwithstanding his apparent speed and accuracy at present. Furthermore he frequently falls because of serious interference with sense of position, and is liable to serious injury as a result of his condition. Needs treatment very much and should be relieved from position as soon as possible and not re-employed at former job.

CASE IV.—*D*, a man, aged 48 years, occupation, clerical. Suffers from tabs. At present no serious mental symptoms. Is energetic, active, and jovial, practical joker, optimistic (and well liked). Should be borne in mind as future developments detrimental to company may supervene. The possibility of adverse mental symptoms should always be considered possible in these cases. Should such symptoms develop, much damage could be done before nature of situation would be fully realized.

CASE V.—*E*, a man, aged 42 years—nomadic—Spanish War veteran—lucetic. Employed three months as roustabout. Examination: Alcoholic history. Psychopathic personality (manic type). Ill humor at times; jovial, usually facetious; tendency to lying; physical condition below average; many nervous symptoms. Increased reflexes; lessened ability to do mental work. Superior type of intelligence (general); slow to arrive at decisions; does not always get viewpoint as he is apt to be inattentive; does not adapt himself to new situations with accuracy and is slow to "fit in" on new jobs; has very excellent language ability; a very superior range of information; fair mathematical reasoning. On account of this man's high intelligence, which is much lower than formerly, and on account of somewhat pleasing "personality" and aggressiveness, history of nomadism, he could easily become an agitator. Already, here only three months, he is expressing viewpoints about general scheme of things. He could be utilized to change tide of things in right direction, as he is a good mixer and has leadership qualities. A dangerous type, if his potentialities for evil go unrecognized.

CASE VI.—*F*, a man, aged 50 years—employed here three years in various capacities; past year as machinist's helper. Married; one son, aged 16 years. Education: Seventh grade. Intelligence: Very superior. Has rapid association of ideas and ability to express them. Above average ability to apply acquired knowledge. Visual and auditory memory above average. In trade test for machinist shows wide range of information which is not organized. History shows nomadic tendencies. Never in one place longer than two years, except here. Occupations have been varied and many. Has always thought people did not like him. Cries and laughs easily. Examination: Reveals a typical manic type—aggressive—paranoid ideas. Thinks he has been imposed upon and discriminated against. Recently put in complaint to shop committee for rating as second-class machinist. Foreman justly objected for the reason that first-class machinists only are employed here and furthermore, while this man is one of the best workers and helpers he ever had, he does not feel that he is capable as a machinist. Resentment

and suspicion developed toward foreman and the company. Entire company was at fault. The man himself was the "injured one." He had many supporters.

Several interviews with this man revealed his personality and high intellect. An appeal was made along mental hygiene lines and this man modified his behavior and attitude immediately and will withdraw his application for rating. Furthermore, instead of becoming a disturber he is now a staunch supporter. His insight into his condition is unusual. This man was a real serious problem, but with careful handling and by stimulating the proper innate tendencies he has been started in the right direction. However, he should not be forgotten, but advantage should be taken of his high grade intellect and utilize his leadership qualities to good advantage. The loss of time, agitation, and disloyalty, encouraged during this man's "up period," would be difficult to estimate. (The following case is the report on the son of this man.)

CASE VII.—*G*, a boy, aged 16 years, son of machinist helper cited as Case VI. This boy is a definite local problem. He is known for his "badness"—steals—lies—is incorrigible—anti-social in his remarks and generally negative. Drifting towards more serious delinquency as a result of adolescent instability and manifesting many dementia præcox symptoms. Impulsive—negative—sudden, uncalled for laughter—sullenness—sex abnormalities.

Careful study of this boy shows him to have a very superior intelligence and many good traits. His interests were ascertained and conferences held with high school principal, and the boy given more work to do with the assurance to him that he would graduate six months earlier if he applied himself. To date those interested are pleased with result; but this boy should be "followed up" and given a real chance to go to a university, for he has the necessary intellectual qualifications. Definitely a community and school problem. Mental hygiene.

CASE VIII.—*H*, a man, aged 25 years. Occupation: Mechanic. Education: Seventh grade. Intelligence: High average.

Foreman noticed that he was not "doing his work with usual speed" and was neglectful and reticent and appeared to sulk when questioned and reprimanded for carelessness—he told the story: "Married woman 10 years his senior (widow with two children) two years ago. It appears that he sent her all of his pay-check every month. She 'ran' him in debt—groceries, clothing, furniture, etc., and after he insisted that she live with him at the camp she refused, wrote him a distressing letter and deserted him." First he was depressed, suicidal, then homicidal. Always despondent. Tearful.

Finally he became talkative and took up time of others telling his troubles—but no help. Foreman was about to discharge him on account of unsatisfactory work and the dangerous "mood" he was manifesting, when he voluntarily came for interview. Examination: Revealed a typical depressed type, suicidal, but also anxious to "get at" the other fellow.



Manifested great love for the children of his wife and cried profusely when they were mentioned. (The "drive" in this case was the paternal instinct manifesting itself vicariously in his wife's children.) A number of interviews were had and proper adjustments made; an attorney took charge of his case. His work immediately improved and his foreman expressed himself that he is doing better than ever before and is now cheerful. Had this boy been discharged without proper study and adjustment he would have been a menace ever after to industry. In his condition he was a menace here. He needs close follow-up work. The work done in this case saved this boy to himself and to the company. If he had been discharged the effects would have been far-reaching, for he is well liked.

CASE IX.—*J*, male, aged 25 years. Occupation: Sales. Definitely a potentially dangerous type. By careful direction and guidance this worker will be an asset, but if permitted to think along present lines he will be a menace and will some day cause trouble. Examination: Shows him to be suspicious, negative, at times surly, shut-in type of personality, frequently misinterpreting speech and conduct of others and referring everything they do and say to mean something derogatory to himself. Average intelligence. Rated as a good worker. Has excellent musical ability (could be used in camp activities but his egotism, selfishness and resentment make him undesirable at present). He has lost much time recently on account of considerable dental work. General condition and mental condition may improve as result of this work and due to some ideas of mental hygiene given to him.

CASE X.—*J*, a male worker, clerical—suffers from epilepsy. Has asked for outside work which it would be dangerous to offer him. Epileptics are always a menace to themselves and to others. Should be very carefully watched and kept at work in a place where he will not increase the accident hazard of his fellow workmen. At present is quiet—somewhat pleasing personality. Loses considerable time by being tardy. Should be treated.

CASE XI.—*K*, a male worker. Occupation: Driller. Rated as good driller by the chief driller foreman. Requested to be placed in line for promotion to foreman. Request refused—reasons given that he is not a leader, is pugnacious, destructive, and makes it difficult for those working against him. (Tower duty.) Information is that former foreman reports against him:

(1) Bothers him too much at night by telephone. Refused to take responsibilities. (This man's earnestness of effort and degree of accuracy—two very desirable traits—were misinterpreted by his former foreman, who is a man of much lower intelligence.) (2) Breaks equipment (works hard and liable to lose head). (3) Admits, however, that he is much better man, and is well liked by all men who work with him.

Present foreman reports: (1) Turns in best reports. (2) Keeps excellent logs. (3) Takes more than usual interest in work and maintains great interest (manifested in research work on work on redrilled wells). Considered high grade. Examination: Shows great confusion on test, but

where judgment is needed quiets down and reacts well. Examination unfair to report as final because of adverse conditions at time. Home is neat, tasty, high-class; wife very intelligent, ambitious for husband; one child, a little girl, 3 years old, with 6-year intelligence. Physical condition and habits very high. Recommend mental hygiene for one year with encouragement, and then a trial first vacancy thereafter. Will make good.

### *III. Specimens of Job Analyses § Made in Co-Operation\* with Engineer.*

#### FOREMAN OR SUPERINTENDENT OF ELECTRICAL DEPARTMENT.

##### DUTIES.

The following is a summary of the duties of the head of aforementioned department:

Charge of operation electric plant and headquarters camp, boiler room, telephones and telephone system, power and light distribution, planning and supervising extensions, etc., to telephone and power systems, installation of motors, transformers, measuring instruments, switchboards, etc., placing requisitions for electrical material, repair parts for gas plant and electric plant, and attending to correspondence relative to same.

Should have considerable experience in steam engineering, especially the care and operation of high-speed engines and auxiliaries, be able to set valves, understand and take indicator cards, and make exacting adjustments. Should have a good knowledge of the theory and practice of gas engine operation, compressor operation (air and gas) and be able to combine theory and practice in diagnosing cases of trouble if the occasion demands it. Should be familiar with the principles of design, care, operation and installation of A. C. and D. C. generators, switchboard and switchboard instruments, able to lay out wiring diagrams, trace and correct electrical troubles, make estimates on new work. Should be familiar with the safety laws, relative to mechanical and electrical installations, as required by the California Industrial Accident Commissioners. Should be at least a high school graduate or equivalent, augmented by technical studies. Should be studious and observing, keep up to date on new engineering developments through the medium of engineering journals, catalogs and bulletins. Have

\* These analyses demonstrate what should be done by psychiatrist in industrial field. They are only preliminary but will serve as basis for future more intensive study.

executive ability, initiative, mechanical ability. Should be tactful, broad-minded and foresighted in the handling of men, encourage harmony and co-operation. In general, have a personality inspiring the confidence and respect of subordinates.

FIRST ENGINEER, ELECTRICAL DEPARTMENT.

DUTIES.

Operation and minor repairs of electric plant equipment—of steam-driven A. C. generators, high-speed engines, pumps, condensers, etc.

Must during tour fire in H. Q. boiler plant, in addition to plant duties.

Keep plant in neat and orderly condition.

Keep daily report of plant operation.

REQUIREMENTS.

*Previous Experience.*—Must have had experience in operating equipment similar to that listed above.

*Mental Qualifications.*—Must be able to read, write and talk English.

Must be able to copy figures, add, subtract, multiply and divide.

Must be able to read and comprehend the meanings of electrical instruments, both indicating and recording, and steam gauges, etc.

Should be of studious and observing type of mind and have a knowledge of the fundamental principles of the generation of electrical energy and of the general operation of small electrical generators and exciters.

Should have an operating knowledge of steam boiler equipment.

*Physical and Nervous Qualifications.*—Must be able-bodied, with good sense of sight, smell and sound. Must be of an observing nature, with a well-developed sense of co-ordination, and an ability to co-ordinate cause and effect highly developed along electrical lines. Should be calm and collected, and possess foresight and presence of mind in emergencies, and have an ability to locate ordinary plant troubles and enough initiative to fix same, so as to maintain normal operation under exceptional circumstances.

Must be able to receive and execute orders and to co-operate with others for best plant efficiency. Should be ambitious and anxious to learn, reliable and ready to help in emergencies.

#### IV. Studies in Causes of Turnover.||

##### THE "PSYCHOPATHIC FOREMAN" AS A CAUSE OF LABOR TURNOVER.

One of the great causes of labor turnover, which seems to be almost constantly overlooked by employers and efficiency engineers in their efforts to reduce a large labor turnover, is that caused by the "psychopathic foreman." Few employers seem to realize the tremendous cost to industry of this type of a foreman, and few seem to have the courage and foresight to grapple with this problem in a scientific manner. The following table shows the great amount of harm which can be done by this particular type of a boss:

TABLE I.

Reason of termination	No. terminated
Discharged for disobedience .....	20
Discharged as being "Undesirables".....	12
Discharged for incompetence.....	35
Discharged on account of disagreement with the foreman..	10
Quit on account of disagreement with the foreman.....	97
Discharged for losing time.....	6
Discharged for smoking on duty.....	5
Quit to take a vacation.....	15
Quit on account of wages being insufficient.....	32
Discharged on account of wrong job being given, <i>i. e.</i> , because he was hired for a job he knew nothing about...	11
Deaths .....	2
Miscellaneous causes .....	30
Quit—needed money and couldn't wait until payday.....	4
Quit on account of sickness, and of being physically unable to perform tasks assigned to them.....	10
Quit to go to the country to pick fruit.....	10
Transferred .....	25
<b>Total terminations .....</b>	<b>352</b>
 Period covered .....	 3 months.
Force employed .....	250
Yearly rate of turnover.....	416 per cent.

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|| A study made by Edward Williams, Berkeley, California, a special student of psychiatric problems in industry, for the author. The results of the study demonstrate that intelligent observers, if carefully trained, can be of great value to psychiatrists in industry.

## ANALYSIS OF VARIOUS REASONS GIVEN FOR TERMINATIONS.

1. In most cases where men were discharged for disobedience it was usually over some trivial matter.
2. Undoubtedly a great injustice was done the individual where men were discharged by this foreman as being undesirable, it usually being on account of a peculiar whim of this foreman, and not the result of an intelligent opinion as to whether or not the individual concerned was an "undesirable."
3. Where men were discharged for being incompetent, it would have been possible to have eliminated a large percentage of these if these men had been given any kind of a simple mental or trade test, and in most cases they probably could have been eliminated if skilled interviewers had been employed in the employment department of this plant.
4. Discharged on account of disagreement with foreman. In almost every case these men were discharged while this "psychopathic foreman" was in an angry mood, and as the result of his arrogant, bellicose attitude.
5. Quit on account of disagreement with the foreman. This is analogous to the preceding reason, the only difference being that the employee quit before he was discharged. This group constitutes 27 per cent of the entire number of terminations. It has been estimated that the cost of replacing each one of these individuals would amount to \$40.00 for each employee, or \$3880.00 for a period of three months, which exceeds the yearly salary of this foreman.
6. The next three reasons given in Table I are mostly unavoidable terminations; except perhaps in a few cases where the reason given was that of "taking a vacation," it was a mere excuse to cover up their real reason for terminating.
7. Quit on account of wages being insufficient. While the wages paid in this plant are the same as paid all over the Pacific Coast for this type of work in similar plants, it is doubtless true that it is less than the wages paid less skilled labor in many other fields.
8. Discharged on account of the wrong job being given the man. In all these cases the men were hired for positions for which they were unqualified.
9. In all cases where men quit on account of being physically unable to perform tasks assigned them it would have been possible

to have avoid had any system of giving employees physical examinations been used by this corporation.

10. Quit to go to the country to pick fruit. In this particular department this reason doesn't make any appreciable difference in the total terminations, but it serves to illustrate a phase of seasonal employment, where men at certain seasons of the year leave their work to seek other employment. In California this probably is quite a serious problem for many employers at certain seasons of the year.

All of the figures in the foregoing table were actually obtained from one of the departments of a large manufacturing plant of San Francisco. The foreman in charge of this department, is of the arrogant, bellicose, "carry-a-chip on the shoulder" type of a foreman, who knows absolutely nothing about handling men. He is constantly swearing and ever abusing his men over trivial matters, which would easily be settled and smoothed over by a more intelligent and diplomatic type of a foreman. He says that "I always aim to rule my men by putting the fear of God in their hearts," which very aptly shows the type of a man he is. While it has not been possible to make a mental examination of this foreman, it is believed that he would not test more than 12 years on a Binet scale. He has obtained his present position as a reward for many years' service, and for no other reason.

#### BRIEF SUMMARY AND CONCLUSIONS.

The status of psychiatry of industry from observations made in California may be stated briefly:

1. Sporadic interest in the industrial field by practicing psychiatrists, institutional psychiatrists, and industrial and labor leaders.
2. Definite interest by a few executives of industrial organizations. Several of these have encouraged and permitted research work in industrial psychiatry within their respective plants (*e. g.*, a shipbuilding corporation, a calculating machine manufacturing company, a large soap manufacturing company, a large oil company). Only one of these, the latter, has established a personnel department from a psychiatric point of view. The reports on the shipbuilding corporation and calculating machine company have already been published; the report on 325 examinations for the

soap company is in course of preparation, and communications regarding the progress of the established department in the oil company will be published from time to time.

The result of three years' study of industrial problems from a psychiatric point of view leads to the following conclusions:

(a) Every large industrial organization should have a psychiatrist on its staff.

(b) Groups of small industrial organizations should seek the services of a consulting industrial psychiatrist.

(c) Labor unions should welcome the advice and guidance of an industrial psychiatrist.

(d) Every university should establish a department of industrial psychiatry.

(e) Personnel departments should be under the directorship of industrial psychiatrists.

NOTE.—The late Dr. E. E. Southard pointed out that the study of the worker as such was not new and that we, as psychiatrists, had not made a discovery but were only awakening to the realization that we are badly needed in this field. The conclusions of Dr. Southard in his article, "The Mental Hygiene of Industry," published in *Industrial Management*, February, 1920, are too vital to be forgotten. The most important conclusions given by him regarding mental hygiene of industry are given in full as follows:

"This term mental hygiene is coming into general use to cover the expert activities of psychiatrists (*i. e.*, medical men interested in the problems of mental disease, including the mildest forms of temperamental deviation), psychologists (*i. e.*, scientific and theoretical experts, who are now turning attention to methods of mental testing designed to improve and replace the hit-or-miss methods of the past) and various non-professional or semi-professional aides (such as social workers with special experience in character-handicap cases).

"The recent improvements in employment management and all activities dealing with industrial personnel show that industry is ready for the new movement and employment managers everywhere are displaying the keenest interest in the new ideas.

"The earlier literature of industry conclusively shows that the 'mental hygiene of industry' is nothing new in its essence (witness many older references to the human element, etc.), but to-day's contribution is the organization of older interest for a systematic attack on industrial personnel problems. The keynote of this systematic attack on industrial personnel problems by means of mental hygiene data and methods is the pooling and co-operative combination of expert medical and psychological and sociological interests: in brief, the invoking by the expert in industrial

personnel of the aid of all available experts in personality, to the study of which the whole personnel problem must reduce.

\* \* \*

"The interested personnel man or lay reader is implored not to take sides for one or other claims or counter-claims by medical men, psychologists and others concerning the virtues of special methods. The topic is growing and a little controversial; but on the whole the quarrels about method are superficial and the unanimity of experts extraordinary (no doubt the trials of the war served to mature and season the experts on all sides).

"Another warning. Every time the world has tried to measure things more accurately many foolish persons have risen to protest. Not a few medical men and psychologists will rise to say over the same formula against the mental hygiene of industry. It is to be hoped that, at this late date of the world's history, we can jump this zone of senseless protest against what must inevitably succeed, namely, a program of more expert study of anything whatever, including the human personality, wherever at work.

"The movement for a mental hygiene of industry is neither an outgrowth of the efficiency movement (Taylorism and the like) nor an outgrowth of the workmen's welfare movement (economic interest in shorter hours, better working conditions and the like), though mental hygiene does effectively combine 'efficiency' and 'welfare' (as it were, F. W. Taylor and Jane Addams, but in terms of William James).

"Perhaps the argument for a mental hygiene of industry may be put in a nutshell form as a question: Why should not industrial managers seek the aid of (a) those who can measure at least a few of our mental capacities and have shown their abilities in the war work, of (b) those who are the best specialists we yet have in temperament and the best experts in grievances yet developed, and of (c) others less professionally trained who are capable of tracing out or helping to trace out the actual situation of (*e. g.*) labor "turnover" as shown in the individual instance?

"In short, why not help to push on the movement for individualism in industry that everybody sees coming and ardently hopes for?"

The researches of Dr. A. Warren Stearns should be carefully considered. Dr. Stearns compiled a group test<sup>1</sup> which I consider is of the greatest value in "spotting" surveys. I am using it in my industrial work and can positively state that it should be in more general use. Dr. Stearns' work, along industrial lines in the navy, is a classic.<sup>2</sup>

Miss Mary C. Jarrett's researches in industrial psychiatry are well known and her recent contribution on mental hygiene of industry should be consulted.

Dr. Herman Adler's conclusions deserve careful study.



Other earnest workers in this field are contributing their observations, and in a subsequent article an attempt will be made to outline specifically their communications in order to present the progress of industrial psychiatry.

The good in industry will need little mention except to call attention to it as the foundation for the building of a wonderful superstructure of loyalty and co-operation. The material is there, but crumbling under the constant weathering by the disintegrating forces of destructive thinking and abnormal human behavior.

The psychiatrist, acting in co-operation with specialists in other branches of human knowledge, will, we predict, aid in the solution of industrial problems.

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3. "California Oil Worker": May 15, 1921, Bakersfield, California.
4. Tead and Metcalf: *Personnel Administration*. 1st Edition. McGraw-Hill Book Co., Inc., 239 W. 39th St., New York.  
NOTE.—A most desirable book for library of psychiatrists who are interested in industrial work or who contemplate entering this field.
5. See Wm. McDougall's *Social Psychology*, 13th edition.
6. The ten qualifications enumerated and the compilation of the method is the work of the author, although the basis for scoring and enumeration of some of the qualities is derived from W. D. Scott's idea, as worked out in the army.
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## REPORT OF A CASE OF EPIDEMIC ENCEPHALITIS WITH CORD CHANGES SUGGESTIVE OF THE POSSIBILITY OF AN EARLY SYRINGOMYELIA.\*

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Since nineteen hundred and seventeen the literature on an apparently wide-spread affection, called by Von Economo<sup>1</sup> "Encephalitis Lethargica," but for which the more appropriate title, Epidemic Encephalitis, has been suggested by Wilson,<sup>2</sup> has increased at a rapid rate; thus we find in Volume XVII, *Index Medicus*, 110 references, in Volume XVIII 365 references, and attempts are being made to classify the different forms this disease assumes.

Buzzard<sup>3</sup> divides the various types into three groups, corresponding to the different anatomical levels: I. Cases characterized by hemiplegia, hemianesthesia, hemianopsia; II. Symptoms resembling paralysis agitans, basal ganglion group; III. Cases characterized by disturbances of functions of the cranial nerves; but states the clinical and pathological observation prove the disease to be more wide spread than the clinical symptoms suggest.

MacNalty<sup>4</sup> groups them clinically into six groups: I. Cases with general symptoms and without localizing signs; II. Cases with third nerve paralysis and general disturbance in the function of the central nervous system; III. Cases with facial paralysis and general disturbance in the function of the central nervous system; IV. Cases with spinal manifestations and general disturbance in the function of the central nervous system; V. Cases with polyneuritic manifestations and general disturbance in the function of the central nervous system; and VI. Cases with mild or transient manifestations (so-called "abortive" cases).

Tilney and Riley<sup>5</sup> have distinguished nine clinical sub-groups in the cases reviewed by them: I. Lethargic; II. Cataleptic; III. Paralysis agitans; IV. Polio-encephalitis; V. Anterior polio-

\* Read at the seventy-seventh annual meeting of the American Medico-Psychological Association, now The American Psychiatric Association, Boston, Mass., May 31-June 1, 2, 3, 1921.

myelitis; VI. Posterior poliomyelitis; VII. Epilepto-maniacal; VIII. Acute psychotic; and IX. Neonatorum.

Various other types and combinations have been described according to the predominating symptoms; meningo-radicular, descending radicular, cerebellar, various plegias (*hemi, di, mono*), herpetic. It will be readily seen in most instances the type has been named for the predominating clinical symptom, but in many of the cases there are clinical symptoms referable to one or more types. It is most probable that as our knowledge of the disease increases we shall evolve a more or less permanent classification based on the general symptoms due to a toxic infection, and the nervous symptoms, general and local, the over-shadowing clinical symptoms due of course to the anatomical level of the central nervous system at which the disease fulminates.

I have not seen in the literature a report of cord lesions similar to those presented in the case under consideration, although clinically it might fall into several of the above types, paralysis agitans, acute psychotic, meningo-radicular, descending radicular or choreopsychotic as described by Archambault.\*

The favorite site for the histologic changes appears to be the basal ganglia, tegmental and pontine regions with the more or less characteristic clinical manifestations, but pathological observation has shown the process to be a more or less generalized one throughout the whole central nervous system, with the greatest changes in the above areas, though it may fulminate at any level.

Choreiform movements, myoclonic twitchings, katatonic rigidities and tics of various kinds have been mentioned not infrequently by various writers, but usually as a symptom arising in the course of the disease or as a sequela thereto. Buzzard<sup>7</sup> reviewed numerous cases where choreiform movements and fibrillary twitchings occurred in the course of the disease or developed a short time following, but had not seen a case of true athetosis as a sequela. Marie and Levy<sup>8</sup> cited several cases where the involuntary movements were choreiform in type and others of myoclonic twitchings. Basso<sup>9</sup> described a type which he called the meningo-radicular type, where the choreiform movements and meningeal disturbances were the prominent symptoms. Pardee<sup>10</sup> reviewed several cases of acute onset with pain, choreiform movements, hyperesthesia, fever and delirium.

Psychic disturbances have been of frequent note, usually referred to as a symptom in the course of the disease and mentioned by various writers in their review of cases. At times the psychic disturbance which appears to be increased at night, resembles a manic state, or again visual and auditory hallucinations are prominent. The predominance of these symptoms have led Tilney and Riley<sup>8</sup> to speak of the "Acute Psychotic" type, and Archambault<sup>9</sup> referred to cases in which the choreiform movements with psychic disturbances in the early stages were the prominent symptoms as the "Choreo Psychotic" type.

The following case bears marked similarity to the clinical symptoms noted by the above-mentioned observers, as well as by Honse,<sup>10</sup> Barker<sup>11</sup> and others, but the histologic changes in the cord are of such character that it seems the case should be presented in detail:

J. S. (Worcester State Hospital No. 33248), single, age 26 years, admitted June 19, 1920.

*History.*—Negative relative to findings predisposing to this illness.

*Personal.*—He served in the World War, sustained no injuries and as far as known was not gassed. In the winter of 1919 he was severely ill in France with influenza. He made a statement to his mother that his illness was worse than the rest of the war. He returned to this country in April, 1919. There were no complaints until June 5, 1920. He returned from work in a carpet-factory at noon and worked in the garden until about four o'clock in the afternoon, when he came into the house complaining of severe pain in the palm of his left hand. The next day the pain remained about the same, having prevented sleep during the night. He consulted a physician, whom he stated told him it was rheumatic and he received some "anti-rheumatic" pills.

*June 9, 1920.* The pain had increased in severity extending up the arm. He visited another physician and was given bromides to induce sleep. The pain was not relieved and he noticed his hand began to tremble. He was particularly restless and the pain seemed more severe at night. He had a dull frontal headache.

The second physician whom he consulted stated that he saw the patient when he called at his office seeking relief for the pain in his hand, and not again until he was called to the house on two occasions before sending him to the hospital. The pain increased, extending up the arm and involving the other arm to a lesser degree, occurred at irregular intervals and was lance-like in character. The trembling in his hand developed into coarse, jerky, irregular movements, but as these movements increased he did not complain of as intense pain.

About the end of the first week (could not ascertain exact day) he developed a delirium, muttered to himself, talked incoherently. He became

exceedingly restless at night, not remaining in bed, but would dress and undress, jump over the bed, pack his clothing, stating he was going home, and tore the bed clothing. The family could not restrain him and he escaped from the house the night before admission without any clothes on, which was the precipitant cause of his being sent to a hospital for mental diseases.

His mother stated he had not slept for two weeks, and the jerky movements were not confined to his arms, but were present in the legs. She stated when she touched him the movements were worse. He also had two severe, prolonged spells of hiccoughing before admission.

*June 19, 1920.* Admission. The patient was quiet, but appeared exhausted. His face was pale, his tongue coated and he had a fetid breath. The skin was dry and hot. There was slight dermatographia present. Lungs and heart were negative. Pulse rate 96, systolic blood pressure 144, diastolic 72. His grips were unequal, that of the right being greater than the left. The kneejerks were sluggish. Babinski was absent and there was no ankle clonus. The chest expansion was equal on both sides, but of jerky, irregular character. He complained of a dull frontal headache, but the pain in the extremities had disappeared. Choreiform movements were in evidence everywhere, but particularly of the extremities—irregular, coarse, jerky, incoordinate movements. There was slight fibrillary tremor of the tongue and jerky movements of the chest muscles. A slight touch on the abdomen initiated a peculiar tremor. The sensation to pin-prick was not impaired. When in the erect position there was a peculiar inward curve to the back, his legs appeared stiff and his head was bent forward. On sharp command he assumed the correct position, but only momentarily, quickly resuming the other posture. He staggered while walking and held his hands out as though to catch some object.

*Hospital Residence.—June 21st.* Late in the afternoon he went about the ward throwing over chairs and bed-side tables. He tore up bed blankets, jumped over first one and then another bed.

During the day he remained quiet, but was extremely noisy at night, continually getting in and out of bed and talking. He answered questions logically during the day, but at night did not recognize the physician and talked in a steady stream, in an irrelevant and incoherent manner and appeared confused. His temperature ranged from 99° to 101.4° F. The Wassermann on the blood serum was negative.

*June 22d.* Appeared stupid, but was easily aroused when addressed. He seemed to remember remote things, but was hazy about recent ones, and there appeared to be clouding of consciousness.

*June 24th.* There was no change in his condition. He had a severe clonic spasm of all the muscles of the upper extremity and died a few minutes later.

*Autopsy.*—Six hours post mortem, by Dr. M. M. Canavan.

The body was of medium size and fairly nourished. The skin was grey-white with mottling about the neck. There was slight abrasion on the lip and chin. The lymph nodes were not palpable.

Ventral Section: The fat was very moist, the muscles red and firm. The peritoneum was shiny. The mesenteric lymph nodes were not enlarged.

The pericardial sac showed a slight excess of fluid. The coronary arteries showed commencing thickening and there were minute plaques in the arch of the aorta. The cardiac muscle was yellowish-red and resisted the finger. The pleura over the lowest lobe of the right lung glistened and there was irregular reddish-blue mottling on the surface. Cut section gave the impression of peri-bronchial hemorrhages. Edema and congestion were brilliant.

The capsule of the spleen appeared slightly thickened and the pulp was dark red and congested. The liver was acutely congested. The cortex of the kidneys was injected light pink, and the pyramids highly injected, dark red. The adrenals were both enlarged and firm. The mucosa of the gastrointestinal tract was slightly congested and the ileum had shaven beard appearance.

Brain: Weight 1465 grams. Base: The cranial nerves were negative. The basilar vessels were not thickened. The fluid in the third ventricle was bloody. The pia mater was generally injected. Superior surface: The dura was faintly thickened and the pia injected throughout. The brain had a swollen appearance, and the frontal section behind the chiasm showed the vessels hyperemic and the brain edematous. Section through the medulla the same. There were hemorrhagic points in the floor of the fourth ventricle. All the white tissue had a pinkish appearance.

The base of the skull revealed no pus in sphenoid or middle ears.

Cord: The dura was elastic and the pia brilliantly injected. In cross-section the grey matter stood out in the lumbar and cervical regions brilliantly pink.

Post mortem examination of the cerebrospinal fluid from the third ventricle. Cells 217. Small lymphocytes 165; large lymphocytes 27; endothelial 12; pial 3; unclassified 10. The gold curve was negative. Culture from third ventricle sterile.

Microscopic examination of the trunk tissues hematoxylin-eosin stain.

Heart: Cut section through septum. Edema, cloudy swelling, fibers swollen and broken, localized area of degeneration about blood vessel where there appeared to be an increase of connective tissue cells and two polymorphonuclear cells, slight hemorrhage between some of the muscle fibers.

Spleen: Vessels distended and a few showed perivascular hemorrhage.

Liver: Edema, cloudy swelling, fatty degeneration, vessels engorged, a few showed perivascular hemorrhage. There was necrosis about some of the inter-lobular vessels, which showed a slight increase of cells.

Kidneys: Congestion marked. The capillaries throughout cortex and medulla were distended, some of which had ruptured with perivascular hemorrhage into the tissue. The epithelial cells were swollen, the nuclei in some stained lightly while others took the stain fairly well. Many of the cells lining the tubules were swollen and had separated themselves from the basement membrane.

Adrenal: Capillaries injected. Edema and cloudy swelling.

Pituitary: Anterior lobe, the sinuses were distended with blood. The cells stained deeply, were largely basophilic, and there were scattered chro-

matin masses and smaller granules. A few necrotic areas were observed. Brain and cord placed in 10 per cent formalin solution, and sections from mid-brain in Zenker's at time of autopsy. Sections were stained cresyl violet; Van Gieson; phosphotungstic acid, hematoxylin; Mallory's aniline blue; Weigert, and frozen sections from the cord Schlarch R.

**Pia mater:** Slightly infiltrated with small round cells and plasma cells. Vessels were distended. The lymphocytes were deeply stained. The infiltration of the pia appeared greater in the region of the cerebellum.

**Cortex:** Sections from frontal, parietal and occipital region (cresyl violet stain) showed scattered changes. The architecture of the cell layers was not disturbed. Selected areas appeared altered while cells in close proximity were apparently unchanged. The deeper layer of cells suffered most, for the most part took the stain poorly and irregularly. In some of the pyramidal cells the nucleus stained deeply while the Nissl bodies were poorly represented, while others showed swollen poorly staining nucleus with absence of processes, and the cytoplasm faintly stained. There was irregular increase in glia cells. The vessels varied in the cortical areas. The veins appeared distended with occasional slight cuffing with round cells. An occasional vein was observed where the lumen of the vessel was narrowed and the wall of the vessel infiltrated with round cells, which took the stain deeply, a few plasma cells and a number of rod-shaped cells.

The changes in the mid brain were more marked than in the cortex. Sections from the pons, thalami and internal capsule showed increase in glia cells, in many instances the vessels or nuclei of cranial nerves appeared to be the foci for attracting the glia cells. The changes in the nerve cells vary in the same group. The nuclei of the third nerve took the stain deeply and the cytoplasm also, in some the cells appeared as a dark homogeneous staining mass. In the motor root of the fifth the cells stained more irregularly, some showing Nissl bodies poorly stained or absent, the cells of irregular shape, nucleus absent or eccentric with varying degrees of chromotolysis. The pontine nuclei showed much the same changes with scattered neuronophagy.

Figs. 1 and 2 show increase of glia and round cells beneath the floor of the fourth ventricle (upper level) and about pontine cells.

Beneath the floor of the fourth ventricle (Fig. 3) is considerable hemorrhage into the tissue. Smaller foci of hemorrhage were noted throughout the mid brain and in the cerebellum. The vessels were engorged, the arteries as well as the veins showed perivascular infiltration of round cells, rod cells and plasma cells (Figs. 4-5). Frequently, this cellular infiltration extended for some distance into the tissue surrounding the vessels with slight perivascular hemorrhage. Especially about the veins, but to a lesser extent in the brain substance, were noted small, slender rod cells. These frequently appeared within the lumen of the vessel, in the vessel wall and perivascular. The arrangement was not constant but the numerous instances in which they appeared at right angles to the vessel wall was striking. They stained lightly with cresyl violet, and were also observed in the pons. The small, round lymphocytes for the most part stained deeply, also the plasma cells.



The cellular infiltration varied, sometimes appeared as a distinct cuffing about the vessel, in other instances the Virchow-Robin spaces were packed with cells, and in still other instances they appeared collected more densely at one pole of the vessel.

Celloidin sections through pons and internal capsule stained with cresyl violet showed numerous red bodies. The greater number were round or oval in shape, homogeneous in appearance, and varied in size, some being smaller than a red cell and others larger than a pyramidal cell. They were irregularly distributed and appeared in parenchyma as well as in the perivascular spaces.

Cerebellum: The Purkinje cells stained poorly, for the most part appeared as faintly staining shadow cells without a distinguishable nucleus, the processes being lost. They were swollen and in many instances were not seen. The vessels showed the same infiltration here as elsewhere and there were a few small points of hemorrhage.

Cervical region cord: The grey matter showed numerous cavities (Figs. 6, 7 and 8), some of which encroached into the white matter. Frequently these cavities were found encircling a vessel or anterior horn cell, as though the tissue had receded from same and they remained as an isolated island (Fig. 10). These cavities were numerous, as shown in Fig. 8, and frequently coalesced. In the grey matter there was a large cavity extending into the white matter of the posterior column, with many smaller cavities throughout the grey matter (Fig. 7). In one of the cavities there appeared to be a slight hemorrhage. The lining of the larger cavities appeared to be of a homogeneous substance, and this same homogeneous substance appeared in the grey matter which was pink with the eosin-methylene-blue, and yellow-brown with the Van Gieson stain. Cresyl violet stain showed many of the cavities had increased number of cells about same (Fig. 11), the small lymphocyte predominating although a few plasma cells were found. The rod cell, so numerous in the mid brain, was not seen in the cord sections. The cavities did not connect with pia, nor with central canal; they did not take connective tissue stain with Mallory's aniline blue. The vessels presented the same picture as described for the mid brain, perivascular infiltration, more frequently the Virchow-Robin spaces were packed with cells (Fig. 10), (Fig. 12), or perivascular infiltration appeared mostly as a distinct cuffing. Occasionally a smaller vessel appeared thrombosed.

The cells of the anterior horn showed advanced chromotolysis, were shrunken, in some the nuclei were missing and the processes gone, the Nissl bodies and tigroid substance were absent or stained poorly.

The glia cells were increased irregularly throughout the grey matter, especially in the posterior horns (Fig. 13).

The spinal canal was distended and showed slight cellular increase at some of the levels. The cells of Clark's column showed cloudy swelling and chromotolysis (Fig. 14).

The white matter appeared rarified and numerous small lightly stained areas about the central axons suggested cloudy swelling especially about the periphery of cord.

The size and number of the cavities varied at the different levels, as will be seen by sections from the cervical, thoracic, and lumbar regions, but similar histologic changes were noted throughout the various levels. (Figs. 6, 7, 8.)

#### DISCUSSION.

The case is undoubtedly one of Epidemic Encephalitis; the clinical picture, onset, temperature, paralysis agitans attitude, delirium, confusion, apathetic attitude, choreiform movements have been noted by various writers. The pathology of the mid brain is not unlike that as described by Buzzard,<sup>8</sup> Tilney and Riley,<sup>9</sup> Bassoe and Hassin,<sup>10</sup> Calhoun,<sup>11</sup> Netter,<sup>12</sup> and others, but similar cord changes I have not noted in the cases reviewed in the literature. The possibility of a beginning syringomyelia from the numerous cavity formations and the degeneration in the grey matter of the cord, due to an inflammatory process is not unlikely, if we regard syringomyelia as a syndrome rather than a disease entity, as many investigators believe.<sup>13</sup>

Schlesinger concludes that spinal cord cavities may be due to varied anatomically different processes, and mentions different types of syringomyelia, each differing from the other in origin and pathology: 1. Malformation; 2. Tumor formation; 3. Vascular disorders without evidence of gliosis; 4. Syringomyelia with gliosis, and 5. Pacchymeningitis and leptomenigitis with cavity formation.

Certain it is that Epidemic Encephalitis is contributing much to neuropathology, and infection has played a greater rôle than heretofore supposed. The question as to how many of the well-recognized clinical neurological pictures, due to a chronic degenerative change, have been initiated by an acute or sub-acute infection involving the central nervous system remains unanswered, but from the above case and other current cases appearing in the literature, it would seem that infection, however remote, must be considered in many of the neurological conditions.

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## DISCUSSION.

DR. H. W. MILLER.—I think this is a rather important contribution to the literature of epidemic encephalitis, and illustrates the necessity of the point I made in my remarks before—that the laboratory should adjust itself to do the newer work.

There is one point that I did not hear, namely, what were the physical findings to suggest syringomyelia? I want to ask Dr. Harris if there were any clinical symptoms of syringomyelia?

DR. MYERSON.—Although I recognize the importance of the contribution, I do not see just why the doctor calls this case syringomyelia. She has described what seems to be cysts of softening, not at all like the lesion of syringomyelia. These cysts do not communicate with the central cavity and they are not apparently lined by anything resembling the endothelial lining of the central canal. There is nothing that looks very much like gliosis. There is one point that I would like to emphasize, though perhaps not relative to this disease, and that is that many diseases which are called degeneration are infectious in origin. It is probable that certain cases of syringomyelia start this way, and just how others start is not so clear.

DR. ADA F. HARRIS.—Answering Dr. Myerson: Thomas and Quercy, and many other investigators, do not regard syringomyelia as a disease entity, but rather as a symptom due to various causes, malformations, hemorrhage, tumors, etc. Some investigators distinguish two forms, pseudo and true, the former being due to various causes, the latter, the form to which Dr. Myerson refers.

I did not state this was a case of syringomyelia, but suggested the possibility of a beginning process.

Answering Dr. Miller: There were no clinical symptoms of syringomyelia, with the possible exception of loss of sensation. He was at first sensitive to pin prick, but later did not appear to be, although it was difficult to judge whether this failure to respond was due to cloudiness or a true loss.

Atrophy of muscles have been mentioned by both Pardee and Riley in some of the cases of the spinal form of encephalitis reported by them.

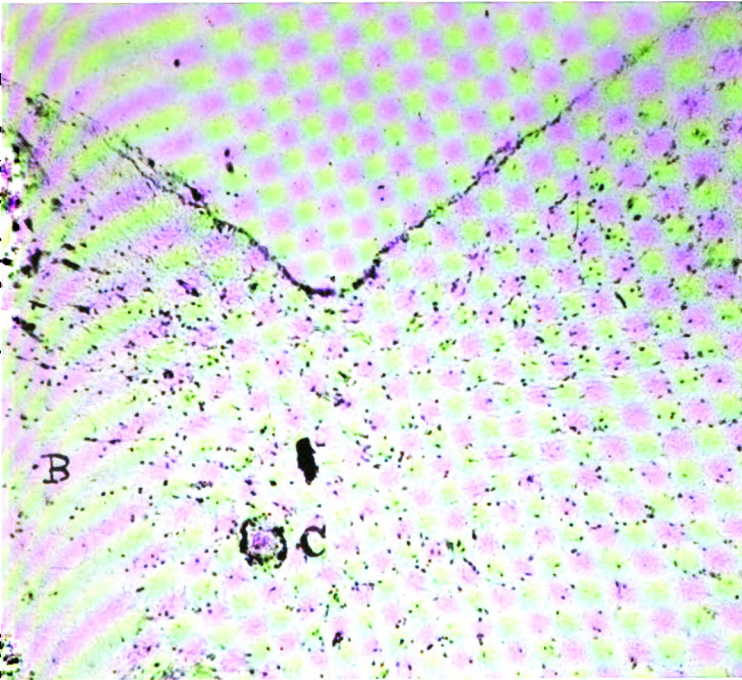


FIG. 1.—Increase of glia cells beneath floor of fourth ventricle (upper level).  
B. Small edematous areas.  
C. Cellular infiltration, perivascular.

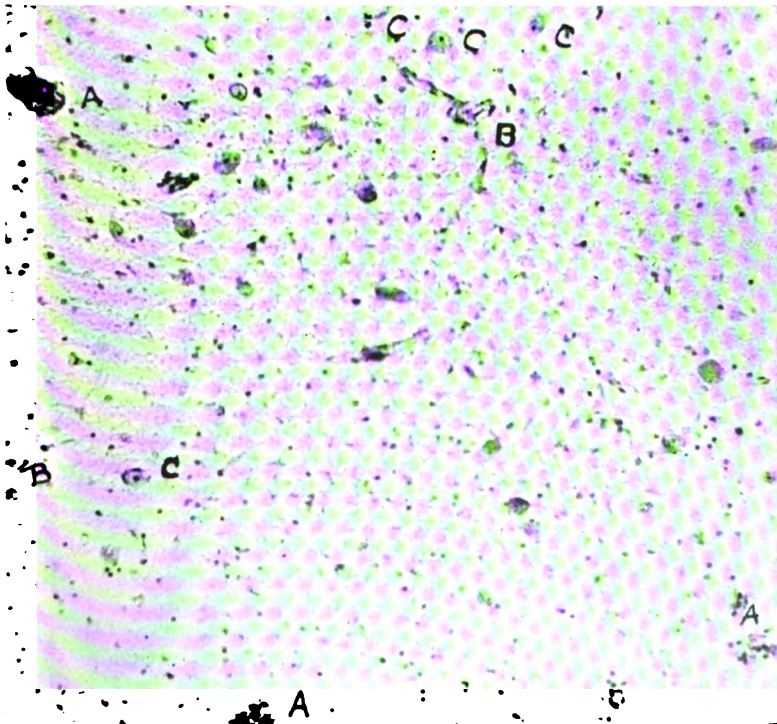


FIG. 2.—A. Cellular infiltration.  
B. Capillary injection.  
C. Chromatolysis and cloudy swelling nerve cells, with processes gone.

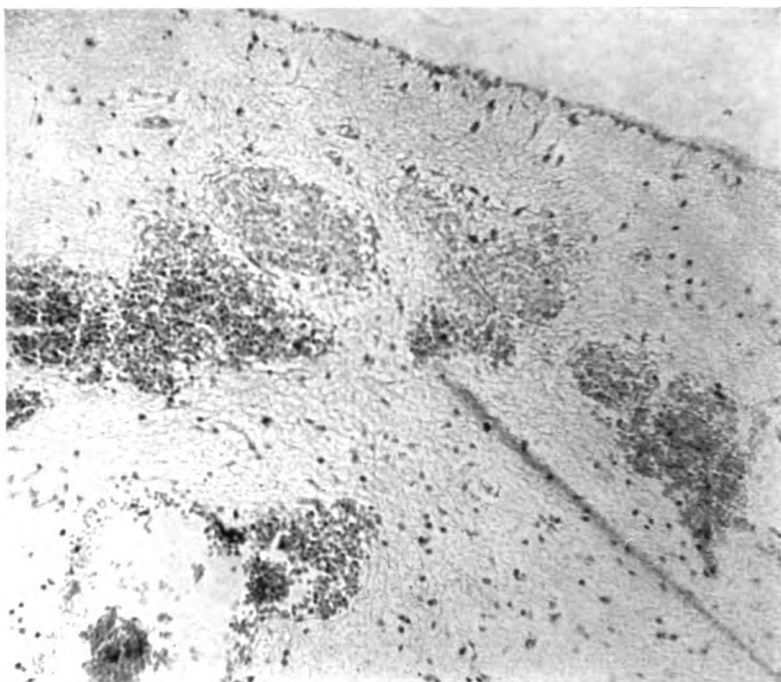


FIG. 3.—Hemorrhage, perivascular and into tissue, beneath floor of fourth ventricle, upper level.

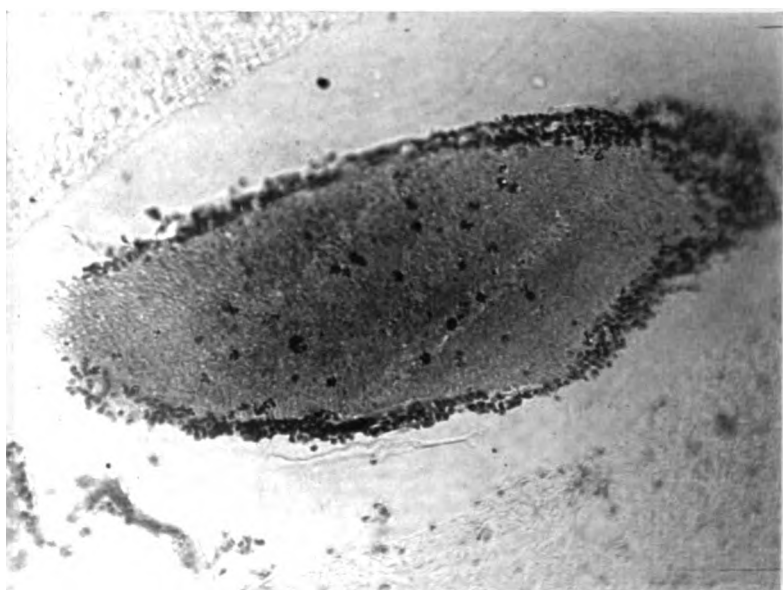


FIG. 4.—Distended vein with perivascular infiltration of round and plasma cells. (Internal capsule.)



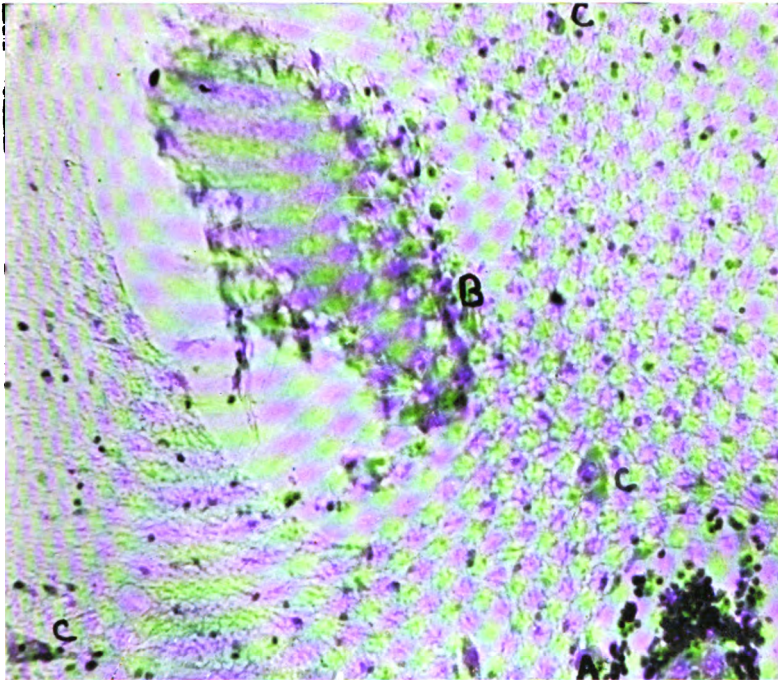


FIG. 5.—A. Perivascular infiltration.  
B. Thrombosed vessel, showing beginning cellular infiltration, rod cells being most numerous.  
C. Nerve cells, invaded by glia cell, and showing chromatolysis.

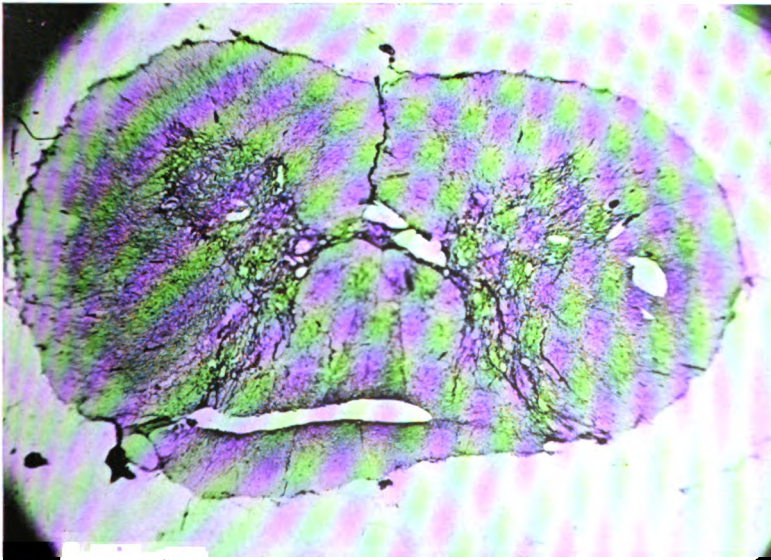


FIG. 6.—Cord: Cervical region showing cavities in grey and extending into white matter. See Fig. 9.

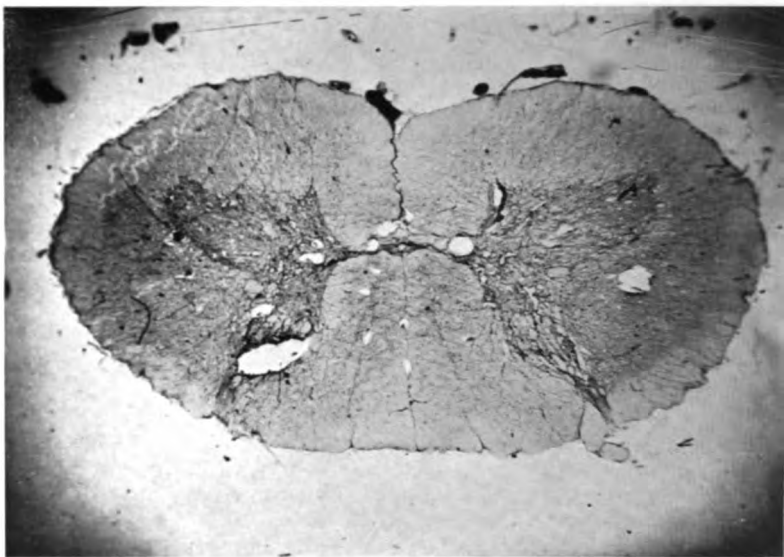


FIG. 7.—Cord: Cavities mostly confined to grey matter. Note cavity in posterior horn and compare with FIG. 11.

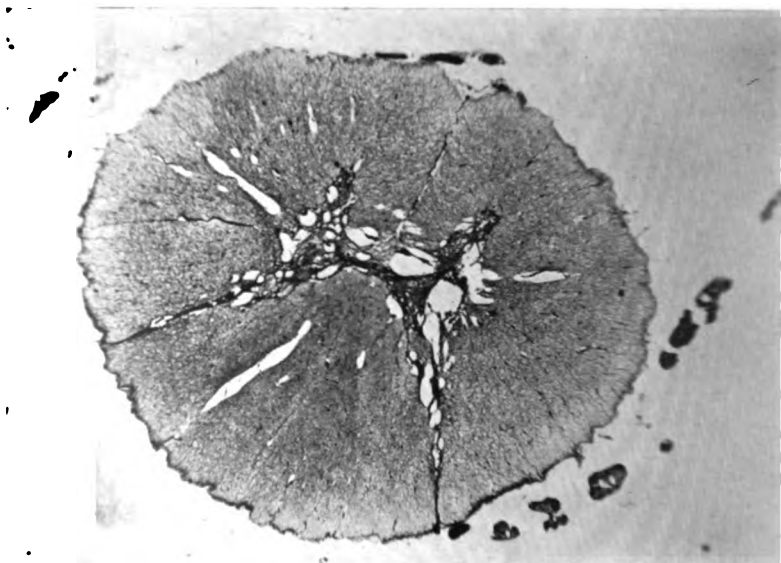


FIG. 8.—Cord: Showing cavity formation.



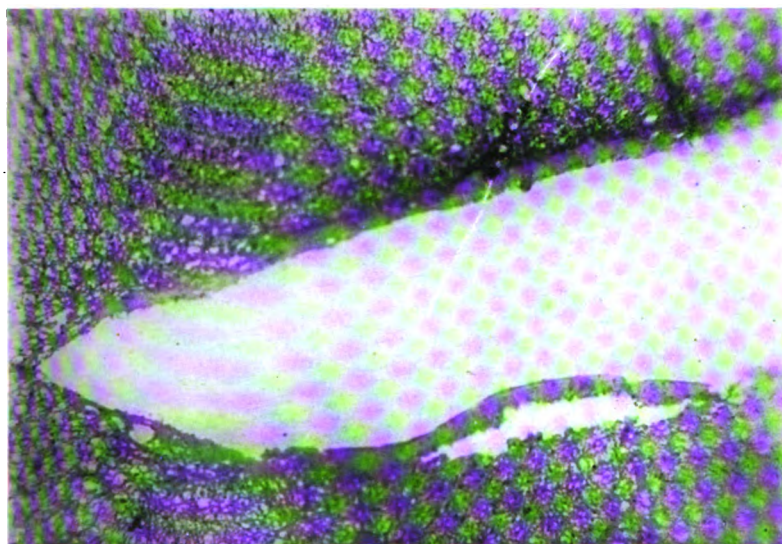


FIG. 9.—Part of large cavity shown in Fig. 7. Homogeneous degeneration about cavity in white matter.

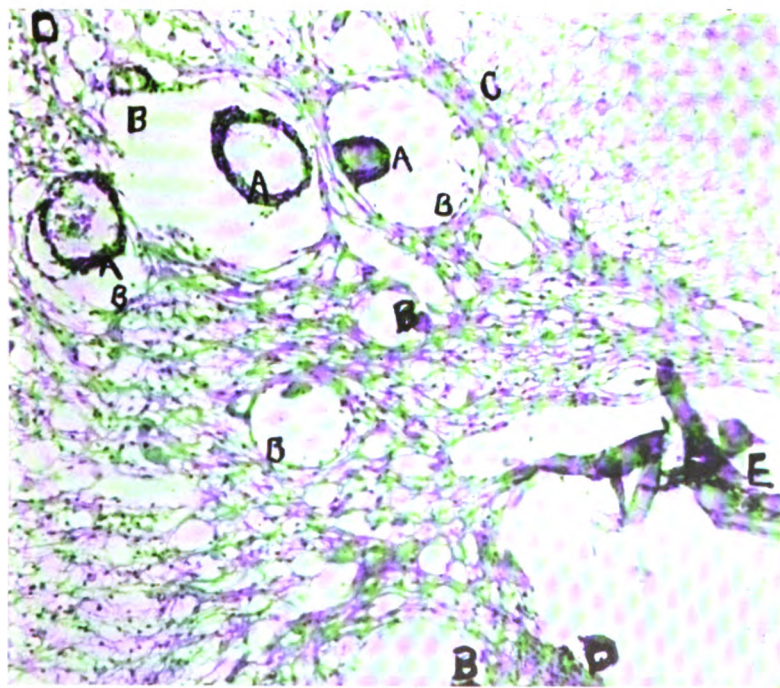


FIG. 10.—A, Virchow Robin spaces of vessels infiltrated.  
 B, Receding of tissue from vessels.  
 C, Homogeneous appearance of grey matter.  
 D, Cellular infiltration grey matter.  
 E, Coalescing cavities and tissue debris with cavity extending into white matter of anterior columns.

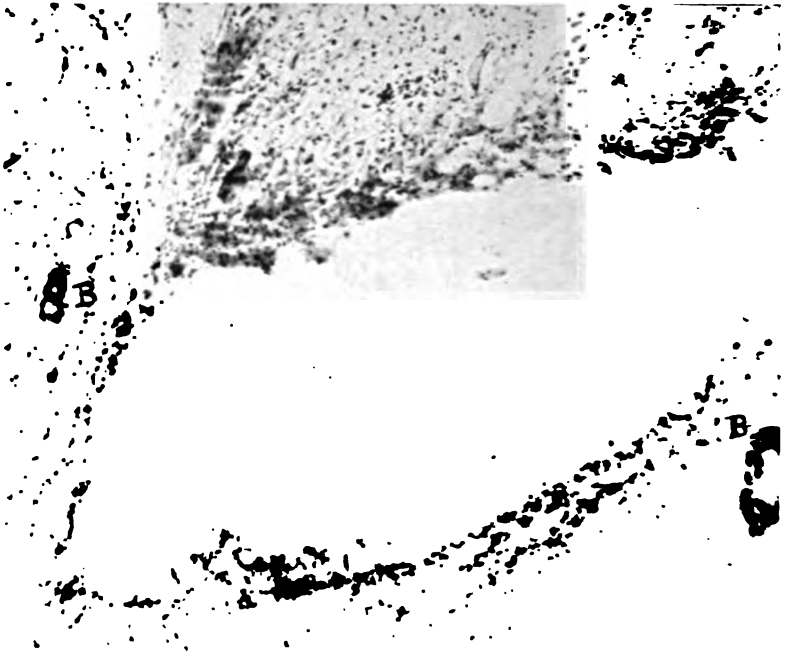


FIG. 11.—Cavity, posterior horn, grey matter. Note cellular infiltration about same.  
B. Cellular infiltration around vessels.



FIG. 12.—Vein cut lengthwise (cord) showing cellular infiltration.

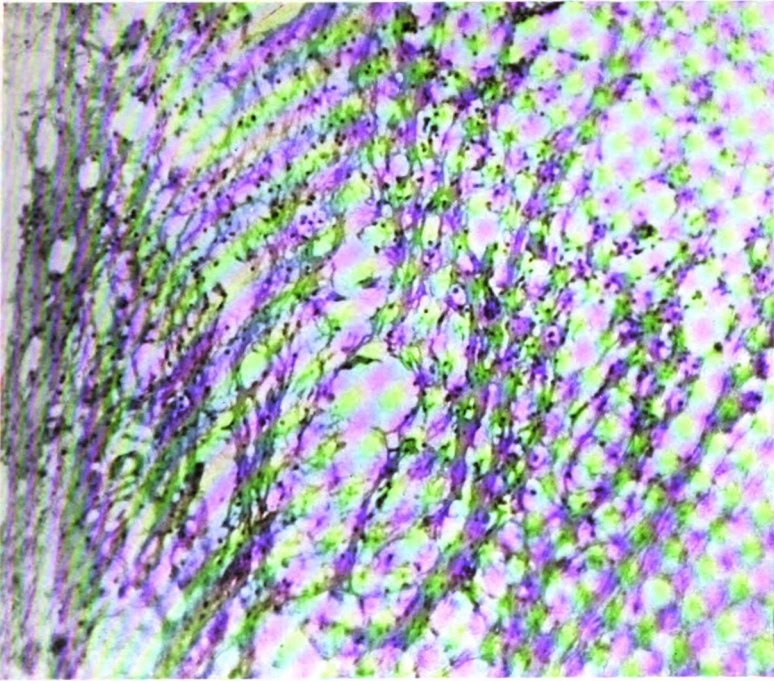


FIG. 13.—Cellular infiltration posterior horn grey matter—homogeneous appearance extending into grey matter. Distended spaces—or cavities.

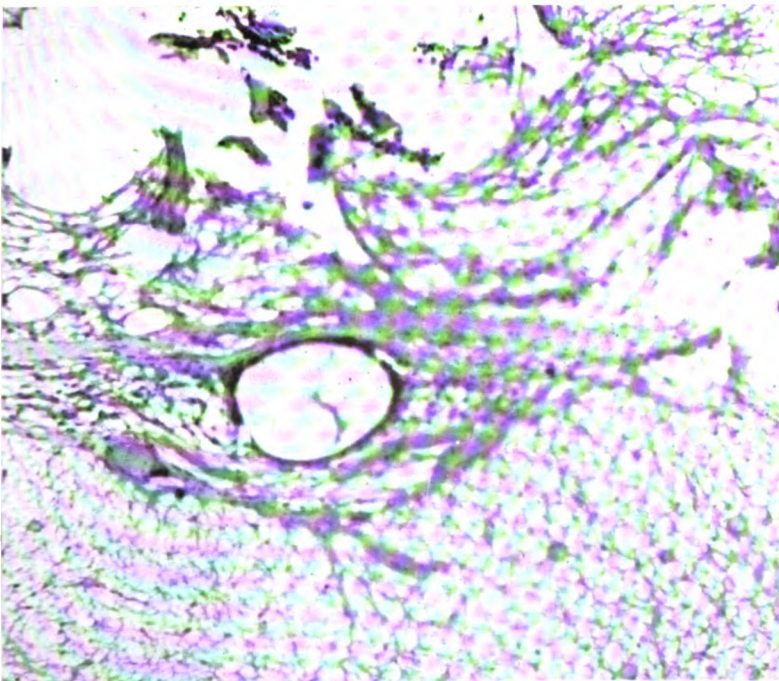


FIG. 14.—Distended central canal. Homogeneous appearance of grey matter of commissure.



## Notes and Comment.

THE OREGON SURVEY OF MENTAL DEFECT, DELINQUENCY AND DEPENDENCY.—The survey conducted in Oregon in 1920 by the University of Oregon and under the direction of the United States Public Health Service was unique in several particulars. In the first place it appears to have had its inception in an unusually intelligent and widespread interest on the part of the citizens of the state in the matter of promoting and conserving the public health. The state legislature at its 1918 session passed a joint resolution which enacted that: "The University of Oregon is hereby granted authority to make such survey, and . . . to report the results of its study with recommended legislation to the next regular legislative assembly, with the understanding that . . . the state will be asked for more appropriations for that purpose."

The University of Oregon having thus been granted authority under which a survey could be undertaken invited the United States Public Health Service to act as director of the survey. This invitation was also endorsed by the State Board of Health of Oregon. The invitation was accepted and Dr. Chester L. Carlisle detailed as director of the survey.

No funds were available and the legislature had specifically stipulated that no appropriation was to be asked for in carrying out the survey. In this emergency the director decided to enlist the aid of every public spirited citizen in gathering the information. A certificate or commission was prepared which bore, by consent of the governor the seal of the state—and which was signed by Dr. Carlisle as director of the survey. This commission was sent to over ten thousand citizens of the State; physicians, lawyers, clergymen, judges, nurses and teachers and to citizens known to be interested in community welfare. Every state, county, city and village official was asked to accept a commission as well as members of social welfare and philanthropic organizations or groups and the local chapters and branches of the American Red Cross. In this way the director was able to enlist a large and intelligent corps of assistants and the Oregon survey is also unique in the field of mental hygiene by reason of the fact that it was carried on without federal, state or private appropriations wholly by the voluntary cooperation of thousands of citizens who had become interested in the welfare of their community and state.

The commission sent out recites that: "Reposing special confidence in the discernment, integrity and patriotism of ——— he is requested to act as Special Voluntary Assistant to the



State Survey of Mental Defect, Delinquency and Dependency, serving without remuneration from a high sense of citizenship and patriotism, in accordance with Senate Joint Resolution No. 28." This resolution, a portion of which has been quoted, then follows in full on the commission, following which are instructions concerning the headquarters of the survey and the procuring of record cards or blanks to be used in gathering data.

These cards were so arranged by the director as to take care of any combination of medico-psychological-sociological conditions or symptoms which might be found in any one individual.

A summary of the survey is published in the *University of Oregon Extension Monitor*, Eugene, Oregon, April-May, 1921, and this publication contains also a copy of the card used for making records and of the commission sent out to those whose aid was desired in making the survey.

Unfortunately funds were not available for publishing all the data collected, but every card and manuscript is on file in the University of Oregon and the summaries contained in the *Monitor* will give the reader a very excellent grasp of the scope and results of the undertaking.

One thing stands out most distinctly and it is one which will in the future prove of inestimable value to the state in any effort which shall be made to put into effect the recommendations of the director.

Over ten thousand citizens of the state have had a personal insight into the care of the insane, the mentally defective, the training and education of backward children, the care of delinquents and dependents, the conduct of state institutions and of county almshouses, and the cost *per capita* to the citizens of the state for all these medico-sociological activities. These individuals have had brought home to them as never before the answer to the world-old question, "Am I my brother's keeper?" and have learned how well sometimes, how very badly often, that brother is cared for.

A small army has been recruited in social service and we believe the state has gained as much in this direction as it has in the way of learning what problems of mental defect, delinquency and dependency confront it.

It has found out what these problems are, how far the state or local communities have progressed in meeting or solving them, but, and of far-reaching importance, it has throughout the community a large number of people who will not rest content until the very

wise recommendations of the director under whom they have worked are put into effect.

We congratulate the state and its university and the Public Health Service and its very efficient representative, Dr. Carlisle, upon establishing a precedent in surveys of this kind which may well be followed by other communities.

As in all surveys of this kind it was soon discovered that the medical men of the state had little real knowledge of matters psychiatric with practically no training and naturally no interest in mental disorders or defects. The University of Oregon has recognized its responsibility in the matter and courses in psychiatric medicine are soon to be established which will be on a par with other medical courses in the university.

**THE CENTENARY OF THE THESIS OF BAYLE.**—We have already noted in these pages (January, 1922) that the League of Mental Hygiene of France has appointed a commission to organize a Congress of Mental Hygiene to be held in Paris in connection with the celebration of the Centenary of Bayle's description in 1822 of General Paralysis.

We are now informed that the three societies of mental medicine in Paris have decided to organize in Paris in May a psychiatric reunion to commemorate Bayle's publication in 1822 of the first detailed description of the condition known as general paralysis. These societies are The Medico-Psychological Society, The Psychiatric Society and The Clinical Society of Mental Medicine.

It has been decided to take advantage of the presence in Paris of a large number of physicians to take part in an important convention of the Medico-Psychological Society of Paris and the Association of the Alienists of France on May 29, and hold the Centenary Celebration on the following days, the 30th and 31st of May. Under the presidency of Dr. Toulouse two sessions have been arranged to discuss the history as well as the actual conception of general paralysis or as it has been termed "la Maladie de Bayle."

The subjects assigned in the program of these two days will fix the limitations of discussions and of such voluntary communications as may be presented.

The reunion is open to neuro-psychiatrists of countries which are friends or allies of France.

The fee of the reunion has been fixed at 40 francs. Neuro-psychiatrists who propose to take part should send their names with

this fee to M. Raymond Mallet, treasurer, 284 Boulevard St. Germain, Paris.

The program as arranged is as follows:

PREMIÈRE JOURNÉE: HISTORIQUE.

1re Séance (matin 9 h. 1/2):

Discours du Président;

*Les Précurseurs de Bayle*, par MM. Laignel-Lavastine et Vinchon;

*Bayle et les Travaux de Charenton*, par M. Semelaigne.

2e Séance (après-midi 2 h. 1/2):

*La Paralyse générale après Bayle.—La dualité de la Paralyse générale.*

*La Folie paralytique, la Démence paralytique. Les Travaux de la Salpêtrière*, par M. Arnaud.

DEUXIÈME JOURNÉE: LES CONCEPTIONS ACTUELLES DE LA  
PARALYSIE GÉNÉRALE.

3e Séance (matin 9 h. 1/2):

*Etiologie*, par M. Paget;

*Anatomie pathologique*, par M. Lhermitte;

*Etude Clinique et Médico-légale*, par René Charpentier.

4e Séance (après-midi, 2 h. 1/2):

Traitement et Assistance, par M. Truelle.

The Congress under the auspices of the League of Mental Hygiene of France will be held June 1-4, 1922, in Paris and will also be presided over by Dr. Toulouse. The subjects selected for discussion and the names of those who are to open the discussions are:

The General Principles Which Should Govern the Care of Psychopaths. Dr. Antheaume (Paris).

The Relation of Mental Hygiene to the Selection of Workers. M. Lahy (Paris).

Applied Psychology and the Methods of Education. Professor Claparède (Geneva).

International Cooperation in Scientific Studies in Mental Hygiene. Professor Rabaud (Paris).

Mental Hygiene in the Family. Dr. Toulouse (Paris).

Those who propose to participate in the Congress should send in their names to the Secretary, Dr. Antheaume, 1 Rue Cabanis, Paris (XIV), accompanied by the fee of 25 francs payable to the Treasurer, Dr. Dupain, at the same address. Those who desire to become supporters of the movement will be enrolled as *membres adhérents* upon sending their names and the fee of 10 francs to the same address.

This Congress will serve in France as a preface to an International Congress of Mental Hygiene to be held ultimately in the United States for the promotion of which we believe a committee has been formed in New York.



## Association and Hospital Notes and News.

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THE SEVENTY-EIGHTH ANNUAL MEETING OF THE AMERICAN PSYCHIATRIC ASSOCIATION.—The meeting of the Association for 1922 will be held in Quebec on June 6, 7, 8, 9, at the Chateau Frontenac, under the presidency of Dr. Albert M. Barrett, of Ann Arbor, Michigan, Professor of Psychiatry in the Medical School of the University of Michigan and Director of the State Psychopathic Hospital.

Quebec has many and varied attractions for the visitor. Its position and surroundings are most picturesque, and the city and its environs offer to the visitor points of interest to be found nowhere else in America. Historically the old city is full of story and we suggest to our readers to take down Parkman's works from their library shelves and obtain from "Count Frontenac and New France under Louis XIV" an insight into the early history of French Canada, and the labors, trials and privations of the men who strove to establish French dominion in the New World.

They will get a conception of Quebec in those far off days which it will not be difficult to link with the city as it is to-day, and they will go to Quebec better prepared to enjoy their visit to the fullest extent.

The words of Frontenac, who wrote, "I never saw anything more superb than the position of this town. It could not be better situated as the future capital of a great empire," will find a ready echo in their minds. The great empire which France hoped to establish in Canada was never to be realized but the language of its would-be founders still survives, as well as many of their customs, making Quebec in many ways an old-world town.

The Committee of Arrangements, under the able leadership of its Chairman, Dr. Francis E. Devlin, is doing everything to promote the success of the meeting and the pleasure of those who attend. We urge every member to be present who is able and predict that all who attend will be well repaid for the time and expense involved.

The Secretary, Dr. Haviland, has issued a preliminary program as follows:

TUESDAY, JUNE 6, 10 A. M.

Organization

Invocation

Addresses of Welcome and Responses

Reports: Committees—Council—Treasurer—Editor of JOURNAL OF PSYCHIATRY

Appointment of Nominating Committee

Memorial Notices

President's Address

TUESDAY, JUNE 6, AFTERNOON.

Administrative and State Problems

Special papers will be presented discussing the manner in which Canada and the United States are dealing with the problems presented by mental cases among ex-service men.

TUESDAY, JUNE 6, EVENING.

Administrative and General Topics

Among the topics to be discussed may be mentioned: Personality, Classification, and The Relation Between Psychologists and Psychiatrists.

WEDNESDAY, JUNE 7, FORENOON.

Clinical Psychiatry

This session will be devoted to papers treating of various aspects of the psychoneuroses.

WEDNESDAY, JUNE 7, AFTERNOON.

Clinical Psychiatry

The papers of this session will deal with the relation of the endocrine glands to psychoses.

The session will be a short one, as a reception at the Government House is planned for the latter part of the afternoon.

WEDNESDAY, JUNE 7, EVENING.

Annual Address by Dr. Walter B. Cannon, of Harvard University

President's Reception

THURSDAY, JUNE 8, FORENOON.

Clinical Psychiatry.

The papers of this session will deal chiefly with the relations between bodily conditions, including focal infections, and mental states.

## THURSDAY, JUNE 8, AFTERNOON.

## Clinical Psychiatry

Papers will be presented, dealing with varied psychiatric topics, including Children and Delinquency, and Treatment, with especial reference to treatment in neurosyphilis.

This session will be a short one, as a trip on the St. Lawrence River is planned for the latter part of the afternoon.

## THURSDAY, JUNE 8, EVENING.

## Round Table Conferences

- (1) Administration
- (2) Clinical Psychiatry
- (3) Nursing
- (4) Laboratory Work
- (5) Occupational Therapy

Participation in the dinner conferences will be arranged as in former years.

## FRIDAY, JUNE 9, FORENOON.

An interesting session on varied and important topics is planned. It is hoped that all who attend the meeting of the Association will plan to stay through this session.

## PRELIMINARY LIST OF READERS.

George S. Amsden	William Healy	A. J. Rosanoff
Earl D. Bond	Thomas J. Heldt	Harry C. Solomon
Wm. A. Bryan	Theodore A. Hoch	Henry R. Stedman
C. Macfie Campbell	Robert A. Keilty	Wm. Barclay Terhune
Chester L. Carlisle	Nicholas Kopeloff	Beverly R. Tucker
E. H. Cohoon	Helge Lundholm	F. Lyman Wells
Henry A. Cotton	Daniel C. Main	John C. Whitehorn
Richard Dewey	Karl A. Menninger	Harold W. Wright
Clarence B. Farrar	Abraham Myerson	Otto G. Wiedman
Alfred Gordon	Harlan L. Paine	Tom A. Williams
Harold I. Gosline	Harold A. Patterson	John I. Wiseman
Phyllis Greenacre	James S. Plant	

While the Hotel Chateau Frontenac has an ample number of double rooms, the number of single rooms is limited, and those members desiring single rooms should at once communicate with Dr. Francis E. Devlin, Hospital St. Jean de Dieu, Gamelin, Quebec, Chairman Committee on Arrangements, as it will probably be necessary to make such reservations at other hotels.

This preliminary program will be followed in May by the completed program with titles of papers and names of authors.

The change in the constitution whereby members now receive the *AMERICAN JOURNAL OF PSYCHIATRY* has apparently met with much favor. It should result in an increased number of applications for membership and members are urged to secure as many desirable applications as possible from among their associates, that the Association may continue representative of American psychiatry. The Secretary will be pleased to forward application blanks on request.

A considerable number of hotel reservations for the meeting have already been made, and there is every indication of a large attendance. The Committee of Arrangements, composed of Canadian members, is making every effort to assure the success of the meeting, and the plans the Committee has already formulated indicate that the Seventy-eighth Annual Meeting will be a memorable one.

The Committee on Arrangements has planned special entertainment features for the ladies accompanying members to the meeting, including a trip to the famous Shrine of St. Ann de Beaupré and a trip to the Montmorency Falls.

Attention is invited to the fact that not only is Quebec the most historic and picturesque city of Canada, but that it is the point of embarkation for the famous Saguenay River trip, which many members are planning to take after the meeting.

The Secretary will appreciate any information as to changes of address, it being essential to keep an accurate list of addresses, that members may promptly receive the *JOURNAL OF PSYCHIATRY*.

It will be noted from the above that the government is interesting itself in the success of the meeting and that among other things a reception is to be given the members of the Association at the Government House on the afternoon of Wednesday, June 7.

**AN APPEAL ON BEHALF OF THE SECRETARY-TREASURER.**—Dr. Haviland has requested us to again remind members of the Association who have not paid their dues that he is anxious to hear from them. The treasury this year has had to meet unusual demands. It has been necessary to pay for the 1920 volume of Transactions and at the same time pay for the subscription of each member for *THE AMERICAN JOURNAL OF PSYCHIATRY*. Each member has received the numbers of the *JOURNAL* as they have been issued and should feel in duty bound to pay their dues, not only to pay for what has been received, but to help meet the other and necessary expenses of the Association.

We heard the treasurer of an organization say recently that from one point of view it was successful and prosperous, because

it had developed a large leisure class, but that from another point of view, that of paying its bills, it was not successful, as the leisure class was so called, because it was leisurely in paying its dues.

We trust our Association is successful, indeed we know it is, and we hope that its members may be so prosperous as to attain membership in the so-called leisure class—but we are sure no member wishes to be placed in that class simply because he pays his dues at his leisure and not as soon as the treasurer's bill is received.

We feel confident that the delay in payment has, in the majority of instances, been through inadvertence, but this inadvertence on the part of a surprisingly large numbers has placed the treasurer in an embarrassing position which these careless individuals should be prompt to relieve.

## Book Reviews.

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*Psychoanalysis, Its Theories and Practical Application.* By A. A. BRILL, Ph. B., M. D., 3d Edition. (Philadelphia and London: W. B. Saunders Co., 1922.)

Dr. Brill's well-known book on "Psychoanalysis" has appeared in its third edition with several important additional chapters and a new preface. The first edition, published in 1913, contained 325 pages. The present edition contains 408, which gives a fair idea of the amount of new or revised material included in the book in its present form. Dr. Brill's "Psychoanalysis" is so familiar to all psychiatrists that a detailed description of it seems unnecessary. Summarily, one may classify it as a successful effort to present to the American reader the Freudian theories of psychobiology and those methods of psychoanalytic treatment, which have been elaborated by Freud and his followers during the past 15 years. To those psychiatrists, who are unable to read Freud in the original German text, Dr. Brill's book is indispensable, if they have an honest desire to know what Freud and his disciples teach and practice. Whether one be a "Freudian" in the stricter sense of that term or not, the fact remains that modern psychiatry without Freud is as unthinkable as anatomy and biology would be to-day if Charles Darwin had never written his book on "The Origin of Species." How we happen to react personally to the Freudian concepts of psychobiology is a matter of secondary importance. We must accept Freud, if not as an absolutely sure guide, at least as a kind of scientific Moses, who has succeeded in reaching a new eminence of psychiatric thought—an undiscovered Pisgah, from which his far seeing vision has been able to descry the entire domain of man's mental reactions and has there viewed them all from an entirely new standpoint. Of course, there may be other mountains, much higher than Professor Freud's own Pisgah, and from which a still better and a still clearer vision may be obtained. No one, however, will ever be able to refuse to Professor Freud his rights to his own particular mountain and to his own particular outlook. On this account, any book that can give in fairly simple and clear language the fundamental concepts of Freud's teaching is valuable always. This, Dr. Brill has faithfully tried to do. He must have succeeded—for his book has become almost a text book on "Psychoanalysis." One sees it on the desks of young psychiatrists, of almost every new interne in a psychiatric clinic, and one finds it also on the shelves of intelligent laymen, who are interested in mental hygiene and in the modern aspects of mental science. It is, therefore, unnecessary for a reviewer to take up in detail the various chapters of Dr. Brill's work; his

discussion of the Psychoneuroses, of Dreams, of the Psychopathology of Everyday Life, of the Oedipus Complex and of Hysterical Fancies. It is, however, fitting that some reference should be made here to the new material that appears for the first time in the third edition that lies before us.

Before discussing this new material and in order to avoid misunderstandings, it may be well to state in clear terms exactly what those duties are which the reviewer believes should be fulfilled by a psychiatrist, who is asked to pass judgment on the work of a colleague. Surely the author of such a work will not seek in the unprejudiced reviews of his book mere fulsome adulation and indiscriminate praise any more than he will expect an ultra-conservative refusal to consider any of his ideas or a downright and unjust abuse. Whoever has had the misfortune to write a book himself, knows only too well how easily mistakes slip by him and how often he fails to see some clumsiness of expression or some break in the chain of his reasoning, even though he has read his proofsheets with care and has imagined that he has corrected all possible mistakes. It is the part of the reviewer, not in a spirit of carping criticism but rather with the kindly interest of a friend, to point out such errors. He does so, not because he loves to find fault, but because he considers the book before him a valuable one and is anxious that it should contain nothing that might be criticized with some show of justice by those who are determined to misunderstand, or who have not themselves sufficient mental ability to appreciate it.

It is in this spirit that the reviewer calls attention to a certain lack of clearness, that often amounts to awkwardness in Dr. Brill's English style. "Medical English" is often a grammatical law unto itself, and those medical writers are few and far between, who are able to use the English language clearly, forcibly and without awkward phraseology. In Dr. Brill's preface to the third edition, he speaks of "a lack of understanding of psychosexual problems, a knowledge of which is *predisposed* in all students of Psychoanalysis." Just what Dr. Brill means by "predisposed" is not clear. He wishes to say, I suppose, that "a knowledge of psychosexual problems should be taken for granted as a '*sine qua non*' of successful psychoanalytical treatment among physicians who practice Psychoanalysis." There are many other similar misuses, or awkward uses, of single words, such as the persistent use of the verb "evince." More frequently still, one finds a clumsiness of expression that grates on the ear. These roughnesses of style cannot be described in detail. Let one sentence suffice; a sentence which those conservative teachers who, in the days of our youth, strove to teach undergraduates the use of their mother tongue, would have held up to the attention of their classes as an awkward torturing of the King's English. Dr. Brill says on page 21, "We all know that an insult retaliated leaves quite a different impression than one that has to be swallowed."

However, these are petty faults that hardly deserve mention. One wonders, nevertheless, whether the spoken word of Dr. Brill's native country were English or whether it may not have been some other form of human speech. He says, "I think in English" (p. 50). If this means that he was

born in an English-speaking community, it is hard to understand some of his grammatical constructions, which suggest a mind that thinks unconsciously in some other language. No one knows better than the reviewer how one's native tongue clings persistently to all one's efforts to express oneself in any other, especially in writing it. A man may live in a foreign country almost all his life and may speak the tongue of that country for years, may write in it and think in it, but his written style will occasionally and infallibly betray the fact that the language in which he writes is not the language of his childhood. Nothing betrays such a fact so clearly as the use of prepositions. And therefore, one sometimes finds that a psychiatrist is unjustly accused by his critics of writing inaccurate and puzzling English simply because the author is using a language which is not his own by birth and early association.

In Dr. Brill's book there is also, now and then, a suggestion that he has changed his mind about certain matters, or rather that his conception of them has developed. This appears in certain contradictions between statements in the original part of the book and statements contained in the newly added chapters. For instance, on page 27, Dr. Brill speaks of masturbation and of homosexuality as "perversions." In his new chapters on "Masturbation" and on "Homosexuality," he is at great pains to prove that both of these sexual reactions are not perversions at all.

This brings us by a natural transition to the two new, most important chapters; namely, Chapter 5, "Masturbation, Its Relation to the Neuroses and Psychoses," and Chapter 11, "Homosexuality." There is also another new chapter on "Paraphrenia" which, however, does not contain any material that suggests criticism. The chapter on masturbation is sane and satisfactory. If printed by itself, as a pamphlet, it would be very valuable and could be placed in the hands of many men, who are tormenting themselves with worries connected with the autoerotic habits of their youth. This is the most satisfactory chapter in the entire book. The chapter on "Homosexuality" is also well written. Indeed the three new chapters show a much clearer and a much more concise English style than the rest of the book; and they mark a decided advance in Dr. Brill's powers of objective statement. Chapter 11, however, contains one statement that should not appear in the pages of an author, who lays claim to sound historical knowledge. On page 296, Dr. Brill says, in speaking of homosexuality among the Greeks, "With the Greeks, who numbered among their inverters some of the most manly men, it was surely not the masculine traits of the boy that attracted them, but rather his physical resemblance to the woman, as well as his feminine psychic qualities." This is a fundamental misconception of Greek psychology. Nowadays there is really no excuse for not knowing the Greek and Latin Classics. These are the days of "The Loeb Classical Library," which places within the reach of everyone, complete and unexpurgated editions of classical authors with the Greek or Latin texts on the one side of the page and an excellent English translation on the other. Dr. Brill may be referred first of all to the dialogue of Lucian, called



"Amores," in which a heterosexual and a homosexual lover discuss with one another the reasons why each one prefers his own type of sexual satisfaction. Here Dr. Brill will discover that the homosexual lover places all his emphasis on certain boyish characteristics of body and mind, which the woman does not and never could possess. The attraction of the boy or the youth is a definitely *masculine* thing. More important still is the 12th book of the Greek Anthology, Stratos "Musa Puerilis." I would especially recommend to Dr. Brill the seventh epigram of this book in which the different characteristics of the youthful male are compared with those of the female. The author states very distinctly that the things which attracted the Greek were definite masculine characteristics, both physical and mental, which could never by any possibility be found even in the most masculine of females. The Roman standpoint, which is essentially the same as the Greek, is well stated in several epigrams of Martial. (See especially Book XI, Epigram 43.) It is, therefore, a complete misunderstanding of Greek sex reactions to state, as Brill does, that the Greek was attracted to the feminine traits in youthful males. I am not sufficiently well informed about this type of homosexual activity in modern days to be able to say definitely that the modern homosexual differs in his reactions from his Greek brother. I do not think it likely. Dr. Brill's statement, therefore, may lead to a serious misconception of those psychobiological reactions which lie at the foundation of one important type of sexual temperament.

As for Dr. Brill's concept of the manner in which homosexuality develops, I cannot help feeling that the entire explanation is too forced to be acceptable. According to Brill, the petted male child is first sexually attracted to his too-devoted mother. He then identifies himself with her, falls in love with his own body and after passing through a period of narcissism, finds sexual satisfaction only in a love object that has the same type of body as he himself. This appears to me very roundabout and fantastical. Personally, I have never found any mental facts that would tend to prove it in my examination of the few homosexuals among my patients. It seems much simpler to me to accept a congenital homosexuality, and to let it go at that.

Dr. Brill's book ends with a glossary in which he gives definitions of a number of medical terms that might possibly puzzle the layman. This glossary suggests that Dr. Brill intends his book for wide circulation among people, who are not trained in psychiatry. Inasmuch as he himself complains of the dangers to psychoanalysis that arise from the so-called "Wild Psychoanalysts," it seems somewhat startling that he should take the trouble to make his book more easily comprehended by exactly that class of untrained men, whose activity he deplors. The glossary itself is peculiar; especially for the brevity with which it defines important psychiatric terms. For instance, "Dementia Præcox: a form of insanity"; and then "Schizophrenia: see Dementia Præcox." The definition of "Libido" merely is "sexual craving" surely not the meaning which Freud himself would attach to the word. Some of the other definitions are almost less clear than the word which they seek to define. For instance "Erogenous Zone: an

organ which if stimulated bestows on the impulse a sexual character." What impulse?

It is also somewhat startling to find that in the preface of the second edition, Dr. Brill mentions Professor Adolf Meyer among a group of "men of scientific eminence and sound judgment who have given assent to the chief of Freud's conclusions." To the uninitiated, this statement classes Professor Meyer with such extreme psychoanalysts as Jung. This may not be entirely a case of finding "Saul among the Prophets," but it surely does not give a fair or an adequate idea of Professor Meyer's attitude towards the most advanced representatives of the Freudian School. It is true that Dr. Brill puts in quotation marks the beginning of the sentence that contains Dr. Meyer's name, but there are no other quotation marks to show us where the quotation ends and where Dr. Brill's own words begin.

These criticisms are of course all minor details, which do not in any way deeply affect the value of Dr. Brill's book and its permanent usefulness.

JOHN R. OLIVER.

*Medizinische Psychologie. Ein Leitfaden für Studium und Praxis.* Von DR. ERNEST KRETSCHNER. (Leipzig: Georg Thieme, 1922.)

This is an advanced manual, which assumes acquaintance with the fundamentals of psychiatry, but is not unassimilable without them. It is perhaps the best balanced book that has appeared in its field. Bleuler's influence is marked. As there is no really standard way of presenting the subject, the viewpoint necessarily has original features; where other authorities are used, an excellent sense of values is manifest. The book is not easy reading, being quite condensed. A competent and liberally annotated translation would be a genuine service to American psychopathology; probably a labor of love also, the popular sense being attuned to somewhat more highly colored productions.

F. L. W.

*An Essay on the Physiology of Mind.* By FRANCIS X. DERCUM, M. D., etc. (Philadelphia and London: W. B. Saunders Co., 1922.)

This brief volume is a *résumé*, and in part also *rechauffé* of its distinguished author's conceptions on the mechanics of mental functions. The earlier portion reviews generally understood facts of the biogenesis of the nervous system. In accounting for the more complicated mental processes of the higher organisms use is made of hypotheses involving amoeboid movements of the nerve cells. The psychogenic repressions of the Freudian type become resistances of a more mechanical conception, thus, ". . . the retraction of the dendrites and axones of the neurones explains the palsies and anæsthesias of hysteria" (p. 176). More importance is attached to this hypothesis than is usual among students of neurology, but the manner of presentation is clear and stimulating, as one would expect.

F. L. W.

*Fourth Annual Report of the Massachusetts Commission on Mental Diseases of the Commonwealth of Massachusetts for the Year ending November 30, 1919.*

This report summarizes the activities of the Massachusetts state hospitals and is interesting the ramifications of its service. There are numerous interesting details, perhaps the most interesting being a decrease of 85 in the total number of patients under care as compared with an increase of 89 during the previous year. The interesting biennial conference reports which have been a feature of previous volumes are not included and it is surmised that they were not held.

W. R. D.

*State of Iowa, 1920, Twelfth Biennial Report of the Board of Control of State Institutions for the Period ending June 30, 1920. (Des Moines: Published by the State of Iowa.)*

Beyond the many statistics in this book there is little of interest. It can easily be seen that the Board of Control is active and that Iowa's institutions are kept on a high plane of usefulness.

*Bulletin of Iowa Institutions, Vol. xxii, 1920. (The Reformatory Press, Anamosa, Iowa.)*

In addition to the minutes of the quarterly conferences, there are a number of interesting papers. Mechanically, the volume is a credit to the Reformatory Press.

*Transactions of the College of Physicians of Philadelphia. Third Series, Volume the Forty-second. (Philadelphia: Printed for the College, 1920.)*

This volume is larger than usual containing over 500 pages. There are forty-two addresses or papers with a number of section reports and other matter. There are no papers of special neurological or psychiatric interest but many of a wider field. Sir William Osler and H. C. Wood are the subject of a number of addresses made at memorial meetings. A list of the meetings held would be an addition to the book.

*Proceedings of the Fifteenth Annual Meeting of the Association of Life Insurance Presidents, Held in Hotel Astor, New York, N. Y., December 8 and 9, 1921.*

Naturally, the greater parts of the addresses contained in this book are of technical interest but an address by Livingston Farrand entitled Health the Guidepost to Material and Moral National Strength, and by Robert Lynn Cox entitled National Health in the Life Insurance Mirror should interest all medical men.

## Obituary.

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### DR. PEARCE BAILEY.

Dr. Pearce Bailey, who died of pneumonia in New York City on February 11, 1922, was born in New York, July 12, 1865. He was graduated from Princeton in 1886 and from the medical department of Columbia University in 1889. Following his graduation from Columbia he studied abroad, mostly in France, and on returning entered the field of neurology. His early interest was in organic neurology and neuropathology. In 1898 he published *Accident and Injury: Their Relation to Disease of the Nervous System*. He was adjunct professor of neurology at Columbia from 1906 to 1910 and consulting neurologist at St. Luke's, Roosevelt, New York, Orthopædic, Manhattan State, and St. John's hospitals. He served as president of the American Neurological Association during 1913, and as president of the New York Neurological Society from 1903 to 1905. He was a member of the American Medical Association, the American Psychiatric Association, the New York Pathological Society, the New York Academy of Medicine, and a director of the National Committee for Mental Hygiene. He was one of the founders of the New York Neurological Institute and served for a number of years as chief of one of the sections.

In the spring of 1917, Dr. Bailey, with Dr. Stewart Paton and Dr. Thomas W. Salmon, was requested by the Surgeon General of the Army to make a trip of inspection to the Mexican Border, where troops were then mobilized, to study the facilities of the army for the care of nervous and mental patients. The facilities were found not to be adequate and the Surgeon General requested the National Committee for Mental Hygiene to draw up proper plans for this branch of the army medical work and to organize neuropsychiatric units for the military hospitals. A special committee, known as the Committee to Furnish Neuropsychiatric Units to Base and Other Military Hospitals and later as the

War Work Committee was appointed by the President of the National Committee and Dr. Bailey was asked to serve as its chairman. Under his chairmanship plans, including equipment, for special neuropsychiatric wards in base and general hospitals were prepared; methods for the neuropsychiatric examination of the army personnel, for the purpose of eliminating those nervously and mentally unfit, were drawn up; the preparation of special army psychological tests assisted; a personnel of psychiatrists and neurologists recruited, including a specially trained nursing and attendant personnel; and five graduate schools of neuropsychiatry organized for the further training of medical officers.

At the request of the surgeon general Dr. Bailey accepted a commission as a major in the medical corps of the army and in July, 1917, reported in Washington to organize in the Office of the Surgeon General the Division of Neurology, Psychiatry and Psychology. (The Psychological Section was later made an independent division.) Promotion to lieutenant-colonel and to colonel followed. He served as chief of the new division until his discharge in February, 1919. In 1918 he spent three months in France on a trip of inspection. The most outstanding achievement of his work as chief of the Division of Neurology and Psychiatry, aside from the successful carrying through of the plans already indicated, was the incorporation of the post of Division Psychiatrist in the tables of organization of the army. The creation of this post was of the greatest significance in that it assured to each army division a psychiatric chief who was responsible for the mental and nervous health of the men in his division; while in the United States, the elimination of the unfit was under his supervision and in the A. E. F. the organization of facilities for the immediate treatment of those who developed neuroses. For this services during the war Dr. Bailey was granted a Distinguished Service Medal.

On completing his work in the army, Dr. Bailey was invited by the governor of New York to accept the chairmanship of the State Commission on Mental Defectives. Long familiar with the clinical aspects of mental deficiency, Dr. Bailey had become, while in the army, impressed with the importance of mental deficiency as a social problem. He accepted the chairmanship. With his usual perspicacity he saw his problem as a series of problems and

while attempting to coordinate them all, selected those that to him seemed of most immediate importance and with his quiet energy set about to solve them. In his thinking he at once separated the non-delinquent from the delinquent mental defective. For the former, he encouraged special education, either in ungraded classes of the public schools or in institutions, and supervision in the community after completion of the school work. He was particularly interested in the possibilities of supervised colonies from the state schools for the mentally defective. For the latter—the delinquent mental defective—he created at Napanoch a special institution, the first institution for defective delinquents in this country.

Dr. Bailey had long been interested in the problem of the “different” or “odd” child and particularly the problems of such children as they pass through adolescence. Although facilities exist for the care and training of the defective child and of the child who is definitely ill, either of physical or nervous disease, but little attention has been given to the supposedly “normal” child who is merely queer or difficult; he has rather been supposed to outgrow these difficulties and to take his place and compete with his fellows. Dr. Bailey’s clinical experience had made him less sanguine of the later success of these children and he believed that the nervous illnesses from which they came to suffer in their effort to adjust themselves in an adult world or the mediocrity and lowered social efficiency into which they slipped could in part be prevented by a proper study and understanding and adjustment of the child during its adolescence. To this end, therefore, he established in 1920, in connection with the Neurological Institute, a clinic of very great possibilities, which he chose to call the Classification Clinic.

Of recent years Dr. Bailey wrote mostly on medico-social topics. Some of his more important contributions along this line have been *Applicability of the Findings of the Neuropsychiatric Examinations in the Army to Civil Problems* (*Mental Hygiene*, April, 1920); *Care and Disposition of the Military Insane* (*Mental Hygiene*, July, 1918); *Care of Disabled Returned Soldiers* (*Mental Hygiene*, July, 1917); *Mental Deficiency; Its Frequency and Characteristics in the United States as determined by the Examination of Recruits* (*Mental Hygiene*, July, 1920); *Malingering in U. S. Troops, Home Forces, 1917* (*The Military Surgeon*,

March, April, 1918); *Neuropsychiatry and the Mobilization* (*New York Medical Journal*, April 27, 1918); *Prevention of Nervous Casualties* (*New Republic*, January 5, 1918); *Psychiatry and the Army* (*Harper's Magazine*, July, 1917); *War's Big Lesson in Mental and Nervous Diseases* (*New York Times*, September 14, 1919); *War and Mental Diseases* (*American Journal of Public Health*, January, 1918); *War Neuroses, Shell Shock and Nervousness in Soldiers* (*Journal of the American Medical Association*, December 28, 1918); *Backward Children* (*New York State Commission for Mental Defectives*, 1920); *Diagnostic Clinic for Adolescents; Purpose and Organization* (*Archives of Neurology and Psychiatry*, November, 1920); *Contribution to the Mental Pathology of Races in the United States* (*Archives of Neurology and Psychiatry*, February, 1922); *Efficiency and Inefficiency; a Problem in Medicine* (*Mental Hygiene*, April, 1917); *Heroin Habit*, (*New Republic*, April 22, 1916); *Psychiatric Clinics* (*New Republic*, June 2, 1917); *State Care, Training, and Education of Mental Defectives* (*Mental Hygiene*, January, 1922); *Thaw and the Law's Insanity* (*New Republic*, February 3, 1917); *Social Defectives Survey*, September 15, 1920).

He was a member of the Editorial Board of the *Archives of Neurology and Psychiatry*.

While Dr. Bailey chose to devote his professional life to neurology and psychiatry, he was not a specialist of narrow interests. His interests were broad and essentially "human." The early death of his wife and illness in his own family tinged his own life with sorrows, but he never lost sight of the sorrows of his fellow men, nor did he falter in his effort in their behalf. His work will live after him, like something that grows.

F. E. W.

ANDREW W. HOISHOLT, M. D.,  
SAN FRANCISCO AND NAPA.

A great loss was sustained by the medical profession of California by the death on December 17, 1920, of Dr. Andrew W. Hoisholt. Dr. Hoisholt was born in Copenhagen, 62 years ago, but came here with his family as a boy and received his education and did his work in California. He graduated from Cooper Medical College in 1882 and then went to Europe and took a

degree in the University of Heidelberg in 1889. He returned to California and took a place on the staff of Stockton State Hospital, which he filled for many years. He left Stockton in 1912 to become superintendent of Napa State Hospital, and this position he held at the time of his death.

Dr. Hoisholt takes rank as the foremost psychiatrist who has been developed on the Pacific Coast. While a member of the staff at Stockton he became known for his scientific and progressive outlook on his chosen field, and later, as superintendent at Napa, he made many improvements in the administration and in the plant itself, which will long survive him. He introduced a system of case histories at Napa, far in advance of those found in most state hospitals and which compares favorably with those found in large clinic hospitals. Because of his insistence that the insane were patients and not culprits, his administration was characterized by an extraordinary degree of gentleness and humanity.

He made valuable contributions to the scientific as well as to the administrative side of psychiatry, particularly in the matter of statistical data of great medical and social interest and more particularly by his translations of foreign writers. His translation of Dr. August Winner's "Psychiatric-Neurologic Examination Methods" was the most recent of these.

In addition to his work as a psychiatrist he was an important figure in medical education on the Pacific Coast. While at Stockton he taught physiology at Cooper Medical School and the scientific course he gave, far in advance of anything previously given here, is still remembered by many California doctors. He made two further important contributions to medical education. One of these was his service as professor of psychiatry in Stanford Medical School since its foundation. The other was the establishment, in close co-operation with Dr. Wilbur, of the arrangement whereby internes may spend part of their rotating service in state hospitals. This has resulted in giving each year a group of medical men real experience in and knowledge of psychiatry, a subject concerning which physicians in the past have been lamentably ignorant. This idea will be perpetuated and is being copied in other parts of the country.



His close friends knew Dr. Hoisholt as a man of extraordinary culture and charm. He was a skillful and educated musician. A stringed quartette which he organized at Stockton achieved more than a local reputation and some members of it are now nationally known. He was a critic and lover of art. His collections of orchids and of coins are among the best known on the Coast. He had a thorough botanical knowledge of California plants. His familiarity with Scandinavian and English literature made him always a delightful conversationalist. The hospitality shown by him and Mrs. Hoisholt will be long remembered by those who have enjoyed it.

The passing of such a man as Dr. Hoisholt leaves a gap not easily filled in professional and educational circles in this state, and among his many close friends there remains a sense of distinct personal loss.

#### JAMES WOODS BABCOCK, A. B., M. D., LL. D.

James Woods Babcock, *the* alienist of South Carolina, the man who identified pellagra in the United States, died in an attack of angina at his home in Columbia, March 3, 1922.

He was born in Chester, S. C., August 11, 1856, the son of Dr. Sidney E. Babcock and Margaret (Woods) Babcock. Dr. Sidney E. Babcock was educated in Europe, was a surgeon in the Confederate Army and a practitioner of medicine in Chester before and after the Civil War.

During the war many families were obliged to leave Charleston, S. C., and seek safety elsewhere. A Mrs. Strobel took her children from there to Chester. There James W. Babcock and Edward H. Strobel were playmates and their intimacy lasted through life: Strobel later became professor of international law at Harvard University and died in Siam, where he was the legal adviser to the King. He fitted for college in Charleston, where schools were better than in Chester, and entered Harvard in 1873. At the end of his first year there he visited his old friends in Chester and persuaded Dr. Babcock to send James for one year to Phillips Academy, Exeter, N. H. James went north, remained at Exeter four years and graduated. With his father's permission, easily obtained now that the doctor realized that the north had not con-

taminated his boy, he entered Harvard College, graduating in 1882 with the degree of A. B. *cum laude*. In 1886, he graduated from the Harvard Medical School. During his last year there he was a house officer at the McLean Hospital, then located at Somerville. After graduating he was appointed assistant physician to the hospital and remained there until Governor Tillman convinced him it was his duty to accept the superintendency of the insane hospital of his native state. He filled this position from 1891 until 1914.

From the time he went to Columbia until Senator Tillman's death Dr. Babcock was his personal physician. Those who knew Senator Tillman could see the effect this gentle soul had upon his rough but sterling character.

In 1892, he married Miss Katherine Guion of Lincolnton, N. C. Miss Guion was a graduate of the Mass. General Hospital Training School for Nurses. She proved herself a real help mate to the Doctor in his work.

Dr. Babcock's life work was really done at this state hospital in Columbia. He was the first to call attention to the enormous death rate from tuberculosis among the patients in the insane hospitals, both north and south. In 1894, he read a paper before the American Medico-Psychological Association entitled "The Prevention of Tuberculosis in Hospitals for the Insane." It is a model to be followed to-day. It was published in Volume 1 of the Transactions of the American Medico-Psychological Association.

He was the first to recognize pellagra in this country. That was in 1907. Dr. C. H. Lavinder of the U. S. Public Health Service confirmed his work, and together they published the first treatise on pellagra in the English language.

In 1905, South Carolina College recognized his services by giving him the degree of LL. D. His city took advantage of his sanitary knowledge. He served on the Board of Health, the Water Commission and the Sewer Commission of Columbia.

From 1915 until his death he was professor of mental diseases at the South Carolina Medical College. A close observer and an accurate diagnostician, he was the sympathetic friend and adviser of every physician with a difficult mental case through a large part of the south land, and after a consultation, was quite apt to send a reprint covering the case.

His knowledge of general literature was enormous. Wherever he was, in Columbia, Charleston, New York, Boston or Paris, he could always be most surely found in the book stores. He came naturally by this love of books, for his grandfather Babcock carried on a book store in Charleston, having moved there from Connecticut.

Generous to a fault, public spirited, kind, the friend of every one in trouble, irrespective of race, color, creed or position in society, a man whom other men loved, he is missed by all who knew him.

HERBERT B. HOWARD.

### CHARLES EDWARD DOHERTY, M. D., C. M.

Lieut-Col. Charles Edward Doherty, M. D., C. M., died August 14, 1920, after a few months' illness from nephritis; this terminated a brilliant career in the medical profession, the Canadian Army and the service of his comrades in arms.

Dr. Doherty was born November 29, 1872, in Peel County, Ontario. Educated in the public schools, Toronto University and Trinity Medical College, where he graduated in 1899. Following post-graduate work in Toronto hospitals, he went to British Columbia, which was from that time to be his home and was the field in which his very best work was done.

In May, 1902, he was appointed assistant medical superintendent of the Hospital for Insane but left the service in 1904 to enter private practice. On March 1, 1905, he was appointed medical superintendent of the Mental Hospital for British Columbia, New Westminster, and held this position until the time of his death. Under the guidance of Dr. Doherty and as a result of his vision, zeal and ability the care of the insane in British Columbia was brought from the simple custodial care to the highly efficient and complicated system of treating insane by modern methods. Under his direction the highly efficient and modern plant at Essondale was organized and developed and Colony Farm placed in the position it enjoys today of being the model institutional farm of the continent.

Dr. Doherty's military career is no less conspicuous than his civil record. He went overseas with the 7th Battalion in August,

1914; was transferred to medical service and his ability as an organizer being quickly recognized, he was made A. D. M. S. and recalled to London. In 1917 he was sent to Canada to organize the hospital at New Market and upon completion of this work he returned to B. C. in March, 1918, but was again called for military service and appointed A. D. M. S., M. D. XI, which position he held until after the armistice, when he returned to take up his duties at the hospital for the insane.

As a friend and worker on behalf of returned soldiers he was second to none, and not only took a friendly interest but was an active worker and assumed many arduous duties on behalf of his comrades. He was a strenuous worker while a member of the British Columbia Executive of the G. W. V. A., and so successful was he that his comrades were anxious that he should become president of the Dominion Organization, Unfortunately ill health prevented this and many other splendid works the doctor would dearly have loved to carry out and death ended a career only well begun though great things were already accomplished.

#### ALONZO P. WILLIAMSON, A. M., M. D., LL. D.

Alonzo P. Williamson, A. M., M. D., LL. D., was born in Philadelphia, Pennsylvania, April 28, 1854, died in Santa Monica, California, October 21, 1920.

His father, Dr. Walter Williamson, was the founder of Hahnemann College and Hospital of Philadelphia, from which college Dr. Alonzo P. Williamson graduated in 1876. After graduating in medicine he became interne at the New York City Hospital, Wards Island, and later became a member of the medical staff of the Middletown, New York, State Hospital for Insane. He subsequently spent a year and a half in Vienna and other European medical centers, and upon his return was made chief of staff at Wards Island at the age of 25, being the youngest physician to occupy this important position. After serving in this capacity for three years he accepted the position of first assistant physician of the Middletown State Hospital for the Insane, Middletown, N. Y., where he served to the great credit of the institution from 1883 to 1890. While at Middletown he was lecturer on mental diseases at Hahnemann College, Philadelphia, Pennsylvania.

In 1890 he was called from Middletown to become superintendent of the Fergus Falls State Hospital at Fergus Falls, Minnesota, a new hospital which he organized and equipped and which stands today as one of the many monuments to the splendid service rendered to humanity by this good man. After three years as superintendent of the Fergus Falls State Hospital Dr. Williamson moved to Minneapolis and for 12 years specialized in mental and nervous diseases and became renowned as a specialist in this line and as an expert in legal cases. During his residence in Minneapolis he was for 10 years dean of the Homeopathic Medical College of the University of Minnesota. He studied law, graduating in 1894, subsequently receiving his LL. D. degree and became lecturer in Medical Jurisprudence in the law department of the University of Minnesota.

In 1904 he was elected medical superintendent of the Southern California State Hospital, at Patton, California, which position he resigned in 1908. The remaining 12 years of his life were spent in the practice of medicine in Santa Monica, California, where he served as a member of the Los Angeles County Lunacy Commission and did an extensive consultation practice in mental and nervous diseases, and otherwise maintained an intimate relationship to the subject of psychiatry.

His splendid service at the Middletown State Hospital for Insane, Middletown, N. Y., Fergus Falls Hospital for Insane, Fergus Falls, Minn., and Southern California State Hospital, Patton, Calif., will stand as eternal monuments to his superior character and ability. He was a man loved and admired by all who came to know him and respected for his sterling worth and faithfulness to duty. Dr. Williamson gave the greater part of his life to the study and practice of psychiatry and contributed much of value to the literature on this subject. He was one of the oldest members of the American Psychiatric Association and gave freely of his time and active service in various other local, state and national medical societies.

#### CHARLES WARNER HALTERMAN, M. D.

Charles Warner Halterman was born in Freemansburg, West Virginia, April 30, 1868. He obtained his education in the public schools, the Normal School and Classical Academy at Buchannon,

West Virginia. He attended the Eclectic Medical College at Cincinnati, Ohio, and was graduated from this college in 1889, at this time he began to practice medicine at Jarvisville, West Virginia, and remained there until 1901, when he moved to Clarksburg, West Virginia.

In 1902, he was married to Elsie D. Coffman, of Clarksburg, West Virginia, until 1913 he devoted himself to general practice of medicine, when he began to limit his practice to mental and nervous diseases, after taking special post-graduate courses in neuro-psychiatry, at the New York Post-Graduate Medical School in 1903, and later at Fordham University, New York City, and Harvard Medical School of Boston, Mass.

Dr. Halterman was Harrison County Health Officer from 1903 to 1909 and served one term as member of the city council. He was a member of the State Board of Health of West Virginia from 1909 to 1913 and was a member of the Board of Education of Clarksburg Independent School District in 1910 and 1911.

He was medical inspector of Clarksburg Schools in 1911 and 1912. When Governor H. D. Hatfield took office in 1913, he appointed Dr. Halterman as superintendent of the State Hospital for the Insane at Weston, West Virginia, a position which he filled for four and one-half years with credit and distinction. Responding to the call to arms in the late world war, Dr. Halterman volunteered his services and was commissioned a captain in the medical corps and served at Camp Upton, Long Island, New York, and Camp Shelby, Hattiesburg, Miss., having charge of the neurological work at each place. He received his honorable discharge from the army at Camp Shelby, March 31, 1919, returning to his home at Clarksburg, West Virginia, where he resumed the practice of his specialty. He became ill February 6, and died May 11, 1921, and West Virginia lost one of her most valued citizens.

## Appointments, Resignations, Etc.

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- ALBERTSON, DR. CHARLES S.**, appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., September 26, 1921, and resigned December 15, 1921.
- APPELBERG, DR. BENJAMIN**, appointed Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., December 27, 1921.
- ARCHETTO, DR. ANGELO**, Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned September 30, 1921.
- ASHE, DR. WILLIAM RUFFIN**, formerly Resident Physician at New York City Hospital for the Insane and Bloomingdale Asylum, died suddenly from heart disease, August 30, 1921, aged 56.
- BABCOCK, DR. JAMES WOODS**, Proprietor of Waverly Sanitarium, near Columbia, S. C., and formerly Superintendent of State Hospital for the Insane at Columbia, S. C., died March 3, 1922, of heart trouble, aged 66.
- BAILEY, DR. PEARCE**, in charge of Neuro-psychiatric Division, Surgeon-General's Office, during the world war; an eminent neurologist, died in New York City February 11, 1922, aged 57.
- BARR, DR. ROY L.**, Assistant Physician at Rochester State Hospital at Rochester, N. Y., died November 4, 1921.
- BLAN, DR. HORACE**, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned July 12, 1921.
- BONNYMAN, DR. DOUGLAS D.**, appointed Medical Interne at Middletown State Homeopathic Hospital at Middletown, N. Y., September 16, 1921.
- BOROS, DR. EDWIN**, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., August 26, 1921, and promoted to Assistant Physician December 1, 1921.
- BROWN, DR. JOHN E.**, Superintendent of Central State Hospital for the Insane at Waupun, Wis., was injured in an automobile accident in January, 1922.
- BRUNNER, DR. ETHAN E.**, appointed Superintendent of State Hospital No. 4 at Farmington, Mo.
- BUCKLEY, DR. CORNELIUS J.**, appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., October 27, 1921.
- CAINE, DR. ARTHUR T.**, appointed Superintendent of Anoka State Hospital at Anoka, Minn.
- CANE, DR. BYRON S.**, Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., resigned October 31, 1921.
- CHANNING, DR. WALTER**, Superintendent of the Channing Sanitarium at Brookline, Mass., died November 23, 1921, aged 72.
- CLARK, DR. CHARLES H.**, Superintendent of Ohio State Hospital for Criminal Insane at Lima, elected President of Northwestern Ohio District Medical Association.
- CURTIS, DR. BARBARA**, Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., transferred to St. Lawrence State Hospital at Ogdensburg August 1, 1921, and retransferred to Buffalo State Hospital September 30, 1921.
- DALEY, DR. MARK J.**, appointed Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y., August 15, 1921, and promoted to Assistant Physician January 1, 1922.
- DELANEY, DR. WILLIAM J.**, Assistant Physician at Central Islip State Hospital at Central Islip, N. Y., promoted to Senior Assistant Physician November 1, 1921.
- DOWD, DR. W. R.**, appointed Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., October 6, 1921, and resigned December 27, 1921.

- EVANS, DR. MARY, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., July 1, 1921, and resigned August 19, 1921.
- FRIEDRICH, DR. CHARLES, Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., promoted to Assistant Physician August 4, 1921.
- FUCHS, DR. JOSEPH, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned September 30, 1921.
- FULLER, DR. EARL W., Senior Assistant Physician at Rome State School at Rome, N. Y., appointed Physician on the New York State Commission on Mental Defectives.
- GARFINKEL, DR. ARTHUR, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., October 6, 1921.
- GILLESPIE, DR. EDWARD, Senior Assistant Physician at Binghamton State Hospital at Binghamton, N. Y., promoted to First Assistant Physician August 1, 1921.
- GIRARDEAU, DR. CLAUDE, Medical Interne at Manhattan State Hospital at Wards Island, N. Y., resigned August 1, 1921.
- GRADY, DR. LILLIAN R., appointed Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., November 19, 1921.
- GUNDRY, DR. LEWIS H., Superintendent and Owner of Relay Sanitarium at Relay, Md., died September 15, 1921.
- HAVILAND, DR. C. FLOYD, Superintendent of Connecticut State Hospital at Middletown, appointed to New York State Hospital Commission December 19, 1921, and elected Chairman December 21, 1921.
- HAVILAND, DR. HAROLD C., Senior Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., has been granted a year's leave of absence from November 3, 1921, and has gone to Colorado Springs on account of his health.
- HAYES, DR. ALBERT L., appointed Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y., October 15, 1921, and promoted to Assistant Physician October 24, 1921.
- HODDER, DR. LESLIE G., appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., September 1, 1921, and resigned October 31, 1921.
- HOOGINS, DR. RICHARD S., appointed Dentist at St. Lawrence State Hospital at Ogdensburg, N. Y., October 3, 1921.
- HOFFMAN, DR. KENNETH I., appointed Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., September 12, 1921, and resigned December 31, 1921.
- HOLROYD, DR. SAMUEL R., Superintendent of State Hospital for the Insane at Spencer, W. Va., resigned.
- HOWARD, DR. ROBERT HENRY, formerly Assistant Physician at Bryce Hospital at Tuscaloosa, Ala., died December 27, 1921, from heart disease, aged 39.
- HUNT, DR. JAMES RAMSAY, appointed Consultant in Neurology at New York State Psychiatric Institute at Wards Island, N. Y.
- HUTCHINSON, DR. ANNA, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., retired August 1, 1921.
- JAMISON, DR. GERALD R., Assistant Physician at Hudson River State Hospital at Poughkeepsie, N. Y., promoted to Senior Assistant Physician October 1, 1921.
- JAMISON, DR. WILLIAM F., Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., promoted to Senior Assistant Physician October 4, 1921.
- JELLIFFE, DR. SMITH ELY, elected President of New York Psychiatric Society.
- KAHN, DR. SAMUEL, appointed Medical Interne at Kings Park State Hospital at Kings Park, N. Y., January 2, 1922.
- KANE, DR. BYRON S., appointed Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., August 3, 1921.
- KIRSCH, DR. NATHAN, appointed Dental Interne at Central Islip State Hospital at Central Islip, N. Y., October 5, 1921.
- KNAPP, DR. WILLIAM M., formerly Superintendent of Nebraska Hospital for the Insane at Lincoln, died November 16, 1921, aged 74.
- LAUGHLIN, DR. E. ROSS, appointed Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., August 1, 1921.
- LEVIN, DR. HYMAN L., Senior Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned September 30, 1921.



- LOWERGAN, DR. MICHAEL P., Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., promoted to senior Assistant Physician October 4, 1921.
- MACARTHUR, DR. CHARLOTTE B., Assistant Physician at Willard State Hospital at Willard, N. Y., promoted to Senior Assistant Physician October 1, 1921.
- MACLACHLAN, DR. MARY, Medical Interne at Manhattan State Hospital at Wards Island, N. Y., promoted to Assistant Physician January 1, 1922.
- MCCANNA, DR. LEWIS E., appointed Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., October 24, 1921, and resigned December 31, 1921.
- MCCLUNG, DR. DENNIS, appointed Superintendent of State Hospital for the Insane at Spencer, W. Va.
- MCGAFFIN, DR. CHARLES G., Senior Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., granted six months' leave of absence from August 1, 1921, to accept a position in the New York City Children's Hospital at Randall's Island.
- MAMLET, DR. ALFRED E., appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., July 1, 1921, and resigned January 1, 1922.
- MURPHY, DR. OWEN L., Medical Interne at Kings Park State Hospital at Kings Park, N. Y., resigned September 30, 1921.
- PAINÉ, DR. HARLAN L., formerly Assistant Commissioner, Department of Mental Diseases, Commonwealth of Massachusetts, recently Chief Executive Officer, Boston Psychopathic Hospital, appointed Medical Superintendent, Grafton State Hospital, North Grafton, Mass. Assumed duties September 15, 1921.
- PECK, DR. MARTIN W., Assistant Physician at Boston Psychopathic Hospital at Boston, Mass., resigned to enter private practice April 1, 1921.
- PILGRIM, DR. CHARLES W., formerly Chairman New York State Hospitals Commission, elected Vice-President of New York Psychiatric Society at its annual meeting December 7, 1921. December 8, 1921, he was tendered a dinner celebrating forty years of service in the New York State hospitals.
- PINDLER, DR. L. A., Medical Interne at Central Islip State Hospital at Central Islip, N. Y., promoted to Assistant Physician October 1, 1921.
- PRIESTMAN, DR. GORDON, Senior Assistant Physician at Willard State Hospital at Willard, N. Y., appointed Pathologist at St. Lawrence State Hospital at Ogdensburg, N. Y., October 1, 1921.
- POWELL, DR. HOMER, appointed Medical Interne at Utica State Hospital at Utica, N. Y., October 1, 1921, and resigned November 6, 1921, to reënter U. S. Army.
- RETZ, DR. LOUIS D., appointed Assistant Physician at Brooklyn State Hospital at Brooklyn, N. Y., November 1, 1921.
- RIEDEL, DR. HEINRICH FERDINAND, formerly Superintendent of Emigrant Insane Asylum at Blackwell's Island, N. Y., died January 17, 1922, from pneumonia, aged 82.
- ROBINSON, DR. D. C., appointed Medical Interne at Brooklyn State Hospital at Brooklyn, N. Y., November 1, 1921.
- ROGERS, DR. HENRY W., appointed Senior Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., January 1, 1921.
- ROBICK, DR. ESTELL H., formerly Superintendent of State Hospital for the Insane at Athens, Ga., died January 27, 1922, from cerebral hemorrhage, aged 79.
- ROSE, DR. BEN-HENRY, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., November 6, 1921, and dropped December 26, 1921.
- SANDY, DR. WILLIAM C., Psychiatrist to the Commission of Mental Defectives of the State of New York, appointed Chief of Division of Mental Health of the State Welfare Commission of Pennsylvania.
- SHAW, DR. FRANCIS C., appointed Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., August 1, 1921.
- SILVERMAN, DR. BARNET, appointed Medical Interne at Manhattan State Hospital at Wards Island, N. Y., August 16, 1921.
- SMITH, DR. J. ANSON, Superintendent of Camden County Hospital for the Insane at Blackwood, N. J., died at the Cooper Hospital at Camden, October 27, 1921, following an operation for appendicitis, aged 50.
- SMITH, DR. PERCY L., Medical Interne at St. Lawrence State Hospital at Ogdensburg, N. Y., resigned July 22, 1921.

- SEVIGLEY, DR. ELAM FILO, Assistant Physician at Newberry State Hospital at Newberry, Mich., died January 11, 1922, from pneumonia, aged 31.
- STEBLEN, DR. ERNEST S., Medical Internes at Binghamton State Hospital at Binghamton, N. Y., promoted to Assistant Physician December 1, 1921.
- STRAUB, DR. D. WALTER, Consultant at State Hospital for Criminal Insane at Farview, Pa., died November 29, 1921, following an operation, aged 66.
- SULLIVAN, DR. ELIZABETH, appointed Medical Internes at Manhattan State Hospital at Wards Island, N. Y., August 1, 1921, and resigned September 16, 1921.
- TAYLOR, DR. ISAAC MONTROSE, Superintendent of Broadoaks Sanitarium at Morganton, N. C., died November 26, 1921, from heart disease, aged 64.
- THOMSON, DR. ADAM FINDLAY, appointed Medical Internes at Binghamton State Hospital at Binghamton, N. Y., October 17, 1921.
- TIGHE, DR. LEO R., Medical Internes at Hudson River State Hospital at Poughkeepsie, N. Y., resigned October 23, 1921.
- TOPPING, DR. MOSES H., appointed Superintendent of Colony for Feeble-minded and Epileptic at Marshall, Mo.
- TOWNSEND, DR. THEODORE I., First Assistant Physician at Binghamton State Hospital at Binghamton, N. Y., resigned July 31, 1921, and appointed Senior Assistant Physician at Willard State Hospital at Willard, N. Y., October 1, 1921.
- TREVISANO, DR. ANTHONY, appointed Medical Internes at Kings Park State Hospital at Kings Park, N. Y., January 3, 1921.
- TUCKER, DR. HYMAN, appointed Medical Internes at Brooklyn State Hospital at Brooklyn, N. Y., December 1, 1921.
- VANDEMARK, DR. JOHN L., Medical Inspector of New York State Hospital Commission, appointed First Assistant Physician at Rochester State Hospital at Rochester, N. Y., October 1, 1921.
- WELCH, DR. JOSEPH, Assistant Physician at Manhattan State Hospital at Wards Island, N. Y., resigned November 1, 1921.
- WHITE, DR. F. R. S., appointed Superintendent of Hospital for Insane at Wichita Falls, Texas.
- WILKINSON, DR. HENRY F., appointed Medical Internes at Manhattan State Hospital at Wards Island, N. Y., August 9, 1921.
- WORK, DR. HUBERT, Superintendent of Woodcroft Hospital at Pueblo, Col., appointed Postmaster-General of the United States.
- ZELLER, DR. GEORGE A., appointed Managing Officer of Peoria State Hospital at Peoria, Ill., a position he had previously held.
- ZIMMERMAN, DR. ROBERT F., Senior Assistant Physician at Utica State Hospital at Utica, N. Y., resigned September 1, 1921, on account of ill health.

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