

Gunther von Andernach, edited by Vesalius, an excessively rare 16 mo., printed at Venice, 1538.

(4) "Epistola, Docens Venam. . . Secandam," etc. Bale, 1539; the original edition.

(5) The first and second editions of the "Fabrica," 1543 and 1555.

(6) The two far rarer original editions of the "Epitome," 1543; one in Latin the other in German.

(7) The "Opera omnia," cura Boerhaave. Leyden, 1725.

(8) "The Epistle on China Root," Bale, 1546; the first edition. (Calcar's portrait.)

(9) "The Review of Fallopius," Venice, 1564; original edition. (Casper Bauhin's copy.)

(10) Many of the pirated editions; among these the most remarkable is that issued in London by Thomas Geminus, 1545, which contains some of the earliest copper plates to appear in England. Valverde's ed.; Rome, 1600, etc.

(11) Three early "Artistic Anatomies," with plates stolen from Vesalius; in one case issued as Titian's.

(12) One of the chief rarities shown was the tirade of Sylvius against his former pupil: "Vaesani cuiusdam. . . depulsio. . ." Paris, 1551.

Dr. Pilcher also showed an undescribed "Dedication to Vesalius" in a little known medical work; also a copy of the Dryander "Mundinus, the precious Marburg edition of 1541.

vantages and disadvantages of psychopathic hospital treatment. It is to be noted that these studies do not deal with "improved" cases or with cases transferred to other hospitals and there recovered; nor do these studies deal with the "not insane" group, of which so large a part of the Psychopathic Hospital's work consists. For the latter part of the work reference may be made to contributions Number 52 (1914.18) of the Psychopathic Hospital Series, entitled "Progress of the Psychopathic Hospital on the Prophylactic Side of Mental Hygiene," published in BOSTON MEDICAL AND SURGICAL JOURNAL, Vol. clxxi, No. 23, Dec. 3, 1914 and No. 22 (1914.2) of the State Board of Insanity Series, "Notes on Public Institutional Work in Mental Prophylaxis with Particular Reference to the Voluntary and Temporary Care, Admissions and the 'Not-Insane' Discharges at the Psychopathic Hospital, Boston, 1912-13," *Journal of the A. M. A.*, November, 1914. Special studies in psychoneuroses passing through the Psychopathic Hospital have been made by Dr. Donald Gregg, Psychopathic Hospital Contributions Number 56 (1914.22) entitled "Genetic Factors in 100 Cases of Psychoneurosis." E. E. S.)

The second one hundred recoveries comprised seventy males and thirty females.

The table below presents a comparison of average ages and duration of stay in the hospital of the first and second hundred recoveries.

Original Articles.

ANALYSIS OF RECOVERIES AT THE PSYCHOPATHIC HOSPITAL, BOSTON.

II. A SECOND SERIES OF ONE HUNDRED CASES, CONSIDERED ESPECIALLY FROM THE STANDPOINT OF PSYCHOPATHIC NURSING OF BRIEF MANIC-DEPRESSIVE EXCITEMENTS AND OF HYSTERICAL AND OTHER DELIRIA.*

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INTRODUCTORY NOTE.

It is planned to study the recoveries at the Psychopathic Hospital by hundreds (of which the present is the second series) until a sufficient basis is obtained for generalizations as to the various factors making for recovery and the ad-

* Read before a meeting of the Norfolk District Branch of The Massachusetts Medical Society, held at the Psychopathic Hospital, April, 1914. The first series published under a similar title by E. E. Southard, was printed as Psychopathic Hospital Contribution Number 48 (1914.14) in the BOSTON MEDICAL AND SURGICAL JOURNAL, Vol. clxxi, Sept. 24, 1914. The present paper is Number 63 (1914.29) of the above-mentioned Contributions. (*Bibliographical Note.*—The previous contribution was Number 62 (1914.28), by H. M. Adler, entitled, "On the Systematic Control of Salvarsan Therapy Based on the Rapidity of Arsenic Excretion," published in the BOSTON MEDICAL AND SURGICAL JOURNAL, Vol. clxxi, No. 24, Dec. 10, 1914.)

AVERAGE AGE ON ADMISSION.

	M.	F.	Total.
First hundred. . . .	41.0 yrs.	36.0 yrs.	40.0 yrs.
Second hundred. . .	38.8 yrs.	38.0 yrs.	38.6 yrs.

LENGTH OF STAY IN HOSPITAL.

	M.	F.	Total.
First hundred. . . .	22 days	27 days	24.0 days
Second hundred. . .	16.9 days	21.6 days	18.3 days

Comparison of distribution of these one hundred cases by decades, with the first hundred, is shown below:

	11-20	21-30	31-40	41-50	51-60	61-70	71
First hundred. .	18	34	25	15	2	1	
Second hundred 3	21	36	26	11	2	1	

It thus appears that forty persons above forty years of age recovered. There were three in the fifth decade who were not alcoholic, and four above fifty were not alcoholic.

It appears that the average age in this group is reduced one and one-half years and that the average stay in the hospital is reduced by nearly 25 per cent.

The list of the names of the second one hundred recoveries includes one hundred and eleven admissions and one hundred and six recoveries. Nine patients were admitted twice and one three times. One was not insane on second admission, being admitted for salvarsan. One was committed on his first admission and remained eleven weeks

in a state hospital, returning several months later to the Psychopathic Hospital, being diagnosed as delirium tremens, and recovering in sixteen days. Another recovered from a manic condition in 47 days and later returned and was committed. A fourth recovered from a manic depressive attack in 27 days, and was discharged from a subsequent admission as unimproved, and diagnosed as unclassified paranoid condition. A fifth recovered from alcoholic hallucinosis, in thirty days and later returning was committed, with the diagnosis of dementia precox.

Of these eleven readmissions—

- 3 came as voluntary patients both times.
- 3 were brought by the Boston police both times.
- 4 were brought by the Boston police the first time, and returned voluntarily the second time and one the third time.

Changes in diagnosis during a single period of observation:

From alcoholic hallucinosis to delirium tremens....	3
From dementia precox to manic depressive insanity	1
From "not insane" (coming out of delirium tremens) to delirium tremens.....	1
From mixed phase, manic depressive insanity to manic phase, manic depressive insanity.....	1
From unclassified to unclassified paranoid condition	1

Confirmed diagnoses in the one hundred and eleven admissions:

Delirium tremens	51
Alcoholic hallucinosis	29
Alcoholic polyneuritis	1
Alcoholism	1
Drug hallucinosis	3
Exhaustion psychosis	1
Infection psychosis	1
Toxic delirium	1
Manic depressive insanity	8
Dementia precox	1
Cerebral hemorrhage	1
Hysteria	1
Not insane	1
Unclassified	11

Eighty-two of the total number of admissions are psychoses directly due to alcohol. The following table shows how the alcoholics are distributed in regard to sex, civil condition, and form of admission. Widowed and divorced are classed as married.

	Alcoholic Hallucnosis. ¹				Delirium Tremens. ¹				Total.	
	Male.		Female.		Male.		Female.			
	M. S.	M. S.	M. S.	M. S.	M. S.	M. S.	M. S.	M. S.		
	8	14	7	0	20	21	22	8	0	51
<i>Form of admission.</i>										
From Boston police, Chap. 307 ²	2	8	6	0	11	14	7	0		48
7 days' temporary care, Chap. 305 ³	1	1	0	0	4	3	0	0		9
Voluntary	3	3	1	0	4	4	0	0		15
30 or 60 days' temporary care, Section 43 . . .	0	1	0	0	0	1	0	0		2
Committed	2	1	0	0	2	0	1	0		6

The total number of women is small, being about 19% of the whole number. They are

about equally distributed between alcoholic hallucinosis and delirium tremens, whereas there are twice as many of delirium tremens patients among men as there are of alcoholic hallucinosis. All the women are or have been married, while only 45% of the men are married, widowed, or divorced. All but two of the women were brought by the Boston police, one coming voluntarily and another being regularly committed. Sixty per cent. of all these 80 admissions were at the hands of the Boston police. But in relation to this it is to be noted that 19% of the total number came voluntarily seeking help at the hands of the hospital. Twenty-four per cent. of all the alcoholic hallucinosis cases came voluntarily, and 16% of the delirium tremens cases. The lower percentage in delirium tremens is consonant with the well known clouding of consciousness of delirium tremens.

In relation to the relatively slow recovery from alcoholic hallucinosis as compared with that from delirium tremens,³ the average length of stay in the hospital for the two classes is significant.

	Average Stay in Days.	Mean Variation in Days.
51 cases delirium tremens.....	11.5	7.5
29 cases alcoholic hallucinosis....	20.5	11.6

Only seven cases diagnosed delirium tremens remained over twenty days. Many of these were syphilitic or feeble-minded. Only seven cases diagnosed alcoholic hallucinosis were discharged in less than ten days.

The three cases of drug hallucinosis were an actress aged 42, nurse aged 42, and a general utility man in a theatre aged 24. These remained 27, 25, and 31 days respectively. With good nursing and hydrotherapy, they passed the immediate and complete withdrawal of the drug with no great discomfort, and re-established the normal functioning of the metabolic processes. Normal physical condition was again established, the patients putting on weight rapidly in the hospital.

A group of manic depressive cases, with short attacks, exhibits a valuable function of the Psychopathic Hospital. These seven persons (eight admissions) had emotional disturbances from which they recovered during hospital residences ranging from two to four weeks in extent.

These were pretty clear cases of manic-depressive insanity. This diagnosis had doubt cast upon it in the case 11,332, sixth in above table, when two months after his "recovery" he returned and was discharged in six days to go to a private hospital with diagnosis of "unclassified paranoid condition."

Case 11,439, second in above table, had been committed four times to the Boston State Hospital. He was out on visit twice and returned both times, on the last commitment. He, therefore, had six attacks before coming here, three of which were about two months in duration and three were over six months each. Excessive use

Case No.	Sex	Age	Civil Condition	Previous Attacks	Character Present Attack	Duration Present Attack Before Admission	Residence in Hospital	Wassermann Reaction	Serum
11,563	F.	38	M.	4	Manic	3 months	16 days	Negative	Serum
11,439	M.	41	S.	4	Manic	3 months	16 days		Serum
11,283	M.	41	M.		Agitated depression	4 months	17 days		Serum
10,843	F.	56	S.		Depressed	6 months	14 days		Serum
11,678	M.	41	M.	1	Manic	29 days	29 days		Serum
11,332	M.	56	M.		Depressed	13 months	27 days		Serum
12,203	F.	34	M.		Depressed	3 3/4 months	20 days		Spinal fluid Serum

of alcohol accompanied his attacks, and this etiological factor colored the diagnosis in the third attack, when his psychosis was called "alcoholic insanity." It seems clear, however, from his history that over-indulgence in alcohol comes after the excitement begins. The patient returned voluntarily six months after this recovery and was committed and transferred to the Boston State Hospital.

Note.—In June, 1914, this patient was returned by the police. He was discharged "recovered" in ten days.

Three unclassified cases recovering in six, fourteen and eight days respectively, probably presented attacks of manic depressive insanity. A single woman of 53 years (case number 904) worried about things which happened years ago, complained that people were going to kill her, talked religion, fell in love with the chauffeur where she was cook, and had spells of "getting mixed up." All this passed with a week of rest.

A married man (case number 11,668) of 38 years was irritable and jealous of his wife. He had fears of being insane and of being a sexual pervert. He felt his nerves were going to pieces. He consulted dream analysts. Their treatment augmented his excitement. In the hospital he fought the attendants and acted as if demented. He was discharged as recovered in three weeks. He was a man of unusual talent and earning power, and he is reported since as doing quite as effective work as he had ever done.

The case (No. 12,460) diagnosed as "hysteria" and recovering in 23 days, was a man 33 years of age and divorced. He was brought in by the police. He was mute, confused, apprehensive, and appeared to be hallucinated and deluded. During his waking periods he continually moved both thumbs over the fingers in a way suggestive of cigaret-rolling. It was soon found that he was accessible and oriented and that his memory was intact. Upon giving him prolonged baths for several days and placing both hands on extensor splints for a few hours each day, the motor disturbance disappeared; and his memory became clear. The man had varied experiences with alcohol and women. His serum was negative to the Wassermann reaction. Alcohol may have been a factor in producing the condition in which he entered the hospital.

Note.—This patient was admitted again in July, 1914, and in much the same condition as before. He was over-fatigued at the time of the Salem fire.

The remaining *unclassified* cases may be briefly summarized:

CASE 1. No. 1133, male, 18, single; brought in by the police in a dazed condition. Seemed to have amnesia for four days. Had run away from home many times. The first time was at ten years and because he had stolen some money. Had been on the point of marrying a girl and when he learned from her that she was already married, he wanted "to go to the dogs" and to "drink himself to death." He was discharged in three weeks. Psychopathic personality, alcohol and hysteric amnesia are mentioned in the discharge note. He was later heard from about to enter upon a jail sentence in Vermont.

CASE 2. No. 12087, female, 20, single, colored. Patient showed no interest in surroundings, tried to escape, and exhibited many impulsive acts. Answered very few questions, and those with one or two words. Said a fortune-teller talked to her, especially at night. She had jumped from window at home. She had to be restrained. She thought she was the fortune-teller who had told her she must marry a certain "underworld" colored man, who himself had used undue influence upon her. In four days she had lost all these seeming hallucinations, and was no longer timid and impulsive. She mingled freely with other patients and was a useful helper. Hysteria and dementia precox are suggested in the discharge note.

CASE 3. No. 10853, female, 37, married. Appeared frightened and suspicious. Was afraid to

drink anything her husband offered her for fear of poison, could not rest at night, heard people talking of killing her and throwing her out of the window. They said she was "dirty and had a disease so she was not fit to live with." She had been wandering about the city all day. She had been hearing the voices about one week when she came to the hospital. After a few days' active hallucinosis they gradually faded. After twelve days in hospital she seemed "entirely well." She used no alcohol. She had a nervous attack four or five years before. Diagnosis, unclassified hallucinosis. Paranoid dementia precox is suggested by the symptoms above.

CASE 4. No. 945, female, 38, married. Found in a bewildered condition in the South Station. She thought she was to be put to death. She had auditory hallucinations. She was restless, confused and depressed. She was recently parturient. On clearing up she said she heard voices before leaving her home in Pennsylvania and for one day after coming to the hospital. Discharged to her husband to return to Pennsylvania. Diagnosis, "unclassified hallucinosis" with suggestions of "dementia precox" and "alcohol."

CASE 5. No. 12011, male, 18, single. Was found hanging upon a tree in a park. Assigned as reason therefor that his mother was dying in a hospital. Had seen her lying on the floor praying, and he heard her calling patient's name. Appears to be worried. No mannerisms. Discharged in three weeks feeling that he had been crazy when he attempted suicide. Intelligence tests showed him to be a high-grade moron of 11 years plus. Diagnosis given as "emotional impulsive act with hallucinosis."

These short-time psychoses occurring in such numbers in the metropolitan district find in the Psychopathic Hospital an institution admirably adapted to their needs. Friends and physicians find it much easier to send them to a hospital for acute cases than to a regular state hospital. They need therapy rather than custody, and they are quite beyond being handled in a general hospital.⁵ Such cases as the twelve referred to above constitute one special kind of situation which the Psychopathic Hospital has been organized to meet. These cases demand nursing and they demand care as of insane persons. Nursing of the insane is a special function of the Psychopathic Hospital, different both from that of the general hospital,⁶ and from that of the custodial institution for the insane.⁷ It is *nursing* and it is *nursing of the insane*.

The nursing problem, however, is further emphasized by the following cases:

CASE 1. No. 11401, female, 24, married. Patient fainted in a theatre. Was dazed the next morning. Became wildly excited in the afternoon, complaining that people were looking after her and troubling her. She expressed a fear that she was to be put away. In the hospital, she lay in a stupid, confused state. Would answer repeated questions only briefly. Complained of the restraint she had experienced at home and said she would not go back to her husband. She was restless and noisy during afternoons and nights for several days, and stupor-

ous and confused in the mornings. Rolled out of bed twice. Patient developed an albuminuria and had casts. She had a temperature of 101.2° at one time. Had a follicular tonsillitis and a leucocytosis of 11,200. Her serum was negative to Wassermann reaction. Both tubes, large and cystic, were removed four years before.

This patient had to be catheterized at times. She was given prolonged tepid baths and was tube-fed repeatedly. In less than two weeks she was talking rationally, improving rapidly in her general health, and was gaining in weight. She was still much confused with regard to her experience after fainting in the theatre and the first few days at the hospital. She was discharged on a six months' trial visit at the end of seventeen days, and definitely discharged six months later. Diagnosis, infection psychosis.

CASE 2. No. 11429, male, 39, single. Case of toxic delirium sent from a general hospital where he had "an acute dilatation of the heart followed by a lighting up of an old infectious arthritis." He became wildly delirious and unmanageable. On examination after admission he was somnolent and stuporous, but could be aroused and seemed "quite rational." Knees, feet, fingers, hands and elbows were swollen and painful to touch. Respirations, 48, labored, and painful. Drooping of right side of mouth. Impaired resonance anteriorly and crepitant râles at left apex. Pulse irregular and dicrotic. Complained of a fire on his back. Said he supposed he "cut up at the Baptist Hospital." "There was a man there who would not let me get out of bed." "I saw things, talked through my hat, got out of bed, made a fool of myself, and sauced them."

He continued to have occasional "flights of imagination" for several days. He was given digipuratum, camphor oil, sodium salicylate, and caffeine. The lungs cleared up, the cardiac dulness receded, the pulse improved in volume and regularity. The peri-arthritis subsided. He was discharged to a convalescent home in seventeen days.

CASE 3. No. 10768, female, 23, married. Admitted two days after confinement. At times very much confused. Noisy and singing at times. Again thought she was going to die. Often laughed without occasion. Did not seem to be hallucinated. Recognized husband and physician at all times.

Temperature 102. Pale. Dilated pupils. Distended breasts and discolored areolae. Tenderness over entire abdomen. Profuse, sero-sanguinous, non-offensive lochia. Enteritis with loose greenish stool. Rapid pulse and respiration. No phlebitis or mastitis. Later patient lost control of anal sphincter and her breasts caked. No albumen in urine. Discharged recovered in thirty-four days. Diagnosis, "Exhaustion psychosis."

Nursing problems are further indicated by the following facts in regard to *temperatures*. Among these recoveries there were twelve cases showing temperatures of less than 98°, twenty-seven of more than 100°, and four persons had at different times while in the hospital temperatures above 100° and below 98°.

Urine examinations in these one hundred cases reveal:

Albumen in seventeen cases.

Nucleo-albumen in four cases.

Casts in eleven cases.

Mucous bands in two cases.

Sugar in six cases.

Turbid urates, urates, phosphates, triple phosphates, bile acids, diacetic acid, and bacteria, were found in one case each.

Such facts in regard to our recovered cases are evidence in favor of the point of view which is being forced upon the psychiatrist every day, namely that his patients are frequently suffering from serious disturbances of gastro-intestinal, respiratory, circulatory, secretory or excretory systems. And for such conditions the best of medicine and nursing is demanded by general humanitarian considerations. The recoveries here reported demonstrate the economic importance for providing the best of medicine and nursing for such cases.

INCIDENCE OF SYPHILIS.

Wassermann reactions on serum or spinal fluid or both are reported in eighty-one of these one hundred recoveries. One or the other (serum or spinal fluid) is "positive" or "doubtful" or "slightly positive" in seventeen of these eighty-one cases. This is a percentage of 20.9% as against 14.7% in all cases in which blood has been taken as a routine in this hospital for more than a year, about 2000 cases.⁸ Such a percentage seems to prove too much. Certainly one may claim that syphilitic taint does not prevent apparent recoveries in a variety of cases. One must argue with much caution, however, as to what etiological significance the syphilitic infection may have had in the psychosis from which recoveries were made with no anti-syphilitic treatment. That there may be subtle and multi-form effects, produced by the spirochete upon the cerebral cortex, very different from the classical general paralysis and cerebro-spinal syphilis, perhaps no one will deny. These may take the form of temporary high susceptibility to other poisons such as alcohol.

The following table exhibits the *positive cases* with the sex, age, and diagnosis, and in some cases the reaction in the spinal fluid:

In the last case presented in the table above, No. 11,214, it seems highly probable that syphilis may be a very important etiological factor. The results from serum and spinal fluid examinations are unusual. The serum is negative, and the spinal fluid, while showing only two cells per cubic millimeter, no globulin and no increase in albumin, is positive to the Wassermann test.

The patient says he has had many sick headaches. Has never been in a hospital before, and has not been sick in bed for years. Two weeks ago he overslept. His wife tried to wake him. On attempting to get up he fell on the floor. Had no convulsive movements. He was not right all day. Did not answer questions. Would say "Something is

Number.	Sex.	Age.	Civil Condition.	Diagnosis.	Serum.	Spinal Fluid.
11,175	F.	43	Married	Unclassified hallucinosis	Slight	
1,337	F.	34	Married	Unclassified psychosis	Slight	
1,732	F.	30	Married	Alcoholic hallucinosis	Suggestive	
11,122	M.	51	Married	Alcoholic hallucinosis	Later —	
1,849	F.	47	Married	Alcoholism	Suggestive	
1,877	M.	42	Single	Delirium tremens	Slight	
2,162	M.	33	Married	Delirium tremens	Later	
2,262	M.	38	Married	Delirium tremens	—	
2,311	M.	27	Single	Delirium tremens	Doubtful	
2,306	F.	48	Widowed	Delirium tremens	—	
2,321	F.	28	Divorced	Delirium tremens	Doubtful	
11,428	M.	47	Married	Delirium tremens	—	
12,086	M.	24	Single	Alcoholic hallucinosis	—	
12,301	M.	48	Married	Delirium tremens and alcoholic deterioration	—	
12,493	M.	25	Divorced	Delirium tremens	—	
11,429	M.	39	Single	Toxic delirium	—	
11,214	M.	49	Married	Cerebral hemorrhage	—	

GROUPED BY DIAGNOSIS.

Nine delirium tremens.
Three alcoholic hallucinosis.
One alcoholism.
One unclassified hallucinosis.
One unclassified psychosis.
One toxic delirium.
One cerebral hemorrhage.

wrong with me" and rubbed face and arms as if they were numb. Could not use his legs that day. Was rambling and confused in his talk. No speech defect. Some weakness of sphincters. Has been depressed and irritable since. He was unable to leave the house or to work. He would not let his wife tend the furnace fire. He locked her in the cellar when she tried to do it. This was on his mind day and night. When he came to the hospital he was fairly well orientated. Memory seemed clear except for the beginning of the attack. He was depressed, irritable and peevish. Complained of pain and chilliness in his back. He thought his mind was clear.

Physically he exhibited a blood pressure of 165 mm. systolic and 130 mm. diastolic, a slight systolic murmur at apex, and pulses which were synchronous, regular and of normal volume. Tongue

was protruded in the median line. Pupils were equal, regular and reacted normally to light and distance. There was no evidence of paralysis in face or extremities, and no subnormality of speech or writing. He did not then stumble on syllables or use wrong words. In two weeks, he was in excellent condition. He lost his irritability and was able to give a clear account of himself. He was discharged with the diagnosis (cerebral hemorrhage with thrombosis and a question of claudication.) In such a condition the etiological factor may be the development of spirochetes and toxins in the cerebral perivascular spaces. The use of alcohol is denied by this patient's wife.

The other positive spinal fluid is that of No. 11,429, "arthritis and toxic delirium" already described above. Serum was negative in that case also.

Another less definitely classified case in which the spirochetic infection may have had etiological significance is the second in the above table.

No. 1337, female, 34, married. Patient attempted to throw herself from a window. Refused food. Had hysteriform attacks. In these seemed to be unconscious, had rigid extremities, but no clonic movements and no frothing or loss of sphincter control. She had delusions of persecution. She had had six previous attacks. Present attack had already lasted three weeks when she was brought to hospital. She had a serum positive to the Wassermann test. Had been twice within a year treated with salvarsan. Used much alcohol and many headache powders. Diagnosis, hysteria, syphilis, and unclassified psychosis from drugs. One may say these are three guesses at diagnosis.

Four cases in the table of seventeen positive Wassermann's exhibit negative spinal fluids with positive sera, namely, 11,175, 1,732, 2,162, and 11,428.

No. 11175, female, 43, widow. Patient heard voices, was sleepless, and was sure people were following and slandering her. Men got "fresh" with her, and a pack of ruffians "blackmailed" her, ruined her character, and were going to "drive her to Ireland." She denied using alcohol for seven years, *i. e.* since her husband died. Neighbors said she did not drink. Serum positive and spinal fluid with two cells to c. m. m. negative to Wassermann reaction. Diagnosis, "unclassified hallucinosis" with questions of "menopause" and "dementia praecox."

It is true that the similarities are marked between this symptomatology and many which are diagnosed as paranoid dementia praecox. Many analogies also exist with the fifth decade paranoid involutional cases of Southard and Bond.⁹

One cannot, however, leave lightly the suggestion that the toxic condition of the blood which gave the positive Wassermann reaction may have engendered cerebral conditions, which gave rise to the delusions of persecution, ideas of reference and hallucinations. At any rate we have a positive biologic fact, and it must be given weight in considering explanations of the mental pathology.

No. 11428, male, 47, married; occupation submarine sailor. Patient was very much confused. Very noisy and destructive. Made most absurd remarks and replies to questions. Very suggestible, and fabricated. Many hallucinations, mostly visual and somatic. Much tremor and some ataxia. No paralysis. Pupils small, irregular and react well to light. Tendon reflexes active; some inequality between patellars and Achilles.

After being in the house ten days no one in staff meeting was willing to classify him. Delirium tremens and Korsakow's disease were the favorite suggestions. No one said definitely "It is delirium tremens." Thirty days after admission he was discharged with the statement that he had been "perfectly well for two weeks." Diagnosis was then given as "delirium tremens." He was discharged from visit six months later, having been seen at the out-patient department several times. This unusual combination of symptoms and the rapid clearing up is of special interest in that it presents a history of alcohol and a positive serum.

Note.—This patient came voluntarily to the hospital in June, 1914, and said he feared he was again getting delirium tremens. Diagnosis: Not insane. The serum June 9, 1914, was negative.

No. 1732, female, 30 married. Was actively hallucinated, both auditory and visual, not confused, oriented, tremulous, and had fair insight. She had an endometritis, salpingo-oöphoritis and appendicitis. She was discharged "recovered" in two weeks. Two weeks after discharge she was brought in by the police with the same symptoms. The abdominal condition and the positive serum, are the unusual features of this case. They seem to have little or nothing to do with the mental condition.

No. 12162, male, 32, married. Had been a heavy drinker for seven years. Visual hallucinations of sparkling things on his clothes, and saw a man in the street working the machine which gave him electric shocks. Heard the buzzing of this machine. Also heard much singing in a foreign language. Also the voice of a bar-tender with whom he had drunk. Tactile hallucinations of pricks in his arms and legs when "the current was put on him." Systematic delusions of persecution in relation to these hallucinations. Well oriented. No memory loss. Restless. No insight.

Pupils unequal and reaction to light very poor. No paralysis. Much tremor. Reflexes, both deep and superficial, were normally active and equal on the two sides. No speech or gait disturbance. Serum +, spinal fluid —.

Though diagnosed as delirium tremens, the patient was committed and transferred to another hospital. He was discharged therefrom as recovered in a few weeks.

One year after his first admission he came again with very similar mental and physical symptoms. Systematic delusions of a man poking fine wires into him from behind a wall. Serum + with new antigen and — with old. Spinal fluid —. Discharged "recovered" in 16 days.

In these three last mentioned cases the most striking feature of the mental symptomatology

is the rapid clearing up of symptom complexes which in the first instance was like Korsakow's syndrome, and in the last two were much like alcoholic hallucinosis. The duration of all three was more like that of delirium tremens. In the last two the positive serum persisted with negative spinal fluid on the second admission. It is possible the pathological serum has a causal part in the mixtures of symptoms, that alcohol and syphilis each mark the symptoms of the other.

TREATMENT AND AFTER-CARE.

Beside the nursing already emphasized and the clinical care, fourteen of these cases had prolonged baths¹⁰ for several days, in thirteen cases drugs¹¹ were administered, and twenty-five cases were examined and discussed in a meeting of the whole staff.¹²

Forty-one of those discharged "recovered" reported at the out-patient department.^{13, 14, 15} Three others have been heard from. Eighteen reported once, twenty-two reported twice and thirteen were still reporting in April, 1914. One had been committed.

SUMMARY.

1. Compared with the first one hundred recoveries, the average on admission is eighteen months less, and the average residence in the hospital is five and three-fourths days less, i.e. eighteen and one-quarter.

2. Of the alcoholics only twenty-one per cent. were females, and all these were married, while only forty-five per cent. of the alcoholic males were married.

3. Alcoholic hallucinosis requires, on the average, twice the time necessary for delirium tremens to clear up.

4. 18.7% of all "recoveries" among alcoholics came voluntarily to the hospital.

5. Twenty-six of these one hundred and six "recoveries" or 24%, are from psychoses not attributable to alcohol.

6. The large number of patients suffering from serious disturbances of metabolism and at the same time insane but recoverable, as shown by the outcome, demonstrates the unique field of service of psychopathic nurse and psychopathic hospital.

7. Anomalous Wassermann reactions, in some cases where the psychoses seem in no wise attributable to syphilitic infection, raise interesting problems in psychiatry. Others, where alcohol and syphilis seem to work together, open up problems in the permutations of the symptoms of two groups.

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¹⁴ P. H. Contrib. 1914.5, by Mary C. Jarrett, entitled "Functions of the Social Service of the Psychopathic Hospital, Boston," BOSTON MED. AND SURG. JOUR., June 25, 1914.

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SUB-NORMAL TEMPERATURE IN TUBERCULOSIS.*

BY ARTHUR K. STONE, M.D., BOSTON.

THE occurrence of persistent sub-normal temperature in tuberculosis cases has attracted my attention for a long time, and I have been in the habit of calling the attention of my students to the fact that at a certain period of the disease, usually succeeding the active febrile stage, there is often a period when the temperature curve shows marked excursions in the sub-normal, the temperature at no time rising above 98.6 degrees, and rarely fully reaching this point. The patients during this period of sub-normal temperature are usually improving and making distinct gains, but it takes very little to give them exacerbations of real febrile temperature, lasting for a few hours to a few days. This period of sub-normal temperature may last for weeks, the curve becoming less and less irregular if the improvement continues, and finally becoming a continuous straight line at 98.6 degrees. Until this latter condition is found, I do not allow

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