



Über dieses Buch

Dies ist ein digitales Exemplar eines Buches, das seit Generationen in den Regalen der Bibliotheken aufbewahrt wurde, bevor es von Google im Rahmen eines Projekts, mit dem die Bücher dieser Welt online verfügbar gemacht werden sollen, sorgfältig gescannt wurde.

Das Buch hat das Urheberrecht überdauert und kann nun öffentlich zugänglich gemacht werden. Ein öffentlich zugängliches Buch ist ein Buch, das niemals Urheberrechten unterlag oder bei dem die Schutzfrist des Urheberrechts abgelaufen ist. Ob ein Buch öffentlich zugänglich ist, kann von Land zu Land unterschiedlich sein. Öffentlich zugängliche Bücher sind unser Tor zur Vergangenheit und stellen ein geschichtliches, kulturelles und wissenschaftliches Vermögen dar, das häufig nur schwierig zu entdecken ist.

Gebrauchsspuren, Anmerkungen und andere Randbemerkungen, die im Originalband enthalten sind, finden sich auch in dieser Datei – eine Erinnerung an die lange Reise, die das Buch vom Verleger zu einer Bibliothek und weiter zu Ihnen hinter sich gebracht hat.

Nutzungsrichtlinien

Google ist stolz, mit Bibliotheken in partnerschaftlicher Zusammenarbeit öffentlich zugängliches Material zu digitalisieren und einer breiten Masse zugänglich zu machen. Öffentlich zugängliche Bücher gehören der Öffentlichkeit, und wir sind nur ihre Hüter. Nichtsdestotrotz ist diese Arbeit kostspielig. Um diese Ressource weiterhin zur Verfügung stellen zu können, haben wir Schritte unternommen, um den Missbrauch durch kommerzielle Parteien zu verhindern. Dazu gehören technische Einschränkungen für automatisierte Abfragen.

Wir bitten Sie um Einhaltung folgender Richtlinien:

- + *Nutzung der Dateien zu nichtkommerziellen Zwecken* Wir haben Google Buchsuche für Endanwender konzipiert und möchten, dass Sie diese Dateien nur für persönliche, nichtkommerzielle Zwecke verwenden.
- + *Keine automatisierten Abfragen* Senden Sie keine automatisierten Abfragen irgendwelcher Art an das Google-System. Wenn Sie Recherchen über maschinelle Übersetzung, optische Zeichenerkennung oder andere Bereiche durchführen, in denen der Zugang zu Text in großen Mengen nützlich ist, wenden Sie sich bitte an uns. Wir fördern die Nutzung des öffentlich zugänglichen Materials für diese Zwecke und können Ihnen unter Umständen helfen.
- + *Beibehaltung von Google-Markenelementen* Das "Wasserzeichen" von Google, das Sie in jeder Datei finden, ist wichtig zur Information über dieses Projekt und hilft den Anwendern weiteres Material über Google Buchsuche zu finden. Bitte entfernen Sie das Wasserzeichen nicht.
- + *Bewegen Sie sich innerhalb der Legalität* Unabhängig von Ihrem Verwendungszweck müssen Sie sich Ihrer Verantwortung bewusst sein, sicherzustellen, dass Ihre Nutzung legal ist. Gehen Sie nicht davon aus, dass ein Buch, das nach unserem Dafürhalten für Nutzer in den USA öffentlich zugänglich ist, auch für Nutzer in anderen Ländern öffentlich zugänglich ist. Ob ein Buch noch dem Urheberrecht unterliegt, ist von Land zu Land verschieden. Wir können keine Beratung leisten, ob eine bestimmte Nutzung eines bestimmten Buches gesetzlich zulässig ist. Gehen Sie nicht davon aus, dass das Erscheinen eines Buchs in Google Buchsuche bedeutet, dass es in jeder Form und überall auf der Welt verwendet werden kann. Eine Urheberrechtsverletzung kann schwerwiegende Folgen haben.

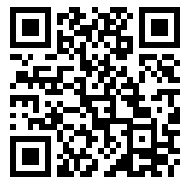
Über Google Buchsuche

Das Ziel von Google besteht darin, die weltweiten Informationen zu organisieren und allgemein nutzbar und zugänglich zu machen. Google Buchsuche hilft Lesern dabei, die Bücher dieser Welt zu entdecken, und unterstützt Autoren und Verleger dabei, neue Zielgruppen zu erreichen. Den gesamten Buchtext können Sie im Internet unter <http://books.google.com> durchsuchen.

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

<https://books.google.com>



Class 178.05

(Blue) G

Book *Q 2*

University of Chicago Library

GIVEN BY

Ann. Assoc. for Care of Debiates.

Besides the main topic this book also treats of

Subject No.	On page	Subject No.	On page

[ENTERED AS SECOND-CLASS MAIL MATTER IN THE HARTFORD POST-OFFICE.]

THE QUARTERLY JOURNAL

OF

INEBRIETY.

PUBLISHED UNDER THE AUSPICES OF THE AMERICAN
ASSOCIATION FOR THE CURE OF INEBRIATES.

Vol. VIII.

JANUARY, 1886.

No. 1.

HARTFORD, CONN.:
THE CASE, LOCKWOOD & BRAINARD CO.,
PRINTERS.

EUROPEAN AGENCY:
BAILLIERE, TINDALL & COX;
20 KING WILLIAM STREET, ON THE STRAND, LONDON, W. C.

RC367
A3

Y
E
A
R
L
Y
T
O
T
A
B
L
E
O
F
C
O
N
T
E
N
T
S.
J
A
N
U
A
R
Y
1
8
8
6.

	Page.
INEBRIETY AND HOMES FOR INEBRIATES IN ENGLAND. DR. PARRISH,....	1
TREATMENT OF INEBRIATES. DR. LETT,.....	23
ALCOHOLISM INCOMPATIBLE WITH AN ACCURATE PERCEPTION OF FACTS. DR. WRIGHT,.....	27
ABSTRACTS AND REVIEWS:	
PATHOLOGICAL STUDIES OF INEBRIETY,.....	30
INEBRIETY FROM GELSEMINUM,.....	33
DISCUSSION CONCERNING ALCOHOL,.....	34
RECOGNITION OF INEBRIETY,.....	36
INEBRIETY IN CHILDREN,.....	38
EDITORIAL:	
ANTE-MORTEM STATEMENTS FOR INEBRIATES,.....	44
TERMINATION OF INEBRIETY,.....	47
SICK AND INTOXICATED,.....	49
SCIENTIFIC JOURNALS,	51
DISEASE OF INEBRIETY—A NEW DISCOVERY IN SCIENCE,.....	52
SENILE DEMENTIA IN INEBRIETY,.....	54
HYPNOTISM AND INEBRIETY,.....	56
CLINICAL NOTES AND COMMENTS,.....	57

HORSFORD'S ACID PHOSPHATE IN CHOLERA.

By the researches of Dr. Koch, it is now known that acids are most useful to kill the cholera microbe, and have been successfully employed by the profession in Europe.

Dr. CHAS. GATCHELL of Chicago, in his "Treatment of Cholera," says: "As it is known that the cholera microbe does not flourish in acid solutions, it would be well to slightly acidulate the drinking water. This may be done by adding to each glass of water half a teaspoonful of Horsford's Acid Phosphate. This will not only render the water of an acid reaction, but also render boiled water more agreeable to the taste. It may be sweetened if desired. The Acid Phosphate, taken as recommended, will also tend to invigorate the system and correct debility, thus giving increased power of resistance to disease. It is the acid of the system, a product of the gastric functions, and hence, will not create any disturbance liable to follow the use of mineral acids."

A recent report from Bangkok, Siam, states the facts in the case of a native who was attacked with cholera. The usual treatment failed to afford any relief, and the case appeared hopeless. It occurred to the attending physician to try Horsford's Acid Phosphate. After the second dose the patient commenced to revive, and in six hours after, he was pronounced out of danger.

Pamphlet sent free. Physicians desiring to test Horsford's Acid Phosphate will be furnished a sample, without expense, except express charges.

BEWARE OF IMITATIONS AND DANGEROUS SUBSTITUTES.
RUMFORD CHEMICAL WORKS, PROVIDENCE, R. I.

☞ These works also manufacture Prof. Horsford's baking preparations, which are made of acid phosphate in powdered form. These preparations restore the nutritious elements that are taken from the flour in boiling. No other baking powder, or anything else used for raising bread, does this.

The use of these preparations is positively beneficial to health.
The Horsford Almanac and Cook Book sent free.

172135

INDEX TO VOL. VIII.

	Page.
A.	
Alcoholism incompatible with accurate perception of facts,	27
Ante-mortem statements of Inebriates,	44
Alcoholic paralysis,	65
Alcoholic heredity,	104
Asylums and sanitarians,	126
Alcohol in hospitals,	165
Acute Inebriety,	166
B.	
Brodie, Dr. David,	193
C.	
Crothers, Dr. T. D.,	44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 72, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 147, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 239, 246.
Classification of Inebriety,	114
Crime and pauper waves,	116
Cocaine in Inebriety,	127
Clinical study of a case of Inebriety,	189
Carson, Dr. J. C.,	247
D.	
Discussion concerning alcohol,	34
Dreschfield, Dr. J.,	65
Delirium in pneumonia,	126
Disease of Inebriety,	134
Day, Dr. Albert,	161, 168
H.	
Hypnotism and Inebriety,	56
Homes for Inebriates association,	118
Heredity of Inebriety,	163

I.

Inebriety and Homes in England,	1
Inebriety from gelsemium,	33
Insanity and Inebriety,	58
Insanity in Rome,	60
Increase of Inebriety,	61
Inebriety and heredity,	72
Inebriety in Austria,	81
Inebriety, and how it can be cured,	84
Inebriety in France,	117
Inebriates passing counterfeit money,	119
Inebriety and tuberculosis,	122
Inebriety and pyromania,	178
Increase of Inebriety in hot weather,	184
Inebriety from tea,	187
Inebriate legacies,	234
Intracranial hemorrhage in Inebriety,	232
Inebriety and criminal responsibility,	230

K.

Kerr, Dr. Norman,	84
-----------------------------	----

L.

Lett, Dr. Stephen,	23
Lewis, Dr.,	232
Last words on cocaine,	229

M.

Mason, Dr. L. D.,	89, 93
Morphomania,	94
Magnan, Dr.,	129
Macleod, Dr.,	156
Morbid impulses in Inebriety,	181
Mann, Dr.,	164
Mental degeneration in Inebriety,	235
Medical and surgical directory,	237

N.

Notes on alcoholic paralysis,	96
Necessity of hospitals for Inebriates in the navy,	102
New hypnotics,	125

Index.

iii

O.

Opium disease,	57
Opium Inebriety in an idiot,	247

P.

Parrish, Dr. Joseph,	I, 184, 190
Pathological studies in Inebriety,	30
Poisoning from the internal use of chloroform,	59
Peddie, Dr. A.,	88

R.

Recognition of Inebriety,	36
Recognition of disease of Inebriety,	175

S.

Sick and intoxicated,	49
Scientific journals,	51
Senile dementia in Inebriety,	54
Statistics from Germany,	59
Some aspects of dipsomania,	129

T.

Treatment of Inebriates,	23
Termination of Inebriety,	47
The disease of Inebriety,	52
Theine as a narcotic,	83
The habitual drunkards act,	88
The future field of medicine,	117
The Otto case,	147
Temperance in the care of the sick,	156
The question of responsibility,	160
Teaching the nature of alcohol,	177
Turner, Dr.,	188
Traumatic delirium tremens,	224

U.

Use of alcohol,	93
---------------------------	----

W.

Wright, T. L., M.D.,	27, 100
--------------------------------	---------

THE
QUARTERLY JOURNAL OF INEBRIETY.

Vol. VIII.

JANUARY, 1886.

No. 1.

This Journal will not be responsible for the opinions of contributors, unless indorsed by the Association.

INEBRIETY, AND HOMES FOR INEBRIATES IN
ENGLAND.

BY JOSEPH PARRISH, M.D.,

President of American Association for the Cure of Inebriates.

[An Address delivered at the November meeting of the American Association for the Cure of Inebriates.]

Drinking to intoxication has assumed such damaging proportions among the higher, as well as the lower classes of English society, that it has claimed the attention of the British Parliament so far as to provide special remedial legislation. Thus, during the session of 1873 it was

“*Ordered*, that a committee* be appointed to consider the best plan for the control and management of habitual drunkards.”

That the committee might prosecute their inquiries intelligently and thoroughly, they proceeded without delay, and yet with characteristic prudence and deliberation, to send for persons and papers.

Of the witnesses examined for the United Kingdom, there were eminent physicians and surgeons in general practice, medical inspectors and superintendents of lunatic asylums, and directors and managers of private retreats.

* Committee—Sir Harcourt Johnson, Mr. Birley, Mr. Henry Samuelson, Mr. Wharton, Dr. Lyon Playfair, Mr. Henry Mitchell, Lord Claud John Hamilton, Mr. Akroyd, Mr. Miller, Mr. Downing, Major Walker, Mr. William Henry Gladstone, Mr. Clare Read, Colonel Brice; Dr. Donald Dalrymple, Chairman.

2 *Inebriety, and Homes for Inebriates in England.*

Connected with the administration of law, there were examined, governors of prisons, of houses of correction and reform, stipendiary magistrates, and constables of counties and boroughs, and also two medical witnesses from America, both of whom were at the time superintendents of asylums for inebriates.*

In addition to the verbal testimony furnished by these persons, of whom there were twenty-nine, who gave answers to three thousand two hundred and thirty-nine (3,239) questions, several papers were handed in from penal and reformatory institutions, exhibiting in tabular form, statistics of commitments and discharges for drunkenness, with suggestions from scientific and philanthropic persons as to the kind of legislation that was needed. In addition also to such papers, there were presented abstracts of the laws of France, Austria, Sweden, and the Netherlands, on the use of intoxicants, with information from those countries touching the appointment of guardians for inebriates, divorce, crime, punishment, and the relation of inebriety to insanity.

The sessions of the committee were held at regular intervals, from the 29th of February to the 7th of June, and during these months such an amount of testimony, and such an array of facts, had accumulated, as to enable the committee to prepare and present a report, which, for thoroughness of research and completeness of design and arrangement, may be said to be a model public document. It shows a concurrence of testimony on the following points, to wit:

1. The absolute inadequacy of existing laws to check drunkenness.
2. The increase of drunkenness in large towns and populous districts.
3. The confirmation of the statement that drunkenness is a prolific source of crime, disease, and poverty.
4. The utter uselessness of small fines and short imprisonments.
5. That occasional inebriation frequently becomes con-

* Dr. D. G. Dodge, New York Inebriate Asylum, Binghamton; Dr. Jos. Parrish, Sanitarium for Inebriates, Media, Penn., now of Burlington, New Jersey.

firmed and habitual, and soon passes into the condition of disease, uncontrollable by the individual.

6. That self-control is suspended or annihilated, moral obligations disregarded, and the decencies and duties of life alike set at naught; and that the victims of this condition obey only an overwhelming craving for stimulants, to which everything is sacrificed; and that this is confined to no class, condition, or sex.

7. That the moderate use of alcoholic liquors is unattended by any bad effects, while there is much to prove that excess in ardent spirits is far more deleterious than similar excess in wine or beer.

8. That there is a large amount of secret drunkenness of both sexes, which never becomes public, but which is probably a more fertile source of misery and degradation than comes before the police courts, and that legislation in behalf of such cases is urgently demanded.

9. That there is a necessity at this time for more efficient legislation to check the downward course of the drunkard, and secure his control in reformatory and curative asylums or homes, by which many cases of premature death from intoxication, including suicide and homicide, may be prevented.

10. That though the habit of prolonged intoxication may lead in the end to insanity, yet there is a difference between inebriety and insanity proper, so distinct as to warrant the opinion that placing inebriates in lunatic asylums is improper, and should not be allowed, except for a very brief period, *e. g.*, during a paroxysm of delirium tremens.

11. That for the class known as casual or occasional drunkards, it is recommended, in order to arrest or possibly prevent the establishment of the habit, that more efficient laws should be passed with something like the following provisions:

A register should be kept, in which should be recorded the name of every person arrested in this initial stage of drunkenness; that a fine not exceeding forty shillings should be imposed upon every such person, and placed opposite to

his name, in the register, with costs, if any. That after three convictions of the same person in any one year, the magistrate should have power to require the offender to find security for his sobriety and good conduct for a fixed period of time, and in default of the same, or in case of forfeiture of security by a fresh offense, then to sentence the offender for a considerable term to an inebriate reformatory.

- It is further recommended that the register shall be progressive, so that if the offender should continue to offend, or be unable to find security for sobriety and good behavior, or forfeit the same, he be enrolled as an habitual drunkard, and committed to an inebriate home or asylum for a term not exceeding twelve months.

This admirable report goes on to recommend the establishment of sanitarium or reformatories by the government, and by private enterprise, to be divided into two classes, to wit:

“A. For those who are able, out of their own resources, or out of those of their relations, to pay for the cost of their residence therein;” and “B. For those who are unable to contribute, or only partially. These to be established by the state or local authorities, and, at first, at their own cost, though there is good reason to believe that they can be made wholly or partially self-supporting.”

Such is an outline of proposed legislation, as it came before the representatives of the people in Parliament assembled. From year to year, in session after session, the friends of the inebriate labored to secure the passage of a law that should embody the principles and methods agreed upon by the committee, but it was not till 1879, that the question was brought to a climax, by the passage of an act known as “The Habitual Drunkards Act.”

After seven years of doubtful questionings and discussions, and seven years of diligent research and inquiry, the great Parliament made the discovery that there was a physical side to the evil of intemperance, and deliberately committed itself to the dogma of disease as applied to it;—they thus inaugurated a new era in the career of the temperance

reformation, and found that they must legislate, if at all, from that standpoint. Hitherto they had dealt with the inebriate as a criminal, by fines and imprisonments: hence it was not strange, when they attempted to frame a law upon the basis of the new doctrine, that they were embarrassed, and encumbered it with the débris of the old. And, when they enter upon the task of reconstructing the jurisprudence of inebriety, which must be the logical outcome of the affirmation of the new principle, it may be no less confusing. That time is at hand. Verily, it is even now. To repeal the old statutes, and enact in their stead such laws as shall compass alike the entire domain of public morals, and at the same time recognize and provide for the singularities and necessities of the individual life of an exceptional class of the community, is no light or easy task. But if there is a legislative body that is equal to it, that body is the Parliament of Great Britain; and to it the eyes of the world are turned with earnest expectation and hope.

The next significant and most important step in the line of progress was the formation of a "Society for the study and cure of Inebriety." It was instituted February 25, 1884, with Dr. Norman Kerr of London, as its president, and a long list of other distinguished names, as vice-presidents, council, and officers. This society has not been idle since it came into existence, but, with regular meetings at which papers are read and discussed by men eminent in the scientific and literary world, much is being accomplished in the line of study, and much light thrown upon the pathology and treatment of the disease.

Its accomplished president says: "Notwithstanding all the brave and gallant efforts of the warriors of the cold-water army, drinking to excess goes on merrily apace; insobriety, while somewhat decreasing among men, has been terribly increasing among women. This is a state of things pregnant with yet deeper ills to coming generations, for, by the advancing intemperance of the mothers of the future, our successors, endowed from their birth with an inborn ten-

6 *Inebriety, and Homes for Inebriates in England.*

dency to excess, cannot fail, from their heightened nervous susceptibility and their diminished will-power, to be less fully equipped to do battle with their inherited proclivities, and with the temptations to drinking which the tyrant customs of society, the sacred sanction of the Christian Church, and unrighteous legislation by the state, cause so to abound on every side." . . . "Whatever else it may be, in a host of cases it is a true disease, as unmistakably a disease as is gout, or epilepsy, or insanity. Sex exerts a powerful influence, nerve-storm in natural functions being an influential factor in the production of inebriety among females." "The influence of intoxicating drink is primarily physical, and no moral or religious surroundings or conditions can prevent or alter the physical effects of intoxicating agents on the human brain and nervous system."

DR. NORMAN KERR, F. L. S., *London.*

Many others testify in the same way.

"Inebriety is a disease, and must be treated as such, the physiological condition being waste of brain, and nerve power."

DR. LONGHURST.

"It is the province of the Christian Church to bring men to sobriety by the path of morals; but it is the duty of the State to make men sober, whether they be moral or immoral. The Church is bound to fight against drunkenness for the sake of the individual drunkard, but the State is bound to seek its abolition for the sake of the community at large. The establishment of homes for inebriates, especially for women, in the neighborhood of our large towns, is an absolute necessity in the present state of society."

J. MUIR HOWIE, M. B., C. M., *Liverpool.*

"Drunkenness is a moral evil, but drunkenness has also a physical basis, and physicians have done much for the community in getting men to look at it in that light."

REV. LLEWELYN D. BEVAN, D. D.,
Vice-President National Temperance League.

“How many men of eminence, — artists, poets, clergymen, and literary men, as well as religious and active women, — in order to sustain the pressure at which many of them, alas! are often compelled to work, have, by too frequent indulgences, degenerated into confirmed drunkards, and in none of these instances could it be properly said that they were actuated by vicious tendencies, but were impelled by an inflamed and disturbed state of mind. In many sensitive temperaments there is a dormant defective proclivity, ready to start into activity and carry all before it. This dormant power is often the heritage of a drunken parent, or from a parent of overwrought and unnaturally sustained brain-action; or it may be the result of an enfeebled constitution from disease, or other personal conditions.”

STEPHEN S. ALFORD, F. R. C. S.

Such testimony touching the physical aspect of inebriety, were it necessary, or even important, might be multiplied to a burdensome extent, but the views of the society to which reference has been made are thus sufficiently represented. Those who have given themselves not only to the study but to the hard, practical work of employing means for its cure, and who are now engaged in this responsible service, should also have a place in the rôle of evidence.

Such testimony however may be premised by that of the government “Inspector of Retreats” — an officer employed to discover and reveal defects and failures if they exist. He says: “The general condition of the different retreats has been on the whole *very good*; and the health of the patients, *very satisfactory*. As a rule, the retreats have worked well, and the complaints made to me, either by the licensees or the patients, have been few in number.”

H. W. HOFFMAN, *Government Inspector*.

Under the “Habitual Drunkard’s Act” there are five licensed retreats, whose status may first be considered:

1. *Dalrymple Home*, at Rickmansworth. “I am satisfied that even such results as I am able to record are sufficient

8 *Inebriety, and Homes for Inebriates in England.*

to indicate that this institution meets an urgent need of the time and will serve as a pledge of future usefulness. Out of forty-nine admissions, there were men of the average age of thirty-six years, all of whom had been heavy spirit-drinkers of a daily quantity varying from one pint to two quarts. Of the thirty-two discharged, fourteen have recovered, and resumed their avocations in life, and six have decidedly improved.”

Dr. R. WELSH BRANTHWAITE,
Medical Superintendent.

2. *Tower House Retreat*, Westgate-on-the-Sea. “In reviewing my book of last year (1884) I am glad to say that I have met with decided success in the treatment of a majority of the cases that have come under my care. Fifty-six have been under care from the beginning, and only a small number left without deriving great benefit, which I trust in the majority of cases will be lasting.”

J. H. BROWN, *Principal and Licensee.*

What is meant by “decided success” in this report is not quite clear. Does it mean decided cures? If so, is it justified by following up the patients after leaving? This is important.

3. *Old Park Hall*, Wallsall, Staffordshire. “The work of building up an institution for the cure of inebriety is a most responsible one. A man who undertakes it should be himself a total abstainer, and require the same of all in his service. He should be a Christian man and rely upon Divine Aid to secure success. The inculcation of right principles and conduct should be done by example, which is seen and felt, and is more effective for good than constant preaching to the patients. The institution has not been sufficiently long-lived to assume any given percentage of cures, but all who come are the better for coming, and if they remain long enough great good can be accomplished.” Such is the opinion, as expressed to the writer, by

FRED. JOHN GRAY, *Medical Superintendent.*

4 *High Shot House*, St. Margaret's, Twickenham, Middlesex. "The necessity for such homes can admit of no two opinions. If we fail to recognize as we ought that intemperance is a disease, quite as much as small-pox or any other affliction, we shall never be able to apply the proper remedies."

HARRISON BRANTHWAITE,

Medical Superintendent.

5. *Colman Hill House*, Halesowen, Worcestershire. "It is too soon to speak of ultimate results so far as cases are concerned, but there seems good grounds for expecting a fair proportion of cases will be permanently restored, while improvement may be considered *certain*, in almost every case. Judging from the last nine months we are much encouraged to hope for good results in the future. . . . It is succeeding beyond our expectations, and we get most gratifying accounts from those who have left."

This is an institution exclusively for women, and is said to be among the most successfully managed, under the skillful care of Doctors Hugh R. Ker and J. V. de Dennie, and an accomplished-matron, Mrs. Taylor.

An interesting feature of the work is the fact that there are several institutions conducted by women, exclusively for women—and for those of the upper and middle classes, among whom intemperance is said to be on the increase. In a recent address by Dr. Norman Kerr of London, before the ladies of the "Christian Workers' Temperance Union," it is clearly shown how this evil is growing. He says, "There could be little doubt that female inebriety had been increasing enormously amongst us. The evidence given before the Committee of the House of Lords clearly proved this. In one town there was an absolute majority of females of the whole number arrested for drunkenness. . . . In Liverpool, in one recent year, there were more female than male commitments, for crimes connected with drinking, to one large prison. In London the proportion of women summoned for drunkenness had increased from about 15 per cent. to 49 per cent., or nearly one-half the total number.

In Edinburgh there had been a marked and most alarming increase."

With such facts before them it is not surprising that the true and sober women of the realm should arouse themselves and come to the rescue. Among those who recognize the importance of studying the subject from its physical side, and dealing with their enfeebled and enslaved sisters in that direction, the following may be named: Mrs. Theobold, of the

Tower House, Leicester, was the first to open a Home for the higher classes of ladies, to be treated for intemperance from its physical side. Mrs. T. was for years a popular and eloquent platform temperance speaker. She dealt with the subject as others did, awaking interest and sympathy in the drunkard and his family from the standpoint of morals and religion. The time came when she abandoned the platform, and devoted herself with fidelity to the physical treatment of her unfortunate sisters. To the writer, on the occasion of his recent visit to her beautiful Tower House, she remarked:

"A person may be cured in motive, in purpose, and in will—the moral nature being restored to its normal state; and yet *the impulse comes as a physical demand, like hunger*, and must be satisfied, unless the victim is restrained, or supplied with a satisfying substitute."

After a quarter of a century of temperance work before the public, she has come to adopt this creed, which contains in a few words the substance and the philosophy of the evil: a *physical impulse*, asserting its need, like hunger.

Buxton House, Earls, Colne, Essex. Conducted by Miss Pudney. She "aims to promote a higher moral tone and more force of character, by which the power of habit may be overcome; and to develop these, great kindness and gentle firmness, unremitting oversight, and personal companionship are devoted. Pleasant social intercourse, recreation, and refining amusements provided."

With such a course of treatment day by day, and the intervention of the medical advisor when needed, Buxton House is an instrument of good for the upper and middle classes.

A peaceful home, presided over by the genius of philanthropy and wisdom.

Spellthorne Sanitarium, Redfont, near Feltham, Middlesex, is an institution under the care of the "Wantage Sisters of Mercy" (Church of England), in which, while the religious element is prominent as a governing force, the physical view is considered important, as may be seen by the following quotation from the notes of an observer, and adopted by the Order: "The very term Sanitarium tells that drunkenness in its aspect as a disease has been carefully kept in view; while the term 'patient,' rather than 'inmate,' avoids wounding jealous susceptibilities."

Chapel services are held three times daily.

The sister in charge writes as follows:

"The sisters only took up the work the 3d of July, 1884, and one year is not sufficiently long to make our views worth very much. Married women are more restless and anxious to leave than single women and widows. Family cares, and anxiety about children, unsettle them. A very observant sister once said, 'fleshly indulgences deaden all spiritual perception; they neither desire heaven nor fear hell.' Still there are many exceptions, and we have in this short time very reasonable hope for the future of two or three that have completed their year and gone out into the world, afraid of trusting in themselves, and keeping up a friendly relation toward ourselves."

In addition to the above, the same sister gives the following: "One year at least is necessary for a cure. To tide over the broken-down condition, and remove physical disability, requires at least six months, and the last six months are needed to restore and establish the moral and religious character."

AGNES, *Sister in Charge.*

West Home, Belmont, Twickenham, Middlesex. A family of women. "I believe the Home should be conducted as near like a family in ordinary sober life as possible, that when the patients go out at the end of a year, *they will not feel any rebound.*"

“The physician is not often needed, though a medical certificate is required to admit a patient. A year is the shortest term for which they can be received.

“At West Home, while availing ourselves of every remedy that medical science can afford, we put our trust in the Great Physician. . . . LADY SUPERINTENDENT.”

St. Raphael's Convent and Hospital, Croyden. Under charge of “Sisters of Mercy.” “Religious services twice daily in chapel. Require a year's residence. Not much reliance on medical treatment, except in a few cases. In sinking or craving, our medical man is sent for. Keep a composing draught on hand which serves very well. Require an hour's silence, morning and afternoon, as good discipline. A certain amount of exercise is enjoined. Patients dress in uniform—black, with white caps. LADY SUPERIOR.”

St. James' Home, Kennington Park, London. Religious and “Blue Ribbon Army.” “No servants. Patients do all the work of house and public laundry. Prayers twice daily, which all *must* attend, and wear black dresses and blue ribbons. This is for the middle and poorer classes, and is in a measure connected with a mission under the care of Charles Zierenberg the ‘Honorable Secretary.’

“Of the thirty-eight who left after a stay of twelve months and upwards, 32, or 84½ per cent., are doing well. Of these thirty-eight, sixteen received a decent outfit, and were placed in good situations. One of them was sent to Canada, and her master and mistress speak in the highest praise of her. Five were restored to parents; while seventeen returned to their friends.

WILHELMINA, *Lady Superior.*”

The percentage of recoveries, as stated above, is beyond what is justified by long and faithful experience, and all such statements, from whatever source, should be taken with large allowance. They may be believed by “Blue Ribbon” advocates of the cause, who in their zeal sincerely accept such results as true; but no careful, scientific observer, nor any institution with a rational classification and study of its inmates,

can make such averments. To eliminate the alcoholic poison from the system, and to re-create the moral nature, so as to produce a new-made creature, without the taint of her former degradation, is a tremendous task, and no cure is established till that is done. The injury is too deep on the part of the victim, our knowledge too superficial, and our experience too short, to claim such sweeping results. Especially is this true under the circumstances which embarrass the superintendent of St. James' Home and his zealous wife, who feel the need of more room for exercise, out of doors—for more space in dormitories, to prevent the crowding of the inmates, and for a general enlargement of their facilities to improve the personal hygiene and domestic sanitation of the establishment.

Waverly Retreat, Westgate-on-Sea. Conducted by Mrs. Rawlins. "I find the greatest difficulty to contend with in females is ill-temper, when the craving for stimulants is at its height. The signing of papers (agreeing to be governed by the rules and regulations of the establishment, and the instructions of the medical attendant) answers quite as well as a license, and prevents many acts of unpleasantness, such as going before magistrates."

Waverly is well situated and should be well patronized.

Vermont Sanitarium, Stanley, near Liverpool. Under charge of "Liverpool Ladies' Temperance Association." "The object of this institution is to give, with the aid of medical treatment and religious influence, an opportunity of reformation to women anxious to overcome a habit of intemperance, which they find they are unable to control. It receives those who are able to pay, and those who are not; the latter class doing all the work. There are no hired servants.

"We find but little difficulty in retaining our patients, they knowing they have entered for one year, and some of them who are married would be sent back by their husbands if they were to leave before the expiration of their term. The grounds are so secluded and private, and yet so ample, that they have plenty of room for exercise; and not being ob-

served from the outside, they avail themselves of it, and are contented.

MISS MARY M. HOCKING, *Matron.*"

Home for Inebriates, The Shrubbery, Leyton, Essex. Established twenty-five years. Its proprietor says: "My experience is, that bad cases of confirmed inebriety can only be cured by compelling total abstinence for a period of not less than twelve months. I only undertake mild cases in the early stage, when they are more amenable to treatment. I am not licensed under the Act, nor do I wish to be. I can more readily obtain patients and induce them to place themselves under treatment by considering them merely as visitors, coming to reside with me for a time as a private medical man. I am happy to say that I have been tolerably successful, though some cases have taken two years to cure; but from six to twelve months is generally sufficient."

DR. JAMES GREENWOOD.

Queensbury Lodge, Edinburgh, instituted in 1832. This is a "House of Refuge for the Destitute," and like other such institutions, in all civilized countries where they exist, many inmates are received who are brought to their low estate through strong drink, but no tabulated statement of the number of such is furnished, and hence this department cannot be reckoned among the institutions devoted to the cure of inebriety. It is rather custodial and industrial. There is, however, a distinct department for ladies of the higher class who are intemperate, in a separate and costly building. The prices are high, the appliances all superior, and twenty patients can be accommodated. There is a long list of officials, and of lady visitors, who render efficient aid.

Dunmurry, Sneyd Park, near Bristol, Gloucestershire. For both males and females, a limited number. Proprietor and his wife devote themselves to the patients, and are always with them. Daily family worship insisted on as an essential in the rôle of treatment. The lessons for the day read in their order.

“Having attendants is a choice of evils: I do not have them. To place a man of intelligence and culture in the care of an ignorant, and possibly a rude hireling, is therapeutically wrong. All sources of irritation should be avoided. Homes should be small to admit of personal supervision for the cultured class, and I take no other. I consider the first three months of a patient's residence should be given to physical renovation. The second three months should be employed in learning to enjoy life without the usual accompaniment of alcoholic stimulants. Such persons have been in the habit of thinking that their cups were essential to real pleasure in their social life. Let them learn the contrary fact and enjoy the experience. The third three months, they should learn to do just like sober and upright people do—live like other people—and the longer they continue to accommodate themselves to the new life, the better for them and for all concerned. I have had clergymen as patients, and ninety per cent. of them have been led into inebriety by very hard work—fasting, and loss of sleep—thus impairing appetite, and demanding stimulants. Rest, abstinence, and tonics establish a cure. Married women are the most troublesome; always restless, anxious to be at home, etc.”*

JAMES STEWART, B. A.,

Late Surgeon in Her Majesty's Navy.

There is one more establishment among the list of homes for inebriates, that is so unique in its character and methods of procedure, as to merit notice more for its departure from recognized practices, than for its claim to be doing a good work for the cause of temperate living. It is located near Bristol, and is conducted by its female proprietress.

On a visit by the writer, he was informed that she was

* A CURIOUS CASE.—“A lady got into the habit of chewing rice; could not sleep without it. Her husband frequently got up in the night to procure it for her. It fastened upon her to an alarming extent. A child was born, and so soon as it grew up, and was able to masticate, it took to the rice also. This alarmed the mother, and after a severe and protracted struggle, the rice was abandoned.”

having remarkable success in the treatment of her cases — all being men — by the process of educating them to be satisfied with a specific quantity of malt liquor. Hence she gave her patients each three goblets of beer per day. Her theory is, that as the appetite can not be destroyed, it can be trained, and so trained in the use of beer as to keep within the bounds of healthy stimulation; hence the practice referred to.

This view is at variance with the principles and practice of every home, or asylum, or hospital in the United Kingdom, and in America, so far as is known. With such an array of opposite opinions from the world of science and of morals, such practice must be sustained with a host of living testimony of long standing, before the doctrine of total abstinence can be abandoned or modified, as an absolute and imperious necessity in the curative process of alcoholic intoxication.

The following rules are recognized as cardinal by *all other Retreats and Homes*:

No intoxicating drink to be introduced on the premises under any circumstances, unless ordered as a medicine by medical superintendent.

No drug of any kind to be taken by patients except with consent of the physicians.

Such are brief notes of seventeen homes or retreats for inebriates, all of which, with one exception, were visited by the writer during September and October last. As already stated, five are licensed under the "Habitual Drunkards' Act." The remainder are conducted as individual enterprises and are capable of doing good to a helpless class of the community. The Dalrymple Home is the only institution of the kind in England, however, the managers of which are prohibited from receiving any pecuniary advantage from the investment.

With the exception already referred to, where beer is prescribed, there is a singular uniformity in the ethical code of all the institutions. No liquor is allowed. Permission must

be had to leave the premises. Money must be given up. In some instances, correspondence is inspected. In some, fines are imposed for neglect. Religious services are recognized in all, while in those conducted under the patronage of religious orders, church observances are enjoined; but the great need of every one, is to keep a more complete history of its inmates. A physician is connected with each retreat, and yet there are but few, if any, comprehensive clinical records. It is not enough to record the name, age, social position, occupation, length of time of the drink habit, and whether the indulgence was constant, or intermittent. All these are well enough, nay important, but what the scientific enquirer wants to know, and what the statesman wants to know, is, the cause of the drink habit; whether it is physical, psychical, or moral. What influence has society and the environment of the patient upon his life? What effects are produced by study, occupation, and general habits, other than drinking?

What is the effect of meteorological conditions upon the temperament and conduct? The microscope should be brought to the work, the secretions and excretions being examined from time to time. Analytical chemistry should be availed of, to assist the microscope in its discoveries, and so every collateral aid, and all allied conditions, so far as may be, should be compared, and the lessons they teach faithfully learned.

Within the whole domain of physiological and psychological research, there is no subject to compare with the single fact of drunkenness, in its scope and bearings, and which demands of the student more patient and painstaking study.

The normal function of every home, or retreat, or asylum is not simply to cure or benefit the inebriate, but to make inebriety a study for the benefit of the community. And every retreat should present to an awakened and interested public, at least once a year, a statement of its clinical observations and conclusions, showing the disease aspect of drunkenness in such an intelligent form as to create an abiding

interest in the results of research and study, so that the community at large may be partakers of the enlightenment which such inquiries may reveal.

THE ACT.

Some of its provisions are admirable, but why it should be operative for ten years *only* is not apparent. Its great defect is, that it requires a candidate for admission under it to appear before two magistrates, sitting together, and over his legally attested signature, confess himself to be what the law describes him to be, to wit: "dangerous or incapable of managing himself or his own affairs" Is such a person competent to be qualified before justices, and to obligate himself to "conform to the regulations, for the time being, in force in the retreat," the chief of which is to abstain from alcoholic drinks or drugs, unless prescribed by the physician in charge? If he continues to abstain he is cured, so far as the object of his commitment is concerned, and, to say the least, this has the appearance of needless, if not contradictory legislation.

The law does not however prevent persons from entering retreats voluntarily, and it is far better that they should do so, by making a similar contract with the superintendent of the retreat, *who should be empowered by statute to restrain inmates when, in violation, or threatened violation of their obligations, restraint becomes necessary.* Very often the knowledge on the part of the patient that the physician holds "the power of the key," is of itself sufficient to deter him from attempting escape, or other violation of trust. The majority of retreats in England are for women, and are based upon the voluntary principle. By far the larger number of their occupants are volunteers, and the average duration of their residence is not far from a year.

Every drunkard knows that there are times when he needs wholesome restraint, and that such are times of danger, when the impulse assails him, and the passion overpowers him. As he would confide in a friend, who would defend and pro-

tect him, so he would respect a law that would empower another by judicious and timely aid to restrain him when necessary from debauching himself.

That so many on both sides of the Atlantic have voluntarily committed themselves, is a sublime fact which attests their surviving manhood, and also an earnest desire for recovery. It also certifies to their appreciation of efforts put forth in their behalf by the homes and retreats, whose doors are ever open to receive them.

If the government would legalize the house regulations, which are always in harmony with the provisions of the act, making them supplementary to the act itself, the signature of the applicant being attached to them on admission, he would become a joint party with the state and the superintendent, the latter assuming the control, and the government acting as the protector of the patient against undue exercise of authority.

For cases of confirmed dipsomania, in which compulsory interference may be necessary, action should be taken by a special commission, with powers similar to those in charge of lunacy cases.

Paupers who are inebriates should be detained for curative purposes, and also indigent persons, not paupers, but yet who are unable to meet the cost of residence and treatment, both of whom should be committed for long terms, and thus prevent such frequent discharges and re-commitments as now darken the penal records. Such power might be given to poor-law guardians, or to special local authorities.

Drunkenness is not a mere accident in the experience of life. It is an established fact in human history, that has kept pace with the centuries, from the beginning until now. It has proved itself to be beyond the reach of human laws. Law cannot penetrate the occult forces of humanity, and search out the intricate by-ways of the morbid element which is its source, and which is so intertwined with vital processes as to poison the very channels through which they flow.

Resolutions and edicts, pledges and covenants, good as they are in themselves, and intended to strengthen the moral

sense, and restore the moral nature, must succumb at times to that which is inherent, vital, and overwhelming. When the *crave* comes, it demands satisfaction, *like hunger*.

Drunkenness, therefore, is a study, not for the philanthropist and reformer alone, but for the physiologist, with his microscope and its revelations; for the chemist, with his analytical tests and reactions; for the psychologist, with his spiritual affinities and contradictions; for the statesman, with his political influence and legal research; for the minister of religion, with his theologic lore and his appeals in behalf of virtue and self-control. Nay! it is more, for it cannot be approached from either starting-point, and pursued to its logical result, without falling short, far short, of the grand consummation. This can only be reached by encompassing the whole realm of inebriety, which extends from the remotest constitutional cause in the individual, to the outer limit of its most revolting desolations in the community.

If we would gather results that are in a broad sense exhaustive and conclusive, we must explore all its manifestations, and consider the temperaments and characteristics of its victims.

We have seen in the foregoing pages, how learned and scientific men have testified that intemperance is a disease, and the result of its treatment in Retreats; and if we add to this evidence, the coöperative sentiment of temperance organizations—the Alliance, the League, the Good Templars, &c — there is every reason to look for a solid public sentiment in England that shall favor the treatment of inebriety in Homes such as have been favorably referred to, and which will demand such legislation as shall render them effective in a scientific as well as moral sense.

THE FUTURE.

With such legislation as is suggested, and sufficient appropriations of money to enable Retreats to pursue the study with scientific care and accuracy, great achievements may be anticipated. Already a commencement has been made on this line, but funds are needed to procure instruments of

precision, and employ experts, when needed, for special topics.* Modern physiologists and chemists are agreed that there is a strong affinity between *some of the alcohols* and the nerve centers, but what is its full significance, and why it should belong to some alcohols more than to others, is yet to be disclosed. Chemistry has revealed the fact that the word Alcohol, as we are in the habit of using it, should not be so used, as there are several varieties of it, with quite different toxic powers, which should be studied separately, and their varied qualities and effects upon the human structure at the same time examined. This is an important phase of the subject, which is demanding special attention at this time. And so we should enter, by means of the institutions, into other special fields of research, which need not be enumerated here.

So far as religion is concerned, there are a number of retreats founded exclusively on a religious basis, where the means of religious instruction, the value of a religious example, and the encouragement to pursue a religious life, constitute the chief portion of every day's curriculum. Each one of these religious homes, however, has its medical advisor, and no patient is considered safe to resist the temptation of the saloon without a clean bill of health.

As to the statesman, the legislator, and political economist, he soon will learn, if he has not already, that it is wiser to save men from becoming a public burden, than to allure them into ways of excess and degradation, and will legislate accordingly. He will discover that a wise economy prompts parliamentary aid in supplying retreats with sufficient means to enable them to proceed with their ætiological and pathological researches, in the hope of eliminating the causes of inebriety, so far as the individual is concerned, and that ample provision will be made to assist and support those retreats that are not self-supporting.

There certainly is no grander work at this time engaging the thought of the British nation. The retreats that are conducted as they should be, recognizing the disease, and

* The Dalrymple Home has recently introduced microscopic and meteorological observations, in addition to the ordinary statistical records.

applying remedies, necessarily embrace the whole range of the inebriate's existence, and of all the influences that affect his life, while they neglect not the moral and religious side of the subject.

The work of other instrumentalities, however, is not to be discredited. Each has followed its own course, and accomplished results more or less satisfactory. With them there is no controversy. But now, we are crossing the borderland, and entering upon possessions, which science has discovered, the cultivation of which promises a goodly harvest. The retrospect is full of instructive experience. The present is in possession of vast resources. The future will be a gradual unfolding of truth—a continuous repetition of discoveries. Every properly equipped Retreat, or Home, or Asylum for Inebriates, will stand as a beacon, casting its gleam on the horizon beyond. Every individual inebriate who submits to the scrutiny of science, while he receives the protection of his fellows, will be a practical factor from whose interior being shall be eliminated the hidden causes of the mysterious “drink-crave” that possesses his brain, and impels him onward toward threatened ruin.

Why not this? We live in a day of enterprise, of energy, and advancing knowledge. The times are rich in expedients. Resources are unlimited. True religion and science are no longer at variance. One is handmaid to the other, and both are one in design and purpose. The better part of the inebriate is asserting itself afresh. It comes struggling up through the mist of doubt and fear, and pleads for help. Help is furnished in measure and quality as never before. Drunkenness can be traced through all its wanderings, from the incipient impulse, to its final, fatal breath. When this is learned, sobriety will be practiced, not so much on account of pledges, signs, and mottoes, as from an intelligent appreciation of the causes and career of inebriety.

It is no Utopia that lies at the end. It is England's cause, with British brains pushing it on, and British law to sanction and sustain. It belongs to the people of the United Kingdom, to whom it is especially commended now in its physical aspect.

TREATMENT OF INEBRIATES.

BY STEPHEN LETT, M.D., SUPERINTENDENT HOMEWOOD RE-TREAT, GUELPH, CANADA.

To send an inebriate to gaol is costly, useless, and demoralizing. This is especially true of the confirmed inebriate, whose inebriety becomes a disease (if it was not so from the first), and requires to be treated on the same general principles as other diseases. It would be quite as consistent to send a patient laboring under the delirium of typhoid fever to gaol and expect good results, as to send an inebriate there with a view to improving his condition or curing his malady. Punishment is not the physic for disease. The course of treatment requisite for the inebriate must be conducted in a properly regulated and a thoroughly appointed institution specially adapted for the purpose, the details of which will vary according to the class of society from which its inmates are to be drawn; but there is one essential point in which all institutions of this nature must agree, viz.:—The medical man, who should also be the chief executive officer, must have absolute legal control of his patients, not only when necessary to place them under lock and key, but also to retain them under his care for a sufficient period to effect a permanent cure of a malady, where such happy results are obtainable. In the Province of Ontario, while the law somewhat restricts the period of detention to rather narrow limits, it gives all other necessary powers. The mode of admission to an inebriate hospital in this country is twofold, viz.:—Voluntary and compulsory. In the former case admission can be awarded to any inebriate who applies in writing to the Medical Superintendent of the hospital, provided it is certified to the satisfaction of the Superintendent that the proposed patient is an inebriate, and that he is

a reasonably hopeful subject for treatment with a view to the cure of his inebriety. Such person may be detained for one year and no longer, and it is a condition of his admission that he shall remain such length of time, not exceeding one year, as in the opinion of the Medical Superintendent is required to effect a permanent cure of his malady, but before admission is awarded he must sign a pledge agreeing and consenting to such specific condition, and to faithfully conform himself to all the rules and regulations of the institution while an inmate thereof. The compulsory commitment of an inebriate is obtained by a relative or friend presenting a petition, sworn to before a commissioner of the Court of Queen's Bench of Common Pleas, to the Judge of the County in which the alleged inebriate resides. Such petition shall set forth that the alleged inebriate is so given over to drunkenness as to render himself unable to control himself, and is incapable of managing his own affairs, or that by reason of such drunkenness he mismanages his affairs, or squanders his property, or places his family in danger or distress, or transacts his business prejudicially to the interests of his family or creditors, or that he uses intoxicating liquors to such an extent as to render him dangerous to himself or others, or incurs the danger of ruining his health and shortening his life. The judge then causes a copy of this petition to be served upon the alleged inebriate and appoints a time for hearing the case. If upon the evidence adduced the judge finds the allegations set forth in the petition to be true, he forthwith reports the fact to the Provincial Secretary and transmits a copy of the evidence. Upon the receipt of such report and evidence the Provincial Secretary may direct the Sheriff of the County in which the inebriate resides to forthwith remove him to an hospital for inebriates, to be placed under treatment and detained therein for a period not exceeding twelve months. In case of escape provision is made whereby the Medical Superintendent may by his warrant retake any eloper, whether he is a voluntary patient or committed by due process of law. The act

governing the custody and care of inebriates was originally framed for the contemplated hospital for inebriates at Hamilton, which was to have been a public institution supported by the funds of the Province, but of course made as far self-sustaining as possible, by utilizing the work of the patients. That institution was, however, diverted from its original function to an asylum for the insane. The urgent demand for accommodation for this class of unfortunate sufferers at that time was pressing heavily upon the government. This act has since been made to apply to the Homewood Retreat at Guelph, which is a private establishment, intended for the more affluent classes of society, but the only institution in this Province where inebriates are treated. Institutions for the care and treatment of inebriates ought not to be called "asylums," but "hospitals," which they should be not only in name but fact. For the class of patients for which your correspondent wishes to provide, the hospital should be built and maintained out of the public treasury. It should be governed and inspected by the same machinery as the public asylums for the insane, which I presume in England is quite as efficient as we possess in this country. It should accommodate both male and female patients in about equal proportion, and be provided with ample grounds for farm, garden, walks, etc., as well as various work-shops, amusement hall, recreation rooms, and chapel. The size of the building will of course depend upon the requirements of the locality from which it is to draw its population, and the design will vary with the fancies of the architect, but the size of the sleeping apartments should be calculated on a basis of not less than eight hundred cubic feet to each patient. Dormitories may be largely used, but a certain proportion of single rooms will be found not only useful but requisite, and some of these require to be strong rooms in which a patient suffering from delirium tremens can be temporarily placed, or a refractory patient properly dealt with. Regarding the duration of treatment, this will vary with each case and must largely be left to the discretion of the Medical Superinten-

dent. As a rule no good can be expected in less than six months, and there are but few cases receiving any permanent benefit short of a year. The American Association for the cure of habitual drunkards, after careful consideration and due deliberation, expressed the opinion that twelve months was the shortest time that an inebriate should be admitted for, and that it would be preferable to extend it for two years rather than curtail the period. They advised that in the commitment of habitual drunkards to an hospital, the sentence should be at first for one year, then if a relapse takes place the second commitment should be for two years.

The great drink cycle in this country has reached its highest point and started back on the descending scale. The internal revenue department indicates that for the year ending June, 1885, this decline was nine millions of dollars less taxes paid than the year before; showing a greatly diminished production of spirits. From the same authority it appears that the number of persons engaged in the liquor traffic who have paid special taxes to the State or Government have steadily declined since 1883. These are unmistakable hints of the operation of the laws which govern the rise and fall of the production and use of spirits in this country.

Prof. McKendrick of Glasgow, in a recent lecture on inebriety mentions that a very unusual sale of methylated spirits has been noted in Glasgow. One retailer purchased thirty gallons a month, which would make nearly thirty barrels of drinks to sell over the bar. These spirits had a peculiar flavor which was in large demand, and the intoxication was violent, profound, and long-continued. He urged that a very stringent supervision be exercised over the quality of the drinks dispensed. These spirits have been sold on Sunday more than on any other day, and the effects are so different as to arouse public attention.

ALCOHOLISM INCOMPATIBLE WITH AN ACCURATE PERCEPTION OF FACTS—THE VALUE OF LEGAL TESTIMONY UNSETTLED AND DEPRAVED BY ALCOHOLIC INFLUENCES.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, OHIO.

The accuracy of the mental apprehension of facts depends very much upon the more or less complete consciousness of the mind when the facts were under observation.

In complete anæsthesia there is entire unconsciousness ; because, there being no sensibility, there can be no perceptions offered or received.

In every subordinate *degree* of anæsthesia there must be a corresponding degree of imperfection in the perceptive function.

When the nervous system is in a condition of partial anæsthesia, such as always supervenes during the alcoholic impression, the knowledge of facts is infallibly darkened, and in several ways :

First, the insensibility of the nervous system causes the facts to be presented in a clouded manner. Events are enveloped in a mental haze which renders all conceptions of them undefined and often very incorrect. When the sense of vision is obscured by conditions exterior to the body, as, for instance, by a foggy atmosphere, the appearances are materially changed with respect to the actual situation of surrounding objects. Not only are outlines indistinct and deceptive, but objects appear to be placed in relative positions with regard to each other, and to the observer, such as greatly misinform the judgment as to the real facts. Not infrequently, also, objects appear wonderfully misshapen and of monstrous proportions.

If, then, the incapacity of a single sense dependent upon external causes, well known and appreciated at the time, so

greatly imposes upon the mind, it cannot be otherwise than that the incapacity of the whole nervous system through alcoholic anæsthesia should prove radically misleading in a vast number of particulars.

Again, the facts presented to the unstable or wavering attention, in a condition of alcoholism, are liable, through defective sensibility, to appear in *parts* only—that is, fragmentary, and, of necessity, lacking in that completeness and unity of character that is essential to a truthful appreciation of them.

But the mind, under the sway of alcoholic anæsthesia, is unconscious of its infirmities. The toxic power of alcohol, operating wholly from within, gives no appreciable sign of its impostures. There is no corrective to misinformation; as there may be in the case of enveloping mists, deceiving the eye,—that is, through the coöperative and conservative action of the several senses. On the contrary, the avenues to knowledge, in alcoholism, are all obstructed, and the senses operate in unison to betray.

The consequence is, that the convictions of the mind under anæsthetic influences are like mental convictions in brain disease. They are not fully amenable to the modifying influences of ordinary comparison and evidence. Like the delusions of the insane, they become imperative and unalterable.

And thus it happens that the sober and conscientious witness will testify to the truth of events which were largely illusions of the perceptions in intoxication; and which, moreover, give rise to delusions of the understanding when sober. In no respect, however, is the power of alcohol, in weakening judicial testimony, more aggressively prominent than in its invariable interference with the usual methods assumed by the mind to measure the passage of *time*.

In criminal jurisprudence it is well known that the effects of alcohol very often enter as prime factors, not only as to principals but also as to witnesses. But in all criminal investigations, the “time when” of an event becomes as important

a consideration as the "place where;" so that when crime is under investigation, the *time* of an occurrence is generally one of the decisive points in question.

There must be a normal and customary succession of events—or, perhaps, it might be said, a succession of perceptions—applied to the conscious mind, in order to appropriately arrive at a true conception of the actual passage of time. The mind, at stated intervals, must come, through the perceptive faculties, into immediate relationship with the world exterior to it, or the idea of time will be surprisingly erroneous. No matter if ideas are fixed or slow, no matter if they are swift or maniacal, there is no idea of the flight of time without this periodical return of the conscious mind to the material world,—to the "things of time and sense."

But, in alcoholism, anæsthesia prevents the regular and normal operations of the perceptive faculties. Nothing more astonishes an intoxicated man than to give him the true time.

How, then, can a witness, be he ever so honest, testify as to the time of an event observed by him while in a state of inebriation? He may say he informed himself respecting the time "soon" after the occurrence in question; but how can he know how long a period that "soon" occupied?

Alcohol is antagonistic to the right perception of facts, and, of course, also to accurate testimony respecting facts observed under alcoholic impressions. It mystifies facts, it distorts truth, and it annihilates time.

In all judicial proceedings of great moment, when stupendous interests in property, or liberty, or life are at stake, the testimony of witnesses respecting facts observed while in a state of intoxication should be viewed with the utmost suspicion.

Anna Parker recently died in the Glasgow work-house at the age of 35. She had been a confirmed inebriate from the age of 16, and had been arrested over four hundred times for drunkenness, and spent the larger part of nineteen years in the work-house and jails.

Abstracts and Reviews.

PATHOLOGICAL STUDIES OF INEBRIETY.

Dr. Formad has recently read a paper before the Philadelphia Pathological Society on an analysis of two hundred and fifty autopsies on inebriates, with specimens to illustrate the most prominent lesions present. He considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long-continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers, or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularity of diet, etc., incident to a state of drunkenness had much, probably more than the alcohol itself, to do with the production of the lesions; but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver with contraction held a prominent place. He had himself at one time considered cirrhosis a very frequent, if not almost necessary concomitant of long-continued excessive use of alcohol; and had even testified in court that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore it was surprising to him to meet, in his two hundred and fifty autopsies, with only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases the liver was considerably, or even very much

enlarged — the enlargement, in most cases, proving to be due to a fatty degeneration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease. At a future meeting he will give a detailed account of the above lesions, and a more extensive analysis of the cases.

Dr. Tyson could not speak from a systematic observation of a large number of autopsies in the cases of confirmed drinkers, but he remembered distinctly being surprised in several cases by the absence of cirrhosis where he confidently expected to find it.

Dr. Wilson said that Anstie, in the article on alcoholism in Reynolds' *System of Medicine*, had called attention to the comparative infrequency of contracted liver in confirmed drinkers. This observer, in an extensive out-patient practice in London, had seen large numbers of cases of alcoholism, but very few among them presented the physical signs of cirrhotic (contracted) liver. The experience of the staff at Blockley Hospital sustains this view. There, many of the patients are soaked with alcohol; but even among those whose death is directly or indirectly due to alcoholic excess, fatty liver is much more common than contracted liver.

Dr. Osler thought the experience of pathologists and morbid anatomists with histories of patients is not of the most satisfactory character—he often having had cases to dissect where he knew very little of the history. Before saying these cases were chronic alcoholics, Dr. Formad should present more specific statements about them. His own experience with livers, in a large number of autopsies on cases of chronic alcoholism, had led him to divide them into four classes:—(1) Those in which the condition of the liver is pretty satisfactory; some of these cases may take alcohol for many years, and yet the liver pass muster. (2) Fatty cirrhotic liver; the cirrhosis may not, perhaps, be distinct to the naked eye, but plainly shown by the microscope;

this is the largest class. (3) Hobnail livers; these, he would say, were much more common than in Dr. Formad's series. (4) Hypertrophic cirrhotic livers. The difference between his observations and those of Dr. Formad might possibly be accounted for by a difference in the form of alcoholic beverage taken. He had not observed the special form of kidney described by Dr. Formad. In reply to a question he said, in order of frequency he would place them: fatty cirrhotic, hobnail, hypertrophic cirrhotic, apparently normal.

Dr. S. Solis-Cohen said that there were certain theoretical considerations which suggested themselves in this connection. The text-books teach that the lesions of alcohol are of two kinds—sclerosis and steatosis. It is known that in some organs the fibrous change precedes the fatty one. The latter is the higher grade of degeneration. The subjects of Dr. Formad's autopsies were confirmed whisky-soakers, in whom one would expect to find more intensity of degeneration than in those whose use of alcohol, though persistent and excessive, was not so outrageous. Another point which had not been alluded to was the fact that some lesions might result from a local action of the poison upon the tissues, while others might be due to its systemic action. No study of the subject could be complete in which these poisons were overlooked.

Dr. Randall suggested that the point touched upon by Dr. Osler—the character of alcoholic beverage—might be very important. In Vienna, among beer-drinkers, he had found the fatty liver much more common than the cirrhotic, while in England, where much gin is drunk, and he should suppose in Scandinavian countries, where they drink altogether strong spirits, the cirrhotic liver is doubtless comparatively frequent.

Dr. Musser had recently to go over the records of the Pathological Society, especially in liver diseases, and had found the total experience of different observers the same as Dr. Formad's; and also in those cases, cirrhosis was caused not so much by heavy drinking as by persistent drinking of spirits on an empty stomach — *Va. Medical Monthly*.

INEBRIETY FROM GELSEMINUM.

Dr. Caldwell, in the *Surgical Herald* of Joplin, Mo., writes as follows: "The subject of this communication was twenty-four at the time the writer first met him. He was robust, had lived a life well divided between work on the farm, study, and rational recreations. Mentally he was of that type we style *well balanced*. He was, therefore, not such a person as we would expect to see become the victim of a habit.

"He contracted chills; rheumatism supervened, and he refused the frequent offers made him of chloral hydrate and morphia. I may here state that his father had been addicted to the opium habit, and the son grew up with a horror of the very name of opium. In an attack of more than usual severity he took a large dose of fluid extract of gelseminum. Relief followed. The next day a repetition of the paroxysm called for a repetition of the dose. As with all quieting agents, the dose must be augmented, but during the year this increase was not very great.

"One hot night, while in great agony, the sufferer took a very large dose and lay stupid till noon the next day. The experiences he had were, as he said, 'wonderfully pleasant.'

"Now the habit became fixed. The victim grew to using as much as *a fluid ounce of the extract* as one dose. What would once have produced death was now only a gentle palliative. Still the dose must be increased.

"He became pale, emaciated, listless, and at times strangely uneasy. He became the prey of strange terrors, and was subjected to some hallucinations of the physical senses.

"Looking fixedly at any distant object he could discern all the colors of the spectrum—then darkness followed, and then a number of faint rays of light would precede the complete return of vision.

"His hearing became singularly acute. He was apparently regardless of what was passing; still he could detect whispers, he told me,—whispers uttered many yards away.

"Nothing could induce my poor friend to give up his dar-

ling drug. Seeing how the matter distressed his friends, he went away. During his stay of a year in Canada, he increased the dose daily. He returned far more feeble, and at times seemed positively idiotic.

“He fancied ghosts were around him; he could hear the shrill whispers of leering demons, and in his better moments saw the starry wings of angels hovering around his bed.

“After a year more of this strange habit he sank into a condition of hopeless idiocy, and died in the stupor induced by his idolized drug.

“The relatives of the unfortunate man never took care to prevent his obtaining the drug; but this neglect is seen in regard to the victims of the opium habit every day. It is to be hoped that in an advanced state of civilization—the true and better sort of civilization—such persons will be taken away from the care of neglectful and ignorant kinsmen, and placed in public institutions where judicious medical treatment and the proper moral suasion shall be exerted so as to redeem many a poor creature from those hideous vices that wreck the body and debase the mind.”

DISCUSSION CONCERNING ALCOHOL.

In the French Academy of Medicine, Beaumetz read a long paper giving some conclusions from various experiments made on animals with different kinds of alcohol. One of these conclusions was that the more poisonous results were obtained from those alcohols which were furthest removed from pure vinous alcohol. In a series of experiments made on pigs, having for its object the production of a slow intoxication, he demonstrated that slow continuous absorption of alcohol was followed by certain anatomical lesions consisting of congestion and inflammation of the digestive tract and of the liver without reaching interstitial hepatitis; although pulmonary congestions, arterial arterhama, and sanguinaris infusions into the parenchyma of the muscles may be present. In the second part of his paper he dis-

cussed the modifications of alcohol which took place in the economy, concluding that one part of alcohol is eliminated from the body unchanged, and another part is altered; also, a certain part is sent off by the respiration and urine. A certain quantity undergoes acetic transformation, from which comes the alkaline acetates, which become later carbonates, and still later the reduction of the water and carbonic acid. Three cases are illustrated at some length. One where the quantity of alcohol is small, and one part is transformed directly into acetic acid, and enters into the circulation under the form of acetates. The other part enters unchanged into the blood and adheres to the globules rich in oxygen, and finally becomes transformed into acetates. In the second case, where the alcohol is considerable, only a part is oxidized and reaches the state of carbonic acid, the rest is eliminated unchanged. In the third instance, where alcohol is taken in toxic doses, it is no longer burned up by the hæmatoxylin, which, on the contrary, it dissolves. Hence we have interstitial hemorrhages.

In the discussion which followed M. Perrin denied these conclusions, and believed the results which were reached by the commission of 1880 had been fully sustained. These conclusions were that alcohol undergoes no transformation in the organism. It is returned or excreted in its natural state. No acetate is ever found in the blood, it is only outside of the body that one is able to transform a mixture of alcohol and blood into acetic acid. Why is one not able to find aldehyde in the blood of persons poisoned by alcohol, when alcohol is so often found in the blood after the injection of a small quantity? It has been urged that alcohol was transformed into aldehyde. If it were a fact that the alcohol were finally changed into carbonic acid, there would be an increase in the amount of this gas exhaled. Whereas the exactly opposite is observed. It is just this diminution of carbonic acid which indicates the true role of alcohol in the system. This diminution of carbonic acid is a certain sign that the general nutrition has been slowed up. Alcohol as

alcohol in the organism acts on the nervous system, particularly on the heat producing centers, and this slows up assimilation and all the other processes. M. Guerin remarked that a mistake had been made in not examining the eliminated matters in the feces. M. Bechamp stated that this subject was thickly beset with difficulties. In the first place, the materials such as the organism furnishes, the result of retrograde metamorphosis, are capable of undergoing certain alterations which may result in the production of alcohol by an entirely special and particular process of fermentation. Thus the organism itself may produce alcohol. He gave several examples of these phenomena.

RECOGNITION OF INEBRIETY.

The following is an editorial in the *Mississippi Valley Medical Monthly*, by Dr. Sim, the editor :

INEBRIETY.—The sooner the medical profession, the philanthropist, the Christian, and the State recognize inebriety as a disease, admitting of early diagnosis, classification, and cure, the better it will be for the unfortunate sufferers and the community that harbors them.

We have two insane asylums in the State of Tennessee, and a third—one for each geographical division of the State—about to be erected. This will be ample for the care of this class, and the noble work is but discharging a duty devolved upon the State by the strongest obligations that can possibly be imposed upon a government. But how about the drunkard? Any arrangement being made for his care? None whatever. He is treated as an outcast; is shunned by every one, and the announcement of his death would bring a sigh of relief. There is a class of periodical inebriates who show the epileptiform character of disease so plainly that the physician, though a mere tyro in psychiatry, must recognize it, even at a glance. Others suffer from local, nervous, or general disease from which the alcohol habit gives them temporary relief, and thus they are impelled, in many instances,

by the most intolerable tortures, to drunken habits. Yet another class maintains a diathesis, predisposing to inebriety, the same having been by heredity stamped in each individual.

But, say our good Christian friends, adopt this view of inebriety, and the drunkard is at once relieved of all responsibility as a criminal. Even so, and let the responsibility rest where it properly belongs, i. e., upon the broad shoulders of the State, the pious Christian gentleman, the noble philanthropist, and the self-sacrificing doctor.

Would either think for a moment of holding a crazy man responsible for crime, when he was known to be such? Would not the responsibility of such a person's acts rest upon the community that tolerated the risks, by allowing insanity to go uncared-for? The community has ample warning in the case of an inebriate, and he should no more be permitted to go at large than the man deprived of reason from any other source.

The physician should familiarize himself with the disease aspect of inebriety, and not only recognize it when fully developed, but in its incipient stages as well. There can be no doubt of the fact of a steadily increasing tendency upon the part of the profession to recognize inebriety as a disease, and to regard the drunkard as to be more pitied than blamed. In many places throughout the country, "Homes" are being established for the reclamation and cure of inebriates. Many of these institutions have been in existence for a number of years, and their reports of cures are indeed encouraging. More than fifty per cent. of the inmates are believed to be permanently restored to health, family, and citizenship. A number must remain wards of the State, either in these institutions or in lunatic asylums, with permanently unbalanced minds. Others, whose conditions are not well understood, gradually relapse into former habits, but often maintain more self-control than previous to treatment. Can we not have in Tennessee a Home for the Inebriate?

INEBRIETY IN CHILDREN.

Dr. Thomas, physician to the Sheffield Public Hospital, in a recent address, gives the following record of cases: Case 1, is that of a little boy who suffered from delirium tremens at the age of eight. His mother was a drunkard, and he having found a bottle of whisky which had been hidden, drank of it—no doubt frequently. When he was admitted to the hospital they found that he had drunk nearly a bottleful of port wine. He suffered from delirium tremens, was in the hospital dangerously ill for a month, and then sent to a reformatory. Case 2, a boy aged eight, was the son of a drunken mother, used to be sent for his mother's whisky, after which he was rewarded with a sip. He became a drunkard. Case 3. The child of an apparently healthy mother was given a tablespoonful of beer twice daily. The child died and was found to have the most typically cirrhotic liver.

The late Doctor Wood of New York, sent me the notes of two cases, as follows: A boy, aged ten, whose mother was a fashionable woman of the world, and had a sideboard of wines at command, the father being dead, was continuously delirious and stupid. He drank to intoxication every day for nearly two years, then died. No restraint or control could be exercised over him. The second case was a boy six years old, whose mother was in an insane asylum, and his father was a business man. The boy was left home with the servants, who gave him all the wine he wanted, and for nearly two years he was continuously under the influence of spirits, then died of brain fever.

A physician consulted me about a boy seven years old, whose parents had been inebriates and were now dead, who displayed great cunning to procure spirits, and drank at all times and occasions to intoxication. His guardian, a temperate man, was unable to prevent him from drinking. When the boy was locked up a short time he was sure to be intoxicated soon after regaining his liberty. The impulse to

procure spirits was remarkable, and exhibited a brain power and development far beyond his years in this direction.

Another case came under my observation. A child one year old, whose mother was an inebriate and father feeble-minded, who had probably been given spirits from birth in the food, suddenly displayed a passionate fondness for spirits from a certain bottle that the mother used. Every day the child cried bitterly, and could only be satisfied with a table-spoonful and more of whisky. This increased until two ounces of whisky were given every day. The child would sleep most of the time, but would be wild if the spirit was not given. It was literally intoxicated for the entire time, no effort to substitute any other drugs, or to take away the spirits succeeded. Finally, marasmus and death followed. In certain circles there are many such cases, who most fortunately die early, but they illustrate the principles of heredity in a very startling way.

We have received from George Stinson & Co. of Portland, Me., the well-known art publishers, a magnificent full-length steel engraving of General Grant. It is after Anderson's celebrated photograph, which was made while the general was in full vigor, and represents him in his sturdy, manly strength, as the people wish to remember him. It is undoubtedly the best portrait ever made of the general. Messrs. Stinson are in need of agents for several important, popular new publications, and offer inducements that should be heeded by those in need of profitable work; those who write to them will receive, free, full particulars.

Dr. Meylert's "Notes on the Opium Habit" has grown to the fourth edition. G. P. Putnam's are the publishers.

Heads and Faces, and How to Study Them. By Professor Sizer and Dr. Drayton. Fowler & Wells Company, New York city, 1885.

This is a profusely illustrated volume of 184 pages, and is a manual of phrenology and physiognomy, designed for

popular readers. A great number of heads and faces of prominent men are given to illustrate the text, and the authors are clearly experts in this department, presenting an attractive work, which of necessity will command much attention. The popular character and general appearance of this book are most excellent.

The Descent of Man. By Charles Darwin. F. Fitzgerald - publisher, 393 Pearl Street, New York.

This famous work, perhaps the most important scientific treatise of the present century, is now being published at such a price as brings it within the reach of all readers. It will be completed in four numbers of the *Humboldt Library of Science*, of which the first has now appeared, to be followed by the second on November 20th, and the third and fourth at intervals of one month. The price of each of the four parts is 15 cents, and they will be sent to any address, postage paid, on receipt of that amount in coin or in postage stamps.

Berlin as a Medical Center; a Guide for American Practitioners and Students. By H. R. Bigelow, M. D. New England Publishing Company, Sandy Hook, Conn.

This little book tells you where to go for medical instruction in Berlin, and what it costs, and how to find the best of everything; to enable you to secure the greatest advantages in the shortest time. No one should go abroad before reading this work.

Mind Reading and Beyond. By Wm. A. Hovey. Lee & Shepard, publishers, Boston, Mass., 1885.

This volume gives a most excellent summary of the four reports of the London Society for Physical Research. The experiments on thought-transference opens up a most wonderful field of psychology, that has a fascinating interest to all students. The reader obtains from this work a clear notion of the experiments and their results, and in the last chapter the author adds some suggestions of his own which are well worth consideration. The conception of this work,

to condense and popularize the facts of these reports, which are practically inaccessible to most readers, should be encouraged. The author has done his part well, and we trust will do more work in this field. The publishers have given this work an attractive dress.

The Nature of Mind and Human Automatism. By Morton Prince, M. D. J. B. Lippincott & Co., Philadelphia, Pa., 1885.

This little book of 175 pages attempts, in the first five chapters, to explain the phenomena of mind and its relation to matter. In three more chapters human automatism is described, and the final chapter is devoted to a very excellent and spirited description of "What is Materialism?" Consciousness is shown to be dependent upon molecular motions of the brain, and also the reality of physical processes: "Nerve motion in the sensory nerves becomes transformed into an equivalent amount of cerebral motion or consciousness, which in turn disappears to become nerve motion again. Cerebral motion and consciousness are one and the same thing." The last chapter, a defense of materialism, is the best in the book, and will well repay careful reading. The author is a very critical, acute thinker, and however much the reader may differ with his conclusions, he must admire his style and method of statement. This little book is a very suggestive contribution to the old subject of mind and matter, and we commend it most heartily to all our readers.

Psychiatry. A clinical treatise on diseases of the brain, by Dr. Meynert, professor of nervous diseases and chief of the psychiatric clinic in Vienna. Translated by B. Sachs, instructor of nervous diseases in the New York Polyclinic. Part I. G. P. Putnam's Sons, New York city, 1885.

This first volume is devoted to the anatomy, physiology, and chemistry of the brain. The contents of the 279 pages are: The structure and architecture of the brain; the minute anatomy of the brain; anatomical corollaries and physiol-

ogy of cerebral architecture; the nutrition of the brain; mechanism of expression.

The author starts from an anatomical basis, and attempts to show that all brain diseases are due to changes in structure and minute formation. His thorough familiarity with and minute description of the brain structure requires the closest attention of the reader to follow intelligently, but the rich array of facts and suggestions fully repay a most careful study. Every section of the brain and its relations to other parts are described with the minuteness of a "master anatomist," and running through these details are physiological conclusions and intimations, whose full significance will appear in the next volume. The chapter on nutrition and chemistry of the brain opens up a field comparatively new, and one that all students of insanity and inebriety should be familiar with. It may be said to be literally the outlines of mountain ranges of facts in a new continent of pathology and psychology, yet to be explored. This volume gives the reader a new view of psychiatry from the anatomical side, and the thoroughness with which this is presented indicates that the application of these facts to diseases of the brain will be a great advance to the study of this subject. Unlike many other works in this field, the critic who differs from the author's facts and conclusions must be himself a superior anatomist and specialist, or his criticisms will be evidence of his own non-expertness. This work is clearly destined to occupy a very large field, and be an authority far above the average text-books in this department. The translator deserves the greatest praise for his frequent improvement and clearness of the text, giving the English a better cast than the author in the original language. More liberty in this direction, and less strain to be literal in the language, would add to the work.

Both the author and his accomplished translator have, in Part I. of this work, presented a volume to the English reading medical public more complete and thoroughly scientific than most of the books which have gone before in this field. The illustrations are numerous, and many of them excel-

lent. The type and make-up of the book are also attractive. We most earnestly urge our readers to put this work in their libraries as one that will prove indispensable.

SOME EXCHANGES.

The *Scientific American*, a weekly published by Munn & Co. of New York city, and the *American Inventor* of Cincinnati, O., a monthly, and the *Electrical Engineer* of New York city, are all current papers giving excellent summaries of the latest discoveries from the front lines of science. The *American Journal of Insanity* of Utica, N. Y.; *The Alienists and Neurologists* of St. Louis, Mo., and the *Journal of Mental and Nervous Diseases* of New York city, are the three great reviews of psychiatry, which describe the march of scientific research into the realms of mind and matter, both in health and disease.

The *Homiletic Review* for January begins the eleventh volume, and fully sustains its previous reputation as one of the best exponents of pulpit philosophy of the day. Funk & Wagnall's, Dey street, New York, are the publishers.

The *Popular Science Monthly* grows in excellence and value with each number. A year's subscription to this journal would be a New Year's gift bringing increased pleasure every month of the year. Send to D. Appleton & Co., New York city, the publishers.

The Journal of Heredity, a popular scientific quarterly published in Chicago, and edited by Dr. Burnett, who is superintendent of the department of heredity of the W. C. T. Union, has appeared, the first number dated October. The contents and general appearance give promise of a very vigorous and influential future. The facts in this field are very numerous, and a large audience is waiting for some one to serve them up; hence, Dr. Burnett will have the rare privilege of being a pioneer and leading public sentiment in this direction. This journal deserves a hearty support.

Editorial.

ANTE-MORTEM STATEMENTS OF INEBRIATES.

It is a fact new to science that the statements of inebriates under oath, or otherwise, are always more or less unreliable, and cannot be accepted as truthful unless confirmed by other evidence. The inebriate may be sober at the time, and yet his statements will lack that accuracy essential to truth. The use of alcohol so far impairs his perception and judgment, that no matter how honest and earnest he may be, an element of error will come in unconscious to himself. This is recognized in many chronic cases of inebriety, but in the moderate and occasional drinker, or the periodical inebriate with long free intervals of sobriety, it is not understood. Exaggeration or suppression of facts, faulty observations or perception, bad, impulsive reasoning, reaching conclusions not warranted by the premises, and almost every form of possible error, all of which are not realized by the person who is unable to correct his own mistakes.

An astronomer who, after a severe attack of malaria, continued to use spirits as a medicine, had so large a personal equation of error in his work that he was obliged to give it up; although he made great personal efforts to be accurate, he was unable to detect or correct his errors. A judge who drank regularly in moderation, was greatly astonished to find so many of his decisions overruled by the higher court. He was a careful, accurate lawyer, and at the time was confident of the correctness of his judgment. These cases are not uncommon, but have never received any special study, hence are largely unknown. The following case illustrates a phase of this subject that has a medico-legal interest.

The early history of W. H. was not ascertained. He served with credit as an officer during the war, and went into partnership with a comrade at Bridgeport, Conn., in the

grocery business. He drank at intervals, but this did not attract attention. In 1876 he became a soap manufacturer, was much respected as a member of a church, and wealthy. He traveled, selling his goods to New York and elsewhere. He was known to use spirits to intoxication at long intervals, but generally at home, or at some hotel away among strangers. In business matters he was correct, and his word was good among his associates. In one of his drink paroxysms at a hotel in New York, he had a personal encounter with a man who had been a boon companion on these occasions. His face and head were injured with flesh wounds, and for some years after he did not speak to this man. Then they became friendly again, although there was no evidence that he drank with him. The drink paroxysms increased in duration, but the intervals of five or six months remained. One day he was picked up in the streets of New York unconscious, with contusions about the head, and fractured skull. He was taken to a hospital, and next day became conscious, sent for his family, and made a statement under oath, and finally died. This statement described minutely his drinking at a certain hotel with his friend (who had injured him long ago); also certain differences of opinion which sprung up between them, ending in an encounter, in which this man struck him on the head many times, then threw him out into the street and took all his money. All this was described with great minuteness and under oath as his dying testimony. This man was arrested, but proved that on the day of the alleged assault he was at home in a distant city, and had not seen the murdered man for over a year, and had not been in New York for many months. It was clear that the injured man had described the assault which had occurred some years before, and did not realize that a long interval of time had elapsed. His memory of the events and injury preceding death was abolished, and the only thing clear was the recollection of the former injury, which seemed to his disturbed brain the event of yesterday. Had the accused man been in New York on the evening of the alleged assault, and

by accident met this man, to whom he was friendly, and left him soon after, it might have been difficult to show to a court and jury that he was not guilty as described in the dying statements of the murdered man. An examination showed that he had been robbed of only a small sum of money, his watch and pocket-book having been left at the hotel where he stopped. It also appeared that his injuries were, in all probability, caused by being thrown out of a low bar room, where he was drinking. A similar case occurred at West Troy, N. Y., the history of which was sent me by a lawyer. Two men, owners of canal boats, periodical drinkers, who, while drinking together, had frequent personal encounters. One day they were seen drinking together, and the next morning one was found unconscious from a fractured skull. The skull was trepanned, and the man recovered so far as to make an ante-mortem statement that his friend had struck him on the head, causing his injuries. This man was arrested, and protested that he had left him in the early part of the evening on the canal boat, that they had no personal differences, that he did not strike or injure him in any way. His own whereabouts was not clearly proven to the court during the night of the assault, and he was convicted and sentenced for three years. A year after this, a lawyer received in payment for defending a criminal a watch, which was identified as the one stolen from the man found unconscious on the canal boat. From this and some other circumstances it was clear that the assault had been committed by the criminal for robbery, and that the man then serving out the sentence for this act, was, as he protested, innocent of the crime. In this case the man's memory of recent events was abolished, and the acts of long ago seemed those of yesterday.

This condition is analogous to the dementia seen in old age, where only the past is clear and fresh on the memory, and events of the present make no impression, only so far as they seem to be a part of the past.

The possibility of grave injustice being done innocent

persons who are accused on the statements of drinking men is very great. All such testimony should receive careful scrutiny, and be open to grave doubts unless confirmed by a variety of collateral circumstances that are beyond question.

TERMINATION OF INEBRIETY.

Inebriety ends either in death, which may be due directly or indirectly to the action of alcohol, or merges into some other allied disease, of which the use of alcohol may have been only a symptom, or it may come to a long, obscure halt, that may last through life or terminate any time in a violent relapse and return of all the previous symptoms. A small number of cases die from delirium, paralysis, inflammation, hemorrhage, the result of alcoholic degeneration. A much larger number die from pneumonia, Bright's disease, dropsy, pericarditis, and gastritis, following and produced by alcoholic excess. Inebriety may be said to be allied to nearly every organic degeneration and disease of the body; the more common of which may be mentioned as the ataxies, palsies, and the various forms of insanities. The use of alcohol may end abruptly, and any of these forms of disease become prominent. Whether the use of alcohol was only a premonitory symptom of the brain degeneration preceding these diseases, or was the active and exciting cause of them, is often a difficult matter to determine. In quite a number of cases it is both a symptom and an exciting cause. A defective brain from heredity may speedily develop some organic disease from the use of alcohol. A brain organization made defective from bad nutrition, traumatism, or exhaustive demands on its functional capacity, is a most fertile field for inebriety. The demand for alcohol is merely the craving for a narcotic to quiet nerve pain and irritation. The use of spirits may be stopped, and various complex organic nerve and brain diseases appear which were marked before. Thus total abstinence reveals the real state; and while it gives nature a better chance to antagonize dis-

eased tendencies, new types and symptoms spring up, and go on slowly or rapidly to their natural termination. Often, in periodical cases, total abstinence is followed by paroxysmal nerve storms, and psychological changes that are peculiar and fixed. Thus, in one case, outbursts of insane anger, or extreme suspicion, or great benevolence, or miserly hoarding, or religious anxiety; in brief, almost every psychological symptom of changed character and conduct, which is often of short duration, and seems to take the place of the former drink paroxysms. Thus brain energy gathers and explodes in these abnormal directions. Such cases merge into epilepsy from the slightest causes, such as head injury, or violent and prolonged strain, or develop insanity from apparent trifling conditions. In such cases the brain soil is charged with the germs of insanity, which only needs some exciting cause to spring into great activity.

In a certain number of cases inebriety ends abruptly from the most insignificant causes, and a life of total abstinence follows, which may end in a sudden return of the disease, as mysterious as it disappeared. In one case, an inebriate signed the pledge and remained a sober man for ten years, then suddenly, in the most adverse circumstances, drank again to great excess. In another case, an inebriate who had been the subject of much prayer and entreaty, all with no results, suddenly signed the pledge at the request of a child, and was a strong temperance man for fourteen years, then, from the invitation of a stranger, drank again to great excess. Another man, an inebriate, who had been in political life and exposed to great temptations, and who had successfully resisted for a long time, began to drink with his coachman in the barn, and died after great excess. These halts are more significant and uncertain in persons who have used spirits for years, and may be termed chronic cases. In other cases, where the drink excess is limited to a short time, these halts may be considered more permanent. They are practically cures, only their duration is a matter of uncertainty, and may terminate any time, should some peculiar combination of

causes intervene. As in insanity, the same causes will produce the same disease, with slight changes; so in inebriety, the physical conditions which produced inebriety at one time will do the same again in the same state and condition. When the causes of each case are fully studied, its natural termination may be anticipated with some certainty; then the mystery of these sudden changes of type and symptoms will become clear, and the tables of cases restored and cured will be better understood.

SICK AND INTOXICATED.

We have often referred to the blunders so commonly made by police officers, in arresting and confining persons in the station house, who are suffering from cerebral hemorrhage, or other disease. Yet, notwithstanding all that has been said and written on this source of danger, the same mistakes are repeated over and over again. A valued correspondent sends us the notes of ten cases which he gathered from the daily papers of two weeks, where persons who had been arrested for drunkenness were found dead in the cells, or were removed a day or more later to die in the hospital. Three of these cases had Bright's disease, and were suffering from coma; two evidently had concussion of the brain, following direct injuries from being thrown out from saloons. One was a case of heat apoplexy, and one was found to be fracture of the skull and compression, and the remaining cases were clearly cerebral hemorrhages. In eight of these cases autopsies were made. In the other two the diagnosis was made by the jail physician. In one of these cases the man was brought before the police judge, and sentenced to ten days for drunkenness, and at the time was supposed to be still under the effects of spirits. In jail Bright's disease and uræmia was discovered, but he died before any treatment could be applied. It is difficult to realize why the judgment of the average officer on such cases should be accepted as final, when the most expert discrimination by leading medical men have failed to determine the nature of such cases. In

cases of suspected insanity, officers and judges are very careful not to act on their confessed inability to determine the condition of the case. The same caution should be observed in these street cases of coma, where the only sign, an alcoholic breath, can not be trusted. It is the false view that inebriety is a self-induced sin and an innate depravity, that consigns the diagnosis and treatment to the officers of the law. The result is neglect and precipitation of the victim into more incurable conditions. The law, public sentiment, and the officer who arrests a narcotised inebriate and on his judgment puts him in a cell to recover; also the judge who sentences him as a criminal to jail, where is bad diet, bad ventilation, and the most depressing mental surroundings, all conspire to permanently unfit, and make him more and more incapable of living a healthy, temperate life in the future. Every case of coma found on the street with an odor of spirits is liable to be complicated with the following, and must be differentiated from them before the exact condition can be determined: Fracture of the skull, concussion of the brain, cerebral hemorrhage, embolism, and thrombosis; uræmia from Bright's disease, epilepsy, narcotic poisoning, heat apoplexy, hysteria.

It is the duty of physicians to insist that all men who are brought to the station house in a state of coma should have a medical examination, in the same way that a maniac or an injured man are treated, and not, because he is supposed to be intoxicated, turned over to the officer as not needing such care or skill. Police officers should be taught that it is an exceedingly dangerous thing to strike an intoxicated man on the head; the liability to cerebral hemorrhages is very great. No experience or observation will ever enable an officer to determine that the coma of the man he arrests is due alone to the spirits used. The reckless indiscrimination which places all men in the station cell who are stupid and have an odor of spirits about them is fatal in many cases. Clearly it is a question of duty that is sadly neglected, and no man should be confined in a cell overnight until his real condition is determined.

SCIENTIFIC JOURNALS.

There are in the world eighty-eight different journals and papers devoted to the commerce, science, and art of spirit, wine, and beer making. Many of these journals treat the chemistry of the subjects exhaustively, and are constantly enlarging the boundaries of science in this direction. In all, there are about one hundred and eighty journals in the world (over a hundred of which are in this country) devoted to temperance, total abstinence, prohibition, and the cure of the evils from the use of drink. Not one of all these journals has risen above the dogma that the excessive use of spirits comes from a moral and spiritual degeneration of the man. Not one of all these temperance journals discusses the subject from the teaching of modern science. The brewers and distillers are alert to take advantage of all new discoveries, and are even pressing scientific inquiry in their departments to its utmost limits, sustaining and conducting journals for this special object; while the temperance journals content themselves with theories, which are contradicted by all scientific progress and research.

In 1876 the *JOURNAL OF INEBRIETY* appeared as the first, and is the only journal in the world to-day, especially devoted to a scientific discussion of injuries from the excessive use of spirits.

The British *Medical Temperance Journal* came into existence three years later, and occupies a very confusing field of half science and half morals. *La Temperance* occupies a similar field in France, only more devoted to statistics. Why all this temperance zeal, energy, and enterprise displayed in so many journals should be so completely dwarfed, and restricted in their efforts, is simply due to the failure of recognizing any other than a moral causation for this evil. Inebriety and its evils will remain as long as the subject is only studied from the moral side. The *JOURNAL OF INEBRIETY* stands alone in its study of this subject from the standpoint of science, and from the teachings of modern science.

THE DISEASE OF INEBRIETY — A NEW DISCOVERY IN SCIENCE.

For two thousand years the scientists and philosophers of the world pronounced the inebriate a madman, and many facts concerning the disease of inebriety were fully recognized. But not until 1840 were there any attempts to group these facts and bring them into the realm of practical science. In the same way, for long ages, the facts concerning the stars were known, but finally *Copernicus* organized them, and brought out the science of astronomy. For centuries the Northman landed on our coasts, but *Columbus* discovered America, and placed the facts in possession of the world. Vaccination was known long before, but *Fenner* applied this knowledge to the principles of science and was truly the discoverer. *Franklin* and *Morse* were also great discoverers, but they simply grouped and applied the facts of science, bringing them into common use for mankind. *Simpson* and *Morton*, who first used chloroform and ether, were simply expert organizers of facts long known. *Darwin*, another great discoverer, has gone over the same fields where thousands have passed before, and opened up great mines of fact, and pointed out their meaning and their application to the problems of life. Thus, that which was known and was old in the experience of the world is new when organized on the lines of science and the practical relations of life. Thus history repeats itself, and the time had come when the facts of the disease of inebriety must be recognized, and the true meaning pointed out. Armies of miners and prospectors had gone over the field, but no one had opened up the rich veins of facts, and pointed out the laws which governed and controlled them.

To Dr. J. E. Turner the world is indebted for this great work. He first formulated and organized the knowledge of the past, and placed it at the service of mankind. He both planned and built the first inebriate hospital in the world, and demonstrated that inebriety was a disease and could be

cured by physical means. From that time a steady procession of facts have been constantly arriving on the front line of science, and the reality and value of this discovery is slowly and surely taking its place among the great events of the age. As in all other discoveries and advances of science, it is challenged and must pass the ordeal of indifference and fierce denial before final acceptance. This first stage is past, and the second stage of contradiction, denial, and opposition is rapidly drawing to a close. Dr. Turner's discovery that inebriety was a disease and curable in special hospitals, is a fact generally accepted by the scientific world to-day. By-and-by contests of priority will begin. Some one will come to the surface to show that this was no discovery, and that Dr. Turner was not the first one to organize and give vitality to the facts concerning inebriety. But happily all this tumult of criticisms and sneers comes from untrained intellects and non-experts in science. The pioneers whose lives have been one exhausting struggle with the facts gleaned on the hill-tops of science speak with bated breath and downcast eyes of the mysteries yet to be solved, while those who know nothing of the disease of inebriety or its relations to science still deny all this grand array of truth that is steadily centralizing around this fact. To the scientists this new discovery of facts has opened up a new continent, and revealed new phases of mind and matter, and pointed out wide ranges of physiological and psychological facts, the application of which will change the race-march and the history of civilization. From the date of Dr. Turner's discovery, inebriety has come into the realm of science, and the great facts can no more command attention along the levels of supernaturalism and superstition; they have passed up above the fogs and mists of theory and delusion.

In the presentation and discussion of facts and laws relating to the brain and its diseases, the physician who dogmatically commits himself to a statement or theory, which on examination is found to be without foundation, loses his repu-

tation in some degree. But if he is guilty of the same error often, both his intellectual and moral standing may be justly questioned. Intellectual failure to comprehend the real facts and state them is often a physical defect that is excusable, but persistent misstatements and misconception point to a moral weakness that places such statements beyond the pale of scientific recognition. Books, sermons, and lectures, by persons not trained to scientific accuracy of facts and statements, are not supposed to enlist full confidence in their truthfulness. But scientists, who simply record facts and the laws controlling them, should, unless fully confident of their accuracy, state them as appearing to be so and so from the best evidence at their command. Then, should further study disprove or confirm them, their reputation can not suffer.

SENILE DEMENTIA IN INEBRIETY.

In all cases of inebriety many and varied degrees of dementia and degeneration are present. The following case is given as an extreme type, and unusual, except where associated with other well-marked insanities. James P. was brought to me for an opinion, with this history: He was twenty-one years of age; came from a neurotic ancestry. His grandfather on his mother's side died an inebriate and his father was a moderate drinker. He graduated at Yale College at nineteen years of age, and soon after entered upon a career of general dissipation. He traveled and drank to excess continuously for the next two years. He was sent to an insane asylum in England, and finally was returned home. His condition was one of restlessness and suspicion of injury from others. His memory was very defective, and he alternately laughed and looked grave and angry. He would commence some remark, and leave the idea and go on to some other topic, always ending with a boast of his powers and capacity to commit some great deed. He exhibited some muscular strength for a few moments, then would be exhausted. He would start out for exercise and would have to procure a carriage, being unable to walk

back. He insisted on having spirits every day, and was given about a half a pint of whisky or brandy in twenty-four hours. All efforts to withdraw this provoked violent opposition and shouting. Nearly a year after his return home he was brought to me, with the following appearance: His face was that of a man over sixty, covered with lines and wrinkles, thickened and in folds; the hair was nearly gone; the beard was short and straggling, the nose was flat and shrunken, and the eyelids and eyebrows had fallen out; the teeth were decayed, and the abdomen enlarged, also the muscles of the leg and arm were emaciated. The facial expression was one of vacancy and vacuity. He was also bowed over, and walked in a trembling, hesitating way. He talked slowly and would stop in the middle of a sentence, and seemed to have a mixture of *aphonic*, *amnesic*, and *paretic* symptoms. When spirits were refused he would shout some sentence or word in a loud discordant tone, and keep it up until, for the sake of peace, it would be given him. He never seemed intoxicated, but would be quiet and stupid when given a quantity of spirits. His friends succeeded in gradually withdrawing the spirits and substituting bitter drinks in the place, but the same mental enfeeblement and dementia ended in death from pneumonia a few months after. This case was noted for the profound degeneration and dementia unattended with any special delusion or mania. It is common observation that inebriates who inherit a very defective organization, always have symptoms of dementia and senile degeneration.

Many of the characteristics of brain failure common in extreme old age are present. Thus, the instability of the mental operations, the failure of memory, and the alternate credulity and suspicion, and often great buoyancy or depression, associated with the appearance of age, are unmistakable signs.

It is clearly evident that these symptoms of profound degeneration and dementia have not been studied or noted as common to inebriety, and yet they are present in all cases, more or less, and furnish very significant diagnostic indications.

HYPNOTISM AND INEBRIETY.

Prof. Myers, in the *Fortnight Review*, brings out some very curious facts showing the power of a dominant idea impressed on the mind in a state of hypnotism. In one case DuMagne hypnotized a man who was an inebriate, but sober at this time, and impressed upon his mind very strongly the idea that he could not use alcohol, that it was poisonous and very dangerous. After coming out of this state, this idea continued for many months, and he was a total abstainer, although exposed to temptations. Dr. Leibvaut tried the same experiment on many cases with success. He found that men under the influence of spirits could not be hypnotized, and that in some cases the impression made on the mind was very transient, in others it lasted a long time. He supposed that if the hypnotic impression of repulsion against alcohol could be repeated often it could be made permanent and in this way made practical in many cases. Prof. Beamis reported a case where a great smoker was told, in a hypnotic state, that he must not drink or smoke again. He followed this idea and was able to break away, but was hypnotized and impressed in this way many times, and the repeated suggestions came at last to be fixed thoughts.

A theory mentioned to explain this is that alcohol paralyzes the higher inhibitory centers, while hypnotism strengthens these centers; also, hypnotism paralyzes the appetite centers, and thus counteracts the alcoholic action. It is further stated that repeated pressure of the idea of alcoholic repulsion produces a shock to the brain centers, and thus alterations take place, causing permanent changes of character.

No doubt certain sensitive organizations, under the influence of hypnotism, may be profoundly impressed by dominant and single ideas.

To apply this in a practical way to inebriates is a new field of psychology that may have a wide future. The laws of mind over body are as yet scarcely known, but we can rest on the conviction that science is on the track, and sooner or later the facts will be discovered, and their application made to the affairs of every-day life.

Clinical Notes and Comments.

OPIUM DISEASE.

Dr. Hamlin, in a very suggestive paper on the opium habit, read before the New York State Medical Society, makes the following statement of causes of the increased demand for opium in this country: "How can we account for this wide-spread and enormous increase? While it is evident all the causes cannot be known, there are some so apparent as to need mention only. First, the greatest of all is the great increase of the so-called nervous affections. The victims of these diseases are not only likely to become addicted to the habit themselves, but they are begetting a class of neurotics who are prone to morbid cravings and excesses of every kind,—their choice of alcohol, opium, chloral, or hash-eesh as a stimulant seemingly almost dependent upon accident. Then there is a class composed of the victims of disappointment and despair, the reckless and the vicious, those who resort to it as a drunkard to his cup to drown sorrow or remorse, or to seek some new source of pleasure" In speaking of the history of each case he says they may be divided into three parts or stages: "The first or formative stage is of uncertain length, beginning with the first continuous dose and ending with the establishment of the habit. This in one case was only a few days' duration, in another many months. I think there are but few persons who can take the drug regularly for more than three or four weeks without finding it more or less difficult to refrain from its use. A continuance of as many months is given to establish the habit firmly."

The second stage is one of progress, in which the victims keep increasing the size and frequency of the dose.

The third stage is one of poisoning, and the craving for the drug is continuous and persistent, etc.

These various stages are very clearly described, and the paper is a valuable contribution.

INSANITY AND INEBRIETY.

“Large doses of alcoholic drinks may act like a shock, and render the person taking them powerless, or suddenly maniacal. When this excess is frequently repeated, the nutrition of the body suffers, and a progressive loss of mental power comes on resembling the general paralysis of the insane. The higher power of self-control is earliest lost; the moral sense and social and domestic feelings suffer in turn; later on, memory and reasoning power, until finally the simpler organic nervous actions are suspended. Delirium tremens not unfrequently passes into an attack of acute mania, which persists long after the poison of alcohol is eliminated. Persons are admitted to the insane asylum, where drink was supposed to be the cause of the insanity, when later it was found that the drink was only a symptom. It is a common experience among the insane, that one of the earliest symptoms or tendencies is to seek relief from pain, general discomfort, or any special form of excitement, from alcohol or some other narcotic. It is a curious fact, that among the lower orders of English workmen, when wages are high and work abundant, inebriety and insanity are more common. Total abstinence is no certain prevention of insanity. In some instances the sudden change to total abstinence is a sign of oncoming insanity. It is an evidence of melancholy and mental depression that indicates a changed character and mental perversion, etc.

“Inebriety may be the predisposing cause of insanity or the exciting cause, or it may be only a symptom. Almost every symptom or variety of insanity may be started by drink. But there are special symptoms from this cause, and forms of nerve and brain lesion. Often inebriety comes on during pregnancy, or at the climacteric period. It may be a direct inheritance, or the result of neurotic inheritance. Persons who have received head injuries very often have both inebriety and insanity, a slight excess of drink being followed by acute mania.

"I believe that there is a cirrhosis of the brain as well as the liver, and a similar cause may start both inebriety and insanity. Dipsomania may be an inheritance, an insane symptom, or the vestige of an attack of insanity. It is more common after thirty, but is met with in persons at all ages. Its chief characteristic is profound moral perversion, weakness of will, and emotional instability. The prognosis is unfavorable, yet a careful study of these cases show that some are curable."

Extract from Dr. Savage's *Manual on Insanity*, published by Lea Brothers, Philadelphia, Pa.

STATISTICS FROM GERMANY.

The *Voice* publishes the following facts, which come from the English consul-general at Frankfort :

In Prussia, in eleven years; the population increased 13 per cent., while the places for the sale of beer and spirits increased 38 per cent. Of 6,523 insane persons admitted to the asylums in 1878-79, 4,013 were traceable to distinct causes. Of this, 27 per cent. were dipsomaniacs. Sixteen per cent. of the whole number had reduced themselves to this state from excess of drink. 9,319 cases were admitted to the general hospitals for treatment, in three years, from 1877-79. 5,212 of these cases were traced to alcoholism. In crime statistics 41 $\frac{7}{10}$ per cent. of all prisoners were committed for acts done under the influence of spirits.

POISONING FROM THE INTERNAL USE OF CHLOROFORM.

In the *Medical Record*, Dr. Eliot groups some of the symptoms of fifty-seven cases where chloroform was used internally, with toxic symptoms. The first stage of transient excitement was most marked in inebriates and athletes. Muscular relaxation, abolition of sensibility and consciousness, profound narcosis, stertorous breathing, and abolition

of reflex actions are the prominent symptoms. Many of these cases occur among inebriates where the chloroform is taken with a suicidal intent, and is most always fatal. The first symptoms are often mistaken for alcoholic intoxication, and the gravity of the case is not recognized until a later and more dangerous stage has begun. Some of these cases have contracted pupils, and closely resemble opium poisoning; in others a profound coma comes on from the first. The mortality is very large, and these cases require very prompt early treatment.

INSANITY IN ROME.

In an exhaustive report on insanity, by Dr. Fiordispini, Director of the Insane Asylum at Monicomo, near Rome, some very suggestive facts are given. From 1873 to 1880 an enormous increase of insanity has been noted. This he thinks is due to the spirit of the age, over-work, and continuous excitement, and a constant superheated existence, which he terms positivism and unnaturalism. The revolution at Rome, in 1878, has been the direct cause of a great increase in insanity, and to every one hundred men who are insane, there are fifty-eight women. Alcohol is a very active cause, and the number who become insane and drown their reason in wine, and who commit suicide for the same reason, have been steadily increasing. He thinks this to be due directly to the use of distilled spirits, such as whisky containing amylic alcohol, and brandies and rum with their butylic and propylic alcohols. Also the many new kinds of fortified spirits which are so commonly used, of which absinthe and vermouth are prominent. This modern change in the drinks used commonly by the people has resulted in a large increase of mania and dementia, and many new forms of insanity not observed before. In his opinion the former use of fresh wines would not have caused such results. He thinks many of these alcoholic maniacs infect others by a species of mental contagion (a fact which I made the subject

of a paper read at the May meeting of the Association for the Cure of Inebriates, in 1884, and published in the October number, 1884, of the *Alienist and Neurologist*). He cites some strange figures among the staff of attendants of his asylum, where nearly four per cent. became insane from contact with maniacs. He refers to Dr. Richardson's statements, "that the insane exhale an essence of madness which may infect other persons in constant contact with them, and of peculiar nervous organization."

INCREASE OF INEBRIETY.

In the last quarterly report of the Washingtonian Home at Boston, Mass., Dr. Day, the distinguished superintendent, remarks, "that of the one hundred and sixty-five new cases admitted, thirty-four had delirium tremens. The increase of patients each year brings a larger number of cases of disease of the kidneys. Formerly not over one in six cases which came under treatment had disease of the kidneys. Now, one in every three have this affection, which I believe to be owing to the great increase in the use of beer. Many of these cases try to substitute beer for stronger spirits, and in this way tax the kidneys severely. Those who have used beer for years always have diseased kidneys. I am also confident that phases of insanity are more common in the cases which came for treatment during the last four years. My experience sustains the views of Dr. Crothers and others, that inebriety is increasing, and the insane types of inebriety are also increasing. This I believe is due in part to beer-drinking and increased nervousness. Nothing can be done, practically, until society recognizes the physical nature of inebriety; then its cure and prevention may be expected."

A firm who advertises McMunn's Elixir of Opium gives certificates of its value as a remedy for opium-taking. One of these is signed by a physician.

* A gentleman sends us some facts about inebriety in Mexico two centuries ago. If a common man became intoxicated after any great occasion, such as a funeral or wedding, or from extreme grief, he was excused, unless he committed crime, when he was punished with a less severity than if sober. The idea seemed to prevail that among the common people less responsibility was to be exercised. But if persons of this class continued to drink to intoxication they were taken up by the military and sold into slavery for a period of years. Then, if they still continued to drink and appear intoxicated in the streets, they were shot as offenders beyond all possibility of restoration. If an officer of rank, or person occupying a high position, were found guilty of drinking to intoxication, they were shot or hung, and their bodies treated with great severity as a warning to others. The higher the offender, the greater the offense.

The man who drinks at intervals or continuously to excess, although he may not be intoxicated, has no right to be considered free and capable of acting rationally, or realizing the claims of duty. Freedom for him is a misfortune to both himself and family, and the society he lives in. He is practically a madman, and needs restraint more positively than many inmates of insane asylums. He is an object of increasing peril to his family, and a terror to society. He is bankrupting both body and mind, and a future of ruin is a positive certainty. To restrain him in the future, when his disease is apparent to all, brings no relief. The only hope for the future is early, positive restraint and treatment.

The Russian government has ordered all the small places for the sale of spirits in their country closed, and the number limited to one for every twelve hundred people. The license fee has been raised to over eight hundred and fifty dollars each. The government believes in beginning at the bottom of this evil.

The manufacture of alcohol from wood has increased very rapidly within a few years. No taxes being paid on it to the government it has been substituted for other alcohols. The bad odor and taste having been removed it has come into use for patent bitters, Jamaica ginger, and many other alcoholic compounds. It is a notoriously dangerous alcohol, and produces many and grave disturbances of the brain and nervous system.

A writer in the *Bibliotheca Sacra* for October, says that \$125,000,000 were spent for opium in China, in 1884; that over fifty millions of persons were computed to be using this drug, and that the mortality was not less than six hundred thousand a year. Seven thousand tons of opium were sent from India to China last year. This does not include the amount raised at home.

The first regularly organized asylum for the care and treatment of inebriates in Sweden has lately been opened at Bie, under the care of Dr. Levin. The prospectus is emphatic on the question of disease, and announces that it is to be an asylum for dipsomaniacs and the insane drunkard, and not a place for the religious treatment of physical disorders.

The phenomena of mind and human conduct has always found a ready explanation in spiritual and supernatural causes in exact proportion to the ignorance of physiological laws. The insane and inebriate were possessed of the devil until a clearer knowledge showed that they were diseased.

Dr. Devoes.

Moral lapses and failures in the parents are transferred to the children, and appear as physical defects of the brain and organism. The sins of the fathers must of necessity appear in the children. The quality and force of the organism has been perverted and its reproductions cannot be perfect.

VOL. VIII.—9

Papine is the particular anodyne principle of opium. It has been found more valuable than any other form of opium, and is less dangerous. It is prepared by Battle & Co., chemists, St. Louis, Mo.

Fellow's Hypophosphites have already taken rank with opium and quinine as remedies of established value in all general practice.

Lactopeptine is called a constructive and digestant for all stomach troubles. Many eminent medical men use it largely in these cases with most excellent results.

The *Anglo-Swiss Food* has been tried in cases of gastric irritation from alcohol and opium, bringing relief when every other means failed.

Colden's Liquid Beef Tonic will be found of great value where highly concentrated food is needed. We urge that it be tried in the exhaustion from inebriety and opium cases. *Colden's Soaps*. Samples of Soaps will be sent free upon application in person, or by letter (enclosing card), to any physician in regular standing in the United States. C. N. Crittenton, 115 Fulton street, New York. Please mention THE JOURNAL OF INEBRIETY.

Jamaica Dogwood, in solid and inspissated extract, in doses of from two to eight grains, should be tried in those cases of severe neuralgia and brain exhaustion coming from alcohol. *Park, Davis & Co's* preparation should be used as the most reliable in the market. The same firm make several most excellent preparations of cocaine, which we have found to be valuable. We urge our readers to send to this firm and make a trial of some of these wonderful anæsthetics, about which so little is even now known.

Wheeler's Tissue Phosphates is the name of a preparation which has been before the public a long time. It is very highly recommended as a tonic for nervous debility.

Horsford's Acid Phosphate, as a remedy, needs no extravagant praise wherever it is used; it wins its own way, and becomes an established remedy beyond all controversy.

THE
QUARTERLY JOURNAL OF INEBRIETY.

Vol. VIII. APRIL, 1886. No. 2.

This Journal will not be responsible for the opinions of contributors, unless indorsed by the Association.

ALCOHOLIC PARALYSIS.

BY J. DRESCHFIELD, M. D., F. R. C. P.,
*Professor Pathology, Victoria University, etc., Manchester,
England.*

I have divided clinically this peculiar affection into two groups: the alcoholic ataxia, and the alcoholic paralysis. In considering the ataxic form, a distinction must be made between those cases of marked inco-ordination without much paralysis, and those where the gait resembles the ataxic gait, but is in some measure due to the paralysis of the muscles of the lower extremities. Of the purely ataxic form I have observed three cases, two of which have quite recovered, while the third died of uræmia, due to contracted gouty kidney.

The first case was a man aged 32, who had been for many years an excessive drinker, and had also indulged to a morbid degree in venereal excesses, but has never had syphilis. Complained of severe lancinating and shooting pains in lower extremities, sometimes in upper extremities; both lower extremities showed some spots of anæsthesia and of retarded sensibility, the muscles of the calf were painful on pressure; no atrophy or paralysis of either the upper or lower extrem-

ities, but there was marked inco-ordination. With his eyes open, the patient could walk fairly well and lifted the feet well from the ground, the heels coming down first; with the eyes shut, he showed marked ataxia, there was also distinct inco-ordination for finer movements in the upper extremities; tendon reflexes absent; no ophthalmoscopic changes. The patient gave up the use of alcohol and completely recovered. The tendon reflexes, which were absent, have now returned.

The second case was a patient suffering from dipsomania at Cheadle Asylum. He was single, age 33. Had an attack of sunstroke at Ceylon when 26, and after became very nervous and took to alcohol. He returned to England and drank heavily, then went back again, and finally returned and went into an inebriate asylum, and then into an insane asylum. He has never had syphilis. His brothers are hard drinkers, and one of them has epileptic mania. In May, 1884, he began to complain of pains in both legs and feet, especially on dorsal surface of the feet, near the toes, which were swollen; the pains were shooting in character. There was hyperaesthesia of the skin over these parts, and some spots of anaesthesia; he had also pain in his fingers, became very irritable, lost his memory for recent events, and refused food. There was loss of tendon-reflex, some slight atrophy of both legs, and marked ataxic gait. No bladder or rectum symptoms; atrophy increased, the pains, however, became less, and patient walked better. Towards the end of September, 1884, the pains ceased altogether; the atrophy, however, remained, yet the patient walked much better. At the beginning of March, 1885, he had pains over the distribution of the left supra-orbital nerve; again complained of pains in his legs, burning sensation in the soles of his feet, and cramps in his legs. In May, 1885, I saw the patient myself. I found him somewhat irritable; otherwise, but little affected mentally, except that he had lost his memory for recent events. The gait was feeble and slow; walked with the help of one stick, but his gait was distinctly ataxic, and became more so when he attempted to walk with his eyes shut.

There was some emaciation of lower extremities, but no marked paralysis of the muscles; movements of extensors of toes were, however, sluggish. Some slight atrophy of the muscles of the back and also of the arms, but the patient could flex and extend both fingers and wrists very well. The patient complained of shooting pains down the legs to the toes, occurring in paroxysms, and leaving a numb feeling behind. Firm pressure on the soles of the feet, and on the legs, was very painful. Patient also noticed a cold feeling when touched by any object. Limbs showed no vaso-motor disturbances. Tendon-reflexes were absent. The galvanic reactions were taken; the contractions were slow, and followed by fibrillar-tremors. A very strong magnetic electric current was necessary to get contractions of the extensors of the toes and calf muscles. The muscles of the upper extremities reacted well. There were no eye or bladder symptoms. There was loss of appetite, craving for drink, the tongue was furred; there was morning vomiting and occasional hæmatemesis. The bowels somewhat constipated. The liver and spleen were not found to be enlarged. The pulse was feeble and irregular.

As the patient refused to eat unless he had some drink, he was allowed beer. For the pains he had morphia injections at night, which gave him great relief. The patient soon began to improve and is now quite well. Has gained flesh, has no pains; there is no ataxia, and he shows no abnormality in walking. The tendon-reflexes are normal, and the patient is now only kept as a boarder at his own request. He has never discontinued to drink beer, but avoids all other stimulants.

The third case was a female, age 53, complaining of pains of shooting character in lower extremities. Three years ago suffered from gout in her hands. For some time she has been troubled with paroxysms of pain in her legs, without any swelling of the toes or any of the joints; has also noticed that her gait was awkward, and that she could not walk well in the dark. She had a typical alcoholic appearance; skin was dry, there was a nodular swelling on the metacarpo-

phalangeal joint of left index finger. Patient looked thin; no œdema, and no marked paralysis of any of the muscles. Could walk, but felt weak on her legs; walk was ataxic, and it was impossible for her to stand or walk with her eyes shut. Could move her limbs freely when in bed, tendon-reflexes absent; some anæsthesia of skin of lower extremities, but very marked hyperæsthesia of muscles of the calf and of the muscles of the forearm; pressure on these parts caused most excruciating pain. The heart was found hypertrophied; urine sp. gr. 1010, profuse in quantity, contained albumen and granular casts; anorexia with vomiting. Pupils reacted well; fundus of the eye normal. Some time after admission the patient became delirious; there was incessant vomiting for twelve hours, and then the patient had a convulsion and died. At the post-mortem, the kidneys were found small and granular: left $1\frac{1}{2}$ oz., right 1 oz.; on section, the cortical substance was found very much diminished, and streaks of urate sodium were seen passing to the medullary part. Microscopically, marked interstitial nephritis was seen, with extensive deposits of urate sodium crystals in the renal tubes. The heart was very much hypertrophied, and weighed $13\frac{1}{2}$ oz.; the myocardium was healthy, the valves normal. Liver 3 lbs., and microscopic examination showed marked amyloid changes, together with monolobular cirrhosis, the fibrous tissue being still of very embryonic type; spleen 11 oz.; brain, anæmic; the ventricles contained more fluid than usual; the membranes of the brain were healthy; the pia-mater, however, slightly opaque. Pons, medulla, and spinal cord, had a perfectly healthy appearance, and were of firm consistence. Muscles of the leg and forearm were thin and pale. The spinal cord, examined carefully, after having been hardened, was found perfectly normal in all its parts. The sciatic nerves appeared thin, grayish, and were surrounded by a great deal of adipose tissue. Vertical sections showed, when treated with perosmic acid, and stained afterwards with picrocarmine, a moniliform appearance of the nerve tubes, due to breaking up of the myelin; the nuclei were increased, and there was also some interstitial cell infiltration. Trans-

verse sections showed in some few places an increase in diameter of the axis-cylinder, and again the interstitial infiltration. The muscles showed chiefly, increase of the muscles nuclei and an interstitial deposit of small round cells, and in some few places the striation was not well marked.

The following case, which was admitted only a few days ago, shows the combination of alcoholic ataxia with alcoholic paralysis. W. B., age 41, November 10, 1884. Had been very intemperate and has a distinctly alcoholic appearance. Has had rheumatic fever, and has lately been very much troubled with pain in his limbs. Has had three attacks like the present, but not so bad, from which he recovered, after rest and abstention from drink. Looks strong and stout, some of the muscles feel flabby, but there is no marked atrophy, though paralysis of some of the muscles is distinct. In the upper extremity there is marked paralysis of the extensors of the fingers and of the wrists on both sides; some of the other nuclei are slightly affected; the flexors act very well. Such movements as the patient is able to carry out show some inco-ordination. In the lower extremity, the extensors of the toes and of the big toe are but slightly affected; the peronei on both sides, however, are considerably paralyzed; the arch of the foot is flattened, and the inner border is raised, while abduction is impossible. Is able to walk with some assistance, but walk is ataxic; keeps his legs apart, and looks to the ground for fear of falling; cannot walk with his eyes shut. Isolated movements with either of the lower extremities, show equally marked inco-ordination. With the eyes shut the patient does not know exactly the position into which his limb is put. The sensory phenomena are those of alcoholic paralysis; shooting pain in the legs; cutaneous anæsthesia in both upper and lower extremity. Irregularly disturbed, with extreme muscular hyperæsthesia. Also great pain if the skin apart from the muscles is firmly grasped. Rightly distinguishes a cold body, but contact with a hot body gives him a sensation which he compares to those of an electric shock. Some analgesia, and the prick of a pin is felt only after some time. Tendon-reflexes absent;

INEBRIETY AND HEREDITY.

BY T. D. CROTHERS, M.D., HARTFORD, CONN.*

Two thousand years ago the inebriate was declared to be a madman, to be diseased, to be suffering from a fearful malady. But only within the last forty years has any effort been made to formulate this fact, to organize it into the realm of practical science. This was a discovery in science, and its truth is evident from the sharp contradiction it has provoked. Thus, whenever a great fact bursts through the soil of ages, storms of denial and opposition only give it firmer root and surer growth.

If we were to gather a large number of inebriates, from all ranks and conditions of life, and make a careful study and comparison of the histories of each one, the following are some of the facts which would appear :

1. Inebriety would be found to be one of a family group of diseases. The other members of this family would be insanity, consumption, epilepsy, idiocy, paralysis, hysteria, and many others not so clearly related. Thus, whenever we find one of these diseases, the others are very likely to appear, or be closely associated with them. Inebriety is very often followed by insanity, epilepsy, or consumption, and these diseases often precede inebriety. All these affections may be associated as forms of disease, and some one or the other be prominent. Nervous diseases, brain disorders, and degenerations of a great variety, very commonly go before and frequently follow inebriety.

2. Among the causes, heredity is prominent. Then comes injury to the brain and spinal cord from falls, blows, etc.; brain shocks from fear, grief, joy, or great excitement of any kind; great strains and drains on the body and mind; imperfect nutrition, bad surroundings, bad training, over-

* Part of a lecture delivered before the Temperance Institute of Presbyterian Churches, N. Y., Feb., 1886.

work and under-work. These and other causes will appear in most cases.

3. When the history of each case is compared with others, they are all found to follow a uniform line of march. Beginning at a certain point they all pass down the same road, and cross the same bridges, and reach the same destination. Of course there may be halts, variations, and changes, but the main body move along one line, — the same as in consumption or typhoid fever, a regular progressive history from one stage to another. The expert has only to find out where the case started, and where it is at present, to predict the future, and how far it can be changed by treatment.

4. From a great variety of evidence, as yet in outline, it appears that inebriety moves in waves and currents, prevailing like an epidemic, then dying away. The statistics of persons arrested for inebriety extending over years, show that during certain years this epidemic has prevailed with great activity, then declined to a minimum point. In Sweden two of these high points were noted at intervals of seventeen years; the last occurring in 1879. In England, France, Australia, and in Massachusetts, this steady increase of inebriety up to a certain point, then a regular decrease to a low level, has been noted. The mortality statistics from spirits, and the history of the consumption of alcohol, both indicate high tidal waves of drink excess and then a regular ebb and decline. These are mere hints of some of the forces which govern the march of inebriety. They throw light on those strange temperance revivals which spring up from the slightest causes and sweep over the country, dying away with the same mystery and suddenness. These wave-like temperance movements are more than the rumblings of revolution in the public sentiment; they are re-actions of inebriate waves, the backward swing of some great cycle or drink orbit.

Alcoholic Heredity, or the transmission of a special tendency to use spirits, or any narcotic, to excess, is much more common than is supposed. In the study of a large number of cases, several distinct groups will be apparent.

First will appear the direct heredities. Those inebriates whose parents and grandparents used spirits to excess. The line of the inheritance will be from father to daughter, and mother to son; that is, if the father is a drinking man, the daughter will inherit his disease more frequently than the son. While the daughter may not, from absence of some special exciting causes, be an inebriate, her sons will in a large proportion of cases fall from the most insignificant exciting causes. About one in every three cases can be traced to inebriate ancestors. Quite a large proportion of these parents are moderate or only occasional excessive users of spirits. If the father is a moderate drinker, and the mother a nervous, consumptive woman, or one with a weak, nervous organization, inebriety very often follows in the children. If both parents use wine or beer on the table continuously, temperate, sober children will be the exception to the rule. If the mother uses various forms of alcoholic drinks, as medicines, or narcotic drugs for real or imaginary purposes, the inebriety of the children is very common. Many cases have been noted of mothers using wine, beer, or some form of alcoholic drinks, for lung trouble or other affections, and the children born during this period have been inebriates, while others born before and after this drink period have been temperate.

The second group of these *alcoholic heredities* are called the indirect. They are cases where the inebriety of some ancestor has left a stream of diseases, such as minor forms of insanity, consumption, and various nerve defects, which may have run through one or two generations, then suddenly develop into inebriety, with or without any special exciting cause. In such cases the moderate or excessive drinking parents will be followed by nervous, feeble-minded, consumptive, or very precocious children, or eccentric and odd people who are born extremists in every relation of life. They are persons who die early, and leave a large progeny, who suffer from nerve and nutrient troubles, and neuralgia, and find in alcohol and opium a most seductive relief from all their troubles. About one-fourth of all cases of inebriety are examples of this form of indirect heredity.

A third group of heredities in these cases of inebriety, are the complex borderland cases. They are persons whose ancestors have been insane, epileptic, consumptives, criminals, paupers, and had other forms of degeneration. Victims driven along by a tide of degenerate heredity, which burst out in varied forms and phases of diseases. This class are seen among the very wealthy and the very poor. Fully one-fourth of all inebriates are of this class, and their inebriety is only another stage of profound degeneration in the march to dissolution. In these cases there seems to be in certain families a regular cycle of degenerative diseases. Thus in one generation great eccentricity, genius, and a high order of emotional development. Extreme religious zeal, or unreasonable skepticism, pioneers or martyrs for an idea, and extremists in all matters. In the next generation, insanity, inebriety, feeble-minded, or idiots. In the third generation, paupers, criminals, tramps, epileptics, idiots, insanity, consumption, and inebriety. In the fourth generation, they die out, or may swing back to great genius, pioneers, and heroes, or leaders of extreme movements.

In the study of a large number of cases of inebriates, a *physical* and *mental heredity* will appear. Thus the children of inebriates for one or two generations will be found to have, as a rule, physical defects and deformities. Bad-shaped heads and bodies, an inharmonious development, retarded or excessive growths, club feet, cleft palate, defective eyesight, great grossness of organization, or extreme frailty of development. This can be seen in the observation of almost anyone, and indicates the defective nutrition and cell growth caused by injuries from alcohol transmitted to the children. The *mental heredity* from inebriate parents is equally clear and apparent to any close observation. Mental instability, and mental feebleness are common signs. Impulsive, excitable, emotional persons, who are on the two extremes, either buoyed with great faith and hope, or depressed to the verge of despair. Extravagant self-esteem, boundless faith in the most absurd schemes of politics, religion, and science.

Men and women who are called "border liners," meaning those whose good judgment and reason alternate back and forth over the line where sanity and insanity join. They are found in the great army of the irregulars, the intellectual and moral quacks, the badly-balanced, and weak, unstable mentality. Genius and precocity often appear in these persons. They frequently come into prominence like blazing comets, dazzling for a time, then disappearing in some cloud of insanity, inebriety, or other disease. This mental heredity will be often seen in the perverted nutrient tastes of children, the impulsive appetites, and dominant animal desires. With the very wealthy and very poor, these signs of alcoholic heritage are prominent. One of the reasons are the excessive nutrient stimulation from excess of quality and quantity of food, among the wealthy, and the opposite among the poor ; also the underwork and overwork of those classes.

These are only hints and intimations along the shore of a great continent of facts, which some future explorer will reveal. It will be of interest to point out some of the results which follow from alcoholic heredity. *First*, the *longevity is diminished*. It is impossible for a generation with this entailment to have the same vigor to resist disease and death. Exhaustive physical and intellectual exertion is not repaired, and overcome so readily, and death from slight causes are more common. Thus exposure merges into pneumonia, and other fatal conditions, more quickly than in others without this entailment.

In epidemics of fevers and other diseases these children of alcoholic parents, and inebriates themselves, die first. They die from injury, shock, strain, worry, and care. In brief, this alcoholic legacy from ancestors means a shortened life, an early death, from varied insignificant causes and general incapacity to bear the strains and drains of the ordinary activities of life. *Second*, by a wise limitation of nature the race with this heritage must die out. Only by a prudent ingrafting and marriage with a healthier stock can it be con-

tinued into the future. A family with this heritage is on the road to extinction, it is switched on a side track, and is moving on a down grade of rapidly-increasing degeneration. Nature seems to often make an effort to 'put on the brakes and check the speed in some remarkable fecundity.

Thus in these degenerate families you will often see a great number of children who, as a rule, exhibit many of the defects of the parents, and are short lived.

The large families of children in inebriate parents may be taken as a hint of the approach of extinction for that race. In the same way, great genius in certain directions, as for instance a poet, an orator, an inventor, or a reformer, starting far away above the levels of his ancestors and surroundings, are often the last members of families far down towards the rapids that precede the final plunge into oblivion, like the flicker of a lamp bursting into full blaze before extinction. *Third.* Where this alcoholic heredity is retarded or accelerated by the union with different currents of heredity, very strange compounds are the result. Thus, if to this alcoholic heredity are united a heritage of insanity, idiocy, or any other pronounced defective influence, all grades of criminals, paupers, and mixed insanities follow. While most of these defects are apparent to ordinary observation, yet there is a class of defectives springing from this soil which may be termed moral paralytics, which will be the subject of bitter controversy in psychological circles in the near future. Along this frontier line the great questions of free will and moral responsibility must be settled. The injury from alcohol first numbs, then finally paralyzes the higher brain forces, which includes all the moral elements. This paralysis goes down into the next generation as a congenital deformity, a retarded growth, in the same way that in some families cross-eyes, hare-lip, defective hands or legs, are seen in every generation. This form of heredity produces criminals of the most dangerous type; men and women born without any consciousness of duty, of right and wrong, of obligation to live a moral, consistent life. From these mixed heredities

some central brain region has become malformed and degenerate, and the victim is without power to change or comprehend the normal relations of mental or moral life. Many of these persons occupy places of wealth and influence in society, holding positions of honor and respect, by force of surroundings and absence of opportunity to reveal their incapacity to follow lives of truth and justice. . . .

If this subject is seen higher up, other and more startling conclusions appear. *First, this heredity from alcohol is intensified and increased by the misapplication of the educational forces of to-day.* The highest culture of the best colleges applied without regard to the natural capacity of the individual, and along unphysiological lines, most clearly unfits and destroys him. Often this higher culture is abnormal stimulation and growth, particularly for the entailments of past generations.

First of all, the educational systems do not always build up healthy brain and nerve force. *Second*, they ignore all heredity, and influences of food, climate, surroundings, and natural capacity, and the result is that all abnormal impulses are intensified in certain directions, and the power of control is diminished in a positive substratum of exhaustion from which there is no relief. The highest modern culture applied indiscriminately to children of inebriates, will result in their ruin as positively as any degree of ignorance. This is seen in the inordinate self-esteem, feeble common sense, unstable will power, extravagant idealities, and general mental dyspepsia of many college graduates. In actual life the college graduate who has an alcoholic heredity, and is an inebriate, is more incurable than his brother who has never had a college culture. It has been truly said that ignorance will give more promise of longevity, and a final triumph over this heredity than the highest indiscriminate culture of to-day.

Another view reveals the fact that the present legal methods to restrain inebriety, and the result of alcoholic heredity, produce results exactly opposite. Thus the army of

inebriates and irregulars of this family group are held accountable as healthy, responsible beings, and confined in most dangerous mental and physical surroundings, actually intensifying their defects and removing them farther from all hope of recovery. The police courts and jails are to inebriates literal training stations, for mustering in armies, that never desert or leave the ranks until crushed out forever. A Chinese law enacted a thousand years ago, and in force to-day, contains a flash of truth. When a criminal comes before the courts, careful inquiry is made into his ancestry. If they are found to have any of the traits common to the prisoner he is killed and they are punished. His death ends all possibility of transmitted crime, and their punishment and recorded history puts a check on any farther propagation of the evil. Common law and public opinion are far behind the march of science in a practical knowledge of this evil and the means to correct it. Not far away in the future this terrible shadow will vanish before a larger, clearer intelligence, and all our blind efforts of to-day will be found to be but a repetition of history—the stage of empiricism, quackery, and superstition, which precedes every great advance of humanity. *From a higher point of view*, civilization and the increasing complexities and changing conditions increase this heritage. Thus every new invention which changes the direction of human activities, brings greater strain on the brain and nerve force, demanding new energies, which the alcoholic heredity victim cannot give. He is unfitted and crippled for these new conditions of life by his forefathers, left dismantled and without strength for the race, and by that great law of our being is crushed out, driven out, and crowded out in the struggle and survival of the fittest.

One great fact comes out prominently in this outline review, namely, that alcoholic heredity or a predisposition to inebriety, and many other nerve and brain degenerations, will certainly follow in the next generation from the moderate or excessive use of spirits. Parents who do not recognize this fact, practically, are committing unpardonable sins, by

crippling the coming generations and switching them on the side-tracks, away from the main line of development.

Another fact appears : education and marriage should be governed by a knowledge of heredity. Education should be determined by the family physician, and have for its object to control and antagonize all the predisposition of heredity. Marriage should be under control of law, and from the judgment of the family physician. The time is coming when every family will have its scientific medical advisers, and these vital questions of heredity and practical life will be determined from a scientific basis. Still another fact comes up prominently. The great armies of the insane, inebriates, criminals, and paupers are largely the doomed victims of the sins of our forefathers. Our duty to them is to house them, to protect them from perpetuating their defects and injuring others. Science tells us that this army of hereditary defectives are wards of the State, and should be housed, quarantined, made self-supporting, and forced into conditions of healthy living. The present indiscriminate freedom of this class is a sad reflection on the intelligence of this century. The study of alcohol heredity furnishes not only the strongest reasons for total abstinence in each person, but reveals the laws and forces which govern its march in each individual, revealing a wider range of the subject. Along this line of heredity will be found the practical solution of many of the mysteries and remedies of this great drink problem. To those who make heredity a study, and discover its laws, and apply them, is given the key to fathom greater mysteries and control larger destinies than any king or warrior that ever lived. Here we shall find some of the great central forces of life which have controlled the race yesterday, and will go on to-day, and forever.

This great procession of human life may have begun in some more favored period, and crossed the earth with less loss and suffering. But to-day the scientists can see abundant intimations and gleams of light in the present, that more favorable conditions of the march can be obtained.

INEBRIETY IN AUSTRIA.

BY CHEVALIER MAX PROSKOWETZ DE PROSKOW-MARSTORFF,
of Vienna,
*President of the Austrian Society for the Study and Cure of
Inebriety.*

(a) The Austrian Anti-alcoholism Society tries to have the number of brandy-shops settled by authority in a strict and appropriate manner proportioned to the number of the inhabitants. The margraviate of Moravia contains 9,700 brandy-shops for 2,153,000 inhabitants — viz., one brandy-shop for 222 inhabitants. We try to establish, as a rule, that *one* brandy-shop should be licensed to 500 inhabitants — that is to say, our work endeavors to diminish the brandy-shops by more than one-half.

(b) The number of drunkards arrested in Vienna by the police department was: 5,955 in 1881; 6,349 in 1882; 5,878 in 1883 = 5,338 men + 540 women; 6,555 in 1884 = 5,771 men + 784 women.

(c) We try to generalize a regulation for factories, by which the introducer of brandy is punished by a penalty equal to twice a day's wages. A drunken workman is punished with four times a day's wages. The high commissioner of manufactories seconds our propositions.

(d) The society has distributed a large number of pamphlets in the German and Bohemian languages.

(e) We promote the selling of warm tea (one penny a cup), by means of circulating cars, in the suburbs of Vienna. From January 1, 1880, till April 30, 1882, 246,842 cups of tea, 8,816 a month in average, was sold.

(f) We try to prevent the selling of spirits of a bad quality. We held investigations on the qualities of liquor, and found that liquors were sold which contained above 17 grammes of corrupt constituent parts in one gallon. Our

law not forbidding the keeping open of brandy-shops on Sunday, we forwarded petitions to the representatives of the empire to shut all brandy-shops from six o'clock Saturday night to seven o'clock Monday morning. We endeavor to have the taxes increased for spirits in the towns, the small trade in brandy being a very lucrative one. It is a fact that shopkeepers of that kind earn $2\frac{1}{4}$ shillings clear gain by one gallon of spirits. The brandy-shops ought to be shut at ten o'clock at night till seven o'clock in the morning. Payment to workpeople to be given on Mondays to prohibit drinking. Debts for consumption of spirits are not to be prosecuted in law-suit. Retailing liquors to individuals under the age of sixteen, to drunkards and other persons not in their full mind, to be punished. The regulations regarding retailing liquors to be placarded in every shop and brandy-house. Retailing of spirits to be strictly separated from retail shops and those dealing in other wares. Habitual inebriates to be declared minors, and transported to medical establishments (in the German style). Brandy to be prohibited in canteens, works, men-barracks, and so forth. The taxes of distillers to be raised. The tax for distilled wares is but the twenty-second part (in Germany) of the corresponding English tax.

There is one brandy-shop to 59.21 inhabitants (children and women included) in Bohemia. The courts of justice in the dukedom of Bukowina (Austria) have punished (in the years 1878-1883) 20,713 individuals a year for inebriety. The kingdom of Galicia (Austria) had (from 1878-1883), 132,403 individuals punished on account of inebriety. The leading men of Carinthia (Austria) held a meeting, the Governor of the Dukedom, Baron Schmidt, presiding, in the month of September, to consider Chevalier Edlmann's motion on checking inebriety. The Austrian Parliament followed a motion on the fatal consequences of inebriety, seconded by Chev. de Proskowetz, on March 13, 1885. The industrial town of Trautenau (Bohemia) has a consumption of 3.6 gallons a head of brandy. The law of March

8, 1885, prohibits very strictly the giving on credit brandy to workpeople, on account of their due payment.

(This short paper presented before our sister society in England is of great interest, as showing the activity of medical and scientific men to understand the origin and nature of inebriety. It is a pleasure to note the organization of another society on the same basis as our own.)

THEINE AS A NARCOTIC.

In the *Medical News* of Philadelphia, Prof. Mays concludes a series of studies as follows :

“Theine is the active principle of the leaves of Chinese tea, and is generally reputed to be identical with caffeine, both in chemical composition and in physiological action. My experiments show that it differs very markedly in physiological action from that of caffeine. Caffeine principally affects the motor nerves, while theine chiefly influences the sensory nerves, and clinically proves itself a most valuable analgesic, surpassing morphia in promptness and permanency in relieving pain in some affections, without producing any, or at least very little, disturbance of the general nervous system. It paralyzes sensation before motion; it impairs sensibility from the centre to the periphery and not, like brucine and cocaine, from the periphery, to the centre; it produces convulsions which are spinal and not cerebral; it has a more powerful action on the sensory nerves, and less on the motor nerves than caffeine.

“From the results of theine in these cases it will be seen that it is a powerful anodyne without producing any intoxication of the higher nerve centres, which is so common with morphia and all other agents belonging to this class. Its influence is both quick and persistent, and it manifests an almost exclusive affinity for the sensory nerves. It relieves pain by acting from the centre toward the periphery, and showing its effects but very seldom above the seat of injection. In $\frac{1}{10}$, $\frac{1}{8}$, and even $\frac{1}{3}$ grain doses it is entirely free from dangerous consequences — the only inconvenience which it causes is a slight, but transient burning at the point of introduction. I use a one per cent. watery solution of Merck's preparation — ten minims of which equal one-fifth of a grain of theine. Larger doses are required in some individuals in order to bring out its characteristic action.”

INEBRIETY, AND HOW IT CAN BE CURED.

BY DR. NORMAN KERR, LONDON, ENGLAND.

The following is a part of a recent lecture before the Total Abstinence Union of London :

Dr. Kerr said that there were in the United Kingdom half a million inebriates ; that at least forty thousand died every year prematurely from personal intemperance, and probably double that number of innocent persons indirectly, from disease, accident, violence, or starvation consequent on the excess of others. To inebriety we owed three-fourths of our pauperism, more than one-third of our insanity, and at least one-half of our crime. The present deep distress would be speedily relieved, the prevailing commercial depression would be rapidly superseded by the revival of financial prosperity, a renewed vigor of trade and commerce providing ample work, at good wages, for all the industriously disposed unemployed, if only the people of England would abstain from intoxicants for twelve months. If, as Dr. Kerr believed, each average man's value to the community might be put at £1,000, their half million of inebriates involved a national loss of £500,000. In addition, inebriety increasing among females was a growing cause of prospective danger, as inebriate mothers would render our successors still more susceptible to the physical sorcery of the narcotic power of alcohol, while endowed with less ability to resist this increased alcoholic tendency.

Inebriates might be classed as constant and periodic, the periodical outbreaks of the latter varying from once every three days to once in every six months. In inebriety there was an entire crushing of the man. This was still more true of the woman. The habitual inebriate was a wreck, unreliable, shifty, unstable, a real slave, with little if any self-control left, bereft of power to abstain from the poisoned chalice

which he loathed, with no inclination to do honest work for the general good. The confirmed drunkard was the victim of a fell disease, the possessor of a degenerated *physique*, a paralyzed brain, a broken-down will power, a wasted life, and the soul in peril.

The general causes of inebriety were the temptations presented by drinking customs, at births, marriages, and deaths, and other festive occasions, from which many inebriates dated their fall. Hospitality was a prolific cause, doctors especially (who formed nearly ten per cent. of the whole number of the patients at the Dalrymple Home), and mostly those practicing in the country, who in their long rounds of visits were repeatedly pressed to partake of intoxicants. "Nips" before business hours, and the bottle kept handy in the office, were a frequent occasion of the declension of merchants, clerks, and others. Commercial travelers were strongly tempted. The custom of drinking intoxicating liquors at charitable, religious, and other public dinners, was also a feeder of inebriety. Licensed temptations were powerful factors. The power of public houses, beer houses, hotels, billiard-rooms, all but omnipotent as it was, must have seemed to some statesmen insufficient, for they had actually added the additional temptations afforded by grocers' licenses, by which hypocrisy and secret drinking were fostered. He knew ladies who would not have dreamt of entering a public house, begin by getting bottles home from their grocers under name of other articles, unknown to their husbands, and end by losing all sense of shame and womanhood, drinking in public houses with the lowest of the low. He also knew of ladies who regularly frequented confectioners' and other establishments, and drank large quantities of strong liquors there.

Habitual inebriety was a disease, like gout and epilepsy. Men and women lapsed into habits of intemperance, not because they intended to do so, but in spite of their determination to the contrary, mainly from the fact that from some inspired, or other physical condition, they were more

susceptible to the narcotizing influence of alcohol. Heredity, nerve shock from bereavement, business anxiety, or other exciting cause, were leading factors. Sunstroke and other diseased conditions, injuries to the head, and other accidents, were often the starting point. Excessive brain work and worry, as exemplified in the person of clergymen and literary men, also operated. Though doctors were often unjustly blamed, there could be no doubt that the loose medicinal prescription of intoxicants had much to answer for.

Strong drink of all kinds should be excluded from our festivities, and from our tables—public and private. There should be no “nips” before, during, or after business hours by business men. In short, our drinking customs ought to be non-alcoholic, unintoxicating beverages being substituted (when the observance of the custom is desired) for the ordinary inebriating drinks. Medical men, nurses, and friends should be very chary of recommending strong drink (beer, fermenting wines, and spirits) to the sick.

Total abstinence, complete and unconditional, was the basis of cure. Occupation should be found; and Dr. Kerr was happy to say that this difficulty had been effectually grappled with at the Dalrymple Home. Religious influences should be brought into play, and the reformed should be encouraged to enter upon temperance and Christian work. The original diseased conditions leading to inebriety ought to be sought out, and, if possible, remedied. The selection of a proper home for an inebriate was very delicate and difficult, many of the so-called homes for inebriates being really inebriate homes—training schools in inebriety. Punishment was worse than useless. Public ridicule, wearing the tub, tarring and feathering, thrashing and imprisonment, had all been tried in vain. Inebriety ought to be recognized as a disease, the inebriate as a diseased individual. Their legislation should be improved. The Habitual Drunkards Act should be made permanent, the compulsory appearance by the inebriate before two justices should be dispensed with, a simple contract with the license of a retreat, as in America,

being sufficient. Patients escaping should not, as at present, have to appear before a magistrate, but might be conveyed back to the home at once for cure and care. These measures were for voluntary applicants for admission into a home. But there were inebriates who were ruining themselves and families, and who would not of their own accord seek protection for themselves. There ought to be power given to the authorities to commit such to a home, and provision ought to be made for the poor at the public expense. We were far behind America in this. The rescue of the drunken is a noble and God-like enterprise. Rescuers are urgently needed. The cries of the lost and the sinking through strong drink are rising loud to Heaven. To be efficient, the rescuers must be abstainers. In abstinence lies the safety of the inebriate. Bearing in mind our own weakness amid other temptations, the diseased condition of our fellows who have, through inherited and other physical states, been conquered by the awful might of a potent and imperious tyrant, let us not treat the drunkard with scorn and abuse, but, following the example of our blessed Lord, let us take the erring one by the hand, let us bid him (and alas, her!) be of good courage, let us invite him to stand by our side on the safe platform of abstinence, that his lost manhood may be redeemed, and that the Divine which is in every human being made in the image of God, may be freed from its environment of sorrow, shame, and sin.

Whenever an inebriate is incapable of reflection his liberty is dangerous to himself and others. He is most thoroughly irresponsible for his conduct, when poisoned by alcohol, and should be treated as a child and as a sick, insane man.

Medical Inspector Spear of the navy, mentions a rare case of a sailor who used cocaine by hypodermæ for the cravings for the spirits, and fell into a state of coma which resembled opium poisoning, from which he recovered with difficulty.

VOL. VIII.—13

THE HABITUAL DRUNKARDS ACT, 1879.

BY A. PEDDIE, M.D., F.R.C.P.E., EDINBURGH.

On the 6th of January, 1858, I led the way to a discussion on the Personal and Social aspects of Insane Drinkers, at a meeting of the Medico-Chirurgical Society of Edinburgh, by communicating a paper entitled "The necessity of some Legalized arrangements for the treatment of Dipso-mania or the Drinking Insanity." The discussion on it was opened by the late Sir Robert Christison, who, after stating his conviction as to the need of such arrangements, said,— "Dr. Peddie had a somewhat Herculean task before him in attempting to obtain legislation on this subject, but he must not be discouraged by the want of success that had attended the feeble effort of the Lunacy Commission, etc."

The prophetic utterance of Dr. Christison as to the difficulty of settling this question, has, notwithstanding much ventilation and discussion, been fully verified ; for after the lapse of twenty-eight years, no satisfactory legislation has yet been obtained.

For two years following the publication of that brochure, much criticism and correspondence appeared in newspapers and periodicals, almost unanimously favorable to the plea advanced ; and since then from time to time I contributed various other papers on the subject to societies and the journals, while up to the present day much has been published by others in different journals and separately ; and lectures have been delivered, and meetings held, maintaining that in many cases inebriety is a disease—a form of insanity, or having a close affinity to it, seriously affecting the power of the will through an impulsive desire for intoxicants ; and requiring for individual and social interests, physical, mental, and moral treatment, under more or less personal control, which can only be accomplished by legisla-

tive enactment. An additional interest was given to the subject in 1870 by the formation in the United States, of "The American Association for the Cure of Inebriety," of which Dr. Parrish has been one of the most active and influential members; while in Australia the subject was warmly and effectively agitated by Dr. McCarthy of Melbourne.

At the time when the present feeble act was passed, it was considered by some a great step gained, in having something of a principle recognized in the definition given in it, namely, that "a habitual drunkard means a person, who, not being amenable to any jurisdiction in lunacy, is, notwithstanding, by reason of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or herself or to others; or incapable of managing himself or herself, and his or her affairs."

No doubt the principle so affirmed by law — so far as it went — was a good thing abstractly considered; but of what value was such to be reflected on for the ten years granted by the act, without its being available in actual practice? Consequently, the act being only permissive affords no greater facility for the care and cure of dipsomaniacs than formerly existed.

There is a very general consensus of opinion that in whatever way the wretched condition has originated, been acquired, or produced, the insane impulse for intoxicants is, or in time becomes, the physical manifestation of the abnormal change in the functions of the brain and nervous system. It is easy to perceive that an agent so powerful as alcohol, which by continued overindulgence produces in certain constitutions serious mischief in other organs, such as the liver and kidneys, through contamination of the blood, will act seriously as a toxic poison on the more delicate structures of the brain and nervous system, and especially on individuals of a nervous temperament. Ample proof exists that the malady is in a large proportion of cases distinctly constitutional and hereditary in origin, or apt to result from some injury to the brain or nervous system.

Those various ways in which it has its origin, action and reactions, are not inconsistent with experience and pathology, which, did my limits permit, might be amply illustrated by the analogies and transition states of other affections, such as gout, various forms of insanity, sunstrokes, blows on the head, and the remarkable production of other forms of mental disease—as well as the drink craving proclivity—in the offspring of inebriates. As I have elsewhere said, “whether the disease exists in its ordinary phases and intensity from the voluntary habit of intemperance, in course of time affecting the brain and nervous system, and begetting an advanced degree of moral obliquity, or whether it assumes its worst type from constitutional heredity, the psychological and pathological results are the same. These are impaired volitions, blunted moral feelings, notorious untruthfulness, and loss of self-respect and self-control. The sole desire of existence is to obtain stimulating drink; the highest degree of intelligence is evinced in the means to obtain the end; and to gratify for one moment the insane impulse, the victim of it could stake even his eternal welfare.”

The dipsomaniac is in the condition characteristic of, or analogous to, a large proportion of other insane individuals: “He has lost,” as has been aptly said, “the distinguishing attribute of sanity, the mastery of himself.” He cannot overcome by strength of will the desire for spirituous liquors which burns within him, which excites him to mischievous, sometimes theftuous actions, or sudden fits of violent conduct, or to suicide, or murder. The motives presented by religion and morality, or the ties of nearest or dearest kin have no sway over him; medical advice is still less availing without the power to enforce restraint; the law has no terrors to him; in a word, reason is dethroned, and he is alike regardless of his obligations to God and man.

As I have said in answer to those objecting to legislation in such cases by asking, is not this a free country and has a man not a right to do with his own as he chooses,

taking the consequences of his conduct? No, I reply; the State regards a suicide either as a criminal, or as insane, and the dipsomaniac therefore being more of the latter, having lost the power of reason in governing his will, must be regarded as laboring under a mental malady or as morally insane, and as much requiring treatment under restraint, as any other form of mental alienation. But besides, it is not only himself that the confirmed drunkard injures, but he is the cause of suffering and injury to others; and surely it is not the rightful privilege of any man to waste the means of those naturally dependent on him, perhaps to disgrace as well as ruin his own family and friends, or place them in personal danger, or be the cause of disquietude and annoyance to all around. The liberty of the subject is indeed a precious trust; and that it should be jealously watched over and protected is the ruling glory of the British Constitution; but the welfare of society is still more sacred. The defects of law sufficiently to meet the case of the insane drinker is in reality allowing a license for evil, when precautions are not taken to prevent grievous infringement of the liberties, rights, and privileges of others. It is certainly an overstrained delicacy in legislation which checks interference with a class of cases necessarily occasioning much private misery and public expenditure, as the records of the courts of law, the church, of our prisons, poor-houses, and lunatic asylums amply prove. Justice, humanity, political economy, and expediency all around therefore call for legal interposition, and for facility to control, and if possible to cure, the habitual drunkard, since medical and other advice, or moral suasion are of no avail in influencing his actions; and surely when such is the case it is the manifest duty of a wise government to exercise over all its subjects a paternal relationship.

I must conclude by expressing the hope that ere the decade of the present act terminates, there may be few who hold so strongly to the miserable mistaken and politically unwise view of liberty, as to oppose the desire for increased

facility to protect the habitual drunkard from the injury he or she inflicts on themselves by conduct which they have not the power to control; or if not with that beneficent view, at least for the protection of the sacred interests of others, and of society.

This paper was read before the English Society for the study and cure of inebriety at the January meeting, and is of interest to our readers as coming from a medical man who long ago took a very advanced position on this subject.

Never contradict or attempt to reason with an intoxicated man, tell him clearly and kindly what you wish him to do, then have power to compel obedience. This is an asylum axiom.

Sneers and denunciations of the disease of inebriety, and persecution of the facts are dangerous, for like dynamite, they will explode from pressure, and send their advocates into oblivion.

The defective memory of inebriates, always leaves an impaired power to reason correctly as to the nature and character of acts, or to draw proper conclusions from the experience of the past.

The damage to the central brain regions in inebriety is clearly seen in the perverted sensations, so often manifested in hyperæsthetic and anæsthetic condition of the skin, disorders of taste, and the special senses.

The French journal of *Hygiène* estimates the probabilities of life for moderate drinkers and total abstainers as follows: A moderate drinker at twenty years of age may expect to live about fifteen years; at thirty, twelve years; at forty, ten years; at fifty, eight years. The hope of a total abstainer at twenty years, forty years of life; at thirty, about thirty-six years; at forty, about twenty-eight years; at fifty, twenty-one years; at sixty, fifteen years.

Abstracts and Reviews.

USE OF ALCOHOL.

The well-known author and physician of the asylum at Fort Hamilton, Dr. L. D. Mason, writes as follows on this subject :

As a prophylactic or abortive treatment for delirium tremens, I know no remedy so safe and so potent as alcohol properly administered. I believe that insomania is more readily overcome, and the end desired more promptly attained, than if we attempted to secure the same result by large doses of the bromides, chloral hydrate, or other hypnotics, and the risk that attends the use of these drugs avoided. If we have occasion to use these drugs also, less will be necessary, so that the quantities used may be administered in safer doses. I do not hesitate to assert that, by the too free use of these drugs in cases of delirium tremens, in the effort to overcome the persistent insomania, the convalescence of the patient has been greatly retarded, and life has been put in jeopardy and even sacrificed.

The method, then, of administering alcohol should be regulated by the condition of the patient. On the first appearance of sleeplessness, mental aberration, muscular tremor (and these should be watched for in all cases submitted to our care), a bottle of Bass's ale may be given every two, three, or four hours, lengthening or shortening the interval as the case demands, and then, after sleep is obtained and the patient reacts from his mental irrationality and physical depression, the use of the stimulant be suspended. In chronic alcoholic dementia—a low type of mental alienation occurring in alcoholics—the patient is anæmic, listless, and full of delusions; hears voices, and holds conversation with imaginary persons; appears to have sane moments, but readily relapses into his old delusions; his

appetite is capricious, his sleep irregular, and his physical strength poor; he moves about in a waking nightmare, he walks in a land of dreams and shadows. The judicious use of stimulants in these cases, a glass of ale at each meal and at bed-time, conjoined with tonic treatment, proper diet, and regular exercise, will do much good. The use of bromides and chloral to overcome the insomania will only add to the already profound mental disturbance and still further lower the physical tone. I have already referred to the fact that the too free use of the bromides and chloral and other depressing drugs in the acute forms of alcoholic delirium may plunge the patient into the more protracted forms of mental alienation to which the inebriate is particularly prone. I maintain that if, by the judicious use of alcohol in such quantities and at such times as we may direct, we can arrest the onset of an attack of alcoholic delirium, or abbreviate the duration of the more chronic forms, the result of the treatment certainly warrants its adoption.

MORPHIOMANIA.

Dr. Marandon de Montyel, in a late number of the *L'Encephal*, summarizes the results of his investigations of the production of morphiomania as follows:

1. Morphiomania has its origin either in a demand for intellectual excitation and physical pleasure or in the acquired habit.

2. Injections of morphia have as a result a double action: a benign and a special action upon the nervous system by which its natural function becomes impossible after a certain term without the assistance of the poison. These two effects are separated and distinct from each other; the second is manifested when the first is no longer exhibited. There, are, then, two kinds of morphiomania; the one resulting in temporary good effect, the other a vital necessity; and after a variable period the cases of the first pass over into the second.

3. This double action of morphia upon the nervous system renders it an extremely dangerous medicament, and it therefore should not be prescribed hypodermically except in cases of absolute necessity.

4. It also extremely dangerous to combat morphiomania by the substitution of alcoholics, inasmuch, as chronic alcoholic insanity may result therefrom.

5. Morphiomania may always be treated by abrupt withdrawal of the drug, except in conditions when such methods are contra-indicated by the vital forces of the patient or concomitant pathological phenomena. The method should also be abandoned if reactionary collapse result.

6. In the treatment of morphiomania by gradual suppression of the drug, it appears advantageous to combine with the progressive diminution of the dose the recoil of momentum by fusing two injections into one.

7. The medico-legal questions pertaining to morphiomania are certainly based more upon extra-judicial than upon judicial clinical observation.

8. Observation shows that a morphiomaniac may have great energy of will while the poison has not yet determined any disorder of intellect. There is here a serious proof of what has already been said, that responsibility only ceases with the period of psycho-physical marasmus.

9. Relative to the responsibility of morphiomaniacs who commit crimes or offenses to satisfy their passions, it is, perhaps, necessary to distinguish whether they have yielded to the simple appetite for a pleasant effect or to a physical necessity dependent upon the instinct of self-preservation. A conclusion of irresponsibility in the latter case seems justified.

10. In the exact appreciation of the intellectual troubles caused by the abuse of the hypodermatic injection of morphia, it is important correctly to appreciate the existence of predisposition to insanity, and the delirium produced concurrently by the absorption of other substances, such as alcohol and belladonna. — *Technics.*

NOTES ON ALCOHOLIC PARALYSIS.

Dr. Buzzard, in his Harveian lectures on forms of paralysis dependent upon peripheal neuritis, makes the following reference to alcohol as a causation in these cases. After referring to the literature of the subject, he mentioned a case which came under his observation, of a lady who had used large quantities of spirits and was suffering from loss of power in both extremities. The hands were dropped at the wrist, and the feet were in the same condition, and there was no power of dorsal flexion. There was much mental disturbance, and such a loss of memory that the patient could not give an intelligent account of her past. She could move her arms and raise her knees, but with difficulty. The functions of the bladder and rectum were not interfered with. The feet were projected out of the bed and so sensitive that she could bear nothing on them. She complained of constantly agonizing pains in the legs, and appealed for relief. Under the care of good nurses, a small amount of stimulant, and careful feeding, she recovered.

There was much muscular atrophy of the hands and forearms and of the anterior tibial muscles, with complete reaction of degeneration. She went out a year later restored and drank to great excess, dying soon after.

Dr. Broadbent mentioned a form of alcoholic spinal paralysis, where in several cases he had noticed the following symptoms: Insidious onset, progressive weakness of the extensors on the forearms, with double wrist drop, inability to stand, loss of knee jerk, retention of plantar-reflex. The sensations were unimpaired, except tenderness on pressure, and also occasional lancinating pains. Oedema was present in the lower extremities. The symptoms increased; death followed by asphyxia in consequence of paralysis of the diaphragm and intercostal muscles. Dr. Oettinger, who has lately written a book on this subject published in Paris, thinks the prognosis always grave, and is surprised that English physicians should report cures in cases where pro-

longed abstinence from alcohol had followed. This, Dr. Buzzard thinks, comes from the fact that many such cases pass unobserved and are ascribed to other causes. An observer, whose experience was derived from a certain number of fatal cases, might easily overlook the true origin of comparatively slight cases. On the other hand, one who had associated alcoholic paralysis with cases which uniformly recovered, might frequently fail to find the true cause of rapidly fatal cases. The art which a secret drinker, especially if a female, will conceal her vice is well known. There is an absolute concealment of all traces of alcohol, and a dexterous suggestion on the part of the patient of all the possible causes of the illness, it is not surprising that the medical attendant is sometimes deceived. This must evidently be especially liable to occur in hospital practice, on account of the difficulty of obtaining accurate information as regards the habits of the patient. There is now enough evidence from histological examination to show that in alcoholic paralysis of the kind which I have described the essential lesion consists in parenchymatous neuritis of the peripheral nerves. It is evident, as a result of chronic alcoholism, more or less extensive lesions may be expected to be found in various parts of the body, especially in the liver and intercranial membranes. But there can be little doubt that the degenerative changes in the peripheral nerves are the immediate causes of the paralytic symptoms. In these cases, as has been shown by Lancereaux and others, the spinal cord and the roots of the spinal nerves are found normal. It is in the periphery of the nerve fibres that the changes are discovered; there are cases, indeed, which come in the category of multiple neuritis. The clinical features of this alcoholic form of multiple neuritis may be grouped in this way. In the nature of things, the patients usually exhibit more or less intellectual disturbance. The memory is especially weakened; there is a tendency to incoherent talk; and it may be found on inquiry that the patient suffers from nervous symptoms suggestive of incipient delirium tremens. I have found that

pains and hyperalagia have been, as a rule, extraordinarily pronounced. So, also, the degree of muscular atrophy seems to me to be frequently greater in this than in other forms of multiple neuritis. It is remarkable to see the extent to which in many cases the muscles of the legs and forearms are wasted. The muscular tissue seems to have almost entirely disappeared. This is especially to be seen in the extensor group so that the feet as the patient lies drop helplessly forward. As has been already pointed out when dealing generally with the symptoms of multiple neuritis, the varying degree of muscular atrophy in a limb may easily give rise to contracture of rigid character. You may thus at one stage of the disease find a patient lying in bed with powerless, wasted, and flaccid limbs—the feet and hands, as mentioned, helplessly dropped, and in another stage find the same patient with the tendo-achillis rigid, the foot unable to be brought into dorsal flexion by strong passive movements, the hamstring muscles contracted, whilst the hands, perhaps, share the claw-like character described by Duchenne. Pains and extreme sensitiveness to touch are, as I have said, of extremely frequent occurrence in alcoholic paralysis. It is interesting to note that when recovery takes place, and the second attack occurs later on, the symptoms in this respect may vary in the same individual. A lady, given to great alcoholic excess, lost power in her legs, the feet being “dropped,” and reaction to induced currents absent in the anterior tibial muscles. She complained of dull aching pains. Two years previous she had recovered from an attack of paralysis of similar kind, except that on that occasion the pains had been of excruciating character. The pains and inordinate sensibility of the skin may, I believe, be altogether absent in alcoholic paralysis, as happens likewise in some cases of multiple neuritis of non-alcoholic origin.

The absence of knee phenomenon is so common in these cases that we may almost confidently expect to find this symptom. It will now and then happen, however, that we may find the knee-reflex not only present, but somewhat

exaggerated. I do not see how to explain this as the result of neuritis, and as, I believe, it is only in alcoholic examples that the anomaly is observed, it may be due to interference with the inhibitory influence of the cortex cerebri, caused by the action of alcohol.

A man, age 88, had drunk heavily of beer and whisky since 12 years of age. He walked hurriedly, unably to steady himself while standing still, the legs stiff and widely separated, only touching the ground with the ball of the foot. The calf muscles were contracted, the reflexes in some excess. Induced currents gave no reaction in the muscles below the knees. There was tenderness on pressing the nerve trunks in the hams. The group was weakened under abstinence and use of the constant current, the muscles regained their excitability to Faradism, and the patient recovered. The absence of the knee phenomenon which is so generally observed in all forms of multiple neuritis, coupled with the lightning pains so often experienced by the patient, may be strongly suggestive of tabes dorsalis. This resemblance is sometimes increased by occurrence of a notable amount of ataxy. In the case of my patient, — T. O. — there were sharp pains, sudden, and of momentary duration, like a knife stab in the thigh and knee. His gait was ataxic, and he said the ground did not feel natural to him. His legs seemed to spring under him. His knee phenomenon was absent. At a certain stage of his illness the superficial resemblance to a case of tabes was very striking. A noticeable point of distinction was to be found in the behavior of the muscles to electrical currents.

It is well known that in tabes dorsalis there is essentially no change from the normal condition in this respect. In certain cases, no doubt, the anterior grey matter of the cord may become invaded, and cause muscular wasting with loss of Faradic excitability in limited parts, but this is quite, as it were, an accidental complication, and is not an essential part of the disease.

Now, in my case of multiple neuritis, there was very slight

reaction to strong, induced currents in all the muscles of the lower extremities, and almost total abstinence in the interosscie and the thenar muscles of the right hand. This of itself, to say nothing of other differences, was sufficient to distinguish the case from one of tabes. More than one case of this kind has been published as an example of tabes recovering under treatment. Dèjerinne, in France, has drawn attention to cases in which pains, inco-ordination, absence of knee phenomenon, and anæsthesia have produced a striking resemblance to tabes, in which after death no lesion of the cord was found. He has suggested for these the title of "nero-tabes peripherique." This very important observation requires to be borne in mind ere we conclude of a case marked by the characteristic symptoms described, that is, one of the sclerosis of the posterior columns. Dèjeinne's cases, I can not help thinking, that alcohol was an important etiological factor. Considering that the toxic influence of alcohol must be brought about through the medium of the circulation, it is not surprising that the upper, as well as the lower extremities, should be affected in cases of alcoholic paralysis. Indeed, it might be anticipated that the effect would display themselves equally upon all the voluntary muscles of the body. But this is not the case; it is upon the lower extremities that the brunt of the mischief falls. They usually suffer the most, and may possibly, perhaps, be occasionally alone affected. But I am disposed to think that their immunity is not nearly so great as has been supposed, and that careful observation would show that in cases where the patient only complains of loss of power in his legs, the arms are also, though to a less extent, likewise affected. The patient's attention is apt to be so engrossed by the preponderating disorder in his lower extremities that he takes little or no notice of the weakness in his hands. An observation which I made many years ago, in a case of lead-poisoning, very much struck me. Although the patient only complained of one arm and one leg (which were manifestedly paralyzed), and asserted that there was nothing

wrong with the other extremities, I found in the muscles of the latter a very well-marked decrease of Faradic excitability. I have also many times noticed a similar condition in cases of infantile paralysis. In general terms, it may be said that just as in a case of lead paralysis we expect to find dropped wrists, so in case of alcoholic paralysis we look for dropped feet. I would go farther even, and say if we met with a case of dropped feet — a paraplegic condition affecting with marked preponderance the anterior tibial group of muscles — we should be on the alert to inquire respecting the possibility of alcohol being the cause. Let me not be misunderstood. The existence of this condition is not alone the proof of habits of excess, but it is so extremely constant in cases of alcoholic paralysis that we should be wanting in our duty if we failed to bear this in mind, and direct investigation accordingly. This is, of course, a delicate matter, and on more than one occasion I have observed a look of somewhat indignant surprise on the face of the medical attendant of whom the inquiry has been made. But we have no more right to omit the inquiry than we should have to avoid examining into the possibility of lead-poisoning when a case of dropped wrist came under our observation. It is especially when we find not only the extensors of the feet and those of the hands paralyzed, and also when there are some sensory disturbances as well as motor, that we should do well to bear in mind the possibility of alcohol being at least a factor, where careful observation shows that the lower extremities are alone involved, the upper extremities being quite normal as regard strength, sensibility, and electrical reaction, it will usually, I think, be found that the influence of alcohol may be put out of the question. It is evident that there is but little likelihood of the effects of alcohol being limited to certain extremities. But, as I have said, it is very common for the legs to show the disorder before the arms. And supposing that the abstinence takes place at this point, it is, perhaps, conceivable that the latter might escape. This, I should think, must be extremely uncommon. I am not able to

explain the greater tendencies of the lower extremities to suffer in this affection. It is an interesting circumstance that a similar proclivity for the lower extremities to be most affected. Sometimes (indeed, exclusively so), is shown as I have remarked, in the case of the endemic disorder bërìbèri. But is not only in connection with alcohol and bërìbèri that this preponderance is observed. Several cases have fallen under my observation, marked by characteristic symptoms of peripheral neuritis, which have been entirely confined to the lower extremities, and I should have wished, had time permitted, to bring these under your notice.

In some of them I have not been able to satisfy myself as to the probable originative cause of the affection of peripheral nerves; syphilis, alcohol, lead, and diphtheria being out of the question. They have been characterized by loss of power in the anterior tibial muscles, so that one or both feet are "dropped" with cutaneous hyperæsthesia or anæsthesia, limited usually to more or less of the leg below the knee, and sometimes by œdema.

Such cases constitute a peculiar form of paraplegia, which needs extended investigation.

THE NECESSITY OF HOSPITALS FOR TREATMENT OF INEBRIATES OF THE NAVY.

The following extract from Dr. Horner's paper, lately read before the Naval Medical Society at Washington, D. C., calls attention to a grave abuse in both army and navy, that of punishing men who become diseased in the service, as morally responsible. Dr. Day, in a letter to the author, says: "It is fortunate for this subject of institutional treatment for these victims of inebriety in the army and navy to be agitated. During the thirty years past I have treated a large number of these cases, and they are the best men in the service. A government asylum for the treatment of this class would lessen the insubordination and disgraceful conduct in this service, and would save a large number of these cases

that are now lost. My long experience has convinced me that this is a work of as much need as the care of the insane, and is becoming more and more imperatively demanded every day."

Dr. Horner writes: "It required three-quarters of a century before naval authorities established a hospital for the insane of the public service. The suggestion first made by that great philanthropist, Miss Dix, was successfully carried into effect in 1858 by Dr. Charles H. Nichols. There can be no question from the facts presented that for nearly thirty years the experiment of hospitals for inebriates in nearly every State in the Union has been successfully demonstrated in this country as well as in Europe. The naval surgeon should, in the practice of preventive medicine, be convinced that the disease of inebriety, occurring in the line of duty to officers or seamen, should have the benefit of special treatment in a hospital instituted for this special disease.

"The annual report of the Surgeon-General of the Navy notices a certain number of cases of acute and chronic alcoholism, and of delirium tremens, says one-fifth, rightly included under the head of 'poisons,' as occurring in the various squadrons at home and abroad, at the navy yards and in naval hospitals. Among this number there must be cases discharged uncured. In the North Atlantic squadron, under the head of 'poisons,' which includes acute alcoholism, the ratio per 1,000 of this class in this report is set down as 10. In the European squadron, under the head of "poisons," 17 per 1,000 is the number given; 13 admitted, 12 discharged, and 1 invalided. The report concerning the sanitary condition of the various hospitals also furnishes examples of acute and chronic alcoholism, and ebrietas, 31 cases admitted, 30 discharged, and 1 invalided. Such facts are suggestive that, whatever precautions may be adopted by the medical staff of the navy to eliminate inebriety from the public service, the experiment has failed. The attempt at treatment on board ship, as in civil practice, has also failed, but not so has institutional treatment. Already the navy surgeon has won

an advanced position in the departments of sanitary science and of preventive medicine. Indeed, he is fully qualified to discharge all professional duties as a surgeon and physician according to all the light which medical and surgical science has reflected upon the human mind. Hence the query, will he not be derelict to fail to apply the most enlightened medical and institutional treatment to an inebriate on board ship, as well as in a special hospital, rather than to furnish testimony before a court of inquiry or a court marshal as a witness, thereby insuring the summary disgrace or expulsion from the public service of an efficient officer or valuable seaman? The latter cruel, and, in many instances, unjust method, was practiced in 1859, though it cannot be sanctioned at present. In one case, of which the writer was cognizant, the greatest wrong was inflicted upon a talented and efficient naval officer, whose valuable services saved a sloop of war with her crew from shipwreck. His exposure to a tropical sun, in an open boat, to discover a safe channel for the escape of the vessel, was, of course, the occasion of great mental strain. On returning to the United States subsequently, can there be any surprise that this officer in an evil hour was tempted to acts of intemperance? And yet the decision of the court-marshal convicted him of drunkenness, and sent him into the world a disgraced and ruined man. Finally, the suggestion may be ventured that, at least one of the various naval hospitals now appropriated for the treatment of the sick and wounded might be judiciously set apart for the special care, relief, and cure of the unfortunate victims of inebriety of the American naval service."

ALCOHOLIC HEREDITY.

The *Journal of Heredity* gives the following selection from Dr. Mathews report, as superintendent of the department of heredity for Rhode Island :

"The passion for alcoholic stimulants, if not reproduced in the immediate descendants, may show itself in the successive

generations, and in all cases is the most prominent factor in insanity, epilepsy, idiocy, hypochondria, hysteria, neuralgia, nervous degeneration, and its kindred ailments—often manifesting these maladies in a vicious circle—with the effect of exhibiting insanity in one, epilepsy in another, intemperance in a third, idiocy in a fourth, hypochondria in a fifth, hysteria in a sixth, and so on until the circle is completed, each generation increasing in numbers, and contributing in a direct ratio to the filling of our jails, penitentiaries, inebriate asylums, insane retreats, and poor-houses. That this is not a conjectural statement the following facts will abundantly prove: In a Swedish asylum it was found that 50 per cent. of the patients had been addicted to the use of alcoholic beverages. After the removal of the heavy tax on alcoholic drinks in Norway, the percentage of increase during eleven years was: In mania, 41 per cent.; melancholia, 69 per cent.; dementia, 25 per cent.; and idiocy, 150 per cent. Of the last, 60 per cent. were the children of drunken fathers and mothers. In the insane hospital at Vienna, Austria, probably one of the largest in the world, the superintendent informed me, personally, that from 50 to 60 per cent. of the insanity was due to spirituous liquors. This percentage in a country where it is claimed alcoholic drinks do no harm, is well worth noticing. In our own State insane asylum, of the now present inmates, numbering 364, 75 per cent. can be ascribed to habits of intoxication, either on their part or that of their ancestors. I am also authorized in making the statement that fully two-thirds of those persons requiring aid from city and State are descendants of inebriate parents. In one of our prominent lunatic asylums 637 cases were traced to intemperance as the assignable cause of their insanity. The statistical accounts of the State of New York give the following facts: In the poor-house of Ontario county there were 113 inmates. These, together with their ancestors for three generations, living and dead, represented 90 families, and in these families there were 168 dependents, 26 insane, 12 idiots, 103 inebriates. In Columbia county, 118 inmates, representing 114 families,

had 143 dependents, 12 insane, 32 idiots, 127 inebriates. In Yates county, 32 inmates represented 26 families, of whom 59 had been dependent, 4 insane, 2 idiots, and 31 inebriates. In Kings county, 1,876 inmates represented 1,668 families, 2,039 dependent, 755 insane, 23 idiots, and 973 inebriates. Herkimer county had 77 inmates, representing 67 families, 128 dependents, 21 insane, 12 idiots, and 64 inebriates. The total in the alms-houses of the State was 12,614 inmates, who represented 10,161 families, whose members for three generations, living and dead, had among them 14,901 dependents, 4,968 insane, 844 idiots, and 8,863 inebriates. In round numbers, here are 10,000 families who have produced 15,000 paupers, or 3 paupers for every 2 families—of insane, about 1 for every 2 families; of insane, inebriates, and idiots combined, about 15,000, or 3 to every 2 families.”

The Second Annual Report of the Dalrymple Home at Rickmansworth, near London, gives very pleasing evidence of solid scientific growth.

The superintendent, Dr. Branthwaith, writes as follows: With the exception of the months of June and July the home has been quite full through the twelve months, and it has been a painful necessity to refuse many applicants for admission, the applications having averaged from fifteen to twenty in the month. On January 30, 1885, there were seventeen patients in the home under treatment. Since that time twenty-nine have been admitted, a decrease of three on the previous year, explained by the fact that many of those previously admitted have remained until the present time. Of those, twelve entered under the Habitual Drunkards Act, and seventeen privately. Of patients under the act, four entered for twelve, five for six, and three for three months. Of private patients, six entered for twelve, one for nine, six for six, and four for three months. This year, as before, some have remained much longer than they originally intended, and I am glad to note an increasing tendency to extend the time even longer than twelve months.

Some patients on admission have not been suffering from any acute form of alcoholism, but others have entered in the midst of heavy drinking. In all cases I have cut off intoxicants at once. Two cases entered complicated with functional paralysis (in one general and in a slight degree, and in the other confined to the hand and arm with complete loss of power), two cases of impaired vision, three cases of gout, and three of chronic rheumatism. All other patients entered in fairly good general health. A general review of the year shows complete immunity from any serious acute affection, and no case of delirium tremens.

Four patients admitted during the year were medical practitioners, one barrister, one retired military officer, one retired civil servant, one tutor, seven clerks, one civil engineer, one marine engineer, five merchants, one farmer, and six gentlemen of no occupation. All were heavy spirit drinkers; two were in addition morphia takers, and three others had habitually taken opium or chlorodyne at times. All were smokers.

Twenty-eight patients have been discharged, twenty-four from efflux of time, one for illness, and three as unsuitable for treatment. With these exceptions all derived benefit from their stay, and left much improved in general, mental, and functional condition, and consequently better able to withstand the temptations to which they would be subjected.

Heredity as a predisposing cause is much more clearly marked than in our previous published statistics. Of the twenty-nine cases, twelve have a family history of inebriety, besides others obscure and not to be relied upon. In eight cases the father or mother was inebriate (in four cases combined with inebriety in brothers or uncles) grand-parents in one case, brothers in two cases, and uncles alone in one case. In the remaining sixteen no history of inebriety was obtainable, in two cases there was a history of insanity, and in others of hysteria, neuralgia, and other neurotic affections. Three cases are traceable to severe physical injury. The remaining predisposing and exciting causes I have

classed under the former headings of *nerve-shock* from over-work, and business or domestic disappointment or loss; *influence of occupation* or the inducement to excess afforded by various employments; and sociability or good fellowship.

Adding the figures published last year there has been a total of seventy-eight admissions, and sixty discharges since the opening of the home.

In the after history of those discharged, twenty-one are doing well, and thirteen more are decidedly improved, while ten have been discharged without benefit, and three cases were re-admitted. Occupation and employment for the patients were as follows; general carpentry and cabinet making, photography, electrical engineering. A full set of meteorological instruments have been loaned them and observations are taken daily. Winter and lawn tennis, boating, bathing, fishing, billiards, and music, etc., etc.

The income from patients was 2,321 pounds, and the expenses were somewhat less, and altogether this report shows that the Dalrymple Home is one of the best hospitals for the inebriate on the continent.

CLINICAL THERAPEUTICS.

Lectures on Clinical Medicine and Treatment of Nervous and Other Diseases. By Professor Beaumetz. Translated by Dr. Hurd. G. S. Davis, Publisher, Detroit, Michigan, 1885.

This work of twenty-two lectures, covering 490 pages, has already been translated into five different languages, and has won a place among the authorities of the practice of medicine. One distinctive feature of these lectures is their suggestiveness; and the possibilities which they open up; new lines of thought, new views, and new methods which are very stimulating to the reader. His clinical descriptions of disease are always brilliant, although often dogmatic, and incomplete. The French ring of these lectures are unmistakable, and really charming compared with the dry, solemn

statements of English and American authors. This work will have a peculiar value to all American readers for the comprehensive presentation of the treatment of nerve and brain diseases, also of typhoid and intermittent fevers. He will find here a rare store-house of hints and suggestions which he can continually draw upon. We commend this work as giving the best idea of the therapeutics and practice in France, and enabling the reader to avail himself of all that commends itself to his learning and experience. Both the specialist and general practitioner will find this work of great value.

The translator and publisher have presented a very attractive volume, and the low price of four dollars will give it a very wide circulation.

The Physiological and Pathological Effects of the Use of Tobacco. By H. A. Hare, M.D. *The Fisk fund essay.* P. Bakerton, Son & Co., publishers, Philadelphia, Pa., 1886.

This little work of one hundred pages is written by a scientific man, from a scientific point of view, and may be considered the last and most accurate statement on this subject. The following conclusions indicate the scope and value of the book, and we commend it most heartily:

“Tobacco smoking does not decrease the urine eliminated, but rather increases it. Tobacco does not retard tissue waste. Tobacco and its alkaloid cause convulsions in the primary stage of the poisoning, by depressing the reflex inhibitory centres in the cord. It causes the palsy of the second stage, by paralyzing the motor nerve trunks, or the motor tract of the spinal cord. That the sensory nerves are not affected by the drug. That nicotine contracts the pupil, by stimulating the oculo-motor and paralyzing the sympathetic, this action being peripheal. That nicotine primarily lowers the blood pressure and pulse rate; secondarily, increases pressure and rate; thirdly, decreases pressure. That the primarily lowering of pressure and rate is due to

pneumogastric stimulation, associated with vaso-motor dilatation. That the secondary stage is due to vaso-motor constriction and pneumogastric palsy. That the third stage is due to vaso-motor dilatation returning. That death in poisoning from this drug is due to failure of respiration, the action of the drug being centric. That the blood corpuscles are broken up and enervated by the action of the poison. That in death from nicotine poisoning the blood shows changes in spectra. That death can be brought about by the cutaneous absorption of nicotine. That tobacco increases intestinal peristalsis in moderate amounts, and produces tetanoid intestinal spasms in poisonous doses. That the liver seems to destroy the poison, although this destruction is participated in by any set of capillaries in other parts of the body. That tobacco smoking increases pulse rate and decreases arterial pressure."

Field and Limitation of Operative Surgery of the Human Brain. By John B. Roberts, M.D. P. Blackiston, Son & Co., Philadelphia, Pa., 1885.

The author gathers the very latest conclusions and facts, on the "principles of cerebral surgery," "cerebral localization," and "operative treatment of cerebral lesions," with his own observations, in a thoroughly scientific spirit of fairness and candor. Some of these topics are of exceeding interest to specialists of inebriety. The diagnosis of traumatic subcranial hemorrhage, and of arachnoid hemorrhage, are likely to be confounded with the stupor of intoxication, from alcohol or opium, or to be provoked by a blow on the head while in a state of intoxication.

Inebriates very commonly suffer from cerebral symptoms which have to be differentiated from abscess, congestion, hemorrhage, and other lesions. Traumatisms from injuries followed by epilepsy and dipsomania are amenable to surgical treatment. Dr. Roberts points out some of the possibilities in this direction. This book may be called literally the most original contribution to surgery that has appeared for a long time.

Evolution and Religion. Eight sermons discussing the bearings of the evolutionary philosophy on the doctrines of religion. By Henry Ward Beecher. Fords, Howard & Hulbert, publishers, New York city, 1886.

The student of science will find great satisfaction and pleasure in this little work. The candor of statement and broad philosophy has the tone of true science, and if Mr. Beecher leaves nothing more for the world, this work will carry his name far down into the future as one of the great pioneer thinkers and preachers of the nineteenth century. For scholars and thinkers this book will be warmly welcomed, and we most heartily commend it.

Brain Rest. By J. L. Corning, M.D. G. P. Putnam's Sons, Publishers, New York, 1885.

This is a very pleasantly written little work of one hundred and twenty-five pages, discussing the following topics: Sleep, Blood, and Brain-force, the Hygienics of Sleep, Definition of Insomnia, Exhaustion of Brain Energy, Rest, Muscular Rest, Spinal Rest, the Therapeutical Significance of an Excessive or Inadequate Supply of Blood to the Brain, the Mechanical Regulation of the Cerebral Circulation, Internal Remedies, Baths, and Electricity.

Many very practical hints will be found in this book that can be applied to the treatment of inebriates.

Historical Sketch of the Distribution of Land in England.
By Prof. Wm. Lloyd Birkbeck, Cambridge University.
Price 15 cents, post-free. J. Fitzgerald, publisher, 393 Pearl street, New York.

The question of land distribution is attracting attention all over the world, and in England its discussion threatens to produce, at no distant day, a profound and far-reaching social and political revolution. Hence a treatise on the principles of land distribution is most timely, and must be welcomed by every studious observer of the events of current history.

The Medico-Legal Journal, under the care of Hon. Clark Bell, has attained great prominence in the world of science, and is the best journal published.

The Journal of Nervous and Mental Disease has become a monthly, under the charge of Dr. Sachs of New York city. Its value and usefulness will be greatly enhanced under this new management.

The Homiletic Review, published by Funk & Wagnalls, of 10 and 12 Dey street, New York city, increases in excellence from month to month, and ranks among the best reviews of theological thought in this country.

The Phrenological Journal, by Fowler, Wells & Co., New York, edited by Dr. Drayton, should have a place in every library of thinking men and women. They publish a very unique calendar, which will be sent to any one for ten cents.

The Demorest's Monthly Magazine of New York city, is a very attractive illustrated monthly, with a very distinct temperance ring in the editorial pages. The literary character is good and wholesome, and we most cordially commend it. Send for a copy.

Dr. Shepard's Turkish Bath Sanitarium, on Brooklyn Heights, Brooklyn, New York, is one of the few places we take pleasure in commending at all times to our readers. The value and excellence of the bath, and the possible results, both physically and mentally, to all who avail themselves of it, fully sustain all commendation that can be given.

The Popular Science Monthly for March and April contains the famous Gladstone-Huxley controversy over the scientific nature of the Book of Genesis. Also Mr. Spencer's last paper on Darwin and Evolution. These and other very important papers are of great interest to all thinking men who are watching the front line of progress. No other periodical gives a better view of the march of science and thought in this country.

The Journal of Heredity for January, under the care of Dr. Burnet, is a vigorous and spirited number. To gather the facts of heredity and present them in a popular, scientific form, is a great pioneer work which this journal essays to do. The promises of success increases with each number, and we urge our readers to send for a copy to the office at Chicago, Ill.

Lend a Hand, published in Boston, Mass., is a monthly magazine of practical philanthropy. It is a record of all efforts to suppress crime, pauperism, and disease, and is intended to be the medium for the study of the best remedies of these evils. Its contents and management so far gives promise of a very attractive addition to the literature of preventive medicine.

The Descent of Man. By Charles Darwin. Part Second. Price 15 cents. J. Fitzgerald, 393 Pearl street, New York.

This famous work is now for the first time brought within the reach of all readers. It is to be completed in four parts, 15 cents each, or 60 cents for the entire work. It is well printed from large, clear type, on excellent paper. The lowest price of this work hitherto has been \$3.00.

The following most excellent works are published by the Humboldt Library of Science, at 15 cents each, in paper covers. Address, J. Fitzgerald, 393 Pearl street, New York city. We commend them and only give a few names of the large number now published. Each work is complete. "Ribot;" "Diseases of Memory;" "Diseases of Will;" "Illusions," by Sully; "Mind and Body," by Bain; "Longevity," by Guardner; Huxley's works; Tyndal's works; Rawlinson's works; Clifford's works. These are printed in good type, and are unabridged. No library is complete without these great standard works of science.

Nitroglycerine is said to be a perfect substitute for alcohol in one drop of one per cent. solution, as a cardiac and cerebral stimulant.

Editorial.

THE CLASSIFICATION OF INEBRIETY.

Dr. Wilson has attempted in the *Polyclinic* to group some of the different forms of inebriety under the head of alcoholism. This effort suggests the confusion of opinion regarding the nature of inebriety. The doctor falls into the common error of regarding all forms of disorders in which alcohol is taken to excess, as alcoholism. Practically the man who has led a previously healthy life up to a certain point, then suddenly uses spirits to great excess, is not an alcoholic. Or one who, from a long course of neglect and irregular living, suddenly finds in alcohol a source of relief from all his aches and pains, and uses it freely; or the man who, after years of moderate or occasional use of spirits, begins to take it in great excess. In all these cases, and many others of like character, the use of alcohol is only a symptom, and not a cause. It is always an indication of some state of brain and nerve exhaustion, existing long before alcohol was used. Hence, clinically, the term alcoholism is not correct, but inebriety more nearly describes this diseased state, whose chief symptom is a craving for narcotic drugs. The various forms of inebriety may be designated by the drugs used. Thus we may have alcohol, opium, chloral, chloroform, and ether inebriates. These may all be distinct or run into each other so closely as to appear alike, and various forms of insanity may be associated or follow from each one. The symptomology of these cases are all marked by delusions, hallucinations, deliriums, and various states of exaltations and depressions. A classification from the symptoms would be difficult, because of their variability and dependence on local causes. Often the use of alcohol or opium springs from irritation or disease of some organ, with a chain of symptoms which may vary greatly.

Its first use at the beginning may develop some latent neurosis or state of degeneration with equally complex symptoms.

All classification must be made from the basis of causation. Heredity is one of the most prominent factors in the causation. Heredity not alone from inebriate ancestors, but following from other and allied diseases. Thus, the descendants of insane, consumptive, idiotic, criminal, epileptic, and a vast number of defectives, are born with all the favoring conditions to develop inebriety from the slightest cause, and often without any rational causes that are apparent. Dr. Parrish thinks some form of brain and nerve degeneration is transmitted, and the debility and exhaustion which follows, is relieved most quickly by alcohol or opium, hence these drugs are constantly sought for.

After heredity comes what may be termed physical causes, the most prominent of which are traumatism from injuries and diseases. The inebrieties from these causes are distinct in many respects. Then comes a range of physical causes which are due to varied emotional strains and drains, mental conditions, bad training, and bad mental surroundings, etc. In these cases some state of nerve and brain exhaustion finds in these narcotics a relief. Dipsomania is a real insanity, in which the morbid impulse to drink spirits, or take narcotics, is a delirium which so thoroughly permeates the system, and dominates every other impulse, as to be powerless to resist. The periodical inebriates are members of this family, and their stated recurrence at certain intervals are only lesser grades of dipsomania. The injury from the toxic use of alcohol is always positive, although it may be obscure, and the degeneration from this point is continuous and far-reaching. How far this disorder has grown out of the use of alcohol, or comes from previous disorder or degeneration, cannot be determined. Clinically, inebriety will divide into three groups. The first, where heredity, direct and indirect, are the most prominent causes. Second, traumatism from injury or disease are the chief causes.

Third, where the causes are physical, as mental contagions, emotional strains and shocks, and nerve and brain changes. Dipsomania and the periodical inebriates are to be included in a separate division.

It is clearly impossible at present to make any exact classification from the symptoms. Only some general division of cases based on the causes can be given, and even these must vary with the progress of exact study of the natural history and progress of these cases.

CRIME AND PAUPER WAVES.

Col. DuCane, the English inspector of prisons, has lately given some very interesting statistics on the tide-like movement of crime and pauperism. He found that from 1851 to June 1885, a history of increase of crime and pauperism up to a certain point, then a regular decline. Thus, in 1851 and up to 1853, a steady fall was noticed. Then a rapid increase took place. In 1856 the pauper population had reached its maximum, and the next year the criminal population attained the same point and went back. Both fell steadily until 1860, then turned to rise again. In 1863 both fell back to 1866, when they started up again. In 1869 the criminal tide turned and the pauper wave went back in 1870. Then a remarkable divergence was seen. The pauper tide went down to 1876, when the criminal wave went up to 1877. Then the pauper tide went up and the criminals went back. The paupers went up steadily until 1883 and the criminal population fell. Then both tides seem to come together again. In February 1885, the criminal population reached the lowest level known for many years.

The regular rise and fall every three years has changed, and the fall has continued going lower than before.

These facts point to a range of causes that are unknown, and indicate that criminals and paupers, like inebriates, are not chance products of civilization, but are thrown up in tide-like waves, by forces that are both mysterious and potent.

THE FUTURE FIELD OF MEDICINE.

If it was known that a single disease caused a weekly mortality of over one thousand persons in this country, the greatest scientific interest would prevail, to determine its cause and remedy. The complaint of the overcrowded ranks of the medical profession would die away, and each new physician would find ample room for all the labor and skill he could give to the world. To-day more than one thousand are dying from inebriety; dying of a disease that is positive and unmistakable, as it is curable, and yet no interest is excited except among moralists and reformers, who consider it a sin. The possessed of the devil, in the past ages, were passed by the physicians as only fit subjects for clergymen and priests. Now an army of specialists and every general practitioner finds in these neurotics the most fascinating field for medical practice.

Instead of punishment, persecution, and death, these poor victims are cured and restored to health and society. The inebriate is passing through the same stages of history. In the near future he will be recognized as diseased, and the crowded medical profession will find a new field at their doors, now unsuspected. The despairing physician who feels himself crowded by others in the profession, has only to turn his efforts to this ever increasing army of inebriates, who are suffering and dying all about him, unknown and uncared for, and the horizon of practical labor will expand into immense dimensions. To determine the cause of inebriety and the means of cure and prevention, is to enter upon the new and most important field of the practice of medicine for the future.

INEBRIETY IN FRANCE.

It is evident from a great variety of evidence, that inebriety is rapidly increasing in France. Wine was formerly the only drink used. Now large quantities of brandy from beet roots and potatoes are made and consumed. German

beers have come into the market, and vermouth and absinthe are used in large quantities. The cheap pure wines are disappearing, and these stronger and more irritant drinks, with the manufactured wines and other compounds, take their place. This is thought to be owing to the destruction of the grape vine, and the changing habits and customs of the people. In Paris and other cities more intoxication is apparent every year. This is traceable to these new and stronger drinks. The late Dr. Lunier thought that as long as the pure cheap wines were used very little danger would follow, but the advent of the complex alcohols, as found in brandy and absinthe, excited his gravest apprehensions for the future. The French temperance society made this point very prominent, and total abstinence was confined to these complex alcohols, and did not include pure wines. Insanity and complex nervous diseases are increasing from this cause. This subject is beginning to attract attention. The bureau of statistics have called for the number of persons who are known to be intoxicated in each province and the kind of spirits they use. From this report some facts will appear that will show how far this change of the drink customs of the nations has gone on. If the temperance agitators of this country would make a census of the inebriates in every section, it would be an argument that would enlist interest and sympathy at once.

HOMES FOR INEBRIATES ASSOCIATION.

This association is an English organization for the purpose of stimulating public sentiment in the building and support of asylums for the care and cure of inebriates. They have been very active in building the Dalrymple Home, and are now urging the benevolent to help them in securing a hospital for indigent inebriate women, and also one for men who are homeless and unable to pay. In the report of the year's work before us occurs the following reference to the statistics of the Dalrymple Home :

Of the sixty who have been discharged since the opening

of the Home, leaving out of reckoning one who has become insane, three who have died, and twelve who have not been heard from, nearly one-half have done well. Over thirty per cent. additional have been improved; so that between seventy-five and eighty per cent. have received decided benefit. Of the twenty-nine admitted during the year, the committee are glad to record that ten entered for the term of twelve months, the shortest period of residence which can be unreservedly recommended.

INEBRIATES PASSING COUNTERFEIT MONEY.

The general rulings of judges, that inebriety is no excuse for crime, results in great wrong and hardship, and the object of punishment to reform the offender and deter others from committing crime practically fails. In the wide ranges of cases of inebriates, who having violated the laws, constantly coming before the courts, the application of this legal theory must vary widely, as the intelligence and mental capacity of judges differ. The rulings of the lower courts exhibit more intelligence and freedom in the recognition of the special conditions of each case, while all the higher courts of last resort, adhere tenaciously to the old theory of responsibility in most cases, and sustain their rulings by citation of long lists of cases, where similar views were held.

The injustice and confusion seen in the reports of cases where inebriety comes in question indicates clearly a transition stage, which happily is passing away. The insanity of inebriety and its total and limited irresponsibility is forcing a recognition, in courts, as justice to the victim, and as opening a door of escape now closed against him.

The following cases are interesting, and suggestive of a change. Pigman was convicted of passing counterfeit bills, in Ohio. The case was carried to the Supreme Court on the plea that the prisoner was an inebriate and intoxicated at the time of the act, and did not know or realize his crime. The judge ruled on this as follows: "Drunkenness is no excuse

for crime; yet in that class of crimes and offenses which depend upon guilty knowledge, or the coolness and deliberation with which they shall have been perpetuated to constitute their commission, or fix the degree of guilt, it should be submitted to the consideration of the jury. If this act is of that nature that the law requires it, should be done with guilty knowledge, or the degree of guilt depends upon the calm and deliberate state of the mind at the time of the commission of the act, it is proper to show any state or condition of the person that is adverse to the proper exercise of the mind and the undisturbed possession of the faculties. The older writers regarded drunkenness as an aggravation of the offense and excluded it for any purpose. It is a high crime against one's self and offensive to society and good morals; yet every man knows that acts may be committed in a fit of intoxication that would be abhorred in sober moments. And it seems strange that any one should ever have imagined that a person who committed an act from the effect of drink, which he would not have done if sober, is worse than the man who commits it from sober and deliberate intent.

The law regards an act done in sudden heat, in a moment of frenzy, when passion has dethroned his reason, as less criminal than the same act, when performed in the cool and undisturbed possession of all the faculties. There is nothing the law so much abhors as the cool, deliberate, and settled purpose to do mischief. That is the quality of a demon, while that which is done on great excitement, as when the mind is broken up by poison or intoxication, although, to be punished, may, to some extent, be softened and set down to the infirmities of human nature. Hence, — not regarding it as an aggravation — drunkenness, as anything else showing the state of mind or degree of knowledge should go to the jury. Upon this principle in modern cases, it has been permitted to be shown, that the accused was drunk when he perpetrated the crime of killing, to rebut the idea that it was done in a cool and deliberate state of the mind, necessary to constitute murder in the first degree. The principle is un-

doubtedly right, so on a charge of passing counterfeit money ; if the person was so drunk that he actually did not know that he passed a bill that was counterfeit, he is not guilty. It often times requires much skill to detect a counterfeit. The crime of passing counterfeit money consists of knowingly passing it. To rebut that knowledge or to enable the jury to judge rightly of the matter, it is competent for the person charged to show that he was drunk at the time he passed the bill. It is a circumstance, among others, entitled to its just weight."

The judgment of the lower courts was reversed and new trial granted. This was in January, 1846. In 1885, in the United States court at Boston, Morrison was tried for passing a counterfeit fifty-cent coin on a saloon keeper for spirits while intoxicated. On the defense it appeared that the prisoner was of good character, at intervals he had used spirits to excess, but he had never possessed or attempted to pass spurious coin before. The act was a mere freak while intoxicated with others, and the coin was given him for this purpose as a joke. Yet in view of these facts, he was convicted and the judge thought he was showing great justice, by imposing a short sentence. Crimes committed by inebriates can never be adjusted on any basis of equity, unless the nature and character of the crime, and all the circumstances entering into it, are studied, from a scientific point, and not from some legal dictum of the past.

DELIRIUM IN PNEUMONIA FROM INEBRIETY.

Several observers have noted the greater frequency of delirium in pneumonia occurring in cases of inebriates. This is very likely the result of meningitis, due to various causes. The pneumonia of inebriates is very largely due to the profound exhaustion, and fatty degeneration of the system, which furnishes favorable soil for acute inflammation from the slightest exciting causes. Such inflammation is rapidly suppurative ; and this puriform, broken-down mate-

rial, passing into the arterial current, would be carried to the *pia*, and set up purulent inflammation. Or it may be caused by emboli, which are so common in chronic inebriety. I think it will be found that delirium will appear more frequently in the acute inflammations of any organ in persons who are inebriates. The form of delirium will be characteristic, depending on the exhaustion and feebleness of the patient. In two cases under my observation, a low delirium of fear and alarm of personal injury was present. Hallucinations of sight and hearing were also present in another case. Are these deliriums peculiar in such cases, and do they indicate the alcoholic origin? Are deliriums associated with pneumonia following inebriety more often than in pneumonia seen in other cases? These and many other questions must be answered from future study. ●

INEBRIETY AND TUBERCULOSIS.

The very intimate relation between these diseases receives additional evidence in a paper by Dr. Crook, lately published in the *Medical Record*, entitled "A Contribution to the Natural History of Consumption," based on an analysis of fifty-nine cases. Of fifty-five of these cases whose habits were studied, thirty-nine were found to have used alcohol more or less to excess, nine of this number had evidently drunk to great excess, and twenty-six claimed to be only moderate and occasional users of spirits, and four were evidently periodical drinkers. In reality, they were all inebriates, only in different stages of the disease, while the consumption was merely another form of the same degenerative disease, which followed the inebriety. The name consumption is used in its broadest sense to express the various lung diseases whose prominent symptoms are wasting, degeneration, exhaustion, and death. The frequency with which these diseases appear among inebriates have sustained the conclusion that they were of the same family group, and interchangeable one with another. Clinically, this is appar-

ent in cases like the following: Moderate or excessive drinkers will suddenly abstain from all use of spirits, and soon after develop tuberculosis, which may run a course of years before death. In some cases the inebriate impulse will gradually die out, and the lung disease come on in a marked obscure form, and only be recognized by some severe hemorrhage. When organic disease begins in the lungs, the drink impulse subsides. In some cases where chronic inebriates have signed the pledge, or for some insignificant cause ceased to drink, and suddenly changed the manner and habits of life, incipient tuberculosis have been diagnosed. In all these cases of sudden conversion and cure of inebriety, a very careful examination of the lungs will often reveal the real cause. Pneumonia seems to be a common favoring cause; thus in cases of inebriety where pneumonia comes on, and the person recovers, still using spirits as before, tuberculosis frequently follows, and in the four cases I have noted, terminated rapidly in death. The pneumonic lesions are the starting points for the graver diseases of the lungs.

Some cases have been noted where the inebriety has suddenly terminated, and dullness at the apex of the lungs, with other characteristic signs, appeared, which remained in abeyance without change for some time, then burst out, ending fatally in a few weeks. Some of the cases of acute tuberculosis (or galloping consumption, so called) are noted in reformed inebriates who have had premonitory symptoms for a long time unobserved. Other cases are observed where previously temperate persons have had pneumonia, pleurisy, or severe bronchitis, and been treated with larger quantities of alcohol, developing inebriety that is generally of short duration, ending either in organic disease of the lungs, or fatal, acute inflammation of some organ. The facts as yet are only in outline; the exact relationship between these diseases must be determined from clinical records at present wanting. So far, all observers have noted the facts we have presented, and also the frequency with

which lung diseases are seen in children of inebriates. It has been also observed in consumptive families, that inebriety seemed to take the place of consumptive diathesis. Thus some members would develop consumption, and others would become inebriates. In one instance, two daughters of consumptive ancestry reared large families, then died of this disease, while their children were both inebriates and consumptives. Often these consumptive families will be marked by inebriates in the male members, and consumption in the females. The use of alcohol as a prophylactic, simply develops the disease into other channels, both increasing and intensifying the ultimate degeneration. The case with a consumptive heredity who uses spirits to prevent its development may not die of this disease, but he will certainly develop organic disease of other parts of the body that are incurable.

In most cases the use of alcohol stops suddenly, and acute tuberculosis follows. The use of spirits after tuberculosis has developed in some instances seems to retard the acute symptoms of the disease, but it will be found in most cases to have only masked the organic degenerations, which may have turned in some other direction with equal intensity and fatality.

An assault and even crime committed by an inebriate should always be considered a symptom of diseased brain, and one that is incapable of judging of the nature and character of his acts. Such symptoms are as significant as larceny is a symptom of general paralysis.

In 1885 there were 3,430 arrests for crime of all grades in the city of Hartford, Conn. Of this number 2,121 were arrested for drunkenness. If these cases were recognized as diseased and treated by means suggested by science, from 40 to 50 per cent. would be cured; but treated by the present legal means, no one recovers, and all are made worse: precipitated into incurable conditions from which recovery is almost impossible.

Clinical Notes and Comments.

NEW HYPNOTICS.

Prof. Beaumetz of Paris, in a clinical lecture on the above subject, says: Means for alleviating pains may be divided into four groups. Hypnotics which produce sleep. Analgesics addressed principally to the element of pain. Anæsthetics which extinguish sensibility in whole or in part. Sedatives, or antispasmodics, medicaments which diminish the excitation of the nervous system.

Medicines which slow up the cerebral circulation are more clearly hypnotics. Opium and morphine are not true hypnotics, but are stimulants and analgesics. They tend to congest the encephalon, and stimulate the circulation. The continuous use provokes cerebral hyperæmia, and this is followed by a state of sooper resembling natural sleep. Chloral and paraldehyde are prominent hypnotics. Chloral acts by causing anæmia of the cerebro spinal axis. It acts directly, and not as supposed, by being decomposed into chloroform and formic acid. In alcoholic delirium and rebellious insomnia chloral is the hypnotic to use.

Paraldehyde is a dehydrogenated alcohol. It acts like chloral by causing anæmia of the cerebro-spinal axis, bringing on sleep, which in some cases is preceded by a short period of agitation and excitation. In experiments it was shown that a special antagonism existed between strychnine and paraldehyde; also that between alcohol and strychnine the same antagonism was present. Chloroform, either chloral and alcohol, act directly unchanged on the nerve cell. In all my experiments I have shown the presence of undecomposed alcohol in the cerebral substance.

I have also found that when a nervous element is impregnated by a medicament it refuses within a certain limit to receive the impression of another medicament, and this

explains the antagonism which exists between different substances. Going further to explain the tolerance and intolerance of certain medicinal substances, it is found that medicines which have an elective action on the nervous system, ought to act on the nervous elements in a healthy state. Whenever there shall be a cellular impregnation by another medicament, or a molecular modification, there you may expect great tolerance of certain drugs. Thus in delirium tremens, large doses of opium and strychnine may be given without bad results.

The author urges paraldehyde in all cases of inebriety from alcohol or opium, and in insomnia and convulsive neuroses as a hypnotic of rare excellence.

ASYLUMS AND SANITARIANS.

Some of the places which are advertised in our pages deserve a passing comment. The Inebriates Home at Fort Hamilton, New York, and the Washingtonian Home of Boston, Mass., have long ago passed the period of youth into a vigorous manhood, and are the great pioneer asylums of the world. Walnut Lodge of Hartford, Conn., has become known as a scientific and literary center for the study of inebriety. Dr. Mattison of Brooklyn, New York, has been before the public as a specialist in the treatment of opium cases, and his success in the care of these cases at his home has given him a wide reputation and large patronage. *Dr. Brown of Barre, Mass.*, has one of the oldest and best institutions for feeble-minded children in the country. The *Battle Creek Sanitarian*, under the care of Dr. Kellogg, is one of those palace homes for inebriates of all descriptions, where every appliance of science is used with care and skill. The *Homewood Retreat at Guelph, Canada*, is the largest and best asylum for inebriates and feeble-minded persons in the provinces. The *Green Spring Sanitarian, at Green Spring, Ohio*, combines a valuable mineral spring with all the aids of science in the treatment of inebriates and others. The Mil-

waukee Sanitarian is finely situated, and receives a large number of cases of these "border liners."

Dr. Bradner's Kirkbride Villa at Burlington, N. J., is an attractive place for the exact treatment of mental diseases and inebriety, and is largely patronized. Lastly, Dr. Parrish, so well known to all our readers, has opened his elegant house for a few cases at Burlington, New Jersey. These are only a few of the ever-increasing number of homes and asylums for the cure of inebriates and others.

COCAINE IN INEBRIETY.

Dr. Brower, in the journal of the American Medical Association, writes of the effects of cocaine on the central nervous system :

"Cocaine in small and moderate doses is a cerebral stimulant, but produces derangement of the digestive and assimilative functions, and diminishes the elimination of waste.

"The use of cocaine in the alcoholic and opium inebriates is not satisfactory ; while it is a more or less perfect substitute, yet its use is attended with greater danger than alcohol and opium.

"The use of cocaine in mental depression will often give better results than any drug hitherto used. It is also valuable in neurasthenia. If it is administered in large doses persistently, very marked deterioration of the central nervous system follows, producing profound cerebral neurasthenia, and malnutrition, often ending in insanity.

"Cocaine occasionally, in doses heretofore regarded as small, produces alarming depression of the central nervous system."

Dr. Beaumetz, in a recent lecture on the new hypnotic called hypnone, concludes as follows :

I. Hypnone is a mixed acetone of the aromatic series, obtained by submitting to distillation a mixture of benzoate and acetate of calcium.

counted for. Other writers have confounded the symptoms of dipsomania with its causes. Dyspepsia, so often regarded as a cause of the drinking impulse, is only a consequence of the malady, though it afterward aids in giving rise to the drinking seizure. The same is true of certain curious conditions to which writers have too readily applied the term hysterical, and which constitute in reality the habitual condition of the physiological life of the dipsomaniac. So also with the periods of melancholy. Far from being the causes, they are the first manifestations of the disease. To menstruation and the menopause have also been attributed a large importance in the causes of dipsomania. Their influence is slight, however, and only at the time of the access, the return of which is sometimes hastened. But, even if menstruation has a certain action upon the periodicity of the access, it would be a gross exaggeration to say that it had anything to do with the cause of the trouble.

Marie D——, 45, had been in bad spirits for four years since her husband's death. For eighteen months, she had been seized at intervals with a violent desire to drink. Then followed a period of deeper sadness and discouragement, which immediately preceded her first seizure. She complains at the time of attack of a constriction of the stomach and the throat. As the impulse increases, she reproaches herself and tries desperately to surmount her desire to drink. Incapable, however, of a prolonged resistance, she obtains a supply of liquor and locks herself up for the sole purpose of secret and unrestricted drinking. The melancholy continues to increase and symptoms of alcoholic poisoning appear. Hallucinations take the place of sleep; she sees skulls with flaming eyes and hideous faces grinning at her; objects assume all colors by turns, and dance around her bedside. Her skin is troubled with sensations which she ascribes to vermin. The symptoms disappear in a few days, and the patient remains sober, perhaps for three months, without even a desire to drink. The odor of liquor then becomes so disagreeable as to be almost nauseating.

The patient denies that she has a liking for drink. She says that she proceeds wholly against her will. "This is not," she said to us, "a passion with me; it is in spite of myself that I drink." During the attack she becomes irritable and has rushes of blood to the head. In each succeeding seizure the impulse to drink is more imperative, and the resistance less powerful. Of this particular case I am unable to speak with certainty concerning hereditary predisposition. Of eight cases now with us, however, two receive the impulse from both parents, and five from either the father or the mother.

The term monomania, introduced into science to explain "a kind of mental alienation characterized by a partial obscuration of the intelligence, of the affections, or of the will," is daily losing its force. In a general way I reject monomania absolutely, without denying that certain impulses may be the most striking features in certain forms of insanity. But they can have only a symptomatic value. Monomania is but a mental condition in the midst of which a particular tendency manifests itself. It is not the essential disease, though it sometimes so dominates and absorbs the patient's mind as to give his trouble a special appearance. Enough will be shown to prove that, if the necessity of drinking is, in the dipsomaniac, the most striking act, it does not constitute the disease. It is an episodic syndrome of a more profound mental state which is governed by heredity. One of my patients had suicidal melancholia, followed in turn by religious mania, nymphomania, and homicidal impulses. Observers should be able to understand from such a case that all these manifestations, far from being monomanias, are different presentments of a single pathological state.

Dipsomania is essentially intermittent in character. The alcoholic delirium which becomes associated with its seizures after they have become very frequent, is a complication, not a symptom. The attacks of dipsomania leave behind them a cerebral restlessness, which lessens by degrees when the patients, regretting their excess, return to a habit of sobriety.

The attack is always preceded by similar prodromas. Some of the important symptoms are noted in the following case:

Louise B., 23, daughter of a drunkard whose father was a suicide; mother intelligent; patient's brother died of hydrocephalus. At 20, Louise had periods of melancholy, nervous twitchings of the stomach, and a feeling of weight in the hypogastrium. The phenomena increased at the catamenial period. She had already remarked that a little wine allayed the uneasy feelings in the stomach. She married and became pregnant. She then became more melancholy and lost much of her interest in life. She felt a disgust for solid food, and began to have an incessant thirst which would not be allayed, together with extreme heat and dryness of the throat. She began by using peppermint water, but soon commenced to take wine freely, and finally decided upon small quantities of spirits. The relief she experienced caused increased drinking, and within a short time she became on one occasion completely intoxicated. Then she remained absolutely sober for fifteen days. Melancholy soon seized her again, and, after a short struggle, she found that she must soon give way. Fearing the reproaches of her friends, she left home with her portable property, which she soon disposed of at insignificant prices. Then she bought a bottle of brandy and, taking a room at a hotel, drank until she rolled to the floor unconscious. Her husband found her and took her home, but his protestations were useless; she continued her habit at intervals until her child was born, an event which, strangely enough, took place at term and without accident. She now carried her excesses still further, and added absinthe to her list of excitants. Then this woman, so chaste and reserved in her intervals of sobriety, lost her modesty with a very remarkable facility, not only when under the influence of liquor, but when simply dominated by a desire to drink. For a drink she would give herself to the first comer. The saloons of the lowest order served her on these occasions as a place of refuge, and it was in the midst of the most degraded people and in the company of the lowest prostitutes that she

gave herself up to the most shameful forms of debauchery. Sometimes she was obliged to leave a considerable portion of her garments to pay the cost of her potations.

The agents of police had found her, more than once, lying in the street in a state of almost complete nudity. The crisis past, the lady regains her self-possession, becomes profoundly grieved and makes resolutions which beyond question are sincere. She was then docile and ready to assist her friends in any effort they made for her. They placed her in a commercial house, hoping that regularity of life and constant surveillance would benefit her. She did well for a time, but a single glass of wine broke through all of her precautions, and in twenty-four hours she was in the gutter. She was now sent to the house of a relative—a physician—where she improved for a short time. Soon afterward her husband, on entering his house, found her lying fully intoxicated and almost nude upon the floor of her home. On one occasion she remained four days from her friends, without food, but almost wholly intoxicated with absinthe. She sometimes went into the streets at night, and wandered about while waiting for the opening of a liquor saloon. At another time her husband found her at the prefecture of police—she had been found drunk and nearly naked, lying in the street. Once, when apparently free from her appetite, she went to walk, taking her little child with her, in the belief that she would thus have the firmness to resist any temptation. She thought it no harm to take a glass of wine on the way, as she felt some bodily distress. Her distress was in reality a seizure. She confided her child to a drunkard—a stranger whom she encountered—and did not return until the next morning when she was accompanied by a workman whose services she had requested. Some days afterward she was sent to friends who agreed to watch her; but she soon escaped and wandered to a distant part of the city, where she was arrested and fined for drunkenness, twice in two days. To-day, the effects of these excesses remain profound and durable. Louise has lately drunk

habitually until she has fallen unconscious into a condition of complete prostration ; she often remains in a state of hebetude for five or six days. Since she has been brought to the Saint Anne Asylum, she has been calm and reasonable. She fully understands her terrible situation, and has often, she says, made up her mind to destroy herself. But she drinks alcohol to give her the necessary courage, and takes so much of it that she soon loses recollection of her intended suicide, and gives herself up to debauchery.

Although in dipsomaniacs the impulse to drink is preceded by the same prodromes, persons of education soon perceive their malady, and, for a long while, show much ability in concealing their habit. The struggles these people often make against their impulses indicate in the clearest manner how widely they differ from ordinary drunkards. The latter seek occasions to drink. The dipsomaniac avoids them, reproaches himself deeply for his impulses, and often seeks by a thousand means to destroy his desire for liquor. He even soils his drinks in the most disgusting ways, in the effort to sicken himself with his destroyer. The ordinary drinker does not do this.

Madame N. was a woman of a serious character, regular, and of irreproachable habits. She became suddenly seized with a drinking impulse, which became irresistible. She put in her wine substances calculated to inspire disgust — even excrement — yet she still craved for more liquor, and finding such to be the case would curse herself terribly.

“Drink, then, drink, miserable drunkard !” she would exclaim. “Go forth, dishonor yourself and your family.” And she would do so, though often sober at the time.

When the dipsomaniac ends by succumbing, he does not behave like the ordinary drunkard. In the early stages of the disease, he drinks furtively, and generally conceals himself. The professional drinker is noisy, seeks companionship, and in most cases disputes, or relates his own exploits. The one is insane before he drinks, the other becomes so because he drinks.

Marie T., 51, maternal grandfather a suicide ; mother at forty was affected with melancholia. Patient was a "Child of the Regiment" (*Cantiniere*), and sometimes drank a little *eau de vie*, not because she cared for it, but, as she said, "it belonged to the business." The curious point in this case is that though it was in reality a latent dipsomania, the disease did not then seize her, and when she left the business the habit of drinking ceased. At thirty-four, however, she complained of cramps in her right hand so severe as to compel her to learn to work with her left. Then the sensibility of the member slowly left it. Two years later, without apparent cause, she had an attack of melancholy. She tried to dissipate it by using a moderate quantity of brandy, but only succeeded in losing her sleep. This attack was not yet, properly speaking, a well-characterized seizure of dipsomania, but some time afterward the woman fell into another condition of melancholy, and suffered acutely for two days. Then followed stomachical spasms, and at the same time a desire to drink strong liquor which soon became irresistible. She left her locality to escape observation and began the "run of the cabarets." These attacks were continued and brought about, she thought, by horrible burning sensations in the stomach, and a feeling of obstruction in the throat. Alcoholic accidents brought her at last to the Pitie Hospital, where, however, despite her abstinence, the mental disease which brought about the dipsomania steadily continued its course. Ideas of suicide pursued her steadily. She succeeded on one occasion in precipitating herself from a staircase. Finding that she was not seriously injured, she crawled higher up, and was about to jump when she was restrained. "A voice," she said, had commanded her to do this. On the following night she attempted to strangle herself with her clothing. Her hallucinations became terrifying. For eighteen months this condition was not modified.

As showing how dipsomania may exist without any alcoholic excess for months previous, the fact may be cited that she was once seized in the middle of the night with an

attack of the disease accompanied by frightful hallucinations. When the attack was over there was left but one hallucination, a voice was continually saying to her, "It is vain to resist; you will end by killing yourself." This patient has developed a remarkable peculiarity; when she walks with another patient, she is always careful to place her at her right side, for it is impossible for her to feel the presence of any one at the left. All objects that she looks at with the left eye seem to her to oscillate. Her arteries are athermotic; all of her organs of sensibility on the left side are weakened.

As to the liquors chosen by dipsomaniacs, all are good enough if they contain alcohol. One patient, however, the Count de R., who is well known in the medical world, has a preference for ether and sugar. His mother — also a dipsomaniac — has the same habit, and sometimes bathes herself in ether. Both of them, however, will seize any intoxicating liquor which comes to hand when the fit is on. A marked difference between the dipsomaniac and the drunkard is, that between their potations the latter has no special dislike to a favorite drink, while the dipsomaniac feels for it an almost insurmountable repugnance. Our first-mentioned case cannot, when sober, support the odor of her customary drink; of the two other patients, one drinks water habitually, and the other will go for days without taking any liquor whatever.

The state of exhaustion and self-humiliation in which the dipsomaniac finds himself after he has recovered from his seizure, should not be confounded with the phase of melancholy which precedes the attack. The prostration is a consequence of mental and physical fatigue, and especially of the repentance and despair which followed his act. His discouragement often leads to suicide, and his contemplation of such an end is almost always persistent. Sometimes he becomes very dangerous, from the fact that the suicidal impulse is often complicated with the homicidal mania.

Louis H., 35, father drunkard, attempted suicide; mother hysterical. Patient has always had a predisposition to mel-

ancholy, and his sadness is increased by the belief that he is a natural child. He knows "how it will all end," for his mind has for several years been haunted with ideas of suicide. In Lyons he threw himself into the river through fear of entering the barracks after one of his attacks. Later, after the rupture of a long-contemplated marriage, he had a period of melancholy, during which he drank for four or five consecutive days. He then hung himself above the door of the lady to whom he had been engaged, but was rescued. Four years later, from a motive *which he does not even remember*, he attempted suicide after one of his seizures. Later, he was stopped as he was about to leap from the Austerlitz bridge. The following year, during another seizure, he attempted to open his veins in a bath-tub, but was surprised in the act by the attendant, who had been struck with his wild appearance. He tried to poison himself, but his stomach rejected his mixtures; he afterwards made a further attempt at suicide, which was equally abortive. Every three or four months he appears progressively melancholy, and the seizures are much more marked. He loses appetite, complains of pain and constriction in the stomach; his head feels as though bursting; his sight is troubled — he feels as if trying to see clearly in a fog — and then comes the irresistible thirst for liquor. After drinking for three days he resumes work, and his ordinary appetite returns. Apart from his attacks of alcoholic delirium this patient has some of the ideas of persecution. He often believes himself followed by men in the street who menace him with knives. Sometimes he hears at his left ear threats and insults of all sorts, simultaneously at his right ear he hears agreeable things. For three years he has been troubled with an interior voice which urges him to strike at the life of some one. He fears that he may one day give way to this impulse as he has to the others. The sight of a knife causes in him a painful impression; he never touches one when he can avoid it.

The attacks of dipsomania last from two to fifteen days. At the commencement of the disease they occur generally

but once or twice in a year, and grow in frequency until they become separated by an interval of a few days only. Writers have altogether too strongly insisted upon the resistance of the constitution of dipsomaniacs to the effects of alcohol. When the quantity taken is sufficient these unfortunates will, sooner or later, be subject to the toxic delirium of the ordinary drinker in addition to their own special symptoms. At first, drunkenness, which alone accompanies the seizures, leaves no trace, but as these cases come so nearly together as to act continuously, toxic symptoms will develop. Sometimes a true dipsomaniac comes to the asylum suffering from common alcoholic delirium, and it is only after the acute symptoms have disappeared that we find the profound indications of the principal malady. The co-existence in the same patient of several species of delirium is a demonstrated fact.

Hortense B., 53, whose father was a suicide, remained temperate until forty. She married at twenty, and was a widow eight months afterwards. From twenty-one to twenty-seven she suffered from irregular attacks of gastralgia, followed by vomiting. At thirty-one, remarried; became greatly troubled through business losses. Drank occasionally, but was rarely intoxicated. It was much later when the gradual development of dipsomania attracted her attention. The symptoms were pain in the head and stomach, pressure upon the back and epigastrium, repugnance to food, and insomnia. She was restless, sad, and discouraged; was filled with strange fancies. Everything wearied her; trifles exasperated her; a hallucination, which seemed to her "an image of death," pursued her without ceasing. So great were her other troubles that she hailed this last appearance as an object which would soon bring deliverance. It was in this condition that she felt her first irresistible impulse to drink. She soon went from wine to brandy without being able to quench her thirst, and in a few days had an attack of alcoholic delirium — apart from the dipsomania affection — and while suffering from hallucinations of sight and hearing, she believed she saw the dread shadows of the Commune

and heard the musketry. She thought all who met her in the street reviled her. Life became insupportable, and she had been taken to the asylum in toxic delirium after a determined attempt upon it. Discharged in three months, she quietly and soberly resumed her work, and remained in good health for fifteen months. Then an attack like the first one led her to drink for several days and sent her again to the asylum. After her discharge came a further period of perfect sobriety for eight months, followed by a further attack, which ended in deeper mania and more terrible hallucinations. She believed herself about to be cut into pieces, thought she was to be arraigned for assassination, and even falsely complained to the police that a person in her house had killed a child. She was again taken to the asylum and again discharged, and continued in this way for four years with perfectly sober intervals, lasting six, eight, and fifteen months, when she was troubled with neither melancholy nor unnatural thirst. The fourth time she was admitted she had attempted suicide, and on the fifth was suffering terrible anguish from hallucinations in which she believed that dead persons whom she had known when living were talking with her. She thought her mother was not only reproaching her but beckoning her to follow her shade to the regions beyond.

There are some dipsomaniacs who, outside of their periods of impulse, behave at times like common drunkards, and live under the worst possible hygienic conditions. These patients frequently end their lives in chronic alcoholism. But it is always possible to determine whether the person drinks from unhealthy impulse or because he has adopted drunken habits. Impulsive drinking is always preceded by a phase of melancholy, and is characterized by a thirst which causes the victim to drink glass after glass in quick succession; he is filled with shame and constantly makes desperate efforts at reform, hoping, on each occasion, never to fall again. His resolves are pathetic in their perfect sincerity. Our last patient has sent us a note in which his promise never to drink again is written in his own blood.

The mental state of some dipsomaniacs is such, in the intervals of the attacks, that on a superficial examination one would believe them wholly cured ; their frequent lucidity of mind gives a misleading impression as to the real condition of their faculties. These appearances have caused them to be considered, even by some of the most eminent chemists, as subject to a sort of partial delirium. But a careful investigation of the patients' lives shows that there is no need of creating for them a special malady, whose chief characteristic is an irresistible passion for fermented liquors. It is always possible, thanks to an attentive observation of pathological facts, to reduce these depraved tendencies to their true generative causes. These are simply hereditary predispositions.

The acts of the dipsomaniac always demonstrate that he is unbalanced. "But they are only insane," say some of the writers, "when their attack comes on." This is an error. Dipsomanics present a host of other weaknesses which make them beings having a tendency to act from perverted instincts (*êtres instinctifs*), and are possessed with all sorts of evil tendencies whose objective point varies according to education and surroundings. The essentially unhealthy nature of these beings should be too clearly understood to need demonstration. Among their most salient impulses are those which lead to robbery, suicide, homicide, and the erotic predisposition. It appears as though chance may decide the particular direction of their morbid disposition, but none escape their logical ending. All are subject to similar impulses, though it may be under different forms. All, or almost all, have insane antecedents ; many present peculiarities of mind from infancy. A man, now an ether drinker, states that in childhood he had already made two attempts at suicide, the first at nine years because he had been punished unjustly, the second at sixteen because he had been separated from a friend. When his family vexed him he used to push pins into his body knowing that they feared he might open a vein.

The physical development of the dipsomaniac also pre-

sents certain peculiarities in infancy. They develop too early or too late in the matter of intelligence, and show phenomena of a nervous, convulsive nature; they often develop chorea. It is not rare also to find certain hysterical manifestations, which explains to a certain extent why dipsomania is more frequent in women than in men.

If dipsomaniacs are not always in delirium, they constantly keep one part in the domain of insanity — without doubt the patient is wholly different in his paroxysmal state from what he appears in his remittent period; but many, even in their lucid intervals, conduct themselves like the veritably insane. Most all of them are not only unbalanced but fantastic; with the ever present tendency to sadness, they exaggerate in all things; with few exceptions they are reasoning fools. To interrogate them is sufficient to demonstrate this fact. It is harder to imagine a more dramatic and tempestuous life than it is the destiny of one of these unfortunates to lead. I will give a case in point:

Eugénie M. is a school-teacher of forty-eight; her father was a drunkard, and her grandmother (maternal) drowned herself. Has two brothers in good health. Her early youth was passed without notable illness. At twenty she felt drawn to a religious life, entered a convent, and gave herself with fervor to a monastic life. Was nourished poorly, practiced fasting and abstinence, and slept little, giving up a portion of her nights to self-discipline. The Superior pointed her out as a model. Eugénie's first hallucination soon appeared; she thought herself surrounded with the heads of angels. This soon gave place to a shadowy appearance of one of her religious companions, the extreme tenderness of whose expression affected her so profoundly that she fell into a condition of ecstasy which lasted for some hours. The circumstance naturally created a strong affection between the two, and at times of religious ceremony, when they were unable to speak to each other, they spent hours in looking into each others eyes. But their affection did not remain confined to those straight paths of mysticism

in which it took its rise. I will not speak at length of the details in this matter. They secretly held continual conversation, and after a time Eugénie and the other Carmelite abandoned themselves to mutual caresses, and gave themselves to masturbation. Thirty years have passed, yet Eugénie in relating the circumstances to us, stated that the thought of them, even now, made her almost beside herself. "I have a remorse mingled with shame," she said to us, "which after all gives me a certain kind of pleasure." At another time she said: "You would hardly believe how painful it is to be obliged to reproach myself for the most agreeable souvenir of my life." Following these practices, she fled from the convent one day and looked for a husband. But the man of whom she dreamed was in no great hurry to marry. Then she was sorry she had broken her vows, and this fact, followed by the threatened rupture of her negotiation of marriage, led her to despair and she attempted suicide. Saved from this, she was the victim of further troubles, and then she commenced to drink, though in very small quantities. Married at last, her husband excited her by taking a mistress, and she drank more freely. This condition increased and she commenced to talk injuriously of her neighbors and to create scandal. One day she struck her husband, and on another occasion she struck him brutally in the midst of a large company at a dinner party.

Eugénie gives an excellent account of her condition at that time. At present we observe the continued growth of dipsomania; she feels the irresistible longing; yet, once it is satisfied, may go for many days without the least desire to drink. The symptoms of attack in her are not unlike those of the other. She becomes sad and irritable, has headache, contraction of the stomach, and a choking sensation in the esophagus. She is one of those who mix fecal matter and petroleum with their liquor without bringing about the disgust they hope for. After the suicidal impulses become pronounced, homicidal ideas appear. Sometimes she wishes to strangle her husband. Sometimes even, as she states, the

idea occurs to her to kill persons for whom she has no enmity. Her husband finally became discouraged. Fearing that his wife might not always resist her desire to kill him, he left suddenly for Australia and has not since been heard of. Eugénie, although assisted by her brothers, could not resist the force of her predispositions. One night her brothers became entangled in a crowd who were watching a drunken woman lying in the gutter. It was their sister. Hastily writing on a piece of paper the words: "If you have any heart left, you will, for the honor of the family, disappear to-morrow." One of them put the billet in her pocket. The consequence was that Eugénie forthwith jumped into the Seine. She was rescued, and made many other attempts at suicide, which also miscarried. She was arrested many times, and often wandered for days without eating, but drinking all she could obtain. She was now subject to terrible hallucinations and impulses. The latter took physical form. One day she armed herself with a knife and attacked the brother who had written her the note. This brought her again to the asylum. "I reason well enough," she remarked, "yet no one is more crazy than I am." She easily returned to a lucid interval, became reasonable, and resumed her habits of work. But the inevitable attack occurred. This time she made desperate resistance, prayed with fervor, and passed days in the churches. But the hallucinations redoubled, and one morning she was picked up completely drunk, and lying upon the steps of a church. Since the departure of her husband, Eugénie had been living with another man. This individual always tried to restrain her by force from drinking. At such times the woman would not hesitate to implore the assistance of her brothers to shake off the man, declaring in such moments that he was a perfect stranger to her. Once her attack was over she would write him the most affectionate letters, imploring his pardon and promising not to recommence her habit. On one occasion, after a stay of three months in the hospital, she had a very marked attack.

She felt it coming and purged herself, though with no preventive effect. She was extremely restless and went to bed, but rest was not to be had; nightmares awakened her almost as soon as she had commenced to sleep. A cold sweat covered her and her body grew icy. This condition, counting from the first day of uneasiness, lasted for nearly a week before she felt the need of drinking. Her thirst was very great, and her throat so parched as to leave her hardly enough saliva to enable her to speak. She ran at last to a rum-shop, where she hastened to intoxicate herself, and then took refuge in a partly demolished house, where she spent the night. At dawn she returned home and went to bed for three hours without taking anything but some milk and a little broth. Both wine and beer disgusted her, and it looked as though the attack would prove abortive. Three days afterward, however, the seizure returned in full force; she drank all day, slept in a cellar away from home at night, and on the following day locked herself in her chamber for ten days without drinking a drop of liquor. In one of her attacks she determined not to give way, and accordingly soiled her quart of mixed wine and brandy with fecal matter. She slept awhile, but when she awoke she swallowed the frightful mixture with avidity. In the short time between the good resolution and the full onset of the disease her sufferings had become insupportable tortures. Taste, hearing, and smell were involved, her body burned in agony, and her mind was filled with fears and hallucinations. Her curious experiences have been almost numberless, and they continue to grow worse. At this time she has an incomplete hemianesthesia, with a general weakness of the functions of sensation. The pricking of a pin is almost unnoticed, and the sensation of cold produced by ice water cannot be felt. The right ear seems to be reserved for the constant hearing of all sorts of supposed revilings from those she meets, while the pardons of an offended Deity and the encouragements of friends seem to be heard only on the left side. "It has always been so,"

she said, "even when I was at the convent twenty years ago"; *that is, before she had tasted liquor at all.*

There are two indications for the treatment of dipsomania: first, to combat toxic accidents, and afterward to attempt to modify the course of the disease itself. As to the first, the patient must be protected against himself and from doing injury to others. Elimination of the poison must be favored in every way; the physical forces must be sustained. For the modification of the deeper malady, moral treatment is useful, no doubt, but is insufficient. Distractions, affectionate advice, and the ablest reasoning have little effect during the active period. Hydropathy methodically used, and particularly the cold douche applied upon all parts of the body except the head, give good results. The action of arsenic upon the general nutrition commends it greatly in these cases; and if its use is continued there will be more or less long intercalary periods of repose. My formula is:

℞	Aq. dest. gram. 200;	
	Iodii arseniates, centgr. 10;	
	Aq. dest. prun. laurocerasi gram. 4.	℥.

When excitation and insomnia persist, recourse must be had to warm mucilaginous baths — those of elm wood, for instance, — and doses of 4 to 6 grammes brom. pot. at night. Preference should be given to the polybromides if the treatment is to be long continued. Sometimes the patient is deeply depressed, and sulphur baths are indicated. Great benefit will also be derived from vapor baths of warm turpentine, followed by immersion in cold water or an application of the douche. This is one of the most powerful alteratives, and the patient rarely fails to be favorably influenced by so energetic a therapeutic method. Good hygienic treatment and a tonic medication are necessary in using this system of alleviation. The isolation of the patient is indispensable. This will in time attenuate the impulsive predispositions, and if it does not prevent a reproduction of the attacks will delay them. Patients have had attacks of dipsomania with delirium despite the total discontinuance of spirituous liquors. Do not

forget that patients must always be watched for suicidal or homicidal indications. The daily use of bitter drinks is recommended; it calms the desire of the patient for "something stronger."

A large number of medico-legal questions arise in connection with dipsomania. We have seen that these patients have tendencies which are susceptible of interpretation through impulses of a diverse character. Hence, to become completely certain upon this subject, it would be necessary to make a complete medico-legal history of hereditary insanity. But it may be said that all true dipsomaniacs are irresponsible for acts committed immediately before, during, and after attacks. This is on account of their intellectual condition before the crisis, on account of the impulsive character of their actions, and on account of the toxic delirium with which it is often followed. In the eyes even of those who regard drunkenness as an aggravation of crime, the dipsomaniac should be regarded as irresponsible, because he is not master of his desire to drink. As for the wrong, or even criminal acts which they commit in their lucid intervals, we should never forget that they are possessed of an undeniably morbid disposition, that they have a defective intellectual organization, and are in reality beings who have degenerated.

There are over 17,000 inmates in the alms-houses of New York State. Over 100,000 persons are in asylums, and registered as out-door poor. Over half of this number are inebriates, or children of inebriates. Except the insane and idiotic, they are all regarded as sane, and persons who have voluntarily brought this condition upon themselves, and, as such, subjects of punishment and persecution. This is the new undiscovered country of future research.

Inebriety cannot be prevented by throwing the responsibility on the inebriate, and punishing him for this, as if for crime. He is a sick man, and must be taken out of his surroundings and fully quarantined until he can recover.

THE OTTO CASE—A MEDICO-LEGAL STUDY.

BY T. D. CROTHERS, M D., HARTFORD, CONN.

Peter Louis Otto was tried for the murder of his wife at Buffalo, New York, December 7, 1884. The crime was committed November 14th of the same year. The following facts in the history of the prisoner and crime were undisputed:

The prisoner was thirty-six years of age, born in this country. His father was a German shoemaker, who drank more or less all his life, and at times to great excess. He was a morose, irritable man, of violent temper, who finally entered the army and died at Andersonville prison in 1863. His father, grandfather of the prisoner, was insane and died in an asylum in Germany. The prisoner's mother, now living, was a nervous, eccentric woman; very passionate and irritable. For years she had been quarrelsome, and untidy in her appearance; has suffered greatly from rheumatism, and is a cripple. She is called by her neighbors "half crazy," and has a marked insane expression. Her ancestors in Germany were crazy; both her mother and an aunt died in an asylum.

The prisoner's early life was one of neglect and general poverty in a cheerless home—on the street, in saloons, and in company with persons who frequent such places. He had beer at home at the table, and, from his earliest childhood, drank it with others. At eight years of age he was sent to school. When about ten he was thrown from the cars, and injured in the forehead. He was unconscious, and taken to the hospital, where he was treated for this injury and a dislocated ankle. From this time, up to about fourteen years of age, he went to school, and spent his nights and mornings on the streets and about saloons, living an irregular life. Then he went to work in a stove manufactory, where he remained for seven years, then went

to learn the printers' trade ; three years after gave it up and went into a candy shop. About the time he entered the stove works he began to use beer regularly, and was occasionally intoxicated. He drank at night, and at the period of puberty gave way to great sexual excess, with drink. From this time, up to November, 1884 (when the murder was committed), a period of over twenty years, he continued to drink more or less to excess all the time.

When about twenty years of age, he married in a saloon, and was intoxicated at the time, and did not realize what he had done until the next day, when he became sober. For a long time after his sexual excesses were extreme, and he was often intoxicated. Then his mind began to fail, and he became irritable and abusive. He was stupid at times, then would have a delirium of excitement and irritation, talking violently, and be angry with any one, with or without cause. He frequently quarreled with his wife ; often both mother and wife combined against him, and turned him out of the house. For several years he has been steadily growing worse and more violent and irritable in conduct ; this often depended on the amount of money he could procure for drink. At times he would bring home beer and his mother and wife would join him in drinking it. Nine years ago, while in a torch-light procession, he was struck on the head by a brick. A lacerated wound was produced, with unconsciousness, from which he recovered, but complained of severe head-aches for a long time after. Four years later he was struck on the head with a mallet, knocked down and made unconscious, and recovered, complaining of head-aches as before. Both of these injuries are marked by scars.

For some years past a deep-seated delusion of his wife's infidelity has been steadily growing, also suspicions of intrigue and poisoning by his wife and mother to get him out of the way. He has imagined his wife was alone in her efforts to drive both him and his mother away. The mother owned a small house which they occupied, and he claimed it, and was suspicious that it would be taken away from him. These

delusions and suspicions were very intense when he was intoxicated, but at other times were not prominent. He attributed deep sleep, when intoxicated, to medicines put in the beer by his wife or others. He heard voices at night, out in the street, plotting his death. On one occasion, after a quarrel with his wife, he became depressed and tried to commit suicide by swallowing the contents of a bottle of rheumatic medicine, supposed to be poisonous. On another occasion he placed some fire-crackers under the lounge, firing them with a slow match, expecting to be blown to pieces. His drinking and violence had increased to such an extent that both wife and mother complained to the authorities. He had been arrested six different times, and confined in jail. Once he served sixty days in the work-house for violence and drunkenness. Two months before the murder he was sent to jail, and was delirious and confused, and the police surgeon, Dr. Halbert, was in great doubt whether it was not a case of real insanity.

The judge ordered his confinement that he could be observed a longer time. He had what the physician called alcoholic insanity, but after eight days' confinement was discharged as sufficiently improved to go out again. For a week before the murder he had drunk every night to excess and was, as usual, quarrelsome and very irritable to all he came in contact with. He bought a revolver, and was taught how to use it, giving a fictitious name where he bought it, and greatly alarming the clerk by placing the pistol to his head and offering to shoot himself. The day and night before the murder he drank freely of beer and whisky. On the morning of the murder, he drank as usual, and had an altercation with his wife; was seen to follow her into the house, and pistol shots were heard. Otto was seen to run out through the back yard, running against the door of a house in a dazed way, then walked out in the street, and some hours after was arrested in the store of a friend. He did not seem intoxicated, and talked of getting into a "bad job"—meaning the murder. At the station he was at first very talkative, told many stories of his wife's infidelity, but denied

the crime; said nothing had happened. Later, he was dazed and silent. The jail surgeon found him in the afternoon of the murder in a cell, in a stupefied, confused condition, with no apprehension of the crime, and, although not apparently intoxicated, was nervous, restless, and dazed. The next day this state of mental aberration continued, he talked but little and stoutly denied the crime, saying it was all a conspiracy. His confused, dazed state gradually passed away, and he seemed to realize his condition, but the delusion of conspiracy grew more positive. He believed that a scheme had been formed to keep him in jail so his wife and mother could secure the property. One reason he gave for his wife's infidelity was, that she had done washing for the inmates of a bad house, and that he heard voices of persons out in the yard planning to get in and stay with her, and other more absurd reasons—all without the slightest basis in fact. His suspicions extended to others, whom he believed to be always trying to cheat him. He claimed not to remember any events from a day or more before the crime, until some days after, when he awoke in the jail. He had evidently a faulty memory which had been noted in many things long before the murder.

As in many other cases, the medical testimony given on this trial was a medley of faltering, confused statements. Two physicians thought these delusions and mental defects were no indications of insanity. One man doubted the existence of alcoholic insanity. Another was sure loss of memory could not occur unless dementia was present. Others swore that it was possible for persons to drink as the prisoner had done and not have a defective brain. Alcoholic trance and monomania were denounced as having no existence.

The judge very naturally seemed to ignore the medical testimony, and fell back on the letter of the law, merely asking the jury to discriminate between a mind actuated by revenge and jealousy and one full of diseased emotions and impulses.

A verdict of guilty followed, and sentence of death was

pronounced. An appeal was taken, and a year later I examined the prisoner in jail as to his mental condition. I found him pale and anæmic, with no other indications of ill health. He has had attacks of neuralgia in his head and shoulders from time to time; his appetite, nutrition, and sleep seemed natural. His face was blank and stolid, the eyes were staring and unequal in size. Talked in a slow, hesitating way, and changed with difficulty from one subject to another. He had become very religious since confinement in jail, and read the Bible and prayed often during the day. His ideas of God and heaven were confused and childish. He saw lights on the prison walls, and thought God had something to say to him, and opened the Bible, and the first verse he read was God's message to him. He often heard voices at night, telling him various things; sometimes they were threatening, calling him bad names. Then he heard God's voice telling him that he would not die, but live. These hallucinations of hearing and sight had all a meaning. The day before this visit a flash of light, like lightning on the wall, appeared, and he found an explanation in this sentence from Jeremiah: "Is not my word as a fire, saith the Lord, and like a hammer that breaketh the rock in pieces?" He still thought that his wife was living, and the whole thing was a plot to destroy him. He was very suspicious of every one; thought every person was deceiving him, and no one was true but God. He said all the stories of the murder were false, and that after a time God would bring back his wife to her senses, and she would live with him again. Said he would never drink spirits again, and would like to live with his wife in quietness. He had no concern about the future; was indifferent about the efforts made to stay his sentence. His mental powers, or capacity to realize what was said, were dull and slow. He stared, and asked, with suspicious hesitancy, "What do you mean?" or, "What is that?" He was unable to go from one subject to another unless the subject was often repeated and pressed on his attention. When he came to realize the topic, he talked in a confused, dogmatic way, asking questions

as answers, and expressing great doubts. Recited the lies that had been told him, and inquired how he could believe any one or any thing? He heard voices in the street talking about him at night, and the howling or barking of a dog he thought was the work of enemies, who wished to annoy him. He dreamed of going home and living with his family, and heard God speaking to him through those dreams. He described those dreams with great minuteness, and when laughed or sneered at, turned away with disgust, but forgot it quickly. He doubted his mother and counsel who visited him; was sure they were lying to him steadily. He selected out passages of Scripture and applied them to his case, but without plan or idea, except that God would defend him, and that the Devil would be finally driven out. When pressed sharply to explain his inconsistency, he turned, repeating the accusation with disgust. He was not greatly disturbed or annoyed, and seemed not to remember much that was said to him. When talking of himself, was not boastful of what he had done. The past seemed enveloped in a mist, and the future of no interest, and the present had no anxieties of moment. He saw different colored lights and interpreted them as God's answers or wishes to him. The jailer mentioned his defective memory: of asking for the same thing many times a day, even when it had been brought to him. Of sending for a thing, then forgetting that he had done so a moment after. He had been uniformly quiet in jail, reading his Bible and praying many times a day, and manifesting no concern about anything in particular. A depression was noted where he had been injured on the head.

From these facts I concluded that Peter Louis Otto was insane and irresponsible for the crime he had committed. A summary of these facts would be as follows:

1. Otto had a bad heredity, with no training, and was brought up on the street in the worst mental and moral surroundings. He was ill-nourished, and suffered from defective hygienic surroundings, and also from severe traumatism of the head at least three times in his life.

2. He drank beer from childhood. At puberty began to drink to excess, and gave way to great sexual excesses. From this time his life was that of a suicidal dement; constantly growing worse. Long before the crime was committed, he was an alcoholic maniac, on the road to either suicide or homicide.

3. Delusions of his wife's infidelity, so common in these cases, deliriums of suspicion and wrongs from others, great irritability and violent temper, with hallucinations of the senses, constitute a group of symptoms about which there could be no mistake.

4. His conduct after the crime, and the persistence of delusions and hallucinations after a year's residence in the jail, indicated a permanently impaired brain.

5. The crime was a most natural sequel to his life, and although a degree of premeditation was indicated in the purchase of the pistol, yet it was evidently the cunning of a maniac, and not the design of a sane mind.

6. The probability of an alcoholic trance stage in his case is well sustained by all the facts of his defective memory, as seen in jail, noted before the crime was committed, and sustained by his steady denial of memory of the murder or any of its details. The continuous denial of recollection of the crime could not have been planned by his weak mind for any possible gain it could bring him.

7. His irresponsibility was most conclusive from his cloudy, defective brain, and general indifference as to his present and future, and also the delusions of himself and surroundings.

The prisoner continued in the same mental condition up to the time of his execution, May 21, 1886; manifesting great indifference and even coolness up to the last.

The counsel for the prisoner, Mr. E. A. Hayes, deserves the warmest praise in urging the insanity of the prisoner to the last. Finally, a commission of two physicians appointed by the Governor, and designated by the district attorney, reported as follows on his case :

“BUFFALO, N. Y., May 10, 1886.

“We, the undersigned, have the honor to report that in accordance with your request, we have made a careful examination of the condition of Peter Louis Otto, the condemned murderer, as to his mental state at the present time, and since the date of his trial. In the course of this examination, lasting for one week, we have had repeated personal interviews, together and separately, and have taken the testimony of those who have had the most intimate knowledge of him since his confinement in jail, namely: the sheriff, jailer, the assistant jailer, the watch, the jail physician, and his spiritual adviser. We have in this way taken every means to inform ourselves fully as to his true condition. We find no evidence of any physical or mental change having taken place since the time of the trial, which must necessarily have been the case if he were suffering from any form of insanity. He is in good flesh, and in good physical condition. His circulation and respiration are normal, and all of his physical functions are normally performed. He eats and sleeps well, and there is no complaint of any form of illness.

“We find that his mental state is entirely inconsistent with any form of insanity known. And we believe that he is feigning mental disease. We therefore pronounce him, in our judgment, sane and responsible.

“CONRAD DIEHL, M. D.

“WILLIAM H. SLACER, M. D.”

On this report, Otto was executed, May 21, 1886; another victim of medical non-expertness and judicial incompetency. Otto, in the grave, or in an asylum, is of no account, but the treatment of Otto and his crime is of the greatest importance. Psychology protests everywhere against the so-called administration of justice on the theological dogma that inebriety is always a vice and sin. To hang insane, diseased men is to go back to the days of savagery and the punishment of witches as criminals. Society gains nothing, and the progress of human justice is put back by the injustice, law and order becomes a mob rule, and inebriety and wife-murder is increased rather than diminished. The

Otto trial is only another landmark of the low legal standards and psychological levels on which insanity is measured. Two hundred years ago, eminent men of the three learned professions sat in judgment over some poor, insane people at Salem, Massachusetts, and hung them, and have gone down into history as more to be pitied than the poor victims who suffered. It is the same non-expertness that considered Otto, after twenty years of excessive use of beer and spirits, with changed character, habits, temper, disposition, and intellect, committing murder from an insane delusion, as sane and conscious of the nature and character of his acts. Less than two centuries ago, both judges and clergymen urged that witches should be punished as a means of safety to society, and prevention of the extension of this crime. But witches increased, until science finally pointed out the real facts. In the Otto case, both judge, jury, and experts took the same position, opposed by all psychological teaching of science, and the result will be the same. It is a pleasure to note that some of the medical men on this trial saw the real facts; among them were Drs. Halbert, Campbell, and Daggett, who all testified that Otto was clearly insane. The charge that Otto was feigning insanity was not sustained by the facts of his history and mental condition. Such a man might exhibit cunning in some directions, but his mind was incapable of planning and carrying out any scheme of assumed insanity. Both judge and experts started from the mediæval theory that inebriety is ever and always moral depravity, and controllable wickedness, and that Otto as a drinking man should be punished, no matter what the circumstances of the crime were. If crime was committed the punishment should be increased, and to call such a case insane was a dodge to avoid the penalties. It was such views that hung witches and even persecuted persons of different religious faith.

The Otto trial is only another strange, inexcusable blunder of our boasted civilization, in mistaking insanity for wickedness, the injustice of which will react on both the court and the community where it was enacted.

TEMPERANCE IN THE TREATMENT OF THE SICK.

BY DR. MACLEOD, PROF. OF SURGERY IN THE GLASGOW UNIVERSITY.

To those who practice medicine in a great city, it cannot fail to be a source of wonder and regret that so large a number of people use alcohol habitually in excess. A very large proportion of our hospital patients are addicted to such habits, and a very considerable proportion of the accidents and diseases with which we are called on to deal are more or less directly due to such tendencies. The recklessness out of which the accident arises, the complications which follow it, the difficulty of securing a complete and satisfactory, not to say a rapid recovery, are in many cases the direct results of indulgence in alcohol. Many patients are chronic inebriates, whose vital organs have been weakened by long excess, and whose recuperative powers have been sadly if not fatally weakened. In private practice, also, we are often opposed by the occult influence which arises from the same cause. Being carefully concealed from us, it may be long of being discovered, but we yet daily trace its pernicious effects in thwarting our remedies. We perceive the same thing in dealing with the children of intemperate persons. Their ailments, mental and corporeal, not unfrequently take a complexion of their own from the habits of the parents. The low vitality, the stunted growth, the late maturity, the epileptic seizures, the hydrocephalus, and numerous other morbid conditions met with, occasionally, owe the intemperance of the progenitor as their cause. It is now well-known how apt inebriety is to become hereditary, and to beget various forms of insanity. In administering alcohol to the sick, it is important to learn, if possible, what were their previous habits regarding its use. This information is often very difficult to

obtain. A large number desire to be considered very temperate, when, in truth, if they are judged of by ordinary standards, they would be classed as very much the reverse. Men's notions of temperance in this and many other things differ very widely.

In the hospital, we always try to form, if possible, some estimate on this point. Occasionally, in private practice, we are entirely and intentionally misled. There is no more painful feature connected with intemperance than the deceit and shameless deceptions to which it leads. Whenever a patient takes exceptional pains to define to us the exact amount of stimulants he consumes, and when he reverts to it again and again, we should be on our guard against deception. . . . Further, there are a certain number of persons who consult with the very thinly veiled design of getting you to connive at their habits. Very likely they have been blamed at home for over-indulgence, or possibly their own consciences demand to be quieted. They give you a pitiable account of their weakness of body, their feeble digestion, and their mental depression. They have such feelings of "sinking," such flatulence and misery. They cannot eat till they taste "a mere drop," and they commonly quote some distant or deceased practitioner for authority to take the "thimbleful" in which they so often indulge. If you oppose such practices, as you are bound to do, knowing how certain they are to increase the evil, and lead to eventual destruction, the chances are you will never see the patient again, as he will at once discover that you "do not understand his complaint," and will seek the aid of a less scrupulous practitioner.

This leads me to say that an unconscientious and unprincipled medical man may very readily increase his *clientele* by pandering to these tastes, as many who desire the authority and countenance of a medical attendant to pursue their destructive habits will gladly seek his aid. Such success is, however, usually but short lived, and cannot fail to leave a sting of self-reproach in the breast of the practitioner. I know from experience to be the fact, that in the great run

of surgical ailments—in the great majority of those I have dealt with either within or without the walls of the hospital—no aid is required from stimulants; but, on the contrary, these complaints are much better managed without alcohol.

At the moment I address you, I have under my care more than fifty surgical cases, and only one, and she a very weakly woman, with blood-poisoning, is taking alcohol. Among the cases I allude to are many who have undergone serious operations, and many old and feeble people. I mention this to show that, while I resolutely defend the use of alcohol in certain cases, I am but little given to its administration in the usual practice of my profession. It is food, and not stimulants, the mass of patients require to restore them. If food of a nourishing and concentrated kind can be taken and assimilated, that is what will recuperate our patients and prolong their lives. Alas, it is the want of this power of assimilation which baffles us so frequently in dealing with disease, and that is not unfrequently the offspring of previous intemperance.

Once for all, I would add that it is wrong—it is criminal, in my opinion—to employ such an agent carelessly, and without the most scrupulous and conscientious safe-guards against its abuse, and without stopping it so soon as it can be done without. The practitioner assumes a great responsibility when he administers alcohol, especially to one who has not before used it, and he must see that by no carelessness of his shall injurious habits be inaugurated. There cannot be a doubt but that intemperance can frequently be traced to the license of a sick-room, and such a result must be a terrible reflection to those responsible for it. We must bear this in view, and make it clear when the use of the stimulant is to be given up.

Finally, I most heartily subscribe to the opinion, which I am glad to think begins to prevail, that there is no risk whatever in withdrawing alcohol suddenly and absolutely from inebriates. I have long known and practiced this. It is, in my experience, the only hope for their recovery. Half-measures

always fail. Let it be absolutely forbidden in any form and quantity, and though I am not very sanguine as to success in the case of confirmed drunkards, yet for those less hopelessly abandoned there is, by following rigid abstinence, a chance of reform. Nourishing fatty food, sugar, plenty of fresh air, and mental enjoyment, will help to wean the victim from his poison.

A girl was taken before the Paris tribunal charged with stealing a blanket. She pleaded that she was under the influence of another person and could not help herself. In prison it was found that she was in a hypnotized condition, and acted readily under the commands of others, doing anything that was told her. She was examined by a commission of Charcot, Brouardel, and Mollet, who reported that this state came from the use of morphia, suffering, and hunger. That these suggestions from others, acting on an unstable nervous organism, greatly deranged by morphia and other causes, rendered her irresponsible for her acts. She was acquitted.

Toxic idiocy in the children of alcohol and opium inebriates is far more frequent than is supposed. In the history of twenty cases taken indiscriminately, eight were found to come from inebriate parents. Quite a large percentage of these cases come from the use of opium and beer in infancy. The former in the shape of soothing syrup to quiet children who are irritable, and the latter to give them strength. In these cases some state of atrophy of the nerve-centers takes place, and arrests of development from faulty nutrition. In a neurotic family this is a source of great danger.

Three hundred thousand pounds of snuff are sold annually in Atlanta, Ga., according to the *Surgical Journal* of that place. It is all consumed in that section and not exported, and that city is said to be the third largest snuff market in the world.

Abstracts and Reviews.

THE QUESTION OF RESPONSIBILITY.

BY T. L. WRIGHT, M.D., BELLEFONTAINE, OHIO.

It has become a maxim in law that drunkenness is no excuse for crime. The interpretations of phenomena by theology and medicine are undergoing modifications in consonance with the advancement in science and discovery, which distinguishes the age in which we live. Similar interpretations by the law, however, are not so impressible. The movements of the law are necessarily cautious and deliberate. The legal principle which denies to drunkenness any liberty with respect to crime must have its reason in some presumed expediency, in the absence of exact knowledge. For the true principles which underlie the several and distinct varieties in motive and intent, inciting the inebriate in the gratification of his unnatural appetite, are even now undergoing study and analysis. The law has been unable, hitherto, to offer a comprehensive and satisfactory explanation and definition of drunkenness; and its dictum, therefore, that inebriation is no excuse for crime, must be open to suspicion.

It is certain that a man indubitably drunk is not in his right mind, and that he can not, by any power within himself, either mental or physical, conduct himself as he would do when not intoxicated.

It is also certain that his departures from the lines of right reason are fundamental and not frivolous. But drunkenness is a state of mind and body, usually of brief duration. The sober mind has means within itself of studying the nature of drunkenness between spells, as well as observing it in others. It is capable of perceiving that the use of alcoholic liquors will induce a condition of the mental facul-

ties wherein motives and intents are unusual and unsound, as well as beyond volitional control. But the questions arise: Are there not radical differences in the motives which impel to drunkenness? Is not intoxication, very frequently, indeed, the result of the demands of a disease, or of an urgency in the feelings which an attending imbecility of mind is unable to control or overcome? If these interrogatories really foreshadow actual facts, then it must be that there are important exceptions to the proposition that drunkenness is no excuse for crime. For the inebriate may then be not merely irresponsible, abstractly, when drunk, but he may be irresponsible for the imbecility of will which so readily yields to the demands of the neurotic constitution. In the neurotic constitution even slight intoxication is often succeeded by an utter blank in the memory. This withdrawal of the mind from the direct line and knowledge of conscious life implies radical disabilities in the assumption of responsibility for conduct. Drobisch explained clearly the general nature of the law of association in psychology in the language following: Psychology shows that not only memory and imagination, but judgment, reasoning, conscience itself, and, in general, all higher activity and all development of the mind rest upon the association and reproduction of states of consciousness; that this explains also the different variations of feeling, emotion, desire, passion, and rational will. But these explications are supported by generalities that have always an indeterminate character. This arises from their lack of quantitative determination. Whatever, therefore, is conceded or permitted to a congenital infirmity of mind in its relations with the world at large, must also be accorded to a constitutional incapacity in any special direction. The well-defined neurotic or spasmodic drunkard is an imbecile in respect to his desire for intoxication; for in the congenital inebriate, the association and reproduction of states of consciousness neither are, nor can they become, with respect to his special besetment, either normal or manageable.

In general terms it may be said that inebriety is origin-

ally — that is, anterior to its hereditary descent in varying forms — the outcome of very serious bodily injury, but more especially injury to the head. The history of the late civil war abounds in exemplifications of this fact. Certain physical wounds affect directly portions of the brain, or they may withdraw from normal correspondence and relationship with the brain to important parts of the body elsewhere. The means, and measure, and quality of consciousness, through many channels of sensation and association, are thus permanently destroyed. Thus there are produced radical defects in consciousness, which in respect to inebriety prevent those conservative mental operations and associations upon which all higher activity and all development of mind rest. I have said neurotic inebriety is primarily occasioned by some physical injury, possibly in remote ancestry. This includes, of course, such injuries to nervous integrity as may arise from any adequate cause, perhaps not technically, yet in reality — physical, as prolonged grief, great nervous shock, excessive study, protracted and profound disease, malaria, and many other recognized sources of that peculiar state of nervous instability and inadequacy which goes under the general designation of the neurotic constitution. Absence of function begets incapacity to act through sheer debility of nerve, or even through atrophy of substance.

Dr. Livingston, after years of absence amongst the black tribes of Africa, says, that upon coming into the presence of his countrymen he was at home in everything except his own mother tongue. He seemed to know the language perfectly; but the words he wanted would not come at his call. It is difficult to divest the mind of the idea that the inebriate is really capable of mastering his morbid proclivity at will. And that there may be — in view of the lack of quantitative determination in the character of the nervous disability in the neurotic inebriate — certain instances wherein the defect is not overmastering, seems probable. Yet this very qualification may doubtless include innumerable instances in which voluntary restraint is impossible. No man by taking thought

can add one cubit unto his stature. Neither can a man by any process of reasoning or any effort of will change the functions appertaining to physical defect or pathological deterioration into the ways of normal and physiological life.

— *Neurological Review.*

THE HEREDITY OF INEBRIETY.

Dr. Faquet, in a late number of the *Annales de la Soc. Med.*, in France, writes as follows :

“The immoderate use of liquors is one of the main causes of the decrease of population, and of the corruption of morals of human society. With one death of an inebriate the effect of the poison may not be ended, but probably it may have already been inherited by his descendants.

“Physical weakness, epilepsy, deafness, and many other nervous symptoms, are the bodily defects; debility of mind, inertia, impulsive instincts, idiocy, and insanity are the psychological infirmities of the children of drunkards. Neither sword nor starvation have conquered the Indians, but alcohol has conquered and destroyed them. The consequences of drinking were already known to the ancient Greek. Diogenes remarks about a stupid boy: ‘Your father must have been drunk at the time of your procreation.’

“In alcoholism there are inherited dispositions which may be similar to those possessed by the parents, or somewhat changed. Many a child is already born with the disposition for future intoxication, if the parents or grandparents have been addicted to drink. Some children may be free from this hereditary vice, but it is apt to be developed in them at the beginning of manhood. In all countries where liquors are immoderately used, physicians have often met with families, and even generations, in which drunkenness, delirium tremens, and even suicide were hereditary. The morbid germ, which the children of drunkards inherit, does not often appear in early age; on the contrary, young people exhibit a certain prematurity of mind, so that they shine in certain

branches of art and science, and become the pride of their teachers. But just then, when their brilliancy is at the acme of height, a collapse may take place, perverse actions, insane deeds, and abnormal affections appear, and offer to the psychologist a difficult problem. Knowing that the father and perhaps the mother have suffered from alcoholism, the diagnosis of such disorders of the mind will be easier. Persons afflicted with hereditary insanity are not as often met with as those of an eccentric manner, who give the impression of pretended insanity."

THE DISEASE OF INEBRIETY.

Dr. Mann, in a late number of the *Medical Times*, writes as follows: "Inebriety is a disease, probably of certain parts of the brain, resulting from some morbid irritation of the cortical sensory centers, or from special molecular changes in these centers, perverting brain function, a condition markedly hereditary, and evinced outwardly by great nervous irritability or restlessness, unnatural sensations, an uncontrollable desire for alcoholic stimulus, and a disposition to frequent fits of intoxication. There is a departure from a healthy structure of the nervous apparatus, as in mental diseases generally.

"The pathological evidence in favor of these facts was at first slender, has been yearly increasing, and is to-day conclusive and unanswerable. The inebriate is a subject of disease, in which normal function is acting under abnormal conditions, and we should recognize this fact both as to medical or moral treatment. Dipsomania is inconsistent with a healthy discharge of the functions of the brain and other portions of the nervous system. It is a symptom of a morbid condition of some portion of the nervous system, and experience shows us that this disease is the most frequent where diseases of the nervous system are most fatal.

"In the disease of inebriety we have deranged nutrition, which precedes the blood-changes, and the disease arises in

abnormal primary and secondary assimilation. Defective assimilation in this disease gives rise to defective secretion.

“There is an abnormal state of the blood; the blood supply is not sufficient; there is an abnormal condition of the ganglionic or great sympathetic nervous system, and the parts that are to be nourished are not normal. We have a poor state of the blood, and disturbed conditions of life, which are often the cause of the disease of inebriety. We have the subjected symptoms, which relate to the sensations or feelings of the patient as expressed by himself in this disease, and we have the objective symptoms which the physician observes for himself unassisted by the patient. In this disease we should examine with care the digestive system, the circulatory system, the respiratory system, the tegumentary system, and the secretory system. The symptoms of inebriety are three signs of disease which are apparent to either the patient or physician on superficial examination. The different parts of the blood may be affected in this disease.”

ALCOHOL IN HOSPITALS.

Dr. Drysdale, leading physician of the Metropolitan Free Hospital of London, England, lately read a paper before the British Medical Temperance Association, on the above topic, in which the following conclusions were prominent.

1. Alcohol is not a real food, but must be classed among the anæsthetics, in company with ether and chloroform; hence it ought not to be used as an article of ordinary diet.

2. The treatment of fevers by alcohol in large quantities is inferior to the treatment by cold and ordinary diet.

3. There is no clear proof that alcohol is changed into carbonic acid and water in the system; and, at any rate, part of it remains unchanged for as much as twelve hours in the system, irritating the internal organs.

4. Moderate amounts of alcohol neither raise nor lower the temperature, but excite the heart's action, and in some cases, in small doses, less than one ounce gives appetite.

5. In large and stupefying doses, alcohol lowers the temperature.

6. The amount of alcohol administered in various hospitals is so wanting in uniformity, as to show that there is no settled opinion in the profession at present as to its value.

7. It would be well, when alcohol is prescribed in clinical hospitals, that some exact amount of it should be prescribed, and not a varying amount of an alcoholic fluid not analyzed.

8. The London Temperance Hospital experiment seems to indicate that many diseases do well without the use of any alcohol, which previously were thought to require it.

9. Hence, whilst the modesty of science forbids us to say that alcohol will prove useless in any given disease, it seems advisable for patients in hospitals to have that drug administered to them with far greater caution than has hitherto been the case. And it would seem also to follow that all mere dietaries should be free from the routine use of alcohol, which should in all cases in hospitals be distinctly ordered to the patient by his medical adviser.

ACUTE INEBRIETY.

Dr. Campbell, in the *Canada Practitioner*, gives the following case.

Was called to see W. R., aged 42, a grain merchant, at 8 A. M., and found he had had a sleepless night. Was restless and taking, at intervals, tremors and spasms of all the voluntary muscles. He had a furred and tremulous tongue, cool skin bathed in perspiration, cold hands and feet; saw ships sailing; was going to have a great show, at which he would exhibit the now defunct "Jumbo"; sometimes was buying and selling wheat by telephone; occasionally asked for his revolver. Pupils somewhat contracted, no intolerance of light, pulse steady but somewhat rapid, tongue moist, no albumen in urine. He complained of pain in the top of his head, of a boring nature, and asked me to cut the piece out. He has been a steady drinker for five or six years at least,

and drank moderately even before that time. Sometimes drank large quantities at a time. He had a puffed-up, red face, full of acue roacea. Had been from home for six weeks, and it is believed had been drinking hard. Came home two days before, and was in my office pretty drunk at 11 o'clock the night before I was called. He had eaten literally nothing since he came home. Procured sleep with syrup of chloral, followed with potass. bromid. Ordered feet to be put in hot water, and cold cloths to be applied to the head. After sleep a saline purge to be given, and plenty of liquid nourishment in the form of cold beef tea, milk, and raw eggs, with ice to suck—and to be kept quiet in a darkened room. Called during the afternoon, and found him dancing through the house. An old friend had prescribed some whisky—a pint having been used between them—hence the revelry. Was called at 7 P. M., saying that he was worse. The whisky having evaporated, the trembling spasms returned. Treatment as before until sleep had been procured. Four men stayed with him. Was dealing extensively in wheat until he went to sleep. Called in the morning and found that he had a good night, though the medicine had to be repeated several times. Had taken a large amount of liquid nourishment as before. Dr. Elliot was with me and considered that he was doing well. Treatment continued during the day. Trembling spasms were always allayed by the medicine, and the nourishment was retained. A purgative was again ordered. Patient kept quiet. Saw him, with Dr. Elliot, in the evening. Spasms had returned; still complained of the pain in top of his head. Quite sensible in the intervals between the tremors. Was annoyed at our statement that his trouble had been brought on by drinking.

On the advice of Dr. Elliot, added one of Wyeth's pellets (gr. $\frac{1}{2}$) to our previous treatment—eggs, milk, and beef tea as before. We both saw him the next morning. Reported to have had a good night. Symptoms on the whole unchanged. Still complained of pain in a small spot on the top of the head, and also of our diagnosis. Saw him again

at 7 P. M. Found him sitting on the edge of his bed, smoking his pipe. Spoke rationally, but was taking spasms of the voluntary muscles every ten or fifteen minutes, when the bed would fairly shake under him. Symptoms unchanged.

Dr. Scott saw him about 8 P. M., noted the symptoms and watched the spasms. Thought at first that they were partly feigned, but came to the conclusion that they were involuntary. Between spasms he talked sensibly, and still complained of the pain, and complained of the name given to his trouble. Dr. S. told him that his disease had been brought on by drink. The doctor gave as his opinion that he would recover, as there were no dangerous symptoms at present. While the doctor was yet speaking, he took another convulsion severer and longer than any previous one. The head was thrown back, the eyes turned up, the pulse became weak, intermittent, then imperceptible—respiration ceased—he was dead.

Remarks.—(1.) From the manner of death we both concluded that the immediate cause of death was apoplexy, but as no *post-mortem* was allowed our opinion could not be verified.

(2.) That the cerebral hemorrhage in all probability had occurred at the spot where the severe and constant pain had been complained of, and that the pain in question had been the result of severe congestion.

• (3.) That the disease from the first was one form of acute alcoholism, with some anomalous symptoms which are not often present.

Twenty-eighth Annual Report of the Washingtonian Home, Boston, Mass.

Three hundred and thirty-five patients have been admitted during the year. Seventy five were treated for delirium tremens. Two cases died of pneumonia during the time.

The following extract from Dr. Day's report gives some idea of its nature, and philosophy of this work.

"During the last thirty years I have treated quite ten

thousand cases of inebriety, many of whom have relapsed, and applied for treatment the second, third, and fourth time; yet I do not remember a single instance where the excuse for relapse was alleged to be the necessity for using intoxicating drinks. Those persons know the utter absurdity of the excuse that there existed any real necessity for the use of the beverage. Even the drinking man, when thirsty, will drink cold water in preference to any other drink. When natural thirst occurs, nature, with her sparkling water, meets all demands of nature's laws.

"But I am met with the statement that man needs something to drink other than water, or at least he demands it. Not if his stomach and nervous system is, and ever has been, free from alcoholic beverages. Why he demands it is because the nervous system has been degraded to a lower level, and depraved by the use of stimulants. His system is not in a healthy condition, and it is base quackery to advise persons to take alcoholic beverages simply because the victim of excess or moderation wants it.

"It is the *poison hunger* which demands intoxicants, and not a healthy desire. In its general character and in many respects it is like *Cretinism*, or the chalk and dirt eaters; and several authors have observed that the pathological condition of children by drunken parents is much the same as cretins. The degeneration which is sure to follow in each case is much the same. The subjects of alcoholic degeneration are found at birth ill-conditioned in various ways. The skin is flabby and cyanosed, and the general anatomical development is defective. There will generally be a fair development of intelligence until the age of fifteen or sixteen years is reached, when epilepsy often develops, and there will be a mental decline to complete idiocy, and before the age of thirty is reached the sad drama is closed by death.

"This condition is more likely to be transmitted by what is termed moderate drinkers than those of an occasional character. With the periodical drinker, although he may go to great excess, there are generally several months between

the paroxysms, and this respite gives the system a chance to resume a healthy tone, while the one who drinks daily (and he thinks he is very temperate, and no one will denounce the drunkard like him) never allows the blood and nerves to obtain a healthy condition. From such persons comes the depraved condition of body and mind.

“In most of the chronic or constant drinkers there are various complications. They are especially liable to pneumonia of a low type, to rapid phthisis, various types of liver diseases, valvular disease of the heart, gastric catarrh, albuminuria (Bright’s disease), and these diseases are frequently caused not only by spirits, but by the use of large quantities of beer. Most cases of what is called *delirium tremens*, a disease with which we have much to do, are from the constant drinker. I frequently meet such cases, where the history reveals the fact that the patient was a very temperate man, who drank but few times each day, and his friends were slow to believe that it was possible for the patient to be afflicted with such a disease. The first stage of this mania is indicated by inability to take food; marked anxiety and restlessness, tremor of the voluntary muscles, furred and tremulous tongue, cool skin which is frequently bathed in perspiration, cold hands and feet, and soft, weak pulse. There is complete insomnia, and the nights are tormented with horrid insects and reptiles, and constant fears of being killed, and all his powers are exercised to escape from his apprehended danger. He has illusions of all the senses. He often attempts suicide in order to escape the danger he imagines himself to be in. Such cases require careful watching and treatment. They usually recover unless there are complications, such as pneumonia or kindred diseases.”

The *Neurological Review*, edited by Dr. Jewell of Chicago, begins with the most flattering auspices and promises for the future. The field for such a journal, and the editorial skill and ability to manage it, are combined, making success assured from the start.

Evolution and Religion. By Henry Ward Beecher. Part II. Fords, Howard & Hulburt, publishers, New York city, 1886.

This second volume contains eighteen sermons on the application of evolutionary principles and theories to the practical aspects of Christian life. This, like the first volume, which we noticed in the last JOURNAL, is without doubt the best presentation of the scientific philosophy of religion that has appeared. The following extract from a sermon on the "Drift of the Ages," indicates that this work should have a place in the library of every scientist and thinker of the country :

"In the first place, the final age, the perfect age, must be an age made up of men that come into life better than the generations do to-day. Men do not have a fair chance. A man who is born with robust health has a better chance than the man who is born an invalid for his father's sins. The man who is born of temperate parents, and bears health in every throb of his veins, has a better chance than the man who is the offspring of a miserable drunkard or debauchee. The man who has a large and healthy brain, has a better chance in this life than the man who has a shrunken brain, and most of it at the bottom. These are the inequalities of condition in this world to-day, but do you suppose that we are going forever to undertake to lift monkeys up to saints? That we shall forever be obliged to bombard animals that have just intelligence enough to direct their passions and appetites? Do you not believe that in the coming time there is to be such knowledge of heredity as shall lead men to wiser selections? And that the world that has learned how to breed sheep for better wool, horses for better speed, and oxen for better beef, will not by and by have it dawn on their minds that it is worth while to breed better men too, and to give them the chance that comes from virtuous parentage on both sides? As goods well bought are half sold, so men well born are half converted.

"There must be a vast change on this subject. We have

not come to it yet, or only here and there in mere scintillations of knowledge, but before the great ripeness comes the race will be regenerated in physical birth. Generations will in the ripe age supersede regenerations. There must be, also, a regeneration of society, for man is so made that he is largely dependent for his education, shape, and final tendencies upon influences that act upon him when he is a child, and that meet him when he goes out from the family. Men under certain forms of government, compressed, misled, are not competent for the things that they would have done if they had been under a purer, nobler, and wiser government. There must needs be a regeneration of government, and there needs to be also a regeneration of business.

“All institutions, governments, and laws, are but organized human nature. Governments and business, notwithstanding all their benefits, are varied with selfishness, full of cruelty, largely void of love. They may restrain the worst elements of mankind, but cannot develop the best. Thus, the human body must be born better, the human mind and dispositions must come into life better, men must come into life through better families, families must stand under better institutions and better governments—under divine laws and institutions; and we can only come to the higher through the imitation of these. But that is a slow work, a gradual work. There are very few pulpits that teach it, or that are competent to teach it, but it must come. It is a great work, it is a glorious work, the fulfillment of which will be the new heaven and the new earth.”

How to care for the Insane. A Manual for Attendants in Insane Asylums. By William D. Granger, M.D. G. P. Putman's Sons, publishers, New York city, 1886.

This is a very practical little work, giving much information, and will be found of great service in the training of attendants. This work should have a place in the libraries of all who are engaged in nursing, and will be read with pleasure by both physicians and specialists.

I. The Mystery of Matter. II. The Philosophy of Ignorance. By J. Allanson Picton. J. Fitzgerald, publisher, 393 Pearl St., New York. Post free, 15 cents.

There exists in our time no such schism between religion and intellect as that which characterized the eighteenth century. On the contrary, side by side with a growing independence of traditional creeds, there is a more marked tendency than the world has ever known before to associate the emotions of religion with the discoveries of science. To those whose only notion of alliance between religion and science consists in the futile compromises of the current schemes of "reconciliation," this may appear a bold assertion. But those to whom the most obvious emotion of religion is reverential awe, and its chief fruits self-subordination, uncompromising truth and charity, will gladly allow that science, as represented by its most distinguished masters, is increasingly affected by the inspirations of the spiritual life. This view of the relations between science and religion is admirably illustrated in the two very remarkable essays named above.

Hand-book for Instruction of Attendants on the Insane.
Cupples, Upham & Co., publishers, Boston, Mass.,
1886.

This work is prepared by a committee of the Scottish Medico-Psychological Association, and is most admirably written for popular instruction. The following is the table of contents: "The body, its general functions and disorders. The nursing of the sick. Mind and its disorders. The care of the insane. The general duties of attendants." The clearness, brevity, and accuracy of its statements commend this work to every specialist, and to any one who would be instructed in the every-day care of mind disorders.

The *Journal of Heredity*, *Phrenological Journal*, *Demorest's Monthly*, *Lend a Hand*, and the *Homiletic Review* are all distinguished in their lines, and may be commended to all readers.

Illustration of Unconscious Memory in Disease: including a Theory of Alteratives. By Charles Creighton, M.D.
J. H. Vail & Co., publishers, New York city.

This volume points out the influence of unconscious memory in health and disease. This is shown to be a cause of human action beyond the sphere of conscious life, and beyond the responsibility of our wills. This is another of those most suggestive studies on the border-lands of mind and matter, which will be read with great pleasure by all. We shall make some quotations from it in our next number, and advise all our readers to send to the publishers for a copy of the book.

The *Popular Science Monthly* for June and July presents a most valuable table of contents. Next to a medical journal, this science monthly is almost indispensable for the physician's library. The best thought from the ever-widening fields of science comes as a most stimulating substitute for the studies of a physician; and those who read regularly this journal must be far in advance of others.

The *Scientific American* completes its fifty-fourth volume in June, and may be said to have attained a maturity and solidity of character that commends it to all.

The *Electrical Engineer* is not only a readable but most fascinating journal for all who are interested in electricity.

Dr. Shepard's Turkish baths, on Brooklyn Heights, is the most attractive place to spend a few days, to all who are worn out and who are invalids, and wish to have the value of sea air with a scientific system of baths.

According to a correspondent the grape and wine growing regions of California are not increasing as rapidly as other fruit sections. Last year the grape growing sections covered 150,000 acres, while the orange culture extended over 200,000 acres. Other fruits are more largely cultivated every year. The inference is that the wine industry will give place to other and more profitable labors.

Editorial.

THE RECOGNITION OF THE DISEASE OF INEBRIETY IN THE CLASSIFICATION OF MENTAL DISEASE.

The effort to formulate some general classification of mental disease, taken up by an international committee of specialists all over the world, has brought out the fact that the disease of inebriety is now almost universally recognized. A number of leading specialists have each submitted a plan of classification for the consideration of the committee, and from these are to be selected some general plan which will be adopted as the latest conclusion of science in this field. It is interesting to note the place inebriety is given in these plans by specialists in different countries. Dr. Verga, of the Italian specialists, calls inebriety an acquired psychosis, and divides it into alcoholic and tonic. Dr. Lefebore, of Belgium, places it under the head of toxical alienation. Some German alienists, at a conference at Frankfort-on-the-Main, arranged inebriety under the head of alcoholic mania, and another division called it "those who need watching." Westphal's plan called the cases toxic and delirium tremens. Dr. Steenburg, of Denmark, made a distinct division of these cases under the head of delirium tremens, with subdivisions of chronic alcoholic insanity and periodic dipsomania. Dr. Wille, of Basle, calls these cases psychoses of intoxication, from alcohol and other intoxicants. Dr. Mynert's classification calls these cases toxic, from alcohol and other agents. Dr. Hack Tuke, of England, puts them under the head of manias and chronic deliriums. These are only a few of the different reports that have been submitted by committees of different countries, which will eventually be examined and compared in a general congress. The chairman of the

American committee, Hon. Clark Bell of New York, has invited committees of the leading societies in this country to join in uniting upon a form of classification of mental disease that will be presented to this international congress in the future. The committee from our association is as follows: Drs. Parrish, Day, and Crothers. The American committees will meet some time during the year.

It is a source of great pleasure to realize that at last the fact of the disease of inebriety is being recognized as a form of insanity, and our efforts through the *JOURNAL*, and otherwise, have been influential in the progress of science. Our society may well congratulate itself on opening up a new field, and leading the world's march in the recognition of a new and curable form of mental disease.

THE following is taken from Rev. Dr. Van Dyke's address before the graduates of the Long Island College, at their Commencement, and is a fitting tribute to one of the founders of our association, a pioneer worker who was far in advance of his day and generation, and whose name and work will be monuments in the march of science: "I am sure your hearts will beat in unison with mine, and make much sweeter music than my voice, when I mention the name of Dr. Theodore Mason, one of the principal founders and the first President of the Long Island College Hospital; a man whose hands, I believe, have conferred the diplomas up to this time upon a majority of the graduates of this institution. Wise in council, patient in endurance, indomitable in courage, conservative, and yet progressive, with a wide outlook for the future, he built his life-work deep in the foundations, not only of this college, but of other institutions benevolent and sanitary; a gentleman and a scholar, a Christian and a philanthropist, the friend of labor, and of the poor and the needy; he visited the widows and the fatherless in their affliction, and kept himself unspotted from the world, and the just blessed him."

TEACHING THE NATURE OF ALCOHOL.

The effort to prevent inebriety by teaching in the common schools the nature and character of alcohol and the danger of its use, is a psychological advance of the subject worthy of note. Many States have passed laws requiring this subject to be taught in the schools, and many text-books and an army of lecturers have appeared discussing the scientific facts concerning alcohol. These lecturers are clergymen, teachers, and irregulars in the medical profession, mostly non-experts, and most incompetent teachers of facts, who, from a small basis of truth, draw the most startling conclusions; conclusions that would require a century of study by the most competent men to determine. From the lecture-stand and before a general audience these exaggerations and fictions pass unchallenged. But when they are presented in text-books for purposes of teaching, the effect is bad. No one can doubt the importance of the subject, and the pressing need of information; but no argument or inaccurate statement can benefit or help on the cause. The zeal of earnest, misinformed men and women which betrays them into statements regarding alcohol that are untrue, is an injury, and in time will react and weaken, if not destroy all their efforts. No matter what is believed to-day by the masses, the truth will be recognized and accepted by-and-by.

The text-books to teach alcohol in the schools are already numerous and voluminous. When we consider that all the known facts concerning the nature and action of alcohol can be placed on a single printed page, the dozen or more text-books on the market, presenting this subject in from one to three hundred pages each, must appeal strongly to the reader's credulity. With one or two exceptions the authors of these works, and their peculiar emphatic style of writing, go far to deepen the suspicion of error and non-expert teaching. The conclusion is inevitable, that all present teaching of alcohol and its dangers must be empirical from such works, and the real results will not come from the impressions pro-

duced on the minds of the children, but from the general agitation of the subject, and the growth of a broader conception in the minds of the community. Alcohol, like electricity, will by-and-by become known, and its place in nature determined; then it can be harnessed safely into the service of progress and civilization. It is the profound ignorance of its nature and character that makes it so dangerous and fatal. The effort to teach the danger from the use of alcohol is a movement in the right direction. But unfortunately these efforts, like the movements of the first settlers or squatters of a new territory, will be transient. Occupying the land here and there, they will give way after a time to the real settlers, who will make permanent improvements and develop the country into an organized state. The real responsibility rests on the medical profession, not on moralists and clergymen. It is a scientific subject, that requires a medical training to study and determine. The public will justly turn to medical men for instruction on this subject. It is too early to teach what alcohol is, because it is unknown; but if this empirical teaching will rouse up inquiry to find out the facts, then good will come from it. If the money spent in this direction had been used to equip laboratories and employ competent men to discover the real truths, the cause of temperance would make great strides. What is wanted most are facts concerning alcohol proclaimed and maintained through all good and evil report.

INEBRIETY AND PYROMANIA.

A most excellent physician of a large town in New York State sends us a long account of two cases which have excited great interest in his community, and requests an opinion in the pages of the JOURNAL. A, one of the cases, came from an insane ancestry. His mother was more or less insane all her life, and died in Utica asylum. His father was a boatman on the Erie canal, and lived a life of great irregularity, using spirits to excess at times, and was finally

drowned. A was brought up by a miserly and very religious farmer. At twenty he went into a grocery store, and soon after began to drink beer to excess. When twenty-six he was considered a very dissipated young man. He worked when obliged to, and spent his time about saloons and stables. At times he drank quite steadily, and for days would be on the verge of stupid intoxication. He would seem quiet and at times express a strong desire to get even with some imaginary person who had injured him. Then he would recover, sign the pledge, and work for a time apparently quite sober. Two years ago he was arrested on the charge of setting fire to a barn; as the evidence was not strong, he was discharged. A few months ago he was caught in the act of putting fire to a large factory. It appeared on the trial that, in company with a younger man, he had put fire to many buildings about the town during the past year, and had been very prompt and energetic to extinguish the flames. He plead guilty, and gave as a reason that he could not help it, and that it was the work of rum. He did not ask for pardon, but simply deplored his weakness and said it was whisky alone. His accomplice, B, was a German, with unknown parentage, who seems to have been brought up in beer saloons, and finally graduated as a bar-keeper. He was a weak-minded, steady beer drinker, who, when he had drunk too much, was very morose and talked revengefully of resenting some imaginary wrongs. He was considered childish and incapable of committing any great crime. For the past two years he was the boon companion of A, and seemed to be very obsequious and deferential to all his wishes. They would be seen walking out at night, B always conceding to A in everything, and never making any protests. B was arrested with A, and confessed the crime, giving full particulars of many instances in which he both assisted and committed the act under the direction of A. On the examination both stated that after drinking they would walk out to sober up, when suddenly A would suggest they have a little fun, meaning put fire to some property. This they did with caution, but without any

special design as to whose property was burnt. The fire would be started, both would run away, A would return and try to put it out, while B remained concealed at a distance watching it. When it was over they seldom talked of it. B claimed that A had bewitched him, and that he could not help doing what A commanded him to do.

The counsel for the defense contented himself by pleading for mercy on the ground of previous good character; that they had never been known to have violated any laws, and that they were repentant and confessed at once. The judge read them a severe lecture and sentenced them to a long term of imprisonment. A described his impulse to set fire to buildings as the temptation of the devil, which he could not resist, and which possessed him like a cloud, filling every thought; but when the fire was under full headway vanished, and was replaced by a feeling of regret and desire to repair the injury.

These are the leading facts, and assuming them to be true, there was no doubt great injury done in their sentences. A was an inebriate with pyromaniac impulses. He was born a defect, with an insane and alcoholic tendency, and almost any form of insanity might have been reasonably expected. He was clearly unaccountable for his acts, and was the victim of an insane impulse, both born and acquired. B was likewise an irresponsible, defective person. How far these pyromaniac impulses were the growth of disease in his brain or the projection of A's morbid impulses on a mind weak and prepared to receive them, cannot be determined. Both of these men were clearly insane, and punishment in prison is a most dangerous remedy for them. They will come out terribly unfitted for a life of sane act and conduct. They cannot be made sane and well by prison treatment; all those morbid impulses will be intensified and break out in some other direction when they regain their liberty again.

The State is simply schooling them for other and more insane acts. The normal power of self-control will be broken up, and should they live through their long term of imprison-

ment will be prepared for other crimes, and always be dangerous persons in society. Facts and experiences within the observation of every one fully sustain these statements.

MORBID IMPULSES IN INEBRIETY.

A most fascinating field of premonitory symptoms appear in the history of nearly every case of inebriety. The impression grows on the mind of the observer that these symptoms, when better understood, will be found to be more or less uniform in their growth and progress, and to spring from causes that can be understood. Most cases are preceded by, or follow, some condition of mind and body that is alike at all times. In others, complex and most obscure states of mind appear, that are only recognized after the paroxysms occur.

The following case shows a very curious mental condition which precedes the drink paroxysm, and suggests more pronounced states of insanity than was apparent from general inquiry. A, forty-four years old, a lawyer and editor of great brilliancy of mind, came under my care in 1882. He had served with grèat credit in the army, and began to drink at long intervals to excess after his discharge. He is a paroxysmal drinker, with free intervals of sobriety of from three to twenty months. In meantime, is very actively engaged in literary and professional work. For the first ten years the paroxysm for drink would come to his mind in a rapidly growing desire to feel the exhilaration of alcohol. He would hold a continuous debate in his mind whether he should use spirits or not. Often he would decide against it, then when the mind grew calm again the impulse to drink would come up, pleading and urging reasons for the use of spirits. This debate would go on for a week, then finally he would yield, and after three or four days of excessive use of spirits he recovered, and continued for months free from all desire for it. This mental debate became a season of wretchedness, apparent to his friends, and was marked by a reckless over-

work and state of excitement, literally to get away from this impulse. His wife and physician did everything possible to break up this, but without avail.

Two years before I was consulted, a new phase of the drink paroxysms appeared. Without any warning, and in the best of health and spirits, he would go to a saloon or hotel and drink to great excess for twenty-four hours; then suddenly start up and become terribly excited about his condition; hear voices of warning and accusation, and make great efforts to get away from danger. He would go home, call his physician, and suffer from intense melancholy and insomnia; have gastric inflammation, and be unable to keep anything on his stomach. Then this would cease, and an inordinate appetite would follow. He would remain in bed a week or ten days, and while suffering in mind, have many and varied pains in all parts of the body; also be alarmed for fear of insanity, and expect a sudden eclipse of mind; call in his clergyman and become very earnest in prayer to let this cup of sorrow pass from him. Some little thing would serve as a turning-point, and he would get up as suddenly as he went down, go out and resume work with all his usual calmness and brilliancy. He was offended if his past was alluded to in any way. The onset of these drink cravings was a form of trance state, in which all sense of responsibility and duty seemed to be suspended. His memory of what he did was not clear, but at the time he drank in a precipitate way, and gave as a reason that he could not help it.

These paroxysms have continued up to the present time, two or three every year. The drink period is longer and the recovery is also longer. His mind is more sensitive, and these drink paroxysms often seem to start from some little cause; as, for instance, the sight of a drunken man, some little irritation from any source, as bitter words, sudden excitement or sorrow. It would seem when the mind reaches a certain stage, a moral paralysis comes on, and he is the victim of the drink impulse until it is exhausted, then his paralysis lifts, and his danger and situation come into view.

Another curious fact is noted, that these little causes are inoperative and make no impression except at such times, and his friends can only judge of their approach by the length of time which has elapsed since the last drink period. His mind is very acutely sensitive to the danger of another drink paroxysm, and he resolves and pledges himself to stop, and makes every effort to prevent their recurrence. When these times come on he forgets all these efforts, and all advice seems lost, and the efforts of both wife and friends are lost. In a few hours he awakens to the situation, and his alarm and fears are morbid. If a clergyman or friend should be in prayer at this time, he joins in the faith that his sudden change is the answer to prayer. Should a dose of medicine be given, or a word be said, he attributes to them the same power. But this faith dies out after a time and is lost in other views.

He is still in business, and able to work with his accustomed skill, but he is less buoyant and cheerful, and, like all others who drink, is confident he will recover by his own will, and has the usual delusion of great loss of character in going under treatment in some institution.

WHEN an inebriate suddenly develops mania which continues for some time without cessation, some head injury or sunstroke will be found in the history. If the mania is preceded by a stage of depression and melancholia, the prognosis is grave. If the mania comes on gradually and seems to be dependent on the spirits used, yet keeps on when spirits are removed, serious trouble may be anticipated. If the mania goes away and returns again without any external cause, some state of physical exhaustion produces it. If the mania is violent and destructive, more debility will follow than if mild and delusive. Deliriums of grandeur and power are not grave where they are transient, but when they grow in intensity and duration, gravé lesions of the central nervous ganglia are indicated. The manias of inebriety should always be studied with great care.

INCREASE OF INEBRIETY IN HOT WEATHER.

The hot waves which follow each other during the summer months, register their duration and intensity in the police courts, station-houses, and hospitals of all large cities by the sudden increased number of inebriates who come under observation. A sudden rise of the thermometer brings more drunken men to the station-house, and more acute intoxication is noticed on the streets. Why this is so is not clear. Why should the nerve and brain debility of inebriates seem more easily affected by extreme heat? Why should alcohol have more rapid action, causing pronounced narcotic effect? Why should the inebriate use spirits more freely at such times? These and many more inquiries await an answer from the scientists and future investigation.

One view of the subject should be practically recognized everywhere. *First*, the great danger of confining intoxicated persons arrested on the street in hot weather, in close, badly ventilated cells; such cases are in great danger of heatstroke. Narcotized with alcohol, and thrust into close, stifling air — all the favoring conditions are present, and the person is found dead next morning in the cell, or in a state of deep stupor from which he dies later. The real cause was not the intoxication, but the heatstroke from the close air of the cell. Close, hot cells should never be used for the purpose of confining intoxicated men in hot weather.

Second, in a number of cases, drinking-men suffer from partial sunstroke in the street or saloons, and are taken to station-houses, as simply drunken men. They are placed in cells, receive no care, and die. They may be temperate, and, feeling bad, take a glass of brandy for relief, fall into a state of coma, the real cause being the sun or heat-rays; but from the alcoholic breath they are judged to be intoxicated and taken to the cell, only to have an increase of their injury and die.

Another class of cases, far more common than is supposed, are those who, after a partial sunstroke, take a single glass of

spirits, become delirious, and are called "crazy drunk." They are roughly taken to the station, and, perhaps, hit on the head, with no other idea than that of willfulness, and next morning are dead, or are taken to the hospital, and supposed to have meningitis, from which they die. The real cause was the policeman's club, and hemorrhage from traumatism.

Another class drink ice-water, or soda compounds, to excess, then, to relieve the distress from these drinks, take brandy or whisky and become delirious. They are arrested, and thrust into a cell like the others, and if they do not have a heatstroke suffer from injury in their delirium by striking their heads against the walls. Policemen have no other standard except the alcoholic breath for determining the state of the person.

An instance came under my observation, of a man, poorly dressed, who was overcome by heat and exhaustion, and was given a glass of whisky by a kind-hearted storekeeper. He became delirious, was taken to the station, and from thence to the hospital, where he died a few days later. The autopsy revealed a fractured skull and a ruptured artery, which came from the struggles in the arrest or self-inflicted injury in the cell.

Third, judges who administer so-called justice to these poor victims, often assume that this sudden increase of inebriates demands increased severity of punishment; and the wrong of arresting every one indiscriminately and sending them to station-houses is still further increased. Justice is outraged, and the burdens of the tax-payer increased, and the danger to life and property made greater by recruits to the dangerous classes—classes diseased and incapable beyond recovery, yet treated as law-abiding citizens and held responsible.

The medical men in every town should insist that all men arrested during hot periods for supposed intoxication should come under medical care, and be examined carefully before they are thrust into cells. The community should be taught that the increased number of acute inebriates in hot weather points to ranges of physical causes that

require study, and can not be treated by policemen or police judges. Hot cells in the ordinary station-houses are sources of danger that should be avoided. The delirious or comatose inebriate who is placed in such cells over night is practically murdered. The chances of escape from heatstroke and traumatism are far less than the hope of recovery. The skill to correctly determinate the condition of these acute inebriates who are arrested in hot weather is far greater than in ordinary insanity, and should not be trusted to policemen and non-experts. Here is a field for the ambitious physician who would discover new ranges of physical causes, and point out methods of prevention of the greatest practical importance.

WE have received a long, bitter appeal from Dr. Evans, to give an opinion on a case in which many medical men have differed. The case was that of a lady lately confined, and nursing an infant who seemed healthy. For some neuralgia or malarious complication, she was given morphia and spirits in sufficient doses to be quite stupid for some days. In meantime, the child, who was nursing her, had convulsions and became stupid and died. The diagnosis seemed to rest between tuberculous meningitis and opium poisoning. Questions of fact in science can never be settled by acrimonious debates and sharp personalities. It would be more profitable to read some of the literature on this subject, and find that many cases of this character have been reported, also that the best authorities point out this danger in nursing-women, and warn the practitioner against the use of opium in any form to such cases.

The narcotic called *Hopeine*, reported to be a new principle of hops, has been found to be a preparation of morphia concealed with an extract of lupulin.

Inebriety precipitates the system into premature old age. Fatty and chronic interstitial degenerations come on. Both mind and body take on all the symptoms of age and decline.

Clinical Notes and Comments.

INEBRIETY FROM TEA.

Dr. Slayter, in a late number of the *Lancet*, writes of a case of delirium in a girl who chewed large quantities of tea. It appeared that masses of tea leaves had lodged in the bowels, and the delirium was in some measure dependent on the irritation and reflex action which followed. Trembling delirium, and delusions of injury from others, gave it a strong resemblance to delirium tremens. The amount of tea chewed daily was over one pound. The patient recovered by the use of free cathartics and the withdrawal of the tea. In 1881 I saw a boy who had delirium and trembling that had existed at intervals for two months. The fact that his father had died an inebriate seemed to be a sufficient reason for his symptoms in the minds of his friends. It was ascertained that he had for years drank large quantities of tea. Having been employed in a tea-store, he had chewed it freely. He was literally a tea inebriate. He had inherited an inebriate diathesis, and the early and excessive use of tea was a symptom of it. He had all the symptoms of one who was using alcohol to excess. He recovered, and a year later used coffee to great excess, until he became unfit for work; then was under medical care for a time, recovered, and finally became an opium-taker. Another case came under my observation in the person of a little girl twelve years old, the daughter of a patient under my care for inebriety. She had gradually and steadily become excessively nervous. Could not sleep, had muscular twitchings and delusions of fear; would burst into tears, and complain that she was going to be turned out into the streets. She heard voices at night, and could not keep still. She also imagined that her father was being burned. It was finally found that she was a tea inebriate, and both

drank and chewed it at all times and without any restraint. A physician consulted me about a singular stage of trembling and mild delusions which had appeared in a family of three old maids living alone in the country. It was found to come from excessive use of tea, and to be tea inebriety. When this was stopped they recovered. My observation leads me to think that these cases are not uncommon among the neurotics. They are of such a mild character at first as to escape special observation, and hence are supposed to be due to other causes. Such cases, after beginning on tea, take other drugs, and become alcohol, opium, or chloral takers, or develop some form of neurosis, which covers the real and first causes.

ANY comparison of the results of treatment in insane asylums with that of inebriate asylums brings out some very positive evidence in favor of the latter. Of five thousand cases under treatment at Binghamton and Bay Ridge ten years ago, over thirty per cent. are now temperate, and a large per cent. of this number are occupying responsible positions, have charge of property and estates, and are active business workers in their communities. Compare this with the history of five thousand insane who were discharged ten years ago as cured or benefited, and not ten per cent. can be found to-day who are producers in active life. Practically when the insane are removed to an asylum the causes of insanity are not removed, but when you remove the inebriate to an asylum many of the active causes are removed. In the diagnosis and treatment of the inebriate you have the coöperation of the patient. Not so with the insane. The insane recovers slowly, because he cannot reason on his case; the inebriate recovers more rapidly because he can reason and adapt himself to the new circumstances and conditions of life. Inebriate asylums are always more practical and will do far more towards restoring men to the ranks of producers than insane asylums.

DR. TURNER.

CLINICAL STUDY OF A CASE OF INEBRIETY.

A young man possessing rare gifts of mind, an only son, in many respects the counterpart of his father. They were both professional men of ample means, and with but little to think of, except how best to enjoy life; and, of course, each had his own ideal of what constituted enjoyment. The father was an extremist in religion of the transcendental order, and seemed to dwell in an atmosphere that imparted to his inner sense the most exquisite delights, and when not ranging in invisible spheres, and communing with unseen friends, he was intent on securing converts to his faith; and especially was he anxious to enlist the gifted mind of his son in the same pursuits with himself. The son, on the other hand, could not adopt his father's ideal, though he was envious of his ecstatic flights, and determined to avail himself of the intoxicating and bewildering effects of ardent spirits, hoping thereby to arouse, if possible, similar ecstasies to those of his father's mental state. His judgment could not accept the religion of the father, though he thought he discovered that its realm was, to a great degree, within the scope of a lively imagination, and that by stimulating his own powers he might occupy the same field, and enjoy similar fellowships and fancies.

Both parent and son were alike in temperament; the bodily health of each was good, and on more than one occasion, both in my presence and in the presence of each other, were earnest and sincere in argument and appeal to convince me that the other was insane. The son conceived the father to be a monomaniac on the subject of religion; and the father believed the son to be insane, because, not accepting the dogmas of his transcendentalism, he obtained enjoyment from the bowl. The brain of one was disturbed by a faith which inspired his conduct to a degree, and in a manner, to warrant his being classed with those who

“Are drunk, but not with wine,”

and who

“Stagger, but not with strong drink.”

The brain of the other was so far athwart its balance as to believe he could substitute the intoxicants for a religious faith, and draw from their inspiration similar delights and enjoyments. By unreasonable methods both sought to realize what they could not possess in a normal state, or could not obtain by reasonable means. The recompense to each was in harmony with his tastes and with the means employed to indulge them.

These men occupied the border-land between sanity and insanity, for a season. They kept pace with each other in concurrent lines, during several years, each following his own course to its end. Occupying separate homes was among the early signs of domestic dissolution, and the sequel of the son's career was a permanent lesion of the brain, requiring a care-taker for the remainder of his life.

The natural outgrowth of his father's vagaries was a gradual but continuous loss of mental poise, and a corresponding diminution of worldly fortune. Both of them, from a common impulse, that was purely psychical, sought happiness through channels that were alike familiar and congenial with their tastes, but leading to one and the same result. The son reveled in an artificial atmosphere, the product of alcoholic intoxication. The father delighted in a rapturous communion with a counterfeit world, which was brought within his reach from beyond our own sphere, not by the poison of alcohol, but by the toxic wand of a bewildered imagination. The brain was intoxicated in both cases, and yet neither was an inebriate. The father exhibited psychical, and the son physical symptoms of intoxication.

DR. PARRISH.

DR. CLOUSTON of Edinburgh Asylum, Scotland, writes : "I am safe in saying that no man indulges for ten years continuously, even though he was never drunk in all that time, without being psychologically changed for the worse. And if the habit goes on after forty years, the change is apt to be faster and more decided. We see it in our friends, and

we know what the end will be, but we cannot lay hold of anything in particular. Their fortunes and work suffer, and yet we dare not say they are drunkards, for they are not. It all depends on the original inherent strength of the brain how long the downward course takes. Usually some inter-current disease or tissue degeneration cuts off the man before he has a chance of getting old. I have seen such men simply pass into senile dementia, before he was an old man, from mild, respectable alcoholic excess, without any alcoholism or preliminary outburst at all. And I am sure I have seen strong brains in our profession, at the bar, and in business, break down from chronic alcoholic excess, without their owners ever having been once drunk.

DR. OGLE, the superintendent of Statistics of the Registrar-General office in England, in a late paper on the mortality of physicians brought out the following startling facts: "The annual mortality of medical men in England has been increasing since 1880. Compared with other callings, this mortality was found to be very high. Among the causes of death, alcoholism or inebriety was more frequent among medical men than among the general people." Thus the annual deaths per one million people are one hundred and seventy-eight medical men from alcoholism, to only one hundred and thirty deaths from this cause, in the general population. In almost all the causes of death, the mortality of medical men was greater than among other classes.

The *Johnson Revolving Book-Case* is one of the most elegant and useful articles of furniture that can be put in the office or library. It is practical, cheap, and durable, and would be a most acceptable present to a clergyman or physician.

VALUABLE REMEDIES IN INEBRIETY.

The remedies advertised in our pages are very near specifics in most cases of inebriety and its allied disorders. In our experience *Horsford's Acid* is excellent in the beginning of treatment, where the stomach will bear an acid, and later, when the case has recovered, as a drink its effects are marked. The *Lactopeptine Compounds*, by the *N. Y. Pharmacal Association*, especially those combined with iron, bismuth, strychnine, and other remedies, can be used in all cases with the most satisfactory results. *Colden's Liquid Beef Tonic* is invaluable in cases of great exhaustion and debility, and can be used in the early stages of these cases with great benefit. *Wheeler's Tissue Phosphates* are valuable, after the acute stage of inebriety has passed, to build up and restore the system. *Maltine Preparations*, by the Maltine Company of New York and Yonkers, being extracts of malted wheat, oats, and barley, combined in many cases with various drugs, is an excellent combination. We have used the *Maltine plain* and the *Maltine Cascara Sagrada*, the latter for constipation and deranged bowels, and most heartily commend it. The *Bromidia Compound* of Battle & Co., St. Louis, is a combination of narcotics that is not excelled, and is a remedy that should always be in readiness for emergencies. *Beef Peptonoids* and *Coca*, prepared by Reed & Carnrick of New York, is another of those nutrient stimulants that are so valuable in cases of exhaustion from inebriety and opium taking. The *Coca cordial*, by Parke, Davis & Co., has the same action, and as a coca preparation will be found indispensable in those cases of border-land disease. *Fellows' Hypophosphites* acts promptly as a stimulant, and in all of these cases of debility of brain and nerve organization can be used with the most satisfactory results. The *Lactated Food*, prepared by Wells, Richardson & Co. of Burlington, Vt., is found in our hands of much value in the low grades of chronic inflammation, following from excessive use of alcohol. Compared with beef tea it seems it is far superior as a rapid stimulant, and should be used in all cases of great exhaustion. We shall in the future make a note of some comparative studies with this and other foods.

THE
QUARTERLY JOURNAL OF INEBRIETY.

Vol. VIII.

OCTOBER, 1886.

No. 4.

This Journal will not be responsible for the opinions of contributors, unless indorsed by the Association.

ALCOHOL ON THE RESPIRATION.

BY DAVID BRODIE, M.D.,

Honorary member of the American Association for the Cure of Inebriates, Canterbury, England.

Seventy-three years ago the distinguished chemist and original inquirer, Dr. William Prout, made some most interesting and valuable experiments on the various conditions which influence the discharge of carbonic acid gas by the lungs in breathing. In the course of his observations, Dr. Prout was much surprised to find that the quantity was much diminished after he had taken porter with his dinner, while the reverse was the case when he took only water. After repeated experiments, the fact was established that alcohol, in its various forms, has a constant and a very marked influence in diminishing the quantity of carbonic acid in the respired air.

Several important researches on the same lines have been undertaken by practical chemists in later times; but to Dr. Prout must be accorded the honor of initiating this inquiry, and of carrying it sufficiently far to supply most valuable and trustworthy data to elucidate the history of the action of that most mysterious spirituous agent in the animal economy. It

were vain to dwell on what might have been the position of humanity in relation to the terrible alcohol question at this day, had this fact and its true significance been recognized in 1813, and upheld as a beacon light from that day to this. Of this much we may be sure, that much of the learned and labored disquisition on the benignant influence of alcohol, which has been inflicted on these later ages, and which goes on under full pressure to this present hour, would never have been heard, the contest which brave and enlightened men have so long and nobly upheld against the drinking usages of society, and the disease and desolation and death which follow in their train, would have been more effectively sustained, and would have had more decided and conclusive results than we can yet boast of, and, what is of more importance than aught else, the medical profession would not have been disgraced and degraded by the pseudo-science and specious fallacies which have been so liberally presented in maintaining the usefulness of alcohol as a supporter of life and a remedial resource in disease, men of high standing in the profession would not have hazarded their reputation for scientific precision, on such flimsy arguments as have been often so confidently and complacently adduced, had Dr. Prout's sagacious and scientific conclusions been before them. That this precious and signally instructive fact in the history of alcohol, with practical bearings on human well-being of the most urgent importance, and which had been revealed to us by an observer so enlightened and trustworthy as Prout has been proved to be, should have been so overlaid and buried, as Carlyle would say in the rubbish heaps and dust whirlwinds of the past, as to have been almost wholly lost, is truly difficult to explain.

It is a sad illustration of the truth that when facts conflict with prevailing prejudices, they are pretty sure to be ignored, and, unfortunately, in this case, the seductive character of the material has given extensive currency to the prejudice that people are benefited by the use of alcohol, and that it deports itself as a salutary agent in the system; and this

prejudice is not only deeply ingrained in the vulgar and unthinking portion of society, but it largely pervades the theories and practices of the medical profession.

The more famous chemist, Liebig, followed Prout at an interval of about twenty years, and his name also stands prominently associated with the alcohol question, but in such contrast to that of Prout as is painful and humiliating to contemplate. Liebig has not left us a single observation of value on this subject, but he has flooded the age with ingenious and plausible hypotheses, under which most mischievous fallacies as to the influence of alcohol in the living economy have received extensive circulation, and have become deeply entrenched both in the popular and professional mind of the times, apparently almost beyond eradication: while the grand demonstration of the true action of alcohol by the patient and painstaking and unpretending investigator, tracing out the secret and unsuspected working of the insidious spirit, has been allowed to lie almost unheeded, noticed only by a few sympathetic seekers after truth. The truth according to Prout, has been practically ignored, while the specious fallacies of Liebig have had universal acceptance, have been as widely swallowed as the dangerous and deluding agent they were intended to commend. Such is too often the fate at once of the flatterers, as of benefactors of humanity, *veritas vincit*, sometimes very slowly. A remarkable reference to these two chemists by Dr. Marshall Hall, in 1837, came recently under our notice. Marshall Hall had to fight a hard battle for the acceptance of the results of his original investigations on the nervous system by the profession, as all discoverers of great truths have had to do, and he keenly resented, in words more plain than pleasant, the opposition he received. The present, he says, has been too justly designated the age of medical degradation, when members of our profession shall be really and fully imbued with all its literature, they, and it, will take the station which is due to them. But there are those who actually boast that they never read! that is that they are

without literature; that for them, Prout and Liebig have labored and written in vain. The result is that our profession is indeed in a state of degradation. We fear that we can only intensify rather than mitigate, which would have been a much more agreeable task, this severe censure; for we have to point out that the labors and writings of Prout, which require some reflection and study to appreciate, have been neglected and laid on the shelf, wholly lost to the cause of temperance, while the baseless and arbitrary assertions, as they are characterized by one of his own countrymen, with which Herr von Liebig has a peculiarly facile talent for propping up his conclusions, dazzling and bribing his public withal, have been received as gospel truths, and have been retailed in vindication of most discreditable recklessness in the employment of alcohol.

Dr. Prout's whole inquiry is of the greatest interest and importance, as illustrating the extreme caution and carefulness which he brought to the investigation of a new and strange subject, for we must remember that it was undertaken in the very early days of pneumatic chemistry, a department of science in which subsequent investigators have added much to our knowledge. But as a great base-ment fact, second in importance to none, in the great campaign against alcohol, of which we have not yet seen the end, the paper of Dr. Prout should be republished in full and widely distributed, so that no one, especially in the medical profession, could undertake to speak on the subject without being confronted with the facts put on record by that distinguished and enlightened authority. In the meantime we must be content to present in the shortest possible compass, the observations which directly bear on our present subject, and we shall endeavor to place the facts in such a light that both friends and foes to the temperance movement may read, mark, learn, and inwardly digest their significance. Prout's observations were extended over a period of weeks, and the experiments were made every hour, and sometimes oftener, during the day and occasionally during the night.

The first step in the procedure was to determine his normal or health standard, and after careful observations, Prout found the mean for the twenty-four hours, viz. : 3.43 per cent. of carbolic acid gas in the respired air, the maximum being 4.10 about noon, and the minimum 3.30, which prevailed during the night. The effect of rest exercise (bodily and mental), was noted, and some interesting results are recorded.

On the immediate effects of taking food, Dr. Prout remarks : The effects observed from food have not been remarkable, and apparently little more than to keep up the quantity to the standard, and sometimes to raise it a little above. Certainly never to depress it below, unless I took some fermented liquor, and then it was always depressed, as will be seen immediately. Abstinence from food for twenty-one hours, was found to depress the quantity of carbolic acid very little below the usual standard. We quote Prout's own words as to the effect of alcohol. He says : "Alcohol and all liquors containing it which I have tried, have been found to have the remarkable property of diminishing the quantity much more than anything else that has been made the subject of experiment. This was so unexpected on my part, that I was prepared to meet with the reverse. I was first led, however, to suspect the accuracy of my opinions by observing that when I took porter with my dinner, the quantity was always reduced much below the standard, the reverse was the case when I only took water. This induced me to make some experiments on the subject, and their results were such as fully to persuade me that alcohol in every state, and in every quantity, uniformly lessens in a greater or less degree, the quantity of carbolic acid gas elicited, according to the quantity and circumstances under which it is taken.

"When taken on an empty stomach, its effects are most remarkable ; in this case they appear to take place, and the depression to be greatest, almost instantaneously ; after a short time, however, the powers of the constitution appear to

rally, and the quantity rapidly increases ; then it sinks again, and afterwards slowly rises to the standard. I have generally observed this sort of oscillation when the quantity has been suddenly and greatly raised or depressed from any cause, and I have been ready to account for it by supposing that the sudden and great exertions of the animal powers required to counteract the effects of a poison or other injurious cause operating, made them, as it were, overact themselves. Upon a full stomach, as after dinner, the effects of vinous liquors are more slow, but no less sure and remarkable: I have even thought them more permanent, but this might arise from my having taken a larger quantity than I chose to do on an empty stomach."

As long as their effects are perceptible, so long is the quantity of carbolic acid gas emitted, below the standard. The results of Dr. Prout's experiments are presented in twelve tabular statements ; of three experiments only, we present the most striking details.

Hours of Observation.	Observed Quantity of Carbolic Acid. Percentage in Respired Air.	REMARKS.
P. M.		
1.15	3.85	Before dinner.
2.25	3.55	Twenty minutes after dinner.
3.55	3.60	
4.55	3.60	
A. M.		
11.40	4.00	Before taken wine.
P. M.		
12.10	3.00	Five minutes after taking 3 ozs. of wine.
1.25	3.10	Twenty minutes after a walk and dinner.
3.00	3.00	
3.30	3.10	
3.55	3.00	Ten minutes after taking half a pint of wine.
4.30	2.70	Very strong effects of wine, vertigo, etc. This is the largest point to which I have ever seen the quantity reduced.
5.00	2.90	
8.05	3.60	Here the effects wore off. Frequent yawnings, and a sensation of having just awoke from a deep sleep.

9.30	3.30	Standard resumed five hours forty-five minutes after having taken wine.
NOON.		
12.00	3.90	
12.30	3.60	Five minutes after taking 1 oz. of diluted alcohol.
12.50	3.45	Five minutes after taking 2 ozs. of diluted alcohol.
1.20	3.40	Five minutes after taking 3 ozs. of diluted alcohol.
2.15	3.35	
2.45	3.30	This shows that even in divided doses which have been supposed to injure the stimulating effects of alcohol, it still acts by diminishing the quantity of carbonic acid.

We desire that the marked effect "almost instantaneously" produced by small doses of alcohol, reducing the exhaled carbonic acid by one-fourth, be specially noted, and also the prolonged depression (nearly six hours) which attended what would be regarded as a very moderate quantity of wine. The depressing effect of small and repeated doses Dr. Prout has pointed out, and it is very noteworthy.

"In the annals of philosophy" for 1814, Dr. Prout presents a second paper in continuance of this subject, in which he mentions with special satisfaction that Dr. Andrew Fyfe, of Edinburg, had been prosecuting the same inquiry which he had just made the subject of his inaugural thesis. Dr. Fyfe had followed very much the same lines of inquiry as Dr. Prout. Wine, he found, reduced the quantity of carbonic acid from 8.5 per cent., which he had found to be his standard quantity, in one experiment to between 2 and 3 per cent., and in another, to 5.75 per cent. He found also that on the day after a much greater quantity of wine than usual was taken, the quantity of carbonic acid, by repeated experiments, was as low as above stated; with less wine the quantity was considerably reduced, though not so much as before.

In a paper on the phenomena of sanguification, in the same work for 1819, Dr. Prout refers to his own and Dr. Fyfe's researches, and in a *résumé* of the causes which depress the elicitation of carbonic acid, he says: "The greatest decrease experienced was from the use of alcohol and vinous liquors in general, especially when taken on an

empty stomach, whatever diminishes the powers of life, as low diet, etc., appears, from Dr. Fyfe's experiments as well as my own, to have the effect of diminishing the quantity."

With great reluctance we must leave our readers to draw their own references from this wonderful revelation of the secret doings of alcohol. But we are most unwilling to part with this interpreter of Nature, this guide, philosopher, and friend without a shout of triumph over such testimony, from such a witness on such a subject. Has the stern logic of truth ever read such a lesson to men and the times we live in? That alcohol in all its forms is always and under all conditions a depressor of vital energy; that its vaunted power as a vital stimulant is a mockery, a delusion, and a snare.

But we must forbear, and hasten to gather up some additional evidence, some of it from most unwilling witnesses, to complete, as we may be able, the grand superstructure, of which the foundation has been so nobly laid by William Prout. Nearly thirty years elapsed before this important inquiry was resumed; but the classical work on respiration, by Vierordt (Carlsruhe, 1845), was worth waiting for. It represents a most extensive research, embracing numerous series of experiments on his own person, 600 in number, and extending over a period of fifteen months. In a few words Vierordt condenses the results of his experiments on the action of alcohol. He says: "As Dr. Prout (and Fyfe, we must add) has already, I, also, have found a considerable decrease in the elimination of carbonic acid after the use of spirituous liquors. The mean of four observations showed that the carbonic acid fell after taking from one-half to a bottle of wine very quickly (*wahr schnell*) from 4.54 per cent. to 4.01, and retained through one to two hours the latter value. Thus the absolute amount of carbonic acid is remarkably lessened, viz., by about one-eighth. This influence shows itself during digestion, as the elimination of carbonic acid after meals taken with wine is far less energetic than after meals without wine. Digestion is delayed when spirituous liquids are taken with the meals." He further remarks,

“Prout, of whose excellent observations I could hardly dispute a single one in the long succession of my experiments, points to this: that lively agitations of the mind cause an increase of carbonic acid.” The late Dr. Carpenter did not contribute any new observations on this subject, but he was deeply interested in the alcohol controversy. On our present subject he says (writing in 1858): “That the presence of alcohol in the circulating current does interfere with the processes to which the functions of respiration is normally subservient, appears from the fact, which has been verified by many observers, that its introduction almost immediately causes the arterial blood to present the venous aspect.” And again “The introduction of alcohol into the blood has the effect (as has been determined by the careful and repeated experiments of Drs. Prout and Vierordt) of occasioning a considerable diminution in the percentage of carbonic acid in the expired air.”

Of the inevitable and very serious consequences which must attend this restrained respiratory action, Dr. Carpenter speaks very forcibly. He says: “As the channel by which decomposing organic matter in the blood is chiefly eliminated, is the respiratory process, it will most powerfully favor the action of zymotic poisons on the body, and if there be anything certain in medicine, it is the fact that deficient aeration of the blood, by whatever cause induced, does exert such an influence. Further, it may be stated with confidence, that the tendency of the habitual use of alcoholic liquors is to induce a state of the blood exactly resembling (so far as this point is concerned) that which is brought about by imperfect ventilation, bad sewerage, noxious emanations, etc., namely, to contaminate it with the refuse generated in the body itself, whose due elimination is checked no less effectually by the presence of alcohol in the circulating current, than it is by constantly shutting up the doors and windows of our apartments, or by heaping together a mass of putrefying rubbish in our cellars, or by damming up our sewers and causing them to overflow into our kitchens, or by any other

similar approved means of causing the fever-germs (and a great many germs besides fever-germs are now recognized) to take root and flourish in our systems."

In 1849, M. Hervier and St. Layer, presented to the French Academy of Sciences an exhaustive and valuable memoir on the exhalation of carbonic acid in health and disease, or rather under physiological and pathological conditions. Among many most interesting and most important deductions, is the statement that the use of alcoholic drinks diminishes the carbonic acid exhaled, and, also, that the inhalation of ether and chloroform produces the same effect. It is further stated that the air expired by young persons contains a larger proportion of carbonic acid than that exhaled by adults. In connection with this last observation we submit the statement that for equal weights, children of nine or ten years of age exhale nearly double as much carbonic acid as adults. We can thus explain the greatly intensified effects of alcohol upon young persons. The more recent observations of Boeker (Bonn, 1854) confirms the previous evidence of the effects of spirituous and fermented liquors in impeding the proper functions of the lungs in eliminating carbonic matters from the blood. His researches were made with great care, and were conducted through upwards of sixty experiments upon his own person. He lived as usual, and seven or eight times a day, took a teaspoonfull of spirits of wine. This was continued for six days in succession. The effects of wine were also subjected to observations, from one and one-half to two and one-half bottles daily of a white rhenish wine, or a red wine from a Burgundy grape, were taken alone or with food. In both cases there was a diminution of the carbonic acid expired. The alcohol diminished not only the absolute quantity of carbonic acid exhaled by the lungs, but also the relative proportion of it in the products of respiration, and the augmentation which accompanies the period of digestion was materially lessened. Boeker calculates that when using alcohol, he excreted daily 165-744 cubic centimeters less

than his ordinary quantity, and he proved that the want of action in the lungs was not compensated by any increased action in the intestinal canal or the skin. Boeker extended his observations to the action of beer, the effects of which on the respiration were found to be the same as those of pure spirits. After fourteen days' use of four or five pints daily of German beer, one-third of the strength of Bass, he examined the condition of the blood and he reports some interesting particulars. He especially notices a much increased proportion of the pale unnucleated globules, and these Boeker holds to be defunct bodies, no longer capable of absorbing oxygen, and he infers that this increase of solid matter in the blood, in beer drinkers, is no evidence of increased vital powers, but merely a retention of partially effete materials.

(To be continued).

IN the excellent work published by J. H. Vail & Co. of New York city, entitled *Unconscious Memory in Disease* by Dr. Creighton, some very suggestive ranges of thought occur that bear on the philosophy of inebriety. He shows that memory is a general function of all organized matter. That impressions are stored up and let loose again under the influence of some powerful emotion, and disease is a habit contracted from the repetition of abnormal impressions memorized and made permanent. That errors in diet and drink affect the nervous mechanism of the body, and produce tropho-neuroses, hyperæsthesia, followed by anæsthesia, impaired power of movement and control of the body. The effects of alcohol leave a constantly accumulating store of tissue memories, which permanently impair the brain and nerve centers, and incapacitate them from healthy action.

THE world wants clear, authoritative facts on the nature and character of inebriety, and not the confusing, contradictory, uncertain theories which are spread out in papers, books, and sermons.

ALCOHOLIC NEURASTHENIA.

BY EDWARD C. MANN, M. D.,

Member New York County Medical Society, American Association for the Cure of Inebriates, and Supt. Sunnyside Home for Nervous Invalids, 204 Lefferts Place, Brooklyn, N. Y.

That neuropathic decay and degeneracy of brain power is often due to alcohol, no observant physician will deny. That it is the duty of the family practitioner to see, that as far as practicable, healthy brains and vigorous nervous systems are transmitted to descendants is equally indisputable. The abuse of alcohol, and conjoined with this, the abuse of tobacco and sexual excess, is responsible for much of the increase of the neuropathic diathesis which eventually terminates in insanity and hereditary degeneracy of brain and mind. Alcoholic excess in an individual, which may perhaps do him personally no further harm than to set up a curable state of neurasthenia or nervous exhaustion, is a tremendous power for evil, a morbid force, which starts in his children a neuropathic diathesis which for two or three generations may result in epilepsy, dipsomania, imbecility, and every grade of mental unsoundness. The marriage of two persons, one of whom use alcohol to excess, means simply the founding of a family with a tendency to brain degeneracy. The neuropathic diathesis which the children born of such a union will have, is liable at any time to develop into positive mental unsoundness. It is very problematical if the children with an alcoholic neuropathic diathesis will grow up to come under Judge Edmunds' definition of sanity: "a sane man was one whose senses bore truthful evidence; whose understanding was capable of receiving that evidence; whose reason could draw proper conclusions from the evidence thus received; whose will could guide the thought thus obtained; whose moral sense could

tell the right and wrong of any act growing out of that thought, and whose act could at his own pleasure be in conformity with the action of all these qualities. All these things unite to make sanity."

Alcohol cannot supply a growing organism with the chemical element of nerve repair, and the young, therefore, should never touch it. In later years alcohol is the most dangerous thing imaginable with which to spur the brain and nerves as fast as they feel the necessity for something to antagonize the influence of mental or physical overwork. Many brilliant men and women go to pieces every year because they rely on alcohol instead of rest and change.

Some eminent English physicians a few years ago, wrote a few articles endeavoring to show that moderation in drinking was true temperance. This somewhat seductive doctrine may hold good for England; it does not, in my opinion, for America. It is rare in England to see the premature decrepitude and nerve degeneracy and breakdown met with in our country. We live faster and have more causes of nerve disturbance than the English people. There is no such ceaseless bustle and din of business in England as here. They have more time for recuperative rest to brain and mind, and do not suffer from so much wear and tear of brain and nerve as does the busy American. The Englishmen rests more and longer, and therefore gets well repaired, and he also lives more in the open air, and therefore does not suffer from overstrain, but has a vigorous, well-poised nervous system as a rule. In this country, and more particularly on the Atlantic coast, the stimulating nature of the climate and the extremes of heat and cold, result in the production of a very sensitive nervous organization. Add to this, overstudy when young, or educational pressure unwisely applied to delicate children, and we see, as a result, too much brain and spinal cord, and too little physique and a very susceptible nervous system in both men and women. Let such men and women, with exceptional quickness of intellect and exceptional delicacy of nerve organization, lay down for themselves, as a rule of life, that moderation in the use of

alcohol is true temperance, and we can but tremble for the nervous system and mind of the next generation. To such persons, the daily use of a moderate amount of alcohol will inevitably, sooner or later, confuse and injure the finer operation of the brain and mind, and result in a certain proportion of the number thus using alcohol moderately daily, in the disease of dipsomania. The victims of this disease now drink, not because they choose, but because they have developed a craving for alcohol which has mastered their will and which they cannot resist ; a condition which may be acute, periodic, or chronic : generally periodic.

Another proportion of moderate drinkers will go through life apparently uninjured, if they happen to have inherited particularly good nervous systems, but their children will pay the penalty ; while some will progressively retrograde and become typical inebriates. It is decidedly the exception where an American is a moderate drinker, that both he and his descendants escape unscathed, and the reason for this we have explained.

We come now to speak more particularly of that form of neurasthenia or nervous exhaustion which, personally, we have so frequently seen as the result of alcohol. We have never, in a somewhat extensive observation of these cases, treated the alcohol question otherwise than one of purely scientific inquiry, and all facts stated are those legitimately deducible from the cases which we have seen as a physician, and studied in their relation to the hygiene of the nervous system and mind. The over-worked business or professional man finds that he can maintain an habitual system of over-exertion of the nervous system for a longer time with the assistance of alcoholic stimulants than without them. Instead of the rest he should take, he prolongs the term of over-exertion by the daily repeated application of stimulus, expending more and more of the powers of his nervous system, and preparing for a more complete nervous prostration at a later period. He then suffers from a sudden failure of mental and bodily vigor, shown by deficiency of power of

continued mental exertion, depression of spirits, want of appetite, enfeebled digestion, and a whole train of nervous symptoms. There is failure of memory and of mental energy generally. When the patient has no occasion to exercise his mind, this symptom of failure of memory may not attract his attention, but if he has, he soon finds that it is simply impossible to do what he once could. He cannot fix his thoughts, and it is an effort to follow up any train of thought consecutively. Wakefulness is another marked symptom, and a patient now under my care cannot sleep at night, he tells me, unless he takes whisky at bedtime. Of course he was put at once under treatment that obviated the necessity of this. The depression of spirits amounts often to melancholia, and there is very frequently a great irritability of temper. There is an intermittent craving for alcohol, which temporarily makes the patient feel better, but which leaves him suffering more than before. There is a lessened control over the bladder. The locomotive power is lessened, and the patient is easily tired. There is marked inactivity in the sexual functions. There are inequalities in the circulation. The hands and feet are cold, while the head is hot. The patient looks prematurely old. There is a tired feeling, feeling of weight at the back of the head and neck, and vertigo is very frequent. The patient is unduly emotional, and the eyes fill and the lips quiver in a person who previously had good control over his feelings. The patient becomes breathless and faint very easily. Epileptiform symptoms may be present, very frequently all that is noticed, being fits of unaccountable sleepiness, followed by forgetfulness or weakness or faintness with numbness or tingling. There may be transitory hemiplegia. There is a lessened tolerance of stimulants, so that a very small quantity produces intoxication.

Our patient suffering from alcoholic neurasthenia, must stop alcohol at once. Upon rising in the morning, he should take, fasting, one drachm of Warburg tincture, should take a cold sponge bath with subsequent friction with a Turkish towel, and should discard too much meat from his diet list.

Electricity in the form of central galvanization I find very useful to improve the nutrition of the central nervous system. The bowels should be carefully regulated. Wakefulness should be combatted by taking prolonged, warm baths at bedtime, of half an hour duration, with a cold towel wound round the head, followed by the administration of from a pint to a quart of milk, which by giving the stomach work to do draws off nervous irritation from the brain, and directly induces sleep, doing away with the necessity for alcohol or drugs at bedtime to overcome the insomnia. Rest is imperative. The patient should leave his business and spend as long a time as he can in an invigorating mountain region like the Catskills, at an altitude of about 2,000 feet or 2,500 feet above the sea level. In this way, if stimulants are entirely stopped, the lost vigor will be restored to the brain and nervous system, the patient no longer having to rely on the delusive support afforded by alcoholic liquors.

If we have written somewhat strongly upon this subject, it is because we feel strongly. The nervous and mental deterioration, the result of alcohol, is on the increase, and is most painful to witness. The ready writer, the bright and witty talker, the man of natural ability, with a powerful memory and a gift of ready application, has the higher mental faculties in constant operation, and he is the man above all others who should never touch alcohol. If he does, he soon finds that his mind when unaided by the stimulus becomes barren and unproductive. That man is in a very dangerous position who finds that only under the influence of his accustomed dose of alcohol, can he command his intellect, for this control is only a temporary one, and this deceptive health is replaced by pallor, pain, and distress, and a generally miserable condition which can only be relieved by alcohol again. It is this abnormal condition of the centric nervous system set up by the use of alcohol that is essentially the disease we call alcoholic neurasthenia, which if not antagonized by the proper means leads to degraded intellectuality, and even to mental unsoundness.

Abstracts and Reviews.

DE L'ALCOOLISME ET DE SES DIVERSES MANIFESTATIONS.

Considérées au point de vue physiologique, pathologique, clinique et médico-legal. Par Dr. F. Lentz, Médecine Directeur de l'asile d'aliénés de l'Etat à Tournai. Bruxelles, 1884.

This work extends over 600 pages and treats of alcoholism in all its ramifications. The author deals in general considerations of the physiological action of alcoholic drinks upon digestion, circulation, the heat of the body, respiration, the blood, the kidneys, and the nervous system. He acknowledges that this last is the most difficult to determine. New researches are indispensable to establish the true nature of the action which alcohol exercises upon the whole nervous system. He endeavors to prove, however, that alcoholic stimulation which is usually believed to infuse fresh energy and vigor into the brain and nerves is only factitious, that it very indirectly reaches the nervous system itself, and exercises an indirect influence upon the motor, sensory, and intellectual functions. In fact the stimulation of the nervous system is regarded as the consequence of cerebral excitement, the complex nature of which may be difficult to establish, but is analogous to the effect of good news upon the mind. Passing over these sections which refer only to ordinary intoxication, we note the description of maniacal excitement due to alcohol, which contains a good sketch of the prodrome, course, and termination of the attack. Lethargic sleep lasting from twelve to twenty-four hours may completely put an end to the outbreak of fury. The most characteristic circumstances here is the complete re-establishment of the previous mental activity without the persistence of

any morbid manifestations. Homicide or suicide may have been attempted during this attack of acute alcoholism, and striking cases are given in illustration. Closely allied is convulsive intoxication, the stress of the attack falling on the motor system. The attack is sudden, being preceded by little more than irritability, precordial pain, and headache. A graphic description follows of the contortion, dangerous violence, and loss of consciousness, the manifestations of mental activity being mainly hoarse cries and inarticulate sounds. When aroused from the profound sleep which terminates the crisis, the patient retains no memory of the storm through which he has passed.

Dr. Lentz treats of the abnormal state of intoxication which occurs among the insane, imbeciles, and epileptics. It is laid down as a general principle that all who fall under the great class of mental maladies present a greater susceptibility to alcohol, and display in their symptoms of intoxication special characters which carry it beyond its ordinary type. The general paralytic is usually very susceptible to alcohol, in fact he can rarely absorb a sufficient quantity to permit the successive symptoms of intoxication to follow their normal course. A true maniacal excitement is the principal symptom, and often in the first stage occasional vagabondage, quarrels, thefts, assaults, and even murders. As the author observes, it is strange to see this same general paralytic who bears alcohol so badly, in the fully-developed stage of the disease able to bear great excesses and yield with difficulty to intoxication, when dipsomania results from and constitutes the first symptom of general paralysis. Dr. Lentz insists, with reason, that the intoxication of the weak-minded is the most abnormal and generally the most dangerous. With regard to the dipsomaniac he scarcely knows, paradoxical as it seems to say so, what true intoxication is during the active stage of his disorder; it consists rather of a continual, semi-maniacal agitation with rambling and incoherence. Certain authors, as we know, hold that intoxication is always due to a pre-existing chronic alcoholism.

Granted that it is rare with those who only occasionally take alcohol, still glaring exceptions do not permit us to regard it as an absolute rule; in the exceptional cases there is a neurotic predisposition which explains the origin of the abnormal intoxication. This altogether special susceptibility to intoxicating beverages which may so easily lead to a maniacal attack, nearly always depends upon a constitution marked, in the neurotic, by a tendency to delirium and hallucination in the course of various disorders, especially fever, great mobility, excessive susceptibility to atmospheric influences and to diet, and exaggeration of vaso-motor excitability under the action of the slightest mental impression. Hence, breathlessness, palpitations, blushing, precordial anxiety, vague uneasiness, rapid and facile appearance of the same phenomena under the influence of drink, excessive irritability of the nerves and senses to a continuous state of irritation and emotion; increases of reflex irritability, and tendency to convulsions. In the psychopathic constitution there is great excitability, instability of the moral sentiments, frequent change of humor without cause, inconstant sympathies and antipathies, too vivid an imagination, and rapid and exaggerated but very momentary, voluntary determination. Dr. Lentz is one of the few medical writers who point out that the neurotic or psychopathic constitution, although usually hereditary, is not necessarily so, but may be acquired by causes which profoundly affect the cerebral and nervous functions, as traumatism, typhus fever, and other zymotic affections, meningitis, moral shocks, etc. From these causes as well as from heredity may unquestionably arise a tendency or susceptibility to alcohol which gives rise to many forms of pathological intoxication.

In diagnosing maniacal from ordinary drunkenness it is necessary to bear in mind that the former is marked by sudden outbreak, while the latter pursues a regular course in its commencement and progress, a certain period of continuance and then decline. In the former, movements are well directed and remain under the control of the will. In the

latter, motor action is not long maintained and soon becomes feeble, the drunkard having little power of resistance. Hence the childish conduct of ordinary intoxication, and the violent and well-combined acts of the pathological form; in one there is restlessness and progressive relaxation, in the other the display of extraordinary force. The mental condition is fundamentally different. The maniac, although unable to give an exact account of the situation, will recognize his entourage, will understand the question asked of him, and may even reply sensibly, there being, therefore, a certain conscious intelligence which renders the patient all the more dangerous. There is, however, in that variety of pathological intoxication which assumes a convulsive form, an almost complete mental stupor, and in this respect it is more allied to the grave forms of ordinary inebriety. Pathological intoxication is marked by profound sleep, and as the quantity of alcohol has been insufficient to cause general disorder in other organs its disappearance is complete. Ordinary drunkenness, although usually followed by profound sleep, is not marked by the elimination of alcohol, the effects of which on the system continue for a considerable time. Its victim awakes fatigued, vertiginous, or dyspeptic, while the maniacal inebriate shows no signs of indisposition. Lastly, the patient, on recovering from maniacal or convulsive intoxication, remembers nothing.

This rarely happens after a drunken bout. Attacks of acute alcoholic mania, arising in the course of chronic alcoholism, are often confounded with pathological intoxication, but the former is characterized more especially by terrific hallucinations, emotional paroxysms, furor, and stupidity. Unfortunately, clearly defined as these distinctions seem on paper, the several forms are considerably mixed in practice.

Dr. Lentz has to confess that the different forms of abnormal intoxication are not connected as yet with a definite pathology. Pathological intoxication is only a transitory insanity, having a special origin, and yet alcohol is often so

little taken into the constitution that in most cases it does not offer the general character of alcoholic delirium. Of hallucination there is not a trace, the change is moral sensibility, so characteristic of really alcoholic disorder, is wanting. It is, indeed, as far removed on the one hand from the group of true alcoholic mental disorders, as it is on the other from ordinary intoxication. The term pathological intoxication is, therefore, employed to mark its relations with alcohol, and at the same time the differences which separate it therefrom. In discussing the relations of intoxication and insanity, the author points out in a philosophical manner, the resemblance and the difference between the two. The analogies between general paralysis and the effects of alcohol are minutely described, and the author adopts the opinion of Bayle, that drunkenness, if permanent instead of transitory, would be nothing else than general paralysis. The pathological analogy lies not only in the organ affected, but in the region namely, in the pia-mater; and the cortex, as also in the nerve cells, and the morbid evolution which mark the two affections. It does not, however, follow that intoxication is a state identical with general paralysis.

The medico-legal questions arising out of intoxication, are clearly stated by Dr. Lentz, both in regard to ordinary and pathological drunkenness.

It may be remarked, in passing, that the simulation of drunkenness at a stage which would carry with it complete irresponsibility is so difficult, that the author has not found a single case on record.

The author's great point in regard to the responsibility of drunkards, is that they are punished for their drunkenness and not for the crime which they commit when intoxicated; just as a man guilty of homicide, through carelessness, is not punished for the homicide, but for the carelessness. The drunkard places himself voluntarily in a condition of transitory insanity, knowing beforehand the risks to which he may expose himself, and therefore he must take the con-

sequences. Lentz alike rejects the German law, that intoxication diminishes responsibility, and the English law, which regards it as an aggravation. It does not seem, to us, quite consistent to say that a man is punished for his drunkenness, and not for his crime, and yet maintain that he must be punished more severely if he commits an injury during his intoxication.

The author holds, that if there is complete amnesia there can be no responsibility, but this again seems hardly consistent with the foregoing. The condition of drunkenness in which hallucinations are present forms a transition between normal and pathological intoxication, and, in the author's experience, the hallucinations are not, strictly speaking, such, but illusions always excited by external objects. On either supposition, however, the individual should be regarded as irresponsible. As the pathological intoxication already described is a well-characterized insanity, the question of responsibility rests on a correct diagnosis alone.

But we must pass on to the chapter which describes chronic alcoholism, the definition of which varies from the inclusion of all the consequences of the prolonged use of spirits to that of an affection slow and chronic, caused by alcoholic excess, and characterized anatomically by inflammation, sclerosis, and fatty liver, and clinically by physical, moral, and intellectual changes. The author, however, prefers description to definition. He treats, first, of chronic visceral alcoholism, with local disorders, hepatic, etc., or with general disorder, as cachexia, and, secondly, of cerebro-spinal chronic alcoholism, which is divided into four forms; namely, alcoholic degeneration, hallucinations, simple dementia, and alcoholic dementia, of which forms the complications are pachy-meningitis, epileptic convulsions, cerebral congestion, softening, sclerosis, and paraplegia. These disorders are detailed minutely, and cannot be summarized, but the reader will find them worthy of study.

Innumerable as are the phenomena of cerebral alcoholism, they preserve the same type; namely, enfeeblement,

wear and tear of mind, and dementia. The first form, the foundation of cerebral alcoholism, is designated alcoholic moral degeneration; the term dementia being scarcely appropriate, seeing that the intellectual weakness is often the least apparent symptom, and it is well remarked that the term moral brutishness would be more appropriate were it scientific enough. This form usually characterizes the first stage of alcoholism, and may never advance further, and is almost automatic in character. More commonly the second form, that of alcoholic hallucination, quickly follows, and constitutes a well-marked emotional and sensorial disorder.

The third form consists of simple alcoholic dementia; there is real mental weakness, intellectual and, especially, moral, wear and tear of the faculties, and this state may remain uncomplicated with other morbid manifestations. More frequently, however, it is only transitory, and rapidly ends in the last form, alcoholic dementia, with paralysis, which must not in the early stage be confounded with true general paralysis, although it nearly always terminates in it. Anæsthesia, which, as every one knows, is much more common than hyperæsthesia, is usually present at an advanced period only of chronic alcoholism.

Objects fall from the hand unless the patient looks at it, and patients can prick or wound themselves without feeling anything, while tickling the arch of the palate or uvula excites no reflection.

Affections of the sight, diplopia, polyopia, dyschromatopsy, became marked. The ophthalmoscope does not fully explain the phenomena of amblyopia and amaurosis. Myasthmus or tremor of the eyes is frequently present.

The pupils are often uniformly dilated and react slowly to light; their inequality may occur without any symptom of real paralysis. Affections of hearing occur in chronic alcoholism more frequently in the direction of anæsthesia than of hyperæsthesia.

Disorders of smell and taste are well known to arise. Motor troubles appear mainly under the form of cramp and

tremor, chiefly in the hand and arm, then the organs of speech and the lower extremities.

Paretic and ataxic phenomena pass insensibly into complete paralysis. After death the dura mater is frequently the seat of false membranes. Dr. Lentz clearly distinguishes the changes which may be found in the arachnoid and in the pia mater and the brain itself, some being due to the direct action of alcohol, and others being only secondary. The reader will find them carefully described as also the changes in the spinal cord.

The cases reported are of great value, in conjunction with the commentaries of the author, in illustrating the several forms of inebriety already mentioned, and deserve careful study. The symptoms in that form of chronic alcoholism which the author designates expansive alcoholic general paralysis exhibit all the symptoms of the latter.

To diagnose alcoholic general paralysis the previous existence of symptoms of intoxication must be proved; the simple abuse of alcohol is not sufficient. There may have been attacks of delirium tremens, or disorders of motility, or moral dementia.

There is no certain sign to indicate the transition from chronic alcoholism to general paralysis, and even the autopsy may not decide the question, for adhesion of the membranes, which is the chief pathological appearance, may be so limited as to escape observation. When alcoholic general paralysis follows upon pre-existing alcoholism, optimism does not appear to constitute the symptoms of transition, but rather intellectual enfeeblement. Ideas of grandeur, when present, assume a different character in the two affections — in general paralysis they are more infantile and silly, in alcoholic paralysis more definite and coherent, and there are frequently at first ideas of jealousy, followed by delusions of persecution and general hallucinations.

In general paralysis the motor trouble is scarcely perceptible at first, the tongue and articulation being alone affected. In alcoholic paralysis the fingers and toes are at

first affected, extending afterward to the elbows and knees. Another point is that in ordinary general paralysis the motor trouble is rather ataxic, while in alcoholic paralysis it is more of a paralytic nature. In the former the movements are irregular and jerky, while in the latter they are marked by weakness. In the former the patient is active-restless, often petulant, and may be firm of gait; in the latter he is feeble, heavy, and trails along with difficulty. The paralytic will raise a weight which the alcoholic would be scarcely able to move; the one will shake hands firmly, while the other's pressure is scarcely felt.

The tremor in the general paralysis type is frequently absent or scarcely appreciable early, and when present is limited; in alcoholic paralysis, on the contrary, it is ordinarily generalized, and obvious at first sight, the body, including the head, being affected. The fibriller tremors of the lips and orbicularis palpebrarum and elevator oris are observed when the patient makes the last effort. The tremor of the tongue is much more marked in the one than in the other form, but the difference in the hesitation of the speech is still more striking, for in alcoholic paralysis the speech is tremulous in consequence of the tremor of the different parts which come into play in attempting to speak, while the hesitation of the genuine paralytic is an ataxic disorder due to defective association, as much physical as mental. When the alcoholic paralytic wishes to speak all the labial muscles tremble, and verbal expression is the result of a painful muscular effort. When, on the contrary, the general paralytic speaks the words come easily, except at intervals when one or other muscles, or even the mind, makes a false step. Again, on the side of sensation, dysæsthesia is almost constant in alcoholic paralysis, while it is rare in ordinary general paralysis, for we rarely meet with formication, pain, cramp, and numbness in general paralysis. Dizziness, vertigo, dimness of vision, *muscæ volitantes*, buzzing in the ears, are constant symptoms in the one disorder, and rare in the other. The mental symptoms also differ, especially as to the form of de-

mentia, mental weakness being nearly always marked in the expansive form of the insanity. In alcoholic paralysis the dementia occupies the first place, and presents special characters, the delusions being less pronounced and often transitory. Intellectual inertia and moral atrophy predominate, but in spite of this the patient seems to preserve more lucidity and consciousness of his condition. M. Lentz agrees with the opinion of a French physician that general paralysis distinct from alcoholic influence exhibits much oftener than is supposed persistent hallucinations of sight and hearing.

But sensorial troubles in alcoholic paralysis present a peculiar aspect. These are rather visions than auditory hallucinations. They are accompanied by anxiety, agitation, dreams, nightmare, and insomnia, while on the contrary, the hallucinations of general paralysis are much more disseminated, and are less persistent. In alcoholic paralysis the delusion seems to be directly derived from the hallucinations; in general paralysis it is more spontaneous and the hallucinations do not at all modify it. It must be borne in mind that M. Lentz is speaking only of the expansive variety of alcoholic insanity, the rarest of all, so much so that Voisin is able to write that ideas of grandeur are rare in this form of paralysis. It would, perhaps, be more correct to say that they are not exclusive or predominant, but are very often mixed up with ideas of persecution of a hypochondriacal kind, with ideas of magnetic influence, proceeding from the remains of sensory hallucinations or disordered sensations.

Under the head of complications of chronic alcoholism a careful description is given of pachymeningitis, three successive stages of which are recognized, but our space will not allow of citation from this important section of the work. We must also pass over the valuable observations on alcoholic epilepsy.

After some remarks on spinal alcoholism, comprising the hyperæsthetic form of Leudet, and the paraplegic of Wilks, the latter of which is considered better established than the former, M. Lentz enters upon the study of progressive causes

of chronic alcoholism, the laws which govern, and the relations between its different manifestations, in other words the pathogeny.

The triple action of alcohol upon the vascular system, general nutrition, and the formative process is fully detailed.

An interesting sketch is drawn of the analogies between chronic alcoholism with insanity and inebriety. Clearly the mental weakness, as also the paralysis of mind and body due to alcohol, present all the characters of ordinary dementia. In that form of alcoholic insanity characterized by hallucinations, the enfeeblement may not be so evident, but its epiphenomena remove it from the more clearly marked forms of insanity of which it presents, in other respects, the leading symptoms. There remains the first form, described under alcoholic degeneration and drunkenness. A man becomes a drunkard, properly speaking, when excesses have produced that moral degradation of which the most advanced state constitutes Dr. Lentz's first form, namely, alcoholic degeneration, and not merely the vicious condition of him who abandons himself to drink. Is intemperance a vice or a disease? is a question which the author scarcely ventures to answer in an unqualified manner. He, however, formulates his position thus: drunkenness, so far as it consists in that state of immorality which is induced by alcoholic excess, ought not to be regarded as a vice; it is a pathological condition in the same sense that all the modifications of the moral and intellectual being, due to extra physiological causes, are pathological; drunkenness ought to be considered as the analogue of the prodromic period of mental maladies, and really constitutes the prodromic period of confirmed chronic alcoholism. It is quite otherwise in regard to the craving for alcoholic drinks. With the exception of cases in which this craving is instinctive, and therefore hereditary, it is only a vice which human nature is capable of resisting, and therefore entails responsibility.

In the section on the medico-legal bearing of chronic alcoholism, Dr. Lentz observes that the three forms or

stages, namely, acute, subacute, and chronic, are insufficient. The subject is, therefore, considered on the lines already laid down, that is to say, under the three forms of alcoholic degeneration, hallucination, and dementia. No exact criterion can determine the responsibility of a man laboring under alcoholic degeneration. Different degrees of moral and intellectual arrangements carry with them corresponding grades of responsibility. However degraded may be the moral feelings in this form, there remain sufficient lucidity and self-control to resist the suggestions of the passions. If the drunkard is indifferent to the moral aspect of things, he at least understands them; if the mental functions act slowly and imperfectly, his understanding is at least sufficient to appreciate the character of the acts he commits. Doubtless the power of resistance is diminished, and his perception more limited, but with this we can only associate a corresponding diminution of responsibility. Between the two extremes, of very slight change and that of moral degradation and intellectual hebetude, there is a long period during which it would be as unjust as dangerous to absolve the unfortunate men whose faculties have been weakened by alcohol. In the hallucinatory form, acts of violence, usually unreasonable and repulsive, cannot be regarded as involving absolute responsibility, if there is any mental obliviousness. If, however, the hallucinations are fleeting, and the memory is preserved, we cannot claim irresponsibility for the individual. In the last form, that of alcoholic dementia, there is, of course, no more responsibility than in ordinary dementia.

The fourth chapter discusses alcoholic delirium, delirium tremens, and alcoholic psychosis. Passing over the two forms, it may be stated that the last is divided into three orders; the first being associated with depression, the second with exaltation, and the third comprising chronic alcoholic mental disorders. In the depressive group we have alcoholic lypemania; and in the expansive group, ambitious exaltation, which Marcé was the first to describe; and in the chronic

group, the mania of persecution and megalomania. Dr. Lentz regards the last as usually a chronic form of the first group, in which ideas of persecution have been effaced, or at least obscured, by the shadow of ambitious conceptions.

Dr. Lentz, in concluding this chapter, makes the important remark that psychical alcoholism, from the simplest to the most complex form, constitutes a state of genuine insanity, presenting no difference whatever from that which is of non-alcoholic origin. The only form which assumes a specific difference — delirium tremens — ought not to raise the slightest medico-legal difficulty. Complete irresponsibility is its necessary accompaniment. To record cases would only confirm the rule universally accepted up to the present time, that delirium tremens is not a form of drunkenness which can be induced voluntarily, but a mental disorder of which the genesis is independent of the human will, and is often even not immediately dependent upon the alcohol which a man imbibes.

In the fifth and last chapter, the author speaks of hereditary alcoholism, of which Morel has given the best description. It is treated by our author under two forms; hereditary transmission of the same affection, the hereditary transmission of a transformed alcoholism, or rather of alcoholism transformed into numerous nervous manifestations. Of 379 intemperate patients admitted into the asylum of Binghamton (New York), 180 were hereditary drinkers; but, on an average, the statistics of several countries do not give more than twenty-five per cent. In the second form, we have the symptoms of chronic alcoholism in the descendants of drunkards, without intemperance in the former. Sensation is perverted, the lower extremities are generally affected, cephalalgia and migraine are common; the sight is affected, vertigo and dazzlings are not rare, and sleeplessness is frequent, while there may be chronic indigestion along with complete sobriety. Such persons are subject to hallucinations from slight causes; facial tremor and weakened motor power are also simple. Convulsions are induced with extreme

facility, or even epilepsy itself. With women hereditary alcoholism is transformed into hysteria, and with men the peculiar nervous affection denominated "nervosisme" by Bouchot.

Hereditary alcoholism frequently gives a clue to those moral perversions which raise the question of moral insanity. In youth, the descendants have low instincts and evil propensities; they are cruel, vindictive, choleric; the pain and suffering of others gives them pleasure; their greatest pleasure consists in tormenting and killing animals; others are never happy unless they can tease, plague, and cause suffering to their little playfellows, whom they fill with fear; they habitually reveal, at an early age, their evil tendencies by the depravity of their character, by the precocious vices in which they take pleasure. When older they become indolent vagabonds, and incapable of discipline; sometimes they prove refractory to all education, or, if they have painfully learnt a profession or trade, their capacity vanishes at the moment of mental development at puberty. Indecision, sloth, vagabondage, an obscure moral sense, instability of character, the impossibility of settling to anything, the tendency to intemperance, and sexual vice, and, lastly, intellectual enfeeblement, are the chief characters of their perverted nature. When this supervenes there is something more than moral insanity, but, as Dr. Lentz observes, many are examples of "folie morale instinctive."

The volume concludes with a notice of dipsomania, which Dr. Lentz, with his accustomed discrimination, distinguishes alike from alcoholism and drunkenness, observing that it has only distant relations with intoxication. He defines it as a true insanity, which should be referred to the class of impulsive affections, the craving for drink being only a simple symptom, which might be replaced by any other irresistible desire without at all modifying the essential nature of the mental disease. The only relation it has with alcohol is that it too frequently gives place to alcoholism, whose symptoms efface those of the affection which produced

them. Dipsomania is regarded under two forms: the essential and the symptomatic, the latter being the most frequent, and occurs especially at the commencement of certain maniacal states and general paralysis; indeed, the craving for drink is sometimes the most prominent symptom of the latter. In circular insanity the stage of excitement is often characterized by an almost instinctive propensity to excess, and appears to be a veritable dipsomania. The invasion of true dipsomania is generally slow, the attacks increase little by little in intensity and duration, and at last the disorder assumes a circular character; the mental condition is absolutely different in the two periods of the circle. Heredity plays nowhere a more important part than in dipsomania. The principal symptoms are the disorders of moral sensibility, returning periodically, and accompanied with an invincible tendency to intemperance. At first the character changes, the patient becomes irritable, and even violent, the sleep is disturbed, an indefinable malaise renders him anxious and restless, while vague apprehensions put a stop to ordinary occupations. Dr. Lentz forcibly describes the condition as one of "véritable effervescence intérieur." On the termination of the attack the patient falls into a state of moral weakness, and the patient, conscious of his condition, shuns society and often seeks admission into an asylum. The medico-legal aspect of dipsomania offers little difficulty; it involves complete irresponsibility. The ordinary abnormal manifestations include an irregular and fantastic character, arrested development, or singular inequality of the intellectual and moral faculties, natural tendency to lying, dissimulation, cruelty, excesses of all kinds, periodical return of various nervous disorders, sometimes always alike, at others variable in their form; with these are often combined physical imperfections, such as malformations of the head, etc.

Of course, during the attack, the dipsomaniac must be considered irresponsible, but during the remission he cannot be allowed to enjoy the same immunity, although his absolute responsibility must not be assumed without inquiring into

the special features of the case. We have given a full analysis of this very able work on alcoholism, in order that the author's views on so practically important a subject may be accurately followed, and it has been thought that a sketch of the ramifications of alcoholism will prove useful to our readers.—Dr. HACK TUKE, in *Journal of Mental Science*.

TRAUMATIC DELIRIUM TREMENS; BY JOHN B. ROBERTS, M.D., PROFESSOR OF ANATOMY AND SURGERY IN THE PHILADELPHIA POLYCLINIC.

This nervous affection, characterized by muscular tremor and a peculiar restless delirium, not infrequently follows the receipt of injuries in those accustomed to alcoholic stimulation.

Some writers describe, under the terms traumatic delirium and nervous delirium, a condition frequently very similar to delirium tremens, which is said to occur in patients free from the alcohol habit, and to depend upon nervous prostration, often associated with shock and hemorrhage. It is possible that failure to investigate previous habits with judicial acumen has allowed to arise a confusion between delirium dependent simply upon traumatism and delirium induced by traumatism in alcohol drinkers. The muttering delirium and muscular twitching that supervene in asthenia, from surgical as from medical causes, and the noisy delirium after injury that is exhibited by quick, rapid, and full pulse, and by febrile reaction, are two very different conditions to which the name traumatic delirium might with propriety be applied. These forms of mental disturbance, in my opinion better called asthenic and inflammatory delirium respectively, arise without reference to personal habits.

The group of symptoms which I propose describing as traumatic delirium tremens, however, is found especially, if not exclusively, indeed, in those whose nervous systems have

undergone, prior to injury, the deterioration due to absorption of alcohol. I have not been convinced by my experience, nor by my reading, that such a concatenation of symptoms can occur after traumatism in the absolutely abstemious. The amount of drinking requisite to induce the predisposition varies with the individual. The repeated ingestion of quite small quantities of alcohol may give rise to the delirious susceptibility. It is possible that a similar deterioration of constitution, and a consequent liability to trembling delirium, may be caused by the opium, chloral, and tobacco habits; but it is difficult to differentiate these because of their frequent association with alcoholic excess.

Traumatic delirium tremens may follow even slight injuries, but compound fractures and burns seem to have a special tendency to develop this serious complication. Its occurrence should not be ascribed to the restraint imposed upon the patient's habits by the injury, but to a traumatic disturbance of a previously unstable nervous equilibrium. Medical authorities vary in their appreciation of the causative influence exerted by sudden deprivation of accustomed stimulants in exciting attacks of ordinary delirium tremens. It is probable, however, that in a vast majority of such cases the directly exciting causes are the deficient assimilation of food, the anxiety, and the nervous strain which go hand in hand with a period of debauch, and which persist after the ingestion of alcohol is stopped. Neither is the occurrence of the malady to be imputed to the directly poisonous effect of a large amount of consumed alcohol, since acute alcohol poisoning, in persons unaccustomed to the use of alcohol, gives rise to stupor and death, but not to delirium.

Traumatic delirium tremens occurs because chronic changes in the nervous tissue or blood, or perhaps in both, have rendered the alcohol drinker susceptible to such an outbreak upon the application of any disturbing influence. The receipt of injury is a sufficient perturbing force, especially if the patient be on the verge of an idiopathic attack. It has been thought that the use of beverages containing amylic alcohol (fusel oil) especially predisposes to delirium tremens.

The alteration in nerve structure or blood, which is the essential pathological factor of delirium tremens, is unknown to us. At autopsies, an abnormal amount of serum is usually found in the substance, and within the ventricles of the brain; meningeal congestion and hemorrhage are often seen; the cells of the gray matter, the cerebral connective tissue, the lymph spaces and the vessels may show sclerotic or fatty changes; and the liver, kidneys, and digestive tract may exhibit the characteristic lesions found in chronic alcoholism; but there is nothing to which we can point as the distinctive lesion of delirium tremens.

The initiatory symptoms of traumatic delirium tremens are sleeplessness at night, and slight tremor, which is readily noticed by ordering the patient to hold out the hand with widely-separated fingers. Subsequently, restlessness, insomnia, and tremor increase, and delirium is shown.

The delirium, which is often first exhibited at night, is peculiar. The patient sees numerous small animals or insects creeping over the bed and about his person, or is pursued by some hideous spectre. Hence, he is constantly endeavoring to eject the vermin from his clothing, or trying to escape the persecutions of his tormentor. I have now under my care a patient with traumatic delirium tremens, after an open fracture of the leg, who imagines that elephants are moving over his bed and tramping on his legs. He may, in his efforts to get rid of these disgusting and distressing annoyances, leave his bed and fall from a window or down a flight of steps. The mental condition is one of depression, trepidation, and great activity. He is exceedingly restless, and is constantly chattering in a low tone, but, though he may cry out because of fear, he shows little or no maniacal excitement. He is good-natured, not prone to violence, and can often be aroused, by emphatically spoken words, to an understanding of his surroundings: but he soon relapses into the previous incessant chattering and motion. Very often a single idea recurs again and again to his delirious fancy, and not infrequently the delirium has a comical or tragico-comical aspect.

The muscular tremor is not like the twitching of tendons seen in asthenic conditions, but resembles the shakiness, from want of coördination, seen in cerebro-spinal sclerosis. Often there is hurry in movement, and the limbs or tongue will then be thrust forward with a jerk. The tremor of delirium tremens reminds me much of the movements that would be expected in an association of chorea with sclerosis of the nervous centres.

During these symptoms, the patient is unable to sleep, is incessantly in motion, and has a bright eye with dilated pupils, and an unsteady, restless look. He exhibits a moist, flabby, tremulous tongue with a whitish fur, desires no food, has constipated bowels, and passes a scanty, high-colored urine. In idiopathic delirium tremens of moderate severity there is no great acceleration of the pulse, and the temperature does not rise much above 100° , except during active muscular exertion. In those graver cases, which Magnan calls febrile delirium tremens, the bodily heat is apt to remain in the neighborhood of 102° – 105° , though there is no inter-current affection to keep up the temperature, and the pulse rate is also increased. In traumatic delirium tremens the constitutional disturbance, due to the wound, affects the pulse and temperature. The patient will often remove the dressings from his wound, or subject the injured limb to violent motion without appearing to experience pain.

Traumatic delirium tremens arises, as a rule, within two or three days after the receipt of injury, and lasts usually not more than five or six days. The illusions are apt to continue during the night, even after the patient has become convalescent and quite rational in the daytime.

The peculiarity of the tremor and delirium renders the diagnosis easy. If my view of its causation be correct, the existence of the characteristic symptoms is evidence of previous habits of stimulation; but it is not always well to mention this suspicion, nor to call the disease delirium tremens, since the patient's friends may be unaware of the existence of such habits.

Death may occur from exhaustion, coma, or some inter-current affection, and is sometimes inexplicably sudden. The character of the traumatism may determine the mode of death. Pneumonia is frequently associated with idiopathic delirium tremens. It is often, in fact, the exciting cause of the delirious outbreak, and, of course, in traumatic cases greatly diminishes the chances of recovery. When the temperature shows a tendency to remain high without a sufficient traumatic cause, and especially when the tremor affects all the muscles of the trunk as well as those of the head and extremities, and is not arrested during sleep, the prognosis is bad. A history of previous attacks of the disease renders the outlook more grave.

In considering treatment, it is important to bear in mind that delirium tremens is an asthenic condition. There is action, but it is the activity of weakness, not of power. Depressants are therefore injurious. Five or ten grains of calomel, or one or two seidlitz powders, may be administered in the beginning of the disease, or when its occurrence is feared, because of the anorexia and gastric derangement. Concentrated liquid food, bitter tonics, and capsicum add to the patient's strength, and tend to give tone to the impaired digestive organs. Bathing and mild diuretics may be employed, in the endeavor to eliminate the alcohol that has entered the system. Chloral hydrate (gr. x-xx) with potassium bromide (gr. xxx-xl) should be given every two or three hours, as soon as sleeplessness and slight tremor are noticeable; no visitors should be allowed in the room. If the development of the attack is not prevented, the same treatment is continued but the doses may be increased. The object is to quiet the nervous system and induce sleep. In this endeavor an occasional dose of morphia (gr. $\frac{1}{4}$ to $\frac{1}{2}$), may be combined with the chloral and potassium bromide. The excessive use of opiates is undesirable, for it is not narcotism that is desired but sleep; cerebral congestion is induced by overdosing with morphia. If fatty heart exists, opiates should be pushed, perhaps rather than the chloral and potassium

bromide. The combination treatment with the three hypnotics allows the surgeon to diminish or increase each element according to indications. Tincture of digitalis (m. x-xxx) every two or three hours is valuable in cases of weak but not fatty heart, where there is palor and cyanosis with probable anæmia of the brain. Strychnia also has been recommended in delirium tremens. Mechanical restraint, with the straps and the straight jacket, is only to be adopted when efficient watching and soothing by attendants is impracticable. All such apparatus excites the patient and is very liable to interfere with respiration. The best appliance is a loose but strong garment consisting of trowsers and shirt, in one piece, with loops attached for fastening the patient in bed. Fractures should be dressed with plaster of Paris bandages, because ordinary splints will probably be displaced by the patient. If failure of vital powers is to be feared, alcoholic stimulants in small amounts administered only when food is given, are judicious because in chronic drinkers digestion will sometimes not go on sufficiently without the aid of alcohol. Such failure of assimilation in delirium tremens may turn the scale against the patient. Whisky or brandy (F. ii3-F. iv3 during the twenty-four hours) in the form of milk punch or egg-nog, is probably the best form of administration. Many patients will not require any stimulants. Vomiting occurring in delirium tremens, is to be treated by milk and lime water, cracked ice, effervescing drinks, bismuth sub-nitrate, pepsin, and carbolic acid mixtures.

LAST WORDS ON COCAINE.

Dr. Hughes in the *Medical Review*, writes as follows:

“The truth about cocaine is that it is a tonic and stimulating exhilarant of some power in melancholia, mental depression, and nerve weariness. That it acts rapidly but much more evanescently than morphia.

“That excessively used, it intoxicates and converts melancholia into mania.

"That given largely in the upright position, it is capable of inducing vertigo, whether, as Dujardin-Beaumetz thinks, by inducing anæmia, is not proven.

"That as an antidote to alcoholism and its effects, it is not equal to morphia.

"That it is not equal to morphia as a tonic in melancholia, or as a narcotic in certain states of nervous debility.

"That in equal doses it nauseates more certainly than morphia.

"That it is not an antidote to meconophaggism, though beneficial if judiciously used and timely abandoned.

"That it may be used with advantage, if carefully given, in the withdrawal of opium, and the cure of opium habit as one of many substitutes, but cannot be alone relied upon.

"That it intoxicates some persons, and poisons them.

"That its continuous use is difficult to break off.

"That it is probably capable of developing permanent madness like similar intoxicants, as a few doses occasion temporary insanity.

"That it is a dangerous therapeutic toy, not to be used as a sensational plaything.

"That it will probably help to fill, rather than to deplete the asylums, inebriate and insane, if it should unfortunately come into as general use as the other intoxicants of its class.

"As an intoxicant, it is more dangerous if continuously given, than alcohol or opium, and more difficult to abandon."
— *Medical and Surgical Reporter.*

INEBRIETY AND CRIMINAL RESPONSIBILITY IN MEXICO; BY DR. A. FRIMONT OF OZULUAMA, MEXICO.

The penal code of this State endeavors to answer all circumstances pertaining to crimes, but does not mention in a single instance inebriety, neither incidentally nor accidentally. In chapter IV of the code, occurs the following: Art. 32, "He is not a delinquent who commits an action, when sleep-

ing or in a state of dementia or in any other manner, when not in the full possession of his reason and power of deliberation."

Voluntary inebriety or any other privation or derangement of the reason of this character can not be regarded as an excuse for crime committed under such influence; neither will the penalty be diminished, but on the contrary it will be considered as an aggravated circumstance of the crime !!

I suppose that the legislators who created this code were guided perhaps by the vulgar idea that inebriety is a general vice among the proletarian class; and that in the greater number of crimes committed they should recognize principally the use or abuse of intoxicating beverages as a prominent cause of the extravagances which carry off our people — and that for the public weal and morality they should choose such legislation, to check by extreme penal statutes the tragic inclinations of the lower classes. In so doing they separate themselves from the principles laid down in other codes — thus actually establishing in inebriety a legal circumstance which shall be paramount to even any temptation to the commission of the crime, while it really does aggravate and makes the criminal responsibility of the accused greater and less defensible.

Almost all civilized nations are ruled by codes which establish incontrovertibly that the idea of crime necessarily involves two elements, viz. :

1st. The consciousness that the commission of the act which constitutes the crime is contrary to law.

2d. The unimpaired and free use and exercise of will, with power to commit the offense or not.

The legislators of Vera Cruz have doubtless intended to refer on this point only to the insane, recognizing that there are lunatics who in spite of the consciousness that they are committing a punishable act, are, by infirmity of the disease, destitute of their power of will and of self control. Other insane persons may know that the act is contrary to law, but are impelled by a conviction or irresistible impulse against

their will or by a force which they can neither control nor resist.

I am convinced that inebriety is a trance state clearly allied to insanity. We should therefore understand that every act committed under such circumstances should be regarded as a *medico-legal* case and considered and determined by the peculiar facts attending it.

Only the physician could establish the difference between "not to want" and "not to be able" to obey the law, or precisely indicate the peculiar conditions of the malady which constitutes the incapacity, or responsibility of the offender against the law, and determine how far the accused had exercise of his reason, his will, or power to control or regulate his action.

I venture to assert that the law can not properly recognize as a fact that which is known to science not to be a fact.

Health cannot be legally adjudicated to exist where science has detected and demonstrated disease. The courts of Vera Cruz therefore should not insist upon enforcing this error, against and in violation of the laws of nature in deciding those things which belong to medical science exclusively, and which should be recognized by all law makers.— *Medico-Legal Journal.*

INTRACRANIAL HEMORRHAGE IN INEBRIETY.

In a recent paper read before the Connecticut State Medical Society, Dr. Lewis of Hartford, makes the following remarks:

"The condition of an intoxicated person, so closely simulates that of cerebral compression, and of concussion, that it is sometimes difficult to recognize the difference between the two states. Especially is this difficulty increased when, as often happens, a drunken man has sustained a blow upon his head by an accidental fall, or while engaged in fighting, or at the hands of an officer making an arrest.

Medico-legal questions should naturally suggest themselves at the time to the medical examiner under such circumstances. Even when there is no perceptible alcoholic odor in the breath, and no history of the case to indicate intoxication, serious mistakes in diagnosis have been made by medical men. It is not singular, then, that a police officer, on finding a man who has been rendered insensible by compression, should send him to the station-house for the night as "found drunk." Such fatal mistakes should not occur, and need not if municipal laws required all drowsy persons to be taken to a place where the few hours required to reveal the true nature of the case, could pass without harm to the victim, and where he could be under medical observation. In other words, a hospital ward should receive all such persons.

"The following case, which came under my investigation, is one where an unfortunate mistake of this sort was made.

"H. W. B. who had been away from home, arrived by railway after ten o'clock P. M. and started at once to walk to his residence, which was located several blocks distant from the railway station. At one o'clock A. M. he was found by a private watchman, about half a square from his house, in a half reclining posture upon some door-steps, in an unconscious condition. The watchman finding he could not arouse him from sleep, and supposing him to be drunk, took him to the police station, where he remained without any further care until about six o'clock that morning, when, upon examination, it was found that he had sustained a penetrating fracture of the cranium by a pistol ball. He died the same day. He had always been a temperate man, and an estimable citizen. The mystery of the shooting was never fully cleared away; but it probably occurred about eleven o'clock that night, in an alley where his traveling satchel was found. If it then and there took place, two hours passed before he was found by the watchman at a considerable distance from where the shooting occurred. Our explanation of this is, that when shot, he was immediately

rendered unconscious by concussion of the brain, and lay in that condition until the first stage of concussion had passed, when he partially regained his senses. He then in a dazed condition, started for home, and the cerebral hemorrhage, which had been arrested by the effects of concussion upon the vascular system of the brain, became more abundant, and he sat or stumbled down upon the steps, where he was soon after found, laboring under the commencing stage of compression. His forced walk to the police station, and the disposition there made of him, before his real condition was known, favored the increase of extravasated blood, and he died comatose.

“Many of the semi-unconscious persons that come into the custody of the night police, have a more or less strong odor of spirituous liquor in their clothing which renders it somewhat difficult to determine whether there is the same odor in their breath or not. In doubtful cases, the examining surgeon should always test the urine for alcohol.”

INEBRIATE LEGACIES.

Dr. Butcher lately read a paper before the Medico-Legal society of Philadelphia, Pa., entitled “Curious Legacies,” in which he referred to inebriety as follows :

“I think it is clear that a large portion of the crime of to-day is attributed to intemperance. This unnatural appetite or desire for stimulation seems to be hereditary, and may be called one of those curious legacies which we are speaking of.”

In the discussion which followed, Dr. Stewart said : “From my own observations, intemperance is inherited where the son has followed the footsteps of his father to a drunkard’s grave; the example could in no way have been one that we could suppose was attractive, but on the contrary repulsive and disgusting. Here they seem to have been bound together by the same debasing desires that apparently no power could restrain their headlong career.”

Dr. Stubbs remarked: "In the study of anatomy it has been shown that every tissue of the animal body comes from the cell, whether muscular, bone, nerve, or otherwise. If now such cell be changed in any way by the mode of life or the use of drugs or alcohol, at such time as conception takes place, may not such change result in a changed offspring? I remember the case of a man who was a drunkard at the time of his marrying. His first child was weak mentally; reforming, the children born after were among the brightest in the town."

Dr. Waugh said: "We do not by any means say the last word when we prove the heredity of alcoholism. In the best marked case I have seen, every male member of a certain family for two hundred years had been addicted to alcoholic excess. I found that debauches were preceded for a week by acholia. The stools were white and fetid, there was no jaundice, the man was uneasy and irritable, and suddenly began drinking. On several occasions when the acholia became apparent, I administered hepatic stimulants, and prevented the outbreak of alcoholism."

Dr. Nash thought that the fact of such an inheritance was a powerful influence in lessening the power of resistance in such cases exposed to temptation.

Dr. Buckley contended that the drink tendency was the result of bad surroundings and artificiality.

Dr. Connor said that heredity was as well established as the law of gravitation. That an uncontrollable desire for stimulants was a family legacy as much so as the form and shape of the face.—*From the Journal of Heredity.*

MENTAL DEGENERATION IN INEBRIETY FROM BRAIN INJURY.

Dr. Maudsley calls attention to a certain condition resulting from injury to the head; whether by a blow upon the brain, or saturated by alcohol or other drugs, the pathological condition is the same. I frequently meet such cases, and

indeed more or less of them are under our care most of the time.

“Examples of marred moral character and will to which I call attention, are those which sometimes follow injuries to the head. It happens in these cases after an injury that may or may not have caused immediate symptoms of a serious nature, that slow degenerative changes are set up in the brain, which go on in an insidious way for months or years, and produce, first, great irritability, then little by little a weakening, and eventually a destruction of mind.”

The person who appears, perhaps, to be all right soon after his accident or the inordinate indulgence in alcohol, turns out to be all wrong, and after several years to be beyond cure. Now the instructive matter is, that the moral character is usually impaired first in these cases, and in some of them is completely perverted without a corresponding deterioration of the understanding. They are intelligent, and capable of performing many of the duties of life, but the truth is, the boundaries of mental health are narrowed, and when the brain receives certain impressions from external surroundings, the man is insane, although it may be temporary, and if he would in the future preserve his mental integrity, he must live and work within the circle of his mental capacity.

The injury has given rise to disorder in the most delicate part of the mental organization,—the part which is only separated from actual contact with the internal surface of the skull by the thin investing membranes of the brain,—and once this delicate organization has been seriously damaged, from whatever cause, it is seldom that it is ever restored completely to its former state of soundness.

Thus far it has been shown that moral feelings and will are impaired or destroyed, by degeneration going on through generations by the disorganizing effects of disease, mostly caused by alcohol, opium, and kindred drugs. These, by their chemical action, poison the nervous system by the abuse of such nerve stimulation and nerve narcotizing substances.

It is not enough to say that passion is strengthened and will weakened by indulgence, as a moral effect; that is so, no doubt; but beneath that effect there lies a deeper fact of a physical deterioration of nerve-element; for the alcohol and the opium enter the blood, are carried by it to the inmost minute recesses of the brain, and act there injuriously upon the elements of the exquisitely delicate structures. So its finest, latest organized, least stable parts, which subserve moral feelings and supreme will, are marred. Vain is it to preach reformation to one who has brought himself into this wretched predicament; if any good is to be done with him, he must be forcibly restrained from his besetting impulse in a properly appointed asylum, and under the care of intelligent management, where the brain will soon get rid of the poison, and the brain tissues may, after a long time, recover their healthy tone.

MEDICAL AND SURGICAL DIRECTORY OF THE UNITED STATES.

Cloth, pp. 1452; in one volume. Price, \$7.00. Detroit: R. L. Polk & Co., Publishers.

This is a work containing the names and addresses of over 80,000 persons who are practicing medicine in the United States. All the medical schools and hospitals are represented. All the medical journals published; and a great variety of medical information is given. The status of each physician is noted, and in brief it is a perfect dictionary of facts and statistics concerning physicians and medical matters. This work is solitary and alone, and gives the information so often needed by medical men. We commend it for its accuracy and general value to the profession. To anyone who wishes to communicate with the profession of this country it is invaluable. Such a work has a value in any library of the country.

The Humboldt Library, J. Fitzgerald, publisher, 108 Chambers street, New York city, is practically indispensable to every scientific man.

Science, an illustrated weekly journal published in New York city, represents the latest aspects of scientific research in all departments. To the scholar such a journal is indispensable, and we most heartily commend it.

Lend a Hand, a Boston journal of philanthropy, is a commendable work to place the best facts and conclusions of science on social questions before the public.

The Electrical Engineer of New York city, is the leading journal of the world, representing all the marvelous advances in the practical field of harnessing this mysterious force into the service of mankind.

The Scientific American brings weekly glimpses of the mighty progress of science in every department. Like the dailies, they are indispensable. Munn & Co., of New York city, are the publishers.

George Stinson & Co., of Portland, Me., are the great art publishers of this country. They make a specialty of steel engravings, which are really the finest pictures that can be had for parlors and office. We commend them to all our friends.

The Popular Science Monthly, D. Appleton & Co., New York city, is a most welcome visitor to every scientist. The October and November numbers are volumes in themselves of the greatest value. No more practical present can be made, than a year's subscription to this journal.

The following are some of the works lately published, and sold at 15 and 20 cents each. "Anthropology," by Dr. Wilson; "Evolution in History and Language," lectures delivered at the London School of Arts; "Descent of Man," by Charles Darwin; "The Dancing Mania of the Middle Ages," by Dr. Hecker; "Profit Sharing between Capital and Labor," by Sedley Taylor, M. A.; "Studies in Animated Nature." These are only a few of the most celebrated scientific works of the day, published by this firm.

A gentleman, from Chicago, writes that he has become fully restored, and is able to control all desire for spirits, and live a temperate life. This he accomplished by following my advice some years ago, to take turkish baths every day, while the paroxysm was on him. This soon broke up this drink impulse, and finally would ward it off. In some cases this remedy is practically a specific. Dr. Shepard's Turkish Baths, on Columbia Hights, Brooklyn, N. Y., may be said to be the most thorough system of baths, given on scientific principles, in this country.

Editorial.

TEMPERANCE, PARTIES, AND POLITICS.

Like an army unexpectedly attacked and thrown into confusion, or a ship struck by a squall, in disorder until the authority of the captain is asserted, the temperance moralist and reformer are astounded at the sudden alarming prevalence of inebriety. In the confusion of this discovery they seize on the wildest means for relief, and follow the noisiest enthusiasts and the most impracticable schemes. Leaving to one side all the various means of cure by prayer and pledge, they turn to politics, and are trying to unite their confused efforts in a political party, which will enforce by law their theories of the causes and cure of inebriety.

This prohibition movement, from a scientific point of view, has never attracted much attention. But to-day it assumes such arrogant claims of power to remedy the evils of drink, condemning all who differ, that it most naturally invites the scientists to examine its pretensions and theories.

In this inquiry the *JOURNAL OF INEBRIETY* has no political interest or theory to sustain. As the organ of men who are making inebriety a scientific study, it demands the facts, and the evidence upon which they are based must be presented and compared before the truth of any phase of this subject is accepted. Any views supported by facts are welcomed, and the kindest sympathy is extended to all measures and movements for the relief of inebriety, no matter how crude and impracticable. All such efforts are regarded as agitations and revolutionary struggles incident to every advance of science.

The prohibitory movement is based on the theory that inebriety is only caused by alcohol, and that this drug is a

luxury which can be withdrawn at will, thus removing the evil. Also, that inebriety depends upon the manufacture and sale of alcoholic compounds, and will disappear when the supply ceases. The remedy is to drive out the maker and seller of spirits, and banish alcohol. It is a curious fact that prohibitory legislation has been tried for over a thousand years, from time to time, against alcohol, tobacco, tea, coffee, coca, and opium. Moral, social, theological, and governmental forces have most fiercely and violently tried to suppress the use of these drugs. Despots who held the lives and thoughts of their subjects, and controlled all their acts, have failed to break up the use of stimulants and narcotics. Even the Chinese despotic rule failed to stop the use of opium. Kings and popes have combined against the use of tobacco, only to be defeated, and over and over again legislation against the use of alcohol has been unsuccessful. Now and then temporary, local, and limited successes follow, but after a time this disappears, and the evil continues in even greater proportions than before. Thus history repeats itself in the movement of prohibition to stop the evils of inebriety.

The theory of prohibition is not sustained from a study of the inebriate and inebriety. Alcohol is not a luxury, to be used or not at the will of anyone. It is a narcotic spirit which has been used in all ages, climes, and by all peoples, to soothe and relieve the wearied brain and unstable organization. Alcohol and its compounds have ever been used to supply some demand of brain and nerves, some defect or debility. This demand is not created by the form or the prevalence of alcohol, it is an inherited or acquired defect. The army of inebriates are recruited from states and conditions of life far back of the distillery or saloon. In this country they are often victims of our high-pressure civilization; of continuous nerve strains and drains, which not only exhaust but cripple the race and its descendants. The demand for relief which is found in spirits brings out the manufacturer and retailer to supply it. They may increase this demand, but they do not create it.

When once the victim finds relief from this drug, law and moral suasion are powerless. Banish the maker and dealer of spirits, and the current is turned into other channels equally dangerous. Opium, ether, and other drugs come to supply the demand.

The chemists of to-day are constantly discovering new and endless varieties of alcohols, which will always have a place in the arts and sciences; and wherever they are found to bring rest and quiet to this abnormal craving of the race they will be used under all circumstances. No prohibitory measures can discriminate in this field, and no present knowledge will indicate the alcoholic compounds that are dangerous or safe which should or should not be sold. Prohibition is a delusion when it assumes that to stop the manufacture and sale of alcohol is to break up inebriety and cure the inebriate. It is a delusion to expect that politics, party, and law can break up the disease of inebriety, or that a knowledge of the evils of inebriety will point out the causes and remedies. It is a delusion to suppose that the evils of inebriety can be remedied and controlled when its causes and nature are practically unknown. Opinions, theories, and beliefs by earnest enthusiasts cannot bring the authority of knowledge based on well-observed facts. Until inebriety is made the subject of exact study, and the laws which govern its rise and progress are ascertained, and the complex causes and conditions of life from which it springs are pointed out, prohibition will fail to prohibit, and every other means of treatment not founded on exact study will die out. Prohibitory legislation may act as a dam to the drink current for a time, and the stream appear to be stopped, but the certain breaking down of the dam and overflowing ruin that follows point to the error of not beginning back at the source. The drink problem cannot be solved by moral suasion or prohibition; it is a question for science and scientific study. In the march of progress, beyond the noise and enthusiasm of temperance reformers, the great forces of civilization are seen recruiting inebriates along lines of cause

and effect as fixed as the motion of the stars. In the same range the scientists catch glimpses of the laws of prevention and cure, from which in slow, measured steps inebriety and its evils can be reached, cured, and prevented.

PREMEDITATION IN INEBRIETY.

The frequent instances where inebriates in apparent possession of good judgment, go away and drink to great excess, displaying a degree of forethought and premeditation fully characteristic of all the ordinary events of life, are often very confusing to the ordinary observer. When the drink paroxysm comes all unexpectedly upon the victim, in some unforeseen state and circumstance, and he falls, it is dimly apparent that he is suffering from some unstable or diseased brain state, which has burst out from the application of some exciting cause. But when the paroxysm is anticipated and prepared for, and all the surroundings are made subservient to this end, when every facility to procure spirits are increased, when money is secured and business arrangements are made in view of this coming paroxysm, the conclusion most commonly reached by all non-expert observers is that it is deliberate vice and wickedness. When the history of a number of these cases is studied and compared, they are found to be well-marked cases of reasoning insanity, with drink paroxysm. These paroxysms are the acute attacks—the deliriums which expend themselves like storms which gather and burst—and are preceded by long periods of rest. A typical case is that of a banker, who is a man of excellent judgment in all business and social matters. He will prepare for a week or ten days in advance for a drink paroxysm. He is a temperance advocate, yet he will display great cunning to conceal the approach of this “spell.” He will become very active in his temperance efforts. His friends realize his danger, and try by every means to help him, but find that all their efforts are turned to aid him in concealing it. He will not begin unless he can find some way to con-

ceal his presence while the paroxysm is on him. When his friends were vigilant, he has been kept sober for a week or more, but with the first opportunity he disappears, and all their work has been thwarted by his cunning. In another case, the most deliberate reasoning and planning will mark the paroxysm. In another case, all at once he will rush away and drink in the most suicidal and insane way, only giving as an excuse some real or fancied injury or trouble. This deliberation and cunning is a symptom of mental unsoundness, and is most obviously reasoning insanity, and will be recognized when these cases are better understood. Dipsomaniac and periodical inebriety very soon became reasoning maniacs, dangerous because they are unknown and misunderstood.

COLONIAL AND INTERNATIONAL CONGRESS ON INEBRIETY.

A council of eminent English physicians have arranged for an International Congress, to be held in London, England, in July, 1887, the date to be fixed later. The object of this meeting will be the presentation of scientific papers and addresses on inebriety and its remedies, with discussions by the most eminent men who have made this subject a study.

For years moralists and reformers have discussed inebriety in great meetings, both in this country and Europe, but this will be the first great gathering of scientific men for the study of this subject, above the levels of theory and opinion.

The importance of this subject is felt all over the world, and the scientific facts which a few specialists have gathered in this country and Europe, are at last to be formulated and accepted, and a new road opened for temperance agitators.

This congress will be the culmination of many efforts to study inebriety in its true relations, by earnest men in this country, and Europe. Our American pioneers in this field, who have struggled up through good and evil reports so long, will feel a thrill of joy at this first great recognition of the facts of inebriety. It will not only rouse the British public

to take hold of this subject practically, but excite new interest in the inebriate all over the world.

Papers have already been promised from Dr. Magnan of Paris, Dr. Moelier of Brussels, Dr. Joseph Parrish of America, Count de Praskow-Marstorf, president of the Austrian Society for the Study of Inebriety, Dr. Norman Kerr of London, Dr. T. D. Crothers of America, Dr. Binz of Bonn, Prussia, Dr. De Colleville of Paris, and many others. This congress will close with a public dinner.

The following is a partial list of officers: President, Dr. Norman Kerr; vice-presidents, the Archbishop of Armagh, the Bishops of Cork, Gloucester, Liverpool, London, Newcastle, Ripon, and Rochester, Rev. Canons Barker, Duckworth, Ellison, Hopkins, and Leigh, the Duke of Westminster, Lords Lichfield and Mount Temple, Sir George Burrows, F.R.S., Dr. J. S. Bristowe, F.R.S., Mr. D. B. Balding, F.R.C.S., Mr. Wickham Barnes, F.R.C.S., Dr. Beverly of Norwich, Mr. Harrison Branthwaite, F.R.C.S., London, Mr. R. W. Branthwaite, Mr. C. M. Burton, Dr. Bridgwater of Harrow, Dr. Binz of Bonn, Prussia, Mr. T. H. Barker of Manchester, Mr. J. Barlow, J.P., of Bolton, Dr. Cameron, M.P., Dr. Alfred Carpenter, J.P., Sir W. Collins of Glasgow, Dr. T. D. Crothers of the U.S.A., Dr. De Colleville, Dr. N. S. Davis, U.S.A., Dr. Eastwood, J.P., of Darlington, Surgeon-Major Evatt, Dr. Farquharson, M.P., Surgeon-General C. R. Francis, M.B., Dr. Simon Fitch of Halifax, Nova Scotia, Dr. Hill Gibson, Dr. Stanley Haynes of Malvern, Mr. J. S. Hicks, F.L.S., of Liverpool, Dr. J. B. Hurry of Reading, Dr. Magnus Huss of Stockholm, Dr. C. J. Hare, Dr. G. Harley, F.R.S., Surgeon-General Logie, F.R.C.S., England, Dr. Murray Lindsay of Derby, Dr. F. R. Lees of Leeds, Sir W. Miller of Londonderry, Dr. Magnan of Paris, Dr. Moelier of Brussels, Count de Proskow Marstorf of Vienna, Dr. Withers Moore, President British Medical Association of Brighton, Professor Sir Douglas MacLagan of Edinburgh, Professor Macalister, F.R.S., of Cambridge, Professor McKendrich, F.R.S., of Glasgow, Dr. W. Ogle of Derby, Dr. A. Peddie of Edinburgh,

Surgeon-Major G. K. Poole, M.D., Sir G. H. Porter of Dublin, Dr. B. W. Richardson, F.R.S., Dr. George Robertson, Mr. Robert Rae, Mr. J. H. Raper, Sir Edwin Saunders, F.R.C.S., Dr. Danford Thomas, Mr. S. Urdahl Senior of Norway, Dr. Hart Vinen, F.L.S., Sir Spencer Wells, F.R.C.S., Dr. W. H. Walshe, Dr. A. T. H. Waters of Liverpool, Dr. H. W. Williams ; Treasurer, Dr. C. R. Drysdale, 23 Sackville street, W. ; Hon. Secretary, Mr. C. H. Bishop, 42 Grove Road, Regent's Park, N.W.

CASE OF DRUG TOLERANCE.

The following case is worthy of note, as pointing to some unusual physiological state of the organism, where narcotics have very little influence. A merchant 42 years of age, in active life, had been a paroxysmal inebriate for ten years, When the drink paroxysm came on, he acted so wildly that both his moneyed interests and that of his friends suffered greatly. It was found that moderate narcotism from chloral and morphia, kept him in bed and cut short the paroxysm. It was customary to get a two ounce mixture of chloral, morphia, and bromide, giving the officinal dose until he became stupid or sleepy. On this occasion, the usual bottle was procured, and given without any results, a second one was given, then a third one, after which the patient went to sleep. The bottles had not been labeled, and the doses had been given every ten minutes, by a new nurse, who claimed to know all about such cases. His son, returning a few hours after, noticing the heavy unnatural sleep, sent for me. I found that he had taken in three hours about nine grains of morphia, 320 grains of chloral, and over an ounce of bromide of sodium. Four hours had passed since the last dose had been taken, and excepting a heavy stupor and general pallor, no alarming symptoms were present. It was decided to pursue an expectant plan, and watch the case rather than attempt any active antidotal treatment. For the next ten hours he remained in a general stupor, from which he could

be easily roused, and was rational, but quickly relapsed into a quiet heavy slumber. This stupor continued for four days, gradually growing less with longer waking periods. Then he rode out, but was drowsy and heavy for a week more. The drink paroxysm had passed, and he returned to his usual work and health, not conscious of any unusual drug taking. This person was a delicate, nervous man, apparently very sensitive to all the surroundings, and with no indications of any peculiar organization or debility.

A CORRESPONDENT of the *British Medical Journal* states that aneurism of the middle cerebral arteries followed by hemorrhage and death, are common in chronic inebriety. Atheroma and fatty changes take place, resulting in aneurism, which after a time break, causing death. In cases of sudden death in chronic cases of inebriates, such a pathological condition will be found.

DR. BEAULIEU in the *Economiste Français* gives the following as the quantity of tobacco consumed by each 1,000 people in Europe : In Spain, 110 lbs. ; Italy, 128 lbs. ; Great Britain, 138 lbs. ; Prussia, 182 lbs. ; Hungary, 207 lbs. ; France, 210 lbs. ; Denmark, 284 lbs. ; Norway, 229 lbs. ; Austria, 273 lbs. ; Germany, 336 lbs. ; Holland, 448 lbs. ; Belgium, 560 lbs.

THE statements of the teaching of science in many of the temperance papers of to-day are strange enough to make the hair of a scientific man, or one accustomed to scientific methods of thought, stand on end.

MANY good temperance people can only see inebriety from one point of view. All the relations and surroundings of the subject are not considered. The one view is considered correct beyond all doubt and question.

Clinical Notes and Comments.

OPIUM INEBRIETY IN AN IDIOT.

BY J. C. CARSON, M.D., SUPERINTENDENT N. Y. STATE ASYLUM FOR IDIOTS.

On the 23d of April, 1884, application was received at the New York Asylum for Idiots for a boy, B. M——, aged eight years, twin born, and a subject of the opium habit since the day of his birth. The father of this boy was stated to be a native of New York, and was about thirty years of age when the twins were born. He is said to have been a healthy, temperate man, and had never been subject to any form of mental, nervous, or scrofulous disease.

The application stated that the father's mother's sister married an own uncle and had three idiotic and deformed children with seven toes and seven fingers, all of whom were unhealthy. The mother was a native of Ohio, and about thirty-six years of age. Previous to the birth of the twins she had had four children, all of whom were still-born. She had always been healthy, except being troubled with neuralgia, for the relief of which affection she acquired the opium habit at twenty-eight years of age. Her family history, as obtained, gave no hereditary predisposition to any form of disease. It is stated that the accoucheur in attendance at the birth of the twins administered ergot to the mother, and about four hours after their birth she was seized with convulsions which continued for two days following, when her death occurred.

The physician, in making the application, ascribes the convulsions to the combined action of the opium she herself had taken and the ergot administered by the attending accoucheur. This opinion, I think, however, is not warranted by therapeutical authority. Aside from the effect of the

ergot administered, the labor is said to have been a natural one, not requiring the use of instruments.

The applicant at birth weighed four pounds, and the twin brother two pounds. They were both very quiet, and lay peacefully resting until about six hours old, when they each almost simultaneously began worrying, crying, and at last screaming, and kept it up without any indications of abatement for hours afterwards. The mother being in convulsions at this time, it was thought her condition might be aggravated by the noise of the screaming infants, and it was suggested, prompted by the known habits of the mother (all other measures tried having ingloriously failed), to give them some opium.

The grandmother says she then took a bit of opium resin about the size of a grain of wheat, dissolved it in a little water, and gave each a teaspoonful. Its effect was almost magical, as in a few minutes they ceased their tossing and screaming, and slept quietly for six to eight hours afterwards. Then they again began to cry, or to "screech and jerk," as the grandmother says, and "kept it up" until the opium was again administered, and so on from time to time and the days and days that followed. Mrs. Winslow's, other soothing syrups, whisky, and various drugs, were tried in vain as substitutes for the opium, but opium alone seemed to possess the charm to allay their "screeching and jerking," which followed each time about eight hours after its administration. It, too, was soon found to be losing its control, and the next step toward peace in the family was to increase the quantity, which was done accordingly as future occasions demanded.

At the end of the first month the smaller twin died in convulsions.

When five years of age the applicant had a severe attack of typhoid pneumonia, from which he eventually recovered, but during which he had convulsions. Subsequent, however, to his recovery from it he would have convulsive attacks, lasting for a few moments, several times a day, and about once in four to six months a severe epileptic seizure.

During this sickness the opium was materially increased, and at the age of seven he was taking ten grains of solid opium every twenty-four hours, or in doses, three times a day, of three and one-third grains each.

The grandmother relates that during these years she made repeated and desperate efforts to discontinue the drug to him, but each time, after about forty-eight hours' trial and endurance, the condition of the child would become so pitiful her courage would fail her, and it was again and again resumed. Soon after his seventh birthday, she says, she determined that the drug would eventually kill the child, and finally resolved it might as well die from the want of it as from its effects. She then commenced to diminish the quantity gradually from time to time, and by May, 1884, had succeeded in reducing it to one grain at bedtime. This amount she continued to give until his admission to the asylum in September following, or a year ago. Since that time no opium has been given to him. The matron tells me that he was restless and uneasy and did not sleep much for a few nights immediately following his admission, but otherwise she did not observe any ill effects from its complete withdrawal.

The grandmother says as soon as she began to reduce the quantity of opium the epileptic attacks became less and less frequent, and have now entirely disappeared, none having occurred since a year ago last May, the time of the opium reduction to one grain at bedtime.

The following additional facts concerning him were elicited from the physician's application made in April, 1884: General health good. He began to walk at two years and eight months. At fourteen months it was noticed that he could not articulate. Before this he appeared very stupid, but this was attributed to the opium habit. Has a fairly developed forehead; vertex flat, with a depression over posterior surface of parietal bones; head wide. Has a slight halt in left leg, but growing less. Has had partial paralysis of left arm, also diminishing. Is of average size for his age,

active and vigorous, and not nervous except when out from under the influence of opium.

Appetite irregular, scarcely ever eats breakfast; likes sweet things, and particular what he eats. Sight and hearing good; is fond of music; notices bright colors, recognizes form, observes and distinguishes pictures; understands language and commands; will do errands, like bringing in wood and water. Commenced to speak at seven years of age. Says "pitty" for pretty, and attempts to call animals by names of his own, corresponding to their habits, as "pee-pee" for birds. Is cleanly in his habits; undresses himself, but cannot button his clothes. Feeds himself with a knife, and sleeps well after taking a grain of opium. Likes to tear things. Is of fairly good temper and obedient, but cannot be trusted. Wants or tries to talk all the time, and amuses himself by running about the house riding a stick which he calls "pony."

The head measurements, as taken by myself recently, are as follows: Circumference, twenty inches; transverse circumference from the external auditory foramina, thirteen and a half inches; from the intercilium to the occiput, eleven and a half inches. The vertex looks flattened, with a depression or valley along the line of the sagittal suture, or between the parietal bones. The palate a little narrow and vaulted; teeth a little irregular.

This case was admitted previous to my arrival at the asylum last fall, and my attention was not directed to his remarkable history until a few weeks ago.

I have with some care inquired into and elaborated his case thus fully, not for the reason that the features of his idiocy present any striking or unusual peculiarities or characteristics, but because I believed it a rare and exceptional case of the opium habit in one so young, and really acquired from a time, at least, commencing with the day of his birth. My memory does not recall any similar or parallel case on record, and during the brief period and opportunity I have had to look up the authorities on the subject, I have been

unable to find or learn of a single case approaching it in character, reported. Whether these twin boys born of this mother, an opium-eater for seven or eight years previous, and in the habit of consuming, as her mother supposes, from ten to twenty grains of solid opium daily, and probably more during the natural anxieties of her pregnancy, really directly inherited this habit from her *in utero*, is one of the questions that arises from the history just narrated. Were the crying, the struggles, and the restlessness of these babes as described, that commenced about six hours after their appearance into the world, due to the want of opium from an inherited opium habit, and obtained *in utero* through the medium of the mother's blood? The time that elapsed before the uneasiness and screaming commenced; the quiet and repose that followed the opium administration, its resumption again after a period of about eight hours, and continuance until the second administration, a tranquil condition for another eight hours, and a subsequent corresponding history, that repeated itself over and over in this manner in these cases, would incline to the opinion of the possibility of the direct transmission to them of the habit through the mother, and a consequent acquisition of the habit at birth. Another point which makes these cases extraordinary and adds weight to the possibility of such a condition, is the fact that here were two babes, twins, each beginning to cry and fret about six hours after their birth, and from the history given, pertinaciously, frantically, and rebelliously persisting again and again until appeased by the opium draughts, and both having been subjected to precisely the same pre-natal influences.—*From the Proceedings of the Association of Medical Superintendents of Asylums for Idiots and Feeble-minded.*

The *Wine and Spirit Review*, published at Louisville, Ky., is a large journal devoted to the production and sale of spirits. It is replete with interesting and curious facts, which in these times of temperance agitation are very suggestive.

RESULTS OF TREATMENT.

No intelligent person who has observed the march of human thought into the recently explored realms of Psychological medicine and the treatment of mental diseases, but will get new views as to modes of treatment, more especially of that class for whom nearly thirty years ago this institution was organized. The favorable results of each succeeding year, only confirm and demonstrate the truth of the humane and wise idea that led to the organization of the institution, viz. : that intemperance in all its stages may be not only checked and mitigated, but in many instances permanently cured, and the subject fully restored to his normal condition of health and sobriety.

Such results may not be reached by the final and utter extinction of the morbid desire for alcohol, so much as by a development and cultivation of opposite and ennobling qualities, which by their vital action, hold the depraved mental tendencies of the subject in constant and absolute subjection, so that they become as inoperative as if they did not exist.

This is as near an absolute cure as we can hope to reach, as the testimony of all inebriates concurs in the fact that the appetite for intoxicating drink never dies, though it may be put to a life-long sleep.

It cannot be expected that the final and complete results of the treatment of our patients, so variously circumstanced and conditioned, can be fully known. From this common center of reform, hundreds have struck out in new and divergent paths, and are lost to our view in the general whirl of business and laudable enterprise. Whenever any one does fall into his previous habits, we are certain to be informed of the fact, as few things travel so fast and so sure as ill tidings of man's vices and misfortunes.

We can congratulate ourselves on the fact that hundreds who have been under our care are now in active life in our immediate vicinity, of whose doings we are cognizant, and it is a source of pleasure to us to know that their correct and

consistent conduct is productive of happiness to themselves, and does honor to the institution and the humane work which it has in hand.

DR. ALBERT DAY.

Dr. Shepard of Brooklyn, N. Y., sends us the following item in the practice of Dr. Rand of Brooklyn, which is worthy of note :

Male ; age, 23 ; American. Has been a hard drinker for two or three years. When seen, patient was complaining of anorexia, insomnia, and muscular tremor—the latter especially well marked. Ordered the following :

℞	Tinct. nucis. vom.,	ʒ iss.
	Tinct. capsici,	ʒ iii.
	Tinct. cinchon. les. ad,	ʒ ii.
		M.

Sig. ʒ i. every three hours.

℞	Squibbs chloral hydrat.,	ʒ ii.
	Potass. Bromide,	ʒ ss.
	Aquae, ad,	ʒ i.
		M.

Sig. ʒ i. every one to three hours, as required.

Within the hour after the first dose, the nurse left the room for a few moments, and the patient drank the contents of both bottles. When seen, one hour later, sleep was profound ; pulse, 80, and regular ; respiration, slow and deep. It was impossible to rouse the patient, except so far as to get him to swallow some brandy and water.

Considering the chloral and bromide as the physiological antidotes to nux vomica, and the nux vomica as bearing the same relation to chloral, I concluded to do nothing but watch for symptoms that might indicate danger from either of the drugs mentioned.

During the six hours following, the pulse ranged between 70 and 90, and the respiration between 14 and 20 ; but there seemed to be no definite relation of the accelerated pulse to the quickened respiration, the latter being sometimes 20 per minute, when the former was 70.

Patient did not vary his position during this time, except once, when, in endeavoring to rouse him, he turned over

suddenly and fell from the bed to the floor, without evincing any pain from the fall. Anæsthesia appeared to be complete. Pulling the hair caused no evidence of pain. There were no symptoms of strychnia poisoning. The prescriptions were put up by a reliable druggist, and Dr. Squibb's nux vomica and chloral used.

The patient slept for sixteen hours, and came to my office the next morning, having, as he said, no recollection of anything that transpired from the time he took the drugs up to the time of awakening, sixteen hours afterwards.

By HOWARD RAND, M.D., Brooklyn, N. Y.

Dr. Taylor, in a late discussion before the Richmond Medical Society, mentioned the following case to illustrate the danger from cocaine intoxication. A young physician who, while a student, had cocaine prescribed for him for some supposed kidney disease. The cravings of his system for more of the drug became more and more pressing. If his own knowledge warned him of his danger, he probably consoled himself with the reflection that his kidney disease was progressing, and more of the remedy was demanded. For weeks before he was seen by Dr. Taylor he had been in Richmond on a protracted spree, and his conduct was so strange as to give rise to the suspicion that he was insane. It was then discovered that he was taking cocaine hypodermically every few hours. When a stop was put to this he was a raving madman; swore he would kill himself, and had to be watched constantly to keep him from carrying his threat into execution. His delirium finally became so violent that a commission of lunacy sent him to an asylum, but in a few days he made his escape and returned home. His brothers then took charge of him, confined him to his room, and kept a guard over him constantly, and in that way finally broke him of the habit, to which he was a slave. For six weeks his ravings were represented as violent, and his delirium was acute and distressing.

In the *Southern Practitioner* for September a very practical fact is mentioned concerning capsules as vehicles for unpleasant medicines. When any form of alcohol is taken with them, they are rendered insoluble. Tannic acid also precipitates the gelatine covering and renders it innocuous. When the stomach is inflamed and irritable, following excess in the use of spirits, never use medicines in capsules. Never give chloral or morphia in this form to inebriates; it is useless.

Minutes of the *Twelfth Annual Meeting of the National Women's Christian Temperance Union* is a volume of 230 pages. Organizations, like individuals, not infrequently become ambitious, and attempt too much, and thus fail to accomplish the good which would follow from more concentrated effort.

In Miss Willard's address before the Christian Temperance Union, she calls attention to the need of "Reformatories for Women, Homes for Adult Incapables, Homes for Moral Incapables, Inebriate Asylums for Men and Women, Normal Institutes, Training Schools," and so on.

A correspondent writes that over thirty thousand gallons of *Horsford's Acid Phosphate* are bottled and sold yearly.

The Coca Cordial, of Parke, Davis & Co., is no doubt the best form of this most powerful drug that is sold to-day. We especially commend it to all.

Wheeler's Tissue Phosphates: Combine calcium phosphate, sodium phosphate, and iron phosphate and they seem to have great value in bad nutrition, and general nerve debility.

Lactated Food, prepared by Wells, Richardson & Co., of Burlington, Vt., has taken a high rank among the remedial foods on the market. In our hands it has proved of great value in cases of opium inebriety, associated with functional stomach disorders.

The *Anglo-Swiss Milk Food* is endorsed by most excellent authorities, for all cases of deranged digestion among children and invalids. It should be tried in all such cases.

Fellows' Hypophosphites is used very extensively in both Europe and America, and its reputation is fully sustained wherever it is used as a remedy of great value in nerve and brain exhaustion.

Murdock's Liquid Food claims to be the only raw condensed food, free from insoluble matter, on the market. It has been before the public a long time, and has won a place among the valuable remedies.

Lactopeptine is now put up with gentian, strychnia, quinine, iron, bismuth, calisaya, cinchona, and phosphates, and in these forms are undoubtedly the most valuable of all known remedies for nerve and brain disorders.

Peptonized Cod Liver Oil and Milk, prepared by Reed & Carnrick, of New York city, claims to present the oil globules twenty-five per cent. finer than that found in any other preparation in the market. Hence its superiority.

Prof. Doremus of New York, writes: That the various preparations of *Maltine*, are superior in therapeutic value to any other extracts of malt made, and as nutrients they supply almost every tissue of the body, from bone to brain.

Dr. Frazier of St. Louis, writes: I have used with flattering results, *Colden's Liquid Beef Tonic*, as a food in a variety of cases — notably in cases of gastric irritability, and such acute inflammatory conditions of the gastric mucous membrane.

Dr. Crittenden of Unionville, Va., says: In pneumonitis, pleuritis, and bronchitis, I have found *Papine* to answer an excellent purpose. In dysentery it is useful both as an anodyne and in relieving the tenesmus. In the diarrhoea of children, I frequently combine with it bismuth subnitrate and prepared chalk. I have used it also in cystitis. In neuralgia, when I wish an anodyne, I use *Papine*. As an anodyne it is equal if not superior to morphia; and I have never yet seen any unpleasant effects from its use. As a hypnotic I find it to be an agent of great value.



RC 367, A3

172133-

178.05

Q2

1891

UNIVERSITY OF CHICAGO



77 570 220