# THE QUARTERLY JOURNAL

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# INEBRIETY.

Published under the Auspices of The American Association for the Cure of Inebriates.

Vol. IV.

APRIL, 1881.

No. 2.

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

EUROPEAN AGENCY:

BAILLIERE, TINDALL'S COX, 20 King William Street, on the Strand, London, W.C.

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## A Brain and Nerve Food.

## VITAVEDA PHOSPHATES

Prepared from the nerve-giving principles of the Ox brain and Wheat germ not a laboratory compound, but a living phosphate. Physicians have prescribed 200,000 packages in all forms of nervous disorders, overwork of the brain, weaknesses, and feeble digestion. They are especially useful in the nervous sufferings, dreams and sleeplessness that accompany and follow the use of alcoholic liquors, preventing the moral and physical prostration, and relieving the craving desire for drink. They build up, vitalize, and re-enforce the nervous system and induce changes so permanent and radical as to be the nucleus of a fresh and more healthy mind and body for all subsequent life.

F. CROSBY, 666 Sixth Ave., New York.

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#### THE

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

## STATISTICAL REPORT OF TWO HUNDRED AND FIFTY-TWO CASES OF INEBRIETY,\*

TREATED AT THE INEBRIATES' HOME, FORT HAMILTON, L. I.

BY L. D. MASON, M. D., PHYSICIAN TO THE INEBRIATES'

HOME, FORT HAMILTON, L. I.

Much of the literature of the subject of inebriety is fragmentary and in many instances a compilation rather than a deduction based on original investigation.

An advance in the knowledge of this special disease, as in other diseases can only be secured by the careful study of individual cases.

By presenting to the Society, as the result of such study, these tables and the deductions from them, the writer hopes to encourage researches of a similar character. He has had very few precedents to guide him in the preparation of these statistics, which will explain any apparent want of completeness in the form of the tables used.

Read before the American Association for the Cure of Inebriates, at the Annual Meeting, October 20. 1880.

VOL. IV .- 10.

TABULAR STATEMENT OF 262 CASES OF INEBRIETY

Cause of Use.	Business. Yenereal Excusses. Yenereal Excusses. Association.
No. of Attacks of Delittom Tremens.	94 93 94 NH4 H H-4
COMPLICATING DISEASE, OR INJURY.	Fracture of Skull Fractured Tibla Fractured Fibula Fractured Fibula Fractured Fibula Log injury, Syphilis Gonorrhea Shot Wounds Shot Wounds Concussion Gonorssion Gonorssion Gonorrhea Syphilis, Gonorrhea Syphilis, Gonorrhea Syphilis, Gonorrhea Syphilis, Fhthisis, Gonorrhea Syphilis, Gonorrhea Fractured Tibla, Gonorrhea Syphilis, Gonorrhea
Periodical or Habitua	<b>,                                    </b>
Yeara Addicted.	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
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Family History.	leal Estate Agent. Bister Insane. Tobacco-facotant and the fast and th
Occupation.	HROWNOHOUGHER COMPENSATION
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Religion	<b>またいませらればいれいのいれいののでものでいいいいいませまままま</b>
Nativity.	U. S. Contained Ireland Irelan
Sex.	<u>ZYZYZYZYZYZYZYZYZYZYZYZZYZZZZZZZZZZZZ</u>
Age.	25 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4
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B. Cheeker   Father Inchtake   Tobacco   10   Concussion   Concussio
Exposery   Explication   Tobacco   1   Syphilis   Gonorrhosa   Tobacco   1   Syphilis   Gonorrhosa   Tobacco   1   Syphilis   Gonorrhosa   Tobacco   1   Syphilis   Gonorrhosa   Tobacco   2   Explication   Tobacco   3   Explication   Tobacco   4   Explication   Tobacco   5   Explication   Tobacco   6   Explication   Tobacco   6   Explication   Tobacco   7   Explication   Tobacco   7   Explication   Explication   Tobacco   7   Explication   Explication   Tobacco   7   Explication   Explication   Tobacco   7   Explication   Explication   Explication   Tobacco   7   Explication   Expli
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TABULAR STATEMENT OF 252 CASES OF INEBRIETY—Continued.

	Cause of Use.	Association. Association. Association. Association. Injury. Injury. Injury. Injury. Injury. Association. Association. Association. Association. Association. Association. Injury. Family Trouble. Association. Family Trouble. Association. Injury. Association. Injury. Association. Association. Injury. Association. Injury. Association. Association. Injury. Injury. Association. Injury. Association. Injury. Injury. Association. Injury. Injury.	
	Caus	Association. Association. Association. Association. Injury. Injury. Injury. Injury. Injury. Association. Association. Family Trout Association. Family Trout Injury. I	Trouble
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	Periodical or Habitual	在日本でです。 其一年代日本日本日本日 其一年日日日日本日日日日日	H
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	Associate JidsH	Tobacco	
	Family History.	Father Inebriate.	Edulof Incollare
	Occupation.	PARCECE E E E E E E E E E E E E E E E E E	Domestic
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1	Religion.	ರವರಂಭವರ ರ ಪ್ರಪರ್ಧವಾಗವರ ರ ಕ್ರಾಪ್ರಪ್ರಪರ್ಧವಾಗ	
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Bronchitts.	f. Epilepsy L. Knee Injury, Gonorrhæs				0	- 50 - 100	3		P Phthiais		H Shot Wound, Enflange		Taxation of Humerus, Gonorrhea.		Cvalitia Gonorrhea	Enllengy Phthlais	Fractured Tibia, Gonorrhea	I. Shot Wound, Gonorrhea		-	H. Gonoffacea	Transports Symbilia Concertion	Phthiata	Synhills	Fractured Humerus, Epilepsy	I. Hernia	I. Syphilis, Gonorrhoes, Epilepsy, Phthisis	To describe the Taxon	I larm Broken	Fallange	T Donorrhos	Concustion	f Epilepsy.	P. Gonorrhoa	T	I. Phthisis, Gonorrhæa
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TABULAR STATEMENT OF 262 CASES OF INEBRIETY-Continued.

Cause of Use.	Injury, Association, Association, Association, Association, Association, Association, Trouble, Association, Trouble, Association, Trouble, Association, Trouble, Association, Association, Association, Association, Association, Association, Association, Injury,
No. of Attacks	
COMPLICATING DISBASE, OR DATEST.	Skull Fractured, Gonorrhoes, Epilepsy Skull Fractured, Gonorrhoes, Epilepsy Skull Fractured, Syphilisis, Gonorrhoes, Fribisis, Fribisis Fribisis, Fribisis Fribisis, Fribisis Fribisis, Gonorrhoes, Fribisis, Fribisis Fribisis
Periodical or Habitual	一世世世世世世世世世世 世 世代世代世代世世世世世世世世代代史中代世代
Years X ddicted.	# # # # # # # # # # # # # # # # # # #
Associate Habit.	Торыссо
Family Elstory.	Plumber Allesman Jensewife Father Inebriate Jent Father Inebriate Father Inebriate Father Inebriate Father Inesane Father Inebriate
Occupation.	H220H3.10H0H2 1 - H2 10 10 10 10 10 10 10 10 10 10 10 10 10
Social. Condition.	ooking kanakan oo kanakan oo kanakan
Education.	Medium Business Rudimentary Medium Business Rudimentary Medium Business Rudimentary Medium Business Rudimentary Medium Business
Religion.	ಎಗ್ರಾಪ್ ಗರ್ವನಗಳನ್ನು ಸ್ಪುಪ್ಪಕ್ಷನ್ಯಂಗ್ರಪ್ಪಟ್ಟಕ್ಕಳಗಳಾಗಿ
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		Disease.	-	Injury.	·	_		_	Association.		_	Injury.	Injury.	Trouble.		_	- 1	Association	-		Trouble.	Association.	-	-		Trouble.	-	_		Association,	_	Trouble.
	1 1	39	:	<b>69</b> +	4		*	:	:	9	:	-	80	:	63	:	:	-		:	:		4		:	:	:	:	:	:		
Humerus Fractured, Gonorrhes.		Gonorrhosa Hib Diagaso	Gonorrhæs	Concussion, Sunstroke, Epilepsy	Claylold Rroken	Sprained Ankle		Gonorrhæa, Epilepsy	Humerus Fractured, Syphills, Gonorrhea	Skull Fractured Loss of Bone, Gonorrhosa	Epilepsy.	Concussion, Gonorrhosa	Concussion	Leg Broken	Gonorrhoa	Skull Fractured	Syphilis, Phthisis	Concussion, Epilepsy, Gonorrhoe			***************************************	Control of the Parties	CIRVISIE EIR KID DIOKER	Gonorrhœa	Concussion	Concussion, Chronic Metritis, Epilepsy	Gonorrhea			***************************************	Gonorries	Humerus Fractured
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	S. Clerk Father Inebriate Tobacco	ess M. Bartender: Father Inshrists Snuff		・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	C. Lawyer Conner Conner Connector		S. Junkman Tobacco	I		ess & Liguor Desier Thola Instructe	W. Housewife		M. Carman Fr	W. Housewife.	S. Cherk			S. Clerk Tobacco	M. Warmer That Inch Inches	M. Book-keener Grandfather Inebriate		Father Ineb., Cousin Ins.	W. Salesman Tobacco		M. ClerkGrandmother Insane	M. Housewife	M. Carbenter	S. Book-keeper		S. Telegrapher Unole Inebriate Tobacco	M. Agent. Trobacco	Brother Insane
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187 86 M. U.S. 188 29 M. U.S. 189 44 M. U.S.	190 40 M. U. S.	192 44 M. Ireland	M. U.	195 45 F. Ireland	26 M. U.	10s Ko R Ireland	M. U.S.	86 M. U.S.	M.	202 US M. U. S.		81 M.	47 M.	. F	203 30 F. Ireland	50 M.	47 F. Ire	212 30 M. U. S.	214 38 M II C	216 88 M. U.S.	216 42 F. Ireland	217 25 M. U. S.	210 35 M. U. S.	48 M.	39 M.	222 52 F. Ireland	46 M.	28 M.	35 M. U.	221 34 M. U. S.	229 32 M. Canada	230 41 M. U. S

TABULAR STATEMENT OF 252 CASES OF INEBRIETY—Continued.

Use.	د دو ديورو
Cause of Use.	Association. Association. Association. Trouble. Trouble. Association. Trouble. Association. Trouble. Association. Trouble.
No. of Attacki of Delirium Tremene	
Complicating Disease,	Gonorrhoe.  Herais.  Skull Fractured: also Nasal Bones  Rümerts Fractured, Shot Wounds  Shot Wounds
Periodical or Habitual	<b>世世ででははでいるかばは日世世ででははまず</b>
Years Addicted.	FF-00180 8014814 81808 8 9 4 8 8 4 7 9
Associate Habit,	Tobacco Shuff Tobacco Tobacco Tobacco Tobacco Tobacco Tobacco Tobacco
Family History.	Tousewife.  Machinist.  June Machinist.  June Dealer  Jun
Occupation,	fousewife Clurk Machinet Machinet Machinet Machinet Machinet Iliquo Palet Iliquo Palet Iliquo Palet Iliquo Palet Mason Iliquo Palet Sudent Domestic
Social Condition.	Zwzzzzzzwwzzzzzz
Education.	Medium Business Rudimontary— Rudimontary— Rudimontary— Rudimontary— Rudimontary— Rudimontary— Rudimontary— No Education— Rudimontary— No Education— No Education— Rudimontary— No Education— No Education— No Rudimontary— No Education— No Rudimontary— No Rudication— No Rudicatio
Religion.	ರಲ್ಲಿರಲ್ಲಿರುವರಲ್ಲಿರಲ್ಲಿ ಬಿರುಗಿರುವರಲ್ಲಿ
Vativity.	Treland U. S. Conneta Conneta Preland Preland U. S. U.
Sex.	<b>电影电影电影电影地震地震电影电影电影电影</b>
Age.	684688888888444468844488
No.	122828888888888888888888888888888888888

Norm.—A large proportion of those referred to as having a "rudimentary education" received a common school education. Those classified as "well educated" in addition to the unated curriculum of a school education, had pursued special courses of study, as civil engineering, etc. Those referred to as having "no education" could neither read nor write.

"By "Association" is meant those causes either in the occupation of the person, or in the customs of business or sociated by which he is led to use alcoholic liquors habitually. The person of bar drinking during business hours is a frequent source of inchriety.

## RECAPITULATION,

### WITH DEDUCTIONS FROM TABULAR STATEMENTS.

	Age.	Cases.	Age.	Cases.
Age on en-	15 to 20	I	40 to 45	36
unico.	20 " 25	15	45 " 50	32
	25 " 30	38	50 " 55	10
	<i>3</i> 0 " 35		55 " 60	14
	35 " 40	49	60 " 65	8
Sex.	Males	208	Females	44
Nativity.	United States	150	Scotland	4
	Ireland	63	Germany	4
	England	19	Cuba	1
	Canada	11		252
Religion.	Protestant			
	Satholic			
	No Religion			• 383 • 1894 B
				252
Education,	Cannot read nor w	rite		24
	Rudimentary			92
	Well educated			37
19	Collegiate			18
	Business education			81
Vol. IV	V.—11.			252

Fifty-five, or nearly one-fourth of the above, received a liberal education, one in fourteen having had a collegiate course; of the males, about one in eleven followed professions; a large proportion were skilled mechanics, and of those engaged in business, none were below medium in point of general intelligence and capacity; many exceeded this point.

We have at present among our patients, clergymen, lawyers, physicians and representatives from all classes of society—who once held remunerative and responsible positions, but now, in many instances, voluntarily seek the shelter and restorative aid which our asylum affords.

The fact that dipsomaniacs come from the more intelligent and educated classes of society is substantiated by these records.

	MALES.		FEMALES.
Occupation.	No occupation	5	Cooks, etc 23
TO THAN SO	Trades (indoor)	48	Housewives (house-
	" (outdoor).	73	keepers, etc.) 21
	Liquor business	16	
	Professional	18	
	Clerks	35	
	Merchants	11	
	Manufacturers	2	
		208	44
	MALES.		FEMALES.
Social con-	Bachelors	92	Spinsters 4
	Widowers	10	Widows 6
	Married	105	Married 34
	Divorced	1	
	*		
		208	44

Relative frequency between unmarried and married males not marked; relative frequency between married and unmarried females marked, being in favor of spinsters. The statistics of insanity show a similar record.

INEBRIETY.		INSANITY.
Family His- Fathers	92	Fathers 3
'Mothers	2	Brothers 4
Fathers and Moth-		Sisters 3
ers	4	Aunt 1
Father and Brother	r	Uncle I
Father and Sister	I	Grandmother I
Brothers	2	Cousins 2
Grandfathers	6	
Grandparents	I	
Relatives (Uncles).	7	
_		
	116	1.5

Insanity of parents should be regarded as one of the predisposing causes to inebriety in their children (vide cases 139, 159). But the principal hereditary cause of inebriety is an inebriate father or mother; especially as these records show an inebriate father—92 of the above 116 cases having such parentage. It is also true that an inebriate parent will beget insane as well as inebriate offspring (vide cases 13, 113, 152, 190, 237). Instances of atavism, a peculianity recognized in other forms of disease, are found in these records.

#### SPECIAL HISTORIES.

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Case 13 Father inebriate. Case 139 Father insane.

" 113 Son " 159 Son inebriate.

Son insane.
```

Case 237 {	Father inebriate. Son " Sister insane.	Case	190 Mother inebriate. Son " Sister insane.	
	MALES.		FEMALES.	
Associate habit.	Used tobacco Not used	-	Used tobacco 5 Used snuff 6 Not used 33	
	i i	208	44	

The opium habit is not unfrequently associated with the habitual use of alcohol; in such cases, although the opium habit takes precedence in point of importance and treatment, the habitual use of alcohol should be noted.

Although the majority of inebriates use tobacco in some form, occasionally we meet with cases where tobacco has never been used.

	Ag	e. C	ases.	A	ge.	Cases.	
Age at which habit was form-	10 to	15	13	10 t	o 15	13	
ed.	15 "	20	68	15	"-25	146 )	216
	20 "	25	78	25	" 35	701	Cases.
	25 "	30	41	35 '	" 45	15	
	30 "	35	29	45	" 55	8	
2	35 "	40	8				
	40 "	45	7				
	45 "	50	5				
	50 "	55	3				

In two hundred and sixteen cases, or in over four-fifths of the 252, the diseased tendency manifested itself between the ages of 15 and 35, and in the larger proportion of cases (146), between the ages of 15 and 25.

	ASYLUM.			OTHER TREATMENT.			
Previous asy- lum or other treatment.	Once	31	cases.	Once	15 cases.		
	Twice			Twice	I case.		
	Three times	5 4					
20	Four "	I	case.				
	Five "	I	"				
		39	cases.		16 cases.		

Making 55 of the 252 cases that had received treatment before applying for relief at our Institution.

Treatment other than Asylum should not, however, be regarded as satisfactory; as restraint, so important a factor in the treatment of this class of disease, could not have been effectually used. We may, therefore, say that of the 252 that applied for treatment only 39, or less than one-sixth, had received treatment previous to entering the Home.

	•	Year	rs. Ca	ses.	Years.	Cases.
Periods of ad- diction without	1	to	5	34	25 to 30	. 9
previous Asy- lum treatment. (197.)	5	**	10	<i>6</i> 0	30 " 35	· 5'
	10	"	15	45	35 " 40	
	15	EÉ	20	30	40 " 45	I
	20	66	25	II		

One hundred and sixty-three persons were over five years, and 103 over ten years, addicted to inebriety before applying for treatment.

		HABITUAL.				į		
		Ye	ars. (	Cases	¥	ears		Cases
Periods of ad- diction (all cases)	1	to	10	70	I	to	10	32
252,	10	"	20	71	10	46	20	. 40
	20	**	30	18	20	**	30	. 15
	30	"	40	2	30	"	40	. 3
	40	**	50	I				
			<del>≅</del>	162				90

In the above 252 cases, 92 habitual and 58 periodical inebriates (or three-fifths of the whole number), were addicted to inebriety for ten years before entering the Home.

	HABITUAL.		PERIODICAL.		
Habitual and periodical.	Males	135	Males	73	
	Females	27	Females	17	
			1. <del>'-</del>		
	2	162		90	

The relative frequency between the habitual and perodical forms of inebriety is in favor of the former; of the 252 cases, 162 were habitual, and 90 periodical inebriates. The periodical form of inebriety does not occur more frequently (as might naturally be supposed) in females than males.

Periodical (In- tervals.)	12 months 20 cases.			6 months			31 cases.			
	10	200	Dia Decien		44	4	e.		8	"
	8	"	• •	1	"	3	u	181 E	28	44

The favorite periods seem to be quarterly, semi-annually and annually.

8	HABIT	UAL (162 cases).	PERIODICAL (90 cases).			
Total years of inebriety.	2106	years.	1387 years.			
Average peri- od of addiction.	13	years.	15 + years.	ì		

Period of addiction as to longevity favors the periodical inebriate.

Malt..... 16 cases. Malt & Spir- 86 cases. Spirituous 150 " ituous.... 86 cases.

	BRANDY.	WHISKY.	BEER.			
	Cases.	Cases.	Cases,			
Daily average 162 habitual in-	1 pint*5	1 pint*13	ı quartı			
ebriates.	1 quart 3	1 quart 37	2 quarts 2			
	2 quarts 1	2 quarts 76	3 " 1			
	GIN.	3 " 11	4 " 8			
	1 quart 2	4 " i	6 " I			
	9 brandy; 2 g	n; 138 whisky; 13	beer drinkers.			

One quart of whisky, or its equivalent, I find a low average for the daily consumption of the habitual inebriate; so that the 162 habitual inebriates must have consumed in the thirteen years of their addiction nearly 200,000 gallons of spirituous liquors.

We may regard injuries or diseases as affecting the inebriate in one of several ways:

- 1. As predisposing causes of inebriety.
- 2. As exciting causes of inebriety.
- 3. As complications.
- 4. As results of inebriety.

Predisposing causes we have already considerables.

Predisposing causes we have already considerables.

ered as being chiefly insanity or inebriety of parents, and in exceptional instances of grandparents.

Excling causes. Head Injuries.—It will be noticed that "head injuries" are largely in excess of the other exciting causes. At least one in seven of the 252 cases became inebriates from blows on the head; 12, or about one-third of the 34 cases of head injury were fractures of the skull; in four of these there was loss of bone; 22 of the 34 had concussion, more or less severe; 27 of the 34 became habitual Dispso-

<sup>\*</sup> Females.

maniacs, the balance periodical Dipsomaniacs. It is of interest to note that, in nearly all the above instances, the patients used alcoholic stimulants in moderation previous to the injury.

The other exciting causes are such diseases or injuries as would act either directly or indirectly in producing an abnormal condition of some portion of the cerebro-spinal axis.

Disease as explaining cause. Not unfrequently inebriates suffer from maladies other than those named, which, if not the exciting cause of their inebriety, at least tend to protract that disease.

It is, therefore, of the first importance that physicians, when treating cases of Dipsomania, should make a careful investigation as to possible complications, and relieve the patient of any disability that might otherwise retard, if not prevent, a cure. When this cannot be accomplished, the prognosis, as regards the ultimate recovery of the patient, is extremely doubtful.

I can only refer to three cases in point:

One a case of periodical Dipsomania, to which my attention was called by Dr. Geo. K. Smith. The disease was associated with a stricture of urethra. On division of stricture the reflex symptoms dependent thereon disappeared, the patient remained well thereafter, and the periodical attacks of Dipsomania did not recur.

Dr. T. D. Crothers has furnished me with two cases—one in which the Dipsomania was complicated with tænia soleum; in the other with necrosis of tibia. The sources of reflex irritation being removed, the attacks of Dipsomania were not repeated.

In view of these facts, the physician, in all cases of Dipsomania, should look behind the mere symptoms of drink-craving, and as in diabetes, in which the excessive thirst is merely symptomatic of disease, his remedies should be directed to the seat of the disorder. In some instances he will find Dipsomania to depend on a diseased condition that he can relieve. In other instances, as in some forms of head injuries, he can scarcely hope to cure the Dipsomaniac as in traumatic epilepsy, so in traumatic Dipsomania the prognosis must be extremely unfavorable.

Additional exciting causes, exclusive of disciting causes.

As additional exciting causes, exclusive of disciting causes.

Association.—Thus, seven give the social habits and fatigue of army life; 162 the customs of trade or business; 16 were engaged in the liquor traffic as bar-keepers, distillers, etc.; 42 gave as the exciting cause family troubles or business losses.

Among the complicating diseases are found:

1. Phthisis and other pulmonary diseases; 33 of the 252 cases, or less than one in eight, had lung disease in some form; 24 of the 33 cases of pulmonary disease were Phthisis.

- 2. Syphilis.—44 cases are noted, or one in six of the 252 cases. Syphilis is not unfrequently the exciting cause of inebriety, more especially in the later stages, when the nervous system becomes involved. We have cases on record where the syphilitic did not become an inebriate until the nervous system became diseased. At whatever stage the disease may manifest itself, it should always be regarded as a complication and receive proper treatment.
- 3. Gonorrhæa.—A large proportion of male patients had contracted gonorrhæa at some period previous to their entering the asylum. This disease is, as a rule, much neglected, several attacks or relapses being common; a fertile

source of *stricture*, from which this class of patients not unfrequently suffer, and which must also be regarded as an occasional exciting cause, as well as a complicating disease of inebriety. The relatively large proportion of venereal diseases in this class of persons is due to the fact that in the earlier stages of inebriety excessive venery is the rule.

Alcohol seems to stimulate that portion of the nervous system which influences the organs of generation; in fact, in the latter stages of inebriety coitus can only take place under the exciting influence of stimulants, and finally, when structural lesions occur, the inebriate becomes impotent, and alcohol loses its effect in this particular. This peculiar physiological action of alcohol has long been a matter of popular knowledge, as attested by the old adage—

"Sine Cerere et Baccho friget Venus."

The prevalence of veneral disease among so large a percentage of inebriates is a fact the knowledge of which is of importance not only to the inebriate himself, but also to his associates. Especially is this the case in asylums, where many patients occupy a ward in common, the danger of contagion being thus enhanced.

Among the complicating diseases we note 24 cases of phthisis.

Phthisis as a Complication.

The origin of these cases could be traced in a majority of instances to a tubercular or syphilitic diathesis.

It is also an interesting fact that "an intractable form of phthisis" can be induced by alcoholic excess.

In this connection it may be observed-

1. In no class of disease does alcohol more frequently form the basis of treatment than in pulmonary disorders, especially phthisis.

2. It is well known that temperate persons have taken alcohol as a remedy for pulmonary disease, and have developed inebriety. In some instances the pulmonary disease seems to have been arrested; the inebriate, for a time, being free from the more marked symptoms of phthisis, but sooner or later, as a rule, he dies from phthisis, unless he is carried off by some inter-current affection, the result of his inebriety.

We have dealt with cases of phthisis under several conditions.

- 1. Cases of inebriety have died in our Institution of Phthisis which they had contracted previous to admission.
- 2. Cases of inebriety, complicated with phthisis, in advanced stage, have applied for admission to our Home, and been refused as improper cases.
- Cases of inebriety, complicated with phthisis, have been discharged from our Home as improper cases for further special treatment.

Among other diseases and conditions that act as complications we note: Uterine diseases and displacements, frequent parturition, hernia, etc.

In 7 cases phthisis and syphilis were associated.

In 2 cases phthisis, syphilis and epilepsy were associated.

In 4 cases phthisis and head injuries were associated.

In 4 cases phthisis and epilepsy were associated.

In I case syphilis and epilepsy were associated.

In 1 case concussion, sunstroke and epilepsy.

Injuries or discussed a rising from inebriety.

Forty one of the 252 cases, or about one in six, sustained some injury more or less severe; 33, or less than one in eight, had had a fracture either of the upper.

or lower extremity. This statement does not include head injuries already referred to under exciting causes.

Twenty of the 252 cases, or one in thirteen, were epileptics; exclusive of five complicated cases (three traumatic, two sunstroke), all were due to alcohol as the exciting cause.

Delirium tr	e⊷ 58 pe	rsons.	I)	attack 58 ca	ses
	16	22	2	attacks 32	r.
	4	66	3	12	Å.
	6	KÉ	4	9	8
	7.	<b>\$4</b> 0	6	"42	£4
	2	**	7	" 14	6,

Ninety-three persons had 182 attacks of delirium tremens at various times during their periods of alcoholic addiction; eighteen of these persons had sustained some head injury, four fracture, twelve concussion, two sunstroke. A certain proportion were syphilitic, epileptic or phthisical, and in some instances, two or more of these complications existed in the same person.

We desire to refer to a form of mental alienation from which a certain proportion of our inmates suffer, Chronic Alcoholic Mania. namely, chronic alcoholic mania, so called in contradistinction to the more acute form. It not unfrequently results as the sequel of an attack of delirium tremens. It is characterized by delusions, the nature of which influence the conduct of the patient; in some instances he is violent, and even dangerous; at times requiring restraint. In other instances his delusions are of a milder cast and he is readily controlled. As a rule the patient sleeps well and his appetite is good. The delusions and cor-

responding insane conduct last at periods varying from several weeks to as many months.

With care and proper treatment the mental faculties finally regain their usual vigor, and the patient recovers. A relapse usually occurs at the next debauch, when the above conditions are repeated. Eventually, with each succeeding debauch and attack of mania, the patient drifts nearer and nearer the inevitable result, a hopeless insanity, of which Dementia is a common form.

The only chance for this class of inebriates is to place them for a long period in an inebriate asylum under proper medical treatment.

In nine instances patients had attempted suicide, Tendencles, and in one instance homicide, previous to entering the Asylum. This is probably much below the average, as such information is not readily communicated by the friends of the patient.

This suicidal and homicidal tendency existing in a certain proportion of cases should place the physician on his guard, and great care should be exercised in searching the batient, so that no implements of danger shall remain on his person or within his reach.

Recently a patient entered our asylum whose homicidal codencies were marked during his period of inebriety. Its occupation was that of a barber, and he had pursued as avocation just preceding his incarceration; when earched, he had the implements of his trade on his person; of these, fortunately, he had made no illegitimate use. This is only one instance of several that might be stated did the character of this paper permit.

From these statistical statements we may draw a few practical conclusions.

The initiatory stage of Dipsomania is usually formed between the ages of 15 and 35, the large proportion of cases being between the ages of 15 and 25. This fact may be utilized in those instances where there are marked hereditary tendencies, by guarding the individual at this special time from the various exciting causes that he might otherwise be exposed to, and thus carry him over the dangerous period.

The majority of inebriates do not apply for treatment until the disease has existed a long time, in nearly all instances over five years, and in a large proportion of cases over ten years; often, during this period, organic disease, the direct result of the habitual use of alcohol, has undermined the system and the patient is beyond relief.

In no other disease is the treatment begun at so late a period as in Dipsomania. This fact should be recognized when, as specialists, we are asked "if we make any cures?" Our reply should be, that notwithstanding the disadvantages we labor under, the proportion of cures we effect will compare favorably with those made in other forms of nervous disease; and, furthermore, when the profession and people at large shall recognize the value of early treatment and commit the inebriate to our care, under the same advantages and conditions as pertain to those diseases which are under the care of other specialists, we will show equal if not superior results.

Head injuries. As head injuries hold an important position among the exciting causes of inebriety, the duty of surgeons who may be called upon to treat severe injuries of this class is clearly indicated. The prognosis

should always include the possibility of Dipsomania as a result of the fracture or concussion, and the patient earnestly warned against the use of alcoholic stimulants in any form.

Hereditary The predisposition of certain individuals to inebriety should be uppermost in the mind of every practitioner, and he should never prescribe a course of alcoholic stimulants when a patient is so predisposed. In every instance, when he deems such a course of treatment necessary, he should carefully inquire into the family history and antecedents of the patient.

When it is decided proper to begin such a course, the quantity as well as the period should be definite. Before the patient is dismissed, the stimulant should be withdrawn, either abruptly or gradually, as the case may demand, and the patient warned against the indiscriminate and indefinite use of alcoholic stimulants. Were some such course as this observed, the statements occasionally made by inebriates, that they first began the use of alcohol medicinally, would be less frequent. It is not an overstatement to assert that the average practitioner does not prescribe alcohol with the same care that he does other drugs in which he sees a possible danger of habituation, by their prolonged and irregular use; and yet the danger of this result from alcohol is much greater, because the patient cannot see any harm in that which he hardly regards as a medicine, but rather as a beverage.

In preparing these statistics the principal object has been to direct the attention of the profession to a few leading facts of interest and importance in connection with the subject of the disease of inebriety.

#### CHRONIC NICOTIN-POISONING FROM ABUSE-OF CIGAR SMOKING.

Richter, of Sonneberg, describes two cases of chronic nico. tin-poisoning from excessive tobacco smoking, one of which terminated fatally. This case was that of a man, 47 years of age, who, after having smoked strong cigars to great excess for years, was taken ill with pains in the back, a feeling of stiffness, sensation of general lassitude, trembling of the limbs, and also lost rapidly in weight and strength. To thes symptoms were gradually added weakness of vision, attaok of palpitation of the heart, with feeble cardiac pulsation conjoined with præcordial anxiety and pain behind the mar ubrium sterni; and later, difficulties of respiration. Dy peptic symptoms of a grave nature also made their appear ance, and he became dejected, easily moved to tears, and capricious. This cachexia became more marked, the patient promoting it by continuing to smoke in secret, and death ensued suddenly, two years after the appearance of the first symptoms. At the autopsy, R. found no remarkable change in any of the organs. The vessels of the pia mater were partially filled, and the cerebral texture was anæmic. The heart was strikingly flabby, and entirely collapsed, and contained no blood clots.

Reasoning from post-mortem results, and in harmony with certain experimental researches and the opthalmoscopic appearances in nicotin-amblyopia, the author considers the main cause of the symptoms in chronic nicotin-poisoning to be anæmia of the central organs, produced directly by the changed condition of the blood, and indirectly by the influence of the poison on the vaso-motor nervous system. The changes in the nutrition of the patient he regards as the result of the same influence on the tropic nerves. Moreover, according to physiological experiments and results, a toxic effect upon the perepheral nerves is to be assumed. As in most chronic diseases of the nervous system, the therapeutics recommended are hydropathy, eventually conjoined with electrization.—International Jour. of Med. and Surg., N. Y.

#### THE EFFECTS OF ALCOHOL ON OFFSPRING.

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"Just as the twig is bent the tree's inclined," is a truth applicable alike to mental and physical man. But confining myself chiefly to the latter aspect of the subject, I have to say: Therefore whatever may modify the delicate formative substance of the body, or bias the beginnings of organic life, may give results very wide from those to be expected from an undisturbed nature.

We do know that alcohol acts injuriously on protoplasm, changing and destroying its chemical integrity, and thwarting the evolution of cells, or those primitive organic corpuscles which should take place from it.

Following Dr. L. S. Beale, we may know by the appearance of cells whether they grow as they should, or whether they are too slow or too rapid in their development. If the outer surface of the cell is hard, so that it cannot readily absorb nutrient substances, it is of course of slow growth. On the other hand, if the cell-wall is thin, or there is no cell-wall at all, the conditions are favorable to rapid growth. Now thing which, like alcohol, will coagulate the formative material, or harden the containing envelope, must, of necessity, retard the development of these delicate bodies. Indeed, the Beale regards alcohol the most efficient and the most rapid in its action in this direction of any agent which we possess.

Supposing we apply a few drops of spirits to a granulating surface, the albuminous fluids are at once coagulated and the vascularity diminishes so that the granules shrink and sink. Put portions of new granulations into dilute spirit and the microscope will show that they are altered in form, shrunken, and granular, while they will resist the effects of pressure to

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a very much greater degree than before. Let alcohol be applied to the surface of a wound, the surface dries and becomes covered with a crust. In this case some of the actively developing particles of bioplasm are utterly destroyed; others are covered with a dense, impenetrable coat which cannot take up nourishment; and the nutritive substance itself is so changed that its absorption is impossible.

Now this obstructing and condensing power of alcohol is abundantly illustrated in the numerous tissual modifications and pathological degenerations so notorious in the bodies of habitual drunkards. But we have other evidence to the point.

When a dog-fancier wishes to produce a dwarf dog all he has to do is to feed the pup from its birth with a daily allowance of an alcoholic liquor. Thus the physiological functions essential to growth are kept back till the natural period of development is over, when the liquors may be withdrawn, and the dog found much smaller than the others of the same litter, and smaller than the parents from which it sprang. But shall we dodge the clear deductions from this effect on dogs in favor of our long-established prejudices and uses, and subject the bud of human being to the action of alcohol, whether it be to a child in utero through its mother's blood, to an infant at the breast of a drinking mother or wet-nurse, or to a child through toddy or liquorous cordials? Just now the writer was called to a child carried down to death's door by the practice of liquor-dosing, and while there an aged woman recommended to him to use liquor for children, as it would quiet their pains, relieve their fretfulness, and conduce to sleep; she had used it for her children. Inquiry elicited the fact that she had buried seven children and had one left. Dr. Hunter's experiment is well-known, and so are Dr. Frigg's observations in this direction. The language of one of our number, Dr. H. I. Bowditch, is, "An undue and intoxicating indulgence in the use of liquors in this early period is more liable to sap the sources of health than it may be beyond the period of adult life. At the former period it tends to develope phthisis by its general deterioration of the system. I should never advise the general use of any liquors at an early period. Nor do I think any parent or physician justified in so doing."

Dr. Ross mentions a physician who boasted to him that he had kept a prematurely-born child alive for the first six weeks on nothing but whisky toddy. The only comment this treatment requires is to say that at the age of seven years the child was a puny little idiot.

Not only are liquors in any form specially harmful to early life, but those which contain the most alcohol are the most so. Of this we have an irrefutable illustration in the inquiries of the Hon. John Jay while in Austria, and recorded in the Report of the Massachusetts Board of Health for 1872. Says our writer, "The different provinces of the country show the different effects of ale, wine, and spirits. Three groups of provinces can be named as varying most. They can be classified according to the liquor most generally used. The western provinces, where beer is most used, stand highest; the wine-consuming Hungarians are much below them; while the Galician peasant, who ruinously exchanges for brandy his corn before it is ripe and while yet in the pod, is lowest in the scale of industrial development." "Indeed," says he, "the degeneracy of the race in Galicia, although other agencies perhaps may contribute to it, is to be sought mainly in the excessive use of corn-brandy, and thence it comes to pass that out of the men called to military duty in Galicia, 37.9 per cent, are rejected as unserviceable on account of physical disability and infirmity, and 18 per cent. on account of under stature. Accordingly, in all 55.9 per cent, of those called are enservicable in the army, while in the entire monarchy 33.5 per cent. are rejected on account of physical disability and infirmity, and only 9.2 per cent. for under-stature." A gentleman of Lucerne who examined the citizens of that canton subject to military duty, observed the same inferiority of the schnapps-drinkers over those who took less alcohol.

These facts in the mind of Dr. Bowditch, "confirm what medical experience teaches, that rum and ardent spiritsdrinkers lower their own vitality, and the children of drunkards are more puny than those of the more temperate." "We get," says he, "from our correspondents a most shocking array of evidence proving that the free and intemperate use of ardent spirit not only crushes out manliness, but actually dwarfs the offsprings. The sin of the intemperate use of ardent spirits is visited not only upon the third and fourth generations, but must act in all time unless radical reform be instituted."

Maine, where the prohibitory law for a long time has been more thoroughly enforced than in other States, sent a regiment of six-footers to our late war; and it is matter of history that the soldiers of Napoleon III were, on an average, three inches shorter than were those of Napoleon I. The latter drew his men fresh from the fields, where they were little used to the products of the distillery, and his conquests introduced liquor and licentiousness with their deteriorating consequences.

During the latter period of childhood," writes Dr. Sieveking, "artificial stimulants of all kinds, physical, emotional, and intellectual, largely impair brain growth, either by a development of one part of the organism at the expense of another, or by directly stunting the entire process of nutrition."

The most obvious effects of alcohol, its ethereal—its anodyne and anæsthetic effects—have been recognized ever since the days of the flood, but that it had other qualities—that, like certain tools, it had its back also ground to an edge—has not been so generally understood. That it has cut up so many unseemly capers since Noah's experience with it, is acknowledged and apologized for by the terms "abuse," "excess;" but these terms have obscured its more remote effects, so that it is not till of late years that we have come to regard alcohol as the most mischief-making in the body of all the numerous indulgences human device has ever produced. Now, however, it is well established that alcohol is the most powerful agent we know in the production of connective tissue hypertrophy, and so of fibrous encroachments, and of atrophy or tissural degeneration of all the other parts.

How justly, then, does Dr. Nathan Allen, before the

Massachusetts Medical Society of 1874, acquit himself as follows: "That it is," referring to alcohol, "one of the most powerful causes of physical degeneracy now in operation, no one will probably question." "From a hygienic point of view," says he, " of what avail are the benefits of good air, pure water, wholesome food, healthy occupations and dwellings, when the laws of the physical system are being constantly vitiated by the poison of alcohol and tobacco? It is not alone the present or temporal effects of these agents, but the permanent, such as are incorporated into the organization itself, and become a part and parcel of it—these are the seeds of evil tendencies and diseases which are transmitted to successive generations. It is only when we take into account the power and extent of hereditary influences that we can fully appreciate the importance, the magnitude, and the grandeur of the temperance reform."

We have not here space to detail the fœtal circulation to show how the child in utero is specially exposed to the harmful influences of alcohol when introduced into the system of its mother, since from her blood it receives its air, so to speak, as well as its food, and since it cannot rid itself of the liquor as a child can that breathes; and more than this, that its brain receives the alcohol in full force, which the lower half of the body does not do. Whatever, therefore, may be the extent of the father's influence over his offspring at the time of conception, for after that it must cease, it is certain that the mother's influence must go on, and particularly so if she receives into her system such agents as shall modify her blood. Hence, the teaching of Gintrac that "the children of female drunkards, if they escape the morbid influences which compromise their existence in the womb of their mothers or at birth, are often idiots, imbeciles, insane, or epileptic." When both parents drink the case is even worse.

That physiological and pathological changes originate in the newly-forming cells rather than in the old, is a doctrine affording a reason why alcohol is more damaging to children than to adults, since their bodies abound in new cells. Indeed, as the affinity of alcohol for water leads it to penetrate every part that is moist, it is with alcohol in the body as with worms on our plants, the more tender and juicy the parts the more readily does it seek and destroy them. This also helps us to infer that the initial germs of the new being may be seriously modified in either or both parents ere they come together in fecundation, and a bias be given the child at the very outset. What say the following facts? Out of ninetys five epileptics, Voisin found twelve to have had parents drunk on the honeymoon. Marcet tells of a father who was a drunkard, and who had sixteen children, five of whom were dead-born or died early, and the rest were all epileptics. Says Tarquet, "The children of drunkards are not all of necessity idiots, lunatics, or epileptics, but there are few that present nothing abnormal; and in those of seeming freedom, the germ may be late in developing itself." On the authority of Fusch, of three sons of a drinking father, two followed their father's example, and the other suddenly took to the cup at the age of thirty.

Not only do hereditary alcoholic influences determine towards the cup, but also towards suicide and every other crime. Dufray knew four brothers, sons of a drinking father, all of whom took their own lives. The head of a family, as Tarquet relates, was a drunkard and a debauchee, and had a wife who, though an abstainer herself, was the daughter of a drunkard, and had two drunken brothers. They had three sons and two daughters. The oldest son was like his father. and had three dissolute children. The second was twice sent to the asylum for mania and homicidal impulses. The third became a debauchee, and died of consumption at the age of twenty-one, though there was no consumption in the family before him. The first girl married, and became the mother of a licentious thief. The other girl married, lost all moral sense and decency, and led a most irregular life. Dr. Story, of Chicago, mentions a son who, though twenty years old, goes about the street astride a broomstick, "playing horse," like a child. The Doctor says his parents were beastly drunk when he was conceived. He knows another family where the first child is of average common sense; the second is

much demented, and the third a "slobbering, drooling fool." The case is explained as follows: Soon after marriage the parents began to drink, and in six years had become perfect sots.

A lady lately stated to the writer that she had a strong passion for strong drink, and it is only because she is a lady that she is kept from the indulgence. Her parents were under the influence of drink when she was begotten. And how many married women there are who long for children, and yet who refuse to bear them lest they be the mothers of children who shall be blasted by the intemperate habits of their lathers, and a curse to their mothers.

The writer became acquainted with nearly every family ot a certain town where there were many adult idiots. The early settlers of this town were at first given to remarkable drunkenness, and where the drinking was the worst there were the greatest number of those tell-tales, among whom were to be seen the bloated squab, and the disgusting whatis-it. One man and wife of exceptional good breeding moved into the place, "opened shop," and fell into the habit of drinking themselves at the beginning of their married life. Now it would have been well for the world if the law of procreation with them had snapped asunder just here; but it did not, and they had a numerous family of children who illustrated many shades of human weakness. It is safe to say hat the common measure of humanity—the rule of commonsense—would have been too long for any of them, while the binched head and stunted form varied up and down just about s these parents let up or continued their wretched practice But to the credit of humanity, let it be said that a subsequent leaction took place and a high degree of sobriety took possession of the town, under which the reign of idiocy quite passed away.

It was Dr. How of this State who reported that of three hundred idiotic children he found one hundred and forty-five, or nearly one-half, to have had drinking parentage. In one family where both parents drank, seven fools graced the family board. Dr. Bree says that "drunken parents never have healthful children."

The authority of Lunier of France is to the effect that 50 per cent. at least of the idiots and imbeciles of great cities spring from drunken parents. He says the children of such parents are weak in some way in the majority of instances.

After the restriction on the manufacture of alcoholic liquors in Norway, which had existed for a long time, had been removed in 1825, "in a few years," says a writer, "the number of the insane was twice as great, in proportion to the population, as before, while the number of idiotic children had increased in a still greater ratio." Similar are the reports which come from Russia since the abolition of its liquor laws in 1863.

To all this let me add the testimony of Dr. A. N. Daugherty, of New Jersey: "There are," says he, "unhappily many, very many persons born into the world with a proclivity, a natural aptitude to indulge in intoxicating liquors, which only needs favoring circumstances to be developed into fatal activity. Their parents have transmitted to them this among other constitutional tendencies. As scrofula, as pulmonary consumption, as gout, as insanity comes by inheritance, so does this." Such authorities as Drs. Carpenter, Hutchinson, and many others consider that the so-called periodic intemperance has its origin generally so derived.

But the doctrine of this paper is not a new one. Plutarch taught that one drunkard begets another; Aristotle, that "drunken women bring forth children like unto themselves;" Plato forbade the use of wine to the newly married, while a greater than they said, "The fathers have eaten sour grapes and the children's teeth are set on edge."

Dr. Lees, then, has good ground for saying that alcohol "perverts the brain of the unborn child; it strikes a blow at reason and virtue in the very womb; and in its higher use it is the teeming fount of the sad idiocy which disgraces and depresses our boasted civilization." "It is not," says Drs. Day and Storer, "merely the man or woman influenced by alcohol at or near the time of sexual intercourse that imparts the fatal disease in the child at the moment of conception, not this and these only; but they are equally guilty, perhaps

more so, who—with their blood.diseased from long saturation with this poison, their nervous system shattered, and the very foundations of their being tainted—proceed deliberately to engender offspring."

Thus, with the clearly-demonstrated physiology of alcohol before us, and these multiplied testimonies of not the least of our professional brethren, ought we not to question our claim to progress in this direction, and turn back twenty-two hundred and fifty years and with Plato discountenance the use of alcoholic liquors by the newly married? Yea, ought we not insist that habitual drunkards, either husband or wife; that persons previously given to protracted inebriety, though now reformed, and that persons now under the influence of liquor, though usually abstainers, should not beget children? Indeed nature, though tardy, comes to our assistance here, and, as if seeing us too self-indulgent, or too impotent to break up a chain of consequences which is attended with so great evil, she utters her prohibition: for as a rule the third or fourth generation of real topers can do no more. They have played out; physical forbéarance has ceased to be a virtue, and the procreative powers become aborted, and barren love longs in vain for children to cheer their days and smooth their rapid pathway to the grave.

Not to himself alone, then, does a man betake himself to his intoxicating cups; generations—ages are hanging on his heels. In the language of Dr. Browne, "his daughters are nervous and hysterical; his sons are weak, wayward, eccentric; and sink insane under the pressure of excitement, of some unforeseen emergency, or of the ordinary calls of duty." How frightful the train the drinking man draws after him! mental, moral, physical wrecks of every shape and kind—as if a demon from the pit had come to the surface of the earth to show how greatly he could contrast his work with the works of God! while in his own body are changes wrought as if graven with a pen of iron. Repent and reform as he may, he cannot rid himself of the mischief he has done. He is like to what the Africans say of a man bitten by a lion—he never fully recovers, but ever and anon to the day

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of his death feels the pain as if the horrid beast were still tearing his flesh. But sadder yet—his little children, who have never tasted the cup for themselves, have tasted it in him, and they, too, must feel the teeth of the same devourer. Brought into the world with innate proclivities to indulge, reared under the shadow of a dark example, and often fed with the "sugar of the cup," what wonder is it that the children of drunkards do as their fathers have done, and lie down in untimely, unhonored graves? Well do I remember the show of heroism when a young man, whose family were all inebriates or were dead from liquor, resolved that there should be one person by his father's name who did not drink, and threw the cup aside.

It is well, therefore, to talk of cure, for great is the need of it. Indeed, it is matter of thankfulness that so much can be and is done, and that so many of the astute members of our profession are putting forth herculean labors to bring back into symmetry the gnarled and distorted oaks. If but a partial success attend their efforts, they deserve great praise. But let it be borne in mind that the drift of the profession today is in the direction of forestalling disease-curing it before it comes. This, it seems to me, contains the solution of our liquor ills. But how can we reach it? Shall we not, as physicians, review the subject of alcohol in the light of recent research, and when a doubt is raised give that doubt against rather than for alcohol, which has been our mistake in the past? Shall we not diffuse abroad such facts as we do know, till every family sees in alcohol a serpent of most subtle bite and most deadly sting, and banish it from the board? Shall we not also discourage the sprouting of buds from the riven stock? We organize commissions to go to Memphis and New Orleans to study their great scourge and to devise means for its eradication and future prevention. Yet that disease, though terrible, is limited both by time and place, while alcohol acts in all climes and times, and ravages all classes of men, and infuses its deadly miasm into the generation to be. Why not, then, organize for the study of this greater pestilence-find out its nature and the mode and extent of its

workings—and devise plans for its extirpation and removal, and thereby forestall the inevitable curse which must come on the next generation if their fathers and mothers are permitted to curse themselves by alcohol in this? Well spoke Dr. Allen when he said of inheritance, "If one-fourth of the attention or one tithe of the expense was given to the improvement of the human race in this direction that is now expended on that of domestic animals, it would result in the most surprising changes." So it would; and this is where our temperance reform must begin. Let us do what we can to reform the old; but by all means let us save the young.

#### THE EARLY CAUSES OF MORPHINISM.

The first commencement of the use of morphia is almost always some painful ailment; and then as the pain continues, or even though it may have disappeared, the habit is formed, and more and more the drug is demanded. So began one of my patients after traumatic injury of the sciatie; another in consequence of periostitis; a third from persistent toothache: a lady took to subcutaneous injections to allay violent pains in the sacrum caused by pelvic disease. In other cases, however, purely nervous symptoms lead to the formation of the habit. As is well known, we have in the subcutaneous injection of morphia a powerful weapon against feelings of fearful anxiety; so that states of melancholia, even of high degree, not unfrequently give way before it. Such intense anxiety and insomnia led in two of my patients to the use of morphia. Others, nervous conditions lead to the same result. A lady, exhausted by long continued vomiting of nervous origin, found opium the only remedy of any avail. Other conditions of painful affection of any organ of the body is often the cause of the use of morphine. A patient suffering with carcinoma of the stomach found relief in morphia and used it until death.

DR. OBERSTEINER, IN THE BRAIN.

## THE INFLUENCE OF ETHYLIC ALCOHOL ON TEMPERATURE.\*

BY DR. HARRISON BRANTHWAITE, F. R. C. S.

The value of the clinical thermometer in the hand of a careful observer cannot be overestimated; and I believe it is destined in the future to play an important part in the treatment of disease and the solution of the vexed question, What to eat, drink, and avoid in health. Sanctorious, who died about 1638, was the first to apply thermometric instruments of his own manufacture to determine temperature. Nearly a century, however, passed before the measurement of temperature by Boerhaave was, by means of improved instruments, reduced to a science. In England, in 1740, Martin published the first accurate observations on temperature in healthy men and animals. Currie, in 1797, made his observations available for medicinal purposes. For forty years following the science of thermometry seemed in danger of being forgotten; but in 1840 earnest men again began to investigate the subject. The results of past researches with regard to the effect of alcohol upon temperature are not easily summarised; notwithstanding their great importance, they are only to be found scattered here and there in medical and other scientific journals. Liebig's view, that alcohol in the body combined with the oxygen to furnish heat, was a theory long held; the first expression of doubt as to its truth was, as opinions often are when antagonistic to preconceived notions and prejudices, treated with levity. For ages past chemists and physicians had regarded alcohol as an excitant; in spite of this, physiologists persisted in experimenting, eliciting facts, and obtaining results not to be ignored.

Dr. John Davy, as far as I have been able to ascertain, was

<sup>\*</sup>Read at the International Congress, held at Brussels, August, 1880, and contributed to the Journal of Inebriety, by the author.

the first to publish the result of any observations, showing that alcohol reduced the temperature. Objections were taken to his conclusions because of the unreliability of his instruments. Nasse, the same year (1845), by experiments upon rabbits, demonstrated the tendency of alcohol to reduce temperature. Lichtenfels and Fröhlich, in 1852, experimented with beer, wine, and alcohol; they concluded that by the exhibition of alcohol the temperature was reduced, that such reduction was preceded by a slight rise due to the stimulating action of the alcohol on the blood-vessels of the mouth. Demarquay and Leconte, in 1859, adduced similar evidence as to a general reduction of temperature. Dr. Richardson, in 1865, brought the subject before the British Association during its sittings in Birmingham, and there stated his convictions that both ethylic and methylic alcohol reduced temperature. During the discussion following his paper, while it was not denied that such a result might follow the use of methylic, doubts were freely expressed as to such being the case after ethylic alcohol; exception was also taken to the manner in which the experiments had been conducted. In consequence of this Dr. Richardson eliminated from the paper all reference to temperature in respect to either alcohol.

Tscheschechin, a Russian investigator, in 1866, after experimenting upon rabbits, said that alcohol reduced temperature. Ringer and Rickards, in the Lancet (August 25, 1866); give the result of their observations on persons in a normal condition as follows:

In two out of three, to whom a large dose was given, there was a marked depression, amounting to 3° Fahrenheit. In the third case, a confirmed drunkard, the effect was slight; they argue from this that habit lessens the probability of the temperature being influenced. In eleven cases, with ordinary doses, eight showed a reduction of temperature, three were unaffected, two out of three being confessedly free-drinkers; the general conclusions being that alcohol, in ordinary quantities, caused a slight depression, but so small as not to be of any consequence. When the British Association met at

Exeter in 1869, Dr. Richardson again read a paper, in which he showed that ethylic alcohol, in large doses, reduced the temperature in birds 8° Fahrenheit, and in animals 4°. Dr. Heinrich Timmerberg, in 1869, found as the result of observation and experiment upon animals that alcohol always reduced temperature.

Dr. Thudicum, in 1869, said: Alcohol, in large doses, reduces temperature, but moderate doses have an opposite effect.

About the same time Dr. Felton, of America, gave sixty two cats hypodermic injections of alcohol, and made 230 thermometric observations. In the healthy cat there was invariably a reduction, which rose afterwards above normal he observed when the dose was repeated, the rise was checked.

In May, 1870, a paper by Parker and Wollowicz, was read to the Royal Society on the effects of Ethylic Alcohol.

In their experiments brandy and alcohol were used; little effect upon the temperature was observed, that little being in the direction of increase rather than decrease; subsequent experiments with red Bordeaux wine showed similar results. At the meeting of the British Medical Association at Bradford, in 1873, Professor Binz read a paper, in which he stated that small doses of alcohol produced no extraordinary increase or decrease of temperature; that moderate doses showed a distinct decrease of about half an hour's duration or more, and inebriating doses a still greater lowering of from three to five degrees Fahrenheit. He also considered that when the system was inured to the use of alcohol moderate doses indicated no measurable cooling, or the reverse.

Professor See, in 1873, remarks: "Alcohol is a very active refrigerant; ten grammes of diluted alcohol given to a middle-sized dog lowered the temperature one degree in ten minutes." In the same paper the learned professor argues that hygienists and physiologists have only to consider the action of alcohol on the forces in moderation and ignore altogether any responsibility for the effect of large doses. Ringer, in his "Handbook of Therapeutics," published in 1873, gives

an experiment by Dr. Rickards. A drunkard had twelve ounces of brandy administered in one dose without any reduction of temperature, although it made him dead drunk. Charteris, in his "Handbook of Medicine," published in 1879, says: "the taking of alcohol first causes a fall in temperature which does not last long, for it requires a considerable amount to have any material influence." Many other eminent physiologists might be referred to, whose observations and experiments have shown equally varying results. Sufficient, however, has been given to prove that there is great need for further investigation. A careful study of the researches of others revealed contradictions which I found it impossible to reconcile, and therefore I resolved upon conducting a series of experiments which, though at present incomplete, have proved so interesting that I make no apology for presenting them to this Congress.' A fatal objection may be raised to the majority of experiments hitherto presented. They have been conducted with different kinds of beverages, containing alcohol in various and uncertain quantities, which, as 'Dr. Edmunds says, "can never be brought fairly into line for scientific examinations." In all my experiments, in small and what may be considered moderate doses, I have used ethylic alcohol sp. gr. '795, of certified purity. The temperature has always been taken under the tongue, in a room as nearly as possible of one temperature. I have reason to believe, from proof obtained by myself, that no better results are obtained when the temperature is taken in the rectum, while, for obvious reasons, persons more readily consent to be experimented upon when the temperature is taken in the mouth. I have not utilized the lower animals; the circumstances under which they are experimented upon are such as to render the results more or less unreliable. Besides, great care is required in applying to the human system any results obtained from such experiments; therefore I have chosen to investigate the subject in its influence upon the system of which I know most, and in the treatment of which, as a medical man, I am best acquainted. I have carefully selected my subjects for experiment from two

classes—first, total abstainers; and second, moderate drinkers. The result of my observations upon twenty-seven total abstainers is as follows:—One with twenty minims: No immediate increase of temperature followed, but in threequarters of an hour a fall of 6 Fah. was registered, lasting three-quarters of an hour. On a subsequent day, under precisely similar circumstances, the same person took ten minims; in half an hour there was a fall of 2 Fah., which lasted three-quarters of an hour. Seven, with half-dram doses, showed no temporary exaltation of temperature; but in all a fall of '4 Fah. was registered. This took place from three-quarters of an hour to one hour and three-quarters, and continued on an average of thirty minutes. Five with onedram doses: One, in one hour and a quarter rose 4 Fah, and another in half an hour 2 Fah. No measurable increase was observed in the other three. In one and a half and two and a quarter hours a decrease in all took place, averaging 51, remaining at the lowest point for thirty-five minutes. Three with two-dram doses: A rise of '4 Fah. and '2 Fah. was registered in two, while in the third no effect was produced; but in one and a half to two and three-quarter hours a decrease in all occurred of '5 Fah., and continued an average of thirty minutes. Three with three-dram doses: An immediate rise followed in two of '2 and '3 Fah., in the other no rise was observed. The total reduction which followed showed an average of 8° Fah., remaining at the lowest point for forty-five minutes. Seven with four-dram doses. A measurable rise in four took place of '6, '4, '2, and '5 Fah.; in the rest no rise. In one and a-half to two and a quarter hours every one was reduced on an average '7 Fah., the reduction continuing for half an hour. One with six drams showed an immediate rise of 2 in fifteen minutes, which was followed by a gradual decline, reaching in three hours to 1° Fah. Moderate Drinkers:-Six with one, two, three, four, and six drams respectively. One showed an immediate rise of 'I Fah. In one and a-half to two hours all had declined to an average of 1° Fah. The temperature was taken every fifteen minutes, under, as nearly as possible, the same conditions as to temperature of room, time of day, and condition of stomach as to food. In speaking of the fall taking place in a given time, I mean that the lowest point was registered in that period, remaining at that point for the average time stated; this was succeeded by a rise towards the starting-point, although the majority, while under observation, did not reach that point. In two or three the rise was rapid, and went beyond this. Allow me to call your attention to No. 9. In this experiment one dram was given every hour. It is curious to observe, at each recurring period, the temperature-apparently stationary, or showing a tendency to rise—was immediately checked, and further depressed. This confirms the statement of Dr. Felton, to which I have alluded, who observed the same in rabbits. The degree of body-heat registered by the thermometer, being the expression of the result of a number of processes going on in the organism, cannot be falsified; therefore any marked and regular decrease, such as I have indicated, must result from disturbance. That being so, it is important to determine the ultimate effect on the system of the disturbing agent. That pure ethylic alcohol, even in minute doses, does reduce temperature is certain. My experience leads me to doubt the conclusions arrived at by some investigators—that the system becomes so accustomed to its presence, even in moderate drinkers, as to negative the tendency to depression of temperature on its administration, seeing that in all my experiments except one on those who were in the daily habit of taking alcoholic drinks, there was a decided reduction. The exaltation of temperature observed in some cases, immediately preceding the reduction, has been alleged to be due to the action of the spirit on the blood-vessels of the mouth. In my opinion this is not a sufficient explanation, seeing that in my experiments the alcohol was administered through a glass tube, and the mouth rinsed with water at 90° Fah., during the fifteen minutes which elapsed from taking the dose, and the first thermometric observation. I incline to the opinion that such rise, when it occurs, is due to a quicker preception, in some than others, of the presence of a disturbing agent. On the actual causes of the decrease

there exists great diversity of opinion amongst those who have given any thought to the question. Perhaps the most generally received opinion is, that after the introduction of alcohol into the system the C O<sub>2</sub> in the expired air is diminished, and the quantity of urea considerably lessened; there fore, as these are the final products of the oxidation of nitrogenous substances in the organism, and the quantities of each indicate the amount of oxidizing processes in general in the system, or the intensity of the tissue changes, so a diminution of these secretions shows a diminution of tissue change. If alcohol thus acts upon tissue metamorphosis the reduction of temperature would be a necessary consequence, since a diminution of the oxidation processes must be accompanied with a reduction of the heat they produce.

It is also suggested that heat is lost by the skin, the great regulator of the temperature. Any action of the vaso-motor mechanism which, by causing dilation of the cutaneous vascular areas, leading to a larger flow of blood through the skin, must, necessarily, by conduction, radiation, and evaporation, reduce the body heat. Thermometry reveals to us the very narrow limits existing between health and disease; that upon an equable temperament depends the enjoyment of mental and physical vigor. Therefore, any agent having a constant tendency to lower the temperature, and so depress vital power, cannot be persistently indulged in without a tendency-imperceptible, it may be-to engender disease of body and mind. The general conclusions which I draw from my experiments are as follows: -1. That a reduction of temperature invariably follows the administration of ethylic alcohol, sometimes preceded by a slight rise. 2. That small doses reduce the temperature. Ten and twenty minims produce a measurable effect, while half-dram doses cause an average fall of '5 Fah. 3. That the fall sets in from fifteen to twenty minutes after the alcohol is taken. 4. That the reduction lasts a variable time—say from forty-five to sixty minutes. 5. That the variations are not dependent on the state of the pulse. 6. That repeated doses each has a depressing influence. 7. That the reduction from small doses was observed alike in total abstainers and moderate drinkers.

## Abstracts and Reviews.

## CAUSES OF INSOMNIA.

The external poisons which most frequently cause sleeplessness are tobacco, alcohol, tea, and coffee; the internal, certain effete products of tissue metamorphosis which accumulate in the bodies of gouty persons or of those whose kidneys act deficiently. Many a man does not and cannot sleep sufficiently because he smokes excessively. Cut off his cavendish or his cigars and he will sleep well. Many smokers know that they sleep badly if they smoke more than their usual quantity of tobacco, or if they smoke stronger tobacco than that to which they are accustomed. If a man who smokes two cigars every evening is induced at some time to smoke three, or if a smoker of birds-eye ventures to replace it by cavendish, he may, when he has gone to bed, find he cannot sleep; and the cause of his sleeplessness is the smoking of more or of stronger tobacco than by habit he has hitherto borne without discomfort. Tobacco-smoking stimulates the cerebral circulation; it disposes to a succession of pleasing ideas by inducing an easy flow of mental activity. But this stimulation of the blood-flow in the brain is sure, if pushed to undue limits, to induce cerebral vaso-motor debility or paralysis, and, as a consequence, persistent conscious thought. And so, mutatis mutandis, does alcohol cause sleeplessness. The man who drinks to commencing drunkenness mostly sleeps soundly, if not well. But many a so-called moderate drinker knows that he sleeps badly if he takes a little more than his usual quantity of wine after dinner, or even his usual quantity of some unusual wine. Alcohol flushes and dilates the smaller blood-vessels, especially those of the brain; if such a condition be maintained sleep is disturbed

or wanting. There are varieties of toxic insomnia which are apt to occur in gouty persons, or in those whose kidneys are failing, and which arise from the accumulation in the blood, in consequence of deficient excretion, of the products of tissue-metamorphosis. Insomnia of this kind is rarely complete. But the patient may complain that he sleeps very badly, that he lies awake for some hours and has great difficulty in getting off to sleep, that he is easily awakened and wakes frequently, and that he always dreams when he sleeps. In such a case we may find a pulse of high tension; the aortic second sound may be accentuated, and the first sound of the heart may be reduplicated at the apex. Where there is chronic renal disease, we may also find the direct physical evidences of the characteristic cardiac hypertrophy which accompanies chronic intertitial nephritis. I believe that insomnia in such cases is due to the maintenance of a state of high tension in the cerebral arteries. I wish to impress upon you that we find the clue to many cases of sleeplessness in the signs of the gouty diathesis or in the discovery of albuminuria. Again, there is a senile form of insomnia. You may perhaps have observed amongst your friends that an exaggerated appreciation of the merits and value of early rising mostly increases as age advances. The sleeplessness from which many old persons suffer is mainly, if not entirely, the result of senile degeneration of the smaller cerebral arteries. Those vessels are less elastic and less contractile than in health, and their weakened walls often lead to their permanent dilatation; they are physically unable to adapt themselves fully to the condition of relative arterial anæmia which is requisite for healthy sleep. The tendency of this condition of the blood-vessels of the brain to prevent or diminish sleep is probably to a great extent counteracted by the cardiac feebleness which so frequently and so fortunately co-exists with the vascular changes.

DR. SAWYER.

#### RESEARCHES IN ALCOHOL.

We published in the first volume of this Fournal (June 1877) some of the general conclusions reached by M. M. Dupardin-Beaumetz and Audige, of Paris, France, who have for several years been making experimental researches into the nature and properties of different kinds of alcohol. They have lately published a monograph in which the results of their work are detailed. We take great pleasure in giving our readers the following general conclusions, which may be considered, as embodying the most reliable facts concerning this subject. I. Toxic Effects. All alcohols, whether of the monatomic or polyatomic series, are of a poisonous nature. In the monatomic series, the intensity of the poisonous action depends, 1st, on the constitution of the alcohols, and the sources from which they are derived. In alcohols derived from the same source, the poisonous effects are in proportion to their atomic formula—the higher the formula, the more intense the effects. 2. On their solubility. They are only poisonous when soluble, or when they meet in the body substances which favor their solution. 3. On the decompositions which they may undergo; thus, their poisonous action is increased by the presence of aldehydes and ethers. 4. On different modes of administration.

II. The phenomena of acute intoxication caused by alcohols may be divided into three periods or stages: 1, a period of depression; 2, a period of resolution, (reaction?) and a period of collapse—these periods are modified by the nature of the alcohol employed, and by the dose; and 3, by the power of resistance in the subjects. In alcohols which are the product of fermentation, these three periods succeed each other in a regular manner; but, in proportion as they differ from ethylic alcohol, their characters are more strongly defined, their evolution (elimination?) is more rapid, and convulsive phenomena appear. In all these cases there is a great depression of temperature, sometimes amounting to one-half of the normal standard. Methylic alcohol compared with ethylic alcohol produces a greater degree of excitement; and re-action and collapse attain more rapidly their maximum

degree, but when the dose is not sufficient to prove fatal, the symptoms rapidly disappear. With the enanthylic and caprylic alcohols, the periods of intoxications (poisoning) lose their regularity. Some hours after the administration of the poison to the animal, it appears restless; its temperature is lowered by several degrees, and it is only after a very long interval that we observe the stages of re-action and collapse. Convulsive symptoms are more marked in these than in the preceding alcohols. But it is especially with glycerine that convulsions are developed under the influence of the slightest contact. The temperature of the animal falls only shortly before its death.

III. Toxic Lesions: Digestive Organs. These lesions are but little marked when the alcohol has been introduced hypodermically. If administered by the esophagus, the mucus membrane of the intestines is softened, and the surface of the intestines is of a dark reddish color. There are also effusions of blood in greater or less quantity. The blood itself undergoes a remarkable change; it is dark colored, and coagula of variable size are found in the heart. There is congestion of the lungs as well as of the membranes of the brain. After the employment of glycerine, hemorrhagic congestion of the kidneys has been found.

IV. Hygienic Conclusions. In applying the preceding facts to the examinations of commercial alcohol, the authors have found that the source of the brandy has an important influence on the toxic action of the alcohol. They have classed the varieties of brandy found in commerce in the following order: 1. Alcohol and brandy obtained from wine. 2. Brandy obtained from perry. 3. From cider and the husks of grapes. 4. Alcohol and brandy of beet-root. 5. Alcohol and brandy from brewer's grains. 6. Alcohol of beet-molasses. 7. Alcohol and potato-brandy. The chief danger arising from the use of brandies other than those produced from wine arises from the presence of propylic, butylic, and amylic alcohols, and the best way of rendering them safe for use is to deprive them entirely of these foreign substances.

## THE LINTORF ASYLUMS FOR INEBRIATES FOR THE RHINE PROVINCES NEAR DUSSELDORF, PRUSSIA.

We are indebted to the Rev. Dr. Piper, of Moyland, Prussia, for the following very interesting facts regarding the first practical effort to treat inebriates in Germany.

In 1851 a number of charitable persons organized a small asylum for paupers and inebriates, who were committed for petty crime, near a small hamlet called Lintorf, in the Rhine province. An eligible house situated in the midst of forty acres of land, removed from temptation, was selected, and persons taken from the jails were admitted for not less than one or more years; voluntary patients were also admitted and required to come under the same rules and discipline as the others. Work of all kinds was provided, but chiefly farm and garden labor, with lighter mechanical employment, and each one was required to labor three hours every day. Family worship morning and evening, with exact obedience to all the house rules, enforced in a spirit of kindness and sympathy, were the prominent features of the treatment. The majority of the patients were criminal paupers, whose inebriety was more or less incidental to the other defects. Out of four hundred patients received up to 1879, three hundred were chronic inebriates, and one hundred and thirty-nine were marked criminals. No cases of insanity or delirium were received, or epilepsy; as the accommodations were limited to twenty-seven, efforts were made to get the most promising cases of middle life; hence the largest number of cases were between the ages of thirty and forty. From 1851 to the present time, a period of twenty-nine years, this little asylum has gone on in a quiet way, practically recognizing the disease of inebriety in the physical treatment, combined with moral agents, good food, medical care, labor, kindness, and sympathy, etc. The large majority of patients remained over six months. The results, according to the reports, are exceedingly gratifying, indicating from twenty-seven to

thirty per cent. of all the cases as cured. A large number report regularly every year to the asylum, to show their good health, and interest in the work; others remain in the neighborhood, or board in the building. The voluntary cases are not restricted as to the time of staying, but can go any time by giving notice twenty-four hours in advance, to the Superintendent. The charges for board, care, and treatment, for the better classes is one hundred and fifty dollars a year; and for the poorer ones fifty dollars; washing, clothing, lights, and other items are extra charges. The expenses have been met by gifts of charity, labor, and income from patients. In 1879 several articles from the Quarterly Fournal of Inebriety were extensively copied in many of the medical and secular papers of Germany, awakening a great interest in the entire subject. The Psychological Association passed resolutions recommending the opening of another asylum at Lintorf for inebriates of the better class.

Accordingly a few benevolent gentlemen associated themselves together, solicited gifts and small loans at low rates of interest, and opened an asylum in the same village of Lintorf, with rooms for twenty patients, on the 21st of November, 1879. A good building is furnished with billards, music, and many other amusements, also with means for light gardening and mechanical work. The discipline is strict and kind, and all the habits of the patient are regulated with military exactness; good food, occupation, and rest, with medical care, comprise the principles of treatment. The charges for the richest class are fifty dollars a month; for the second class, thirty-three dollars; each one binds himself to remain at least three months, and to give ample notice when he goes away. So far the Asylum has been crowded with patients, and the applications are in excess of their accommodations. Care is taken to discriminate between the patients, chronic cases are rejected, and such persons are admitted as appear most likely to be permanently restored.

These two asylums give promise of doing a great work for inebriety in Germany. Dr. Nashee is President of the latter asylum, and many of the most distinguished German psychologists are watching this work with great interest. It is very gratifying to feel that our *Journal* has done so much in Germany in awakening public interest in this subject; also to our contributors to know that they have so wide an audience across the ocean, among the scholars of Europe.

#### INEBRIETY CONSIDERED MEDICALLY.

Dr. Mulheron, the genial editor of the Michigan Medical News, in a recent editorial on the above topic, writes as follows:

"The question of inebriety is one which is fraught with vital interest to humanity, whose attention it has engaged, according to the records, ever since the days of Noah, at least when that good man, like Cassio and many another good man since, put the enemy into his mouth which stole away his brains. We are all tolerably familiar, both through actual observation and the phillipics of the temperance rostrum, with the evils which alcohol directly causes and entails on the race. These evils are certainly of sufficient magnitude to stimulate to the utmost the means devised for their removal or amelioration, and the zeal which in these latter days has characterized the total abstinence advocate, although at times misdirected, is nevertheless a redeeming feature of the civilization which has given rise to the evils against which he inveighs. Reformers, however, are apt to become zealots, and thus in a measure defeat the end for which they labor. It is an infirmity of human nature that men are prone to a onesided development, and it is only a superior mind that, resisting the tendency to bias, becomes fully rounded in all its It follows, therefore, quite in the nature of things, that there is much of intolerance mixed up with the enthusiasm of the reformers. In the temperance crusade those who do battle hoist the black flag, show no quarter, admit of excuse, palliate no dereliction, and show little charity. The

heart rather than the head guides their conduct and in a very proper sense of the phrase, ignorance is the mother of much of their devotion. Being, as a rule, unversed in the underlying conditions which lead to alcoholic excesses, they make no effort at classification, but group all who drink under one head, and ascribe their motive either to the innate perversion of human nature or the machinations of the great enemy of man's good. We hail, therefore, as a harbinger of better things in store for the miserable victims of an unsatiable thirst less strong drink the dawning of the recognition of the classes into which medical men and alienists insist that those who drink should be divided. In numerous instances the drinker is scarcely, if at all, more responsible than if he were afficient with any of the species of mania which by universal consent would absolve him from all responsibility, moral and legal Of course the great bulk of the drinking habitually indulged in, in conformity to the pernicious custom which prevails, is without the shadow of an excuse, but that it may eventually lead to a condition of the system constituting a disease, newrosis or veritable dipsomania, under which the individual is irresponsible for his acts, and a condition which, in obedience to the great and inscrutable law of hereditation, is liable to be entailed on the offspring, is as fixed as any of the other facts of science. When our reformers, with all their commendable zeal and disinterested love of their kind, are brought to recognize this fact, we will witness the inauguration of a much more intelligent and much more just and human, and therefore more effective plan of combatting the great evil. With a proper appreciation of the physical causes of intemperance, institutions for the treatment of drunkards would be as common throughout the land as the asylums for the insane.

Inebriety follows certain laws of development, which may be discovered and prevented. The study of these laws by both the individual and State will be followed by a practical knowledge of treatment, the application of which will greatly lessen or practically "stamp out" this disease.

The following statistics are from good authority, and are exceedingly suggestive: The production of beer in *Great Britain* in 1879 was equal to 21,000,000 hogsheads, and the consumption per head of the entire population would be 39 gallons each. In *Germany* it was 15,000,000 hogsheads, and to each one of the population it was 10 gallons. In the *United States* it was 6,000,000 hogsheads, and 8 gallons to each. In *Austria* it was 4,000,000 hogsheads, and 8 gallons to each. In *Belgium* it was 2,000,000 hogsheads, and 39 gallons to each. In *France* it was 1,900,000 hogsheads, and 4 gallons to each. In *Russia* it was 940,000 hogsheads, and 2 gallons to each. In *Bavaria* the consumption for each one of the population amounted to 65 gallons each.

No disease is more fatal than inebriety, under the present general treatment. Regarded as a moral disease, and treated by moral and legal remedies, more than ninety-four per cent. die directly from this cause. To cure this six per cent., all the vast machinery of courts and jails, temperance organizations, and individual effort are concentrated. When the true character of this disease is known, it will be among the most curable of mental and physical maladies. The history of the blind, mistaken efforts of the present to remove this disorder will be the wonder and remark of the future.

Instances are not uncommon of the sudden development of inebriety, in persons who were otherwise temperate. Acts of the most astounding nature, lapses of character, and deeds out of all harmony with the previous character of the person, point unmistakably to the presence of disease.

Such persons may have been moderate drinkers for a long time, and to their friends give no evidence of serious change of character, then suddenly explode, as if were, into a precipitate, impulsive inebriate; and in a short time became a chronic hopeless case. A Practical Treatise on Nervous Exhaustion—Neurasthena. By George M. Beard, M.D. W. Wood & Co., New York.

The author has condensed within two hundred pages an outline of a subject whose full discussion will fill whole libraries in the future.

As a pioneer work, pointing out some general facts, and such gesting the possibilities from further study in this field, this book will live when nearly all its contemporaries are forgotten. Neurasthenia and inebriety are becoming more and more distinctive phases of our western civilization. They cannot be understood abroad, but must be studied here. The author has recognized this fact, and while presenting the general subject of neurasthenia has traced the minute pathology of inebriety and other diseases; hence the general practitioner and specialist will find more in what the book suggests than what is presented. This subject, and its presentation, will mark a new era in the study of the functional and organic disorders of the nervous system. The thanks of the profession are due to the author for his very successful effort to sift out and arrange the facts of this subject, and at the same time suggest and outline many volumes for others to write. Already a number of pamphlets and one or two books have appeared on this subject, a mere picket guard to the great army of tomes which will follow.

The Hypodermic Injection of Morphia, its History, Advantages and Dangers. By H. H. Kane, M. D., New York, C. L. Birmingham & Co., Publishers.

This book is a compilation of opinions of three hundred and fifty-seven physicians, in answer to various questions relating to this subject. It is valuable as a pioneer effort to group the various opinions of practical physicians, and open the door for a wider study of this subject. The industry and skill of the author is very commendable, and the result of such labors are solid acquisitions to the literature of medicine. We hope in the future to give some selections from this work

The Pathology of the Mind, by Henry Maudsley, M.D., D. Appleton & Co., publishers, New York. The following table of contents indicate the scope and character of the book:

Sleeping and Dreaming.
Hypnotism, Somnambulism, and Allied States.
The Cause and Prevention of Insanity: (A) Etiological.
The Causation and Prevention of Insanity: (B) Pathological.
The Insanity of Early Life.
The Symptomatology of Insanity.
Clinical Groups of Mental Disease.
The Morbid Anatomy of Mental Derangement.
The Treatment of Mental Disorders.

Its value to all students of inebriety will be apparent at a glance, and we commend it as one of the best discussions of the "Border-land subjects" in the language.

The influence of our Present Civilization in the Production of Nervous and Mental Diseases. A lecture by Dr. J. S. Jewell of Chicago, Ill., and the address of Dr. J. Crichton Brown, before the Psychological section of the British Medical Association, on the study of medical psychology, etc. are two very clear, thoughtful papers. Tracing some of the many causes which underlie our present civilization, with its varied and complex nervous disorders, they point out the means of prevention, with a mental grasp of the subject that is pleasing, and in striking contrast to the narrow views of many specialists in this field. We trust these papers will be read by every student of mental disease in this country.

The Report on the Legal Management of Inebriates, to the Legislature of the State of Alabama, by the special committee for that purpose, of which Drs. Brice and Hamilton were members, is a very clear summary of the many problems of inebriety, and reflects much credit on the committee.

Methomania, by Dr. Albert Day, Superintendent of Washingtonian Home, Boston, Mass. Is an excellent brochure, and should have a wide circulation. The author's long experience and thorough acquaintance with this subject gives it a peculiar value and authority which cannot be mistaken.

Some Points relative to the Responsibility of the Partially insane, also Responsibility restricted by Insane Delusions, are the titles of two very excellent papers written by Dr. T. L. Wright, Bellafontaine, Ohio. The latter is a reprint from the Cincinnati Medical News. These papers are very thoughtful and suggestive, and commend themselves to every student of psychology.

Inebriety, its Influence on Vital and Criminal Statistics. An address by Dr. H. S. McMaster of Dawogiae, Michigan. Is a paper of much interest and value, and should have a wide circulation.

Notices of many excellent Reports and Papers which we have received are laid over to the next issue for want of room.

Dr. Mackenzie, a missionary physician in northern China, reports that over half of all the patients he is called to treat every day are opium eaters who are trying to break up the habit of using opium. The many advertising doctors who cure the opium mania without pain or suffering will find an *Eldorado* in this field, which they should occupy at once.

The Woman's National Hospital for the treatment of inebriate women and opium eaters was organized lately in Hartford, Connecticut, under an act of the State legislature. J. Marion Sims, M.D., of New York was elected president, and Frank H. Hamilton, M.D., of New York as vice-president; T. D. Crothers, M.D., of Hartford, Connecticut, as secretary.

## Editorial.

THE JOURNAL OF INEBRIETY appears again after a temporary suspension in its publication, on a broader basis, and with a larger promise for the future. To our many correspondents and subscribers we extend our thanks for their warm expressions of sympathy and interest, and would assure them that the importance and value of our work has already won a recognition that is very flattering for the future. All subscribers will be duly credited on our books and receive future numbers regularly. The edition to foreign subscribers will, in most cases, be received within ten days after publication. Articles relating to inebriety which contain facts of scientific interest are always welcome. The clinical history of a single case, when studied thoroughly, will indicate more truths than all the "calm views" of Dr. Crosby or his opponents. We would urge the medical profession everywhere to examine this subject, clinically. From this standpoint only can we hope to comprehend the many causes of inebriety, and the complex conditions which favor its growth and development. All theories of treatment and prevention, not founded on such study, will be confused and impractical.

The time has come for a new and wider examination of this entire subject; not a general review based on the theories and statistics of foreign observers, but special studies of inebriety as seen in this country, and influenced by our peculiar civilization.

A recognition of this disorder and the evils which follow from it are causing a wide-spread alarm and agitation in the public mind. The indifference with which it was regarded in the past is giving away to inquiry and interest unknown before.

Thus the necessities of the subject appearing in all classes,

demand a knowledge of the laws which govern its origin and growth, above the conflict of opinion and the clash of theory.

Dr. Mason's statistical paper, which we commend to our readers, signals a new departure in this direction, and distinctly outlines a wide realm of facts into which we have hardly entered.

Inebriety must be regarded from an American standpoint, and every year it is becoming more and more distinctive. As a pioneer journal we can only hope to point out some of the great landmarks of truth, and tracings of physical laws, whose operations will be unfolded in the clearer light of the future.

#### MORTALITY FROM INEBRIETY

No mortality statistics of this country contain any reliable data of the presence of inebriety. Tabulated under the names of alcoholism, delirium tremens, intemperance, and drunkenness, are figures so contradictory as to be utterly worthless. The mortality statistics of a New England town notorious for its inebriety, indicated one-thirtieth per cent. of all deaths from this cause; while Bright's disease and pneumonia increased one-third more during the year. Physicians are not only in doubt as to the nature of inebriety, but seem to regard it in the nature of a disgrace to be so afflicted, hence, with the friends are ready to find some cause which will conceal the actual condition from the public.

The statistics of pneumonia, Bright's disease, and various affections of the heart, are also unreliable; and when inebriety shall be recognized and recorded in the death rates, the prevalence of these diseases will change materially. Dr. Normen Kerr of London, who has made many very suggestive studies in this direction, read an article before the Sanitary Congress lately, from which we make the following extract:

"Every one familiar with the registration returns of England, know perfectly well, that they furnish no criterion of the prevalence of inebriety as a factor in the cause of death.

In the present certificates of death medical practitioners are called upon only to state the disease from which death occurs, and are not asked what has caused the disease. Of the many members of the profession whom I know, not one ever hints at alcohol in the death certificate unless in those cases in which the name of the fatal disease, such as delirium tremens. is in itself an evidence of the operation of this narcotic poison. Our death certificates are at present liable to publicity, and the proclamation to the sorrowing survivors and to an inquisitive public of the secret drunkenness of some loved and respected deceased would but ruthlessly harrow the feelings of the former, and pander to the idle curiosity of the latter. Were however all deaths certified by some medical expert independent of private practice altogether, or were the history of the origin of the disease that has cut short the life treated as a confidential report for purposes of public health, we should arrive at a much closer approximation to the actual causes of preventable mortality than we have any possibility of doing at present."

Notwithstanding all the doubt and confusion of statements in relation to the presence of inebriety as an active cause of death, based on statistics, there is unmistakable evidence that nearly one-half of the present mortality is due to this cause. This has been shown very significantly in Glasgow, where for years the deaths numbered about 3,500 a year. The taxes on distilled spirits were reduced, and the mortality increased to 4,600. Every other cause being eliminated, it was discovered that this was due to the increased consumption of alcohol consequent on the cheapening of the liquor.

The experience of physicians who have large practice, and the results of extensive studies into the causation of disease, point conclusively to inebriety as one of the most active causes in the death rates. Dr. Kerr, who has given much study to the death rates of England, particularly the returns of coroners, and hospitals, together with the estimated experience of physicians who have made examinations of their mortality lists for this purpose, reaches the very startling conclusion, that over two hundred thousand deaths every

year are attributable to the use of alcohol. These figures are confirmed by similar studies made by Dr. Morton, of which some parts have been published in this *Journal*. If our temperance friends would make some accurate canvass of the mortality due to inebriety, in every town and city of the country, they would have an argument for total abstinence that would enlist popular sympathy at once. The fact that all this mortality (whatever it may be) is preventable, opens up a field of scientific and economic study demanding the best talent and study that can be brought T. D. C.

#### THE WORK IN GERMANY.

Our esteemed correspondent, Dr. Piper, has sent us the following note, giving a clear idea of the changes of public sentiment in regard to inebriety in Germany:

The movement against alcoholism in Germany since my report in Vol. 2, No. 11, of JOURNAL of INEBRIETY is increasing. The temperance and total abstinence societies are almost extinguished in this country, and in their place public opinion is seeking some practical measures that will not only show the deleterious effects of alcohol, but the cause and means of its prevention. The Prussian Chamber of Deputies, and nearly all the German governments and Diets, have recognized the necessity of legal measures to remedy this evil. Numerous bills and petitions have been offered; one proposed by the Rhenish Westphalion prison association contains the following clause, which seems to be generally en-Inebriety shall be dealt with by positive means. dorsed. That after the person has been many times intoxicated he shall be put under supervision and his freedom restrained, and he should be made to work in institutions especially adapted for this purpose. The synod of the evangelical state church of Prussia, representing thirteen millions of people, have issued a similar petition, which was warmly endorsed by Dr. Nasse, Superintendent of the insane asylum and director of In addition they say that chronic inebriates must be put in a regular asylum for this purpose against their

will, whenever this condition is proved to exist. Nearly all the religious bodies and societies have passed similar petitions, the influence of which is already very marked. Laws embodying these facts are now being considered in the German Diet with marked favor; when passed I will send you a copy.

The German superintendents of insane asylums, of which Dr. Nasse is president, and the psychologists generally, are urging the government to help on the work of inebriate asylums, so that the subject may be studied from a medical point of view.

Among the propositions presented to the International Temperance Congress held at Brussels August last was the following: "This congress would urge that inebriates should be restrained in some special asylum for that purpose, on the request of the family of such person, or the officer in the neighborhood, that such confinement be determined by the superintendent of the asylum and the condition of the case." The success of the asylum for the better classes of inebriates at Lintorf, is very gratifying. From January, 1880, to December of that year, one hundred and nine applicants have come in, not including females, which are not counted, as they are particularly private. The building was full in May and had to be enlarged. It can now accommodate twenty-five patients. A small asylum for ladies of the better class, in Wortenbach near Dusseldorf, is a private speculation of a non-professional man, and is largely patronized by English ladies. We cannot tell much about it. We look with great interest to your work in America, and although the accounts which we have received are more or less confused, yet we trust your experience will clearly point out the way for us in the future, and that we shall soon understand what you have learned in this most important field.

P. PIPER.

#### CARE OF INEBRIATES.

The following extract is in striking contrast with the late clerical discussions on inebriety, and is literally half a cen-

tury in advance in thorough comprehension of the whole subject:

"Every inebriate asylum is founded on a broad, Christian and wise policy. Such a policy is destined to be universally adopted. Inebriates, like the criminals and insane, will all eventually be restrained in hospitals, and treated with medical and psychological skill, the moment their liberty becomes dangerous to society.

"The terms of their confinement will be limited only by the possibilities of cure, and the condition of their disorder. Society gains nothing by holding for an hour any man a prisoner who is fit to be at large. Liberty and human rights gain nothing by allowing any man to be at large for a moment who is destroying himself and his family and neighbors.

What we need is what we are now fast gaining, namely, a possession of the tests and gauges of this fitness or unfitness, and then we shall be able to treat the inebriate successfully, the same as in other diseases."—Rev. Dr. Bellows.

The great truths of science are always in advance of the age, and only by slow and painful steps do men learn to appreciate them. The disease of inebriety is not recognized by the profession generally; hence the obscurity and confusion regarding it. But the advance of science will surely point out its nature and remedy in the future.

Recent statistics show that in one hundred cases of Progressive Paralysis of the insane, twelve cases will come from accidental causes, seven from sunstroke or exposure to great heat, and eighty-nine will be the direct result of alcohol.

The histories of cases of inebriety which have been followed out, furnish ample confirmation of this statement. The frequency of this form of paralysis points to the increaseduse of alcohol.

## Clinical Notes and Comments.

## PATHOLOGICAL CONDITIONS FOLLOWING THE USE OF DIFFERENT KINDS OF ALCOHOL.

We have elsewhere made mention of the conclusions reached by Drs. Dufardin and Beaumetz, in their recent book, entitled Recherches Expérimentales sur la puissance Toaique des Alcools. Paris, Octave Doin, 1879.

The following are some of the pathological facts noted as following the use of different kinds of alcohol.

Ethylic alcohol coming from fermented wine, acts first on the liver, causing profound disorganization, making its tissue soft and friable. The mucus membranes of the stomach and intestines are injected and red, with points of blackish color, due to effused blood. The lungs are often hepatised and softened, and the vessels always gorged with venous blood, which escapes on incision. The heart is in a state of fatty degeneration, and filled with clots of varying size.

The meninges are congested, and the blood vessels are often distended with venous blood and serum. Red studded points or dots cover the entire cerebrum, and the blood corpuscles are shrunken and have lost their rounded form and outline. . . Propylic alcohol, which comes from the fractional distillation of brandies from the mare; Butylic alcohol, which is extracted from the oil of potatoes, and Amylic alcohol, which comes from the fermentation of potatoes, beet root, and other substances, are found to give rise to very similar pathological appearances.

The liver shrivels and breaks down into a mass of blackish thick soup-like substance.

Congestion of the intestines is very prominent, hemor-

rhagic spots in the duodenal portion, with hemorrhages are present. This is thought to be due to the eliminative action of alcohol through these glands. The hepatic circulation is blocked and disturbed. Pulmonary apoplexy is common, also emboli in the brain, congestion of the hemorrhoidal veins, etc.

The results from other alcohols, such as methylic, caprylic, acetone, and glycerine, are all noted for the extensive congestion of nearly all the organs, often attended with hemorrhage, and fatty degeneration. The general symptoms following the use of these alcohols in excess are worthy of note. In the case of ethylic alcohol, a stage of extreme excitement comes on first. The pupils are much dilated, the pulse and respiration are accelerated, co-ordination is interfered with vomiting sometimes follows; paralytic phenomena set in commencing in the muscles of the lower extremities and extending up. The temperature falls and often salivation follows. From this collapse sets in, with loss of consciousness and voluntary movements, which may go on to death. The other alcohols differ in their effects, mainly in the rapidity and intensity of their action. Tremors are more common in amylic and butylic alcohols, while in caprylic and cenanthylic alcohols there are convulsive phenomena, and sudden lowering of the temperature, spasms, and wild delusions of greater or less intensity. Alcohol from glycerine never causes drunkenness, but convulsive, trembling and spasms of a tetanic character. The dryness of the membranes after the use of this alcohol is more marked than in any others, and lesions of the spinal marrow is also prominent, but the temperature is only slightly lowered. In butylic and amylic alcohols, muscular tremors are a common symptom, but very rare in excess from ethylic alcohol. The most violent alcohol is acetic aldehyde, which seems to have a special elective action on the nervous system, and is noted by the stage of intense excitement, and general convulsive phenomena pervading all parts of the system. All these alcohols are modified in their action by the presence of other alcohols, either augmented or diminished in their intensity. We commend this book as

showing from the teachings of science, the great danger following the use of alcohol, and the greater uncertainty of the nature of the compounds used as drinks containing unknown alcohols.

## THE PROGNOSIS OF MORPHINISM.

The prognosis of morphinism is not so favorable as was supposed at one time. Several considerations influence the result.

- 1. The duration of the habit. Those cases which have lasted only a few months are more easily treated, and with greater certainty against relapse, than those which have gone on for several years, subject to the deleterious influence both on body and mind.
- 2. When the condition which originated the use of morphia continues, or is incurable, a cure of morphinism can scarcely be looked for.
- 3. The physical, but more especially the nervous, constitution plays an important part. Very weakly individuals fall into such a state of prostration on withdrawal of their accustomed drug, that it is necessary to give it again.

In other cases where there is a strong predisposition to nervous disorder the withdrawal of the drug gives rise to intense psychical disturbances.

4. The maximum dose taken daily is not of great importance in relation to prognosis. The tolerance of different individuals varies so much, that what is a large dose for one is only a moderate dose for another. In the treatment, to relieve the sufferings of the weaning process, various methods have been proposed. They are unfortunately all more or less uncertain. Wine in large doses, bromide of potassium, warm baths, are useful. Packing with luke-warm sheets are valuable. When the drug is gradually withdrawn it is often of advantage to inject pure water subcutaneously the same as morphia. The mind is by this means satisfied.

Dr. OBERSTEENER, IN THE BRAIN.

## ALCOHOL ON THE SYSTEM.

The peculiar way in which alcohol transudes through membranes, its diffusive power as it is called, enables it to reach all parts of the body in an extremely short space of time. There is dilation with reduced power of contraction. This vaso-motor paralysis, so to speak, is more continuous as well as more complete in some organs than in others, and some forms of alcoholic drinks produce it much more certainly than others. This is the case if the alcohol be impregnated with some of its allies, especially amylic alcohol and fusel oil; these latter are always more or less present in potato spirit, with which wines are commonly fortified. The influence of these alcoholic drinks is decided upon the nervous centers; they immediately produce some of those exaggerated forms of drunkenness in which violent excitement and maniacal delirium are manifest. They make the fluid pleasanter to the taste; and some of their forms are frequently added for the purpose of producing a so-called "bouquet." Their effects are far more serious and immediate than those which follow from the simple use of ethylic alcohol. In its first origin the effect is to interfere with the proper renovation and nutrition of the part, and to commence a disease of the particular organ affected. Dyspepsia is the first outcome of the use of stimulants; and as a sequence to the common result, viz.: Inflammation of Glisson's capsule, we may have the so-called cirrhosis or fatty degeneration of the liver, and similar changes may take place in the kidney; the heart and large blood-vessels may suffer directly or indirectly. The muscles may be destroyed, or the nerve tissue of the brain or spinal cord may be the parts which show the effect of the re-agent first. Dr., CARPENTER.

#### PREMATURE DEATH FROM LETHAL AGENTS.

The establishment of the craving or desire for these lethal agents in one living body is the frequent origin of the same desire in bodies that are to be. The craving is thus sometimes begotten of a craving, like other hereditary taints

which lead to physical and mental errors and diseases, a specific indication of aberration from the natural health into disease, depending on hereditary constitutional tendency, and singularly indicative of original départure from the natural life. A still more striking illustration of the position I am now supporting is afforded in another action of these agents. The tendency of their action is, as a rule, toward premature physical death: the tendency is also toward premature mental death. A sudden excess of indulgence by any one of them, save perhaps arsenic, is all but certain to lead to some form of acute mental derangement or stupor, more or lessdecisive and prolonged. A gradual excessive indulgence is almost as certain to lead to a confirmed condition of aberration more or less determinate. If we watch carefully the career of a man who is passing through the course of an alcoholic intoxication, and if, after analyzing each phase of that progress, we pass into a lunatic asylum and look at the various phases of insanity exhibited in the persons of the different inmates who are there confined, there is no difficulty in finding represented, through certain of those unfortunates. all the shades of mental aberration which have previously been exhibited by the single person in the course of his rapid career from sanity into insanity, and into helpless paralysis. The wonder suggested, by such analysis of natural phenomena, is not that forty per cent. of the insanity of the country should be directly or indirectly produced by one lethal agent alone, but that so low a figure should indicate all Dr. Richardson, the truth.

## ALCOHOL ON CELL-GROWTH.

In an article on the influence of alcohol on living cells, by Dr. Ridge, the following facts were demonstrated: 1. That infinitesimal quantities of alcohol affect living protoplasm. 2. That the effect is directly proportional to the amount of alcohol present. 3. That its influence is never to stimulate life and growth, but always to hinder and depress it. Starting with the fact that anæsthetics have the power of arresting

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cell-growth in both plants and animals, and also suspending germination in plant life, very much as animation is suspended in animal life, he proceeded by a number of experiments to show that alcohol had the same effect, even in the smallest appreciable quantity, so minute that only the most delicate tests could determine, concluding his researches as follows:

"These experiments seem to me to be decisive on the question whether alcohol in small quantities is a stimulant or narcotic. Its effect is the same from first to last, and that effect is irritability of cells and lowered vitality. The most delicate and sensitive cells are first affected, and hence the higher functions of the mind are interfered with through the diminished irritability of the nerve-cells appropriated to them. One result of this is that the control of the higher centers over the lower is diminished, and these thus set free seem to have an increase of power.

"It may also be well to point out that the estimated amount of blood in a healthy person is about one-thirteenth of the weight of the body; so that a person weighing nine stones would possess about ten pounds of blood. Hence, if an ounce of alcohol mixes with the blood it is present to the extent of about half per cent., and in the liver and portal system to a still larger extent. This amount exerts a most powerful influence on cells with which it comes in contact, and a far smaller quantity is not inert. These facts indicate that alcohol in any quantity is by no means harmless or safe."

Dr. Brown's investigations in Massachusetts on the heredity of inebriety are very interesting as giving additional evidence of the transmission of the diseased cravings for alcohol, from parent to child; also, that children of inebriates were more likely to suffer from all forms of neurosis, from neuralgia to idiocy, than others. How far this hereditary diathesis extends could not be demonstrated; but much evidence was presented indicating a neurotic taint passing down from generation to generation, now manifesting itself as chorea, insanity, or inebriety, seemingly dependent on some unknown exciting causes and conditions.

According to the Carracas Scientific Gazette, of Venezuela, the following medical prescription never fails to cure inebriety in that country: Three brown-backed frogs are cut up fine and macerated for ten days in alcohol. This extract is given to the patient for two weeks in half ounce doses three times a day, then diminished. The effect is to destroy all desire for alcohol or its compounds ever after.

The Boston Fournal describes at great length the new law regulating and punishing inebriates, calling "it a step in the right direction." The same opinion was expressed on the enactment of more stringent laws regulating witches and providing for their proper punishment, but little more than a century ago, in this very city. The wisdom that would seek to lesson inebriety by punishing the victims with fines and imprisonment is a step backward in the progress of both civilization and humanity.

In many cases the disease of inebriety is only apparent from the opinions and strange conduct (at times) of the patient, together with a history of a hereditary taint. These may be obscure and difficult to trace clearly; but as a rule, having ascertained the presence of a hereditary tendency, the possibility of other symptoms indicating disease involving the brain, will be almost certain.

Every inebriate of long standing has many psychic symptoms, which are only known to his most intimate friends, such as hallucinations, illusions, and delusions. These often relate to himself and nearest friends, and seldom enter into his business, or relations to the outside world. They constitute a most important and difficult field of investigation, and in the question of disease are of great prognostic significance.

## INEBRIATE ASYLUMS IN NEW ZEALAND.

Dr. Skae, commissioner of Lunacy in New Zealand, also a son of the late distinguished Dr. Skae of Edinburgh, in his late report to the General Assembly of that country, strongly urges the government to provide institutions for the special treatment of inebriates. He affirms that lunatic asylums are not the place for inebriates, that special institutions are required, where such patients can be maintained from one to three years under treatment, and be occupied with some kind of labor that shall strengthen the body as well as the mind. A clause of the lunacy act in New Zealand permits such inebriates to be sent to the insane asylum, but they have proved to be such intolerable nuisances that some provision must be made for them elsewhere.

The Brain, published by McMillian & Co., New York and London, is a very excellent publication. The International Fournal of Medicine and Surgery, published in 57 Dey street, New York, is a weekly journal presenting a full review of both foreign and American literature; it is not only practical, but of great value to the physician in general practice.

The Illustrated Scientific News by Munn & Co., of Park Row, New York, is a scientific monthly giving a very clear review of the many new things in science which every physician should be familiar with; we commend it to all our readers.

Special attention is called to George P. Rowell & Co.'s advertisement on page 137.

The Brain and Nerve food, by Crosby of New York, advertised in this journal, is worthy of all confidence, and we recommend it to every reader.

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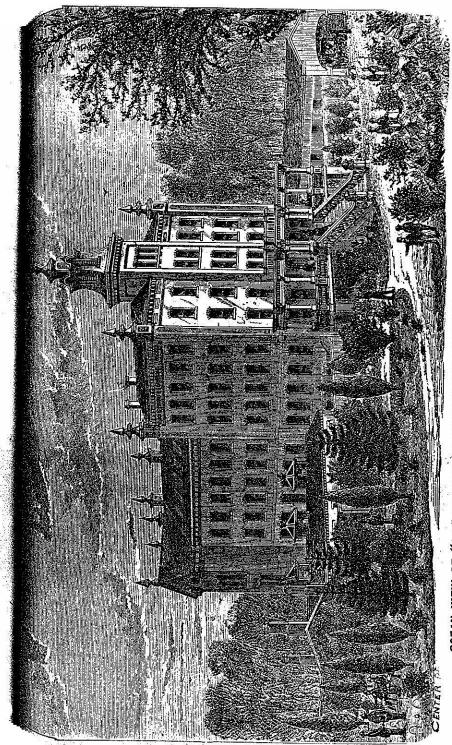
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The Buildings are constructed for this special purpose, and they are more complete and better adapted for the treatment of Dipsomania and the Opium Habit than those of any similar institution in existence. They are situated on one of the most attractive points on the Bay of New York, and stand on a high bluff within one thousand feet of the Narrows. The sea and land views are unsurpassed in extent and grandeur. The enclosed Park Grounds are extensive.

There are separate dining-rooms, lodging-rooms and parlors, billiard and bath-rooms. There is also a lecture-room for religious services, readings, concerts, etc. All the New York morning and several other newspapers and periodicals are regularly taken. For the treatment of the better class of female patients a floor is set apart, handsomely furnished, having separate approaches, effectually secluding the sexes from each other.

THE MANAGEMENT is systematic, thorough and adequate. There has been no change in the staff of medical or other active officers since the in-

auguration of the Home, eleven years ago.

The Classification of patients originated with and is peculiar to this institution. Being determined and regulated upon a strictly commercial basis, it is made to depend upon the character of the lodging, board and other accommodations which the patients or their friends are willing to pay for, and is accomplished in such a manner as to completely isolate the boarders from the free patients in the County or State wards of the Home.

By this equitable arrangement we are enabled to offer board, washing and medical attendance at rates varying from \$5 to \$35 per week. Those paying \$14 and upwards, according to size and situation of quarters selected, are provided with a single apartment and a seat at table in private dining-room—the accommodations in the select rooms and the table being in every respect equal to those of a first class hotel. Rooms in suit may be had upon terms to be agreed upon.

REMARKABLE IMMUNITY FROM DEATH.—The total death-rate since the opening has been one-half of one per cent., or one death for every two hundred patients. The total deaths of legitimate cases for treatment in the Home have been only one case in eight hundred during the same

period. The rest were dying when admitted.

TREATMENT OF THE SICK.—One of the essential characteristics of the institution is its ample provision for the isolation, when necessary, of new inmates from the convalescent patients until they are sobered down and the sickness consequent upon their late debauch has passed away. In the treatment of the victims of the Opium Habit the seclusion and repose of our hospital arrangements frequently prove to be essential to present relief and final cure. In connection with this department we have always at command a large staff of careful nurses, who are placed under the direction of experienced officers. Our hospital department is reduced to an exact system, and its discipline is thorough. Our methods of restraint and management in delirium tremens cases are of the most efficient and humane character. There is the absence of the straight-jacket and every other instrument of torture which tends to impede the free circulation of the blood, and thereby intensify the sufferings of the patient, and padded rooms are substituted by a commanding but nevertheless humane system of personal restraint.

The Restraints.—Our system of restraint is compatible with the fullest liberty for each boarder patient to avail himself of all the recreation, amusement and enjoyment which the billiard-room, park and ball grounds, readings, lectures, concerts and musical exercises, etc., coupled with the society of intelligent and agreeable fellow-inmates, can impart; but this liberty does not embrace leave and license to go and come to and from the neighboring cities, villages, etc. Many of our boarder patients have consisted of former inmates of other kindred institutions, who have been placed under our care because our system of restraint to the grounds of the Home has commended itself to their friends when those confidential experiments have failed.

THE DISCIPLINE.—The established code of discipline is comprehended in the observance of "THE LAW OF PROPRIETY," as universally understood

by gentlemen and ladies in the guidance and control of well-regulated family and social relationships. The Superintendent and officers lay it. down as a rule that they can only govern wisely by avoiding any unnecessary appearance of authority, and at the same time maintaining mild but firm discipline whenever the occasion demands. What is most needed is a method of discipline which will inspire confidence and lead to self-reliance and the restoration of will-power.

### HOW TO OBTAIN ADMISSION.

THE design of the Institution is to treat patients, men and women, who have contracted the habit of inebriety, from whatever cause, whether from the use of alcoholic, vinous or other liquors, or opium, or other narcotic or intoxicating or stupefying substances, with a view to cure and reformation, Persons suffering from chronic affections, or other diseases than those immediately produced by inebriety, or the infirmities of age, are not received into this institution. Cure and reformation are the only purposes kept in view in the reception and detention of patients.

In order to prevent the reception of improper cases, the consent of the fully authorized officers is in every instance made a pre-requisite to the admission of a patient.

VOLUNTARY APPLICANTS for admission may submit their request in the following form:

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Sir:—Having unfortunately indulged in the use of
until such practice has become a confirmed habit, which I cannot control, and which
I feel powerless to overcome without assistance, and being convinced that such aid
can only be obtained by submitting myself to restraint, I hereby voluntarily apply
for admission as a patient to "The Inebriates' Home for Kings County," stipulating
that if I am received into said institution, I will remain a patient therein for such
time as the officers thereof shall deem requisite for my benefit, not exceeding the term
of six months, and pay, or cause to be paid, to said Institution three months' board
in advance, at such rate as may be agreed upon; promising to obey all the rules, regulations and orders that may be in force in said institution at any time during my
residence therein, and to submit to such restraint and treatment as the Superintendent thereof may deem necessary in my case.

Lynamy of the submit is to such a such as the instrict of a submit in the submit in the such as the superintendent thereof may deem necessary in my case.

INVOLUNTARY CASES. - In all cases where the inebriate declines to enter the Home voluntarily, the nearest relatives or friends may take action either before any Justice of the Peace having jurisdiction where he or she resides, (within the State of New York,) or by a process of any County Court or the Supreme Court of said State. Where there is no property at stake. summary proceedings before a magistrate are the quickest and least expensive measures to secure removal to the Home. This action is authorized by Section 2, of Chapter 797, of an Act passed June 18, 1873.

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