

Homicide and Suicide,

In the City and County of Philadelphia, Pa., during a decade, 1871 to 1881 inclusive

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Homicide and Suicide,

In the City and County of Philadelphia, Pa., during a decade, 1871 to 1881 inclusive.

By JOHN G. LEE, M.D., Coroner's Physician,

Member of the Academy of Natural Sciences; Member of the Philadelphia County Medical Society; Member of the Pathological Society, etc., etc.,

Philadelphia, Pa.



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HOMICIDE

IN THE CITY AND COUNTY OF PHILADELPHIA, PA., DURING A DECADE, 1871 TO 1881 INCLUSIVE.

Read before the Medical Society of the State of Pennsylvania, Titusville, Pa., May 10, 1882.

By JOHN G. LEE, M.D., CORONER'S PHYSICIAN, PHILADELPHIA, PA.

GENTLEMEN:

No farther back than 1836 a distinguished European scientist and statistician, in publishing a work wherein he endeavored to prove that the human race was placed under the influence of regular and periodic causes, affecting not merely its physical qualities but likewise its actions, these leading to effects equally regular and periodic, made the statement that* "Man is born, grows up, and dies according to certain laws, which have never been properly investigated, either as a whole or in the mode of their mutual reactions." Such a criticism applied now-a-days to the advance of knowledge, and more especially medical science, would be neither true nor just. For in this era of universal progress no branch of science has advanced more rapidly than the study of medicine. Gradually enlarging its fields of research, it has pressed into its service, and brought under its dominion, everything in nature which could aid in any degree whatsoever in its onward stride. Goaded into action by the ceaseless cries of suffering humanity, ardent and indefatigable men have never hesitated to come to the fore and enter the too often thankless career of scientific research, generously forgetful, in many instances, that the work so laboriously performed by them, would only be of benefit to future generations long after they themselves had fallen and perished by the wayside. Yet, though so much has been done, still more remains to be accomplished. To this end all facts

^{*} A. Quételet. Sur l'Homme et le developpement de ses facultés, au éssai de physique sociale. Bruxelles, 1836.

pertaining to the mental and physical existence of the human species are being made the subject of thoughtful study and eareful investigation. And among the many facts which have been attentively observed, the births, marriages and deaths occurring among given groups of population stand foremost in the interest which their study and the practical deductions therefrom have excited. Especially has the cessation of the organic and material life of individuals of the human race been considered a phenomenon of exceeding interest, and been made the subject of almost indefinite investigation, sub-division and classification. Nevertheless, but little work has been done concerning the mode of death to which this paper has the honor of calling your attention. Though, indeed, the first death ever mentioned in the Christian history of the world is a violent death, a homicide, or, if we read the annals right, a murder feloniously committed with malice aforethought.

Having, thanks to an official position under the municipal government of the city of Philadelphia, enjoyed access to the docket books and other records of the Coroner's Office, I have endeavored to collect and arrange from the material at my disposal all information which could prove of interest to the profession at large. "Pretensions to originality are ludicrous," said a great poet; and in this essay I lay claim to no greater originality than that of calling your attention to certain figures which have never before been published, together with such conclusions as may seem to be their logical sequence.

Naturally, it would be here out of place to enter into a detailed disquisition upon the legal aspects of homicide, though of the innumerable ways by which an excessive and too rapid increase of the human inhabitants of this planet is to some extent counteracted and held in check. No one mode has more excited the horror, indignation, and anger of the surviving members of the human family, than criminal homicide, to prevent entirely, or at least to diminish, the too frequent occurrence of which every measure the ingenuity and cruelty of the human mind could devise has at one time or another been brought into play, with what little success the proceedings in our criminal courts show us daily.

"Homicide, or the killing of any human creature," says Blackstone, * " is of three kinds, justifiable, excusable and felonious.

^{*} Sir William Blackstone, Commentaries on the Laws of England.

The first has no share of guilt at all, the second very little, but the third is the highest erime against the laws of nature that man is eapable of committing." Independently of being a crime at common law, homicide has been the subject of statutory enactment by the Legislature of this State, the Act of Assembly* defining it as follows: "All murder which shall be perpetrated by means of poison, or by lying in wait, or by any other kind of willful, deliberate, and premeditated killing, or which shall be committed in the perpetration of, or attempt to perpetrate, any arson, robbery, or burglary, shall be deemed murder of the first degree; and all other kinds of murder shall be deemed murder of the second degree, and the jury before whom any person indicted for murder shall be tried shall, if they find such person guilty thereof, ascertain in their verdict whether it be murder of the first or second degree; but if such person shall be convicted by confession, the judge shall proceed by examination of witnesses to determine the degree of erime, and give sentence accordingly." Yet, in spite of legislation and punishment from time immemorial, the slaying of man by his fellow-man has been a manifestation occurring in the highest as well as in the most barbarous and rudimentary states of society, and will probably continue to occur until hatred, malice, and resentment shall have been effaced from the heart of man. Towards the middle of the last century, Süssmileh, a German statistician and moralist, wrote as follows: "We depart this life out of three portals: the first of immense and colossal proportions, through which crowds a constantly increasing throng, it is the gate of disease; the second one, which is of less dimensions, and which seems gradually to be growing smaller, is the gate for old age; the third, dark, of sinister aspect and splashed with blood, seems to widen daily, it is the portal for those who have perished by violent means." Verily, if applied to our daily modern life, the language of the German philosopher reads like a truism; for we daily hear of the discovery of new diseases, and are often called upon to observe, and if possible eheck, their ravages. Few people seem to grow old, and it is next to impossible to glance over a public journal without seeing the account of some heartrending catastrophe, or the details of some crime against the life of man. Statistics are not at my

^{*} Act of Assembly, 31st March, 1860.

command to show the relative differences existing between the frequency of criminal homicide in cities and in rural districts. But after a prolonged study of the dark side of life in a great city, I feel convinced that the juxtaposition of wealth and misery, the forcible association of innocence with guilt, and the eternal shock of conflicting interests usual among large aggregations of men, all combine to wear off sooner the thin varnish of a hypocritical society, beneath which man, to a certain extent, masks his passions, and are important factors in the more or less continual frequent occurrence of criminal homicide in populous centres.

From December 31, 1871, until January 1, 1882, out of a total number of 12,936 cases of death investigated by the Coroner's Office, in Philadelphia, 323 cases were deaths from homicidal violence, falling under the Act of Assembly previously quoted; or an approximate ratio of 27 homicides to every 1000 inquests. As the population of a city annually increases, so naturally the number of homicides might be expected to augment in a more or less similar ratio. Such, however, has not been the fact, as the following figures show us:

Years.	Homicides.	Population.	Ratio of Homicides to 10,000 Population,
1872	32	725,000	.44
1873	23	750,000	.30
1874	28	775.000	·35
1875	44	800,000	-55
1876	46	825,514	-55
1877	34	850,856	∙39
1878	31	876,118	-35
1879	28	901,380	.31
1830	31	846.980	.36
1881	26	868,000	.29

In no case does the ratio appear to bear any relation to the population. In 1873, for instance, when the lowest number of homicides were committed, the ratio is .30 to 10,000 souls, as against a ratio of .55 for each of the years 1875 and 1876, when the greatest number of homicides occurred. Examining into the frequency of homicide according to color, we find that of the 323 persons who came to their deaths by criminal violence, at the hands of their fellow-men, 26 were colored people and 297 whites. Of the 26 colored persons, 20 were males and 6 females; while of the 297 whites, 202 were males and 95 belonged to the weaker sex.

These deaths took place, according to years, in the following order:

Years.	Males.	Females.	Total.
1872	22	Ю	32
1873	16	7	23
1874	19	9	28
- 1875	28	16	44
1876	40	6	46
1877	24	IO	34
1878	20	II	31
1879	18	IO	28
1880	17	14	31
1881	18	8	26
	22 2	101	323

The year 1876, showing 46 to 23 occurring in 1873, the males always exceeding the females, the general yearly average for both sexes together being 32.3; and the separate average by sexes, being for the males 22.2, and 10.1 for the females.

Though, as might be expected, we find that deaths from criminal violence occur more frequently at the period of life when the bodies and intellects of individuals of the human species, being fully matured, their passions are most difficult to control; yet, from the tenderest age up to far beyond the threescore years and ten, usually allotted to human beings, we find men taking the lives of their fellow-creatures.

Period.	Males.	Females.	Total.
Under 1 year,	15	16	31
1 to 5 years,	5	2	7
5 " 10 "	3	2	5
10 " 15 "	3		3
15 " 20 "	13	2	15
20 " 30 "	53	31	84
30 " 40 "	56	21	77
40 " 50 "	42	11	53
50 " 60 "	17	8	25
60 " 70 "	13	I	14
70 '' 80 ''	_	4	4
80 " 90 "	I		I
Age unknown,	I	3	4
	222	IOI	323

The highest number being reached between the ages of 20 to 30, and the next highest between 30 to 40 years, then

between 40 to 50 years, in fact just at the time when the struggle for superiority, between members of the human family, is at its maximum. The fewest lives were destroyed between the ages of 80 to 90, and from 5 to 15 years.

The mortality from homicide forms no exception to the rule, proved by mortality tables in general, that the deaths of adults are slightly in excess of the deaths of minors. There occurred 262 violent killing of adults, to 61 deaths of minors; of the minors, 39 were males and 22 females.

Figures relating to the condition in life of the victims are but of passing interest to us. Out of the 323, 174 are recorded as being married, 136 were in a state of single blessedness, while the condition of life of the remaining 13 was not determined. 126 of the 174 married persons were males, and 48 were females; of the 136 unmarried, 90 were men and 46 women. No correct record of the nativity of those slain having been kept, we are therefore, unfortunately, without data sufficiently accurate for use in this paper.

Of special interest to us as physicians are the anatomicopathological eauses of death, of which we have 14 different varieties.

First.—Homieide from violence, comprising blows, kicks, and other injuries of a contused character, inflicted with nature's weapons, foreign bodies or falls. Of these we have 126 cases, 102 of which occurred among men, and 24 among women. Entering into a more detailed account of the injuries described under this heading, the causes of death, arranged in their order of numerical frequency, were:

From	causes not defined,	38
6.6	fracture of the skull,	30
4.4	compression of the brain,	24
4.4	peritonitis,	8
"	inflammation and abscess of brain,	7
**	inflammation of lungs,	6
64	congestion of the brain,	5
6.6	injuries to the head,	2
6.6	rupture of the bladder,	2
	erysipelas,	2
"	tetanus,	2
6.6	hemorrhage and shock,	I
	,	
		(

Second.—Deaths from gun shot wounds occurred in 66 cases, 55 of which were males and 12 females, the lesions being specified as follows:—

From	causes r	ot	stated,	37
**	wounds			6
4.4			heart,	6
4.6	**		throat,	4
4.6	6.6		brain,	4
**	4.4		lungs,	4
6.6	4.6		abdomen,	2
**	4.6		back,	2
**	"		pulmonary artery,	I
				66

Third.—Fatal wounds from the use of cutting instruments were 53 in number, 41 being males and 12 females:—

From	causes r	ot	specified,	II
• 6	wounds	of	throat,	8
4.6	6.6	6.6	head,	7
4.6	4.4	"	chest,	6
4.6	6.6	"	peritoneum,	6
4.6	4.4	"	femoral artery,	3
14	+4	16	subclavian artery,	2
6.6	4.6	"	heart,	I
1.6	6.6	6.6	heart and aorta,	I
**	4.4	4.6	aorta,	I
"	4.6	6.6	orbital artery,	I
"		6.6	ulnar artery.	I
4.6	**		crural vein,	I
1.6	4.6	4.6	groin,	I
4.6	16	6.6	arm,	1
4.6	6.6		leg,	I
4.6	11	6.6	back,	I
64	"	6 6	erysipelas,	I
				_
				53

Fourth.—Criminal abortion was the cause of 32 deaths, 29 of the victims being recorded as females, the remaining 3 being males. In this form of violence the deaths of the fœtus do not appear to have been taken into consideration by the intelligent coroner's jury in those cases where the mother perished. Here it may be well to remark that the crime of abortion does not come under the paragraph of the Act of Assembly already quoted, but has been made the subject of a separate clause: "If any person shall unlawfully administer to any woman, pregnant or quick with child, or supposed and believed to be

pregnant or quick with child, any drug, poison, or any substance whatsoever, or shall unlawfully use any instrument, or other means whatsoever, with the intent to procure the miscarriage of such woman, and such woman, or any child with which she may be quick, shall die in consequence of either of said unlawful acts, the person so offending shall be guilty of a felony, and shall be sentenced to pay a fine not exceeding \$500, and to undergo an imprisonment, by separate or solitary confinement at labor, not exceeding seven years."

In the following 32 cases death occurred:-

2	causes not specifically defined,	18
"	peritonitis,	8
4.6	hemorrhage,	2
44	violence in utero,	3
6.6	pyæmia,	2
		_
		32

Fifth.—Of one of the most dangerous forms of homicide, the criminal administration of poison. There are only 18 eases recorded, though it can hardly be doubted that a certain number of instances of this variety of crime may either have escaped the notice of the investigating officials, or else have been passed as suicides or accidental poisonings; 7 of the victims were males, and the remaining 11 were females, the deaths resulting from the administration of the following poisons or drugs:

•					
	Names of	pois	sons not given,	2	
	Poisoning	by	chloroform,	4	
	66	"	arsenic,	3	
	44	6.6	laudanum,	2	
	"	6 6	alcohol,	3	
	"	4.6	opium,	1	
	6.6	4.6	sulphate of morphia,	I	
	"		corrosive sublimate,	I	
	"	"	muriatic acid,	I	
	6.6	"	podophyllin,	I	
				_	
				18	

Sixth.—In 14 instances life was destroyed by suffocation, 10 of the victims being males and 4 females.

Seventh.—Of 4 persons who perished by strangulation, 2 were males and 2 females.

Eighth.—2 men were found drowned with such marks of violence upon them as to warrant the supposition that they had met with foul play.

Ninth.—2 infants came to their death from criminal neglect.

Tenth.—2 aged females are recorded as having been frightened to death.

Eleventh.—1 infant was starved to death.

Twelfth.—1 infant was thrown from a window.

Thirteenth.—1 drunken woman was saturated with coal oil by her insane husband, and then set fire to.

Fourteenth.—And lastly 1 woman was feloniously assaulted, receiving such brutal treatment that she succumbed to the results of her injuries.

In 96 cases only of the 323 homicides mentioned in the foregoing pages do the data concerning the perpetrators of the crime seem reliable enough to be accepted. 13 killings are set down as having been committed by women, men being the victims in 3 instances, the 10 others being women. 5 cases are recorded of the taking of human life by men, without further specification; in 1 case only was the victim a male, the remaining 4 being of the weaker sex. 1 husband perished at the hands of his wife, and 16 wives were slaughtered by their husbands. 15 mothers destroyed their helpless offspring, 7 of which were males and 8 females. 4 male and 5 female children were slain by their fathers. In 11 cases where the criminals were physicians, 10 of the slain were females, 9 of whom were the victims of criminal abortions, the remaining 1 dving from the administration of chloroform; the death of the only male being caused by malpractice. mothers-in-law died at the hands of their sons-in-law. 3 men were shot down by officers of the law engaged in the performance of their duty, and 1 man was brutally clubbed to death by a police officer. 3 men were killed by persons acting in self-defense, and 1 man was shot while attempting to commit a burglary. Finally, 2 women were slain by their paramours, while concerning the perpetrators of the remaining 227 homicidal killings no information is obtainable; though the fact that in 25 cases the perpetrators remained unknown, should not be considered derogatory to the reputation of the Philadelphia police authorities, as we may safely infer a large proportion of the 25 to have been cases of childmurder,—a crime in which the discovery of the criminal is always attended with great difficulty.

Going further into the subject, we find that, massed in groups of months, homicides occurred during the past ten years in the following order:

July,	40.
April,	30.
May,	30.
February,	29.
September,	28.
August,	27.
January,	26.
June,	26.
November,	24.
December,	23.
October,	22.
March.	18.

July, as we see heading the list, and March ending it; the difference, however, in the mortality of several of the intermediate months, being so slight that but little importance need be attached to their order of succession in the foregoing table; though we cannot help but notice that the majority of criminal killings occur in the warm months of the year; this conclusion becoming even more apparent if we examine into the frequency of homicide by quarters. The deaths by quarters during the past 10 years being as follows:

First Quarter.	Second Quarter,	Third Quarter.	Fourth Quarter,
73	86	95	69

The third and second quarters heading the list here, and the first and fourth quarters ending it.

While general meteorological phenomena must undoubtedly exert a certain influence over the frequent taking of human life, what their special effects are we are not now able to determine, all observations which we were enabled to make having been unsatisfactory in the extreme. Possibly future observations and comparisons, including a greater number of cases, and extending over a longer period of time, may some day give us more definite results.

As an epilogue to the preceding figures, it is of interest to know, that in only five instances was the *lex tulionis* enforced, and the supreme penalty enacted. During the decade over which our observations extend, only 5 criminals were executed. All 5 were males between the ages of 20 to 40 years; 2 were guilty of wife murder, 1 destroyed his paramour, and the remaining 2 killed individuals of their own sex.

Glancing at this statistical compilation, the question naturally arises, to what end it may serve, or to what purpose it may be Admitting that the impulsive actions excited by human passions are not subject to special rules and laws, we cannot but define them as being in themselves but the physiological manifestations of certain physical phenomena, which exert a disturbing influence over cerebral action. Thus, the intense cold of our winters, the torrid heat of our summers, combined with the bodily malnutrition, and the cerebral hyperæmia caused by the excessive use of stimulants, so commonly met with among our poorer classes, must all be factors of importance in the calling into existence of the columns of figures above enumerated, and their more or less constant fluctuations, it being now well known that proper hygienic police regulations not alone tend to diminish disease, but act also as a check upon vice and crime. Medical science has, at its charge, not alone the supervision over physical and mental disease, but it is more and more becoming the duty of this branch of knowledge to study the climateric, hygienic, psychological, sociological and moral conditions under which man lives; with a view to remedying and preventing the ravages of disease. Why should not moral suasion and expostulation on the part of the medical adviser be combined with sedative treatment, in cases where an excited mind, the result of a hyperæmic cerebral condition, is apt to give way to the fatal hallucination of imaginary grievances? It is easy to see the power which medical men would be able to exercise over many such instances. Again, a proper moral education, with the development of the nobler qualities of human nature, would more and more tend to render impossible and infrequent those most unnatural crimes, abortion and infanticide, -cancers which, gnawing at the very vitals of society, demoralize as well as disable our partners in life by their pernicious physical and mental effects. It is to the prevention of this form of crime that I would, more than to any other, call the attention of this honored body and the medical profession at large; to the end that all who may be found disguising a criminal purpose under the cloak of a noble science, be outlawed by the profession, hounded down and pointed out for prosecution when and wherever detected.

In pointing out thus tersely the palliative means against the criminal taking of human life which medical men—the confes-

sors of the Nineteenth Century—have at their command, it but remains for me to terminate with the consideration of the legal aspect of the subject. Elsewhere* I have had occasion to abundantly describe the procedure of our coroners' courts, as well as the duties of physicians who may be selected by that official to assist him in his investigations, and will therefore pass that portion of the subject, in order to touch upon another of more importance to the medical profession generally.

In this progressive country, where medicine has in all its branches successfully rivalled with the progress of older nations, it is surprising to find that we have as yet no branch of this science taught in regard to its practical application to the law. Austria, Germany, France, Italy, all have their codes and well-defined systems for the guidance of practitioners of medicine when called upon to assist the State: but on this continent medical inrispredence, if at all known and practiced, is certainly in its infancy. No chairs, no teachers, or only nominally so, grace our great and well-known centres of medical learning; and it is a well-established, as well as deplorable, fact that even our prominent practitioners shrink from contact with the law, and decline to give the State the benefit of their wisdom and experience,—a condition of affairs due only to the fact that they lack the knowledge of their relations thereto, and do not care to place themselves in the situation of being roughly handled and ridiculed by the flippant and discourteous gentlemen who occasionally practice in our courts of law. Owing to our admirable system of non-centralization and the perpetual struggle for autonomy which is continually taking place between different districts, it has not been possible for our legislators to promulgate laws for the establishment of a health police and medicolegal officers, as they exist in older countries. And while medical jurisprudence cannot be called a science apart, it is to be defined as the application of the exact principles of medical science to the necessities of the State for the better administration of public justice, and should be included in the curriculum of our medical colleges. In my official position I have been obliged to give much thought and study to this important question, and long ago came to the conclusion that, if physicians knew their relations to the law, both the community and the medical profession at large would be the gainers.

^{*}Handbook for Coroners. By John G. Lee, M. D., Philadelphia.

I therefore call upon this honorable body, which represents the whole medical fraternity of Pennsylvania, to take such action as the circumstances require; and to this effect I suggest that this Society make it its duty to urge upon medical faculties, members of the profession, and students, the high importance of a thorough knowledge of the principles of medical jurisprudence.



1N THE CITY AND COUNTY OF PHILADELPHIA, DURING A DECADE, 1872 TO 1881 INCLUSIVE.

[Extracted from Proceedings of American Medical Association, St. Paul, June, 1882.]

BY JOHN G. LEE, M. D., CORONER'S PHYSICIAN, PHILADELPHIA, PA.

Among the many forms of mortality which annually exact tribute from the human race, few have been the subject of more profound study and deep thought than suicide, or self-murder.

This form of death has, within the last century, attracted the attention of many of our scientific brethren in foreign countries, and has been treated of by such eminent men as Esquirol, Quetelet, Marc, Winslow, Casper, Bourdin, Boismont, Morselli, Legoyt, and Massaryk, together with a host of others, who, investigating the subject in all its bearings, and carefully studying it in all its different relations to the communities where it occurs, have attempted to discover the causes and define the laws governing a phenomenon apparently so contradictory to the habits and instincts of mankind; and, by conclusions skillfully deducted from generalizations more or less vast, these investigators have built up ably-conceived theories, which they have submitted to the profession for consideration, approval and acceptance.

In this country, however, if we except a paper by Brigham,* published in 1844, one by Adams,† in 1861, and the recent work of O'Dea, but little attention seems to have been accorded so interesting a form of death; not so much, possibly, from any difficulties which the study of the subject may present, as owing to the almost insurmountable obstacles which stand in the way

^{* &}quot;Statistics of Suicide in the United States."—American Journal of Insanity, 1844-45.

[†] J. G. Adams, M. D.—"Statistics of Suicide in New York City, for 1859 and 1860."—American Journal of Med. Sciences, October, 1861.

of obtaining data sufficiently reliable and numerous enough for the rearing of a synthetical structure, the generalizations of which shall be sufficiently widespreading to permit of analytical observations from which conclusions of interest and value may be deducted.

This work it has been my ambition to do,—or, rather, to commence,—occupying an official position offering exceptional advantages for the study of self-destruction, in its different aspects, phases, and relations to and among the population of a great industrial and commercial centre. I have endeavored to repeat some of the work which our European confrères have already accomplished abroad, with the hope that other gentlemen occupying positions similar to my own, in all our large cities, will follow my example, and some day give the results of their observations to the profession; thus contributing America's share to the total quota of work required for the ascertaining of what laws, if any, govern the self-destruction of individuals of the human species.

I therefore have the honor of presenting for your consideration a study of snieide among the population of the city of Philadelphia during the past ten years,—1872 to 1881 inclusive. Examining self-murder as regards its ratio to the population; its relative frequency of recurrence at different seasons of the year, the ages, sexes, and conditions in life of the victims, and the various means selected by the unfortunates for the termination of their existence. I also vouch for the accuracy of the different figures herein advanced, the statistics having been compiled by myself from the Coroner's dockets, as the returns of suicides contained in the annually published reports of the Health Office are frequently inexact, owing to the careless manner in which death certificates issued by the Coroner's office have been made out. The other figures are derived from the reports of the Health Office, the efficient Registrar of which, Mr. George E. Chambers, I will here take the opportunity to thank for his many kindnesses and valuable suggestions.

From the thirty-first day of December, 1871, until the first day of January, 1882, out of 12,936 cases of death requiring a Coroner's investigation, 636 individuals were ascertained to have ended their existence by their own hands, or a ratio of about 53 suicides to every 1,000 inquests. And there is every reason to suspect that during such a lengthy term of years some

cases of felo de se must have occurred, where, either from a lack of evidence or other reasons, the veil surrounding the event never having been fully lifted, some deaths which were suicidal may have been set down as accidental; the converse of this proposition being equally correct, as in cases of drowning or poisoning, for instance, deaths which may have been voluntary may easily have been ascribed to accident or error. With such contingencies, however, it is not my intention to deal, beyond their fleeting consideration, as a possible source of inexactitude, as we cannot go behind the records, and must accept the returns in the Coroner's dockets as final.

Contrary to expectations, this form of mortality does not follow what might seem to be the universal rule that the greater the population the greater the number of suicides. For the annual number of self-murders, as well as their ratio to a given figure of the population, is subject to marked variations, as the following figures show us plainly:

Y cars.	Suicides.	. Population.	Ratio of Sui- cides to 10,000 Population.
1872	50	725,000	.68
1873	54	750,000	.72
1874	66	775,000	.85
1875	86	800,000	1.07
1876	74	825,514	.89
1877	78	850,856	.91
1878	42	876,118	-47
1879	58	901,380	.64
1880	62	846,980	.73
1881	66	868,000	.76

Looking at suicide, in its relations to color and race, it is somewhat humiliating for the white observer to be obliged to note that of the 636 recorded cases of felo de se only 8 were people of color, while, with the exception of one case, where the color was not entered on the docket, and is, therefore, unknown, the remaining 627 were white persons. A vast numerical but certainly most undesirable superiority for the intellectual white race! Creating a fact which will go far to strengthen the position of those who maintain that suicide is essentially a disease of the intellect and mind. Of these 8 cases, 6 were males and 2 were females; 4 of the former were married, 1 was single, and in 1 the condition in life was unknown. Of the females, 1 was married, and the other was single.

As in mortality from all causes in Philadelphia during the past decade, the number of male deaths annually occurring usually exceeded the number of female deaths; so also we have the male exceeding the female suicides in a proportion of nearly 5 to 1, there being 526 males to 110 female cases of self-murder, these taking place yearly in the following order:

Years.	Males.	Females.	Total.
1872	4 I	9	50
1873	44	10	54
1874	54	12	66
1875	69	17	86
1876	62	12	74
1877	64	14	78
1878	35	7	42
1879	52	6	58
1880	53	9	62
1881	52	14	66
	526	110	636

Thus giving for the males a yearly average of 52.6 to an average of 11.0 for the weaker sex, with a general average of 63.6 yearly; the year 1875 showing the greatest number of suicides—69 males to 17 females, or a total of 86—and the smallest number in any year occurring in 1878, when there were only 42 self-murders, 35 of which were males, and 7 females.

The rule observed by mortality tables in general, that the deaths of adults are usually in excess of those of minors, is also observed in the mortality of suicide, there being only 24 instances of suicide by minors among the 636 cases with which we are occupied. Of these, 14 were male, and 10 were females.

Considering self-slaughter in relations to age, we are not surprised to observe, that appearing about the age of puberty and steadily increasing, it attains its maximum when the illusions of youth having been dispelled by the stern realities of life, the struggle for existence is keenest; afterwards, gradually declining in numbers as the health begins to tail, as the bodily vitality is exhausted, and the interest which individuals manifest in worldly events, becomes more and more of a retrospective character.

We find, therefore, that, according to age, self-murder occurred in the following order of frequency:

					Males.	Females.	Total.
From	I 5	to	20	years,	14	IO	24
¢ 6	20	6.6	30	"	81	29	IIO
6.6	30	"	40	6.6	124	25	149
**	40		50	6.6	125	18	143
4.6	50	4.4	60	**	92	15	107
* *	60	6.6	70	**	64	ΙΙ	75
**	70	6.6	80	**	1)	2	2 I
6.6	80	6.6	90	""	3	_	3
Age u	ınkı	nov	vn,		4	_	4
						*****	-
					526	110	636

The highest number at any period occurring between the ages of 30 to 40 years, the lowest number being between the ages of 80 to 90 years; the female following the male sex in its successive stages of increase and decrease, except that between the ages of 20 to 30, the weaker seems to attain its maximum more rapidly than the stronger sex; who, however, largely exceed the former, save in the two earlier periods, where the proportion of males is only $1\frac{1}{2}$ to 1 and 3 to 1, in excess of the females.

In opposition to the experience of European observers, who state that self-destruction occurs more frequently among the unmarried of both sexes, than amongst the married, we find that in this centre at least, and for the period with which we are dealing, such is not the case. Whether it be because in Philadelphia, as exhibited by statistics, the most popular time for marriage for both sexes is between the ages of twenty to twenty-five years; while as we have just seen, suicides are not of frequent recurrence until a more advanced period of life has been reached, or whether it be due to other causes, only a profound study of observations extending over a more lengthy period of time, and comprising larger masses of population, can teach us. But, out of the 636 cases of suicide with which we are now concerned, 444 were married, 138 were single, and in 54 persons the condition in life was not determined; while, according to sub-division by sexes of the 444 married individuals, 370 were men, 74 were women; and of the unmarried people 109 were males, and 29 were females. Of the 54 whose

condition in life was not recorded, 47 were of the male and 7 of the female sex. And we must greatly regret that no record has been preserved as to how many of those classified as married were widowers or widows, whether they were blessed with children, or childless; as also whether any of those recorded as unmarried were living in a state of concubinage, or otherwise.

Though, owing to the vast number of observations which have been made, it is a well-known fact that, in the death-rate from ordinary causes, meteorological phenomena appear to exert considerable influence in determining the frequency and amount of mortality by months and seasons, we are unfortunately as yet in ignorance as to the role played by such phenomena, as determining factors in the more or less frequent occurrence of suicide; our observations being neither accurate nor complete enough to enable us to deduct conclusions of any real value. Nevertheless, through the kindness of the Chief Signal Officer of the Army, I have been enabled to obtain a summary of the meteorological observations made at the United States Signal Station in the city of Philadelphia, during the past nine years.* These observations have been arranged by groups of months, and the following table gives the means and totals, together with the number of suicides for each group of months:

1873 to 1881.

— — Months, Hi						
Months, 110	ghest.	Lowest.	Range,	Maximum.	Minimum.	Range.
February, 30 March, 30 April, 30 May, 30 June, 30 July, 30 August, 30 September, 30 October, 30	0,675 0,425 0,416 0,268 0,264 0,295 0,391	29,460 29,351 29,251 29,490 29,588 29,609 29,677 29,698 29,661 29,448 29,349	1,205 1,324 1,297 0,936 0,828 0,659 0,587 0,597 0,730 1,094 1,294	55.7 61.1 66 - 75.3 88.6 92.9 94.9 91.6 89.6 79.5 67.4	6.7 7 15.3 27.5 39.6 50 8 60.9 57.3 47.7 34.9	49.0 54.1 50.7 47.8 49 42.2 34.0 34.2 41.9 44.6 47.6

^{*} Prior to 1873, there was no Signal Station in Philadelphia.

(Continued.)

Months.	Precipitations, Inches and Hundredths.	Days on which rain and snow fell.	Prevailing Wind.	Suicides,
January,	29.23	112	S. W.	34
February,	26.30	98	N.W.	39
March,	29.94	121	N.W.	42
April,	30.74	112	S. W.	50
May,	23.25	88	S. W.	70
June,	31.53	103	S. W.	46
July,	38.79	104	S. W.	47
August,	42.43	101	S. W.	62
September,	27.75	84	S. W. & W. E.	52
October,	24 30	77	S. W.	54
November,	32.61	110	N.W.	47
December,	24.02	103	W. N. W.	42

According to which we find the real or apparent exceptions so numerous that no satisfactory conclusion can be arrived at. The influence of barometric variations alone seems negative; as do also the thermometric changes, while the amount of rain or snow fall, and the number of days on which it fell, give results entirely at variance with the number of suicides presented. The prevailing direction of the wind alone would seem to show some connection with the large number of suicides occurring in certain groups of months. Considering, however, together with all the data presented by the different observations in the table, they would seem—to a certain extent at least—to indicate that a low barometric pressure, accompanied by a high thermometric registry with sudden fluctuations from a low to a high temperature, together with much moisture and prevailing south-west winds, might somewhat account for the frequency of self-murder in the spring and summer months.

Again, we find that in these observations the deaths from suicide, as occurring by months, differ somewhat from the results published by the Health Office, upon the successive monthly order of occurrence of deaths from all causes in Philadelphia, during a period of fifteen years,—1861 to 1875.

Deat	hs fro	m Suicid ϵ .	Deaths from Ordinary Causes.			
May,	78	June,	52	July,	December,	
August,	7 I	November,	49	August,	February,	
September	, 57	December,	44	March,	June,	
October,	54	February,	44	January,	October,	
July,	54	March,	43	April,	September,	
April,	54	January,	36	May,	November.	

In ordinary forms of mortality July presenting the highest death-rate and November the lowest, while in the mortality from suicide, May heads the list, with January at the bottom; the difference in both cases, between the mortality of several of the intermediate months, being so very slight that but little importance need be attached to this order of succession. Selfmurder, however, appears to occur more frequently during the spring and summer months; the autumnal and winter months showing a lesser number of cases. The deaths from suicide, by quarters, for the last ten years being:

First Quarter.	Second Quarter.	Third Quarter,	Fourth Quarter.
123	184	182	147

The second quarter being the first in point of numbers and the first quarter last; while the deaths from ordinary causes, the highest mortality usually occurs in the summer, the lowest during the autumnal months, with spring and winter holding intermediate places.

Dividing the months into decades of days, we find in the

First Decade.	Second Decade.	Third Decade,
220	204	212

The differences here also being so slight that it is difficult to account for the reasons which place the highest numbers in the first and third decades, unless we regard it as being purely fortuitnous, or consider that in the first decade many classes of people receiving their salary or wages are apt to spree for the first two or three days, after which their dissipation being succeeded by remorse and poverty, they seek refuge from their sorrows in death. While in the third decade many people, having run through their wages before the end of the month, find themselves financially embarrassed; or again, others having debts to meet on the first of the coming month, and, having exhausted their resources, shirk the difficulty by putting an end to their existence.

When we consider the phenomenon of self-slaughter in its relations to what may be termed the three physiological epochs in the life of man—at his birth, marriage and death—we again discover the connection between the ratio of any single one of them and suicide to be extremely slight, if, indeed, any exist at all.

Years.	Births.	Ratio of Sui- cides to 10,000 Births	Marriages.	Ratio of Sui- cides to 1,000 Marriages.	Deaths.	Ratio of Sui- cides to 10,000 Deaths	Suicides in each year.
1872	20,072	24.9	6,496	769	20,544	24.3	50
1873	18,702	28.8	7,891	68 4	16,736	32.2	54
1874	19,387	34.	6,639	99.4	16 315	40.4	66
1875	17.933	47.9	6,144	130.9	18,909	45.4	86
1876	18,695	39.5	5,341	138 5	18.892	39.1	74
1877	18,279	42.6	6,147	126.8	16.004	48.7	78
1878	18,346	22.8	6,247	67.2	15,743	266	42
1879	18,499	31.3	5,224	0.111	15,473	37.4	58
1880	18,388	31.9	6,476	95.7	17,711	35.0	62
1881	18 154	36.	7.569	87.1	19.515	33.8	66

The above table showing the ratios to have no influence over one another. Nor does a consideration of the relative frequency of occurrence of births, marriages, deaths and suicides by quarters give any more definite results:

BIRTHS.		MARI	RIAGES.	D	EATHS.	SUICIDES.		
3d	quarter,	4th c	quarter,	3d	quarter,	2d	quarter,	
1st	66	2d	66	1st	66	3d	66	
4th		3d	٤,	2d	66	4th	66	
2d	66	1st	66	4th	6.	1st	44	

The 636 cases of self-murder, with which we are dealing, were perpetrated in twenty-seven different manners, in the order of their frequency as follows:

Causes of Death.	Males.	Females.	Total.
By Hanging,	119	22	141
" Shooting,	114	8	122
" Laudanum,	79	17	96
" Cutting throat,	70	13	83
" Drowning,	46	I I	57
" Narcotic poison,	19	8	27
" Causes not specified,	13	7	20
" Arsenic,	ΙΙ	8	19
" Jumping from elevation,	7	6	13
" Throwing self in front of			
R. R. train,	9	2	I 1
" Morphia,	7	3	10
" Stabbing,	6	_	6
" Prussic acid,	5	I	6
" Strychnia,	4		4
" Poison,	2	I	3
" Paris green,	3		3
" Chloroform,	2		2
" Opium,	2		2
" Phosphorus,	2		2
" Strangulation,	2		2
" Oxalic acid,	I	_	I

Causes of Death.	Males.	Females,	Total.
Amounts brought forward,	523	107	630
By Potassic cyanide,	I	-	1
" Argentic nitrate,	I		I
" Burning with coal-oil,	I	_	I
" Slaked lime,	_	I	I
" Carbolic acid,		I	I
" Pot of varnish,	—	I	I
	526	110	636

Hanging, which presents the greatest number of cases, seems to possess great popularity with both sexes, and its frequency may, to some extent, be accounted for by the ease with which suicide by this means can be carried out, as also by the fact that popular superstition accredits it with being a peculiarly easy and pleasant death.

Shooting follows next on the list, though, as may be remarked, it finds but little favor with the weaker sex. Its extraordinary prevalence as a mode of self-murder may be ascribed to the dangerous habit of carrying firearms so universal in this country.

The large number of suicides by laudanum, together with those from narcotic poison, opium and morphia, which should properly be classed with them, is undoubtedly due to the ease with which preparations of opium are obtainable in Philadelphia, under the laxity of the laws governing the sale of poisons, as well as the criminal indifference thereto so frequently manifested by druggists.

Notwithstanding Philadelphia's situation between two large rivers, self-murder by submersion stands only fifth in order of frequency. While, as might be anticipated, the largest number took place during the two middle quarters of the year, with the exception of the January group, no group of months is totally devoid of suicides by drowning; and the figures in the following table show us most conclusively that, during the cold months of the year, it is not a popular mode of self-destruction;

	Jan,	Feb.	Mar.	Apr.	Мау.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
Hanging,	7	ΙI	ΙI	13	19	8	13	14	14	13	10	8	141
Shooting,	6	I 2	ΙI	14	12	10	3	ΙI	ΙI	8	15	9	122
Laudanum,	5	6	2	5	14	8		14	9	I 2	9	7	96
Cutting throat,	8	3	4	7	IO	8	9	8	5	8	5	8	83
Drowning,		2	3	I	7	6	8	ΙO	10	5	3	2	57
Narcotic poison,	2	2	I	2	5	2	2	5	2	3	I		27
Miscellaneous,	8	8	11	12	ΙI	10	14	9	6	5	6	10	110
				_	_								
	36	44	43	54	78	52	54	7 I	57	54	49	44	636

No detailed record of the nativity of those who died by their own hand has been kept; the 636 cases are accounted for as follows:

Born in the United States,	212
Of foreign birth,	241
Place of birth unknown or not recorded,	183

	636

Figures which would be of greater value had a separate and specific record been kept for all those born in foreign countries. Here it may be of interest to remark, that my own experience, as well as that of my friend, Dr. Kingston Goddard, one of our former coroners, has shown that each nationality exhibits a certain partiality for some peculiar form of suicide. Nativeborn American males usually hang or shoot themselves, while the females show a preference for narcotic poison. Germans select either death by shooting or by some form of poison. Those of English nationality either cut their throats or shoot themselves; and in the rare instances of suicide occurring among our Irish population, drowning or hanging are usually the modes selected.

Though no record of the various places where the suicides were perpetrated has been preserved, it is not unsafe for us to infer that the greater number of suicides were committed within doors. My own experience has shown me cases occurring in every part of a dwelling-house, from the cellar to the garret, from the yard to the drawing-room.

It is satisfactory in the highest degree, as denoting the kindness, care and watchfulness with which incarcerated criminals were treated by our prison authorities, that out of the large number of individuals who during the past ten years must have darkened the doors of the county prison, only five instances of self-murder are on record as having occurred within its walls during that period of time. All were whites; 4 were males, 1 was a woman; their ages ranged from 33 to 50 years. In 3 cases the mode of death chosen was hanging, once the throat was cut, and in 1 prussic acid was taken. Four had not been tried: on the remaining victim sentence had already been passed.

The number which occurred within the walls of the Eastern

Penitentiary was likewise limited, and speaks volumes concerning the admirable management of that institution, there having been only 6 cases of suicide among its numerous inmates. All were male whites, between the ages of 18 and 70 years; 4 hanged themselves, and 2 cut their throats.

Contrary to ancient laws and customs in older countries, it is in every way creditable to our more civilized and liberal views, that, in spite of the horror and popular execration with which self-murderers are regarded, with the exception of being a crime at common law, snicide is not, and has never been, an offense against the statutes of the State of Pennsylvania; and even were it one did the infliction of legal penalties remain to be determined, as of yore, by the jury of inquest, it is highly probable that the necessity of inflicting such penalties would often be evaded by the qualifying statements contained in the verdiets returned by the juries themselves—for of the 636 cases of self-murder passed upon by coroner's juries in Philadelphia, 228 had qualifying verdiets attached, as follows:

	Males.	Females.	Total.
Suicide while temporarily insane,	157	31	188
Suicide while insane,	20	6	26
Suicide while laboring under temporary			
aberration of the mind,	9	2	11
Suicide while laboring under mental			
hallucination,	I		I
Delirious while sick,	I	1	2
	188	40	228

We may possibly admire the spirit of Christian charity, which evidently frequently dictates such verdicts; but we cannot any the less avoid condemning what, in many cases at least, was but the result of skillful mendacity on the part of witnesses, if not deliberate perversion on the side of the jury, in many instances productive of grievous injury to the interests of the community.

Naturally, in a short paper like this, with so few figures at my disposal, and with observations extending over the very short period of ten years, it is difficult, if not impossible, to draw any satisfactory conclusions concerning so vast and complex a subject as the etiology or causation of suicide, concern-

ing which so many different theories have been advanced, as also to account for the fluctuations which my figures show. Before deductions of any real value can be made, more complete and minute statistics must be accumulated; observations must be made upon the occupations, temperaments, religious and sociological relations of the victims, and they must be studied *en masse*, after all that is fortuitous or individual has been eliminated therefrom.

Nevertheless, despite the few figures I have been able to accumulate, and judging from my own observations, it is, in my opinion, in the highest degree erroneous and unsafe for us to consider all and every attempt at the perpetration of selfmurder as being always indicative of mental derangement. Allowing the terms, "temporary aberration of the mind," "mental hallucination," "delirious while sick," to pass unchallenged, as being at times correct and expressive of a psychological condition induced by external phenomena, I take a decided exception to the indiscriminate manner with which the terms "temporarily insane" and "insane" are applied to cases of suicide. Self-murder may be, and doubtless is, often the result of an ill-balanced mind, but such is far from being always the fact. There are, I will venture to say, but few individuals of the human race to whom, amidst the deceptions and desillusions accompanying the fracas and toil of this life, the hideous spectre of suicide has not beckoned at least once. Many men among those who afterwards became the most successful in the accomplishment of their desires or the attainment of their ambitions, have confessed to having had thoughts of suicide. Often when at the eve of engaging in difficult enterprises, and even when, their struggles being over, they were crowned with the halo of success. Yet, with the exception of a few narrow-minded specialists, no one has been bold enough to claim directly that the majority of mankind is insane; though many persons indirectly seek to establish that theory, when, in the consideration of self-slaughter, they pretend that all those who lay hand on their own lives are insane. For, are not those who experience the desire and successfully combat it equally as deranged as those who, succumbing to it, attempt their lives with or without a fatal result? Or, are only they insane who yield to the temptation? But if the others are insane, why do they not yield also? Or, again, is

suicide a malady prevalent like the minips or the measles, which all people have, but from which all do not die? Insanity may culminate in suicide, or suicide may often be the explosive pathological manifestation of a dormant, morbid, psychological condition; but in the majority of cases it is deliberately accomplished as the result of a sudden, impetuous resolve, due frequently to physiological and sociological conditions often of an apparently trivial nature; as again, it may be the result of a long-conceived and carefully matured plan.

While I admit freely that all those cases of felo de se in which trustworthy and reliable evidence of hereditary or personally acquired insanity, or of melancholia and mania, may have been observed during the life of the individual, may very properly indicate the act to be the result of a diseased mind, I feel convinced that, in other instances, such is far from being the case. Is the wretch insane who, broken down by physical calamities or moral sufferings, who, after repeated futile efforts, falls at last wearied by the road-side in the fierce struggle for existence, and simultaneously ends his misery and his life? Or is the man who, feeling himself by his own fault, or that of others, bereft of honor, voluntarily prefers to lay down the life which he deems himself no longer worthy to hold, insane? Is the man who, with ruin and starvation impending over a beloved family, causes his life to be heavily insured, and then voluntarily sacrifices it, mentally deranged? I think not. The one may be a coward, the other criminal; all are deserters, since they flee the troubles of this world to seek relief from their struggles, sorrows and cares in that sleep which they have come to think knows neither dreams nor waking. But to claim insanity in either case is to follow the puerile and morbidly sentimental reasoning of those who see insanity in every form of crime, and which simply tends to create differences without distinctions, and distinctions without differences. A great statesman and writer said that suicide was often due to a lack of imagination. Let us say, rather, that its occurrence would more likely seem to point to an excess of imagination in its victims; as an extreme vividness of fancy may often cause a momentarily unfortunate individual to anticipate and fear evils as likely to occur. But a vivid imagination is not insanity, even though it may lead to errors of judgment, and to a false manner of reasoning; for we well know that even in the

most highly gifted reason is not infallible, since it frequently leads the ablest of men to diametrically opposite conclusions.

To my mind the term "mental aberration" is often descriptive of a self-murderer's mental condition, since it may be implied to indicate a condition of erroneous judgment, a state of mind perfectly consistent with absolute sanity, but influenced often by conditions of the body. It is easy for us to comprehend how a long and complacent dwelling of the mind upon thoughts of suicide can cause the gradual elaboration of a design, which, becoming a fixed idea, might, upon the advent of trouble to that individual, become an accomplished fact during that semi-hysterical condition so frequently observed in sorrow, despair, pain or remorse.

Though suicide seeks its victims in all classes of society with equal impartiality among the highly, as among the lowly born, there can be no doubt that poverty is an important factor in its causation, and did we possess the necessary statistics we should probably find that the frequency of self-murder stands in direct relation with the price of food. Already, Professor Reclam,* who has occupied for many years, in Leipzig, a position somewhat similar to my own, has stated that a majority of those who commit suicide are usually anemic and in a badly nourished condition, an observation with which my own experience fully coincides. And, though the tendency of modern science to make pathological occurrences dependent upon material and physiological phenomena should be received with caution, it will probably be found, in course of time, that the causes which induce man to take his own life are principally physiological and sociological.

Concerning that moot point, the criminality of suicides, I can say but little in this paper. In earlier times, when the life of of the subject belonged to the prince, it was considered that those who destroyed their own life, disposed of that which was not their own, and the raison d'état lead to their being punished accordingly. But, however, since the formulation of the doctrine of the rights of man, the case has been otherwise; and in civilized communities all restriction of the rights of an individual to dispose of his own life as he sees fit have been removed or have fallen into abeyance, save in so far as the suicide

^{* &}quot;Der Selbstmord und dessen Vorbeugung," von Prof. Dr. Reclam, in Leipzig.— Allgemeine Wiener Medizinische Zeitung, Nos. 51 and 52. 1881.

incurs the execration, contempt, or pity of public opinion. "Society," says Quetelet, "prepares crime, and the guilty are only the instruments by which it is executed." To a certain extent, truer words were never written, for crime is in many instances but the effect of causes, for the existence of which society is always directly or indirectly responsible,—a condition of affairs, however, which in no way is to be considered as relieving man of his obligations to society, or allowed as a mitigating circumstance to palliate the contempt with which the moral cowardice of suicides rightly deserves to be regarded. Though, if self-murder be really shown, by larger and more complete statistical observations, to be annually increasing, as some claim it to be, my figures do not show such to be the ease in Philadelphia. Its increase need excite but little surprise, when we look around us and consider the great and continual evolutions which populations on this planet are now rapidly undergoing. In these days of iconoclasm, skepticism and pessimism, when the world resounds with the crash of crumbling thrones and the shock of conflicting interests, with the road behind us strewn with forgotten creeds and spurned dogmas, the horizon before us dark with strife and red with blood yet to flow, what wonder is it that, amid all this politico-social disintegration and reconstruction which the world is now undergoing, some of the fainter hearted of the sons of men, filled with veneration of the past, without respect for the present, and hopeless and fearful of the future, should flee from the tumults, responsibilities and disappointments of this earth "to that bourne whence no traveler returns"?



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