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INFANT MORTALITY AND THE NECESSITY OF A FOUNDLING
HOSPITAL IN PHILADELPHIA.

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If I understand the objects of the Social Science Association, this is neither the time nor the place for any attempt at rhetorical display, and I conceive that when the Chairman of its Committee on Public Health asked me to lecture here this evening, that he intended me to deliver a plain, matter-of-fact discourse. The subject selected is one in which I have a special interest, and one which is of no small importance to the community and the State. Here in America, it sometimes seems as if we set little store by human life, and in some places there is a wanton waste of existence which the authorities fail to recognize or at least refuse to arrest. This is partly due to the fact that the vast tide of emigration from the densely peopled countries of the old world has not yet failed us, and because this supply has been ceaseless, because we have progressed so rapidly, and in a short time assumed a leading position in the list of nations, it seems to most persons probable that our resources cannot be easily exhausted. But in the turnings and overturnings of empires, we know not what may come, and ere another half-score of years have been added to the past, the vast supplies which we have been receiving from Germany and Ireland may be cut off, and then the American nation will be forced to rely upon its own resources to people the vast plains west of the Mississippi, and to work out fully the interesting problem whether we are or are not to be a

permanent people. If it has not now, infant life will then have a political value, and sage legislators will be aroused to the importance of the subject, about which we intend to speak to-night. That this will come soon, is not unlikely, and it will be interesting to observe the influence of the recent Franco-German war upon emigration from the latter country. It may have augmented it during its progress, and this may continue until affairs there are permanently settled, but the waste of human life among the male portion of the population has been so great that it is most likely that it will be materially diminished for some time to come. If now, Great Britain should be plunged into war, and the supply from Ireland cut off, we would occupy a new position before the world. Already in some portions of New England, and even in Philadelphia, during some of the earlier years of the last decade the deaths exceeded the births, and during the year just closed the latter exceeded the former only four hundred and forty-four in this city.

This is, no doubt, partly due to emigration from the Eastern to the Western States, but this will not account entirely for the facts, and it may yet become a serious question whether the Anglo-Saxon race is adapted for life in this country with its variable climate, and it may yet become a very serious question, whether the American will become a permanent nation if emigration is cut off, for it is beyond doubt that though our people are not physically weak, the number of children born to native parents is small, and is decreasing every year. This is true not only of those families who have lived in this country for three or four generations, but it is more or less true of the immediate descendants of our Irish and German emigrants, for in few instances is the number of children of individuals of the second generation equal to that of the first, while in the third it is apt to grow still less. These facts have served the late lamented Dr. Hunt, of Great Britain, for a paper upon the national prospects of the American people—a paper remarkable for its thoughtfulness, and one which is entitled to grave consideration, as coming from the President of the London Anthropological Society.

These dangers at least make infant mortality important politically, and thus the subject becomes interesting to every citizen of this great and wonderful country. If in the future we should have to rely upon ourselves, every infant born into the world has

become, if its life can be preserved, a source of wealth to the State, and it will be another to go forth with a strong arm or a brave heart to subdue the far West—that land, which with its rich soil, its inexhaustible mineral resources and grand water-courses, is almost an empire within itself.

But important as this is, there is another view, and if the State and the community refuse to recognize the rights of outcast and abandoned children, philanthropic persons know that these waifs of humanity are living beings; that they are as capable as any of becoming useful in the world; that they are moved with them by the same emotions, by the same hopes and fears, by the same loves and hates; that they are immortal souls, inheriting with them the same eternity.

The subject has assumed a new importance in this city during the past few months, owing to an attempt to awaken public interest in favor of the erection of a Foundling Hospital in Philadelphia.

During the year 1870, several long editorial articles were published in the public journals in regard to this matter, all of them taking the affirmative side of the question.

While we expect to speak more or less fully upon the whole subject of infant mortality, the matter to which we wish to direct especial attention is the death-rate among illegitimate children, and particularly among those who are generally and officially denominated "foundlings."

In discussing this subject, two propositions may be accepted as true: 1. That every human life is of political importance and ought to be made a source of wealth to the State. 2. That it is important for the State that children born in it be reared in such a manner as to secure most thoroughly their full physical, mental and moral development.

That the former of these propositions is true is generally conceded, and it is so manifest that it needs no further discussion. The second seems to follow the first in regular order, and is almost equally obvious; yet every one who understands the condition of American society and has studied these subjects at all, must have been convinced that the matter is sadly neglected and even unthought of by the vast majority of persons. Yet it is a great principle in the economy of nations that low physical, men-

tal and moral development detract most rapidly from national strength and usefulness.

If the first of the three be true, then, when an individual becomes the subject of disease, instead of being a source of wealth, he becomes a tax upon the community in which he lives; moreover, his offspring, by inheriting his infirmities, may themselves suffer, and so with his children's children, until a whole family may cease to be productive and become positive consumers of the energies of others. This principle applied to races or nations is obvious enough, and in such a grand total would be observed by all, but when applied to individuals it is too often forgotten. No one can tell how many persons in this great city are to-night depending upon public and private charity for their support, and no one can tell how many of these are ill from diseases acquired in infancy through neglect or ignorance upon the part of their parents or guardians. Such statistical information cannot be obtained, but I am impressed with the opinion that if the truth could be learned, it would prove most startling.

The mental and moral education of outcast children is equally important to the community and the nation at large—for the higher is the development of the one and the more thoroughly the other is secured, the greater will be the capabilities of the individual for usefulness, the more likely will he be found walking in the paths of virtue. It is too true that sin may find its way to gilded mansions, but it is a fact patent to all that the important outbreaks against public order are among the lower classes, and that among these vice seeks no longer to hide itself, but before the world openly boasts of its existence. Upon the outcast among the lower orders the public money is squandered, and by them hospitals, houses of correction and prisons are demanded, and it is with the uneducated and abandoned children of the lower classes that these are filled to overflowing. We, in America, where few statistics are to be obtained, know nothing of the proportion of illegitimate children and foundlings among the inmates of our public institutions, but some information upon this subject has been collected abroad. Hill, in his work on crime, writes, that Mrs. McMillan, who had charge of the female department of the Glasgow prison, states that a majority of the large number of female prisoners who had come under her care were illegitimate. In France, in 1853, it is said that of 5,758 persons in the bagnios

of that country, 391, or 6.79 per cent., were illegitimate, and that 146, or 2.53 per cent., were foundlings. At the same time there were 18,205 persons in the State prisons, of whom 880, or 4.83 per cent., were illegitimate, and 361, or 1.43 per cent., were foundlings.

This statement, however, gives no very definite idea of the frequency of crime among the general population and among the special class of which we have been speaking. Much more important is the fact that one out of every 1,300 Frenchmen becomes the subject of legal punishment, while one out of every 158 persons who were formerly foundlings is to be found in prison. The assertion is made that the same proportion holds good in the houses of correction, and probably also in almshouses.

Accepting them as true, the statement that every infant life has a political value, and that it is to the interest of the State to insure the thorough physical, mental and moral development of her children, let us turn our attention to the study of the statistical information which we possess in regard to the death-rate among children in the community at large, and afterwards to that of the separate class which we may denominate abandoned infants or foundlings.

According to the returns of the Board of Health of Philadelphia, there were born in this city, during the five years ending December 31, 1870, 85,957 living infants and 3,933 dead. During the same period there died, among the living infants, 19,227 children one year old or under, or a mortality of 22.36 per cent. during the first year of life. Of those that died when they were between one and two years old, there were 6,409, or of all the living children born in this city during that period, 25,636 died before they were two years old—a mortality of a fraction more than 29.82 per cent. Between birth and the age of five years, 31,662 died, or a mortality of a little more than 36.83 per cent.

This death-rate is certainly startling enough, and the mortality is largely confined to the first year, as has already been shown. To make this more plain, of the 31,662 persons who died before they reached their fifth year, 19,227, or a little more than 60.72 per cent., died during the first year of life. This result is obtained by examining the figures as above stated, and is no doubt rather small. The source of error is in the record of births, the value of which is unfortunately much impaired by the carelessness of

some medical practitioners in making returns. This is greatly to be regretted, and Mr. Addicks, the Health officer, calls attention to the fact in his last annual report, and urges greater care in future. The register of deaths is no doubt reliable, as no one can be buried without the proper certificate; and hence, we have another source of information in the comparison of the percentage of deaths.

Of all these that occurred in Philadelphia there were:

	1 year and under.	1 to 2 years.	2 to 5 years.
1865, . . .	25.01 per cent.	7.98	9.57
1866, . . .	26.73 "	8.70	8.43
1867, . . .	31.04 "	7.60	6.72
1868, . . .	31.31 "	8.56	6.22
1869, . . .	29.24 "	8.65	8.74
1870, . . .	27.63 "	7.90	8.74
	<hr/>	<hr/>	<hr/>
	170.96	49.39	48.42

The relation of these percentages for the six successive years is as follows: Of every 268.77, 170.96 are one year or under, 49.39 between one and two years old, and 48.42 between two and five years old; or in other words, of every one hundred children dying in this city during that period, 63.23 were aged one year or less, and 36.77 were between one and five years old. There is, therefore, a disparity of over two per cent. in the two calculations.

Our mortality among infants is about the same as that in New York, as is shown by examining the reports of the Board of Health of that city. If we compare it with that of other countries, it appears somewhat excessive. According to Farr, 65,464, or 16.69 per cent. of the 392,224 children who were born in England in 1867, died before the completion of their first year—an excess against Philadelphia of 5.57 per cent. This difference is not more than is perfectly natural when we remember that all England is included in the calculation, and that the 16.69 per cent. is the combined result of a city and rural population. On the other hand, our mortality compares very favorably with that of the Austrian empire—in the whole of which, according to Ritter von Rittershain, of Prague, 25.36 per cent. of all the children born between 1855 and 1861, died during the first year

of life, a difference of three per cent. in our favor. In Berlin, from 1816 to 1841, the mortality among infants under one year was 22.7, or about the same as our own. (Jacobi.)

We may, therefore, conclude that the mortality among infants in Philadelphia compares very favorably with that of other large cities; but here, as in all large cities, there is a fearful waste of human life during the first five years of existence. This occurs chiefly among the working classes, as will be shown in the sequel, and a vast proportion of these deaths could be prevented by proper care and the diffusion of proper information; more than 50 per cent. of them are the result of ignorance or criminal carelessness.

There is, however, a class of children to which I wish to direct especial attention, that is to those who are illegitimate.

The number of these annually born in Philadelphia it is impossible to determine, as there is no separate registration of them. Mr. Acton (on Prostitution, pp. 278 and 279) gives the following statistics for Europe:

<i>Locality.</i>	<i>Period.</i>	<i>Per cent. of all births.</i>
England,	1867, .	5.9
Scotland,	1866, .	10.1
Spain,	1864, .	5.5
Italy,	1865, .	5.1
Holland,	1864, .	4.1
Belgium,	1865, .	7.
France,	1864, .	7.5
Prussia,	1864, .	8.1
Norway,	1860, .	8.4
Sweden,	1864, .	9.5
Austria,	1864, .	10.9
Wurtemberg,	1864, .	16.4
Bavaria,	1862, .	22.5
Vienna,	1866, .	51.5
Paris,	1867, .	28.1
Berlin,	1863, .	15.9
Edinburgh,	1866, .	10.2
London,	1867, .	4.1
Average 12.8		

This is obviously higher than the percentage of illegitimacy in Philadelphia. Probably that of London, which is about 4.1 per cent., is nearer the truth, and adopting this as the standard, of the 17,194 children who came into the world in this city in 1870, about 700 were born out of wedlock. This estimate is certainly low enough.

In the registration of deaths in Philadelphia, no distinction is made between legitimate and illegitimate children, but the mortality among them is fearful. Dr. Frazer, of Glasgow, (*Trans. of Social Science Asso. of Great Britain for 1860*, p. 653,) writing of this subject, says: "I have no means of correctly estimating the number of illegitimate children who die early in cities; but judging from a somewhat lengthened experience as one of the medical officers in connection with the largest public dispensary in this city, I am of the opinion that *but few of them survive the first year.*" I, myself, have happened to have opportunities to attend professionally quite a number of children of this class outside of hospitals, and it is my conviction that at least 75 per cent. of those born alive in this city die during the first year of their lives.*

Many of these children are born in the Philadelphia hospital. Since 1864, the average number of births in that institution has been 246 per year, of which about 188 were illegitimate. Among these the mortality, in the institution, is not inordinately large; but many of the women obtain positions as wet-nurses from four to six weeks after their confinement, putting their children out to board. Almost all of these infants perish. I have, whenever opportunity offered, obtained information in regard to them after

* Since this page was written I have obtained the last volumes (xi and xii) of the *Transactions of the Obstetrical Society of London*, which contain the report of a committee appointed by that body about two years ago to investigate the subject of infant mortality in Great Britain. On that committee were Drs. Hall Davis, Tyler Smith, Robert Barnes, Meadows, Playfair, and others—all noted men, known wherever medical science is taught—and they believe the mortality among illegitimate children in London to be precisely what has been stated here—75 per cent. during the first year. They also quote Mr. Jones, of Wales, who says, "70 to 80 per cent. of illegitimates die within the first year."

they left the hospital, and my strong conviction is that 90 per cent. of them succumb before the end of their first year.

The deaths among illegitimate children certainly swell in no small degree the sum of infant mortality in large cities, and according to my observation, this is due to neglect and deficient nutrition.

The poor victims of misplaced confidence have no sooner given birth to their children than they are abandoned by their heartless seducers and turned into the world outcasts from society. The result is, that one of two courses is open to them to rid themselves at once and summarily of their burden—by criminal means, or to delegate the care of their children to others, and go forth and earn a livelihood for both. The result is almost equally fatal to the child in either case, for when it is separated from its mother during the day its feeble life soon goes out because it is deprived of the natural aliment and care which she would have gladly given it, if fortune had smiled upon her more kindly; or there is another course open to her. Clinging to her child, she may struggle on amidst poverty and distress until, to obtain daily bread for both, she yields once more to temptation, and plunges for a whole life-time into the dark vortex of sin, to travel, with deep yearnings for a better life, the bitterest path which human feet can tread. This is no fancy picture. I have seen it here in Christian Philadelphia,—not once, but many times; and there are in this city to-day, hundreds and hundreds of suffering and misguided women struggling in a dark, deep stream, which will soon overwhelm them for want of a kindly hand to aid them.

For these and their mute children, I would raise my voice and entreat those kindly disposed, to aid them, and I would urge the government, in its own interest and for the sake of humanity, to protect them by the strong arm of the law.

That these mothers should destroy their own offspring is not surprising, and it is only too probable that infanticide is not a rare crime in Philadelphia. As yet the coroner has never published any annual reports, but through the kindness of Mr. Daniels and Mr. Sees, I have obtained access to the records of that officer, from 1863 to the present time. During that period, 864 inquests were held on children one week old or under, or an average of 132 per year.

The remarks that I am about to make, are based chiefly upon

the results of the inquests from November 1, 1863, to October 31, 1866, and from November 1, 1869, to March 31, 1870.

The following carefully prepared tables furnish the information which we possess in regard to this subject:

DEATHS OF INFANTS UNDER ONE WEEK OLD ON WHICH
INQUESTS WERE HELD BY THE CORONER.

November 1st, 1863, to December 31st, 1863.

(Out of 119 inquests held during the same period.)

Verdicts.	White.			Colored.			Grand Total.	Remarks.
	Male	Female	Total.	Male	Female	Total.		
Unknown Causes	2		2				2	One found in a water closet.
Still-Born.....	4	1	5	1		1	6	
Want of Medical Attention.....	1	2	3				3	
Exposure and Neglect.....					1	1	1	
Totals.....	7	3	10	1	1	2	12	10 per centum of all the inquests.

January 1st, 1864, to December 31st, 1864.

(873 inquests.)

Verdicts.	White.			Colored.			Grand Total.	Remarks.
	Male	Female	Total.	Male	Female	Total.		
Unknown Causes	12	4	16	2		2	18	One probably still-born.
Still-Born.....	24	13	37	10	4	14	51	
Exposure and Neglect.....	1		1				1	The male was thrown out of the window by its mother. The female was killed with laudanum.
Infanticide.....	1	1	2				2	
Totals.....	38	18	56	12	4	16	72	8½ per centum of all the inquests.

January 1st, 1865, to December 31st, 1865.

(931 inquests.)

Verdicts.	White.		Total.	Colored.		Total.	Grand Total.	Remarks.
	Male	Female		Male	Female			
Unknown Causes	19	9	28	11	3	14	42	Includes colored twins, male and female. One caused by injury to the mother.
Still-Born.		1	1	1		1	2	
Exposure and Neglect.	6	3	9	1		1	10	
Asphyxia. }	1	1	2				2	
Suffocation. }	2		2				2	
Debility.		2	2	1	1	2	4	
Accidentally drowned.	1		1				1	
Hemorrhage.		1	1				1	
Natural Causes.				1		1	1	
Totals.	29	17	46	15	4	19	65	7 per centum of all the inquests.

January 1st to October 31st, 1866.

(829 inquests.)

Verdicts.	White.		Total.	Colored.		Total.	Grand Total.	Remarks.
	Male	Female		Male	Female			
Unknown Causes	11	10	21	1	4	5	26	
Exposure and Neglect.				1		1	1	
Asphyxia. }	9	9	18		2	2	20	
Suffocation. }	1		1				1	
Debility.				1		1	1	
Found Drowned.	4	1	5				5	
Natural Causes.	1		1	2		2	3	
Want of Medical Attention.		1	1				1	
Spasms.	2		2	1		1	3	
Violence.	1	1	2				2	One supposed to have been strangled by the umbilical cord.
Totals.	29	22	51	6	6	12	63	

From November 1, 1869, to December 31, 1870—15 months.

(1153 inquests.)

Verdict.	White.			Colored.			Grand Total.	Remarks.
	Male	Female	Total	Male	Female	Total		
Unknown Causes	25	10	35	6	2	8	43	Found in yard, 2; cellar, 1; culvert, 1; lot, 3; street, 2; dock 1; alley, 1; bridge, 1; 1 died in almshouse.
Still-Born.....	6	2	8	10	2	12	20	One found in a field.
Inanition.....	5	5	10	1	4	5	15	
Asphyxia.....	6	3	9	3	3	6	15	One found in cess-pool, one found in lot.
Suffocation.....	2		2				2	One a premature birth, suffocated in a cess-pool.
Debility.....	2	3	5	3		3	8	One case—death accelerated by being thrown into Cohock-sink Creek.
Found Drowned.	2	1	3				3	
Premature Birth.	1		1		1	1	2	
Strangulation...	2		2				2	One strangled by unknown person, found in a water-closet.
Gunshot wound..		1	1				1	Killed by its feeble-minded mother.
Exposure and neglect.....	5	3	8		1	1	9	
Want of Medical Attention.....		1	1				1	
Spasms.....	1		1		3	3	4	
Pneumonia.....				1		1	1	
Cholera Morbus..	1		1				1	
Totals.....	58	29	87	24	16	40	127	11 per centum of all the inquests.

January 1 to March 31, 1871.—191 Inquests.

Verdict.	White.		Total.	Colored.		Total.	Grand Total.	Remarks.
	Male	Female		Male	Female			
Unknown Causes	11	4	15				15	One found in inlet, one in culvert, one in run, one in pond.
Still-Born.....	3	1	4	3		3	7	Two found in boxes, both colored males.
Asphyxia.....	1	1	2	2		2	4	
Strangulation....	1	2	3				3	One strangled by umbilical cord, found in water-closet. One by doctor, or the mother. One found in an ash-pile with a string around its neck.
Exposure and neglect.....			1	1			1	
Want of medical attention.....		2	2				2	
Difficult Labor..	1		1				1	
Totals.....	17	11	28	5		5	33	17 $\frac{1}{3}$ per centum of all the inquests.

TOTAL SUMMARY OF INQUESTS BY THE CORONER

From November 1, 1863, to October 31, 1866, and from November 1, 1869, to March 31, 1871.

PERIOD.	No. of Months.	No. of Inquests on Infants.	Average No. of Inquests each month on Infants.	Total No. of inquests for the same period.	Average No. of Inquests each month on Infants and adults.	Percentage of inquests on infants compared with the total No.	No. of infants unknown.
Nov. 1 to Dec. 31, 1863.....	2	12	6	119	59 $\frac{1}{2}$	10	5
Jan. 1 to Dec. 31, 1864.....	12	72	6	873	72 $\frac{3}{4}$	8 $\frac{1}{4}$	30
Jan. 1 to Dec. 31, 1865.....	12	65	5 $\frac{5}{12}$	931	77 $\frac{1}{12}$	7 $\frac{1}{2}$	18
Jan. 1 to Oct. 31, 1866.....	10	63	6 $\frac{3}{10}$	839	82 $\frac{3}{10}$	7 $\frac{3}{10}$	22
Nov. 1, 1869, to Dec. 31, 1870..	14	127	9 $\frac{1}{14}$	1153	82 $\frac{1}{14}$	11	63
Jan. 1 to March 31, 1871.....	3	33	11	191	63 $\frac{3}{4}$	17 $\frac{1}{8}$	21
Totals.....	52	372	7 $\frac{2}{13}$	4096	52 $\frac{9}{13}$	9 $\frac{1}{11}$	159

About 40 have the ages specified—varying from 2 hours to 7 days.

From this it will be seen that the percentage of inquests on children under one week old has increased since 1863. In the second half of that year it was 10, in 1864 $8\frac{1}{4}$, in 1865 it had fallen to 7 per cent., in 1866 $7\frac{3}{4}$, but in 1870, the number rose again to 11, and from January 1 to March 31 of the present year it has risen to $17\frac{1}{3}$ per cent., or in other words, nearly one-fifth of all the examinations made by the coroner during that time have been upon children one week old. It is impossible to say precisely how many of these infants had perished by violence, but it is a significant fact, that Dr. Shapleigh, coroner's physician, says that it is his opinion that a majority of these, which he examines, have been murdered. If this is true, nearly one hundred infanticides come under the notice of the coroner of Philadelphia in one year.

The verdicts given by the coroner's juries strongly support the same view, for out of 864 inquests upon persons under one week old, 210 are reported to have perished from "unknown causes," 293 from "asphyxia," 94 were "still-born," 62 from "exposure and neglect," and 22 died "from want of medical attention." This last verdict demands more than a passing notice. It should not only figure largely in the coroner's records, but also in the reports of the Board of Health.

Few persons outside of the medical profession, and few in it, who have not practiced among the poor, can conceive how many children die from want of proper medical advice. Among the poorer classes it is not uncommon to postpone sending for the doctor until near the close of the life of the child, and every physician has often been told, when called to one of these patients, that it was not expected that he would cure the infant, "but you must come, you know, as we must have a line to bury the little darlint." As our laws now stand, I am informed by competent legal authority, there is nothing to prevent any physician from giving the usual certificate in these cases. I have been tempted many times to call the coroner to inquire into the causes of death in such cases, and I am firmly convinced that some legislative action is needed upon this subject, in order to prevent physicians giving certificates in cases where careless and heartless parents or others have neglected to procure the necessary medical advice until their children were past recovery.

But, to return to the coroner's records—out of the 864 verdicts

which we are considering, only 82 are marked as cases of infanticide. Of these 38 were drowned, 17 strangled, 10 suffocated and killed by being thrown down cesspools, from windows, and injured in other ways. There is no doubt, however, that many of those registered as dying from unknown and other causes, were really murdered. The reports of the Board of Health are equally suspicious, for we find that in 1870, 49 infants died from "asphyxia," 457 of "convulsions," 433 of "debility," 214 of "exhaustion," while the number of "still-births" was 822. These are all exceedingly questionable expressions, but the number of still-births is not inordinately large, for they comprise only 4.78 per cent. of the whole number, while at the Philadelphia Hospital, which may be taken as a standard for comparison, there were 115 infants dead-born in 1490, in other words, 7.71 per cent., an excess in favor of this city of 2.93 per cent. Only children under one week old are included in this calculation, while no doubt many older than this perish through violence, and a large number die before they are one year old from neglect—as criminal as the actual act of murder.

It must be remembered, too, while considering this subject of infanticide, that very many of the bodies of murdered infants never come under the notice of the coroner, but thrown down cesspools, into culverts, or into the rivers upon the east and the west, they rest until the sea and the earth shall give up their dead.

It seems conclusive, therefore, that infanticide is not a rare crime in Philadelphia, yet it is one which is usually undetected and unpunished. This aspect of the subject shows very plainly that some means should be adopted to preserve the lives of these children.

Many of the infants abandoned in this city are admitted to the Philadelphia Hospital, and occupy a room in the southeast corner of the institution. The apartment is well ventilated and lighted, and the children well clothed. They are all well fed, the milk being supplied from cows fed upon the farm connected with the hospital. The supply of this is ample, and its quality is as good as that in the country, and much better than that furnished many of the wealthiest families in the centre of the city. During the three years which ended September 30, 1870, 245 children were admitted to that room. Of these 162 died, 42 were discharged and 30

were adopted. Of the remaining 8 we have no record. During that time there was, therefore, the terrible mortality of 66.12 per cent., the 8 children of whom there was no record being included in the calculation.

This statement, however, represents but one side of the truth, and to obtain all the information which may be derived from these statistics, we must study the mortality at different ages. The following table represents this in 232 cases:

Age.	Admit- ted.	Died.	Dis- charged.	Adopt- ed.	Remain- ing.	Percentage of Mortality.
Under 2 months	70	51	1	16	2	72.85
Between 2 & 6 months	74	58	5	7	4	78.37
“ 6 & 12 “	23	14	6	2	1	60.86
“ 1 & 2 years	55	32	21	2		58.18
“ 2 & 3 “	10	3	4	3		30
Total	232	158	37	30	7	68.1

It is to be regretted that a larger number of cases could not be made available, but unfortunately the early records of the department have been mislaid. As thus stated, however, the above results are not suited for comparison.

In estimating the infant mortality of the city, we dealt chiefly with children under one year old, and hence those older than this must be excluded from the calculation. Of those aged one year and under, there were 167, of whom 123 died, a mortality of 73.65 per cent. We have previously learned that 29.82 per cent. of all the children born in Philadelphia die before they have completed their second year. Therefore the death-rate among the foundlings is about 43.83 per cent. more than that of all Philadelphia.

Dark as this record is, it is not by any means the worst aspect of the case. The table shows that a large number of the children were adopted, and upon examining the records, it was found that those thus removed were inmates of the wards for an average period of only 11 days. This was certainly not long enough to greatly endanger their lives, and in estimating the mortality, they may with justice be excluded from the calculation. Of these there were 30, and excluding them the mortality is raised to the terrible number of 78.21 per cent.

This fearful result is not due to hereditary disease, for when

they enter the institution most of these children are ordinarily healthy, and the high mortality is largely due to acquired disorders, for on turning to the causes of death we find that of the 158 infants who perished, 118 or 74.69 per cent. died from diseases of the digestive system, while only 40 or 25.31 per cent. died from other affections, and we cannot but believe that if these children had been placed under favorable circumstances, a fair proportion of them would have thriven and done well.

I cannot leave the statistics I have just furnished without one other remark. I make it in simple justice to the twelve gentlemen who composed the Board of Management of the Philadelphia Hospital. It is no fault of theirs that this fearful mortality has been going on there, and when their attention was called to it they promptly did all they could to relieve the condition of these abandoned children, but unfortunately they are hampered on every side, and their hands are bound as with bands of iron by the inhumane and unwise action of City Councils.

Comparatively few persons in this city know the vast extent and importance of the Philadelphia Hospital, and many are disposed to complain when informed that nearly \$500,000 were appropriated for its maintenance in 1870. But it is at once apparent that this complaint is unfounded when we learn that here in Philadelphia, with her wide reputation for humanity and charity, our sick poor are maintained at an average cost of \$2 per week per individual, food, nursing, medicines, clothing and all other necessaries being included in this estimate. This is true notwithstanding all other large and well-conducted hospitals in this or any other civilized country spend on an average \$4 or its equivalent per week for the support of each individual within their walls.

Yet notwithstanding this notoriously low figure, the Board of Managers of the Philadelphia Hospital are accused of extravagance by sensational and untruthful scribblers in the public journals. It is hardly to be presumed that these will have any influence when the truth comes to be known, but as matters are now, every effort made to increase the annual appropriation has failed to meet with a proper, hearty response. On the other hand, it must not be forgotten that the officers of the city government are under the influence of an unhealthy public sentiment, and that

many of the community believe that there is an exorbitant expenditure of the public means for the support of the sick poor of the city, and it seems to us that the time has come for the whole subject to be carefully reviewed, when it can undoubtedly be shown that the annual appropriation for this object is shamefully small.

But to return to our main theme. Philadelphia is not alone in this fearful mortality among her foundlings, for at the "Nursery and Child's Hospital," New York—an "Institution under the assiduous management of 35 estimable ladies belonging to the best society" of that city—the mortality, according to Dr. Jacobi, is 50 per cent., notwithstanding the children in it are half wet-nursed and half bottle-fed. The women acting in the capacity of nurses are well clothed, their food is good and plenty, and the medical attendance is efficient. It has been previously stated that the mortality among the foundlings at the Philadelphia Hospital admitted under two years old is 69.81 per cent.; there is therefore an excess against us of 19.81 per cent. This comparison is not unjust. The infants received enter in about the same conditions, for Dr. Jacobi says that the average age of those that are received at the New York Hospital is 4 to 5 months, and he further states that the mortality of the nursery, "if all the admitted infants were new-born instead of being 4 to 5 months, would be so appalling that he is glad he is not required to state its exact figures;" but estimating this by comparison with the death-rate of infants one year old and under in New York, he says it would amount to 73 per cent.*

At the "Infant's Hospital," Randall's Island, New York, the results are equally unfavorable. During the first half of 1869, 606 were admitted, of whom 362 died, a mortality of 59.73 per cent., or 10.08 per cent. less than in Philadelphia. The average age of these children at the time they came into the institution was four months and fourteen days.

The death-rate in these three hospitals is hardly lower than that in the foundling asylums of Europe at the close of the last and the commencement of the present century. The following table, derived partly from Dr. Jacobi's pamphlet and partly from

* "Raising and education of abandoned children," pp. 37, 39.

Dr. Routh's work on infant feeding, establishes the truth of this assertion :

	<i>Per cent.</i>	<i>Period.</i>	<i>Remarks.</i>
Paris, . . .	60.	1789,	died before end of first year.
Dublin, . . .	98.	1791,	" " "
St. Petersburg,	85.6,	1772-1784,	" " "
"	97.	1785,	" " "
"	50.	1830-1833,	" " "
Vienna, . . .	92.	1811,	" " "
Brussels, . .	79.	1811,	" " "
Madrid, . . .	67.	1811,	" " "
All France,	60.	1824,	
Paris, . . .	50.	1838,	
Belgium, . . .	54.	1823-1833,	died before end of first year.
Moscow, . . .	66.	1822-1831,	" " "
All France,	75.	1818,	
"	60.	1824,	
Paris, . . .	50.	1838,	
Barcelona, . .	60.		at the close of last century.
Marseilles, . .	90.		" " "
Florence, . . .	40.		" " "
Irkutsk, . . .	100.		died before end of first year.

We will now study the causes of these fearful death-rates, and at the onset of this investigation it is to be remembered that no single influence has produced this result, but that it depends upon a variety of causes. We have every reason to believe, from the statements of Dr. Jacobi, who, when he wrote the pamphlet from which we have been quoting, was a member of the Medical Board of the New York Nursery, that that asylum is well built and in good hygienic condition, and that the little patients are well cared for; yet, to use his own language, they have been "out-Heroding Herod"—language which did not fall as a flattering unction upon the ears of the Board of Management. So startled were they by Dr. Jacobi's bold declaration of the truth that they, like too many other unscientific philanthropists, sacrificed the services and attempted to detract from the veracity and professional reputation of an able and intelligent physician, rather than abandon their own murderous schemes—which, however, it must be acknowledged, were intended to preserve, but which in the end only added

to the already fearful waste of human life. The New York Nursery then shows that the high percentage of deaths is not the result of bad nursing, imperfect medical attendance, or poorly devised hospital accommodations.

Two grand causes of this mortality may be cited: 1. The want of proper nutriment. 2. The aggregation of many infants in one or more confined apartments. The want of proper nutriment is an exceedingly important element in the discussion of this question, as is shown by the results of all foundling asylums where children are dry-nursed. The results of the other hospitals already named, show this most conclusively, and it may be positively asserted that young children committed to the care of such institutions, have a very small chance of living until the end of their first year. That partial wet-nursing will not obviate this difficulty is proved most conclusively by Dr. Jacobi's statistics.

Science has yet discovered no substitute for the natural aliment of the child which is adapted to its wants in large cities. Yet children will thrive and do well, and the mortality among them be comparatively small, provided they are bottle-fed in the country. It is impossible to furnish any statistics to prove this statement, but it is asserted by many intelligent suburban physicians, whom we have met, that they experience comparatively little difficulty in raising infants on artificial food—in other words, carefully prepared cow's milk. Dr. Hiram Corson, of this State, in an able pamphlet published in 1870, says that children can be easily raised upon this diet. Mr. Selby Norton, Fellow of the Obstetrical Society of London, in speaking of the comparative merits of wet-nursing and pure cow's milk, uses in 1870 the following somewhat astonishing but very expressive sentence: "In my own practice I should deem it a matter of indifference which was used, even from the very first day of existence." I am unable to say whether Dr. Norton practices his profession in crowded London or one of the suburban districts, but I feel confident that he and Dr. Corson, of this State, nearly or quite agree in their views, and I am equally confident, after a large experience as consulting physician to the largest hospital in this State, that infants admitted into such asylums do very well if wet-nursed and do very poorly if dry-nursed, even when good and well prepared cow's milk is supplied them. I am equally convinced that the statistics of all foundling hospitals in the past and present cen-

tury confirm this opinion, and it may be concluded that children have little chance of surviving unless they are well and carefully wet-nursed. The results at the Philadelphia Hospital, where I know from personal experience that the cow's milk supplied is unusually good, prove this, and the statistics of the New York Nursery, where the children are half wet-nursed and half bottle-fed, corroborate the statement still more strongly.

The aggregation of a large number of young children in one small room is exceedingly objectionable. The most healthy and carefully attended infant always has about it a faint, unpleasant odor. If a large number are confined together this is materially increased, and when it is mingled with other effluvia it becomes almost insupportable, and if general hospitals are difficult to keep pure and well ventilated, infant asylums are more so. The last difficulty is augmented by the peculiar susceptibility of young children to cold, which makes the ventilation of such institutions a matter of extreme importance. The aggregation of young children with artificial feeding is a prolific source of infant mortality.

Another trouble is nursing. In large cities, as these institutions are now conducted, it is almost impossible to secure experienced and competent women to take charge of these children. This, however, is of minor importance, and is insignificant in comparison with the first and second objections.

It is plainly true, therefore, that the erection of foundling asylums is strongly to be reprobated, and we cannot better insure the speedy death of the abandoned children of Philadelphia than by establishing such an institution in our midst. Opened from the best motives and reared through the highest impulses, it would but prove a "hecatomb of the innocents," and instead of saving, it would be positively destructive to human life. The three institutions which we have been comparing, yield worse results than the attempt to rear children in the narrow alleys and courts of this great city.

By the records of our Board of Health, we cannot determine the difference in the number of deaths among the upper and lower classes, but Dr. Jacobi says that "of 100 infants born alive to the gentry of England (1844) there died 20; to the working classes, 50. In the aristocratic families of Germany there died in four years 5.7 per cent.; amongst the poor of Berlin 34.5. In Brussels the mortality, up to the fifth year, was 6 per cent. in the families of

capitalists, 33 amongst tradesmen and professional people, and 54 amongst the workingmen and domestics." Quoting De Villiers, he further writes that, "the mortality amongst the children of the workingmen of Lyons is 35 per cent., and in well-to-do families and agricultural districts it is 10 per cent."

Upon comparing these statistics with those of the three hospitals we have been citing—the New York Nursery, 50 per cent., as it now receives children; 73 per cent., the estimated mortality of Dr. Jacobi, if all the infants were admitted at birth; 59 per cent. at Randall's, and 66.12 per cent. at the Philadelphia Hospital—the excess against these institutions is found to be most alarming. The conviction that the mortality would be less if they were closed, and the children were left to the cold charities of the world, almost irresistibly forces itself upon us.

These hospital statistics show, however, that some action in this matter is demanded. If any evidence is needed to make this more conclusive, it is to be found in the records at the coroner's office, which show that the waste of infant life from neglect and infanticide is terrible. It therefore behooves us to consider what means should be adopted to diminish the mortality among illegitimate and abandoned children.

Starting with the proposition announced at the beginning of this paper, that the life of every infant is of political value, and should be fostered, and if possible, preserved for the State, we are ready to recommend that the public authorities assume the care of all of these children. This should be done by the government rather than by any association of private citizens, because the tax upon the latter would be too severe, and because it is not individuals but the community at large that is to be benefited by such action. The good will come to the latter by the diminution of disease, and through improved physical, mental and moral development.

The particular system to be adopted by the government is a subject open for discussion, and is too important to be more than foreshadowed in a paper of this kind. It may be assumed, however, from the statistics furnished, that no large asylum is to be erected.

On the other hand, some central station should be selected or a building be procured for the *temporary* reception of abandoned infants, and from thence they should be "farmed out;" that is,

distributed among the population of the surrounding country, to be wet-nursed or raised by hand, as may be possible or practicable in each case. For taking charge of each child, the government should pay a reasonable price; and in order to secure the proper attention, it would not be amiss to pay to the nurses or mothers a small premium for each child who is well and hearty after he has reached a certain age.

Here, however, the care of the child should not cease, but these nurses should be under proper surveillance, and the condition of the children should be ascertained at certain intervals during each year.

A certain penalty might be required from the nurses in case they failed to do their duty.

The importance of the government taking charge of these children is a matter that cannot be insisted upon too strongly. The system thus roughly detailed has been in operation in some countries of Europe for some time and has been found to work well. The authorities of the Foundling Hospital on Guilford street, London, admit none but illegitimate children, who remain in the institution but a few days, when they are sent to the country and wet-nursed. The mortality among them is twenty per cent. during the first year of life. In Berlin, Prussia, the children under the care of the authorities are now farmed out, but with what results, I am not able to say. In Hamburg, under the same system, the mortality among those infants admitted under six months old was twenty-seven per cent. in 1867. At the Foundling Hospital in Moscow, the infants are wet-nursed, the nurses being selected from those applying for the position. The average mortality in the institution for the three years ending with 1864, was 28.28 per cent., and of the 35,387 infants admitted during that time, many were dying when received, and 521 perished during the first hour. In Florence, where all the foundlings are farmed out, the death-rate from 1855 to 1865 was 30.13 per cent. for the first year. During this period, the average number of children admitted each year was 2,286.

At Prague the same system is adopted, and all infants are sent to the country if parties can be found to take charge of them. During the sixteen years ending in 1868, the asylum in that city received, on an average, 2,812 infants yearly. Among those allowed to remain in the hospital, the mortality varied from

10, in 1854, to 13.3 per cent., the highest, in 1862. Among those boarded out, it varied from 13.82 per cent., the lowest, in 1861, to 28.09 per cent., the highest, in 1866. During that period, the average mortality among the former or hospital patients, was 34.37 per cent., and amongst those farmed out, only 19.99 per cent.; a difference of 14.3 in favor of the latter.

In all France, the mortality amongst children, during the first year of life, is 16 per cent., while of the abandoned infants of Paris, boarded out and completely watched, but 17 per cent. die before they are one year old, while of those sent out on the same conditions by private offices and not watched, 42 per cent. died during the first year.

For these statistics I am indebted to Dr. Jacobi, who has already been so freely quoted. More might be added, but enough have been furnished to show how successful the system has been and how fatal its opposite was.

Upon the score of economy, it is the one to be adopted, for in Europe the authorities in many places confess they have found it cheaper than the old method of treating these children. It is probably preferable to wet-nursing infants in hospitals, chiefly on account of the great difficulty in procuring women willing to suckle foundlings, while the expense necessarily entailed by such a system is so great as to make it almost impracticable, as not only the children but the women have to be maintained, and their services paid for. Whatever is the standpoint from which we study this subject, whether as humanitarians or political economists, it will be found, I think, that the system of farming out, with proper surveillance, is the one to be adopted.

But neither Philadelphia nor any other city should be satisfied with providing for those children who are denominated foundlings, that is, those abandoned in the street. We have before shown that it is probable that there are at least 700 illegitimate children born here every year, and it has also been shown that it is reasonable to believe that the crime of infanticide is not rare in this city.

Every effort should be made to repress the latter and to preserve the lives of all these infants. In order to do this, there is no other obvious plan than for the government to assume the control of, and to insure support to all the illegitimate children born here. The precise details by which such a system is to be

carried out, we are not prepared to discuss, but it is certain that some legislative action is needed before such a plan could be brought into successful operation. Without this, it would only increase instead of diminish illegitimacy.

As our laws upon seduction are now framed, it is the woman who is the greatest sufferer, and with the evidence of her guilt clinging to her, she is forced to go forth into the world an outcast from society during the rest of her life, while the seducer, upon the payment of a certain sum, or a paltry weekly stipend, pursues his ordinary avocations and in a little time regains his position in society. No observant person can have failed to notice the unequal punishment of the woman and the man, and if the government in assuming the charge of her illegitimate children were to require the father to pay freely for the support of his child according to his means, and at the same time hold out to the abandoned mother the assurance that her illicit offspring would be well cared for, the terrible crime of infanticide would be less frequent, while at the same time, by appealing to the father through his pocket, that most powerful of all human arguments, illegitimacy would be diminished.

After some remarks by Judge W. S. PIERCE and Professor RICHARD CONRAD—

Mr. RICHARD ASHHURST said :

I think nothing can be wiser or more judicious than to look at the remedy which Dr. Parry has recommended to prevent infant mortality. It was suggested that it should not be confined to foundlings, but should apply generally; and this would seem to be advisable, as statistics have shown, that the death-rate among the foundlings farmed out is absolutely less than the death-rate among the children of the middle classes. Dr. Parry stated that the mortality among those taken charge of by the French government is about seventeen per cent., while among those farmed out by their parents or others, about forty per cent. die, thus showing the care taken by such is inferior to that taken under regular government inspection. It would certainly look as if this was the best way of preserving foundling life. It would be a great boon to the lower, and lower middle classes, if an opportunity were offered them also to farm out their children under a

proper system of inspection, because we have here in Philadelphia, especially in summer, a tropical climate, a climate which is fatal and destructive to infant life, and the only hope of keeping up our infant population is to resort to the neighboring country. Certainly unless children have their natural nutriment, the climate of Philadelphia in the summer months is a terrible risk for them to run, and some such scheme as this would be a desirable thing. In respect to the way the law treats the matter, I would say I am not disposed to take the same view that has been taken. I fancy that among foundlings there are very few who are the children of the seduced and the seducer. There is a vast number of foundlings who are the children of the degraded and criminal classes, born to the life in which they, perhaps, naturally take their places. Further than that, the great difficulty of the treatment of the seducer is its uncertainty. It has been found by lawyers, that, when such measures are taken, as suggested, and a man is to be punished by his pocket, that the seducer is made out to be the rich man, and not the poor one. However, the actual fact is, that the State must take up that matter without expecting necessarily to look to the author of the evil for reimbursement.

DR. LUDLOW then said—

Mr. Chairman and Gentlemen :

The facts in regard to the mortality of children have been well expressed by Dr. Parry in his address this evening, and we must all admit that figures seldom lie. The next question is, how are we to prevent this? The last number of the Transactions of the Obstetrical Society of London, contains, in a significant report made by several gentlemen, Drs. Davis, Barnes and others, a series of rules, adopted, and directed to be promulgated, in regard to the rearing of children. The great deficiency, not only in the lower, but in the higher classes, is the want of sufficient responsibility on the part of parents in regard to the rearing of children. The anxiety to get rid of the care of the child makes them put it in charge of a hireling, who knows very little about it. Mothers will sometimes tell you they don't mind bearing children, but they want to get rid of the care of them afterwards, and if they adopt the system of wet-nursing, or that of dry and wet nursing, they are so irregular about one, or

combine the other in such a form, that the poor little creature has no power to digest its food, especially when the mother comes home, jaded from long walks, midnight revels or fatiguing exercise.

These laws or rules laid down by the Obstetrical Society were to meet certain points, in such cases. In addition to this, they were also addressed to the lower classes. One cause of mortality among the children of these is the condition of their parents. You find among them an excessive amount of labor, and at the same time a habitation with bad ventilation, connected with bad nutrition in the mother. Mothers rush from their work, to take care of their children, when they are unfit to nourish them.

Besides this we have the bad habits of the parents to contend with. They are too often intemperate, and how can we be surprised that there is this mortality among their children. Then again, we pass down to the classes where we have the illegitimate; they are anxious to get rid of them, they are thrown upon the public, and taken to our public institutions to be reared. As a matter of course, no institution is able properly to nourish these children. The mortality is great in the higher, it is great in the middle, but it is greater in the lower classes. It has been suggested that they should be farmed out. We will not talk of farming in the city. As far as the country is concerned, I ask, in the first place, where are you to have it done? Our rural population will not compare with that of the old world, and few of our farmers would be willing to receive these children in their homes. Their lives are hard enough at best, and they have enough to do to provide for their own offspring.

I am not opposed to foundling asylums in the country, while I do not think they should be erected in the city. I would have a receptacle here in the large city, and a large establishment back in the country, where they would have all the appliances which are necessary for the purpose of rearing them with fresh air, large rooms and proper nourishment.

These are some of the thoughts passing through my mind as the doctor was reading his admirable paper. But we cannot reach the matter until we inculcate high moral obligations, and furnish certain rules to enlighten the community on the subject, both in the highest circles and the lowest. The idea is, I am afraid, too

prevalent that infant life is of little value, and that the child is better off if it dies early.

The doctor is often called in when the child is about dying, and apparently only to give a certificate. In my estimation, this procrastination in calling him, is only a slow way of killing them, and we should impress the enormity of this crime on the community.