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THE STATE HEALTH DEPARTMENT OCCUPIES THE ENTIRE FIRST AND SECOND FLOORS OF THIS BUILDING

SOME EARLY HISTORY OF PUBLIC HEALTH IN INDIANA

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A knowledge of germs and the germ cause of disease was denied the early settlers of Indiana, who, in addition to their task of subduing nature and hewing out a civilization, were compelled to fight against the ravages of cholera, smallpox, ague, typhoid, consumption, and many other mysterious disease forms, including that strange medical vagary known as "milk sick." The theories advanced and beliefs held as to the origin of and reasons for disease were many, varied and interesting. One firmly rooted and widespread belief, which even yet is not wholly eradicated from the Hoosier mind, was that disease was sent by an offended Deity as punishment for sins. Another belief was in the "miasm," an invisible and indefinable something that arose from damp soil and from swamps, especially at night. A considerable remnant of this belief still persists among us in our ignorant fear of night air. Another belief was that the so-called diseases of childhood—measles, whooping cough, diphtheria, etc.—were both inevitable and immutable, and to attempt to escape them would be to fly in the face of Providence. Hence, when the weather was considered seasonable and the blood of the possible victim was thought to be in good condition, children were deliberately exposed to these diseases. Even this belief is frequently encountered in parents and occasionally in physicians in Indiana today.

The first white settlement in what is now Indiana was at Vincennes. In the issue of the *Western Sun*, published

at Vincennes, of August 20, 1808, is to be found the first summons to community effort in behalf of public health, and doubtless the first newspaper protest against the indolence and inefficiency of "chair warming" town officials. In a vigorous editorial the *Sun* asserts that the cause of the ague and fever and bilious complaints affecting the town is to be found in the putrefaction of grass growing in the river opposite the village. The editor says: "A few hours' labor of the people of the town would remove the nuisance, and yet from the time the place has been inhabited not a solitary exertion has been made to remove a sprig of the grass. Who and where are the trustees of the town? What are they doing and what is their duty? Is not the preservation of the health of the town an important branch of it? And is it not well recollected that the town was incorporated with a view expressly to that object? Will the people incur the risk of a four or five weeks' illness rather than employ a few hours in removing the cause that will inevitably produce it? If they will they really deserve the curses of heaven in every shape in which they can be inflicted."

In the same paper, under date of September 3, 1808, the editor says: "It is also not uncommon to see carcasses of horses, dogs, hogs, etc., lying in the streets and on the common near the village. This is not only highly offensive but very injurious to the health of the inhabitants. As to cleanliness the village is no better than an Indian camp. It is not recollected that the trustees of the town have taken any measures to remedy the above abuses, or if they have they have not been carried into effect." For an editor who found it necessary to accept pork and flax on subscription, and at a time when the gentle art of dueling was still in vogue, the above exhibits a degree

of editorial courage and zeal for the cause of public health scarcely attained by the modern press.

The first health ordinance in Indiana was passed by the trustees of the borough of Vincennes, March 19, 1819, three years after the admission of Indiana as a state. This ordinance was in reality a blanket ordinance, covering a variety of nuisances against the public comfort and welfare. According to Section 1 a fine of five dollars was imposed on any person who cast any garbage or other offensive matter on any of the streets within the borough or so near thereto as to annoy the inhabitants in the neighborhood thereof. Section 2 provided that it "shall be the duty of the town constable to remove or cause to be removed all nuisances from the streets, and his further duty to give such person and persons as caused the nuisance notice thereof and demand of him, her or them a reasonable compensation for the time, trouble and expense of having removed the same, and if he, she or they neglect or refuse to pay the said constable as herein required he shall immediately proceed to recover the same before any justice of the peace within this borough, together with the fine imposed by the first section." The town constable, therefore, became the first health officer and sanitarian in Indiana. The constable health officer of Vincennes doubtless soon found himself a busy official, for in the summer of the following year, 1820, an epidemic of yellow fever occurred that for a time almost depopulated the town and imposed a serious check upon its growth.

The first health ordinance in the town of Madison was passed August 6, 1824, and apparently had to do with the duties of the town marshal in keeping the streets and alleys free of waste and rubbish. A copy of this ordinance has not been found, but reference is made to it in a supplemental ordinance passed July 10, 1832, at a time when Asiatic cholera was spreading rapidly over the eastern and central states and bidding fair to reach Madison, which it did in October of the same year. By the terms of this supplemental ordinance the town was divided into two districts, separated by Mulberry Creek. Hugh Gibson was appointed health commissioner of the first district and Charles Woodard of the second. These commissioners were "required to make personal inspection, once in two weeks until the 15th of November, of the premises of each individual and all streets, lanes and alleys, and cause the ordinance to prevent and remove nuisances to be carried into full effect." (The ordinance here referred to is that of August 6, 1824.) The sanitary inspection provision of this ordinance is far in advance of that in force in most towns and many cities of today and doubtless was scrupulously enforced, for cholera was knocking at the gates of Madison and her citizens were more than willing to let the "health crank" have his way. In spite of the ordinance cholera came. The first death occurred October 23, 1832, and up to noon of November 1 there were forty-one cases with nineteen deaths.

The first Board of Health in Madison, and probably the first in the state, was appointed on the 25th of October, 1832, following the outbreak of cholera on the 23rd. The board consisted of Messrs. Jeremiah Sullivan, John Pugh and Andrew Collins. The duty of the board was to meet daily at 1 p. m. to receive the reports of physicians. Thus we have not only the first official health board but the first official collection of vital statistics within the state.

The town of Madison passed another supplemental ordinance October 22, 1832, requiring all tenants and householders to keep the gutters in front of their premises

clean and to remove all filth that accumulated in front of their buildings under penalty of not less than \$1. fine and the costs of suit.

In the *Indiana Republican*, published at Madison in 1832, in a discussion of cholera, which was then prevalent, the following causes are considered:

1. From malaria and bad air.
2. Exhalations from the bowels of the earth.
3. Insensible changes in the air.
4. The comet now approaching the globe.
5. Contagion from man to man.
6. Invisible insects flying in the air.

The epidemic of cholera that affected Madison in 1832 prevailed in practically every town in the state, with a death loss that must have been enormous. Governor Noah Noble, by proclamation under date of October 18, 1832, set apart the second Monday of November as a day "for fasting and prayer to an overruling Providence, beseeching Him to arrest the progress of the disease with its train of calamities, and in behalf of the churches he bespeaks the aid and influence of all who believe in the efficacy of prayer." Notwithstanding health boards, sanitary ordinances, prayer and fasting, the ravages of cholera continued through the summers of 1833 and 1834 and extended to the remotest boundaries of the state, ceasing only when the greater part of the population had either succumbed or been rendered immune by an attack of the disease.

An interesting reference to what was probably the first epidemic in Indianapolis is found in historical notes written by Dr. S. G. Mitchell and published in the *Indianapolis Gazette* of March 6, 1822. Under the head of intermittent and remittent fevers he says: "Out of one thousand souls in town on the donation and the farms surrounding the town at least nine hundred sickened during the prevailing epidemic." This epidemic seems to have extended from about July 10 to the last of October, 1821, in which time twenty-five deaths occurred. This death rate applied to the present population of Indianapolis would mean a total of at least seven thousand five hundred deaths. In commenting on the natural conditions of the village at that time the writer continues: "The dryness of the soil, the height of the ground above the bed of the river, the purity and quantity of water which every citizen obtains by digging wells from twenty to thirty feet induces us with other reasons to expect that we may yet have a healthy town." This expectation, expressed almost a hundred years ago, has not yet been fully realized.

We must admit that even before Pasteur's discoveries some progress had been made in the prevention of diseases caused by germs, even though the germ cause was not recognized. Sir Edward Jenner's discovery of vaccination as a preventive of smallpox was published in 1798 in England. Knowledge of this discovery had reached the United States at the beginning of the nineteenth century, and from that time smallpox ceased to be the dread scourge wherever vaccination was practiced. Undoubtedly the first native of what is now Indiana to be vaccinated was Little Turtle, the famous Miami Indian chief. It is related that "while on a visit to Washington he learned of vaccination and at once had himself and the members of his party inoculated and carried the preventive to his people." This was prior to the organization of Indiana as a state since the death of Little Turtle occurred in 1812. A splendid example of good citizenship in an untutored savage that might well be emulated by the mod-

ern tribe of anti-vaccinationists with safety and profit alike to themselves and the state.

An agitation for a permanent Board of Health is seen in an editorial in the "Republican and Banner" of Madison, June 12, 1834. The editorial fell on deaf ears, for in the next issue, June 19, 1834, the editor pays his compliments to the citizens of Madison in the following vigorous language: "The suggestion respecting the proposition of establishing a Board of Health for the town of Madison made by us last week as far as we are acquainted produced no movement in the minds of Madison folks. This shows that they are not easily moved. Quite stiff. But it is our duty to make one more move on this subject, and we do it in order that our skirts may be clear. Madison ought to have a Board of Health, whether conscious of it or not."

There was a Board of Health in Bloomington as early as August, 1833. A report from this board, signed by C. P. Hester as secretary and published in the Madison "Republican and Banner" for August 29, 1833, shows that cholera appeared in Bloomington August 10 of that year. Among its first victims was a student of the college and the college was closed until October 1. The first Board of Health in Fort Wayne was established in 1842, with Dr. John Evans, Dr. W. H. Brooks and Dr. B. Sevenick as members. The first health board in Indianapolis was established in 1850. The historian records that "there was so much ill-feeling among the members that they did no good until 1854, when Dr. Jameson became a member and managed to put the concern in working order."

The intimate relation of a wholesome water supply to public health is now well known. In the early history of the state but little consideration was given to water supply except from the standpoint of convenience.

In Madison, previous to 1816, there were several public wells in use, the main one being in front of the courthouse where two gentlemen, named Thomas and Kirk, were hired to draw water by a windlass, and children were sent to them to procure the family water supply. The furnishers of the motive power were paid by the water consumers according to the amount of water each consumer used. There is an account of a construction in Madison in 1816, which is believed to be the first public waterworks in the State of Indiana. An immense number of logs were cut and a Mr. Allison had the contract for boring holes in them. They were fitted together and laid as a water main, the supply being taken from a spring on the hills. There were three plugs for public use at different street crossings, constructed of hollow posts standing upright, with holes bored in the side stopped with wooden plugs. When a person wanted a bucket of water he pulled out the plug, let the bucket run full and then plugged up the hole again. This old log system was long in use. Finally, however, men engaged in hauling water with carts in order to create a greater demand for hauled water and possibly to build up a monopoly dug down to the logs at the foot and chopped holes in them. Thus ended the first public water supply in this state. Later, on May 3, 1826, two years after the incorporation of Madison as a town, a committee was appointed to inquire into the expediency of furnishing the city with water. This resulted in the purchase by the city of private wells and their institution as a source of supply, both public and private. The records show an allowance in 1827 of expense of walling, cleaning and improving the public wells. On January 13, 1830, a notice appears, stating that

proposals will be received to bring a sufficiency of water into the town to supply the inhabitants. Protection against fire at this time seems to have been the paramount reason for the urgent demand for a water system, and quantity was especially emphasized. However, in the meantime the town was awake to the protection of the public spring against pollution as shown by an ordinance passed May 16, 1833, providing as follows: "That it shall be unlawful for any person to wash himself or any other thing, to water horses or cattle of any kind, or commit any act of indecency in or near the public spring." The second and third sections provide a fine of not more than \$20 nor less than 50 cents and the enforcement of the law by the town marshal. A contract was made on November 25, 1834, with John Sheets, granting exclusive right and privilege of supplying the inhabitants of Madison with water for all purposes. A committee was appointed on July 10, 1837, to inquire into the propriety of accepting the proposition of John Sheets to abandon his contract. August 18, 1837, this same committee was authorized to secure real estate for the purpose of building a water plant and to secure the relinquishment of the John Sheets contract. Considerable and long drawn-out discussion ensued, the outcome of which was a proposal submitted by T. J. Godman on November 12, 1846, to furnish the city with water. The Godman agreement was accepted December 19, 1846, and was followed by immediate steps toward its fulfillment. The "Madison Courier" of March 2, 1850, has this to say: "The Messrs. T. J. Godman have laid about 5,000 feet of the indestructible iron water pipe manufactured by Ball & Company, which proves to be the superior pipe represented in an article published by us. The work of laying the pipe to supply the city with pure spring water is progressing very rapidly." It may be of interest to note that the pipe here referred to was replaced in the year 1916 after a service of seventy years.

Brookville had a waterworks system in operation as early as 1820. The town was so situated that the digging of a well was practically an impossibility; therefore, the source of supply for domestic purposes was entirely from springs. Fortunately this early settlement was favored with several springs along the west fork of White-water, one of these being of unusual magnitude. Carrying and hauling water soon became tiresome to the people, and one of their number devised ways and means for a public supply delivered to their doors. Nature provided the gravity force back of the water, and pipes were constructed of green sycamore saplings of three-inch bore, prepared by William Adams, a practical pumpmaker, for which work he was paid by the foot. The plant was constructed under the supervision of Messrs. McCarty and Allen, who represented the town. They paid Amos Butler, on whose ground this spring was located, \$500 for the water and also right of way. This seems rather a small sum in this day, yet at the time of purchase—one hundred years ago—it was looked upon as a very large sum indeed. The sapling pipes were laid underground, and a reservoir eight feet in depth was constructed of oak planks. Only one family could boast of having water piped into their home, the balance of the consumers depending on a connection or arrangement of some kind outside of their houses. The story goes that those who lived under the hill and had private wells considered the users of this public supply as aristocrats, and occasionally a stray cat or dog, somewhat the worse for wear, was deposited in

the reservoir to portray their feelings. The pipes, as stated, were made of green sycamore and were allowed to lie in the sun for some time previous to their installation, which caused them to split a short time after being in service. Finally the strong gravity pressure burst the pipes and the plant ceased operation in the early part of 1824. Astonishing to relate, Brookville did not construct a second plant for public supply until 1890, or sixty-six years later.

The first medical society in the state was formed at Vincennes June 2, 1817, being organized in conformity to an act of the Legislature passed December 24, 1816, entitled "An act to regulate the practice of physic and surgery." This society was known as a "district society" because it included only a judicial district. What may be taken as the first public health admonition from the organized medical profession of the state is found in the constitution of this first medical society, which declared that "Physicians should never neglect an opportunity of fortifying and promoting the good resolutions of patients suffering under the bad effects of intemperance and vicious lives." Singularly enough, the medical profession finds it necessary to cry out against the same physical evils today, after the lapse of a hundred years of progress and education. The first State Medical Society was formed in 1820 at Corydon, the capital of the state. This society was probably short lived, as there is no further reference to it to be found.

In 1845 or 1846 the doctors of Indianapolis organized what was called the Marion County Medical Society, which met once a week at the Old Governor's House, then occupying Governor's Circle, now Monument Place. History records no public health admonition or scientific discussion emanating from this society, but it is recorded that the members were much given to the consideration of fleshpots and of the contents of sundry black bottles, which may account for the dearth of transactions of a medico-public health nature.

The present Indiana State Medical Society was organized at a medical convention in Indianapolis in June, 1849. At this first convention of the doctors of the state the following resolution was unanimously adopted: "Resolved, That a committee of five be appointed to memorialize the Legislature asking them to provide by law for a registration of births, marriages, and deaths." Cholera was at that time raging at New Albany to such an extent as to prevent the delegate from that county, Dr. W. H. Dowling, from attending the convention. "The mills of the gods grind slow." In 1881, thirty-two years after, the Legislature enacted the first vital statistics law.

At the second meeting of the State Medical Society in May, 1850, it was "resolved that a committee of five be appointed in distant parts of the state, whose duty it shall be to report to the executive committee at least one month before the next annual meeting all meteorological facts and their connection with epidemics. Resolved, That the executive committee be instructed to frame from the facts a report which may be of general interest."

At the meeting of the State Medical Society in May, 1851, Dr. George Sutton of Aurora presented a vivid report of the epidemic of cholera in Aurora and Dearborn County which occurred in 1849. At the beginning of the outbreak he says: "Large fires were made at the corners of streets in the infected portion of the town and cannons were fired every twenty-five minutes for four or five hours. This I have no doubt did harm." He further states

that "out of ninety-seven people in the infected district of Aurora fifty-one died, while 1,600 out of the population of 2,000 left the town."

At this meeting of the State Medical Society (1851) it was "Resolved, That as the responsibilities of the medical profession as conservators of public health require at their hands all proper efforts to protect the community from the injurious effects of nostrums and patent medicines whose composition and constituent elements are unknown and often unfit to be used; and, whereas, this growing evil which is impairing the health and wasting the means of the community can be reached and remedied in no way so well as by legislative enactment; therefore, a committee of seven shall be appointed whose duty it shall be to prepare and present to the Legislature a memorial setting forth concisely the evil and dangerous results of the vending and using as medicines preparations whose constituent parts are unknown, and requesting at their hands such enactment as may compel under penal sanctions all vendors of secret remedies to append to them a full and true detail of their compound elements."

Food and drug control in Indiana had its beginning in the first year of the establishment of the State Board of Health. In the first report of the board is the record of the assignment of certain kinds of work to each member.

"Food, Drink and Water Supply" was assigned to Dr. W. W. Vinnedge of Lafayette. Dr. Harvey W. Wiley who, at the time of the organization of the State Board of Health, was state chemist and professor of chemistry at Purdue University, says in his autobiography that he received an order from the State Board of Health through Dr. Vinnedge to investigate the adulteration and misbranding of sugars and syrups which were being offered for sale in the state. Dr. Wiley further states that this is the first report of food adulteration in Indiana and is the first official report on the subject ever made by himself. Dr. Vinnedge's report on "Adulteration of Food" is contained in the first annual report of the State Board of Health and shows from Dr. Wiley's report of analyses, which is included, that much of the cane sugar was adulterated either with corn sugar or water, and that practically all the syrups were adulterated with glucose. From this small beginning has developed the Division of Chemistry of the State Board of Health with its several departments, including the Department of Foods, Drugs and Water, with its food and drug laboratory.

An effort to secure a public health and vital statistics law for Indiana was made by the State Medical Society in 1855, but the Legislature was too busy with the problems and intricacies of a state banking system. In 1875 a committee was appointed by the State Medical Society to draft a bill for the establishment of a State Board of Health. This bill was introduced in the Legislature, but failed to pass. Again, in 1877, a similar bill was introduced and again failed to become a law. The State Medical Society then undertook voluntarily the collection of vital statistics throughout the state and also the collection of facts relative to epidemic and endemic diseases. A State Health Commission was formed with local or district commissions throughout the state to collect vital and sanitary statistics and report the same to the state commission.

This effort was necessarily incomplete and inaccurate, but speaks eloquently of the unselfish attitude of the organized medical profession toward the larger public good involved in preventive rather than curative medicine.