

Indiana State Board of Health

(Entered as second-class matter at the Indianapolis Postoffice.)

VOLUME VII.

INDIANAPOLIS, MAY, 1905.

NUMBER 5.
25 Cents a Year.

T. HENRY DAVIS, M. D., PRESIDENT	Richmond.
C. N. EISENBEISS, M. D., VICE-PRESIDENT.....	Elkhart.
W. N. WISHARD, M. D.	Indianapolis.
F. C. TUCKER, M. D.	Nobleville.
J. N. HURTY, M. D., PHAR. D., SECRETARY	Indianapolis.

The MONTHLY BULLETIN will be sent to all health officers and deputies in the State. Health officers and deputies should carefully read and file each copy for future reference. This is very important, for we expect to print instructions, rules and general information, which it will be necessary for officers to preserve.

ABSTRACT OF MORTALITY STATISTICS FOR MAY, 1905.

Total number of deaths, 2,556; rate, 11.3. In the corresponding month last year, 2,971 deaths; rate, 13.1. In the preceding month, 2,639; rate, 12.1. Deaths by important ages were: Under one year of age, 310, or 13.1 per cent. of the total; 1 to 5, 126; 5 to 10, 41; 10 to 15, 39; 15 to 20, 110; 65 and over, 681, or 28.9 per cent. of the total. Some important causes of death were: Pulmonary tuberculosis, 322; other forms of tuberculosis, 41; typhoid fever, 32; diphtheria, 10; scarlet fever, 11; whooping cough, 19; pneumonia, 171; diarrhoeal diseases, 28; cerebro-spinal meningitis, 44; influenza, 16; puerperal fever, 18; cancer, 122; violence, 140; smallpox, 2.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 887,832, reports 863 deaths; rate, 11.4. In the preceding month, 789 deaths; rate, 10.8. In the corresponding month last year, 917; rate, 12.1.

THE CENTRAL SANITARY SECTION, population 1,087,620, reports 1,067 deaths; rate, 11.5. In the preceding month, 1,140 deaths; rate, 12.7. In the corresponding month last year, 1,286 deaths; rate, 13.8.

THE SOUTHERN SANITARY SECTION, population 673,097, reports 626 deaths; rate, 0.9. In the preceding month, 710 deaths; rate, 12.8. In the corresponding month last year, 768 deaths; rate, 13.4.

REVIEW OF SECTIONS: The Southern Section shows the lowest death rate. The highest consumption rate appears in the Southern Section, namely, 175.3 per 100,000. It also shows a higher rate for typhoid fever, diphtheria, scarlet fever, diarrhoeal diseases, cerebro-spinal meningitis and puerperal fever. All of the deaths from smallpox occurred in this section.

BY COUNTIES: The lowest death rate appears in Dekalb County, 4, and the highest in Fulton and De-

catu, 17.9 and 17.4, respectively. The counties showing death rates above the average for the whole State, which average was 11.3, were: Allen, 13.4; Elkhart, 14.9; Fulton, 17.9; Howard, 12.3; Jay, 12.1; Lake, 14.1; Starke, 12.1; Steuben, 15.2; St. Joseph, 15.4; Clinton, 12.4; Decatur, 17.4; Hancock, 11.9; Marion, 16.5; Monroe, 15.4; Parke, 12.2; Randolph, 14.3; Tippecanoe, 15.3; Vigo, 13.4; Clark, 14.9; Greene, 13.6; Jennings, 12.3; Knox, 12.6; Lawrence, 14.6; Perry, 13; Switzerland, 13.9; Warrick, 11.9.

CITIES: All of the cities of the State, total population 977,802, report 1,138 deaths; rate, 13.7. In the preceding month, 1,785 deaths; rate, 14.7. In the corresponding month last year, 1,386; rate, 17.8. The cities present a rate 2.4 higher than the average for the whole State and 3.7 higher than the rate of the country. The cities also show a higher rate than the average for the whole State in the following diseases: Tuberculosis, typhoid fever, diphtheria, pneumonia, diarrhoeal diseases, cerebro-spinal meningitis, influenza, puerperal fever, cancer and violence.

COUNTRY: Population 1,670,747, reports 1,418 deaths; rate, 10. In the preceding month, 1,554 deaths; rate, 10.6. In the corresponding month last year, 1,585 deaths; rate, 10.7.

CITIES BY CLASSES: CLASS A, having 50,000 population and over, a total population of 256,046, reports 215 deaths; rate, 14.2. In the corresponding month last year, 316 deaths; rate, 14.7. In the preceding month, 325 deaths; rate, 16.9. This class includes Indianapolis, rate 15.7; Evansville, 9.7.

CLASS B, having from 25,000 to 50,000 population, total population 159,349, reports 206 deaths; rate 15.2. In the corresponding month last year, 181 deaths; rate 16.8. In the preceding month, 177 deaths; rate 14.9. This class includes: Ft. Wayne, rate 13.9; South Bend, rate 17.2; Terre Haute, 16.2; Muncie, 13.

CLASS C, having from 10,000 to 25,000 population, sixteen cities in all, reports 282 deaths; rate 14.3. In the preceding month, 366 deaths; rate 15.5. In the corresponding month last year, 333 deaths; rate 16.6.

CLASS D, having under 10,000 population, sixty-three cities in all, total population 326,710, reports 335 deaths; rate 12.2. In the corresponding month last year, 456 deaths; rate 17.9. In the preceding month, 359 deaths; rate 13.4.

Chart showing deaths by sanitary sections on page 57.

SUMMARY OF MORBIDITY AND MORTALITY FOR MAY.

DISEASE PREVALENCE: The most prevalent malady during the month was rheumatism, and this was the case in the preceding month. Diarrhoea was seventh in the preceding month and third this month. The following is the order of disease prevalence: Rheumatism, tonsillitis, diarrhoea, bronchitis, influenza, intermittent and remittent fever, pneumonia, typhoid fever (enteric), pleuritis, scarlet fever, erysipelas, diphtheria and membranous croup, whooping cough, smallpox, measles, typho-malarial fever, inflammation of bowels, cholera morbus, puerperal fever, dysentery, cholera infantum, cerebro-spinal meningitis.

SMALLPOX: Twenty-five cases of smallpox in eleven counties with two deaths were reported. In the preceding month there were 151 cases in 18 counties, with 4 deaths. In the corresponding month last year, 259 cases in 36 counties, with 6 deaths. The counties reporting the disease were: Daviess, 1 case; Fayette, 2; Greene, 3 with one death; Marshall, 1 case; Pike, 1; Posey, 2; Switzerland, 2; Tipton, 2. No cases of black smallpox were known to have occurred. This decrease, when compared with the corresponding month last year, is considerable, for it appears that the number of cases decreased 90.3 per cent., the area invaded 62 per cent., and the deaths 66.6 per cent.

TUBERCULOSIS: Three hundred and seventy-three deaths were reported from tuberculosis, 322 being of the pulmonary form, and 41 other than pulmonary. The rate was 143.4 in 100,000. In the preceding month the rate was 158.4, and in the corresponding month last year the rate was 184.3. Of the total consumption deaths this month, 154 were males and 219 females. By age periods, the consumption deaths were: Fifteen years and under, 34; 15 to 20, 37; 20 to 30, 111; 30 to 40, 72; 40 to 50, 41; over 50, 78. It is remarkable to record that of the consumption deaths, one was a woman 105 years old. Of the total female deaths, 85 were between the ages of 18 and 40, and left 176 children under 12 years of age. Of the male deaths, 20 were in the same age period and left 43 children under 12 years of age. In all, the disease made 219 orphans in the above age period, and it invaded over 300 homes.

TYPHOID FEVER: This disease caused 32 deaths and only 59 cases were reported from 24 counties. It is obvious that all of the cases were not reported, and more is the pity. In the corresponding month last year there were reported 451 cases from 36 counties, with 49 deaths.

PNEUMONIA: Pneumonia caused 171 deaths. In the corresponding month last year, 319 deaths. Of the pneumonia deaths this month, 72 were females and 99 males. Thirty-two were under one year of age, 22 between 1 and 5, 14 between 5 and 20, 10 between 20 and 30, 28 between 30 and 50. Deaths between 50 and 90 numbered 49, one being a man 94 years old.

VIOLENCE: There were 140 deaths by violence during the month, 30 females and 110 males. There were 5 murders, 23 suicides, and the remainder accidental deaths. The murders were by gun-shots and stabbing. The suicides were 7 females and 17 males. Carbolic acid was chosen by 5 males and 4 females; hanging by 4 males and 1 female; gun-shots by 4 males, and drowning by 1 female. Of the accidental deaths, 32 were males and killed by railroads; gun-shots caused 6 accidental deaths; electricity and lightning, 11; fracture of skull and bones, 21; poison, 4; burns and scalds, 5; drowning 20.

HYGIENE.*

BY DR. T. HENRY DAVIS,

President of the Interstate Board of Health.

Mr. President and Members of the Association: I have chosen a topic as broad as humanity, as deep as the well-being of mankind. Hygiene has its scientific and practical aspects intimately related. I have only time in this paper to outline a few thoughts and indulge in some platitudes, with possibly a tribute to a science whose destiny is to benefit the race.

Hygiea, in Greek mythology, was the Goddess of Health—a daughter of Aesculapheus. By the Romans she was identified with the Goddess Salus. For ages hygiene appeared to be the off-spring of intuition, but about the middle of the last century there was a rift in the clouds, and in its dim light we read the names of Pectenkofer and Voit; also Franklin, who, among other achievements, experimented with his kite and key—a key that unlocked the mystery of the clouds and made captive an element that since has been harnessed to do the bidding of not only the industrial but the medical world. What a wonderful procession of illustrious names have since passed in review: Pasteur, Lister, Koch.

The hygiene of to-day is the science that deals with the laws of health. Practical hygiene is the art of preserving health—and, I surmise, it is more—it seeks to prolong life by rendering the individual more immune to disease. Vital resistance is but another expression for a group of physical functions that is the heritage of all. We know that certain fluids of the body, certain fixed cells, are antagonistic to the approach, and more or less destructive to the presence of micro-organism that cause disease, but this problem has its limitations—age, sex, race, occupation, density of population, heredity, seasons and other complex conditions; and it is the province of the hygienist to thread by thread unravel the tangled skein before an effective formula can be evolved of practical value and of general application. The study of the question of immunity is one of generally recognized value; yet, until recent years, much neglected. Laboratory work has in part dis-

*Read at the Indiana Health Officer's School held in Indianapolis June 1-2, 1905.

solved the mist which obscured it, and, it appears to me, that research along the line of antitoxins and kindred effort is lifting the latch and anon may open the door leading to a solution of the mystery hitherto so closely guarded by nature's occult forces. The brain of Jenner was for an instant illuminated by a gleam of scientific light in this direction, and it is the fond hope of the hygienist that the day is breaking for preventive medicine. Hygiene involves not only the study of man but his environment and a determination as to how he is affected thereby. It means also the unfolding of sociological secrets.

The topic under consideration has many approaches. I might refer to mental hygiene, its moral aspect and its economic features. Mental hygiene involves the idea of heredity, nutrition and education. All reference to its hereditary aspect must be to generations yet unborn. Henry Ward Beecher once remarked:

"Children, be careful in the selection of your parents."

What has been done by our progenitors to our detriment can only be mitigated. What may be done in coming years by hygienic practice will result in a more symmetrical cerebral development. The past can not be revoked. Fifty per cent. of insanity is due to heredity. When the fathers have eaten sour grapes, the children's teeth are set on edge. "Who can evade the tyranny of his organization!" Nutrition is but another expression for pure air, water, food, and proper environment. Many a degenerate is the possessor of a starved brain, due in part to improper feeding in infancy and lack of mental training during early youth. Children are but young animals physically. They take no thought for the morrow what they shall eat or wherewithal they shall be clothed. Food suitable to age, cleanliness and pure air are necessary for cerebral nutrition. Not more so, however, than the absence of the conditions which are depressing mentally. Worry and sense of responsibility are examples. Each succeeding year of life demands its special mental pabulum. This results in force and breadth. Education signifies development; not simply the education of school, but the broader education coming from the external; a mental response to the influence of sun and stars, of mountains and valleys; the study of nature as well as the attrition consequent upon one's relation to the social fabric with its complexities. A prominent feature of mental hygiene is the training of the will that it may properly control the allied forces of the intellect with its ever-increasing conceptions of life. Normal education results in mental freedom and scope.

A joint deprived of its motion by a plaster cast soon becomes ankylosed. The mind must not be too long constrained. Activity always, but with it corresponding variety, or we have mental adhesion resulting in contracted views of life, bigotry, sects, tyranny, intellectual anarchy.

Moral Aspect: Vice and impulse to crime are due to

arrested development of brain structure, degeneration or functional perversion fostered by environment. As far as environment is concerned, the remedy may better be found in prevention than in the penitentiary; in pure air, water and food than in preaching, prayer or penance. Vice and impulse to crime are born in a brain whose cellular structure is defective. Vice is but another name for disease. Irresistible impulse to vice or criminal acts is as much a disease as chorea. In the latter a deranged state of the motor centers results in lack of coordination of movement; in the former a deranged state of mind centers destroys coordination of ideas. "Criminals and lunatics are manufactured articles," as much so as an eccentric on a machine. It goes without saying that society must protect itself against these conditions. There is a need of more hospitals for criminals, less penitentiaries. Amended legislation should regulate these conditions. Pathological variations of brain structure constitute the difference between the driveling idiot and the criminal of national notoriety. In a word, the symmetry of a nation's brain is the measure of its applied hygiene. This sounds materialistic. Science has no quarrel with the clergy. An abnormal brain will present abnormal manifestations. Light transmitted through colored glass will appear of similar shade, whatever the original may be. The function of hygiene is to induce symmetrical development and correct vicious environment. Lack of symmetry is the measure of the chasm between the criminal and the humanitarian, the idle and the industrious, the vicious and the virtuous, the parasite in a community and the productive element. When will it dawn upon the race that, by a study of natural law and prolonged conformity to it, it may become the hygienic framer of its destiny?

Hygiene teaches that an individual is entitled to protection in his health as well as in his life and property; that the government to which one is subject has a mission to perform in this direction, as well as to look to the welfare of future generations by means of some check to the propagation of those influences which result in defective and vicious development, retarding the advancement of the race. Broadly speaking, hygiene involves the close study of all the conditions which affect the development, growth and decay of the individual, nation and races. One must delve among the conditions which cause pain, disease and premature death. Whatever results in lessening these avoidable causes should be sought with untiring zeal.

Economic Feature: The status of a nation may be measured by its wealth and power and the proportion of its productive to its non-productive inhabitants. This implies industry and effort, and health is here an important factor. When an epidemic, fatal in character, sweeps over the land, we have industrial paralysis. This means to hundreds of thousands suffering, and to a proportion premature death. This picture to-day is being reproduced in some portions of our globe. In

one year at Manila 4,621 died of cholera. Within a twelvemonth 421,673 died of plague in India. During the same period in the United States 1,852 have died of smallpox. This total of nearly one-half million deaths belongs to the class of preventable diseases.

Preventive efforts have controlled 60% of typhoid fever, yet in 1903 there were 1,013 deaths in Indiana—this means twenty thousand cases. Applied hygiene would have reduced the total 60%. The Supreme Court within ninety days has declared the life of a boy eleven years of age to have a legal value of \$2,500.00; this low estimate applied to one-half the deaths from typhoid in this State in one year amounts to \$1,250,000.00. A reasonable estimate of the cost of a case of typhoid, even if recovered, is one hundred dollars; one-half the cases in this State the past year would make the loss a million, which, added to the death loss would aggregate \$2,250,000.00, and this with no account of the loss from otherwise productive labor during this period. To attempt an estimate of the loss in Indiana in one year from preventable disease would stagger belief. In productive labor lies the secret of physical supremacy; and it has an increasing value commensurate with the density of population and the ever-increasing complexities of social condition. Hygiene is the lever in the hands of the political economist which enables him, aside from other causes, to elevate a state or nation from a condition of depression to one of prosperity. Hygienic neglect means the passing into eclipse of those conditions which makes of a people a ruler among the nations of the earth. When hygiene shall be popularized and its study and application general, the harvest will appear—a harvest that will result in prolonging human life, in lessening human suffering and permit the unfolding of ten thousand human possibilities that are now chilled in infant graves. The relation of hygiene to health is that of the sun to the earth; it dispels the darkness and warms latent impulses into life; in a word, hygiene develops the forces which result in physical growth, more normal development and full fruition.

The birth-place of hygiene was the brain of the humanitarian. Its cradle is the laboratory. Its sphere of usefulness is in its application. A congenial marriage of hygiene and its proper application would result in healthy homes for healthy people. As previously remarked, under the guise of a religious obligation, Moses, the first hygienist of whom we have record, evolved a plan for the betterment of man, and all along the ages now appearing and anon disappearing, the advance has been slow but continuous. In the light of the twentieth century we behold ourselves better than ever equipped for the conflict with preventable disease. The eye of the microscope is more penetrating, the outline of the radiograph more distinct, the analysis of the spectroscope more subtle and convincing, while biology, chemistry and kindred sciences are alert for new conquests, of which radium is a shining example.

It is not assumed that the millinennium is at hand while preventable disease is responsible for the majority of premature deaths. It demonstrates that with our advance, our knowledge is yet limited and that what information we possess is not utilized to its fullest capacity; but if the future be a reflex of the past, hygiene will make a continual advance, avoidable disease will seek a hiding place and the record of the century cast former achievements into eclipse.

(Abstract.)

ADVERTISEMENTS OF PATENT MEDICINES AND OF PROPRIETARY REMEDIES— WHY THEY ARE SO PLENTIFUL.*

BY ROBERT HESSLER, A., M., M. D., LOGANSPORT.

A foreigner once remarked: "To look at your newspapers might lead a person to believe that you are a nation of invalids." At times one-eighth, and even more, of the total space of some of our newspapers is occupied by medical advertisements, mainly of patent medicines.

Many of these advertisements refer to diseases and ailments that are air-borne; that is, they are due to the inhalation of a polluted atmosphere, to infected dust, which is dust mixed with dried and pulverized sputum. Besides the specific air-borne diseases, such as tuberculosis, lagrippe, bronchitis and pneumonia, there are a number of ailments that may be regarded in the light of a reaction due to the inhalation of infected dust. The reaction may manifest itself chiefly in the respiratory tract, and such names as cold, cough, catarrh, sore throat, etc., may be used in speaking of it; or rheumatic and neuralgic pains and aches may prevail, and hence such names as backache, rheumatism, lumbago, etc., are in use. Disturbances of the nervous system and alimentary tract also have sets of names which serve the purpose of making connection between the buyer and seller of patent medicines.

[The speaker showed charts with sets of names grouped under red and blue and other colors, also newspaper advertisements with the names marked in a like manner, thus showing at once whether an advertisement belonged to the respiratory or rheumatic or other type. Advertisements of so-called "curealls," as a rule, give a variety of names, which are simply synonyms for the varying manifestations of dust infection.]

On comparing clean American and European cities with dirty and dusty ones, or with those where much spittle appears on the sidewalks and floors of public buildings, a direct relationship to the number and size of such advertisements can be traced. In countries where the spitting habit does not prevail, the newspapers are practically free from such advertisements. Our people pollute their air supply by the spitting habit, and then resort to the use of patent medicines in a vain attempt to counteract the evil influence of the infected dust.

*Read before the Indiana Health Officers' School, June 1-2

The varying claims made by manufacturers are always set forth in advertisements of nostrums. At one time the "medicine" is advertised as the best tonic; shortly after it is good for rheumatism, then for catarrh, and still later for malaria. The malaria referred to is the kind that flourishes in dusty cities, and which is really not malaria at all, but a form of dust infection.

[The influence of our spitting habit was next briefly traced through the advertisements of proprietary remedies in the medical journals. The ailment and symptom names were marked in red and blue and other colors, as in the case of newspaper advertisements, and it was shown that they often stood on the same plane. To bring out this point more fully, the speaker showed a long sheet of paper, on which was pasted a large number of advertisements in pairs—one from a medical journal, the other from a newspaper; the parallelism between the names used was certainly remarkable. The speaker was careful to add that he was not criticising the medicines themselves, only the advertisements. Next some of the literature sent out by proprietary medicine makers was briefly reviewed, and it was shown how, by the use of patients who are subject to dust infection, and by taking advantage of varying atmospheric conditions, a remedy, almost any remedy, could be shown to be of value and testimonials could be obtained. In line with some of the patent medicine advertisements, the doctor drew one entitled PURARE (pronounce pure air), and which would cure when all other remedies failed. We are only beginning to appreciate the importance of pure air.]

Advertisements of new nostrums are constantly appearing, and often great ingenuity is displayed in the wording of the advertisement. Out of the great number, only a few succeed. A recent advertisement called attention to the need of iron and that "the people suffer from iron poverty and do not know it." In line with this, I prepared the following:

PURARE.

The great cure and preventive of
COLDS, CATARRH, COUGH, RHEUMATISM, BACK-
ACHE, NERVOUSNESS.

Also valuable in Bronchitis, Pneumonia, Consumption.

The Remedy for DUST INFECTION.

Has long been recognized as the Standard Cure for these ailments and diseases, but is practically unknown in Indiana.

PURARE (Pronounce Pure Air) cures when all other remedies fail. Endorsed by Physicians the World over.

What a queer world this is, one is tempted to exclaim. The people avoid keeping the city clean and then spend their money for patent medicines, in the vain attempt to counteract the evil influence of the dust—and suffer all sorts of discomfort beside.

A peculiar phase of this dust problem is the attitude assumed by the newspapers themselves in the editorial columns. In former days the "microbic theory of disease" was regarded as a standing joke, and there are still a few old-timers left who deem it their duty to

make light of any question that has any relation to micro-organisms—be they in water, food or milk, or in the air we inhale. Some cannot distinguish between morbidity and mortality. The morbidity rate may be something frightful, and yet so long as the mortality rate for the same period is low, they consider the town or city "healthy."

RAILWAY SANITATION.

According to prearrangement, the Indiana State Board of Health and representatives of railways and electric lines met in conference June 12th to consider the matter of car sanitation.

The following common carriers were represented: Pennsylvania Railroad, New York Central lines, Monon, Cincinnati, Hamilton & Dayton, and Southern Railway. All trolley lines were represented by three delegates. The Pullman company was represented by Dr. T. R. Crowder, sanitary superintendent.

Finally, the following rules were agreed upon as satisfactory to the common carriers. These will be passed upon by the State Board of Health at its next regular meeting in July:

INDIANA STATE BOARD OF HEALTH RULES.

GOVERNING THE SANITATION OF STEAM RAILWAY COACHES, DINING CARS, SLEEPING CARS, SUBURBAN ELECTRIC CARS AND CITY STREET CARS.

RULE 1. STEAM RAILWAY COACHES: Day coaches shall be thoroughly cleaned at the end of each trip, and in no instance shall a day coach go uncleaned longer than two days. The thorough cleaning of day coaches shall consist as follows: (a) Windows and doors shall first be opened and the aisle strip, if there be any, removed from the car; (b) all upholstery dusted and brushed; (c) floor mopped and swept after it has been sprinkled with water, to which may be added an approved disinfectant; (d) after cleaning as in (e) the floor should be scrubbed with soap and water, to which soda ash or like cleansing agent may be added, and after scrubbing the floor should be mopped with a solution of formaldehyde of 1 or 2 per cent. strength or with a solution of other approved disinfectant; (e) all arms of seats, panels between windows, window ledges and windows shall be washed with soap and water, to which a cleansing agent may be added, and after washing should be wiped off with an efficient disinfecting solution; (f) closet floors and walls shall be cleaned by sweeping and washing and wiping with a disinfecting solution, and urinals and hoppers thoroughly cleaned and disinfected; (g) water coolers shall be frequently emptied, rinsed and scalded, and shall be filled with potable drinking water when in service; (h) and lastly, day coaches shall be disinfected with formaldehyde gas in quantities of not less than 40 fluid ounces of 40 per cent. formaldehyde to each coach at the period of general cleaning and renovation, said period not to exceed 90 days, and also whenever a case of any listed disease is known to have been carried.

Flush seats and backs shall be removed when possible, and dusted by air blast.

RULE 2. Placards shall be displayed in all railway wait ing-rooms in Indiana, having plainly displayed thereon the following notice:

SPITTING ON THE FLOOR IS FORBIDDEN.

Consumption, lagrippe, coughs, colds and all diseases of the air passages are spread by spitting, and these maladies kill 12,000 people annually in Indiana. It is therefore forbidden to spit on the floor. Penalty, five dollars fine.

It is the duty of trainmen to warn against violating this health rule.

By order of the

Indiana State Board of Health.

RULE 3. PARLOR, BUFFET AND DINING CARS shall be cleaned at the end of each trip, as set forth in Rule 1, carpets and draperies to be removed, dusted and sunned and aired, provided meteorological conditions permit. Food boxes, refrigerators, closets, drawers and cupboards to be cleaned, scalded and treated with a 1 or 2 per cent. solution of formaldehyde at least once each week in spring, summer and autumn months, and once every two weeks in winter months.

RULE 4. SUBURBAN, ELECTRIC AND STREET CARS shall be cleaned as follows: (a) Windows and doors shall be opened and the aisle strip, if there be any, removed from the car; (b) all upholstering dusted and brushed; (c) floor mopped or swept after it has been sprinkled, to which should be added an approved disinfectant; (d) after cleaning as in (c), the floor should be scrubbed with soap and water, to which soda ash or like cleansing agent may be added, and after scrubbing, the floor should be mopped with a solution of formaldehyde of 1 or 2 per cent. strength, or with a solution of other approved disinfectant; (e) once each week the arms of seats, panels between windows, window ledges and windows shall be washed with soap and water, to which cleansing agents may be added, and after such washing, should be wiped off with an efficient disinfectant solution; (f) closets, floors and walls shall be cleaned by sweeping, washing and wiping with disinfectant solution every week, and floors of closets, urinals and hoppers shall be thoroughly cleansed and disinfected every day; (g) water coolers shall be frequently emptied, rinsed and scalded, or they may be disinfected with a 2 per cent. solution of formaldehyde, and shall be filled with potable drinking water when in service; (h) electric suburban coaches shall be disinfected with formaldehyde gas in quantities of not less than 20 fluid ounces of 40 per cent. formaldehyde to each coach at the period of general cleaning and renovation, not to exceed ninety days, and also whenever a case of any listed disease is known to have been carried.

Plush seats and backs shall be removed when possible, and dusted by air blast. Carpets and matings are condemned and forbidden in smoking compartments, but rubber aisle strips or linoleum may be used.

Placards shall be displayed in all waiting rooms and stations located in towns, villages and cities in Indiana, having plainly displayed thereon the following notice:

SPITTING ON THE FLOOR IS FORBIDDEN.

Consumption, la grippe, coughs, colds and all diseases of the air passages are spread by spitting, and these maladies kill 12,000 people annually in Indiana. It is therefore forbidden to spit on the floor. Penalty, \$5.00 fine.

It is the duty of trainmen to warn against violating this health rule.

By order of the

Indiana State Board of Health.

RULE 5. Conductors and brakemen in charge of steam trains and conductors and motormen in charge of suburban electric and street cars shall pay proper attention to ventilation, and shall promptly reprove and warn all persons who spit on the floor or otherwise befoul the car in which they are riding. They shall also inquire concerning any case of sickness which they may notice, and determine as best they can whether or not it is a listed disease, and if found or suspected to be listed, the health officer at the next stop may be appealed to for the purpose of caring for the case as seems best.

RULE 6. SLEEPING CARS. Upon arrival at cleaning terminals, sleeping cars shall be cleaned as follows: (a) Windows, doors and ventilators opened; (b) upper berths let down, seat bottoms lifted off, and mattresses, blankets, pillows and curtains, etc., loosely displayed for airing, and, provided the weather will permit, all the articles named shall be aired outside the cars; (c) carpets, rugs and all portieres shall be removed from cars, weather permitting, and dusted and aired in the open, otherwise the work shall be done as best can be in the wide opened car; (d) after cleaning, the floor should be scrubbed with soap and water to which soda ash or like cleansing agent may be added, and after scrubbing, the floor should be mopped with a solution of formaldehyde of one per cent. or two per cent. strength, or with a solution of other approved disinfectant; (e) all windows and woodwork shall be thoroughly cleaned with approved detergents and carefully wiped; (f) closets, spittoons and toilet arrangements shall be thoroughly cleaned and disinfected with an approved disinfectant every day; (g) sleeping cars shall be disinfected at least once a month in an approved manner with formaldehyde gas, as set forth in (h) of Rule 1, and they shall also be disinfected if at any time it is known that a person with a listed infectious disease has been carried. Pullman conductors and porters shall see to it that as good ventilation as is possible is always maintained.

RULE 7. The Listed Diseases are declared to be: Small-pox, diphtheria, scarlet fever, erysipelas, measles, and common carriers and their employes are forbidden to knowingly carry any person afflicted with the above named diseases.

RECOMMENDATIONS.

It is recommended that conductors and brakemen be supplied with pocket paper pads, upon each slip the following to be printed:

SPITTING ON THE FLOOR IS FORBIDDEN.

It is nasty and contrary to law. All diseases of the lungs and air passages, also certain other diseases, are spread by dried spit. Over 12,000 people die annually in Indiana from "spit diseases" caught from spitters. Not less than 200,000 cases of sickness are caused thereby in Indiana annually. Spitting on the floors and sidewalks must stop. Ladies do not spit. Gentlemen will not spit.

Indiana State Board of Health.

Conductors and brakemen should hand these slips to spitters. They may also be handed to passengers who are not spitters. Persistence in this matter will surely lessen the spitting evil. This will make traveling more pleasant and so encourage travel. Car cleaning will also be made less difficult and less expensive.

DISINFECTION.

The best and cheapest disinfection of cars and rooms may be accomplished in the following way:

Close all openings, and for each 1,000 cubic feet use six

and one-half ounces of permanganate potassium and one pint of 40% solution of formaldehyde. Place the permanganate in a large tin dishpan or any like vessel, then pour the formaldehyde solution upon it. The formaldehyde gas will be quickly set free and will penetrate plush, curtains, carpets and all parts of the car or room, causing complete disinfection. The rapid disengagement of the gas is an important point, and this method further commends itself because no fire or apparatus is required.

THREE PRECIOUS BABIES LOST: Mrs. L. B. M——, living in one of the southern towns of Indiana, writes us for information concerning the prevention of cholera infantum and other children's diseases. She says:

"Will you kindly send to my address all your papers on children's diseases, especially cholera infantum? I shall be very thankful to get them. I have lost three precious babies with cholera infantum. I have one dear little one left, eleven months old, but she is very delicate and I am so anxious to ward off all disease if possible. I shall be very grateful for your help."

Letters like this and one published elsewhere in this issue show plainly that the people are alive to the importance of preventing disease. We are gradually drawing further and further away from the inconsistency of permitting disease and then being unsparing of expense and trouble to effect cures.

* * *

A CONSUMPTIVE MOTHER: The following pathetic letter was received from a good woman living at Madison, Ind. She said:

"I am writing in the interest of a poor mother of seven half-grown children and who does not get proper care from her husband. The children are too young to know how to save and help her. She certainly has consumption, for she coughs a great deal and is dull and wasted. She also suffers from great weakness and I think she does not know how to meet her troubles, and probably does not care much. Her life is a very precious one in view of her family. She works very hard. She says she 'has to.' Now, does the State offer a healing and resting place for such as she? I am only a neighbor, but the case appeals strongly to me and I hope you will make reply to this letter. Could you not let her have the book you publish for preventing consumption free of charge? It might do some good in this instance, and I think it should be given away to those who are too poor to buy it."

The circumstances dictate an answer which shows the weakness and the deficiency of Indiana. We were compelled to say there is no hospital where poor mothers with consumption can be taken and saved to their children. The laws permit the trustee to furnish food and medical attendance, but the laws do not permit the prevention of such conditions as the letter describes. Some statesmen think it is not good economy and not a function of the State to use the public funds

for the saving of life from preventable diseases. They have no hesitancy, however, in saying that it is a function of the State and it is economy to hire police to prevent murder and theft. It is not a severe stretch of the imagination to look upon consumption, and indeed all dangerous preventable diseases as murderers who should be curbed. It rejoices us to be able to say that a Tuberculosis Commission has been appointed to investigate the disease in this State and we feel confident that before many years Indiana will no longer be guilty of the sin of omission of not preventing murder by consumption.

* * *

CORONER BOGART: Coroner Bogart, of Franklin County, is in danger of being called a crank, for he makes economic and humanitarian suggestions which are ahead of the times. In an inquest held some months ago upon the dead body of a pauper, Coroner Bogart discovered the poorhouse records were no records at all. There were periods in the history of the institution which no scratch of pen recorded, and the individual records of inmates were a howling farce. These facts and attendant ills were set forth in the written account of the inquest, and recommendations to remedy the matter were made. Of course, these recommendations, if adopted, would have given the death knell to partizan management. It is needless to say they were pushed aside by the "practical politicians." Not discouraged, Coroner Bogart comes again, and in his official inquest over the body of a drowned epileptic, says:

From the history of the case, I learn that Peter William had been an epileptic for many years, and had recently developed occasional attacks of violent mania, in which he was dangerous to those nearest and dearest to him, and that a commission of lunacy had been held over him four months ago, the finding of which inquest remanded him into the custody of Sheriff Dudley; that that officer was refused admittance for the deceased at the Insane Hospital because of the incurable character of his ailment, and that he was kept in jail three months to the serious detriment of his health, both mentally and physically; that at the July session of the Board of County Commissioners he was ordered to the County Infirmary for the purpose of securing open-air exercise, and that his drowning resulted from no fault save the horribly crude spot in our State system of charities which denies the incurable and epileptic insane any refuge than a tacit permit to occupy corners of jails and almshouses, where the safeguards of attendance and surveillance are necessarily inadequate, and where their presence and insane vagaries are fearfully obnoxious to those properly confined in these institutions. Twenty-two per cent. of the inmates of the Franklin County Infirmary are of the epileptic insane class.

Those persons who have prevented the installation of a suitable asylum for epileptics are the only parties who can be held responsible for the death of Peter William.

* * *

COLLECTING INFECTED MAIL MATTER: Dr. C. L. Myers, Health Officer of Fountain County, calls attention to a condition attendant upon rural mail

delivery and collection which sometimes affects the public health. In a letter to this office he asks:

"Should a rural route mail carrier collect mail from a box belonging to a family under quarantine for smallpox, scarlet fever or other dangerous infectious diseases? In accordance with the idea that it would be dangerous to collect such mail, I have cautioned the carrier to be careful not to take it unless the mail has been disinfected."

This is evidently a correct proceeding. We have recommended to Dr. Myers that he prepare a rule covering this matter and secure its passage by his County Board of Health, for county boards have full powers to make such regulations. There is a rule of the United States postal department which requires all employes to obey the laws and rules of the health boards of the various States. Disinfecting of the mails may be required by health officers, provided their boards have passed a rule covering the matter. Upon the next revision of the rules of the State Board, one will be included to meet this condition.

Dr. Myers further calls attention to the fact that in reporting births, some persons give their postoffice as place of birth, when the birth may have occurred ten miles from the same. In such cases Dr. Myers has ordered that the township and not the postoffice shall be given as the place of birth unless the said birth actually occurred at the postoffice. This ruling is obviously right.

* * *

SULAVAN'S GROCERY: Sulavan keeps a grocery on the north side of the square at Kokomo, Ind. He is evidently a live man and does not think it nice to have his groceries covered with street dust. Without suggestion from anyone, Mr. Sulavan decided that hereafter he would not display fruits and vegetables on the sidewalk and sprinkle them in order to make them fresh and give a sticking surface for the infected dust of the street. His advertisement runs as follows; and we recommend the step he has taken to other green grocers:

THIS STORE IS DIFFERENT.

It is ambitious to be different from the ordinary grocery store, and one way it has decided to be radically different is by discarding the display of its

GARBAGE PLANT.

from the front sidewalk—that should belong to the public—to the rear and to the "garbage man," thereby eliminating the "attractive display" of old barrels, boxes, flies, spoiled fruits and vegetables with all the disease breeding filth that follows.

Hereafter you will find this store with a large and clean display of fruits and vegetables inside the store "on our own ground" and we trust a little investigation will convince you that

THIS STORE IS DIFFERENT.

* * *

A ONE TIME CONSUMPTIVE, NOW WELL AND STRONG: John Bunnel, of Hagerstown, is living evidence that farming pays when it is done with method and purpose. Mr. Bunnel acquired consumption while in the dry goods business in Hagerstown. He some-

where learned about the out-door cure for this disease and spent one winter at Asheville. Returning, he purchased a farm and commenced the out-door life. He studied the question of commercial agriculture and arrived at the opinion that the farmer who makes money at the business is the one who farms intensively rather than extensively, and that in every instance, the farmer who is successful must adopt a method. He applied this theory to every department of his large farm. He made an entire change of all the live stock on the farm, obtaining the best breeds of sheep, hogs, cattle and poultry. He introduced some of his own ideas in regard to housing, feeding and breeding, and had the satisfaction of obtaining good results. His profits were known to a penny, and the methods which produced the best results were described at length in his daily record book. This required less labor and skill than keeping books in a store as he had done for years, and tended to keep him from working in a haphazard way. Meanwhile his health improved and he became rugged and robust. Now he superintends personally every detail of the work on the farm. He is a regular contributor to stock journals and has been successful in raising poultry as well as other live stock. Mr. Bunnel's two objects in going to the farm have been obtained—health and profit. He has done much more than he started out to do and his example is being widely copied. He has made it plain that farming is a business, and in no other line of activity does intelligent effort produce more. Health and the enjoyment of life has returned to him. Every day is full of interesting experiences. He believes that if consumptives who are not too far gone to enter actively into out-door exercise, at first a little and later more constantly, would follow his example, the statistics of the White Plague would be changed in Indiana.

DR. R. M. DELZELL, Health Officer of Montezuma, was accidentally killed by a falling tree which was blown down by a big storm. The accident occurred on Monday, May 15th. Dr. Delzell, accompanied by Mr. Clyde Keller, had driven down to the cemetery to place markers at every soldier's grave for decoration, and on their way coming home they were caught in a terrible storm. Dr. Delzell was driving and Mr. Keller was reaching around on the sides fixing the curtains when the tree fell. Dr. Delzell was leaning forward and was struck across the back, breaking his neck, causing instant death. The limb was so fastened across the buggy that the body could not be extricated except by the use of saw and ax.

Dr. Delzell was born in 1843. He came to Indiana in the early sixties. After serving in the war, he began reading medicine, pursuing his studies and teaching alternately until 1869, when he commenced practicing. He was an efficient health officer, taking great interest in his work.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES IN MAY, 1905.

NORTHERN SANITARY SECTION.

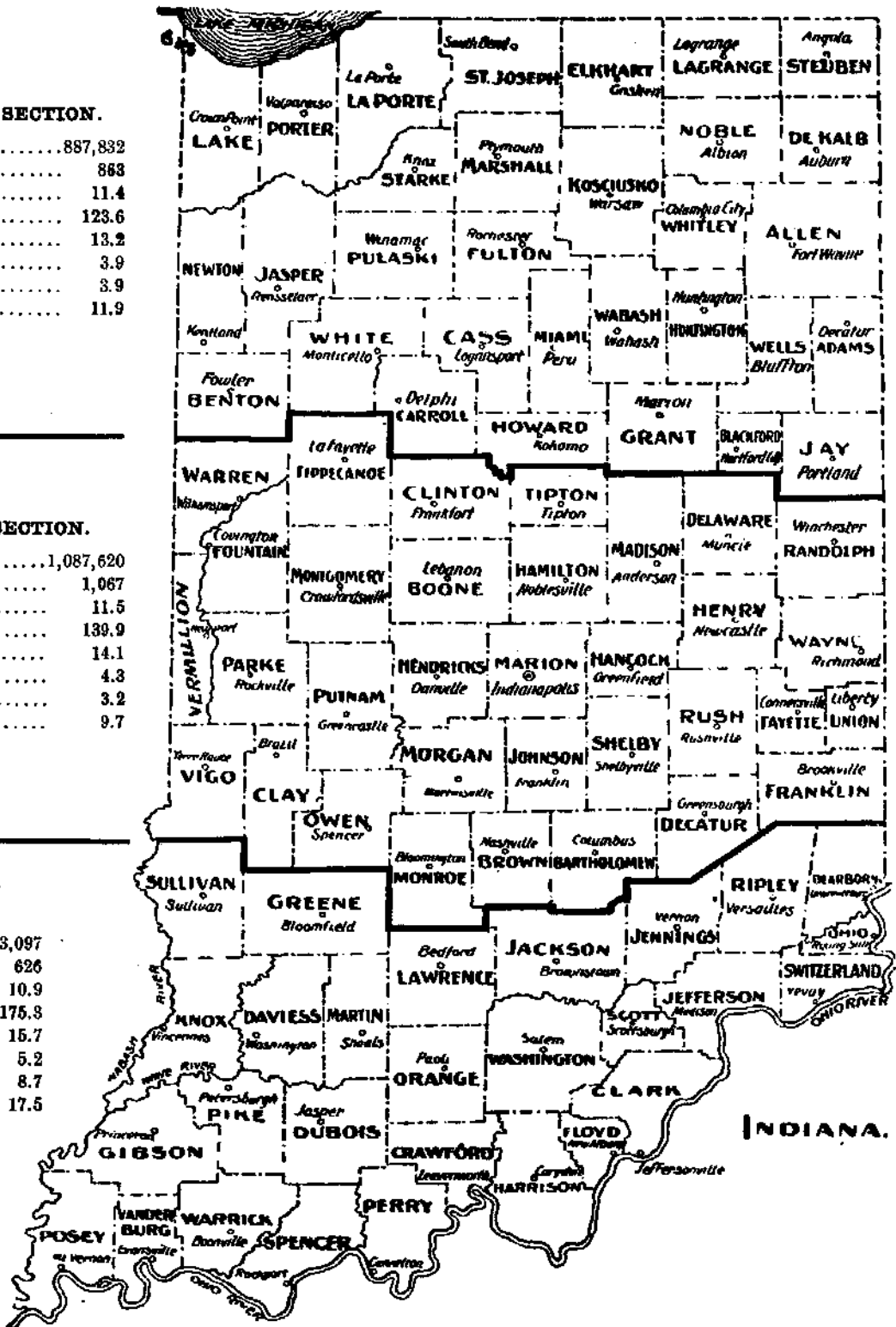
Total population	887,832
Total deaths	883
Death rate per 1,000	11.4
Consumption, rate per 100,000	123.6
Typhoid, rate per 100,000	13.2
Diphtheria, rate per 100,000	3.9
Scarlet fever, rate per 100,000	3.9
Diarrhoeal diseases, rate per 100,000	11.9

CENTRAL SANITARY SECTION.

Total population	1,087,620
Total deaths	1,067
Death rate per 1,000	11.5
Consumption, rate per 100,000	139.9
Typhoid, rate per 100,000	14.1
Diphtheria, rate per 100,000	4.3
Scarlet fever, rate per 100,000	3.2
Diarrhoeal diseases, rate per 100,000	9.7

SOUTHERN SANITARY SECTION.

Total population	673,097
Total deaths	626
Death rate per 1,000	10.9
Consumption, rate per 100,000	175.3
Typhoid, rate per 100,000	15.7
Diphtheria, rate per 100,000	5.2
Scarlet fever, rate per 100,000	8.7
Diarrhoeal diseases, rate per 100,000	17.5



Mortality of Indiana for May, 1905.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated by U. S. Method.	Total Deaths Reported for May 1905.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.												Deaths and Annual Death Rates per 100,000 Population from Important Causes.							
					Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		65 and Over.		Consumption.		Other Forms of Tuberculosis.		Typhoid Fever.		Diphtheria.	
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2,618,549	2,556	11.5	200	310	13.1	126	5.3	41	1.7	39	1.6	119	4.6	68	23.9	322	143.4	11	18.2	32	14.2	10	4.4
Northern Co's	887,832	863	11.4	65	93	11.6	36	4.5	8	1.0	16	2.0	34	4.2	260	32.5	93	123.6	10	13.2	10	13.2	3	3.9
Central Co's	1,087,620	1,067	11.5	86	122	12.4	55	5.6	19	1.9	15	1.5	40	4.0	239	29.4	129	139.9	17	18.4	13	14.1	4	4.3
Southern Co's	673,097	626	10.9	49	95	16.4	35	8.0	14	2.4	8	1.3	36	6.2	132	22.8	100	175.3	14	24.5	9	15.7	3	5.2
All cities	977,812	1,138	13.7	80	145	13.7	59	5.6	20	1.9	18	1.7	50	4.7	265	25.2	145	174.9	32	26.5	18	21.7	7	8.4
Over 50,000	260,046	315	14.2	28	42	14.6	20	7.0	6	2.0	2	1.6	15	5.2	69	24.0	43	195.1	7	31.7	4	18.1	1	4.5
25,000 to 50,000	150,349	206	15.2	21	27	14.5	10	6.2	4	2.1	3	1.6	9	4.3	45	24.3	23	170.3	4	24.3	7	51.8	1	15.2
10,000 to 25,000	281,707	282	14.3	14	33	12.3	12	4.4	4	1.1	6	2.2	14	5.2	69	25.7	35	178.2	2	10.3	4	20.3	3	11.9
5,000 to 10,000	186,779	190	11.3	18	26	15.1	13	7.3	4	2.3	4	2.3	7	4.0	46	26.7	30	179.8	6	35.9	1	5.9	1	11.9
Under 5,000	128,931	145	13.1	9	17	12.4	8	5.8	3	2.1	3	2.1	5	3.8	36	28.2	14	127.1	3	27.2	2	18.1	1	9.0
Country	1,670,737	1,118	10.0	111	165	12.6	67	5.1	21	1.6	21	1.6	60	4.5	416	31.8	177	125.0	19	19.4	14	9.8	8	2.1

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates per 100,000 Population from Important Causes.																							
	Group.		Scarlet Fever.		Measles.		Whooping-Cough.		Pneumonia.		Diarrheal Diseases, Under 5 Yrs.		Cerebro-Spinal Meningitis.		Influenza.		Puerperal Septicæmia.		Cancer.		Violence.		Small-pox.	
	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2	3	11	4.9	19	8.4	170	75.7	28	12.4	44	19.6	16	7.1	18	8.0	122	54.3	140	62.3	2	3		
Northern Co's	1	1.3	3	3.9	4	5.3	55	73.0	9	11.9	16	21.3	2	2.6	3	3.9	57	75.7	51	67.7	1	1.3		
Central Co's	1	1.7	3	3.7	10	10.8	71	90.2	9	9.7	13	14.1	9	9.7	8	8.6	38	41.2	51	55.3	2	3.5		
Southern Co's	1	1.7	3	3.7	5	8.7	41	71.8	10	17.5	15	26.2	5	8.7	7	12.2	27	47.3	38	66.6	2	3.5		
All cities	3	3.6	12	14.4	80	96.5	15	18.1	21	25.3	6	9.6	8	9.6	62	71.8	60	72.1	2	3				
Over 50,000	1	4.5	3	9.0	29	131.5	8	27.2	5	22.5	2	9.0	4	18.1	12	54.4	18	81.6	1	4.5				
25,000 to 50,000	1	4.5	3	14.8	14	103.6	3	22.2	4	29.6	1	7.4	1	5.0	21	51.8	13	96.2	1	4.5				
10,000 to 25,000	1	4.5	3	25.4	21	106.9	1	5.0	3	15.2	4	20.3	1	5.0	2	106.9	14	71.2	1	4.5				
5,000 to 10,000	1	4.5	3	17.9	9	53.9	3	17.9	6	35.9	1	5.9	3	5.9	8	47.9	9	63.9	1	4.5				
Under 5,000	1	4.5	3	9.8	7	63.5	2	18.1	3	27.2	2	9.1	2	18.1	14	127.1	6	54.4	1	4.5				
Country	2	1.4	8	5.6	7	4.9	90	63.5	13	9.1	23	16.2	8	5.6	10	7.0	60	42.3	80	56.5	2	1.4		

Meteorological Summary for May, 1905. Furnished by the Central Office, Indiana Section, Climate and Crop Service, U. S. Weather Bureau, Indianapolis, Ind.
 W. T. BLYTHE, SECTION DIRECTOR.

SECTIONS.	TEMPERATURE.												PRECIPITATION.				CONDITION OF SKY.			Wind. Prevailing Direction.		
	Mean.	Departure from Normal.	Highest.						Lowest.						In Inches.				Number of Days.			
			Degrees.		Place.		Degrees.		Place.		Average.	Departure from Normal.	Snowfall Unmelted.	Days with .01 inch or more.	Clear.	Partly Cloudy.	Cloudy.					
			Date.	Place.	Date.	Place.																
Northern Section	60.3	-0.4	87	3	Hammond	23	1	Auburn	8.14	+1.45	0	12	14	7	10	SW.						
Central Section	63.4	+1.3	92	3	Hector	34	1	Camb'g C'y	5.97	+2.77	0	13	10	10	11	SW.						
Southern Section	66.9	+2.4	95	3	Mt. Vernon	27	1	Greensburg	5.77	+1.92	0	12	12	11	8	SW.						
State	63.5	+1.1	9	29	Mt. Vernon	28	1	Auburn	5.96	+2.06	0	12	12	9	10	SW.						