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STATE CONTROL OF SEWERAGE SYSTEMS.

THE MARYLAND ACT GIVING THE STATE BOARD OF HEALTH SUPERVISION OVER SEWERAGE SYSTEMS HELD TO BE VALID.

The Legislature of the State of Maryland, in 1914, passed an act giving the State board of health authority over the installation and operation of water and sewerage systems in the State of Maryland. This act was published in the Public Health Reports of June 12, 1914, at page 1592.

The act empowered the State board of health to order the local authorities to install public systems of water supply, sewerage, or refuse disposal in "any county, municipality, district, subdivision, or locality" whenever the absence or incompleteness of such systems was, in the opinion of the State board of health, "sufficiently prejudicial to the health or comfort" of the community. The act further provided that the local authorities, if they deemed any such order unlawful, unreasonable, or unnecessary, might bring an action in the courts to set aside the order.

The State board of health, in October, 1914, ordered the county commissioners of Baltimore County to install a sewerage system in a specified drainage area in Baltimore County, stating in the order that the absence of such a system was a menace to the health of the people.

The commission brought suit in the courts to have the order set aside; but they attacked the constitutionality of part of the law, and did not allege that the order was unreasonable.

The Supreme Court of Maryland (see p. 3241 of this issue of the Public Health Reports) held that the sections of the act which were attacked were not invalid, but sent the case back to the circuit court in order that the question whether the order of the board of health was reasonable might be judicially determined.

TUBERCULOSIS.

WITH SPECIAL REFERENCE TO ITS EPIDEMIOLOGY, TRANSMISSIBILITY, AND PREVENTION.

By GEORGE M. KOBER, M. D., Professor of Hygiene, School of Medicine, Georgetown University, Washington, D. C.

Tuberculosis has been aptly spoken of as "the great white plague," and its ravages may be appreciated when we recall that, in spite of marked progress in preventive efforts, this disease carried off during the year 1913 over 143,000 victims in the United States alone. If we accept Dr. Phillips's estimate that for every death from tuberculosis there are 10 cases of the disease, the number of persons afflicted in this country would be 1,430,000. If we accept the most conservative estimates offered on this point—viz, 1 per cent of the population—the number of consumptives would be 987,813. The average duration of a case of tuberculosis is about three years, and the cost of medical attendance, food, nursing, and loss of work during this time has been estimated at \$2,240; but taking a most conservative basis and calculating only \$1,500 for each death, the 143,000 deaths represent an annual cost of \$214,500,000 to the people of the United States.

A Hopeful Problem.

Great and grave as the problem may appear, there is certainly hope when we recall the fact that the death rate from tuberculosis has apparently been reduced from 326 per 100,000 in 1880 to 147.6 in 1913, which means that if the former rate of mortality had been continued the number of deaths from this disease last year would have been 322,027 instead of 143,000. This is equivalent to a saving of 179,027 lives during 1913 from this disease alone.

While much has been accomplished, more remains to be done before we can hope for the eradication of this preventable disease.

The Cause and Spread of Tuberculosis.

The classical researches of Koch in 1882 established beyond doubt that the disease is caused by microscopic organisms, which, upon entering the living body, are capable of rapid multiplication, and by irritation cause the growths known as tubercles. The presence of these morbid growths constitutes the disease called tuberculosis, which may affect not only the lungs, but other structures of the body as well.

The disease is communicable from man to man, from animal to man, and from man to animal. The transmission always takes place through the agency of the specific germs which emanate from a previously diseased body and enter a new host. The most frequent portal of entry or path of infection for the tubercle bacillus is doubtless by inhalation of bacilli-laden dust or air. It is perfectly conceivable that the expectoration of consumptives on floors, clothing,

etc., soon becomes dry and pulverized and, as a constituent of atmospheric dust, may be inhaled. It has also been demonstrated by Flügge that a consumptive with an active expectoration, in coughing, talking, or sneezing, projects into the air little droplets of saliva laden with tubercle bacilli, which can be inhaled within 3 feet from the patient. These droplet infections, according to Flügge, and in the opinion of the writer, constitute the most dangerous form of transmission and account for the so-called family infections which are so frequently observed, especially in small homes.

The reason why droplet infection is especially virulent is that the bacilli enter the respiratory passages in a fresh state without prolonged exposure to light and desiccation, which would tend to diminish the virulency of the germs. Both of these modes of spreading the disease can be prevented by the collection and proper disposal of the sputum, by avoidance of close contact, and insisting that a consumptive guard his mouth and nose by means of a handkerchief while talking, coughing, or sneezing. This is especially important in close contact.

Infection Through the Digestive Tract.

In our present state of knowledge the next most frequent portal of entry of the germs is the digestive tract. Here, again, let us refer to the sputum on floors or carpets carelessly expectorated by consumptives or tracked in on the shoes and formerly on long-trained skirts. What is to prevent a child creeping on the floor from soiling its hands and carrying the infectious material to its mouth as long as we permit careless and unteachable consumptives to expectorate promiscuously? In this connection we should also emphasize the danger from kissing, and the common use of eating and drinking utensils, through which the infection may be transmitted by the small but virulent particles of sputum adhering to the lips of consumptives. The danger from these sources has been recognized, and ordinances have been enacted forbidding spitting in public places and the common use of drinking cups. But should we not also insist upon provisions for cuspidors and individual drinking cups or fountains? How many public buildings and schools are thus supplied?

Danger from Bovine Tuberculosis.

In addition to the danger from human sources we can not ignore the danger of transmission of bovine tuberculosis through the agency of infected milk and meat. The danger from cooked meat is quite imaginary, since exposure to a temperature of even 140° F. for 20 minutes suffices to kill the germs. The degree of danger from raw tuberculous meat remains to be determined, although we have records of cases where butchers and veterinarians have been inoculated with tuberculosis from infected meat through wounds and abrasions of the

skin. In passing, it should be stated that similar infections are possible in cleaning cuspidors.

The danger from tuberculous milk, however, is real and can not be ignored. The Public Health Service, in examining 272 samples of milk from 104 dairies in the city of Washington, found tubercle bacilli in 6.72 per cent of the samples. The danger from this source is therefore especially great during the milk-drinking age, and probably accounts in part for the prevalence of tuberculous meningitis and of tuberculosis of the lymphatic glands, joints, and bones during infancy and childhood.

There is much reason for believing that bovine tuberculosis is at least responsible for the majority of affections formerly spoken of as scrofulous. There may also be a certain amount of danger from infected dairy products like cheese and butter.

Recent post-mortem examinations conducted by Hamburger and Monti in the Vienna hospitals show that 95 per cent of the children who came to autopsy, largely the children of the poorer classes, were already tuberculous by the time they reached the twelfth to thirteenth year of life. Just how much of this almost universal infection is due to bovine origin and how much to the human sources of danger remains to be determined. Von Behring holds that in the great majority of cases of pulmonary tuberculosis the primary infection dates back to infancy and childhood, and is derived from the milk of tuberculous cows.

While it is true that there is a special danger from infection in children, which may remain dormant until the period of adolescence and maturity is reached, the author is not prepared to accept the view that infectious cow's milk is the primary and most important source of infection, in spite of the fact that he was one of the first to emphasize the danger of infected cow's milk. His reason for not accepting von Behring's dictum is that the bovine type of tubercle bacilli is rarely found in pulmonary consumption. It was not found in a single case in the 277 autopsies of pulmonary tuberculosis in children reported by Dr. Wm. H. Park. It is claimed that there is a possibility of the transformation of the bovine into the human type of the bacillus by prolonged survival in the human body; that may be true, but remains to be proven. In the meantime we know that the human type was found in 388 autopsies and the bovine type in only 24, or 5.82 per cent, of 412 autopsies. It is not desired to underrate the danger from this source. By all means let us continue our efforts toward the ultimate extermination of bovine tuberculosis, and until this is accomplished, let us pasteurize, or at least scald, our milk, but let us not forget that in the light of our knowledge and experience the greatest source of danger in the transmission of pulmonary tuberculosis is the human patient, just as in other communicable diseases.

Childhood Not the Only Danger Period.

In this connection it may be well to caution against accepting the belief at times advanced that childhood is the time of infection and that to the adult there is little if any danger of infection from outside sources.

While it is true from the observations of Humphrey, Pollock, Leudet, and others, that it is rare for the disease to be contracted by physicians, nurses, and others connected with hospitals for consumptives, the results are different in private practice and life.

Uffelman in his *Handbuch der Hygiene*, 1890, cites the results of a French committee of investigation, who reported 212 cases of tuberculosis, in which the communicability of the disease was clearly established. In 64 of these cases the disease was conveyed from husband to wife; in 43 from the wife to the husband; in 38 it was transmitted to brothers or sisters; in 19 from parents to the children; in 16 to distant relatives and in 32 to persons not relatives of the family. The communicability was most marked among the poorer classes. Another collective investigation by a German medical society, cited by Uffelmann, revealed the fact that of 938 married persons, who died of acquired tuberculosis, in 101 instances either the husband or wife also contracted the disease. Uffelmann also cites Meyerhoff's statistics in private practice dealing with 40 cases.

Other statistics might be adduced in favor of the communicability of the disease, but Zasetzky's observation is of special interest. He reports the case of a tuberculous woman who married between 1872 and 1883 three husbands, all previously healthy. The first husband died of tuberculosis in 1879, the second in 1881, and the third husband at the time of the report in 1884 was also a victim of the disease, the wife having in the meantime died of consumption.

Infected Clothing.

There is some reason for believing that the germs of tuberculosis may be conveyed in clothing. Perlen, in his dissertation on pulmonary consumption and occupation, tells us that of 4,177 tuberculous patients treated at the Munich Poliklinik, 709 were engaged in renovating clothing and footwear. While these figures are suggestive, it is of course impossible to determine the number of instances of direct infections.

Agency of Flies in the Transmission of Tuberculosis.

The possibility that the germs of tuberculosis may be carried by means of flies and dust suggests that greater precaution be exercised in the exposure of foodstuffs in the homes and also in show windows and markets, and that an effective antily fly campaign be carried on. Other modes of infection, such as by the mucous membranes of the

eye, genitals, wounds, and even through the unbroken skin, have been reported

There is little or no evidence to show that the disease is ever inherited. We may assume, however, that in children of consumptive parents we are dealing with the transmission of vulnerable anatomical elements, and this, together with the fact that children are constantly exposed in tuberculous families to the germs, renders them particularly liable to the disease.

Tuberculosis Almost a Universal Infection.

Recent investigations tend to confirm the conclusions long since enunciated by a German physician that "in the end everybody has a touch of tuberculosis." At all events, Nageli, in 1900 found that 97 per cent of adults examined at autopsy in Zurich showed active, latent, or healed tuberculosis. This, of course, in the language of Prof. Welch, is "not equivalent to saying that everyone has or has had the disease tuberculosis. It signifies merely that in the class of people examined practically everyone had received into the body tubercle bacilli and that these had left their record behind."

From what has been said it is evident that tubercle bacilli are widely scattered. The modes of invasion are also numerous, and yet there is a certain proportion of those exposed who do not develop the disease. This shows, as already mentioned, that in addition to the germs there must be a suitable soil for the growth and destructive effects. Such a soil is usually found in persons of feeble physique, victims of malnutrition, whose bodies have been weakened by one or more of the numerous causes, whether it be a previous attack of sickness, loss of sleep, overwork, vice and dissipation, insanitary homes, impure air, or lack of cleanliness, sunlight, outdoor exercise, or proper food.

Clinical experience indicates that faulty nutrition, debility, loss of blood, anemia, mental anxiety, diabetes, whooping cough, measles, and other diseases favor the development of tuberculosis. We also know that a predisposition may be inherited, as evidenced by a delicate physique, narrow chest, and general vulnerability of the tissues. Predisposition to tuberculosis may also be acquired through dust-producing occupations, and here the amount of dust is less important than the character of the particles which compose it.

The Influence of Dust.

The influence of dust on the prevalence of the disease is strikingly shown by the fact that the tuberculosis rate among 472,000 males in the United States, exposed in 15 occupations to the inhalation of organic dust, was 2.29 per 1,000, against a rate of 1.55 for all occupied males, and also by the fact that 42.05 per cent of the deaths

of printers, lithographers, and pressmen, who died at ages between 25 and 44 years, were from consumption, as compared with 21.88 per cent for farmers, planters, and overseers. Statistics collected by Sommerfeld show that with an average tuberculosis death rate of 4.93 per 1,000 in the population of Berlin, the rate in nondusty trades was 2.39 and in dusty trades 5.42.

The explanation of this is to be found in the fact that dust acts as an irritant and causes catarrhal conditions of the mucous membranes and even more serious chronic inflammation of the respiratory organs. The chronic inflammatory conditions thus produced naturally favor invasion of the tubercle bacillus, or may light up a latent infection contracted in early life.

The influence of dusty trades is strikingly illustrated in the State of Vermont. In analyzing the statistics of the towns where most of the granite and marble cutting is carried on, we find in a combined population of 34,899 a tuberculosis rate of 2.2 per 1,000 against a rate of 1.3 for the entire State.

It is estimated that our industrial workers, constituting about one-third of the population, contribute about one-half of all the deaths from tuberculosis in this country, and that by factory sanitation and effective methods for the prevention and removal of dust, fully one-half of these lives could be saved. This is not all speculative, since Prof. Röpke has shown that the mortality of Solingen in Germany, the population of which is largely made up of employees in the cutlery industry, has been reduced from 20.63 per 1,000 in 1885 to 9.3 per 1,000 in 1910, and the tuberculosis death rate from 5.4 in 1885 to 1.8 in 1910 per 1,000 of population. Similar data are available to show that diseases of the respiratory organs in some of the German cement works have been reduced from 9.3 to 3.3 per cent after the installation of a suitable apparatus for the removal of dust.

What can be done in some of the most dangerous industries in Germany can be done in this country, and will be done as soon as the importance and feasibility of the subject are fully appreciated.

Influence of Damp Soils.

The observations of Drs. Bowditch of the United States and Buchanan of England, in the sixties, indicate that damp soils and damp houses are important predisposing causes of tuberculosis. We also know that with the introduction of sewers the mortality from the disease has been reduced in numerous cities from 30 to 40 per cent. The only reasonable explanation is that the introduction of sewers indicates a general improvement in living conditions, especially of the air we breathe, and also renders otherwise damp soils and habitations dry and more healthful.

Insanitary Houses.

The influence of insanitary dwellings on the prevalence of tuberculosis is very great. Where the sun does not enter the physician surely will. Dark, gloomy, and damp houses should be avoided. Moldy spots on the walls, or ceilings and a close, musty odor indicate dampness. It has long been known that tuberculosis is far more prevalent in damp, dark, and insanitary houses. The children there are anemic and as puny as plants reared without the stimulating effects of sunlight. The death rate is often double and treble that of other homes. It should be remembered that the tubercle bacillus clinging to the floor and walls in carelessly expectorated sputum or droplets would be destroyed by a few hours of exposure to sunlight, but finds in dark and damp tenements suitable environments for its vitality and growth.

We have heard of the notorious "lung blocks" from Drs. Biggs of New York and Flick of Philadelphia. Among the 80,000 houses in the city of Paris, according to Marié-Davy, there were 4,443 with an unusually high mortality rate; in 820 of these the mortality from tuberculosis was 9.8 per 1,000, as compared with 4.5 per 1,000 in the general population. The cause was attributed to overcrowding, deficient ventilation and defective light, especially lack of sunlight. The other concomitants of poverty were probably also present.

The writer has no hesitation in declaring that the housing conditions of the least resourceful people have been and are even now a most important factor in helping to swell the frightful mortality from consumption and other so-called house diseases, engendered by unwholesome environments. The State may not be in a position to provide sanitary houses, but it can at least regulate and supervise the construction of all new houses with reference to air space, light, ventilation, etc., and enact laws for the condemnation of houses unfit for human habitations.

Influence of Parks and Breathing Spaces on the Prevalence of Tuberculosis.

Wernicke in his Monograph on the Relation of Disease and Social Conditions, points out that in London, where the parks and unoccupied area of the city available for breathing spaces amount to 14 per cent, the tuberculosis death rate is 1.9 per cent; in Berlin with 10 per cent of the city area available for breathing spaces it is 2.2 per cent, and in Paris with only 4.3 per cent of open spaces, the death rate from consumption is 5.1 per cent.

Such data constitute a strong argument for the establishment of sanitary schools, especially in view of the experience with fresh-air schools which have everywhere furnished encouraging results.

The State should not only provide sanitary schools, but also an abundance of parks and playgrounds, and should pay special atten-

tion to the physical development of the young. This is important for all classes, and especially for children of consumptive parents on account of the transmission of vulnerable anatomical elements, which render them peculiarly liable to the disease. This predisposition may certainly be overcome by pure air and physical culture in addition to proper food. If it be found that school children are starving for the want of proper food, it is clearly our duty to make suitable provisions to prevent permanent dependency. In brief, no effort should be spared to increase the resisting power of the individual to disease.

Preventive Measures.

The facts presented justify the following conclusions:

1. Tuberculosis is an infectious disease caused by a specific organism. An inherited or acquired predisposition plays an important rôle.
2. There is reason to believe that infections may occur at all periods of life and that the disease may remain quiescent until some debilitating factors lighten up these latent infections.
3. The germs may enter the system by the respiratory and alimentary passages and even by the skin and mucous membranes if there be an abrasion.
4. While the bacillus may be transmitted through the milk, flesh, and blood of animals and man, the most common and effective way of disseminating the tuberculosis is by the sputum and droplets of tuberculous patients.
5. The habitations of consumptives, their personal effects, clothing, bedding, etc., are infected and liable to convey the disease to others.

From what has been stated it is evident that the prevention of the disease should be the central object of the campaign. For this purpose popular education, which not only emphasizes the cause and means of spread of the disease, but also the improvement of the general health of the people, thereby increasing the resisting power of the individual to the ubiquitous tubercle bacillus, is of the utmost importance. The writer is confident that the value of health talks is especially great for school children. When we supply our children with healthful schoolrooms and teach them the value of pure air, sanitary homes, proper and sufficient food, physical culture, baths, and suitable clothing, and the importance of temperance and pure and clean lives, the lessons taught will be applied in the homes and workshops of the Nation. Such a plan should be supplemented by annual medical examinations for the recognition of incipient cases. No opportunity should be lost in the general campaign to spread the gospel of personal hygiene, and general sanitation, for be it remembered that every movement which makes for better health and a temperate, untainted, and virile race will offer the best safeguard in the prevention of tuberculosis.

State Methods of Prevention.

Special emphasis has been given to the prevention of the predisposing causes of consumption, and it is equally important to point out the State methods for prevention.

1. Compulsory notification of cases to the health authorities as soon as the disease is recognized. This is of vital importance for the location and control of the sources of infection and for the protection of the family and others. The health authorities, apart from distributing printed directions for the use of the family and the patient as regards the care and disinfection of sputum and the avoidance of droplet infection, should also resort to disinfection of the home and personal effects, especially upon the death of the patient or vacation of the premises. The patient when outdoors should use a pocket sputum flask, and during coughing, sneezing, or talking should guard his mouth by means of a handkerchief.

2. The enactment and enforcement of laws against promiscuous expectoration, coughing into the faces of persons, and the common use of drinking cups are called for. Provisions should be made for drinking fountains or individual drinking cups, and for suitable spittoons and their disinfection in all public buildings. The public should not cultivate an exaggerated fear, but has a right to insist upon clean and decent precautions.

3. The sanitary conditions of hotels, lodging houses, theaters, churches, schools, and ambulance and passenger service should be under the control of the health department, and house cleaning should be accomplished as far as practicable by the vacuum system.

4. Marriage with a tuberculous person should not only be discouraged, but prohibited by law. A tuberculous mother should not nurse or kiss her infant, and in the selection of a wet nurse a certificate of health should be demanded.

5. In hospitals, asylums, and similar public institutions isolation of tuberculous patients should be insisted upon. In private life the patient should occupy at least a separate bed, use separate eating and drinking utensils, and neither receive nor give kisses.

6. Inspection of dairies and of dairy and meat products and the extermination of bovine tuberculosis are called for. Until the latter is accomplished milk and cream should be heated to 140° F. for 20 minutes, cooled quickly and kept cold, and all meats should be cooked.

Provisions for the Care and Treatment of Consumptives.

Tuberculosis dispensaries should be established in all cities and towns and at convenient places for rural areas. The object of these dispensaries is the recognition of the early cases with a view of prompt treatment for incipient cases. If the patient is unable to

pay for treatment, it is clearly the duty of the community to carry the burden. The expense of such agencies should not rest upon the shoulders of a few, unless men and women with sufficient means can be found to carry on the work effectively. When for any reason circumstances compel home treatment, a course which should always be discouraged in the poorer classes, it is essential that a visiting nurse be employed to insure sanitary oversight of the home, proper food, and faithful execution of the physician's directions.

Sanatoria and Hospitals.

There are now in the United States 550 sanatoria hospitals and day camps with approximately 35,000 beds devoted to tuberculous patients. There are over 400 dispensaries with over 1,000 physicians in regular attendance. A corps of about 4,000 visiting nurses is engaged exclusively in tuberculosis work. Probably in the majority of incipient cases the disease is arrested and those who have the means to care for themselves remain cured. It must be admitted, however, that 75 per cent of those discharged as apparently cured, when obliged to return to bad social and industrial conditions suffer relapses and finally die of the disease. Such a sad termination might be prevented by the establishment of working farms or colonies, improved living conditions, or change of work. Much of this involves great social reforms, which may not be attained for many years. In the meantime let us see to it, by educational methods at the sanatoria, that the discharged patient is properly informed how to care for himself even under adverse surroundings.

Hospitals for advanced cases.—The leaders in the antituberculosis movement have long since realized that the advanced and helpless cases are the most dangerous sources of spreading the disease. They have reached the conclusion that the segregation of these advanced and expectorating cases in hospitals "far outweigh in preventive value all others." For this purpose we need special hospitals or at least special pavilions if connected with a general hospital. The duty clearly devolves upon the State. The next question arises, How many hospitals and beds for advanced cases are needed? This depends upon the number of deaths and the prevalence of the disease in a given community.

Of the 143,000 deaths in the United States, we may assume that possibly 25 per cent are in families which can afford the expense of separate rooms, special nurses, and other safeguards at their homes, leaving an average of 117,250 patients to be cared for in hospitals. The average stay of an advanced case is about 110 days, which enables each bed to be used for three patients a year; hence we may conclude that about 35,000 beds for advanced cases alone are needed

which is our present capacity for all classes of patients. The original cost of construction and equipment need not exceed \$1,200 per bed, and the cost of maintenance is about \$10 a week. This sum, high as it may appear, is trivial in the face of the present economic losses from this disease. Apart from this it is the only humane way to relieve the families with small incomes of the burden of caring for their helpless sick and is at the same time a most effective measure in the prevention of the spread of the disease.

Moreover, with the segregation of the advanced cases it may be confidently expected that there will be a steady diminution in the number of cases to be cared for and a corresponding decrease in the annual expense.

There are at present over 2,500 special agencies, including about 1,200 State and local antituberculosis associations engaged in the warfare against the great white plague, and it is to be hoped that, in view of the progress which has been made since 1880, this scourge may be very materially further reduced if not exterminated before the close of the present century.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following reports of plague-prevention work in California were received from Senior Surg. Pierce, of the United States Public Health Service, in charge of the work:

WEEK ENDED OCTOBER 2, 1915.

SAN FRANCISCO, CAL.

RAT PROOFING.

New buildings:	
Inspections of work under construction.	126
Basements concreted (71,427 square feet).....	111
Floors concreted (14,020 square feet)...	36
Yards, passageways, etc. (95,470 square feet).....	150
Total area of concrete laid, square feet.	180,917
Class A, B, and C fire-proof buildings:	
Inspections made.....	174
Roof and basement ventilators, etc., screened.....	4,715
Wire screening used (square feet).....	23,440
Openings around pipes, etc., closed with cement.....	2,920
Sidewalk lens lights replaced.....	1,000
Old buildings:	
Inspections made.....	435
Wooden floors removed.....	27
Yards and passageways, planking removed.....	16
Cubic feet new foundation walls installed.....	4,945
Concrete floors installed (47,330 square feet).....	49
Basements concreted (30,330 square feet).....	38
Yards and passageways, etc., concreted (14,410 square feet).....	69
Total area concrete laid (square feet)...	92,070
Floors rat proofed with wire cloth (19,150 square feet).....	7
Buildings razed.....	10
New garbage cans stamped approved.....	409
Nuisances abated.....	315

OPERATIONS ON THE WATER FRONT.

Number of vessels inspected for rat guards.	25
Number of reinspections made on vessels..	30
Number of new rat guards procured.....	20
Number of defective rat guards repaired...	8
Rats trapped on wharves and water front..	37
Rats trapped on vessels.....	21
Number of traps set on wharves and water front.....	175
Number of traps set on vessels.....	54
Number of vessels trapped on.....	12
Poisons placed on water front (pieces).....	3,600
Poisons placed within Panama-Pacific International Exposition grounds (pieces)...	7,200
Bait used on water front and vessels, bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	12
Number of pounds of poison used on water front.....	6

RATS COLLECTED AND EXAMINED FOR PLAGUE.

Collected.....	333
Examined.....	240
Found infected.....	None.

RATS IDENTIFIED.

<i>Mus norvegicus</i>	153
<i>Mus alexandrinus</i>	49
<i>Mus musculus</i>	62
<i>Mus rattus</i>	69

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.

Counties.	Shot.	Examined.	Found infected.
Contra Costa.....	141	141	1
Monterey.....	63	63	.....
San Benito.....	89	89	.....
Total.....	293	293	1

RANCHES INSPECTED AND HUNTED OVER.

Contra Costa County.....	20
Monterey County.....	8
San Benito County.....	10
Total.....	38

PLAGUE-INFECTED SQUIRREL.

Contra Costa County.—Shot September 16, 1915.—W. Noakes ranch, 6½ miles southwest of Antioch, 1 squirrel.

WEEK ENDED OCTOBER 9, 1915.

SAN FRANCISCO, CAL.

RAT PROOFING.

New buildings:	
Inspections of work under construction.	235
Basements concreted (96,763 square feet).....	123
Floors concreted (23,020 square feet)....	18
Yards, passageways, etc. (44,986 square feet).....	287
Total area of concrete laid, 164,769 square feet.	
Class A, B, and C (fireproof) buildings:	
Inspections made.....	165
Roof and basement ventilators, etc., screened.....	4,252
Wire screening used, 20,874 square feet.	
Openings around pipes, etc., closed with cement.....	3,520
Sidewalk lens lights replaced.....	2,000
Old buildings:	
Inspections made.....	353
Wooden floors removed.....	20
Yards and passageways, planking removed.....	7
Cubic feet new foundation walls installed.....	8,317
Concrete floors installed (29,153 square feet).....	49
Basements concreted (23,488 square feet).....	34
Yards and passageways, etc., concreted (29,424 square feet).....	143
Total area concrete laid, 82,065 square feet.	
Floors rat proofed with wire cloth (14,145 square feet).....	13
Buildings razed.....	10
New garbage cans stamped approved.....	869
Nuisances abated.....	358

OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards.....	21
Reinspections made on vessels.....	27
New rat guards procured.....	16
Defective rat guards repaired.....	16
Rats trapped on wharves and water front..	44
Rats trapped on vessels.....	19
Traps set on wharves and water front.....	165
Traps set on vessels.....	68
Vessels trapped on.....	14
Poisons placed on water front (pieces).....	3,600
Poisons placed within Panama-Pacific International Exposition grounds.....	7,200
Bait used on water front and vessels, bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	12
Pounds of poison used on water front.....	6

RATS COLLECTED AND EXAMINED FOR PLAGUE.

Collected.....	389
Examined.....	290
Found infected.....	None.

RATS IDENTIFIED.

Mus norvegicus.....	191
Mus musculus.....	66
Mus alexandrinus.....	64
Mus rattus.....	68

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.

Contra Costa County.....	154
Found infected.....	None.

RANCHES INSPECTED AND HUNTED OVER.

Contra Costa County.....	23
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Record of plague infection.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(¹)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(¹)	126 rats.
Berkeley.....	Aug. 28, 1907	(¹)	(¹)	None.
Los Angeles.....	Aug. 11, 1908	(¹)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909 ²	July 12, 1915	287 squirrels, 1 wood rat.
Contra Costa.....	July 13, 1915	(¹)	Sept. 16, 1915	1,594 squirrels.
Fresno.....	(¹)	(¹)	Oct. 27, 1911	1 squirrel.
Merced.....	(¹)	(¹)	July 12, 1911	5 squirrels.
Monterey.....	(¹)	(¹)	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	(¹)	Aug. 14, 1915	50 squirrels.
San Joaquin.....	Sept. 18, 1911	(¹)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(¹)	(¹)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(¹)	July 23, 1913	25 squirrels.
Santa Cruz.....	(¹)	(¹)	May 17, 1910	3 squirrels.
Stanislaus.....	(¹)	(¹)	June 2, 1911	13 squirrels.

¹ None.² Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, San Francisco, Stanislaus, and San Benito.

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following report of plague-eradication work at New Orleans for the week ended October 16, 1915, was received from Surg. Creel, of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.		BUILDINGS RAT PROOFED—continued.	
Vessels fumigated with sulphur.....	5	By concrete floor and wall.....	38
Vessels fumigated with carbon monoxide..	14	By minor repairs.....	48
Vessels fumigated with hydrocyanic gas...	2	Total buildings rat proofed.....	203
Sulphur used.....pounds.....	700	Square yards of concrete laid.....	13,362
Coke consumed in carbon monoxide fumi-		Number of lots and sheds, planking re-	
gation.....pounds.....	19,300	moved.....	29
Cyanide used in cyanide gas fumigation,		Number of buildings demolished.....	21
pounds.....	84½	Total buildings rat proofed to date (abated)	93,327
Sulphuric acid used in cyanide gas fumiga-		LABORATORY OPERATIONS.	
tion.....pints.....	84½	Rodents received by species:	
Clean bills of health issued.....	26	Mus rattus.....	213
Foul bills of health issued.....	5	Mus norvegicus.....	1,320
FIELD OPERATIONS.		Mus alexandrinus.....	176
Number of rats trapped.....	6,977	Mus musculus.....	5,304
Number of premises inspected.....	5,479	Wood rats.....	21
Notices served.....	2,301	Musk rats.....	10
Poisons placed.....	50	Putrid (included in enumeration of	
Number of garbage cans installed.....	90	species).....	48
BUILDINGS RAT PROOFED.		Total rodents received at laboratory.....	7,044
By elevation.....	48	Rodents examined.....	2,030
By marginal concrete wall.....	69	Number of suspicious rats.....	7
		Plague rats confirmed.....	2

PLAGUE RATS.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
258	Hyams coal yard (foot of Girod St.)	Oct. 7, 1915	Oct. 11, 1915	Rat proofing initiated; intensive trapping.
259	2415 Felicity Street.....	Oct. 6, 1915	Oct. 13, 1915	Immediate removal of rodent harborage; intensive trapping.

Number of human plague cases.....	None.	Total cases of rodent plague to Oct. 16, by species:	
Last case of human plague, Sept. 8, 1915.		Mus musculus.....	5
Last case of rodent plague, Oct. 13, 1915.		Mus rattus.....	18
Total number of rodents captured to Oct. 16.....	467,305	Mus alexandrinus.....	8
Total number of rodents examined to Oct. 16.....	293,625	Mus norvegicus.....	228
		Total rodent cases to Oct. 16, 1915...	259

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended October 9, 1915, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT PROOFING.		RAT PROOFING—continued.	
New buildings inspected.....	34	Total concrete laid, new structures (square feet).....	199,780
New buildings reinspected.....	36	New buildings elevated.....	5
Basements concreted, new buildings (10,750 square feet).....	9	New premises rat proofed, concrete.....	25
Floors concreted, new buildings (178,240 square feet).....	16	Old buildings inspected.....	3
Yards, etc., concreted, new structures (4,250 square feet).....	6	Premises rat proofed, concrete, old buildings	2
Sidewalks concreted (square feet).....	6,540	Floors concreted, old buildings (3,775 square feet).....	2
		Wooden floors removed, old buildings.....	2
		Buildings razed.....	4

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	23
Rodents trapped and killed.....	316
Rodents recovered after fumigation.....	36
Total.....	375
Rodents examined for plague infection.....	226
Rodents proven plague infected.....	None.
Poison distributed, pounds.....	13
Bodies examined for plague infection.....	2
Bodies found plague infected.....	None.

CLASSIFICATION OF RODENTS.

Mus rattus.....	15
Mus alexandrinus.....	65
Mus norvegicus.....	137
Mus musculus.....	82
Unclassified.....	36

WATER FRONT.

Vessels inspected and histories recorded ...	15
Vessels fumigated.....	1
Sulphur used, pounds.....	2,000
New rat guards installed.....	12
Defective rat guards repaired.....	17
Fumigation certificates issued.....	1
Port sanitary statements issued.....	44

The usual day and night patrol was maintained to enforce rat guarding and fending.

MISCELLANEOUS WORK.

Rat proofing notices sent to contractors, new buildings.....	20
Letters sent in re rat complaints.....	7

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	49
Mus norvegicus found dead.....	1
Mus musculus trapped.....	2
Total.....	52
Rodents examined for plague infection.....	46
Rodents proven plague infected.....	None.

RAT PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	7
New buildings, concrete foundations.....	4
New buildings elevated 18 inches.....	3
New buildings, basements concreted (912 square feet).....	1
New buildings, floors concreted (576 square feet).....	1
New buildings, yards concreted (160 square feet).....	1
Total concrete laid, new buildings (square feet).....	1,648
Old buildings, plank yards removed, concreted (square feet).....	750
Old buildings, yards concreted (square feet).....	295
Total concrete laid, old buildings (square feet).....	1,045

PORTO RICO—PLAGUE PREVENTION.

The following table shows the number of rats and mice examined in Porto Rico for plague infection during the two weeks ended October 8, 1915. No plague infection was found.

Place.	Rats.	Mice.
San Juan.....	148	39
Puerta de Tierra.....	99	17
Santurce.....	120	8
Total.....	367	64

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

IN CERTAIN STATES AND CITIES.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during September, 1915, to other State or Provincial health departments, by Collaborating Epidemiologist Bracken, of the Minnesota State Board of Health.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis: Mayo Clinic, Rochester, Olmsted County. Thomas Hospital, Minneapolis, Hennepin County. St. Paul Health Department, St. Paul, Ramsey County. Typhoid fever: University Hospital, Minneapolis, Hennepin County.	Quebec, Province of Quebec, Canada; Brandon, R. F. D., Fond Du Lac County, Wis.; Merrill, Lincoln County, Wis.; Darlington, Lafayette County, Wis.; McGregor, Clayton County, Iowa; Lake Mills, Winnebago County, Iowa; Callender, Webster County, Iowa; Le Mars, Plymouth County, Iowa; Des Moines, Polk County, Iowa; Hinton, Plymouth County, Iowa; Cedar Rapids, Linn County, Iowa; Slater, Story County, Iowa; Waterloo, Blackhawk County, Iowa; Wahpeton, Richland County, N. Dak.; Altoona, Blair County, Pa.; Wayne, Wayne County, Nebr.; Moline, Rock Island County, Ill.; Stockton, Jo. Daviess County, Ill.; Bevier, Macon County, Mo.; Joplin, Jasper County, Mo.; Mitchell, Davidson County, S. Dak.; Walla Walla, Walla Walla County, Wash.; San Antonio, Bexar County, Tex.; St. Ignace, Macinac County, Mich.; Stanbaugh, Iron County, Mich. Rata, Winnebago County, Iowa; Fessenden, Wells County, N. Dak. Northwood, Worth County, Iowa..... Burrton, Harvey County, Kans.....	4 advanced; 15 moderately advanced; 2 apparently cured; 2 apparently arrested; 1 incipient and 1 military case left Mayo Clinic for homes. 1 far advanced and 1 incipient case left Thomas Hospital for homes. An "open" case left Minneapolis to reside at Northwood, Iowa. Three weeks previous to earliest symptoms had been working on farm at Burrton, Kans.

ANTHRAX.

Louisiana.

Collaborating Epidemiologist Dowling reported that during the month of September, 1915, 1 case of anthrax was notified in Louisiana.

CEREBROSPINAL MENINGITIS.**State Reports for September, 1915.**

Place.	New cases reported.	Place.	New cases reported.
Ohio:		Virginia—Continued.	
Columbiana County.....	1	Henry County.....	2
Cuyahoga County—		Nansemond County.....	2
Cleveland.....	6	Norfolk County.....	1
Franklin County—		Orange County.....	1
Columbus.....	1	Pulaski County.....	1
Medina County.....	1	Richmond County.....	1
Toledo County.....	1	Rockbridge County.....	1
Summit County—		Russell County.....	1
Akron.....	1	Tazewell County.....	1
Washington County.....	1	York County.....	1
Total.....	12	Total.....	21
Virginia:		Washington:	
Accomac County.....	2	Jefferson County.....	1
Bland County.....	2		
Campbell County.....	1	Wisconsin:	
Carroll County.....	1	Douglas County.....	1
Culpeper County.....	1	Milwaukee County.....	2
Grayson County.....	1	Total.....	3
Hanover County.....	1		

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....	1	2	Manchester, N. H.....	2	2
Buffalo, N. Y.....		1	Milwaukee, Wis.....	2	2
Chicago, Ill.....	3	2	New Castle, Pa.....	1	
Cleveland, Ohio.....	2		Pittsfield, Mass.....		1
Detroit, Mich.....	2		Rochester, N. Y.....	1	
Galesburg, Ill.....		1	Wilkes-Barre, Pa.....		1
Los Angeles, Cal.....	1				

DIPHThERIA.**Massachusetts—Edgartown.**

Acting Asst. Surg. Worth reported by telegraph October 22, 1915, that 9 cases of diphtheria had been notified at Edgartown, Mass.

See also diphtheria, measles, scarlet fever, and tuberculosis, page 3228.

ERYSIPELAS.**City Reports for Week Ended Oct. 9, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Buffalo, N. Y.....	1	1	Los Angeles, Cal.....	2	
Canton, Ohio.....	1		Newark, N. J.....	1	
Chicago, Ill.....	5	2	New York, N. Y.....		3
Cleveland, Ohio.....	3		Philadelphia, Pa.....	2	
Cumberland, Md.....	1		Pittsburgh, Pa.....	4	1
Detroit, Mich.....	2		St. Louis, Mo.....	2	
Erie, Pa.....	1		San Francisco, Cal.....	1	
Hartford, Conn.....	1		Springfield, Ill.....	1	

GONORRHEA.**State Reports for September, 1915.**

During the month of September, 1915, cases of gonorrhea were notified in States as follows: Louisiana, 14; Ohio, 289; Vermont, 51; Wisconsin, 27.

MALARIA.**State Reports for September, 1915.**

During the month of September, 1915, cases of malaria were notified in States as follows: South Carolina, 143; Virginia, 2,665.

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.	3		Newark, N. J.	2	
Cairo, Ill.		1	New York, N. Y.		2
Evansville, Ind.	1		Philadelphia, Pa.	2	
Little Rock, Ark.	2		Pittsburgh, Pa.		1
Lowell, Mass.	1		Richmond, Va.	2	
Mobile, Ala.		1			

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3223.

PELLAGRA.**State Reports for September, 1915.**

During the month of September, 1915, cases of pellagra were notified in States, as follows: Louisiana, 8; Ohio, 1; South Carolina, 33; Virginia, 64.

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.		1	New Orleans, La.	2	1
Chicago, Ill.	1		Providence, R. I.		1
Lynchburg, Va.	1		Richmond, Va.	2	2
Mobile, Ala.	2		Washington, D. C.	1	
Nashville, Tenn.	127		Wilmington, N. C.		1

PNEUMONIA.**City Reports for Week Ended Oct. 9, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Auburn, N. Y.	1	1	Manchester, N. H.	1	1
Braddock, Pa.	1		Newark, N. J.	1	3
Chicago, Ill.	70	48	Newport, Ky.	1	1
Cleveland, Ohio.	14	9	Philadelphia, Pa.	11	11
Erie, Pa.	4		Pittsburgh, Pa.	9	6
Evansville, Ind.	1		Reading, Pa.	1	
Grand Rapids, Mich.	1		San Francisco, Cal.	9	7
Kalamazoo, Mich.	2	1	Stockton, Cal.	1	1
Lancaster, Pa.	1		Toledo, Ohio.	1	3
Los Angeles, Cal.	7	3			

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for September, 1915.

Place.	New cases reported.	Place.	New cases reported.
Louisiana:		Ohio—Continued.	
Caddo Parish.....	1	Franklin County—	
Michigan:		Columbus.....	1
Bay County—		Hamilton County.....	4
Bay City.....	1	Hardin County.....	1
Calhoun County—		Holmes County.....	4
Clarendon Township.....	1	Huron County—	
Genesee County—		Bellevue.....	1
Flint.....	12	Norwalk.....	1
Montcalm County—		Knox County.....	1
Eureka Township.....	1	Lake County.....	2
Montcalm Township.....	1	Loraine County.....	1
Sanilac County—		Lucas County—	
Marlette.....	1	Toledo.....	3
Washtenaw County—		Mahoning County.....	1
Ann Arbor.....	2	Montgomery County—	
Total.....	19	Dayton.....	2
Minnesota:		Muskingum County.....	2
Benton County—		Portage County.....	2
Foley.....	1	Richland County.....	3
Mahew Lake Township.....	1	Seneca County—	
Minden Township.....	1	Tiffin.....	1
St. Cloud.....	2	Stark County.....	12
Sauk Rapids Village.....	2	Summit County.....	52
Sauk Rapids Township.....	1	Tuscarawas County.....	8
Watab Township.....	1	Total.....	153
Beaumont County—		Vermont:	
Crandonville.....	1	Caledonia County.....	3
Renville County—		Orleans County.....	2
Danube.....	1	Windsor County.....	1
Rice County—		Total.....	6
Cannon City Township.....	2	Virginia:	
Sherburne County—		Accomac County.....	1
Haven Township.....	3	Amelia County.....	1
Stearns County—		Fauquier County.....	1
Holding Township.....	2	Grayson County.....	1
St. Augusta Township.....	5	Henry County.....	1
St. Cloud.....	16	Lee County.....	2
St. Joseph.....	1	Montgomery County.....	1
St. Wendell Township.....	2	Nansemond County.....	3
Sauk Centre.....	2	Powhatan County.....	1
Waite Park.....	2	Prince Edward County.....	2
Washington County—		Rockingham County.....	1
Stillwater.....	1	Scott County.....	1
Wright County—		Smyth County.....	1
Clearwater.....	1	Total.....	17
Clearwater Township.....	1	Wisconsin:	
Total.....	49	La Crosse County.....	1
Ohio:		Vilas County.....	1
Ashtabula County.....	1	Total.....	2
Columbiana County.....	1		
Cuyahoga County.....	48		
Darke County.....	1		

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....		1	Hartford, Conn.....	1	
Ann Arbor, Mich.....	1		Los Angeles, Cal.....	1	
Auburn, N. Y.....	1		Lowell, Mass.....	2	1
Baltimore, Md.....		1	Montclair, N. J.....	1	
Boston, Mass.....	2		New Bedford, Mass.....		1
Bridgport, Conn.....	1		New London, Conn.....	1	
Buffalo, N. Y.....	2		New York, N. Y.....	4	
Canton, Ohio.....	1		Providence, R. I.....	2	
Chicago, Ill.....	1		Rochester, N. Y.....	7	
Cleveland, Ohio.....	5		Rutland, Vt.....	1	
Erie, Pa.....	6		Saginaw, Mich.....	1	

RABIES.**State Reports for September, 1915.**

During the month of September, 1915, cases of rabies were notified in States, as follows: Ohio, 2; Wisconsin, 1.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3228.

SMALLPOX.**Kansas.**

Collaborating Epidemiologist Crumbine reported that during the week ended October 16, 1915, cases of smallpox were notified in counties of Kansas as follows: Allen 1, Clay 1, Ellsworth 1, Sedgwick 1, Wyandotte 5, making a total of 9 cases reported in the State during the period stated.

Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended October 23, 1915, four new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Dodge County, Canisto Township, 1; Faribault County, Kiester Township, 1; Ottertail County, Newton Township, 1; Hennepin County, Medina Township, 1.

State Reports for September, 1915.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan:						
Bay County—						
Fraser Township.....	1	.....	.....	.....	1	.....
Macomb County—						
Mount Clemens.....	1	.....	.....	1	.....	.....
Ray Township.....	1	.....	.....	.....	.....	1
Menominee County—						
Menominee.....	1	.....	.....	.....	.....	1
Muskegon County—						
Muskegon.....	1	.....	.....	.....	1	.....
Oakland County—						
Oakland Township.....	2	.....	.....	.....	2	.....
Van Buren County—						
Lawrence.....	1	.....	.....	.....	1	.....
Wayne County—						
Detroit.....	5	.....	.....	.....	5	.....
St. Clair Heights.....	1	.....	.....	.....	1	.....
Total.....	14	.....	.....	1	11	2
Minnesota:						
Benton County—						
Sauk Rapids Township...	4	.....	.....	.....	3	1
Bigstone County—						
Malta Township.....	4	.....	.....	.....	4	.....

SMALLPOX—Continued.

State Reports for September, 1915—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Minnesota—Continued.						
Blue Earth County—						
Mankato.....	3				2	1
Chippewa County—						
Montevideo.....	2			1		1
Faribault County—						
Winnebago City.....	1				1	
Jackson County—						
Heron Lake.....	4				4	
Lincoln County—						
Lake Benton.....	1					1
Martin County—						
Fox Lake Township.....	3				3	
Jay Township.....	1					1
Olmsted County—						
New Haven Township.....	1				1	
St. Louis County—						
Duluth.....	1				1	
Stearns County—						
St. Cloud.....	1				1	
Swift County—						
Appleton.....	1				1	
Wadena County—						
Verndale.....	1				1	
Total.....	28			1	22	5
Ohio:						
Columbiana County—						
East Liverpool.....	1				1	
Coshocton County—						
Coshocton.....	1					1
Cuyahoga County—						
Cleveland.....	3					3
Defiance County—						
Defiance.....	1					1
Geauga County.....	8			1	5	2
Hamilton County—						
Cincinnati.....	1					1
Hancock County—						
Findlay.....	1			1		
Huron County.....	1					1
Lorain County.....	8				2	6
Lucas County—						
Toledo.....	2					2
Mahoning County—						
Youngstown.....	5				4	1
Montgomery County—						
Dayton.....	1					1
Morrow County.....	2		1			1
Williams County.....	3					3
Total.....	38		1	2	12	23
Wisconsin:						
Brown County.....	1					
Dodge County.....	2				1	
Forest County.....	1				2	
Iron County.....	1				1	
Kewaunee County.....	1					1
Manitowoc County.....	1				1	
Milwaukee County.....	6					6
Portage County.....	5				3	2
Racine County.....	3		3			
Sheboygan County.....	1			1		
Winnebago County.....	1				1	
Total.....	23		3	1	10	9

SMALLPOX—Continued.**Miscellaneous State Reports.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Louisiana (Sept. 1-30):			Virginia (Sept. 1-30):		
Caddo Parish.....	1		Counties—		
South Carolina (Sept. 1-30):			Appomattox.....	1	
Counties—			Buchanan.....	1	
Orangeburg.....	1		Fauquier.....	8	
Richland.....	2		Lunenburg.....	1	
Total.....	3		Nansemond.....	1	
Vermont (Sept. 1-30):			Norfolk.....	8	
Counties—			Spotsylvania.....	2	
Caledonia.....	2		Stafford.....	3	
Orleans.....	1		Total.....	25	
Total.....	3		Washington (Sept. 1-30):		
			Pierce County—		
			Tacoma.....	1	

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Buffalo, N. Y.....	1		Oakland, Cal.....	1	
Butte, Mont.....	3		Portland, Oreg.....	1	
Davenport, Iowa.....	3		Toledo, Ohio.....	1	
Milwaukee, Wis.....	1				

SYPHILIS.**State Reports for September, 1915.**

During the month of September, 1915, cases of syphilis were notified in States as follows: Louisiana, 14; Ohio, 89; Vermont, 37; Wisconsin, 3.

TETANUS.**City Reports for Week Ended Oct. 9, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....		1	Manchester, N. H.....	1	1
Buffalo, N. Y.....	1		Newark, N. J.....	1	1
Camden, N. J.....	1		Newport, R. I.....		1
Charleston, S. C.....		1	New York, N. Y.....	1	2
Lawrence, Mass.....		1			

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3228.

TYPHOID FEVER.

State Reports for September, 1915.

Place.	New cases reported.	Place.	New cases reported.
Louisiana:		Michigan—Continued.	
Ascension Parish.....	3	Macomb County—	
Caddo Parish.....	5	Mount Clemens.....	1
Caldwell Parish.....	1	Manistee County—	
East Baton Rouge Parish.....	1	Brown Township.....	1
Evangeline Parish.....	3	Marquette County—	
Iberia Parish.....	3	Marquette.....	1
Iberville Parish.....	1	Negunee.....	2
Natchitoches Parish.....	1	Mecosta County—	
Total.....	18	Millbrook Township.....	1
Michigan:		Menominee County—	
Alpena County—		Menominee.....	1
Alpena.....	2	Midland County—	
Antrim County.....		Midland.....	2
Elk Rapids Township.....	1	Monroe County—	
Barry County—		La Salle Township.....	2
Hastings.....	1	Monroe.....	2
Bay County—		Montcalm County—	
Merritt Township.....	2	Crystal Township.....	1
Mount Forest Township.....	2	Muskegon County—	
Calhoun County—		Muskegon.....	1
Burlington Township.....	1	Oakland County—	
Convis Township.....	1	Holly.....	1
Charlevoix County—		Oakland Township.....	1
Boyer City.....	2	Royal Oak Township.....	1
Wilson Township.....	1	Ottawa County—	
Chippewa County—		Chester Township.....	1
Sault Ste. Marie.....	1	Wright Township.....	2
Clinton County—		Saginaw County—	
Maple Rapids.....	2	Albee Township.....	1
Crawford County—		Blumfield Township.....	1
Grayling.....	4	St. Charles.....	5
Eaton County—		Saginaw.....	14
Delta Township.....	1	St. Clair County—	
Emmett County—		Cottrellville Township.....	1
Petoskey.....	1	Marine City.....	1
Genesee County—		Port Huron.....	1
Flint.....	22	Sanilac County—	
Grand Traverse County—		Evergreen Township.....	1
Traverse City.....	4	Marion Township.....	2
Houghton County—		Sandusky.....	1
Adams Township.....	1	Watertown Township.....	3
Huron County—		Shiawassee County—	
Gore Township.....	1	Perry.....	2
Lake Township.....	1	Tuscola County—	
Ionia County—		Denmark Township.....	1
Lyons Township.....	2	Van Buren County—	
Iosco County—		Lawrence Township.....	1
East Tawas.....	2	Washtenaw County—	
Whitmore.....	1	Ann Arbor.....	2
Iron County—		Saline.....	1
Crystal Falls.....	2	York Township.....	1
Isabella County—		Wayne County—	
Broomfield Township.....	2	Gratiot Township.....	1
Shepherd.....	1	Hamtramick.....	1
Jackson County—		St. Clair Heights.....	1
Jackson.....	2	Total.....	167
Kalamazoo County—		Minnesota:	
Kalamazoo.....	5	Anoka County—	
Kalkaska County—		Anoka.....	1
Garfield Township.....	1	Becker County—	
Oliver Township.....	9	Frazee.....	3
Rapid River Township.....	1	Beltrami County—	
Kent County—		Bemidji.....	1
Grand Rapids.....	12	Spooner.....	1
Walker Township.....	1	Blue Earth County—	
Lapeer County—		Good Thunder.....	1
Arcadia Township.....	1	Mankato.....	1
Lapeer.....	3	Brown County—	
Lenawee County—		New Ulm.....	1
Blissfield.....	2	Chippewa County—	
Livingston County—		Montevideo.....	1
Deerfield Township.....	2	Chisago County—	
Brighton.....	2	Rushseba Township.....	1
Mackinac County—		Crow Wing County—	
Mackinac Island.....	3	Brainerd.....	2

TYPHOID FEVER—Continued.

State Reports for September, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Minnesota—Continued.		Ohio—Continued.	
Freeborn County—		Butler County—	
Albert Lea.....	2	Middletown.....	1
Goodhue County—		Carroll County.....	3
Red Wing.....	2	Clark County.....	10
Hennepin County—		Clermont County.....	1
Minneapolis.....	21	Clinton County.....	9
Itasca County—		Columbiana County.....	7
Taconite.....	1	Coshocton County.....	3
Le Sueur County—		Crawford County.....	9
Elysian Township.....	1	Cuyahoga County.....	56
Lincoln County—		Darke County.....	13
Hendricks.....	1	Defiance County.....	10
Lyon County—		Delaware County.....	6
Cottonwood.....	1	Erie County—	
McLeod County—		Sandusky.....	1
Helen Township.....	1	Fayette County.....	6
Marshall County—		Franklin County.....	46
Big Woods Township.....	1	Fulton County.....	2
Stephen.....	1	Geauga County.....	1
Mower County—		Green County.....	2
Austin.....	1	Guernsey County.....	13
Murray County—		Hamilton County.....	24
Skandia Township.....	1	Handcock County—	
Norman County—		Findlay.....	5
Ada.....	1	Hardin County.....	1
Olmsted County—		Harrison County.....	7
Rochester.....	2	Henry County.....	1
Viola Township.....	1	Highland County.....	7
Ottertall County—		Hocking County.....	5
Fergus Falls.....	3	Huron County—	
Polk County—		Norwalk.....	2
Andover Township.....	1	Jackson County.....	4
Ramsey County—		Jefferson County.....	11
North St. Paul.....	3	Knox County.....	8
St. Paul.....	53	Lake County.....	1
White Bear.....	1	Lawrence County.....	5
Red Lake County—		Licking County.....	18
Oklee.....	1	Logan County.....	9
Red Lake Falls.....	1	Lorain County.....	11
Redwood County—		Lucas County.....	68
Lamberton Township.....	1	Madison County.....	4
Rice County—		Mahoning County.....	10
Faribault.....	1	Medina County.....	3
Shieldsville Township.....	2	Meigs County.....	3
Rock County—		Mercer County.....	12
Denver Township.....	1	Miami County—	
St. Louis County—		Piqua.....	1
Duluth.....	7	Monroe County.....	6
Ely.....	2	Montgomery County.....	15
Gilbert.....	1	Muskingum County.....	5
Morse Township.....	1	Ottawa County.....	1
Virginia.....	4	Perry County.....	6
Winton.....	2	Pickaway County—	
Wuori Township.....	1	Circleville.....	1
Stearns County—		Pike County.....	1
St. Cloud.....	2	Portage County.....	7
Steele County—		Putnam County.....	3
Merton Township.....	2	Richland County—	
Wabasha County—		Mansfield.....	2
Elgin Township.....	1	Ross County.....	8
Minneiska.....	1	Sandusky County.....	6
Wabasha.....	1	Scioto County.....	10
Washington County—		Seneca County.....	6
Denmark Township.....	3	Stark County.....	10
Sillwater.....	1	Summit County.....	35
Wright County—		Trumbull County.....	18
Cokato Township.....	1	Tuscarawas County—	
Total.....	149	Canal Dover.....	1
		New Philadelphia.....	2
Ohio:		Van Wert County.....	2
Adams County.....	2	Vinton County.....	1
Allen County.....	7	Warren County.....	2
Ashland County.....	2	Washington County.....	12
Ashtabula County.....	14	Wayne County.....	8
Athens County.....	9	Williams County.....	4
Auglaize County.....	6	Wood County.....	6
Belmont County.....	13	Wyandot County.....	2
Brown County.....	3	Total.....	655

TYPHOID FEVER—Continued.

State Reports for September, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
South Carolina:		Virginia—Continued.	
Abbeville County.....	1	Henry County.....	34
Aiken County.....	7	Highland County.....	3
Anderson County.....	4	Isle of Wight County.....	15
Bamberg County.....	2	King and Queen County.....	2
Calhoun County.....	1	King William County.....	1
Chester County.....	2	Lancaster County.....	5
Chesterfield County.....	3	Lee County.....	12
Clarendon County.....	2	Loudoun County.....	4
Darlington County.....	13	Louisa County.....	3
Dorchester County.....	2	Lunenburg County.....	5
Florence County.....	3	Madison County.....	5
Greenville County.....	41	Mecklenburg County.....	10
Greenwood County.....	3	Middlesex County.....	5
Kershaw County.....	1	Montgomery County.....	16
Laurens County.....	3	Nansemond County.....	8
Marion County.....	2	Nelson County.....	10
Marlboro County.....	1	New Kent County.....	1
Newberry County.....	6	Norfolk County.....	19
Orangeburg County.....	2	Northampton County.....	4
Richland County.....	17	Northumberland County.....	6
Spartanburg County.....	14	Notoway County.....	1
Union County.....	4	Orange County.....	4
Total.....	154	Page County.....	10
Vermont:		Patrick County.....	1
Addison County.....	1	Pittsylvania County.....	9
Bennington County.....	1	Powhatan County.....	4
Franklin County.....	8	Prince Edward County.....	10
Grand Isle County.....	2	Prince George County.....	1
Lamoille County.....	6	Prince William County.....	5
Orange County.....	1	Pulaski County.....	11
Rutland County.....	5	Rappahannock County.....	5
Washington County.....	28	Richmond County.....	1
Windham County.....	2	Roanoke County.....	11
Total.....	54	Rockbridge County.....	8
Virginia:		Rockingham County.....	20
Accomac County.....	28	Russell County.....	17
Albemarle County.....	7	Scott County.....	17
Alexandria County.....	1	Shenandoah County.....	29
Alleghany County.....	4	Smyth County.....	16
Amherst County.....	22	Southampton County.....	13
Appomattox County.....	7	Spotsylvania County.....	4
Augusta County.....	19	Stafford County.....	5
Bath County.....	1	Surry County.....	3
Bedford County.....	21	Sussex County.....	6
Bland County.....	2	Tazewell County.....	18
Botetourt County.....	7	Warren County.....	6
Brunswick County.....	4	Washington County.....	19
Buchanan County.....	5	Wise County.....	27
Buckingham County.....	10	Wythe County.....	16
Campbell County.....	20	York County.....	8
Caroline County.....	13	Total.....	825
Carroll County.....	2	Washington:	
Charlotte County.....	9	Asotin County.....	1
Clark County.....	6	Benton County.....	3
Craig County.....	20	Chelan County.....	3
Culpeper County.....	5	Clallam County.....	1
Cumberland County.....	1	Columbia County.....	5
Dickinson County.....	1	Douglas County.....	3
Dinwiddie County.....	7	Grays Harbor.....	1
Elizabeth City County.....	1	King County—	
Essex County.....	15	Seattle.....	10
Fairfax County.....	5	Kitsap County.....	1
Fauquier County.....	6	Kittitas County.....	11
Floyd County.....	10	Lewis County.....	5
Fluvanna County.....	2	Lincoln County.....	12
Franklin County.....	11	Pierce County.....	1
Frederick County.....	11	Tacoma.....	4
Giles County.....	12	Snohomish County.....	2
Gloucester County.....	11	Everett.....	2
Goochland County.....	4	Spokane County.....	6
Grayson County.....	4	Spokane.....	25
Greene County.....	1	Stevens County.....	2
Greensville County.....	5	Thurston County.....	1
Halifax County.....	10	Whalcom County.....	1
Hanover County.....	16	Whitman County.....	15
Henrico County.....	6	Total.....	115

TYPHOID FEVER—Continued.

State Reports for September, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Wisconsin:		Wisconsin—Continued.	
Ashland County.....	2	Marathon County.....	1
Barron County.....	3	Marinette County.....	1
Columbia County.....	1	Milwaukee County.....	7
Dane County.....	1	Shawano County.....	2
Green Lake County.....	1	Winnebago County.....	1
Iron County.....	3	Wood County.....	1
Jefferson County.....	1		
Kenosha County.....	2	Total.....	27

City Reports for Week Ended Oct. 9, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	5	.....	Manchester, N. H.....	1	.....
Albion, Pa.....	4	.....	Milwaukee, Wis.....	2	.....
Ann Arbor, Mich.....	1	.....	Mobile, Ala.....	2	2
Atlantic City, N. J.....	1	.....	Nashville, Tenn.....	10	2
Auburn, N. Y.....	1	1	Newark, N. J.....	1	1
Baltimore, Md.....	22	4	New Bedford, Mass.....	4	.....
Bayonne, N. J.....	1	.....	New Castle, Pa.....	1	.....
Beaver Falls, Pa.....	1	.....	New Haven, Conn.....	3	.....
Binghamton, N. Y.....	3	.....	New London, Conn.....	2	.....
Boston, Mass.....	22	2	New Orleans, La.....	2	.....
Bridgeport, Conn.....	1	1	New York, N. Y.....	102	11
Buffalo, N. Y.....	12	2	Niagara Falls, N. Y.....	1	.....
Camden, N. J.....	7	.....	Norristown, Pa.....	3	.....
Canton, Ohio.....	4	.....	Oakland, Cal.....	3	.....
Charleston, S. C.....	1	2	Philadelphia, Pa.....	64	3
Chelsea, Mass.....	3	.....	Pittsburgh, Pa.....	9	.....
Chicago, Ill.....	22	4	Pittsfield, Mass.....	5	.....
Chicopee, Mass.....	3	.....	Plainfield, N. J.....	1	.....
Cincinnati, Ohio.....	2	1	Portland, Oreg.....	.....	1
Cleveland, Ohio.....	10	.....	Providence, R. I.....	4	1
Coffeyville, Kans.....	1	.....	Reading, Pa.....	4	1
Columbus, Ohio.....	28	1	Richmond, Va.....	3	2
Cumberland, Md.....	3	1	Roanoke, Va.....	8	.....
Danville, Ill.....	2	.....	Rochester, N. Y.....	4	.....
Detroit, Mich.....	7	.....	Sacramento, Cal.....	2	.....
Erie, Pa.....	1	.....	Saginaw, Mich.....	3	.....
Evansville, Ind.....	1	3	St. Louis, Mo.....	7	1
Everett, Mass.....	1	.....	San Francisco, Cal.....	4	.....
Galesburg, Ill.....	1	1	Salt Lake City, Utah.....	1	.....
Galveston, Tex.....	2	.....	San Diego, Cal.....	1	.....
Grand Rapids, Mich.....	5	.....	Somerville, Mass.....	1	.....
Harrisburg, Pa.....	5	.....	South Bend, Ind.....	1	.....
Hartford, Conn.....	4	.....	Springfield, Ill.....	6	1
Haverhill, Mass.....	2	.....	Springfield, Mass.....	4	.....
Jersey City, N. J.....	.....	1	Steubenville, Ohio.....	2	.....
Johnstown, Pa.....	16	.....	Stockton, Cal.....	2	.....
Kalamazoo, Mich.....	1	.....	Tacoma, Wash.....	3	.....
Kenosha, Wis.....	1	.....	Taunton, Mass.....	1	.....
Lancaster, Pa.....	1	.....	Toledo, Ohio.....	6	.....
Lawrence, Mass.....	1	.....	Trenton, N. J.....	2	1
Lexington, Ky.....	2	.....	Washington, D. C.....	24	2
Little Rock, Ark.....	4	.....	Wheeling, W. Va.....	3	.....
Lowell, Mass.....	3	1	Wilkinsburg, Pa.....	1	.....
Lynchburg, Va.....	3	.....	Worcester, Mass.....	7	.....
Lynn, Mass.....	3	.....	York, Pa.....	21	.....

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for September, 1915.

State.	New cases reported.			State.	New cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Louisiana.....	15	6	10	Vermont.....	27	3	11
Michigan.....	336	19	101	Virginia.....	599	52	111
Minnesota.....	237	33	147	Washington.....	17	13	20
Ohio.....	782	157	400	Wisconsin.....	73	80	69
South Carolina.....	293	40	19				

City Reports for Week Ended Oct. 9, 1915.

City.	Popula- tion as of July 1, 1915. (Estimated by U. S. Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	584,605	167	35	2	1	1	23	.....	27	12
Boston, Mass.....	745,139	216	47	3	10	.....	19	.....	59	15
Chicago, Ill.....	2,447,045	606	114	17	16	2	36	2	232	88
Cleveland, Ohio.....	656,975	135	42	2	14	2	13	1	18	12
Detroit, Mich.....	554,717	151	43	2	5	1	6	.....	40	15
New York, N. Y.....	5,468,190	1,260	241	20	55	1	55	1	390	148
Philadelphia, Pa.....	1,683,664	407	58	3	17	.....	15	.....	105	44
Pittsburgh, Pa.....	571,984	159	38	4	14	.....	21	1	23	10
St. Louis, Mo.....	745,988	170	98	5	2	.....	5	.....	27	15
From 300,000 to 500,000 inhabit- ants:										
Buffalo, N. Y.....	461,335	.....	14	3	25	.....	12	2	24	12
Cincinnati, Ohio.....	406,706	120	21	2	.....	.....	2	.....	17	14
Jersey City, N. J.....	390,133	76	13	3	8	.....	7	.....	21	8
Los Angeles, Cal.....	455,367	122	20	1	6	.....	5	.....	32	13
Milwaukee, Wis.....	428,062	87	9	1	.....	.....	2	.....	18	1
Newark, N. J.....	399,000	83	24	1	3	.....	5	.....	60	10
New Orleans, La.....	366,484	136	50	5	.....	.....	.....	.....	11	15
San Francisco, Cal.....	1,416,912	135	7	.....	1	.....	16	.....	37	20
Washington, D. C.....	358,679	109	7	.....	2	.....	8	.....	19	13
From 200,000 to 300,000 inhabit- ants:										
Columbus, Ohio.....	209,722	64	59	.....	.....	.....	8	.....	7	4
Portland, Oreg.....	272,833	30	6	1	.....	.....	3	.....	5	4
Providence, R. I.....	250,025	58	11	4	8	.....	7	.....	.....	7
Rochester, N. Y.....	250,747	51	4	.....	1	.....	2	.....	4	4
From 100,000 to 200,000 inhabit- ants:										
Bridgeport, Conn.....	118,434	32	9	2	1	.....	1	.....	3	2
Cambridge, Mass.....	111,669	26	8	.....	.....	.....	8	.....	10	5
Camden, N. J.....	104,349	.....	6	.....	.....	.....	.....	.....	4	.....
Grand Rapids, Mich.....	125,759	27	6	.....	.....	.....	2	.....	5	4
Hartford, Conn.....	108,969	25	12	.....	.....	.....	.....	.....	5	.....
Lowell, Mass.....	112,124	41	10	.....	.....	.....	.....	.....	6	3
Lynn, Mass.....	100,316	.....	3	.....	.....	.....	4	.....	4	1
Nashville, Tenn.....	115,978	40	2	.....	.....	.....	1	.....	6	5
New Bedford, Mass.....	114,694	30	4	.....	.....	.....	.....	.....	18	5
New Haven, Conn.....	147,095	.....	4	1	.....	.....	2	1	9	5
Oakland, Cal.....	190,803	.....	3	2	.....	.....	1	.....	1	.....
Reading, Pa.....	105,094	24	3	.....	10	.....	4	.....	2	1
Richmond, Va.....	154,674	49	24	.....	.....	.....	7	.....	5	3
Salt Lake City, Utah.....	113,567	14	5	2	1	.....	1	.....	.....	.....
Springfield, Mass.....	103,216	24	.....	.....	4	.....	.....	.....	3	.....
Tacoma, Wash.....	108,094	.....	.....	.....	1	.....	.....	.....	.....	.....
Toledo, Ohio.....	187,840	58	5	1	3	.....	9	.....	.....	6
Trenton, N. J.....	109,212	32	10	.....	42	.....	3	.....	8	7
Worcester, Mass.....	160,523	39	5	.....	2	.....	4	.....	5	.....

¹ Population, Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Oct. 9, 1915—Continued.

City.	Popula- tion as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 50,000 to 100,000 inhabit- ants:											
Akron, Ohio.....	82,958	26	1	—	1	—	3	—	—	1	
Altoona, Pa.....	57,606	10	4	1	—	—	1	—	2	—	
Atlantic City, N. J.....	55,806	8	—	—	—	—	—	—	8	—	
Bayonne, N. J.....	67,582	—	3	—	—	—	4	—	9	—	
Berkeley, Cal.....	54,879	7	2	—	—	—	—	—	1	—	
Binghamton, N. Y.....	53,082	19	8	1	—	—	—	—	2	1	
Brockton, Mass.....	65,746	18	11	—	1	—	3	—	3	3	
Canton, Ohio.....	59,139	10	3	—	1	—	4	—	1	—	
Charleston, S. C.....	60,427	29	3	—	—	—	—	—	—	1	
Covington, Ky.....	56,520	9	2	—	—	—	—	—	1	1	
Duluth, Minn.....	91,913	17	7	—	—	—	8	—	5	2	
Erie, Pa.....	73,798	25	4	—	—	—	4	—	1	—	
Evansville, Ind.....	72,125	18	—	7	—	—	—	1	2	3	
Harrisburg, Pa.....	70,754	24	8	—	1	—	—	—	3	2	
Johnstown, Pa.....	66,535	18	7	1	—	—	5	—	2	—	
Lancaster, Pa.....	50,269	—	2	—	—	—	—	—	1	—	
Lawrence, Mass.....	98,197	—	9	—	6	—	9	—	5	1	
Little Rock, Ark.....	55,158	22	5	—	—	—	—	—	—	—	
Malden, Mass.....	50,067	4	14	—	—	—	4	—	—	1	
Manchester, N. H.....	76,959	23	1	—	—	—	3	—	—	—	
Mobile, Ala.....	56,536	20	—	—	—	—	2	—	—	3	
New Britain, Conn.....	52,203	—	4	2	—	—	—	—	1	2	
Passaic, N. J.....	69,010	17	5	1	1	—	1	—	1	1	
Pawtucket, R. I.....	58,156	16	5	1	—	—	5	—	—	—	
Rochford, Ill.....	53,761	9	—	—	—	—	1	—	—	1	
Sacramento, Cal.....	64,806	16	2	—	—	—	2	—	1	4	
Saginaw, Mich.....	54,815	17	—	—	—	—	—	—	—	1	
San Diego, Cal.....	51,115	16	7	—	—	—	4	—	—	—	
Somerville, Mass.....	85,460	12	2	—	—	—	3	—	6	—	
South Bend, Ind.....	67,030	12	12	—	—	—	—	—	4	1	
Springfield, Ill.....	59,468	17	22	2	—	—	4	—	1	—	
Wilkes-Barre, Pa.....	75,218	15	7	—	—	—	1	—	3	—	
Yor., Pa.....	50,543	—	—	—	—	—	—	—	4	—	
From 25,000 to 50,000 inhabit- ants:											
Auburn, N. Y.....	36,947	14	5	1	—	—	—	—	3	2	
Brookline, Mass.....	31,934	—	—	—	9	—	3	—	3	—	
Rutler, Pa.....	26,587	2	—	—	—	—	—	—	—	—	
Butte, Mont.....	42,918	13	1	—	—	—	—	—	12	—	
Chelsea, Mass.....	32,452	15	2	—	3	—	—	—	7	2	
Chicopee, Mass.....	23,688	8	1	—	—	—	—	—	1	2	
Cumberland, Md.....	25,564	6	1	—	—	—	1	—	3	1	
Danville, Ill.....	31,554	5	—	—	—	—	—	—	1	1	
Davenport, Iowa.....	47,127	—	1	—	—	—	1	—	—	—	
East Orange, N. J.....	41,155	2	1	—	—	—	1	—	2	—	
Elgin, Ill.....	27,844	7	1	—	—	—	—	—	—	—	
Everett, Mass.....	38,307	6	3	—	—	—	—	—	3	1	
Fitchburg, Mass.....	41,144	4	13	—	—	—	3	—	2	—	
Galveston, Tex.....	41,076	18	4	—	—	—	—	—	2	5	
Haverhill, Mass.....	47,774	10	12	—	—	—	3	—	2	—	
Kalamazoo, Mich.....	47,364	16	—	—	—	—	1	—	2	—	
Kenosha, Wis.....	30,319	—	—	—	—	—	—	—	—	1	
La Crosse, Wis.....	31,522	9	—	—	6	—	—	—	—	2	
Lexington, Ky.....	39,703	9	3	—	—	—	1	—	—	3	
Lincoln, Nebr.....	46,028	10	4	—	—	—	4	—	1	2	
Lorain, Ohio.....	35,662	—	1	—	—	—	2	—	1	—	
Lynchburg, Va.....	32,385	12	1	—	—	—	—	—	—	—	
Medford, Mass.....	25,737	2	—	—	—	—	—	—	—	—	
Montclair, N. J.....	25,550	12	1	—	—	—	—	—	1	—	
New Castle, Pa.....	40,351	—	1	—	—	—	5	—	7	—	
Newport, Ky.....	31,722	10	—	—	—	—	—	—	2	2	
Newport, R. I.....	29,631	8	—	—	—	—	—	—	2	—	
Newton, Mass.....	43,085	10	—	—	1	—	1	—	1	—	
Niagara Falls, N. Y.....	36,240	17	—	—	2	—	1	1	—	—	
Norristown, Pa.....	30,833	8	2	—	—	—	—	—	—	2	
Ogden, Utah.....	30,466	4	—	—	—	—	—	—	—	—	
Orange, N. J.....	32,524	7	2	—	—	—	—	—	1	—	
Pasadena, Cal.....	43,859	8	—	—	1	—	1	—	2	1	
Perth Amboy, N. J.....	39,725	—	31	—	—	—	1	—	1	—	

¹ Population, Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Oct. 9, 1915—Continued.

City.	Popula- tion as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabit- ants—Continued.										
Pittsfield, Mass.	37,580	4	1				2			2
Racine, Wis.	45,507	7	3							
Roanoke, Va.	41,929	9	52				3			
Steubenville, Ohio	26,631	7	3				3			
Stockton, Cal.	34,508	9					4		6	1
Superior, Wis.	45,285	4	2				2			
Taunton, Mass.	35,957	14	1		5					
Waltham, Mass.	30,129	9	7	1			1			
West Hoboken, N. J.	41,893	4							3	1
Wheeling, W. Va.	43,097	8			1		1			
Williamsport, Pa.	33,495	8	4							
Wilmington, N. C.	28,264	8	2				1			
Zanesville, Ohio.	30,406		2							
From 10,000 to 25,000 inhabi- tants:										
Ann Arbor, Mich.	14,979		2							
Beaver Falls, Pa.	13,316						4			
Biddeford, Me.	17,570	8								2
Braddock, Pa.	21,310		1		11					
Cairo, Ill.	15,593	4								
Clinton, Mass.	¹ 13,075	5								1
Coffeyville, Kans.	16,765		2							
Concord, N. H.	22,480	11	1							2
Galesburg, Ill.	23,923	10								
Kearny, N. J.	22,753	4							2	
Melrose, Mass.	17,166		2							
Morristown, N. J.	13,153	4					1		1	
Muscatine, Iowa.	17,287	4								
Nanticoke, Pa.	22,441	8	1							
Newburyport, Mass.	15,195	5								
North Adams, Mass.	¹ 22,019	8	1				2		2	
Northampton, Mass.	19,846	10		1			1		3	
Phoenix, Ariz.	17,798	1								
Plainfield, N. J.	23,280		2	1						
Rutland, Vt.	14,624		1				2			
Steelton, Pa.	15,337	2	1							
Wilksburg, Pa.	22,361	9	2	1					1	
Woburn, Mass.	15,862	5								

¹ Population Apr. 15, 1910; no estimate made.

FOREIGN REPORTS.

CHINA.

Examination of Rats—Shanghai.

During the week ended September 11, 1915, 258 rats were examined at Shanghai. No plague infection was found.

CUBA.

Communicable Diseases—Habana.

Communicable diseases were notified at Habana during the 10-day period ended September 30, 1915, as follows:

Disease.	New cases.	Deaths.	Remaining under treatment Sept. 30, 1915.
Diphtheria.....	6	.....	3
Leprosy.....	2	.....	252
Malaria.....	.....	.....	2
Measles.....	.....	.....	1
Paratyphoid fever.....	2	.....	2
Scarlet fever.....	4	.....	4
Typhoid fever.....	12	3	38

GERMANY.

Cholera—Kiel.

During the week ended October 2, 1915, one fatal case of cholera occurred at Kiel, Germany.

ZANZIBAR.

Examination of Rats—Zanzibar.

During the month of July, 1915, 4,526 rats were examined at Zanzibar. No plague infection was found.

TYPHUS FEVER.

Reports Received During Week Ended Oct. 29, 1915.¹

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Hungary—				
Budapest.....	Aug. 28-Sept. 11...	1	1	
China:				
Antung.....	Sept. 12-19.....	1	1	
Egypt:				
Alexandria.....	Sept. 9-16.....	3	1	
Turkey in Asia:				
Beirut.....	Aug. 14-28.....	3	1	

Reports Received from June 26 to Oct. 22, 1915.¹

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	Apr. 25-May 22....	1,212	.....	Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna.
Do.....	June 6-Aug. 21....	4,033	.....	Mainly among military.
Bosnia-Herzegovina.....	May 2-15.....	64	.....
Hungary—				
Budapest.....	May 16-Aug. 14....	26	6	
Azores:				
Terceira.....	May 23-29.....	1	.....	July 24, 1915; present.
Canada:				
Ontario—				
Kingston.....	Aug. 22-28.....	1	1	
Canary Islands:				
Santa Cruz de Teneriffe....	May 16-Sept. 11....	.....	3	
China:				
Antung.....	June 29-Aug. 29....	2	.....
Hankow.....	July 4-10.....	.....	1	
Harbin.....	July 5-11.....	1	.....
Hungtaohotze Station.....	Apr. 19-25.....	1	.....	On Eastern Chinese Ry.
Mukden.....	June 6-July 3.....	.....	.....	Present.
Tientsin.....	do.....	.....	1	
Cuba:				
Santiago.....	July 4-10.....	2	2	
Curacao.....	Aug. 8-14.....	4	1	
Dominican Republic:				
Santo Domingo.....	July 19-Aug. 31....	.....	2	
Dutch East Indies:				
Java.....	Apr. 25-Aug. 28....	102	12	
Batavia.....	June 6-Aug. 7.....	52	10	
Egypt:				
Alexandria.....	May 21-Sept. 9....	156	46	
Cairo.....	May 7-July 15....	251	259	
Port Said.....	do.....	10	8	
France:				
La Rochelle.....	July 11-17.....	1	1	
Germany.....	May 16-22.....	12	.....	In German soldiers and 1 prison-camp employee; among prisoners of war in 14 districts and in Saxony and Hesse.
Do.....	June 6-26.....	33	.....	Among military and prisoners.
Do.....	June 27-Sept. 11....	144	.....
Aix la Chapelle.....	May 30-June 5.....	.....	1	
Bavaria.....	July 11-Aug. 7.....	3	.....
Berlin.....	Aug. 22-28.....	1	.....
Bremen.....	May 30-June 12....	1	1	
Breslau.....	May 30-Aug. 7.....	6	.....
Bromberg—				
Government district....	July 18-Aug. 28....	10	.....
Cassel—				
Government district....	July 18-24.....	1	.....
Erfurt—				
Government district....	July 11-17.....	1	.....
Frankfort—				
Government district....	July 18-24.....	1	.....
Hamburg.....	July 25-31.....	1	1	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

TYPHUS FEVER—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Germany—Continued.				
Königsberg—				
Government district . . .	June 6-Sept. 4 . . .	5	—	
Leipzig . . .	June 6-12 . . .	—	1	
Merseburg—				
Government district . . .	July 25-31 . . .	1	—	
Posen . . .	Aug. 29-Sept. 4 . . .	—	—	In prison camp.
Saxe-Weimar . . .	July 11-17 . . .	10	—	At Jena.
Saxony . . .	July 18-24 . . .	27	—	
Stettin—				
Government district . . .	July 25-31 . . .	1	—	
Great Britain and Ireland:				
Cork . . .	Aug. 22-28 . . .	1	—	
Dublin . . .	May 23-July 31 . . .	7	—	
Glasgow . . .	May 29-Aug. 21 . . .	3	—	
Newcastle . . .	June 27-July 3 . . .	1	—	
Greece:				
Athens . . .	June 14-July 19 . . .	—	4	
Saloniki . . .	May 30-Sept. 4 . . .	—	122	
Italy:				
Florence . . .	May 1-31 . . .	5	1	
Turin . . .	May 17-23 . . .	1	—	
Japan:				
Tokyo . . .	June 7-13 . . .	2	—	
Hakodate . . .	Aug. 29-Sept. 4 . . .	1	—	
Mexico:				
Aguascalientes . . .	June 21-Sept. 12 . . .	—	2	
Mexico City . . .	Aug. 28 . . .	1	1	
Russia:				
Moscow . . .	May 2-Aug. 22 . . .	322	62	
Petrograd . . .	May 9-Aug. 14 . . .	19	4	
Riga . . .	Mar. 1-Aug. 7 . . .	7	1	
Vladivostok . . .	June 15-July 14 . . .	2	1	
Warsaw . . .	— . . .	—	—	Sept. 27-Oct. 31, 1914: Cases, 31.
				Nov. 1-28, 1914: Cases, 31;
				deaths, 1. Maximum incidence,
				Nov. 22-28: Cases, 20;
				deaths, 1.
				Prevalent.
Serbia . . .	Apr. 27 . . .	—	—	
Spain:				
Madrid . . .	June 1-Aug. 31 . . .	—	4	
Switzerland:				
St. Gall . . .	July 25-Sept. 11 . . .	3	—	
Zurich . . .	May 30-July 10 . . .	2	—	
Turkey in Asia:				
Adana . . .	May 9-July 10 . . .	—	—	Present.
Beirut . . .	May 27-Aug. 14 . . .	4	1	
Harput . . .	Apr. 1-30 . . .	—	—	Present.
Jaffa . . .	Apr. 25-Aug. 21 . . .	19	11	July 31, present in vicinity.
Mersina . . .	May 9-29 . . .	2	2	
Tarsus . . .	May 9-July 10 . . .	—	—	Present.
Trebizond . . .	— . . .	—	—	October, 1914-May 22, 1915:
Tripoli . . .	May 9-15 . . .	1	1	6,000 fatal cases (estimated).

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.**Reports Received During Week Ended Oct. 29, 1915.¹****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Germany:				
Civilians—				
Kiel . . .	Sept. 25-Oct. 2 . . .	1	1	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended Oct. 29, 1915—Continued.****PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Rio de Janeiro.....	Aug. 22-28.....	4	4	
Egypt:				
Alexandria.....	Sept. 9-16.....	1	1	
Peru:				
Callao.....	Aug. 16-Sept. 12...	4		
Chiclayo.....	do.....	4		
Ferrenafe.....	do.....	2		
Lima (city).....	do.....	5		
Lima (country).....	do.....	5		
San Pedro.....	do.....	6		
Trujillo.....	do.....	5		

SMALLPOX.

Australia:				
New South Wales—				
Newcastle district.....	Sept. 3-16.....	17		
Sydney.....	Sept. 10-16.....	1		In metropolitan district.
Austria-Hungary:				
Hungary—				
Budapest.....	Aug. 29-Sept. 11...	15		
Canada:				
Quebec—				
Montreal.....	Oct. 10-16.....	2		
China:				
Amoy.....	Aug. 15-28.....			Present.
Mexico:				
Prostera.....	Aug. 22-Sept. 4....	9	6	
Portugal:				
Lisbon.....	Sept. 19-25.....	1		
Russia:				
Riga.....	Sept. 12-18.....	2		
Spain:				
Seville.....	Aug. 1-31.....		2	
Turkey in Asia:				
Beirut.....	Aug. 15-28.....	28	11	

Reports Received from June 26 to Oct. 22, 1915.**CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	May 2-Aug. 14.....	13,708	6,326	
Vienna.....	May 9-15.....	9	3	Among soldiers and prisoners.
Trieste.....	June 27-Aug. 7.....	12	5	4 carriers.
Bosnia-Herzegovina.....	Apr. 25-July 31.....	311	140	202 cholera carriers.
Croatia-Slavonia.....	May 3-Aug. 16.....	819	317	14 among soldiers.
Hungary.....	Apr. 26-Aug. 15.....	2,132	1,072	May 16-23; 5 additional cases notified.
Budapest.....	June 28-July 10.....	2		
Borneo:				
Bandjermasin.....	Aug. 13.....			Epidemic.
Bode.....	Aug. 22-28.....	8	2	On Sandakan Bay.
Sandakan.....	July 18-31.....	7	5	Within jail limits.
Ceylon:				
Colombo.....	Apr. 25-May 22.....	8	1	
China:				
Hongkong.....	May 2-8.....	1	1	
Dutch East Indies:				
Java—				
Batavia.....	Apr. 25-Aug. 28.....	81	67	Sept. 3, 1915; epidemic.
Cheribon.....	Aug. 22-28.....	7	6	
Germany.....	July 24-Aug. 14.....	392	54	
Allenstein.....	Aug. 22-28.....	1		
Berlin.....	July 18-Aug. 7.....	3	2	Among soldiers. Present Sept. 11.
Berlitz.....	July 18-24.....	1		Among soldiers.
Brandenburg on the Oder.....	Aug. 15-21.....	2	1	
Breslau.....	July 18-Sept. 4.....	5		3 military.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.****CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Germany—Continued.				
Bromberg.....	July 25-Aug. 28...	2		Among soldiers.
Canstatt.....	do.....	1		Do.
Government districts—				
Arnsberg.....	Aug. 2-14.....	3	1	
Breslau.....	June 13-Aug. 14...	6		
Bromberg.....				Present in prison camps Sept. 11.
Frankfort.....	Aug. 8-21.....	2	1	Do.
Gumbinnen.....	June 13-Aug. 28...	2		
Königsberg.....	do.....	5	1	
Köslin.....	Aug. 8-28.....	4	8	
Liegnitz.....	June 13-Aug. 28...	4	3	
Lüneburg.....	Aug. 1-7.....	1	1	
Magdeburg.....	do.....	1		Do.
Marienwerder.....	June 13-Aug. 21...	603	116	
Merseburg.....	Aug. 8-14.....	12		
Minden.....	Aug. 1-7.....	2	1	
Münster.....	Sept. 11.....	1		
Oppeln.....	June 13-Aug. 28...	37	4	Do.
Potsdam.....	June 13-Aug. 21...	4	1	Do.
Stade.....	Aug. 1-7.....	2		
Stettin.....	Aug. 1-Sept. 11...	6	2	
Wiesbaden.....	June 13-Aug. 7.....	1		
Danzig.....	July 18-Sept. 4....	19	8	
Danzig-Troyl.....	Aug. 15-28.....	17	7	
Erfurt.....	Aug. 22-28.....	1	1	
Frankfort on Oder.....	do.....	2		
Fürstenwalde and Klotzsch.....	Aug. 8-14.....	4	4	Aug. 15-21, 1915; 1 case at Klotzsch.
Hamburg.....	Aug. 1-14.....	4		
Hanover.....	July 25-31.....	1		Among soldiers.
Jägersdorf.....	June 13-July 2....	1		
Landsberg.....	July 25-31.....	1		Do.
Leipzig.....	do.....	1		Do.
Patschkau.....	July 18-24.....	1		Do.
Posen.....	July 25-31.....	1		Do.
Rosenberg.....	June 13-July 2....	1		
Sachsenhausen.....	do.....	1	1	
Saxony, Kingdom.....	Aug. 15-28.....	2		
Schneidemühl.....	July 25-31.....	1		Do.
Silesia.....	July 3-17.....	5		
Slaventzitz.....	June 13-July 2....	1		
Sommerfeld.....	July 18-24.....	1		Do.
Spandau.....	July 25-31.....	1		Do.
Striegau.....	July 18-24.....	1	1	Do.
India:				
Akyab.....	May 16-July 31....		7	
Bassein.....	Apr. 18-July 31....		34	
Bombay.....	June 6-Sept. 4....	9	8	
Calcutta.....	Apr. 25-Aug. 21....		218	
Henzada.....	Aug. 1-21.....		21	
Karachi.....	Aug. 1-7.....	1	1	
Madras.....	May 2-Aug. 28.....	18	10	
Myingyan.....	July 25-Aug. 14....	1	23	
Pakoku.....	Aug. 8-14.....		20	
Pegu.....	July 4-10.....	1		
Rangoon.....	Apr. 24-Aug. 28....	16	15	
Indo-China.....				Jan. 1-31, 1915; cases, 284; deaths, 178.
Provinces—				
Anam.....	Jan. 1-Feb. 28.....	9	5	
Cochin China.....	do.....	621	297	
Laos.....	Feb. 1-28.....	46	21	
Tonkin.....	Jan. 1-Feb. 28.....	84	39	
Saigon.....	May 2-Aug. 14.....	1,319	827	
Italy:				
Leghorn.....	Aug. 11.....	1		
Venice.....	do.....	3		
Persia:				
Tabriz.....	Aug. 26.....	10	10	And vicinity.
Russia:				
Moscow.....	June 6-12.....	75	14	
Serbia.....	June 25-July 2....	2		
Siam:				
Bangkok.....	Apr. 19-Aug. 7.....		8	
Straits Settlements:				
Singapore.....	May 9-July 31.....	4	3	
Sumatra, island—				
Toba district.....	Apr. 12-June 26....	159	110	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.****YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	July 11-17.....	1	1	
Canal Zone:				
Balboa quarantine.....	Sept. 27.....	1		In person arrived from Buena-venture, Colombia.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Terceira, island.....	July 25.....			Present.
Bahrein, island.....	Apr. 1-30.....			Do.
Brazil:				
Bahia.....	June 20-Aug. 14....	6	5	
Ceylon:				
Colombo.....	May 9-Aug. 28....	29	17	
China:				
Amoy.....	May 2-June 5.....			Present. Present in Sio-Khe Valley, 60 miles inland.
Do.....	June 13-19.....			Increasing.
Do.....	June 20-26.....			40 deaths daily (estimated). At Kufangsu, international settlement, 1 case.
Do.....	June 27-Aug. 14....			Present. July 4-17, 1915: Cases, 95 (estimated).
T'ongkong.....	May 9-July 31....	72	66	
Cuba:				
Havana.....	Aug. 15.....	1		
Dutch East Indies:				
Java.....				Jan. 1-Feb. 25, 1915: Cases, 2,094; deaths, 1,864. Aug. 8-14, 1915: Cases, 58; deaths, 57.
Do.....	Mar. 12-July 31....	2,227	1,111	
Kediri residency.....	Aug. 14.....	124	116	
Madison residency.....	Mar. 12-July 15....	5	5	
Paseroean residency.....	Mar. 12-Aug. 14....	62	50	
Surabaya residency.....	do.....	45	45	
Sura arta residency.....	do.....	18	17	
Surabaya.....	Aug. 13-19.....	3	3	
Ecuador:				
Guayaquil.....	May 1-31.....	1		
Egypt:				
Alexandria.....	May 21-Sept. 11....	3	2	Jan. 1-May 20, 1915: Cases, 93; deaths, 48. Jan. 1-July 15, 1915: Cases, 188. Corresponding period, 1914: Cases, 157.
Assiout, province.....	May 14-June 3.....	7	2	
Fayoum, province.....	May 14-Sept. 2....	54	10	
Galioubek, province.....	May 14-27.....	1		
Gizeh, province.....	Sept. 15.....	1	1	
Mineh, province.....	May 14-July 15....	14	5	
Port Said.....	May 28-Sept. 4....	13	6	
Greece:				
Zante.....	Aug. 1-11.....	12	13	
India:				
Bassein.....	Apr. 18-Aug. 7.....		70	
Bombay.....	May 2-Sept. 8.....	201	177	
Calcutta.....	Apr. 25-July 3.....		59	
Penzance.....	May 2-8.....	1		
Karachi.....	May 2-Aug. 28.....	626	543	
Mandalay.....	Apr. 25-July 31....		17	
Moulmein.....	May 23-July 21....		9	
Myingyan.....	Apr. 5-17.....		1	
Pegu.....	Apr. 18-May 1.....		5	
Rangoon.....	Apr. 18-Aug. 28....	256	211	Apr. 1-May 31, 1915: Cases, 94; deaths, 92.
Toungoo.....	Apr. 25-May 1.....		38	
Indo-China:				
Saigon.....	May 9-Aug. 14....	17	9	Jan. 1-31, 1915: Cases, 73; deaths, 58.
Provinces—				
Anam.....	Jan. 1-Feb. 28....	62	54	
Cambodia.....	do.....	37	34	
Cochin China.....	do.....	40	19	
Laos.....	Feb. 1-28.....	20	20	
Japan:				
Taiwan Island—				
Kagi.....	May 30-July 3.....	7	7	
Tokyo.....	May 31-Aug. 8.....	9	5	
Mauritius.....	June 14.....	1		
Persia:				
Mohammerah.....	Apr. 10-June 1....	3		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.****PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Peru.....				Year 1914: Cases, 760; deaths, 325. Jan. 1-June 30, 1915: Cases, 278; deaths, 140.
Callao.....	May 3-9.....	1	1	May 30, vicinity.
Lima (city).....	do.....	1	1	May 30, 7 cases in hospital.
Mollendo.....	May 3-July 25.....	2	2	
Salaverry.....	Apr. 26-May 27.....	2	2	
Trujillo.....	May 3-9.....	2	2	
Provinces—				
Ancachs.....	Jan. 1-Dec. 31, 1914.....	34	20	
Arequipa.....	do.....	54	24	
Cajamarca.....	do.....	16	7	
Callao.....	do.....	14	8	
Lambayeque.....	do.....	107	47	
Libertad.....	do.....	335	176	
Lima.....	do.....	106	48	
Piura.....	do.....	94	55	
Ancachs.....	Jan. 1-June 30, 1915.....	6	4	
Arequipa.....	do.....	19	11	
Callao.....	do.....	22	8	
Junin.....	do.....	1	1	
Lambayeque.....	do.....	68	24	
Libertad.....	do.....	67	42	
Lima.....	do.....	51	33	
Piura.....	do.....	44	27	
Siam:				
Bangkok.....	July 4-Aug. 7.....	3	2	
Straits Settlements:				
Singapore.....	Apr. 25-June 5.....	4	1	
Turkey in Asia:				
Bagdad.....	May 2-July 26.....	768	574	
Chios, island.....	Aug. 6.....			Present.
Union of South Africa:				
Cape Province—				
Tarka, district.....	June 2-16.....	2	1	
Wodehouse, district.....	June 5.....	2	2	At Dordrecht.
Zanzibar:				
Zanzibar.....	Mar. 1-31.....		1	

SMALLPOX.

Arabia:				
Aden.....	Aug. 19-25.....	1	1	
Australia:				
New South Wales—				
New Castle District.....	Aug. 27-Sept. 2.....	17		June 10-Aug. 5: Cases, 17.
Cessnock.....	June 10-Aug. 2.....	5		
Hamilton.....	July 16-22.....	1		
Islington.....	Aug. 3-19.....	1		
Kurri Kurri.....	May 26-July 22.....	8		
Moreweather.....	Aug. 3-19.....	1		
Newcastle.....	Aug. 20-26.....	1		
Plattsburg.....	July 16-22.....	1		
Standford Morthyr.....	June 25-July 24.....	1		
Wickham.....	Aug. 3-19.....	1		
Sydney.....	Aug. 27-Sept. 2.....		2	
Victoria—				
Melbourne.....	Apr. 20.....	1		At Point Nepean quarantine station, from S. S. Lord Derby, from Rangoon.
Western Australia—				
Freemantle.....	Apr. 27.....	1		At Woodmans Point quarantine station, from S. S. City of Baroda, from Calcutta via Colombo.
Austria-Hungary:				
Austria.....	May 2-July 31.....	4,533		
Dalmatia, Province.....	May 2-8.....	1		
Vienna.....	May 2-Aug. 28.....	37	10	August, 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28. June 6-12: 13.
Hungary—				
Budapest.....	do.....	291	1	
Prague.....	Aug. 1-21.....	5		
Brazil:				
Rio de Janeiro.....	Apr. 18-Aug. 28.....	174	63	Epidemic.
Rio Grande do Sul.....	Sept. 2.....			

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Canada:				
Alberta—				
Edmonton				Epidemic 30 miles south closed Aug. 14, 1915: Cases, 100 (estimated).
Ontario—				
Hamilton	June 1-30	2	4	
Peterborough	July 10-17		1	
Sarnia	June 13-19	1		
Toronto	June 6-Aug. 7	7		
Quebec—				
Montreal	June 13-Oct. 9	15		
Sherbrooke	June 1-30		1	
Canary Islands:				
Santa Cruz de Teneriffe	July 18-24		1	
Ceylon:				
Colombo	May 2-Aug. 28	174	24	
China:				
Amoy	July 4-Aug. 28			Present.
Chungking	May 23-June 19			Do.
Foochow	May 9-22			Do.
Harbin	May 3-9	1		
Hongkong	May 9-Aug. 7	9	6	
Manchuria Station	June 21-27	2		Eastern Chinese Railway.
Nanking	June 20-Sept. 4			Present.
Shanghai	May 9-July 3	5	5	Natives.
Tientsin	May 16-22		1	
Dutch East Indies:				
Java	Apr. 18-Aug. 28	825	201	
Batavia	Apr. 25-July 17		30	Do.
Egypt:				
Alexandria	May 21-Sept. 9	42	14	
Cairo	Apr. 30-July 15	18	8	
Germany:				
Berlin	Aug. 22-28	1		Total, May 16-Sept. 11, 1915: 47 cases.
Hamburg	June 6-12	1		
Government districts—				
Allenstein	June 13-19	1		
Arnsberg	do.	1		
Breslau	June 20-July 3	1		
Danzig	June 13-July 31	3		
Gumbinnen	May 23-29	2		
Marienwerder	May 23-July 31	3		
Merselburg	June 20-July 3	1		
Oppeln	May 16-Sept. 11	10		
Posen	May 30-June 5	3		
Potsdam	June 13-Aug. 14	4		
Wiesbaden	Aug. 29-Sept. 4	1		
Great Britain:				
Bristol	Mar. 21-May 22	29	7	1 vessel from Bombay. Maximum incidence, Apr. 4-17: Cases, 22; deaths, 2.
London	May 30-June 12	3		
Greece:				
Saloniki	May 23-29		1	
India:				
Bassein	May 2-8		1	
Bombay	May 2-Sept. 4	247	138	
Calcutta	Apr. 25-Aug. 14		257	
Karachi	May 2-July 31	25	4	
Madras	May 2-Aug. 28	39	22	
Moulmein	May 23-29		1	
Pegu	Apr. 18-June 12	1	1	
Rangoon	Apr. 18-Aug. 28	138	57	May 1-31, 1915: Cases, 37; deaths, 14.
Indo-China:				
Provinces—				
Anam	Jan. 1-31			Present.
Cambodia	Jan. 1-Feb. 28	32	5	
Cochin China	Jan. 1-31	12		
Laos	Feb. 1-28	6		
Tonkin	Jan. 1-Feb. 28	66	12	
Saigon	May 23-July 10	2	2	
Italy:				
Milan	May 1-31	1		
Turin	Aug. 16-29	3		
Japan:				
Taiwan, island	May 23-29	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Oct. 22, 1915—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Acapulco.....	July 14-Sept. 5....	.....	3	
Aguascalientes.....	June 7-Oct. 2.....	.....	23	
Columbia.....	Sept. 15.....	2	.....
Frontera.....	May 23-Aug. 14....	129	51	
Mazatlan.....	June 23-July 13....	.....	3	
Monterey.....	June 14-Sept. 12....	10	.....
Nuevo Laredo.....	Sept. 11.....	2	.....	In persons from San Luis Potosi.
Progreso.....	June 6-July 24....	7	1	
Salina Cruz.....	June 1-30.....	4	1	Soldier from San Geronimo.
Tampico.....	Aug. 11-20.....	.....	1	
Vera Cruz.....	June 7-Sept. 18....	116	60	
Portugal:				
Lisbon.....	May 23-Aug. 28....	27	.....
Russia:				
Moscow.....	May 2-15.....	19	5	
Petrograd.....	May 8-Aug. 14....	359	146	
Riga.....	May 9-Sept. 4.....	137	10	Mar. 1-31, 1915: Cases, 89; deaths, 22.
Vladivostok.....	May 29-June 4.....	1	.....	Sept 27-Oct. 31, 1914: Cases, 51; deaths, 16. Nov. 1-28, 1914: Cases, 70; deaths, 23.
Serbia.....	Apr. 21-May 3.....	356	.....
Spain:				
Madrid.....	June 1-Aug. 31.....	.....	13	
Seville.....	May 1-June 30.....	.....	7	
Valencia.....	May 30-Sept 25....	115	14	
Straits Settlements:				
Penang.....	Apr. 25-May 15....	6	2	
Singapore.....	May 23-29.....	1	.....
Switzerland:				
Basel.....	May 16-Aug. 21....	22	.....
Turkey in Asia:				
Bagdad.....	May 2-8.....	.....	.....	Present.
Beirut.....	May 16-Aug. 14....	84	35	
Haifa.....	May 3-July 25....	9	1	
Jaffa.....	May 9-29.....	2	.....
Mersina.....	May 30-June 5.....	1	.....
Tripoli.....	May 2-8.....	.....	.....	Do.
Union of South Africa:				
Cape Town.....	June 24-July 30....	3	.....

SANITARY LEGISLATION.

COURT DECISIONS.

MARYLAND COURT OF APPEALS.

Sewer Systems—Power of State Board of Health Under Maryland Law.

WELCH et al. v. COGLAN et al., COUNTY COMMISSIONERS, 94 Atl. Rep., 384. (Apr. 14, 1915.)

The protection and preservation of the public health is one of the primary fields for the exercise of the police power of the State, and in a thickly populated community nothing is more vital to the preservation and protection of the public health than the establishment of proper and suitable drainage and sewerage.

It is in the power of the State to require local improvements to be made which are essential to the health and prosperity of any community within its borders. Such authority may be lodged in any board or tribunal which the legislature may designate, and it is for the legislature to prescribe the way in which the means to meet the cost of the work shall be raised.

A statute may be valid in part and void in part, even when the two parts are contained in the same section, provided that the valid part is independent of and separable from that which is void.

The Maryland law (chap. 810, acts of 1914) authorizes the State board of health, when deemed necessary for the public health, to require counties, municipalities, or localities to install water supply or sewer systems, and it provides for the institution of court actions to set aside orders of the board of health if the local authorities consider the orders unlawful, unreasonable, or unnecessary. The State board of health ordered the county commissioners of Baltimore County to install a sewer system covering a specified area. The county commissioners brought suit attacking the constitutionality of the statute, but did not allege that the order was unreasonable or unnecessary. The court intimated that the law was valid, but sent the case back to the lower court, with the suggestion that the commissioners might, if they deemed expedient, allege and introduce proof showing that the order in this case was unreasonable.

STOCKBRIDGE, J.: By chapter 810 of the acts of 1914 of the General Assembly of Maryland, there were conferred upon the State board of health additional, and in some respects unusual, powers. The act was one "for the better preservation of the public health by preserving the purity of the waters of the State; providing for the supervision and control by the State board of health over water and ice supplies, sewerage, trades waste and refuse disposal; and for the maintenance, alteration, extension, construction and operation of systems and works relating thereto; providing for the raising of funds by counties, municipalities and sanitary districts for the maintenance, alteration, extension, and construction of the same." The act then proceeds with considerable detail to make provision as to the method by which the declared purposes shall be carried out. The two sections with which the present case is especially concerned are sections 7 and 9, which are as follows:

SEC. 7. And be it further enacted, that when the State board of health finds, upon investigation, that any of the waters of the State are being, or are liable to become, polluted in a way dangerous to health, or so as to be in any way a nuisance, and such condition is due to the fact that there is no, or only a partial, system of public water supply, sewer-

age or refuse disposal in a certain county, municipality, district, subdivision or locality; or in case absence or incompleteness of a public system of water supply, sewerage or refuse disposal in any county, municipality, district, subdivision or locality is, in the opinion of the State board of health, sufficiently prejudicial to the health or comfort of that or any other county, municipality, district, subdivision, or locality; then the State board of health may issue an order to the effect that a public system of water supply, sewerage or refuse disposal shall be installed and put into operation, or the existing system completed in that county, municipality, district, subdivision, or locality within a specified time; or the board may order the installation of such devices or the institution of such methods, and enforce such measures or regulations as it may deem proper under the circumstances.

SEC. 9. And be it further enacted, that the State, or any county, legally constituted public water, sewerage, or sanitary district, or any municipality upon which an order of a State board of health is served, shall, through its proper official or department, proceed to raise such funds as may be necessary to comply with such order within the time specified. When approved by the governor and attorney general any county, legally constituted public water, sewerage, or sanitary district, or municipality may raise such funds, or any part of them, by issuing bonds, stocks, or notes without prior legislative enactment; and the question of issuance of such bonds, stocks, or notes shall not be required to be submitted to a vote of the people. The money made available by bonds, stocks, or notes so issued shall constitute a sanitary fund, and shall be used for no other purpose than for carrying out the order or orders of the State board of health. At no time shall the total outstanding issue of such bonds, stocks, or notes exceed 2 per cent of the total value of all property within the limits of such county, district, or municipality, as listed and assessed for taxation. The amount of bond, stock, or note issue as allowed by this section may be in addition to the total indebtedness otherwise permitted by law. No public moneys shall be expended by the State, any county, legally constituted public water, sewerage, or sanitary district for any of the purposes enumerated within this act unless such expenditure and the amount thereof has been approved by the State board of health.

Acting under the authority conferred or attempted to be conferred by section 7, the State board of health, through its secretary, on October 23, 1914, issued the following order:

OCTOBER 23, 1914.

To the county commissioners of Baltimore County, greeting:

It is this 23d day of October, 1914, ordered by the State Board of Health of Maryland, by virtue of the power conferred upon it by the General Assembly of Maryland, that you install and put into operation a sewerage system in Baltimore County, within the Tiffany Run Grange area, Govans, and described on plat entitled "Govans and vicinity—Tiffany Run drainage area—District required to be sewered under order of State board of health to Baltimore County commissioners, dated October 23, 1914," which plat is hereto attached and made a part hereof.

The absence of a sewerage system sufficient to take care of the sewage of said district, as it now exists, is a menace to the health of the people. It is further ordered by the State Board of Health of Maryland that you install this sewerage system and put it into operation not later than January 1, 1916.

Witness the hand of the secretary and executive officer of the State Board of Health of Maryland and the affixing of its seal the day and year first above written.

Section 18 of the act gives the right to any county, municipality, legally constituted water, sewerage, or sanitary district, corporation, company, institution, or person dissatisfied with any order of the State board of health to institute an action within 10 days to vacate and set aside such order of the State board upon the ground either that such order is unlawful or unreasonable or unnecessary for the protection of the public health or comfort. In the exercise of the right given by this section the county commissioners of Baltimore County, upon the service of the order recited, instituted the present proceedings to vacate and set aside the order of the State board of health upon the ground that the same was unlawful and beyond the powers of the board. The petition does not allege that the order is not necessary for the protection of the public health or comfort, and ask that the order be vacated for any such reason. The sole question, therefore, is the constitutionality or validity of the act.

The petitioners do not claim in their argument or brief that the act is invalid in its entirety, but only that sections 7 and 9 transcend the power of the legislature under the constitutional limitations resting upon that branch of the government. The point thus raised is a narrow one and yet of great importance to the citizens of every county in this State. That will be appreciated when it is borne in mind that the effect of this legislation, if valid, is to place in a board of seven men, not elected by or accountable to the people, the power to compel the several counties of this State to incur an indebtedness for which the several counties are required to issue the bonds of the counties to an aggregate amount for the entire State of more than \$9,500,000, ranging from \$60,645 in Calvert County to \$3,021,756 in Baltimore County. This is a power which may be exercised, if the act is valid, without the consent of the people upon whom the burden is to be cast and without their even having had the opportunity to give an expression to their views or desires in the matter. It is but just, therefore, that when the legislature attempts to confer so comprehensive a power, one which may affect seriously every owner of any property in any part of the State, it should receive most serious and careful consideration.

The circuit court for Baltimore County held the act invalid, and the case has been presented in this court with marked ability and zeal upon both sides, and the fullest possible consideration has been devoted to it, because, in addition to the strictly legal questions involved, it is but another and more pronounced step in the direction of establishing government by boards or commissions.

The basis for all legislation of this character is to be found in the police power of the State. While no precise boundaries have ever been set as to what may and what may not be properly classed as an exercise of police power, the protection and preservation of the public health has universally been recognized as one of the primary fields for its exercise, and it needs no citation of authorities for the proposition that in a city or thickly populated community nothing is more vital to the preservation and protection of the public health than the establishment of proper and suitable drainage and sewerage.

In *Boehm v. Baltimore* (61 Md., 263), Judge Miller, speaking for this court, said:

The preservation of the health and safety of the inhabitants is one of the chief purposes of local government.

The same doctrine was even more explicitly stated by the late Judge McSherry in the case of *State v. Hyman* (98 Md., 613, 57 Atl. 6, 64 L. R. A., 637, 1 Ann. Cas., 742), as follows:

One of the legitimate and most important functions of civil government is acknowledged to be that of providing for the welfare of the people by making and enforcing laws to promote and preserve the public health, the public morals, and the public safety. Civil society can not exist without such laws, and they are therefore justified by necessity and sanctioned by the right of self-preservation. The power to enact and enforce them is lodged by the people with the government of the State, qualified only by such conditions as to the manner of its exercise as are necessary to secure the individual citizen from unjust and arbitrary interference.

And to the same effect was the decision in *Deems v. Baltimore* (80 Md., 173, 30 Atl., 648, 26 L. R. A., 541, 45 Am. St. Rep. 339), *Sprigg v. Garrett Park* (89 Md., 409, 43 Atl., 813), and *State v. Broadbelt* (89 Md., 565, 43 Atl., 771, 45 L. R. A., 433, 73 Am. St. Rep., 201).

In one sense of the term the construction of a drainage or sewerage system is a work of internal improvement, but the cases in this State are conclusive that it is not such a work of internal improvement as was contemplated and included in the prohibition contained in section 54 of article 3 of the constitution. (*Bonsal v. Yellott et al.*, 100 Md., 481, 60 Atl., 593, 69 L. R. A., 914.) In

that case the court was asked to enjoin the county commissioners of Baltimore County from expending certain funds under their control on the construction of State roads under the provisions of acts 1904, chapter 225. In deciding that case Judge Boyd, speaking for this court, discusses the limitations imposed in article 3 of the constitution, sections 34 and 54, and holds them inapplicable with regard to such matters as roads or bridges. But roads and bridges are no more public works than is the construction of a proper sewer system, and it may be fairly questioned whether an act with regard to roads and bridges can properly be said to be germane to the police powers of the State.

One of the grounds of attack upon this act was its alleged violation of the constitution with regard to the debt-incurring power of Baltimore City. This objection need not be considered, as the order of the board of health, which has given rise to the present case, in no way affects Baltimore City; moreover, the limitation upon the incurring of an indebtedness by the city is different from that in the case of a county, and it may be that an act may be constitutional in part and unconstitutional in part without entirely destroying the act, and this may result from distinct and different constitutional provisions with regard to one part of the State from those which obtain in another, as well as from embodying in one and the same section different provisions, for it has been held that a statute may be valid in part and void in part, even when the two parts are contained in the same section, provided that the valid part is independent of and severable from that which is void. (*Field v. Malster*, 88 Md., 691, 41 Atl., 1087; *Steenken v. State*, 88 Md., 708, 42 Atl., 212.)

Upon the question whether Baltimore city is subject in all respects to the provisions of the act in question, no opinion is now expressed. A further objection might have been raised by reason of the fact that by the terms of the act the State itself is made subject to the control of the board; that is, that the creature is superior to the creator. But here again we are not called upon to express any opinion by reason of any of the allegations in this case.

The circuit court of Baltimore County was therefore clearly correct when it stated in its opinion that the proposed sewerage system, although a work of internal improvement, did not fall within the class of such works prohibited to the counties unless authorized in the method laid down in section 54 of article 3 of the constitution. It was also correct when it stated that it has been a frequent practice in the passage of acts of assembly to provide for bond issues as a source from which to derive the funds required for works of a public character without a submission of them to the voters of the county. No more appropriate illustration of this is needed than the case of *Revell v. Annapolis* (81 Md., 9, 31 Atl., 695). The court for Baltimore County, however, set the act aside upon the ground that the board had acted in an arbitrary manner and that its order of October 23 was therefore unreasonable. This involves a consideration of a number of matters.

Sewer legislation has been abundant in recent years. In 1912 the general assembly passed an act empowering the county commissioners of Baltimore County to adopt sewerage or drainage systems whenever in their opinion public welfare or convenience might require it, subject to certain restrictions set forth in the act, and invested them with the power to make reasonable regulations for the maintenance of such systems, the regulations to be subject to the approval of the State board of health. It also conferred upon them the power to take property for the construction of such system, and gave them the power of condemnation. It further empowered them to assess benefits to the owners of property supposed to have been benefited thereby, and provided a method by which the costs of construction could be paid by the property benefited, either

in whole or in part, or a portion of it made a charge upon the county at large, with the right to divide and extend over a series of years the cost of the construction. It also conferred upon them the power, with the approval of the State board of health to require property owners to connect their drainage with a system so established, and authorized them to fix, subject to the approval of the public-service commission, the terms which should be charged for such connection or service. Portions of this act were reenacted with slight verbal changes by chapter 804 of the acts of 1914, approved April 16, 1914. Acting under the authority given by the act of 1912, the county commissioners of Baltimore County adopted regulations, which were duly approved by the State board. On the same day, April 16, 1914, another act was approved, more comprehensive in its terms in some respects, for drainage systems to be installed in Baltimore County and providing for an issue of bonds by the county to the extent of \$1,000,000 on the ratification of the act by the voters of the county. Three days earlier acts had been approved making provision for the construction of sewers and drainage areas and systems in Prince George and Montgomery Counties fuller in some respects than the act relating to Baltimore County. On the same day on which the act of 1914 for Baltimore County was approved, by another act the State board of health was authorized to divide the State outside the city of Baltimore into 10 sanitary districts, following county lines.

The act of 1914 making provision for a general sewerage system and for the issue of bonds of Baltimore County to the extent of \$1,000,000 was submitted to the people of that county at a special election about six months before the order now complained of was passed, and at that election decisively rejected. Certainly there had been no lack of legislation attempted on the subject. It may have been the underlying idea of the circuit court for Baltimore County that inasmuch as the people had by their vote rejected the act of 1914, that any action upon the part of the State board of health was necessarily arbitrary, and some degree of color would be given to such a view if the petition of the county commissioners had alleged that the construction of a sewerage system within the Tiffany Run drainage area was unnecessary. But upon the case as presented by the pleadings it is difficult to see upon what theory the action of the State board can be called arbitrary. By their order it was distinctly stated that "the absence of a sewerage system sufficient to take care of the sewage of said district as it now exists is a menace to the health of the people." This is nowhere denied. Such being the case, it was the plain duty of the county commissioners of Baltimore County, in the exercise of the police power, to take appropriate steps to obviate the condition, and it was likewise the duty of the State board of health, if it possessed the power, to require this to be done.

It remains, therefore, to consider the nature and extent of the power of the legislature, including the power reposed in the board, to require the pledging of the credit of the county, and the issuance of bonds wherewith to defray the cost of the construction of a proper system for sewerage for the Tiffany Run drainage area. The performance of an undertaking of this description involves the outlay of a considerable amount of money and the creation of a debt, the interest upon which, and ultimately the debt itself, must be met by taxation. There might by virtue of the legislative enactment be an immediate levy for the purpose of paying the obligation, or there might be an issue of bonds, the proceeds of which could be employed for that purpose; but in either event taxation is the only source by which the indebtedness could be finally discharged, and some discussion was devoted in the argument to whether this was

a tax imposed or to be imposed by the State board of health or the county commissioners. If the former, the argument was that the act was void for the reason that it was an attempt to delegate to a board a nondelegable power. The rule as laid down by the many text-writers is to the effect that the power to tax is inherently a legislative function, to be exercised only by that department of the government, and that it can be delegated only to municipal corporations. (37 Cyc., 725; Cooley on Taxation, 2d ed., 61, 63, 65.) And some of the decisions ably support this view. (*State v. Des Moines*, 103 Iowa, 76; 72 N. W., 639; 39 L. R. A., 285; 64 Am. St. Rep., 157; *Van Cleve v. Passaic Valley Sewerage Commission*, 71 N. J. Law, 574; 60 Atl., 214; 108 Am. St. Rep., 754; *Blades v. Detroit Water Commissioners*, 122 Mich., 366; 81 N. W., 271; *Martin v. Tyler*, 4 N. D., 278; 60 N. W., 392; 25 L. R. A., 838.)

But the proposition of law is by no means as broad as its language might be taken to imply, and in numerous instances authority conferred by legislatures upon school boards and school commissioners to fix the amount of the tax to be levied for the maintenance of schools has been sustained.

The rule in this State is that laid down in *Baltimore v. State* (15 Md., 376; 74 Am. Dec., 572.) So far as the present case is concerned no such latitude is attempted to be conferred. Neither in sections 7 or 9, or elsewhere in the act, is there any attempt to invest the State board of health with any power either to issue bonds or pledge the credit of any county, or to incur any indebtedness for a county, or levy any tax upon the property in any county in the State for carrying into effect any orders which it may issue. That is a power which rests solely with the county commissioners in their capacity as a municipal corporation. The order of the board of health may be mandatory upon them, but not the manner in which it shall be carried out. They may, in conformity with the legislative act, levy a tax for the immediate payment of the cost of the required improvements and make it a charge on all the property in the county; or they may require its payment only by the property supposed to derive some benefit from the work performed; on the other hand, they may, by the terms of the act in question, meet the immediate charge by an issue of bonds not to exceed 2 per cent of the assessed value of the property in the county, and provide for the gradual payment of them, either serially or by the means of a sinking fund. All of that is by the act left to the discretion of the municipal corporation, the county commissioners. It has often been pointed out that legislation of this description tends toward extravagance, wasteful and often reckless expenditure of public money, but it has just as often been said that this is a tendency which is not within the province of the courts to control, but one the responsibility and remedy for which lies with the legislature. All that the court can do is to deal with the legislative power and its exercise. What that power is was forcefully stated by Mr. Justice Field in *Hagar v. Reclamation Dist. No. 108* (111 U. S., 701; 4 Sup. Ct., 663; 28 L. Ed., 569) when he said:

It is not open to doubt that it is in the power of the State to require local improvements to be made which are essential to the health and prosperity of any community within its borders. To this end it may provide for the construction of canals for draining marshy and malarious districts, and of levees to prevent inundations, as well as for the opening of streets in cities and of roads in the country. * * * Such authority may be lodged in any board or tribunal which the legislature may designate. * * * The expense of such works may be charged against parties specially benefited and be made a lien upon their property. * * * But this is a matter purely of legislative discretion. Whenever a local improvement is authorized, it is for the legislature to prescribe the way in which the means to meet its cost shall be raised, whether by general taxation or by laying the burden upon the district specially benefited by the expenditure.

And to the same effect is *Mobile v. Kimball* (102 U. S., 691, 26 L. Ed., 238), and the same doctrine has been frequently announced in this State. (*Revell v. Annapolis*, 81 Md., 1, 31 Atl., 695; *Worcester Co. v. Melvin*, 89 Md., 41, 42 Atl., 910; *Thrift v. Laird*, 125 Md., 55, 93 Atl., 449; *Washington Co. v. B. & O.*, 12 Gill & J., 436, 38 Am. Dec., 319; *Hagerstown v. Sehner*, 37 Md., 180; *Pumphrey v. Baltimore*, 47 Md., 145, 28 Am. Rep., 446.)

Counsel for the appellant relied considerably upon the decision in *State Board of Health v. Greenville* (86 Ohio St., 1, 98 N. E., 1019, Ann. Cas., 1913D, 52), because of the marked similarity of the acts of Ohio and of this State. There were, however, points of dissimilarity, and, in view of the repeated consideration given by this court to the questions now presented, a discussion of the Ohio statute and of the decision referred to, would seem superfluous.

It scarcely needs to be said that the reasonableness of the exercise of any such power as that intrusted to the State board of health by the act of 1914 is always open to question (*State v. Gurry*, 121 Md., 541, 88 Atl., 546, 47 L. R. A. [N. S.], 1087), and it is expressly made so by the provisions of section 18 of the act; but there was no allegation of unreasonableness in the petition, and therefore no valid ground upon which the circuit court for Baltimore County could predicate its conclusion, that the action of the board was arbitrary.

The ground upon which the county commissioners relied in their petition for relief from the order of the State board was the alleged invalidity of the act; that upon which the relief was granted was the arbitrary and unreasonable nature of the order. No proof was presented to the court adequate to sustain this view, and the case was one, therefore, in which the petition should have been dismissed, or permission granted the petitioners to so amend their petition as to enable them to set up and adduce proof to sustain an allegation of lack of necessity or unreasonableness, so that the case might be determined upon its substantial merits, rather than upon on a technical construction of the law. Courts do not and ought not to favor the splitting up of grounds of relief, so as to protract litigation by successive cases with regard to the same subject, and this is especially true in a matter which affects the public health, and where time may be, and often is, a matter of vital importance. Had this court in any previous case been called on to pass upon the validity or invalidity of the acts of 1914, chapter 810, there would be no hesitation in reversing the decree appealed from and dismissing the petition. But when we consider the great and unusual powers conferred by the act upon the State board of health, the far-reaching effect upon possibly more than half of the taxpayers of the State, and that the case as presented to the circuit court for Baltimore County and to this court, did not and could not amount to an adjudication of the substantial merits of the case, there is presented a condition peculiarly suitable for the exercise of the power conferred on the court by article 5, section 38, of the code, of remanding this case to the circuit court for Baltimore County, that leave may be granted to the petitioners to amend their petition, if they can properly do so, in accordance with section 18 of said act; such amendment to be made within 10 days from the receipt by the clerk of said court of the order of remand, and in case the petitioners fail so to amend, with instructions to said court to dismiss the petition.

Case remanded, without affirming or reversing the order appealed from, for further proceedings in accordance with this opinion; the costs to abide the final determination of the case.

LOUISIANA SUPREME COURT.

Rat-Proofing Ordinance—New Orleans Ordinance Held Invalid, but Its Main Features Sustained.¹

CITY OF NEW ORLEANS v. SANFORD et al., 69 South. Rep., 35. (June 11, 1915.)

Different provisions of a statute granted authority to the board of health and to the municipal council of New Orleans to enact ordinances covering the same subject matter. The court held that an ordinance adopted by the board of health was not invalid because of the conflict of authority, the municipal council not having adopted any conflicting ordinance. The court assumed that the legislature intended to make the grants as declared in the statute, and stated that it was no part of the duty of the court to defeat that intention by placing upon the statute a construction not absolutely necessary.

The New Orleans ordinance requiring the rat proofing of all buildings in the city was not invalid because it could be enforced only against privately owned buildings and the public buildings were not rat proofed, though they constituted dangerous foci of infection. The board of health in passing the ordinance was justified in doing the best it could and going as far as the circumstances allowed it to go.

The New Orleans rat-proofing ordinance provided that "from and after the promulgation of this ordinance every building, outhouse, and other superstructure now erected or hereafter to be erected in the city of New Orleans shall be rat proofed in the manner hereinafter provided," and that "each day's violation of any provision of this ordinance shall constitute a separate and distinct offense," punishable by fine and imprisonment. The court held that the homes and business places of a large city, constructed in conformity with the rules and regulations theretofore prescribed, could not be converted overnight into unlawful structures, and that the fact that the ordinance was not enforced with strictness, but that notice and time to comply with the provisions of the ordinance had been given to property owners, did not prevent the ordinance from being a nullity, as the validity of an ordinance must depend upon its terms and not upon the consideration of the officers of the law in not enforcing it.

The New Orleans rat-proofing ordinance divided buildings into classes for the purpose of determining how they should be rat proofed and authorized the health officer, in his discretion, to grant permission for the use of less expensive rat-proofing construction than that required by the ordinance in certain cases. The court held that while the board of health could validly clothe the health officer with the authority to ascertain and determine whether any particular building fell into one class or the other, it could not invest him with the authority to withdraw any particular building from the one class and place it in the other. Exceptions to the rule established by the ordinance must be made by the same power that made the rules, and this discretion could not be delegated to a subordinate.

PROVOSTY, J.: The defendants, four in number, have appealed to this court from a conviction and sentence in the first recorder's court of the city of New Orleans for violation of ordinance 17, as amended by ordinance 21, of the board of health of the city of New Orleans and parish of Orleans. They were sentenced to pay a fine of \$25, or, in default of paying same, to be imprisoned for 30 days in the parish prison.

The said ordinance is the rat-proofing ordinance of the board of health. It was adopted on July 25, 1914, as a precautionary measure against the spreading of bubonic plague in the city of New Orleans. On June 27, 1914, a positive case of human bubonic plague developed in the city of New Orleans, and immediately considerable alarm prevailed, and precautionary measures were taken, consisting in the disinfection of suspected premises, the destruction of suspected material, the removal of rubbish, and the trapping of rats, which are known to be the principal conveyers of the disease. And in order that a commercial quarantine might not be declared against the city, and also for procuring financial as-

¹ See Public Health Reports, Apr. 2, 1915, p. 1033, where the same ordinance was considered by the United States District Court for the Eastern District of Louisiana.

sistance in the effort that would have to be made for preventing the spread of the infection and eradicating it altogether, the Federal Government was called on and requested to take charge of the situation; and it did so through the Public Health Service. Asst. Surg. Gen. W. C. Rucker, with assistants, came to New Orleans and took charge. Dr. Rucker says:

The first thing I did was the establishment of headquarters; second, to name my staff; third, to secure legal authority under which to carry out the various necessities of the campaign; fourth, to begin the trapping of rats, in order that the area of infection might be mapped out as rapidly as possible.

The ordinance in question, as amended, is the legal authority here referred to by Dr. Rucker. It was prepared by him and his assistants, Drs. Creel and Simpson, in collaboration with the health officer and the attorney of the board of health. As amended it reads as follows:

AN ORDINANCE DEFINING RAT-PROOF BUILDINGS.

[Board of Health for the parish of Orleans and the city of New Orleans. Ordinance No. 17, board of health series, adopted July 25, 1914, as amended by ordinance No. 21, board of health series, adopted Sept. 8, 1914.]

AN ORDINANCE To better protect the public health, and particularly to prevent the introduction and spread of bubonic plague, by providing for the rat proofing of all premises and buildings in the city of New Orleans.

SECTION 1. *Be it ordained by the Board of Health for the parish of Orleans and the city of New Orleans,* That from and after the promulgation of this ordinance that every building, outhouse, and other superstructure now erected or hereafter to be erected in the city of New Orleans shall be rat proofed in the manner hereinafter provided for.

SEC. 2. That it shall be unlawful for any person, firm, or corporation to have or maintain or hereafter to construct any building, outhouse, or other superstructure on any lot, open area, or other premise within the city of New Orleans unless the same shall be rat proofed in the manner hereinafter provided for.

SEC. 3 (as amended by ordinance No. 21, board of health series). That for the purpose of rat proofing, all buildings, outhouses, and other superstructures in the city of New Orleans, except stables, shall be divided into two classes, to wit, class A and class B; and the same shall be rat proofed in the manner following, to wit:

Class A.—All buildings, outhouses, and other superstructures of class A shall have floors made of concrete, which concrete shall not be less than 3 inches thick and overlaid with a top dressing of cement, mosaic tiling, or other impermeable material, laid in cement mortar, and such floor shall rest without any intervening space between upon the ground or upon filling to be approved by the health officer of the city of New Orleans; said floor shall extend and be hermetically sealed to walls surrounding said floor, which walls shall be made of concrete, stone, or brick, laid in cement and mortar, and each wall to be not less than 6 inches thick, and shall extend into and below the surface of the surrounding ground at least 2 feet and shall extend not less than 1 foot above the surface of said floor: *Provided*, That in certain cases and after written permission shall have been obtained therefor from and in a manner to be approved by the health officer of the city of New Orleans, wooden floors and wooden removable gratings may be laid upon such concrete floors, and in certain cases, after such written permission shall have been first obtained from the health officer of the city of New Orleans, tar-cinder composition flooring, as hereinafter defined and provided for, may be substituted for such concrete floors. That tar-cinder flooring hereinabove provided for is hereby defined to be a composition of cinders and coal tar only, and, when laid, to be covered by a wooden floor.

The cinders used in the composition shall be free of soft ash and clinkers and shall be brought to the work dry.

The coal tar used in the composition shall be the product of the dry distillation of coal, and shall contain not more than 2 per cent of water and shall be free from any mixture with other substance or thing.

The composition of and manner of laying tar-cinder composition flooring shall be as follows:

To each cubic yard of such cinders shall be added 20 gallons of such coal tar, the whole to be thoroughly mixed on the work where the same is to be laid, and no other substance or thing to be added thereto. This composition shall be laid between the walls hereinabove provided for in rat proofing buildings of class A and cover the whole space

to be floored, and the whole to be thoroughly tamped or rolled as provided for herein-after. The sleepers to be used in the laying of such flooring shall be creosoted by having the creosote pressed into each sleeper under a pressure of not less than 15 pounds to the square foot, and such sleepers shall be laid in such composition before the whole of said composition is rolled or tamped: *And provided further*, That after such sleepers are laid in such composition and after the whole shall be so rolled and tamped the whole shall not be less than 4 inches thick in its thinnest part. Upon this composition and sleepers shall be laid a wooden flooring of the quality now provided or hereafter to be provided for in the building laws of the city of New Orleans: *Provided, however*, That for the purpose of laying a tar-cinder composition floor said wooden flooring shall be tongue and groove, well fitted, and the planks firmly set into each other and the whole in such manner as to prevent the ingress or egress of rats.

Class B.—All buildings, outhouses, and other superstructures of class B shall be set upon pillars or underpinning of concrete, stone, or brick, laid in cement mortar, such pillars or underpinning to be not less than 18 inches high, the height to be measured from the ground level to the top of said pillars or underpinning, and the intervening space between said building and the ground level to be open on three sides and to be free from all rubbish and other rat-harboring material: *Provided*, That any building of class B used exclusively for residential purposes may be made rat proof by constructing at the margin of the ground area of said building a wall of concrete or brick or stone laid in cement, such wall to extend into and below the surface of the ground at least 2 feet and to meet the floor of the building above closely and without any intervening space; such walls shall be at least 6 inches thick and extend entirely around said building: *Provided*, That said walls may be built with openings therein for ventilation only: *And provided further*, That such openings for ventilation shall be securely screened with metallic gratings having openings between said gratings of not more than one-half inch, and the whole so constructed and closed as to prevent the entrance of rats beneath such building.

SEC. 4. That every slaughterhouse, abattoir, market (public and private), bakery, sausage factory, rendering plant, candy factory, ice-cream manufactory, hotel kitchen, restaurant kitchen, grain elevator, warehouse where grain or cereals are stored, milk depot where milk is received or stored for distribution or sales or where milk is converted into cream cheese or other products, dairy, building wherein poultry, game, animals, or birds are stored or kept for sale or sold, produce and commission houses, hide stores, and other buildings wherein foodstuffs are manufactured and prepared shall be rat proofed in the manner provided for hereinabove as class A. All other buildings, residences, outhouses, and superstructures, except stables, not hereinabove specified as class A shall be rat proofed in the manner provided hereinabove as class B: *Provided*, That in plague-infected areas, or where, from any cause, a building or outhouse or other superstructure is or may become, in his opinion, a menace or dangerous to public health the health officer of the city of New Orleans may require any such building, outhouse, or other superstructure hereinabove required to be rat proofed as a building of class B to be rat proofed as a building of class A: *Provided*, That the owner of any building, residence, or superstructure in class B may rat proof same as provided in class A if he so elects.

Stables.—All buildings now or hereafter to be constructed and used for stabling horses, mules, cows, and other animals shall be constructed as follows:

Walls.—The walls of such buildings shall be constructed of concrete, brick, or stone, laid in cement mortar, and shall be not less than 6 inches thick, and shall extend into and below the surface of the surrounding ground not less than 2 feet, and shall extend above the ground a sufficient height as to be not less than 1 foot above the floor level. All openings in such foundation walls shall be covered with metal grating having openings not greater than one-half inch between the gratings.

Floors.—The floors of stables and stalls shall be of concrete, not less than 3 inches thick, upon which shall be laid a dressing not less than one-half inch thick of cement or stone, laid in cement mortar, in such way as to prevent ingress or egress of rats, and such floors to have a slope of one-eighth inch per foot to the gutter drains hereinafter provided for.

Stalls.—The floors of stalls may be of planking, fitting either tightly to the concrete floor or elevated not more than one-half inch from the stall floor and so constructed as to be easily removable. Such removable planking shall be raised at least once a week and the said planking and the concrete floor beneath thoroughly cleansed.

Gutters.—Semicircular or V-shaped gutter drains shall be constructed in such stables in such manner that a gutter shall be placed so as to receive all liquid matter from each stall, and each of these gutters to connect with the public sewer or with a main gutter of the same construction, which in turn shall be connected with the public sewer. All

openings from drains into sewers shall be protected by a metal grating having openings not more than one-half inch between the gratings.

Manure pit.—Each stable shall be provided with a manure pit, to be sunk into the ground within or near to said stable, which pit shall be lined with cement, so as to make same liquid tight, and having a capacity of at least $2\frac{1}{2}$ cubic feet for each stall in said stable. Said manure pit shall be provided with a tight-fitted cover divided into two parts and so constructed as to render the contents of said pit inaccessible to flies.

Manure.—Any manure in and about all stables shall be placed in said manure pit at least once a day. Manure shall be removed from said pit at least twice a week between March 15 and December 1 and at least once a week between December 1 and March 15. All manure so removed shall be placed in wagons so protected as to render said manure inaccessible to flies.

Mangers.—Each manger shall be constructed so as to have a slope of 2 inches toward the bottom, shall be covered with tin or zinc, and shall be at least 18 inches deep, to avoid spilling of food.

Feed bins.—All feed bins shall be constructed of cement, stone, metal, or wood, and with close-fitting doors. If constructed of wood, the bins shall be lined or covered with metal, and the whole so constructed as to prevent the ingress or egress of rats. All grain, malt, and other animal food, except hay, stored or kept in any stable must be kept in such feed bins. Said feed bins must be kept closed at all times except when momentarily opened to take food therefrom or when same are being filled. No feed shall be scattered about such bin or stable, and all such feed found on the floor or in the stalls of said stables shall be removed daily and placed in the manure pits. No foodstuffs intended for or susceptible of human consumption shall be kept or stored in any stable or any other place where animals are kept.

SEC. 5. That the construction and materials used in rat proofing shall conform to the building ordinances of the city of New Orleans, except and only in so far as the same may be modified herein.

SEC. 6. That all wall space, accidental and unnecessary spaces and holes, ventilators, and other openings other than doors and windows in every building, outhouse, and other superstructure in the city of New Orleans shall be closed with cement or screened with wire having not less than one-half inch mesh, as the case may require, in such manner as to prevent the ingress or egress of rats: *Provided*, That in all buildings, outhouses, and other superstructures of class A, and in all stables where there are any spaces in walls between the wall proper and the covering on same, or in ceilings, between the ceiling and floor, or other ceiling covering above said spaces shall be eliminated by the removal of said covering or so closed as to prevent the ingress or egress of rats, and the whole as determined and in such manner as shall be approved by the health officer of the city of New Orleans.

SEC. 7. That all premises, improved and unimproved, in the city of New Orleans, and all open lots and areas, shall be kept clean and free from all rubbish and similar loose material that might serve as a harborage for rats, and all lumber, boxes, barrels, loose iron, and similar material that may be permitted to remain on such premises and that may be used as a harborage by rats shall be placed on supports and elevated not less than 2 feet from the ground, with a clear intervening space beneath to prevent the harboring of rats.

SEC. 8. That all planking and plank walks on and in yards, alleys, alleyways, or other open areas shall be removed and replaced with concrete, brick, or stone laid in cement, gravel, or cinders, or the ground left bare.

SEC. 9. That all rat proofing done under the provisions of this ordinance shall be approved by the health officer of the city of New Orleans.

SEC. 10. That it shall be the duty of every owner, agent, and occupant of each premise in the city of New Orleans to comply with all the provisions of this ordinance.

SEC. 11. That each day's violation of any provision of this ordinance shall constitute a separate and distinct offense.

SEC. 12. That any person violating any provision of this ordinance shall on conviction be punished by a fine of not less than \$10 nor more than \$25, or in default of the payment of such fine, by imprisonment in the parish jail for not less than 10 days nor more than 30 days or both, at the discretion of the recorder having jurisdiction of the same.

SEC. 13. That any law or ordinance in conflict with the provisions of this ordinance, in whole or in part, be and the same is hereby repealed.

Adopted by the board of health, September 8, 1914.

The prosecution is by affidavit, which charges the defendants with having violated ordinance 17 of the board of health of the parish of Orleans and city of New Orleans "all against the peace and dignity of the city of New Orleans."

The said board of health is created by section 18 of the charter of the city of New Orleans, which is act 159, page 253, of 1912, and its powers are defined by section 19 of the same act, which provides that:

Its powers, duties and rights * * * shall be and remain the same, as those of municipal and parish boards of health, as prescribed by act 192 of 1898.

The latter act was amended by act 173, page 313, of 1912, and, as amended, reads:

That said parish and municipal boards of health shall have power and authority to pass health and sanitary ordinances for defining and abating nuisances dangerous to the public health; to regulate drainage and ventilation with reference to human habitation and places of business and public resort; to regulate the carrying on of trade and business injurious to public health; for the disposition of fecal matter and garbage; to regulate the erection of buildings; * * * for the vacation or demolishing of buildings when necessary for the protection of public health; for the registration of births, deaths, and marriages, and the keeping of vital statistics to be registered and reported to the State board of health under its instructions and regulations, and generally all health and sanitary ordinances necessary and incident to the proper local sanitation of the parish, city, or town in which they exercise their powers.

The said statute adds:

Any person violating any provision of any ordinance of said parish and municipal board of health, shall, on conviction by any court of competent jurisdiction, be fined not less than \$10 nor more than \$25, or suffer imprisonment in the parish prison for not more than 30 days, or both at the discretion of the court.

The accused excepted to the jurisdiction of the recorder's court, contending that this prosecution, while purporting to be for a violation of the said ordinance of the board of health, is in reality for a violation of the said act 192, page 437, of 1898, as amended, and that the said recorder's court under the law of its creation (art. 141 of the constitution) has jurisdiction only of violations of ordinances of the city of New Orleans.

The accused also assailed the validity of the said ordinance on numerous grounds.

This court has no jurisdiction on this appeal of the question of the jurisdiction vel non of the recorder's court, but has jurisdiction only of the question of the legality of the fine which has been imposed by the judgment appealed from. (*City of New Orleans v. Williams*, 134 La., 421, 64 South., 229.) This question of jurisdiction has been considered by this court in the case of *City of New Orleans v. Mrs. A. Stein* (69 South., 43, No. 21385), this day decided,¹ where a similar plea to the jurisdiction of the recorder's court was sustained.

The first ground of invalidity relied on by the accused is that the proper authority to have legislated upon the subject matter of this ordinance was the commission council of the city of New Orleans; that the board of health was without authority to do so. In support of that contention the learned counsel of accused call attention to sections 4 (B), 6, 12, and 70 of the city charter, act 159, page 253, of 1912.

Section 4 (B) provides as follows:

The commission council shall have and possess * * * all executive, legislative, and other powers and duties now had and possessed and exercised by the mayor, * * * the city council, * * * the comptroller, * * * the treasurer, * * * the commissioner of public works, * * * the commissioner of police and public buildings, * * * and the city engineer of the city of New Orleans. The commission council shall also have and possess, and shall exercise all executive, legislative, and other powers and duties heretofore had and possessed and exercised by all other legislative, executive, and administrative officers of the city of New Orleans, whether herein specifically enumerated or not; the intention being that the entire powers and duties of government of the city of New Orleans, as at present vested, or as may be hereafter vested

¹ The opinion in this case is published in this issue of the Public Health Reports, p. 3259.

by the constitution and laws of this State, in the municipal officers of said city, shall be concentrated in the commission council.

The executive and administrative powers, authority, and duties in said city, shall be distributed among the five departments as follows, to wit:

1. * * *
2. * * *
3. The department of public safety.
4. * * *
5. * * *

The commission council shall at their first meeting determine the powers and duties to be embraced in each department unless herein otherwise provided.

Section 12 provides as follows:

The following subdivisions of government shall be grouped under the five departments herein provided for in the manner indicated below, to wit: * * *

Under the department of public safety:

1. Fire prevention and relief.
2. Police.
3. Health. * * *

Section 6 provides as follows:

SEC. 6. The commission council shall have the power, and it shall be their duty, to pass such ordinances, and to see to their faithful execution, as may be necessary and proper—

1. To preserve the peace and good order of the city.
2. To maintain its cleanliness and health, and to this end:
 - (a) To adopt and provide an efficient system of drainage.
 - (b) To provide for the inspection and cleanliness of all vaults, privies, yards, pools, markets, cemeteries.
 - (c) To regulate the location of and inspection and cleansing of dairies, stables, cattle yards, landings, and pens, slaughterhouses, soap, glue, tallow, and leather factories, depositories for hides, blacksmith shops, forges, foundries, laundries, oyster shops, and all places of business likely to be or become detrimental to health or comfort, and to adopt such ordinances and regulations as shall be necessary or expedient for the protection of health and to prevent the spread of disease, and to maintain a good sanitary condition in the streets, public places and buildings, and on all private premises.

The commission council shall provide for the frequent inspection of all premises by persons to be designated either by the commission council or by the board of health in the city. They shall also prescribe what water supply shall be provided by the owners of private premises, and that all premises, yards, streets, and alleys shall be kept in a cleanly condition; shall provide for the punishment of any violation by fine or imprisonment, or both; and all such fines, when recovered, shall be paid over to the board of health, to assist in its maintenance.

Section 70 provides:

That all laws or parts of laws in conflict herewith be, and they hereby are, repealed: *Provided*, That all laws upon the same subject matter not inconsistent herewith shall remain in full force and effect, and all the provisions of the acts 192 of 1898, 89 of 1900, 32 of 1902, 32 of 1904, 56 of 1908, 33 of 1910, 58 of 1910, and 128 of 1910, with all amendments thereto, if any, not repugnant to or inconsistent with the terms of this act, are continued in full force and effect, and the commission council herein organized and provided for is especially authorized and vested with all the powers, duties, functions, and privileges granted and provided for under the terms and provisions of the aforesaid acts.

It will be noted that while section 19 of the charter provides that the "powers, duties, and rights of the board of health for the parish of Orleans and city of New Orleans shall be and remain the same as those of municipal and parish boards of health," as prescribed by act 192 of 1898, as amended by act 173 of 1912, transcribed at page 38 of this opinion, section 70 provides that "the commission council herein organized and provided for is especially authorized and vested with all the powers, duties, functions, and privileges granted and provided for under the terms and provisions of the aforesaid act"; and that section 4 (B) provides that the commission council shall possess and exercise all the executive, legislative, and other powers and duties heretofore had

and possessed by all the executive, legislative, and administrative officers of the city of New Orleans, "the intention being that the entire powers and duties of government of the city of New Orleans, as at present vested or as may be hereafter vested * * * in the municipal officers of said city shall be concentrated in the commission council"; and that by section 12 the subdivision of the government having jurisdiction over matters relating to the public health is assigned to the department of the public safety"; and that by section 6 it is provided that "the commission council shall have the power and it shall be its duty to pass such ordinances" as may be necessary to maintain the cleanliness and health of the city, and to that end to adopt such ordinances and regulations as shall be necessary or expedient for the protection of health and prevent the spread of disease.

It is evident that the different provisions thus quoted from practically the same statute grant authority to both the board of health and the commission council of New Orleans to enact ordinances covering the same subject matter, but as no conflict in the exercise of that authority is presented in this case it is unnecessary that any opinion should be here expressed as to the outcome of such possible conflict. The court assumes that the general assembly intended to make the grants as declared in the statute. There is reason enough beyond the fact that the grants were made to warrant the assumption. And it is no part of the duty of the court to defeat that intention by placing upon the statute a construction not absolutely necessary.

One of the consequences of the grants as made is that the same act may be prosecuted as an offense against the State in a State court and as an offense against the municipality in a municipal court. For, as was held in the case of *City of New Orleans v. Mrs. A. Stein* (69 South., 43, No. 21385), this day decided, the offense of violating a statute (by violating an ordinance of the board of health) is created by the act of 1898 (amended by act 173 of 1912), which alone provided the penalty therefor, and that offense must be prosecuted in a State court, since the municipal courts are without jurisdiction; whereas the commission council may provide a penalty for violation of an ordinance enacted by it, thereby creating the offense of violating a municipal ordinance, of which, under article 141 of the constitution and section 21 of act 159 of 1912 (the city charter), the municipal courts have jurisdiction.

We pass to the next alleged ground of invalidity. The ordinance provides that:

From and after the promulgation of this ordinance every building, outhouse, and other superstructure now erected or hereafter to be erected in the city of New Orleans shall be rat proofed in the manner hereinafter provided.

And (sec. 10) :

It shall be the duty of every owner, agent, and occupant of each premise in the city of New Orleans to comply with all the provisions of this ordinance.

And (sec. 11) :

That each day's violation of any provision of this ordinance shall constitute a separate and distinct offense, punishable by a fine of \$25 or 30 days' imprisonment, or both.

So that on reading their morning paper, containing the promulgation of this ordinance, the 270,000 inhabitants of the city of New Orleans learned that until they had rat proofed the structures they lived in and owned they were liable to a separate fine of \$25 and a separate sentence of 30 days in prison for every day they continued to live in or own said structures. It stands to reason that the peaceful homes and business places of the inhabitants of this large city, constructed in conformity with the rules and regulations theretofore

prescribed by the public authorities could not be thus overnight, by a stroke of the pen, converted into unlawful structures.

A palliation of this altogether arbitrary provision is sought to be derived from the alleged fact that the ordinance has not been enforced in its strictness as written, but that notice and time have been given to the property owners to avoid punishment by compliance. But a statute or ordinance which is on its face null can not be saved from nullity by not being enforced as written, but given an operation which would save it from nullity. Under the terms of this ordinance prosecutions might be instituted at once, and every single day subject the property owner to an additional prosecution. The validity of a law must depend upon its terms and not upon the condescension or consideration of the officers of the law in not enforcing it.

Much freedom of action must be allowed to the police power in the measures which it may deem necessary or advisable to take in the interest of the public safety; and if this rat proofing were a small matter, such as might be attended to from one day to another and at no very great expense, such a law might perhaps be justifiable. But this rat proofing affects practically every house in New Orleans. To some of the owners it means partial reconstruction; to others rehabilitation almost as expensive as rebuilding. To all it means a heavy expense. As to a great many premises it means simply demolition and clearing away of materials. Dr. Rucker makes a rough estimate of \$2,000,000 for classes A and B. In a great many instances the expenses, to use the expression of Dr. White, would be "terrific." In the case of groceries, for instance, the building could not rest on pillars, as nine-tenths of them do at present, but on a solid or continuous wall extending at least 2 feet below ground and 1 foot above, and the lower floor of the entire building would have to be on the ground and concreted. All houses, the bottom of whose sills was less than 18 inches above the ground, would have to be raised to that height, involving necessarily the readjustment of all plumbing, electrical, and gas connections, and masonry. The plaster or interior of the wall and ceiling of the lower story of most of the houses would have to be torn down.

The learned counsel for accused violently assail this ordinance on the ground of its unreasonableness; that whereas it professes to be a measure for protection against rats by destroying their harboring places, it is, in the nature of things, inoperative as against the Federal Government buildings and structures, the State government buildings and structures, including the wharves, which are admittedly the main source of danger, and including, also, the garbage dumps, which are admittedly the common resort of rats; that, as a matter of fact, the city is not rat proofing these most dangerous foci of infection, the alleged excuse being that there are no funds available for the work, so that the operation of the ordinance is to compel the property owner to rat proof his premises, whether he or she has the funds to do it with or not, while those public foci of infection, the most dangerous, are left in full operation, scattered as they are throughout the city; that this shutting of one door against the rats while leaving another and wider door open is an unreasonable exercise of the police power, especially when the closing of the one door is attended with so great expense, and in many cases at so great personal sacrifice.

There is unquestionably great force in this argument. A police measure dictated by some evil to be remedied should be commensurate with the necessities of the occasion. Where the same feature which operates as a public menace is present in all premises alike, the police measure for correcting this feature should operate as against all premises alike, or else against none. And the public is no exception to this rule. For instance, if for staying the progress

of a conflagration it became necessary to tear down a building, the fact that it was a public building would not stay the hand of the fire department.

But if, as the evidence in this case shows, this rat proofing, coupled with rat catching, was the only practical mode of fighting the spread of this disease, and if, as is the case, the board of health was powerless to make this mode compulsory either against the Federal, the State, or the city government, what was it to do? Was it to do nothing, or was it to do the best it could; or, in other words, go as far as the circumstances allowed it to go? We must answer that question in the affirmative. However oppressive, however discriminating, however unreasonable this ordinance apparently may be, there was nothing else for the board of health to do, under the circumstances, than to adopt it; and hence the adoption of it was justified. "*Salus populi suprema lex.*"

The next assigned ground of invalidity of this ordinance is that it delegates to an officer a discretion which is confided by the statute to the board of health itself, and can be exercised only by the board itself and can not be delegated.

It is argued that, conceding that the board of health may establish classes and impose special requirements upon each class and exact conformance with them, it can not leave to the discretion of the health officer to determine whether a building which under the terms of the ordinance would belong to one class shall not be transferred to the other class, or, in other words, whether a building which under the terms of the ordinance would have to be tar cindered shall not have to be concreted, and that it can not leave to the discretion of the health officer to allow class A buildings to be tar cindered instead of concreted, thereby practically transferring them from the one class into the other, and that this discretion as to transferring from class B to class A is confided to said health officer by the provision of section 4 declaring that "where, from any cause, a building or outhouse or other superstructure is or may become, in his opinion, a menace or dangerous to public health, the health officer of the city of New Orleans may require any such building, outhouse, or other superstructures hereinabove required to be rat proofed as a building of class B to be rat proofed as a building of class A," and that the discretion to transfer a building from class A to class B is conferred upon said health officer by the provision of section 3 of the ordinance, reading:

Provided, That in certain cases and after written permission shall have been obtained therefor from and in a manner to be approved by the health officer of the city of New Orleans, wooden floors and wooden removable grating may be laid upon such concrete floors; and in certain cases after such written permission shall have been first obtained from the health officer of the city of New Orleans, tar-cinder composition floors as hereinafter defined and provided for may be substituted for such concrete floors. That tar-cinder flooring hereinafter provided for is hereby defined to be a composition of cinders and coal tar only, and when laid to be covered by a wooden floor.

The general principle underlying this contention is that a delegated power can not be delegated—a principle variously expressed in the Latin maxims, "*Delegata potestas non potest delegari*," "*Vicarius non habet vicarium*," "*Delegatus non potest delegare*," and "*Delegata potestas non est deleganda*." (Broom's Legal Maxims, sec. 385; 13 Cyc., 769; 28 Cyc., 276.) In governmental matters it has not been found possible, as a practical question, to adhere rigidly to the principle expressed by these maxims. It has been found necessary, as a practical question, that the powers of legislation which the people have delegated to the legislature should be redelegated to municipalities and other local bodies and functionaries for purposes of local government and administration; and these local bodies have been allowed to redelegate to subordinates such of their functions as could not possibly in the nature of things be exercised by themselves, but which necessarily have to be confided to some subordinate.

The law on this subject is very fully and very clearly stated in 28 Cyc., 276, and reference is there made to the cases. A review of these cases here would serve no useful purpose. Their general result is well stated by Cyc. as follows:

Since all governmental power is held in trust by the State for the benefit of the public, it has been generally denied that such power can be delegated by the State to anybody. But repeated adjudication has settled that the maxim "*Protestas delegata non est delegada*" does not preclude the legislature from conferring sovereign powers on municipalities in such measure as to it seems wise and proper. More important and difficult is it now to ascertain whether the governing body of the municipality may delegate its powers to another, and, if so, which powers, and to what extent delegation may be made by the council. It has repeatedly been held that the municipality had no such power of delegation. But it is now the recognized rule that the State may expressly authorize delegation of certain powers by the corporation. In the absence of such express authority, the council must itself exercise all discretionary powers; but this does not forbid the delegation of ministerial or administrative functions to subordinate officials.

In support of this, our own decision in *State v. Garibaldi* (44 La. Ann., 809, 11 South., 36), is cited, where it was held that, while the city council was at liberty to make all such rules and regulations as in its wisdom or discretion it deemed necessary for the keeping of private markets, it could not impose the condition that a person desiring to keep such a market should obtain the consent of a majority of the property owners of the neighborhood. "The authority," said the court, "can not be delegated to a majority of property owners of a locality." Abundant authority is cited.

In *City of New Orleans v. Smythe* (116 La., 685, 41 South., 33), where the consent of the property holders within 300 feet of the location of a saloon proposed to be established was required, the court distinguished the case from this *Garibaldi* case by observing that in the latter case "the legislature had not delegated to the city the power to delegate to property holders the right to control the establishment of private markets." The present chief justice dissented altogether from the opinion. The then chief justice and the present writer concurred only in the decree, preferring to rest their decision on the peculiarly exceptional character of the liquor traffic.

In *City v. Macheca* (112 La., 559, 36 South., 590), the same ordinance was upheld on this last ground; and in *City of Baton Rouge v. Butler* (118 La., 74, 42 South., 650), a similar ordinance was maintained on this same latter ground, in the absence of any provision in the city charter for consulting adjoining property holders.

In *State v. Zurich* (49 La. Ann., 447, 21 South., 977), the court sustained the contention of the defendant, which is stated at bottom of page 452 (21 South., 979), as follows:

He contends that, while it may be perfectly legitimate for the city to pass regulations on the subject of certain buildings within its borders and devolve upon a particular officer the duty of seeing that the regulations made by the city are conformed to, his duty could not be made to extend beyond ascertaining whether buildings or alterations thereto proposed to be made would be in violation of ordinances, or those actually erected were so violative, and to institute civil legal proceedings against the parties, either by way of prevention or remedy. He contends that the city has no authority to appoint a city official and to delegate to him the power of primarily determining whether the owners of property should be permitted to exercise their property rights or not under penalty of a criminal prosecution.

We have not the time to review all the decisions of this court on this point, and it is not necessary to do so, since the doctrine of the *Garibaldi* and *Zurich* cases (*supra*) has never been departed from.

Our conclusion is that while the board of health or the city council may validly clothe the health officer with the authority to ascertain and determine whether any particular building falls into the one class or the other (*City v. Charouleau*, 121 La., 890, 46 South., 911, 18 L. R. A. [N. S.] 368, 126 Am. St.

Rep., 332, 15 Ann. Cas., 46) it can not invest him with the authority to withdraw any particular building from the one class and place it in the other. If it so happened that, because of special circumstances, any exceptions had to be made to the rule established by the ordinance, the discretion for making it would have to be exercised by the same power that made the rules and could not be delegated to a subordinate. The board of health could not delegate to a subordinate the power to create exceptions to any rule it had established, or, which is the same thing, the power to stay the operation of any rule in cases falling within the terms of its ordinances.

So far as the faculty is conferred upon the health officer to transfer a building from class B to class A, or, in other words, to make the condition of the owner of the building more onerous, we do not see that anyone would be in a position to complain except the person whose building had been thus transferred. "It is a firmly established principle of law that no one can be allowed to attack a statute as unconstitutional who has no interest in it and is not affected by its provisions." (8 Cyc., 786.) "Only those whose rights would be prejudiced by the enforcement of an unconstitutional act will be heard to question its validity." (6 A. & E. E. of L., 1090.) If an owner is made by the health officer to incur the greater expense of concreting his building instead of tar-cindering it, or, in other words, to adopt the costlier and safer mode of rat proofing, this particular owner may complain, but not anyone else.

But the case stands differently where this health officer is authorized in his discretion to allow an owner whose building falls in class A, according to the terms of the ordinance, and must therefore be concreted, to merely tar-cinder the building as if falling in class B under the ordinance. The effect of this discretion is to leave it optional with the health officer whether the ordinance shall be enforced or not according to its terms against persons whose buildings fall in class A. The favorites of the officer might be allowed to tar-cinder, while all others would have to concrete.

Such a delegation of power is, it is needless to say, null, and the sole question must be whether its nullity entails the nullity of the ordinance.

We are constrained to hold that it does. A law which discriminates between individuals of the same class is null; and a law does so discriminate when it leaves to the discretion of an officer to exempt from its operations particular individuals belonging to the class upon which, according to its terms, it operates. Argument can hardly be necessary to make evident that a law which provides that all buildings answering a certain description shall be rat proofed by concreting except those which the health officer shall in his discretion allow to be rat proofed in a less expensive way is null. In last analysis it has no other sanction than the discretion of the officer whether it shall or not have operation; in other words, whether it shall or not be a law. And such a law injures or prejudices every individual of the class since it allows the health officer to discriminate against him in favor of his neighbors in the same class with him. The situation is not that the clause delegating the discretion to the officer is null and the rest of the ordinance is left standing. The effect of the clause is to leave optional with the officer whether the ordinance shall be enforced or not against all the individuals alike in class A. In other words, it is to rob the ordinance of its binding force.

And the nullity of the ordinance in so far as applicable to class A entails its nullity in so far as applicable to class B; for the effect of the nullity is to create a situation in which as to class A buildings there is only a null ordinance, or, in other words, no ordinance at all; and it is needless to say that this ordinance would never have been passed as applicable to class B buildings only. As ap-

plicable to class B buildings only, it would fail of its object and be, in fact, a mere travesty of a health measure.

Other grounds of nullity are argued by the accused, which we deem it unnecessary to notice, further than to say that we have found them to be without merit.

It is therefore ordered, adjudged, and decreed that the judgment appealed from be set aside, and that the demurrer herein be sustained and the prosecution dismissed at the cost of the board of health.

O'NEILL, J., concurs in the decree.

LAND, J., dissents from the majority opinion in so far as it holds the rat-proofing ordinance to be invalid on the ground that some of its provisions are illegal and oppressive, for the reason that the board of health has never attempted to enforce such provisions against the defendants, who, therefore, have no interest to assail the ordinance as illegal and unconstitutional on account of alleged defects which have not prejudiced them. (See 6 R. C. L., secs. 87-90.)

Regulations of Boards of Health—Penalty for Violation Fixed by State Law— Municipal Court Held Not to Have Jurisdiction of Offense.

CITY OF NEW ORLEANS *v.* STEIN, 69 S. Rep., 43. (June 11, 1915.)

A municipal board of health has, and in the nature of things can have, only such powers as are delegated to it by the legislature, either expressly or by necessary implication. Where a State law fixes the penalty for violation of a regulation of a municipal board of health, the board has no authority to provide a different penalty.

A Louisiana law authorized the New Orleans Board of Health to adopt health ordinances, and this law fixed the penalty for the violation of such ordinances. The court held that failure to comply with such an ordinance was a violation of the State law, and that a prosecution therefor could not be brought in the municipal court.

The Legislature of the State of Louisiana created a board of health for the city of New Orleans and empowered the board to adopt health ordinances, but the State law fixed the penalty for the violation of such ordinances. A prosecution for failure to comply with the provisions of an ordinance of the board of health was brought in the recorder's court, which had jurisdiction of violations of municipal ordinances but not of offenses against State laws. The court held that the prosecution was not for a violation of the rules and regulations established by the ordinances of the board of health, but for the violation of the statute which made it an offense to violate said rules and regulations, and that the recorder's court had no jurisdiction.

PROVOSTY, J.: The accused was prosecuted by affidavit before the first recorder's court of the city of New Orleans for a violation of ordinance 17 of the Board of Health of the city of New Orleans and parish of Orleans, as amended, known as the rat-proofing ordinance. Accused excepted to the jurisdiction of the recorder's court on the ground that by article 141 of the constitution the jurisdiction of said court is restricted to "the trial of offenses against city ordinances," and that the violation of any of the ordinances of the said board of health is not an offense against any city ordinance, but is an offense against act 173, page 313, of 1912, amending section 7 of act 192 of 1898. These are the acts which create the State and municipal and parish boards of health and fix their powers. Sections 18 and 19 of act 159, page 253, of 1912, which is the charter of the city of New Orleans, create a board of health for the parish of Orleans, but do not fix its powers beyond prescribing in general terms that they shall be as prescribed by said act 192 of 1898 as amended.

We think the said exception should have been sustained. The said acts give very latitudinous powers to the board of health for passing health and sanitary ordinances, but absolutely none whatever for denouncing any penalty for the violation thereof; but, on the contrary, itself provides what the penalty for the

violation of such ordinances shall be. Conceding that, had the legislature not so provided, the board of health itself might have made the provision, for the authority to pass an ordinance carries with it by necessary implication the authority to make it effective by the imposition of a penalty for its violation, the legislature having prescribed by said act 173 of 1912 what this penalty should be, the said board was not left at liberty to prescribe what it should be. The legislature took into its own hands the fixing of this penalty, and necessarily withheld from the board of health authority to fix it.

We are aware that an act may be a violation of both a statute and an ordinance and be punishable under both. But this takes place only where the statute and the ordinance stand apart as independent pieces of legislation, each imposing a penalty, so that the penalty imposed by the one is in addition to that imposed by the other and for a different offense, although for the same act. Nothing of that kind is presented in this case. In this case the penalty imposed by the ordinance would have to be held to be a substitute for that imposed by the statute—to have displaced it and usurped its function. The ordinance would have to be held to have overridden the statute.

A political corporation, like this board of health, has, and in the nature of things can have, only such powers as are delegated to it by the legislature, either expressly or by necessary implication. The power to impose a penalty for the violation of its ordinances is not delegated to this board of health expressly. Is it delegated to it by necessary implication? In the first place, the power to enforce an ordinance, even by a town or city, let alone by a mere special agency like a board, by imprisonment, must be expressly given, or else it does not exist. And not only must it be expressly given, but it must be given plainly. (Dillon, *Mun. Corp.*, par. 353, 287; 28 *Cyc.*, 759.) Therefore, clearly this board of health has not the power to denounce the penalty of imprisonment. The power to impose a pecuniary penalty may, however, be implied, (*Dil. Mun. Corp.*, par. 338, 272; 28 *Cyc.*, 759.) But the reason why such power may be implied is that the ordinance would otherwise be nugatory; the power is necessary in order that the ordinance may be effective. This reason, needless to say, ceases, and the implication which it gives rise to ceases with it, when the legislature has itself attached a penalty to the violation of the ordinance. There is then no longer any necessity for the ordinance to do so. And so we find the law in that connection to be well settled that, to quote from Dillon (par. 339, 273) :

Where the charter or organic law prescribes the manner in which by-laws are to be enforced, or the sanctions or punishments to be annexed to their violation, this constructively operates to negative the right of the corporation to proceed in any other manner or to inflict any other punishment.

We have in this State no common-law crimes or offenses, but only such as are created by legislative provision—by statute or ordinance. As a corollary of this, a court of justice in this State is powerless to impose a penalty, unless such penalty has been denounced by a statute or ordinance. And, as another corollary, when a penalty is imposed it is done by authority of the statute or ordinance that has prescribed what it should be. In this State a statute or ordinance which should content itself with announcing that a certain act shall be a crime or offense, without at the same time attaching a penalty for the doing of it, would be inoperative—entirely incapable of being given any effect by the courts. Such a statute would not create a crime or offense. Hence, in a prosecution for murder or larceny in this State the prosecution is not in reality for the evil conduct involved in the said crimes, but it is for the violation of the statute which has made such conduct a crime by attaching a penalty to it; and while our indictments and informations, following the form appropriate at common

law, where there were common-law crimes and offenses, are made to read that the conduct charged against the accused was "against the form of the statute in such case made and provided and against the peace and dignity of the State of Louisiana," in strict law, the reprehensible conduct in question is a crime only because it is contrary to the form of the statute; the peace and dignity of the State of Louisiana may have been the motives for enacting the statute, but would be no basis for prosecution in the absence of the statute, and they add nothing to the legal situation. It is the statute that has created the crime, and the prosecution is solely and exclusively for its violation, and not, legally speaking, for any disturbance of the peace or disrespect or insult to the dignity of the State. Without the statute the disturbance of the peace or infringement of the dignity of the State could not serve as a basis for prosecution, as we have no crimes or offenses but such as are legislatively made such.

Therefore, when a statute says that whoever shall commit murder or larceny, or shall do such and such an act, shall be punished thus and so, any prosecution for the doing of the act is founded upon, or is under, the statute, and not upon or under any other authority; so that, when in the instant case the said act 172 of 1898, as amended, says that whoever shall violate an ordinance of the board of health shall be punished thus and so, any prosecution for a violation of any ordinance of the board of health is founded upon or is under the statute, and not upon or under the ordinance.

The prosecution in such a case is upon and under the statute. It is the statute, and not the ordinance, that is violated. And the only court that has jurisdiction of the matter is the court that has jurisdiction of the violation of the statute.

We must not mistake the form for the substance. Because the statute uses the expression that whoever shall violate the ordinance shall be punished, we must not conclude that the prosecution is based on the ordinance. No more than the prosecution would be based on the moral law, if, instead of reading as it reads, our statute making murder a crime should read that whoever shall violate the moral law against murder shall be punished thus and so. The prosecution in such a case would not be, legally speaking, based on the moral law, or for a violation of the moral law; but it would be based on the statute, and for a violation of the statute.

This will be made perfectly plain by illustrative cases. In *United States v. Grimaud* (220 U. S., 506, 31 Sup. Ct., 480, 55 L. Ed. 563), the court said:

The defendants were indicted for grazing sheep on the Sierra Forest Reserve without having obtained the permission required by the regulations adopted by the Secretary of Agriculture. They demurred on the ground that the forest reserve act * * * was unconstitutional, in so far as it delegated to the Secretary of Agriculture power to make rules and regulations, and made a violation thereof a penal offense. * * * From the beginning of the Government various acts have been passed conferring upon executive officers power to make rules and regulations—not for the government of their departments, but for administering the laws which did govern. None of these statutes could confer legislative power. But, when Congress had legislated and indicated its will, it could give to those who were to act under such general provisions "power to fill up the details" by the establishment of administrative rules and regulations, the violation of which could be punished by fine or imprisonment fixed by Congress.

And again, in the same case:

In *Brodline v. Revere* (182 Mass., 599, 66 N. E., 607), a boulevard and park board was given authority to make rules and regulations for the control and government of the roadways under its care. It was there held that the provision in the act that breaches of the rules thus made should be breaches of the peace, punishable in any court having jurisdiction, was not a delegation of legislative power, which was unconstitutional. The court called attention to the fact that the punishment was not fixed by the board, saying that the making of the rules was administrative, while the substantive legislation was in the statute, which provided that they should be punished as breaches of the peace.

Surely no one would have contended, or ever thought of contending, that in the first mentioned of these cases the prosecution was for a violation of the rules and regulations of the Secretary of Agriculture, and not solely and exclusively for a violation of the act of Congress. And surely, also, no one could ever have thought of contending that in the second of the above-mentioned cases the prosecution was upon or under, or for a violation of, the regulations of the park commissioners, and not of the statute which denounced as an offense the violation of the said rules and regulations. And so, in the instant case, the prosecution is not for a violation of the rules and regulations established by the ordinances of the board of health, but for the violation of the statute which has made it an offense to violate said rules and regulations.

If any confirmation were needed that a prosecution for a violation of the ordinances passed by authority delegated by said act 173 of 1898 is a prosecution under said statute, and not under the ordinance itself, it would be found in the fact that prosecutions for violation of ordinances adopted by the State board of health exercising authority under this same act 173 of 1898 are necessarily instituted and maintained under said statute.

We conclude that the present prosecution is upon and under said statute, and that, consequently, the recorder's court of the city of New Orleans has no jurisdiction of it.

On the several grounds which are stated and considered in the case of *City of New Orleans v. Miss M. Sanford et al.* (69 South., 35), No. 21357 of the docket of this court, this day decided, the accused assailed the validity of the said ordinance. We spare ourselves the unnecessary labor of repeating here what is there said, but will content ourselves with this reference to that decision, and add that for the reasons there stated we hold the said ordinance to be invalid.

The judgment appealed from is set aside, and this prosecution is dismissed.

O'NEILL, J., concurs only in the decree.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

CONNECTICUT.

Foods and Drugs—Securing of Samples. (Chap. 165, Act Apr. 28, 1915.)

SECTION 1. Section 6 of chapter 255 of the public acts of 1907 is hereby amended to read as follows:

Under said rules and regulations representative samples shall be collected by the dairy commissioner or his deputies and the Connecticut agricultural experiment station or its agents. The dairy commissioner or his deputies and the agents of said agricultural experiment station shall have access at all reasonable hours to any place where it is suspected that there is kept for sale, use, compounding, dispensing, distribution, or export any article of food or drugs adulterated or misbranded within the meaning of this act, and said dairy commissioner or his deputies and the agents of said agricultural experiment station, upon tendering the market price thereof, may take from any person, firm, or corporation samples of such articles. Samples may be purchased in the open market, and, if in bulk, the marks, brands, or tags upon the package, carton, wrapper, or other container and the accompanying printed or written matter shall be noted, and the person collecting such samples shall also note the names of the vendor and the agent through whom the sale was made, with the date of the purchase. Samples shall be divided into three equal parts, and each part shall be labeled with identifying marks; one of such parts shall be delivered to the person from whom the purchase was made, or if a guaranty has been given as hereinafter provided such part shall be delivered to the guarantor; one of such parts shall be sent to the Connecticut agricultural experiment station; and one part shall be held, under seal, by the dairy commissioner. The parts of the samples so divided shall be sealed by the person collecting the same with a seal provided for such purpose.

KANSAS.

Eggs—Shipment of—Regulation of Egg-Breaking Establishments. (Reg. Bd. of H., June 8, 1915.)

1. That it shall be unlawful to ship in any kind of a container or in any manner for food purposes eggs known as "yolks stuck to the shell," "heavy blood rings," "partially hatched," "moldy eggs," "black spots," "black rots," and all other eggs of an unwholesome nature.

2. That eggs known as "rejects" by the candling process, and exclusive of the above-named variety, may be shipped when packed in cases sealed with identifying strips approved by the State board of health. Eggs when so shipped may be routed or consigned to a regular egg dealer or broker, but shall not leave the identified cases except in egg-breaking establishments which are either licensed or operated under the approval of the Bureau of Chemistry of the Federal Government or the State board of health.

3. Egg-breaking establishments located in the State of Kansas must be of an approved sanitary type complying with the State sanitary-food law and the rules and regulations of the State board of health, which approval shall be evidenced by the issuance of a license of such form as may be hereafter adopted by the secretary of the State board of health, and upon such conditions as may be hereafter provided by the said board.

4. Such egg-breaking establishments as desire inspection of products manufactured or packed therein may secure such inspection upon such terms and conditions as may be approved by the standards committee.

Agreeable to the conditions as set forth in rule 4, the standards' committee adopted the following regulations governing licensed egg-breaking establishments:

(a) All egg-breaking establishments having inspection must first have been licensed under the provisions of rule 3, showing such establishments to have complied with the sanitary requirements of the laws, rules, and regulations of the State board of health.

(b) Inspectors shall be expertly trained in egg breaking, and shall be appointed by the chief food and drug inspector. They shall receive a salary of \$75 a month and railroad traveling expenses when assigned to go from one plant to another. The sum of \$85 a month shall be paid by each establishment under inspection to a designated bank acting as a depository for the State board of health, which shall receive all moneys, and pay the same out upon order of the chief food and drug inspector. Any deficiencies at the end of the egg-breaking season shall be borne by a proper division of such deficiencies among the plants under inspection.

(c) All egg products inspected under these rules and regulations shall be stamped or marked on the container, or upon a tag fastened by a wire to the container, with the following legend:

"Kansas State Board of Health inspected and passed. Date (day, month, and year). Inspector (initials of inspector). Grade (grade of eggs stated)."

(d) Inspectors will have the final decision as to the classification of grades of eggs and the final disposition of same and complete control of the sanitary conditions of the establishment under inspection, including the cleansing and sterilization of containers and implements used in the plant, the personal cleanliness of all employees therein, and the sanitary condition of the toilets and lavatory facilities used by the employees. All questions in controversy relating to any of the above rules and regulations must be referred to the executive officers of the State board of health for final decision.

(e) All egg-breaking establishments licensed under rule 3 of the general rules and regulations passed by the State board of health June 8, 1915, and all egg-breaking establishments having inspection under the provisions of said regulations, are required to keep accurate records of the receipt and final disposition of all cases of third-grade eggs or so-called "reject" eggs, shipped in identifying cases, in accordance with rule 2 of the general regulations, and in like manner to keep accurate record of all third-grade eggs candled out in such establishments from current-receipt eggs. Condensed monthly reports of all receipts and disposal of eggs herein described shall be made to the State board of health in such forms, or upon such blanks as may be required.

(f) All shippers of so-called "rejects" or third-grade eggs are required to keep accurate account of the number of cases, the date of shipment, and to whom shipped, such records to be open to the inspection of the representatives of the State board of health.

Definition.—Rejects by the candling process may be defined as “light blood rings,” “sweets,” “broken-down yolks,” and “heavy yolks,” or so-called “heated” eggs, exclusive of eggs mentioned in rule 1.

[These regulations were effective July 1, 1915.]

Births and Deaths—Registration—Local Registrar—Removal Permits.
(Chap. 340, Act Mar. 17, 1915.)

SECTION. 1. That section 1, chapter 306, session laws of 1913 be, and the same is hereby amended to read as follows:

“SEC. 4. The city clerk of each incorporated city shall be the local registrar of vital statistics of such city and such additional territory as may be designated, and where necessary the township clerk or other suitable person shall be the local registrar for such territory as may be designated. Local registrars shall issue burial or removal permits and receive birth certificates for their respective districts. Removal permits properly issued within the State shall be accepted as burial permits for interment in any cemetery within the State.”

SEC. 2. That original section 1, chapter 306, session laws of 1913, and all acts or parts of acts in conflict herewith be, and the same are hereby, repealed.

NEW HAMPSHIRE.

Communicable Diseases—List of Notifiable Diseases.

At a meeting of the State board of health held on April 29, 1915, whooping cough was added to the list of diseases required to be reported, pursuant to authority granted by chapter 20, act of March 2, 1915.

During the year 1913, poliomyelitis and cerebrospinal meningitis were also made notifiable. The following is a list of the diseases now required to be reported in New Hampshire:

Anthrax, cholera (Asiatic), diphtheria, measles, meningitis (epidemic cerebrospinal), ophthalmia neonatorum, poliomyelitis, scarlet fever, smallpox, tuberculosis (all forms), typhoid fever, whooping cough, arsenic poisoning, brass poisoning, lead poisoning, mercury poisoning, phosphorus poisoning, wood-alcohol poisoning, caisson disease (compressed-air illness), and all occupational diseases.

NEW YORK.

Deaths—Transportation of Dead Bodies by Common Carriers. (Reg. Public Health Council, May 4, 1915.)

REG. 9. *Transportation of dead bodies by common carriers.*—The transportation of dead human bodies by common carriers shall be conducted in such manner as not to be a menace to health, and the manner of transportation shall be subject to the special administrative regulations of the State commissioner of health.

This regulation shall take effect throughout the State of New York, except in the city of New York, on the 1st day of August, 1915.