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PLAGUE-ERADICATIVE WORK.

Since the report which was published in last week's issue, 3 cases of plague in man and 10 cases of rodent plague have been reported from New Orleans.

On pages 2368 to 2374 of this issue of the Public Health Reports will be found detailed statements of plague-eradicative measures being carried on in the United States and insular possessions.

CERTIFICATES OF HEALTH BEFORE MARRIAGE.

WISCONSIN MARRIAGE LAW HELD VALID BY A DIVIDED COURT.

August 2, 1913, the Legislature of Wisconsin passed a law requiring "all male persons making application for license to marry" to be examined by a physician and file a certificate showing that they are "free from acquired venereal diseases so nearly as can be ascertained by physical examination and by the application of the recognized clinical and laboratory tests of scientific search," before a marriage license is issued. The law went into effect January 1, 1914, and was published in full in the Public Health Reports of December 5, 1913, page 2665.

This law has attracted much attention, and its validity was seriously questioned, but the Wisconsin Supreme Court, in a case brought for the purpose of testing the law, has upheld it. Three of the judges rendered opinions, which are published in full on pages 2391 to 2403 of this issue of the Public Health Reports.

The law was attacked as being an unconstitutional interference with the natural right of individuals, as being unreasonably discriminatory in requiring males to be examined while making no such requirement as to females, and as being impracticable and unenforceable because physicians could not make the examination and tests required for the fee of $3, which is the maximum allowed by the law; but the case really turned on the question whether or not the language of the law required the application of the Wassermann

test. It was conceded that if it was necessary to apply the Wassermann test the law could not be enforced because few physicians had the equipment or skill required, and it could not be made for the statutory fee of $3.

The majority of the court held that the legislature did not intend to require the Wassermann test, but contemplated only a physical examination and such tests for venereal diseases as the practicing physician with an ordinarily good equipment could make.

All of the judges admitted or assumed the right of the State to regulate the marriage relation, but there is divergence of opinion as to the wisdom of the law and the practical effects of its operation.

THE CAUSE AND PREVENTION OF PELLAGRA.

Because of the prevalence of pellagra throughout a considerable part of the United States, and the fact that this disease has so far baffled all attempts to ascertain its cause and means of prevention, the following letter from Surg. Joseph Goldberger, in charge of the Government's pellagra investigations, is of interest.

Evidence seems to be accumulating to show that pellagra is due to the use of a dietary in which some essential element is reduced in amount or from which it is altogether absent, or to the use of a dietary in which some element is present in injurious amount.

UNITED STATES PUBLIC HEALTH SERVICE,
Washington, September 4, 1914.

The SURGEON GENERAL,
Public Health Service.

SIR: As indicated in my progress report of June 5, 1914, the primary object of the pellagra studies that are being conducted under my general direction is the determination of the essential cause of the disease.

Although pellagra has been known and studied abroad for nearly two centuries, not only is its essential cause not known, but the broad question of whether it is to be classed either as a dietary or as a communicable (contagious or infectious) disease has never been satisfactorily determined.

Abroad, the spoiled-maize theory of Lombroso has for many years been the dominating one. Its adequacy, however, has on various grounds been repeatedly questioned.

In the United States, with the progressive and alarming increase in the prevalence of the disease, there has developed both in the lay and in the medical mind the opinion that pellagra is an infectious disease. This opinion has received important support, first, from the Illinois Pellagra Commission and, second, from the Thompson-McFadden

Commission (Siler, Garrison, and MacNeal). In planning our investigations, therefore, due consideration was given to these two distinct possibilities, and the problem was attacked from both points of view.

From the point of view that we might be dealing with an infection, a comprehensive series of inoculations in the monkey was begun last fall by Drs. C. H. Lavinder and Edward Francis. Although every kind of tissue, secretion, and excretion from a considerable number of grave and fatal cases was obtained and inoculated in every conceivable way into over a hundred rhesus monkeys, the results have so far been negative.

At my suggestion Dr. Francis is making a culture study of the blood, secretions, and excretions of pellagrins by the newer anaerobic methods. This has been in progress about six weeks, but has so far given only negative results.

Epidemiologic studies were begun and have been in progress at the Georgia State Sanitarium in immediate charge of Dr. David G. Willets, and at an orphanage in Jackson, Miss., in immediate charge of Dr. C. H. Waring. These studies have brought out facts of the very greatest significance.

In a paper published in the Public Health Reports of June 26, 1914, I called attention to certain observations which appear inexplicable on any theory of communicability. These observations show that although in many asylums new cases of pellagra develop in inmates even after 10, 15, and 20 years' residence, clearly indicating thereby that the cause of the disease exists and is operative in such asylums, yet at none has any one of the employees contracted the disease, though living under identical environmental conditions as the inmates, and many in most intimate association with them.

In order to obtain precise data bearing on these observations, Dr. Willets is making a careful study of the records of the Georgia State Sanitarium. These show that of 996 patients admitted during 1910—excluding those that died, were discharged during their first year, or had pellagra on admission or within a year of admission—there remained at the institution after one year 418, and of this number 32, or 7.65 per cent, have developed pellagra since that time. Of the present employees of this asylum, 293 have been in more or less intimate association with pellagrins and have lived in substantially the same or in identical environment as the asylum inmates for at least one year. If pellagra had developed among these employees at the same rate as it has among the inmates, then 22 of them should have the disease. As a matter of fact not a single one has it.

The studies at the orphanage at Jackson show that on July 1, 1914, of 211 orphans 68, or 32 per cent, had pellagra.

The distribution of these cases with respect to age developed the remarkable fact that practically all of the cases were in children be-

tween the ages of 6 and 12 years, of whom in consequence over 52 per cent were afflicted. In the group of 25 children under 6 years of age there were 2 cases and in the group of 66 children over 12 years of age there was but 1 case. Inasmuch as all live under identical environmental conditions, the remarkable exemption of the group of younger and that of the older children is no more comprehensible on the basis of an infection than is the absolute immunity of the asylum employees.

A minute investigation has been made at both institutions of all conceivable factors that might possibly explain the striking exemption of the groups indicated. The only constant difference discoverable relates exclusively to the dietary. At both institutions those of the exempt group or groups were found to subsist on a better diet than those of the affected groups. In the diet of those developing pellagra there was noted a disproportionately small amount of meat or other animal protein food, and consequently the vegetable food component, in which corn and sirup were prominent and legumes relatively inconspicuous elements, forms a disproportionately large part of the ration. Although other than this gross defect no fault in the diet is appreciable, the evidence clearly incriminates it as the cause of the pellagra at these institutions. The inference may therefore be safely drawn that pellagra is not an infection, but that it is a disease essentially of dietary origin; that is, that it is caused in some way such as, for example, by the absence from the diet of essential vitamines, or possibly, as is suggested by Meyer and Voegtlin's work, by the presence in the vegetable-food component of excessive amounts of a poison such as soluble aluminum salts.

One-sided eccentric diets such as were consumed by the affected groups above referred to are in the main brought about by economic conditions. Poverty and the progressive rise in the cost of food oblige the individual, the family, and the institution to curtail the expensive elements—meat, milk, eggs, legumes—of the diet and to subsist more and more largely, especially in winter, on the cheaper cereal (corn), carbo-hydrate (sirup, molasses), and readily procurable vegetables and fats ("sow belly"). In the well-to-do, more or less well-recognizable eccentricities of taste may cause the individual, without himself realizing it, to subsist on a one-sided or eccentric diet. Somewhat similar eccentricities of taste are more or less common in the insane, some of whom, indeed (as the demented), because of apathy and indifference, will not eat at all. These, for the most part included in the "untidy" class, require special care in feeding. The poorer the institution, the fewer and of lower grade is likely to be its attendant personnel and therefore the greater the danger that these very trying and troublesome types of inmates will receive inadequate attention,

and so be improperly (one-sidedly) fed. It has repeatedly been noted by observers that at insane asylums the "untidy" (the group in which my observations show scurvy and beriberi most likely to develop) were the most afflicted with pellagra. By some this supposed excessive susceptibility is explained as dependent on the untidiness which favors filth infection. The true explanation, however, is that both the untidiness and the supposed excessive susceptibility of these inmates are primarily dependent on the apathy and indifference typical of most of this group. The deteriorated mental condition causing apathy and indifference results not only in untidiness of person, but passively or actively in an eccentricity in the diet. I believe that in this, in conjunction with a diet admittedly low in the animal protein component we have the explanation of the excessive prevalence of the disease at the Peoria State Hospital, a hospital almost all of whose inmates in 1909 were of the "hopeless, untidy, incurable" class, drawn from the other Illinois institutions.

While confident of the accuracy of our observations and of the justice of our inferences, there is nevertheless grave doubt in my mind as to their general acceptance without some practical test or demonstration of the correctness of the corollary, namely, that no pellagra develops in those who consume a mixed, well-balanced, and varied diet, such, for example, as the Navy ration, the Army garrison ration, or the ration prescribed for the Philippine Scouts.

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Respectfully,

JOS. GOLDBERGER,
Surgeon in Charge of Pellagra Investigations.

THE TREATMENT OF PELLAGRA.

CLINICAL NOTES ON PELLAGRINS RECEIVING AN EXCESSIVE DIET.

By W. F. LORENZ Special Expert, United States Public Health Service, and Director Wisconsin Psychiatric Institute.

I desire herein to report some striking and suggestive observations on the effect of forced feeding on the course of pellagra. An excellent opportunity to observe this effect was given when through the generous cooperation of the Georgia State Sanitarium an entire ward of colored females was placed under my supervision.

An average of 48 patients was maintained in this ward for a period of 8 weeks. All of the inmates of this ward were kept, as far as was possible and practical, under identical conditions. The pellagrins

were kept in bed during the greater part of their residence in the ward; the nonpellagrins, of course, were up and about.

In all, 27 acute cases of pellagra were treated in the ward. Of these 7 died, 3 were unchanged, 13 had improved, and 4 were designated as recoveries. In these latter cases all visible evidence of pellagra had disappeared and the mental condition had cleared up entirely.

In 6 of the 13 cases designated as improved recovery in the mental state occurred. That is, where these patients had been more or less completely disoriented, confused, and apprehensive, with both visual and auditory hallucinations, practically no retentive powers, and, as a consequence, very defective memory, they became clear, realized their surroundings, oriented themselves, their apprehension subsided, and their ability to retain impressions was unimpaired. They had no memory for the period of delirium and but a very hazy recollection of the period during which they had been confused. These patients all had insight into their conditions; that is, they realized they had been ill and mentally upset for a period at least.

The remaining 7 of the 13 cases designated as improved also showed an improvement in the mental condition, but not to so marked a degree as in the 6 cases first mentioned. Certain of these cases were patients in whom pellagra had been superimposed on an already existing psychosis of a chronic type. No change could be noted from the mental condition that had existed previous to the occurrence of pellagra. Their improvement was in the physical manifestations of pellagra, although slight roughening and thickening of the affected skin, particularly over the knuckles, persisted.

In 3 cases very little change occurred. One was an old case of paresis in which pellagra developed. The skin manifestations in this case were still marked after a period of 8 weeks, though the stomatitis had improved very much. The same was true of the other 2 cases of this group; the skin lesions persisted and bowel disturbances occasionally recurred.

Of the 7 cases that died, 2 were complicated by severe physical diseases. In one of these an uncompensated heart lesion, with pulmonary tuberculosis and marked edema of the lower extremities, hastened death, while the other had a mitral and aortic insufficiency, with an irregular, dilated heart. Three of the cases died very suddenly after brief periods. In 2 cases death occurred 8 days after their admission to the ward and after about 2 weeks of illness, and in the third, six days after admission, the total duration of the illness in this latter case being unknown. The 2 remaining cases that died were inmates of this ward and under treatment 11 and 36 days, respectively. Both were unusually severe cases, with extensive

sloughing of the skin involved and severe stomatitis, salivation, and persistent diarrhea.

The treatment employed in these cases of pellagra was, with few exceptions, simply a generous diet and rest in bed; none received any of the arsenicals. Six of the cases received at various times bismuth subnitrate; others were occasionally given castor oil and at times soapsuds enemata. The cases with stomatitis were given an antiseptic mouth wash. The moist lesions were treated with a wet dressing of magnesium sulphate, and the few patients who could not take the solid food that was supplied were given 1 ounce doses of an emulsion of cod-liver oil three times daily.

The diet supplied these patients consisted of the following:

For breakfast: One or two eggs, one-fourth pound fresh beef (usually fried as steak), wheat roll, coffee with milk and sugar, frequently oatmeal with milk and sugar, and an additional 8 ounces of milk.

For dinner: Fresh beef (one-fourth pound, either roasted, boiled, or fried), Irish potatoes, rice, onions, squash, and any green vegetable that could be obtained, such as cowpeas and cabbage. Wheat bread daily; corn bread twice a week; coffee with milk and sugar.

For supper: One or two eggs, wheat bread, coffee with milk and sugar, and an additional 8 ounces of milk as desired.

Milk was also supplied between meals whenever the patient desired a drink. It must be mentioned that the one-half pound of beef supplied these patients consisted of good, lean, fresh meat; no bone.

In a few instances the patients required considerable urging to take all the food supplied. Several were in such a mental condition that solid food could not be given. In such cases eggnogs, albumin water, milk, rice gruel, etc., were freely fed by spoon, the purpose at all times being to give as much nourishment as possible.

The improvement attributable to this generous diet manifested itself, on an average, about four weeks after it was instituted. As a rule, the mental and nervous symptoms were the first to change; bowel conditions would, as a rule, improve within two weeks. The skin manifestations were the last to change; when once started, however, the cutaneous lesions would improve daily. Large granulating areas healed more promptly than one usually observes. During the period of improvement an increase in bodily weight occurred and the entire aspect of the patient changed for the better.

The effect of this diet on the bowel conditions was certainly not injurious; that is, the diarrhea that was present in the cases that received no medicaments was not aggravated and persisted no longer than in the cases that received astringents. Constipation was possibly somewhat aggravated in a few instances.

Conclusions are not warranted from this limited experience. It must be borne in mind that we are dealing with a disease with apparent tendency to recurrence. Frequently it appears to clear up under divers conditions, so that the term "recovery" must, until we know better, refer to the immediate condition under observation. Similarly the use of solid food in every case of pellagra may be inadvisable or impracticable; for instance, when very severe stomatitis is present. The unusually favorable experience with the severe cases herein reported on would, however, suggest the inference that diarrhea in itself is no contraindication to the use of solid food, even in large amounts, that a generous diet seems to have a decidedly favorable effect upon the course of pellagra, confirming an observation that had been made even before Strambio's time. It is evident that the arsenicals at present so much in vogue may be dispensed with without harm, if not actual benefit to the patient.

THE CEREBROSPINAL FLUID IN PELLAGRA.

By W. F. LORENZ, Special Expert, United States Public Health Service, and Director Wisconsin Psychiatric Institute.

While pellagra has been very diligently investigated, relatively little attention has been directed toward the cerebrospinal fluid. The few contradictory reports that have appeared in this connection suggested the advisability of further investigation in this particular field.

In 1912 Boveri (1) reported a series of examinations and concluded that a slight lymphocytosis and an excess of globulin were present in the spinal fluid. Hindman (2) made a somewhat similar report in the same year. Buhlig and Holmes (3) made a contradictory report from three cases, and Dudgeon (4) also found a negative fluid in the two fatal cases of pellagra reported from England. In a later report Hindman (5) attributes some of his former finding to syphilis, and claims that after his cases of pellagra were controlled by Wassermann examinations practically none showed a lymphocytosis.

The data contained in this report were obtained from 153 spinal fluid examinations made in 106 cases of pellagra. Practically every clinical type of pellagra is represented in this series. Very acute cases, with severe mental and physical manifestations, contribute the largest share. On some of these a second puncture was made after the acute condition had subsided. In a number of cases a third confirmatory examination was made after an interval of several months. This series also includes a number of cases that showed very little or no mental disturbance.

The routine examination consisted of a cell count, an estimation of the globulin constituent, and a Wassermann (Noguchi) and Lange's colloidal gold chloride test.

The cell count was made as follows: Immediately after lumbar puncture the fluid was drawn into a red cell mixing pipette which had been previously prepared by drawing a very small amount of stain into its chamber. This stain consists of a 2 per cent glacial acetic acid solution colored with gentian violet, allowing a few minutes for the cells to stain; the pipette was thoroughly shaken in order to get an even distribution of the cells in the fluid. The first few drops are discarded. In this work the Turck counting chamber was used, and as a routine two counts were made. All nucleated elements were counted as lymphocytes. Of the 106 cases examined, 96 gave a count of less than 5 cells per cubic millimeter. In 2 cases the cell count ranged from 6 to 9 cells per cubic millimeter, while in 8 cases the count indicated a lymphocytosis ranging from 20 to 60 cells per cubic millimeter.

The 8 cases that gave a lymphocytosis were positive to the Wassermann with both spinal fluid and blood serum; all the globulin tests were also positive, and the colloidal gold chloride test gave a curve typical for paresis. In 6 of these 8 cases a positive history of luetic infection was obtained. As a consequence these 8 cases are regarded as pellagrins complicated with syphilis, and the spinal fluid findings in them are attributed to the syphilitic infection.

For the detection of a pathological excess of globulin the Noguchi butyric acid test and Ross-Jones modification of the Nonne-Appelt test were used. The results of these tests paralleled one another fairly well. From previous experience it is concluded that these tests gave essentially identical results, so that their combined results will be summarized as one test. As previously mentioned, the 8 cases of combined pellagra and syphilis were positive to these tests. In addition, 7 cases of uncomplicated pellagra gave fairly positive reactions and 18 gave reactions that were designated as "weakly positive." Of the 7 cases that gave positive results, 6 were extremely emaciated, almost moribund cases. These results are partially confirmatory of the globulin excess found by others, yet not to the same extent, there being but 25 cases of the 106 that showed positive and weakly positive reactions. In the reading of either the Noguchi butyric acid test or of the Ross-Jones very slight departure from the reaction of normal fluid was noted and designated as "weakly positive." If the frankly positive cases alone are considered, the occurrence of an excess of globulin would be in less than 8 per cent.

For the Wassermann examination made in these cases I am indebted to Dr. S. S. Hindman, pathologist at the Georgia State Sani-

tarium, Milledgeville, Ga. The human or Noguchi hemolytic system was employed, and in every case two antigens were used. One was an alcoholic extract of luetic liver and the other cholesterin fortified antigen made by adding 0.4 per cent cholesterin to an antigen made from guinea-pig heart, according to the Noguchi method. In all but a few cases both the blood serum and spinal fluid were tested.

The results from the Wassermann tests were uniformly negative, with the exception of the 8 cases of syphilis and 2 cases in which no history or other evidence of syphilis could be obtained. Both of these patients were severely ill; the blood serum alone gave weakly positive reactions. The spinal fluid did not inhibit hemolysis. In both cases the specimens of blood and spinal fluid were taken a few days before death.

The Lange colloidal gold chloride test was applied in the following manner: In the first of 10 test tubes 0.2 c. c. of spinal fluid was mixed with 1.8 c. c. freshly prepared 0.4 per cent sodium chloride solution; 1 c. c. of this mixture was diluted with 1 c. c. of the sodium chloride solution in tube No. 2, thus securing a half dilution of the 1 to 10 dilutions in tube No. 1. These succeeding half dilutions were made throughout the series of 10 test tubes; 5 c. c. of the colloidal gold chloride solution were then added to each tube and the rack was set aside for 24 hours at room temperature, when a reading was made. Excepting the 8 cases of syphilis, none gave any reaction with the "gold sol." In a few cases very slight color changes were noted in the lower dilutions, though hardly sufficient to be designated as 1+.

Pressure estimations of the spinal fluid are, in my opinion, of very doubtful value. Very high tension is frequently found in the various meningitides. In such instances an apparatus to measure this pressure is not needed. Its forceful expulsion is sufficient to indicate the high tension that exists. Using a capillary tube attached to the lumbar puncture needle, a large number of cases were observed, and the conclusion reached was that changes in fluid tension up to 100 mm. of fluid height could be brought about by the slightest muscular effort on the part of the patient. Such efforts as coughing, deep breathing, etc., would cause great alteration in the fluid tension. As a consequence, little significance is attached to the variations of tension within 50 or 100 mm. That beneficial effects in the delirium so frequently observed in severe cases of pellagra occurred after the withdrawal of 20 to 30 c. c. of fluid is undoubted. In these cases, however, the fluid was not necessarily under greater tension than in the nondelirious cases. As a rule, the feeble, apathetic cases with poor circulation showed a reduction in the fluid tension, so much so that in some instances it took several minutes to obtain 4 or 5 c. c.

As a result of this investigation it is concluded that a lymphocytosis does not occur in an uncomplicated case of pellagra. This finding is quite in accord with the recent reports of the histo-pathology of the nervous system in this disease. Mott (6) could find no evidence of meningeal or perivascular infiltration with lymphocytes, plasma cells, or polynuclear leucocytes. Likewise Singer and Pollock (7) failed to find any condition that would occasion a lymphocytosis of the cerebrospinal fluid.

The negative fluid in pellagra can be taken into consideration when the question of etiology is considered. The well-known diseases of the central nervous system due to bacterial invasion are almost invariably accompanied by a pathological spinal fluid. The same is true when the central nervous system is infected by the spirochaeta or the trypanosome. The absence of any evidence in the form of a lymphocytosis or an increase of any of the nucleated elements of the spinal fluid points to the absence of an infection with inflammatory lesions in close proximity to the circulating (cerebrospinal) fluid.

Summary and Conclusions.

Summarizing the results of this investigation, the following conclusions are offered:

1. A lymphocytosis of the cerebrospinal fluid does not occur in uncomplicated pellagra.
2. Globulin excess of the spinal fluid is only occasionally observed.
3. Lange's colloidal gold chloride test is uniformly negative in pellagra.
4. The Wassermann is negative with a few exceptions. In this investigation the exceptions were moribund cases which gave weakly positive reactions with blood serum.
5. The spinal-fluid findings would seem inconsistent with a conception that pellagra is an infectious disease of the central nervous system.

Acknowledgments.

I wish here to express my indebtedness to the superintendent, clinical director, and medical staff of the Georgia State Sanitarium for their kind and courteous cooperation.

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(5) Hindman, S. S., Annual Report, 1913, Georgia State Sanitarium, Georgia.
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THE HYGIENE OF RURAL SCHOOLS.

By TALIAFERRO CLARK, Surgeon, United States Public Health Service.

In connection with recent field investigations opportunity was presented to make observations of the sanitary condition of a large number of rural schools, over an extended area.

The main object of these investigations, however, was to determine the prevalence of certain diseases, especially trachoma. Owing to the necessity of rapid inspections, in order to complete the work within a reasonable time, detailed examination of the schools visited was not undertaken. In all, 199 schools, 138 rural and 61 urban, were thus inspected by the writer and a total of 859 schools in 9 States by all the service officers, engaged in this work. It is very evident as revealed by these inspections, that in the territory covered there is a general lack of sanitary supervision in the construction and maintenance of rural school buildings and of medical supervision of the pupils.

The prevention and correction of physical and mental disabilities that may embarrass a child in taking advantage of the education offered by the State is a prime duty of the State toward the child. It is this phase of the educational problem that lends so great importance to school hygiene in general and to its application to rural communities in particular. According to the 1910 census report there were 10,529,871 pupils in attendance in rural schools and 7,480,000 in the urban. Of these there were 793,710 more pupils from 6 to 9 years of age, and 1,376,052 more from 10 to 14 years of age in rural school attendance than in urban. It is to be regretted that there is such a large proportion of children of impressionable age attending school without the advantages of sanitary and medical supervision. This is all the more regrettable because of the presence in rural communities of numerous children who are suffering from curable defects by reason of the want of skilled medical advice.

Defects Revealed by Medical Inspection of Schools.

Mr. J. A. Pease, in a speech in committee of supply, House of Commons, thus summarizes the physical defects found among the school children of England:

Impaired eyesight, 10 per cent; impaired hearing, 5 per cent; ear disease, 3 per cent; adenoids, 5 per cent; serious decay of teeth, 50 per cent; tuberculosis, 2 per cent; heart disease, 2 per cent; malnutrition, 10 per cent; mentally defective, 1 per cent; backward children, 12.5 per cent; abnormally gifted children, 3 per cent.

These figures differ somewhat from those reported in various schools of the United States, but the relative proportions are about the same. The important point needing emphasis is that many of these defects, developmental and acquired, may be corrected in the

early years of life, and to neglect them results in serious impairment of the health, growth, and efficiency of the child.

Organized health work in schools until the present time has been largely confined to cities. Our investigations demonstrate the necessity of the extension of this work to country districts, where reside so large a number of people without the advantage of instruction relative to sanitary measures essential to health. In many districts the element of expense is a serious consideration, and it will be necessary to demonstrate the money value of school hygiene in the resulting increased efficiency of the child and improved community sanitation. The general adoption of hygienic measures, however, will be gradual, and considerable time must elapse before any noticeable effect on community health will be observed except in restricted localities. The need for some properly constituted authority to make intensive studies of rural school conditions in different sections of the country for educational value to the country at large is apparent.

Our knowledge of the principles of school hygiene is far in advance of the actual practice. State boards of health and education may adopt rules and regulations in relation to the construction of school buildings, but their acceptance by communities poorly provided with funds, indifferently supplied with medical services and entirely without trained sanitary advisers, is another question. It is necessary to educate rural communities in these matters. There is need for studies of rural schools from the standpoint of the child engaged in an occupation which in most States is a compulsory one.

Existing Needs.

One of the gravest situations observed in connection with schools of remote districts was the small attendance, though the child population of these districts was relatively large. Due attention to the construction, equipment, and maintenance of school buildings with respect to location, playground facilities, a proper regard for heating, lighting, ventilating, and seating equipment and sanitary toilet conveniences will result in lessening juvenile delinquency and improving the health of the community.

The conviction arises from the investigation of trachoma in a number of heavily infected remote districts that this eye affection can be controlled therein only by education, yet these are the districts where the observance of sanitation in connection with school life is least evident, and the necessity therefor the most apparent.

The economic loss to communities suffering from this communicable disease of the eyes is very great through diminished earning capacity of those attacked. The value of improved sanitation and increased educational facilities to these infected communities can not

be measured in dollars and cents, but the necessity therefor was revealed by the investigations just completed.

The educational facilities provided by a community for its children is a reliable index of the culture and prosperity of that community. The sanitary provisions for schools is likewise a fairly accurate measure of community knowledge of sanitary matters. Our investigations have revealed a widespread need for instruction in rural sanitation, which can be given in large measure through rural schools. Certainly no better means can be devised for determining the endemicity of certain communicable diseases, for tracing and controlling foci of tuberculosis, for the control of the so-called contagious diseases of childhood, and for the eradication of smallpox in rural districts than a general and properly conducted medical supervision of the schools. For example, in the course of these investigations the writer found over 10 per cent of the pupils suffering from trachoma in 21 rural schools, and over 20 per cent in 11 schools. In 4 schools the rate of trachoma infection was 35.29, 43.20, 43.75, and 46.15 per cent, respectively.

The adult population represented by these school children is fixed in the habits and mode of life so largely responsible for heavy community infection. The neglect of sanitary precautions will favor the continued spread of this disease, and the only hope for complete eradication lies in the education of the rising generations. It is along such lines that the greatest benefit is to be derived from the sanitary supervision and medical inspection of the schools of rural districts.

Furthermore, in the course of these field investigations, the writer failed to find a single sanitary privy installed for the use of rural-school children. In numerous instances no privy accommodations whatsoever were provided, and soil pollution in the neighborhood of the schoolhouse was evident. In one county, 11 cases of typhoid fever with 2 deaths were traced to the infected wells of two schools during the year preceding these investigations.

It is unfortunate that the school year in rural districts seldom exceeds six months. In many communities it is even less. Any loss of time in school attendance to a child of such limited opportunity for education is a serious matter, and is the more regrettable because absences due to sickness are largely preventable. For example, Mr. A. Hughart, superintendent of the Valparaiso, Ind., public schools, had a record kept of the total time lost by all pupils on account of sickness and tardiness during the year 1910–11.

The total enrollment of these schools was 1,000 pupils. The total loss of time of pupils from school during the year amounted in the aggregate to 37 school years. Seventy-six per cent of this loss of time was due to sickness, 60 per cent of it being occasioned by preventable diseases. The time lost on account of scarlet fever

FIG. 1.—SCHOOL WITH INSUFFICENT WINDOWS.

The windows are not large enough to provide sufficient light. They should be higher and the window panes larger.

FIG. 2.—A DANGEROUS SCHOOL PRIVY.

Cover to seat of privy and door to entrance are lacking, thus allowing access to flies and animals. Excreta are deposited upon the ground, thus bringing about soil pollution. Thirty-eight out of forty children in this school were found to be infected with hookworm. The percentage of hookworm infection in the county in which this school is located was 82.6.

was 8½ years; from chicken pox 3 years 4 months and 13 days; toothache, 5 months. The loss to the community, therefore, on account of absences from school amounted to $1,850, that is, 37 years at $50 per year, the per capita cost. The loss due to preventable diseases was $1,100. The neglect of sanitary supervision of schools, therefore, results not only in injury to the child through inability to take advantage of the opportunity for intellectual training, but also in actual calculable monetary loss to a community, in many instances, poorly supplied with funds for educational purposes.

The sanitary needs revealed by these surveys are many. In general, they are due to lack of skilled advice, and are those of location, construction, and equipment as applied to school buildings. The accompanying cuts are typical of existing conditions in many places, as will be recognized by those familiar with rural schools.

With respect to the child, rural education is a practical illustration of the survival of the fittest. There is no uniform medical supervision of rural-school children, and in many sections only an indifferent adaptation of intellectual training to the physical and mental necessities of the child. That men come from the country and in the course of time, in spite of the disadvantages of early training, take prominent places in medicine, law, theology, and finance in urban communities is further evidence of the desirability of extending to such people all the benefits of education and hygiene.

These rural communities are also denied the benefits to be derived indirectly from the application of the principles of hygiene to schools and school life. With the extension of the movement to consolidate several schools into one the school year will be lengthened, better schools will be provided, medical inspections become possible, the district school nurse will evolve, sick children will be visited, and the principles of correct sanitary living will be taught in the homes. The benefits to be derived from such measures are obvious, but not fully appreciated even in communities where they are in force. It can not be expected, therefore, that these conditions are to be brought about at once. There is necessity for much painstaking effort and actual demonstration before these measures, no matter how urgently needed, can obtain in many sections of our country.

Lastly, the study of the sanitary condition of the schools and the medical supervision of the pupils in rural districts will be of the greatest value to the State at large and the State board of health in particular, because such studies bring to light most clearly the public health needs of such communities.

Furthermore, where full-time health officers are not available because of lack of funds, the rational combination of such duties with that of the medical supervision of schools would make the employment of such an officer practicable and profitable.

PLAGUE-ERADICATIVE WORK.

CALIFORNIA.

The following reports of plague-eradicative work in California have been received from Surg. Long, of the Public Health Service, in charge of the work:

Week Ended Aug. 15, 1914.

SAN FRANCISCO, CAL.

Premises inspected	1,471
Premises destroyed	17
Nuisances abated	246
Poisons placed	18,600
Average number of traps set daily	1,734

RANCHES INSPECTED AND HUNTED OVER.

Alameda County	20
Contra Costa County	30
San Benito County	7
Santa Clara County	4
Total	61

LAND INSPECTED.

Alameda and San Joaquin Counties...acres..	3,063
Merced County (railroad rights of way, miles	4

PLAGUE-INFECTED SQUIRREL.

Contra Costa County, Aug. 1, 1914. H. Brown Ranch, 1 mile north of Lafayette	1

RATS COLLECTED AND EXAMINED FOR PLAGUE.

San Francisco:	
Collected	601
Examined	477
Found infected	None.

RATS IDENTIFIED.

Mus norvegicus	264
Mus alexandrinus	78
Mus musculus	120
Mus rattus	139

RATS TAKEN FROM STEAMERS.

Steamer *Winslow*, mus rattus	3
Steamer *Persia:*	
Mus alexandrinus	12
Mus rattus	7

Squirrels collected and examined for plague.

County.	Shot.	Examined.	Found infected.
Contra Costa	451	451	1
Alameda	160	160	None.
San Benito	34	34	None.
Santa Clara	37	37	None.
Total	682	682	1

Operations on water front.

Vessels inspected for rat guards	18
Reinspections made on vessels	20
New rat guards procured	23
Defective rat guards repaired	2
Vessels on which cargo was inspected	2

STEAMERS "WATSON" AND "ADMIRAL FARRAGUT," FROM SEATTLE.

	Condition.	Rat evidence.
300 sacks flour, bran, and feed	O. K.	None.
80 boxes cheese	O. K.	None.
45 rolls paper	O. K.	None.
17 cases household goods	O. K.	None.
110 tubs cheese	O. K.	None.

Rats trapped on wharves and water front	24
Rats trapped on vessels	14
Traps set on wharves and water front	204
Traps set on vessels	124
Vessels trapped on	5
Vessels searched for dead rats after fumigation	4
Dead rats found on vessels after fumigation	22
Poisons placed on water front ...pieces..	3,000
Poisons placed within P. P. I. E. grounds, pieces	10,200
Bait used on water front and vessels, bacon, pounds	6
Amount of bread used in poisoning water front ...loaves..	10
Number of pounds of poison used on water front	5

Operations are being carried on under Federal supervision on the following-named properties, labor and material being furnished by owners:

Poisoned grain and destructors.

Names.	Location.	Acres treated.		Holes treated.
		Pumps.	Grain.	
Tormey Ranch	Contra Costa County		1,350.00	
Napthaly Ranch	do		295.00	
Peoples Water Co	do		3,200.00	
McLaughlin Land Co	Alameda County		2,443.00	
Stewart Ranch	do		1,395.00	
Fredericks Ranch	do		1,500.00	
Hooper Co	Contra Costa County		214.29	
Moraga Co	do		513.65	
		Miles.	*Miles.*	
Oakland, Antioch & Eastern right of way	do		8.00	
County roads	do		13.25	
Southern Pacific Co	Merced County	4	4.00	1,848

The work is being carried on in the following-named counties: San Francisco, Santa Clara, Alameda, Contra Costa, San Joaquin, Merced, Stanislaus, San Benito, Santa Cruz, and Monterey.

Week Ended Aug. 22, 1914.

SAN FRANCISCO, CAL.

Premises inspected	1,373
Premises destroyed	13
Nuisances abated	162
Poisons placed	12,600
Average number of traps set daily	1,734

RANCHES INSPECTED AND HUNTED OVER.

Alameda County	15
Contra Costa County	28
San Benito County	8
Santa Clara County	3
Total	54

LAND INSPECTED.

Merced County (railroad right of way), miles	5½

PLAGUE-INFECTED SQUIRRELS.

Alameda County, Aug. 7, 1914, D. Sullivan Ranch, 4½ miles east of Sunol, block 36	1
Contra Costa County, Aug. 4, 1914, G. Slater Ranch, 2½ miles northwest of Walnut Creek	1
Contra Costa County, Aug. 11, 1914, J. Lawrence Ranch, 1½ miles northeast of Walnut Creek	1

Report 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 of rodents found infected since May, 1907.
Cities:				
San Francisco	Jan. 30, 1908	Oct. 23, 1908	None	398 rats.
Oakland	Aug. 9, 1911	Dec. 1, 1908	do	126 rats.
Berkeley	Aug. 28, 1907	None	do	None.
Los Angeles	Aug. 11, 1908	do	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).	Sept. 24, 1909	Oct. 17, 1909 Wood rat.	Aug. 7, 1914	286 squirrels. 1 wood rat.
Contra Costa	May 17, 1914	None	Aug. 11, 1914	1,559 squirrels.
Fresno	None	do	Oct. 27, 1911	1 squirrel.
Merced	do	do	July 12, 1911	5 squirrels.
Monterey	do	do	Apr. 10, 1914	6 squirrels.
San Benito	June 4, 1913	do	July 3, 1914	35 squirrels.
San Joaquin	Sept. 18, 1911	do	Aug. 26, 1911	18 squirrels.
San Luis Obispo	None	do	Jan. 29, 1910	1 squirrel.
Santa Clara	Aug. 31, 1910	do	July 23, 1913	25 squirrels.
Santa Cruz	None	do	May 17, 1910	3 squirrels.
Stanislaus	do	do	June 2, 1911	13 squirrels.

Squirrels collected and examined for plague.

County.	Shot.	Examined.	Found infected.
Alameda	91	91	1
Contra Costa	474	474	2
San Benito	74	74	None.
Santa Clara	29	29	None.
Total	668	668	3

RATS COLLECTED AND EXAMINED FOR PLAGUE.

San Francisco:

Collected	589
Found dead	2
Examined	446

RATS IDENTIFIED.

Mus norvegicus	278
Mus alexandrinus	39
Mus musculus	105
Mus rattus	117

RATS TAKEN FROM STEAMERS.

Steamer *Lurline*	Mus alexandrinus	1
	Mus musculus	13
Steamer *San Juan*	Mus rattus	41
Transport *Buford*	Mus alexandrinus	1
	Mus musculus	1

Operations on water front.

Vessels inspected for rat guards	23
Reinspections made on vessels	17
New rat guards procured	20
Defective rat guards repaired	14
Vessels on which cargo was inspected	1

STEAMER ADMIRAL WATSON FROM SEATTLE.

	Condition.	Rat evidence.
40 cases hams and meat	O. K.	None.
200 sacks oats and bran	O. K.	None.
8 rolls paper	O. K.	None.

Rats trapped on wharves and water front	40
Rats trapped on vessels	21
Traps set on wharves and water front	187
Traps set on vessels	141
Vessels trapped on	17
Vessels searched for dead rats after fumigation	4
Dead rats found on vessels after fumigation	43
Mus musculus taken dead from vessels after fumigation	14
Poisons placed on water front (pieces)	2,000
Poisons placed within P. P. I. E. grounds (pieces)	3,600
Bait used on water front and vessels—Bacon (pounds)	6
Amount of bread used in poisoning water front (loaves)	7
No. pounds of poison used on water front	7½

Operations are being carried on under Federal supervision on the following-named properties, labor and material being furnished by owners:

Poisoned grain and destructors.

Names.	Location.	Acres treated.		Holes treated.
		Pumps.	Grain.	
Napthaly Ranch	Contra Costa Co.		235.00	
Peoples Water Co	do		1,250.00	
Hooper Co	do		511.79	
Moraga Co	do		1,225.98	
D. Sullivan ranch	Alameda Co.		1,509.09	
Stewart ranch	do		220.00	
		Miles.	*Miles.*	
Southern Pacific right of way	Merced Co	5½	5½	2,106

The work is being carried on in the following-named counties: San Francisco, Santa Clara, Alameda, Contra Costa, San Joaquin, Merced, Stanislaus, San Benito, Santa Cruz, and Monterey.

LOUISIANA—NEW ORLEANS.

The following report of plague-eradicative work in New Orleans for the week ended August 29, 1914, has been received from Asst. Surg. Gen. Rucker, of the Public Health Service, in charge of the work:

OUTGOING QUARANTINE.

Number of vessels fumigated with sulphur	81
Number of vessels fumigated with carbon monoxide	15
Sulphur burned (pounds)	9,764
Outgoing freight inspected (tons)	15,736
Clean bills of health issued	32
Foul bills of health issued	6

OVERLAND FREIGHT INSPECTION.

Cars inspected	3,925
Cars rat-proofed	1,230
Cars condemned	9

FIELD OPERATIONS.

Number of rats trapped	9,178
Premises fumigated	4
Premises disinfected	40

FIELD OPERATIONS—continued.

Premises inspected	3,726
Poisons placed	150,008
Notices served	1,926
Buildings rat-proofed	117
Number of abatements	774
Number dead inspected	121

LABORATORY OPERATIONS.

Rats examined	6,614
Mus norvegicus	6,354
Mus alexandrinus	55
Mus rattus	55
Mus musculus	1,625
Mus unclassified, putrid	142
Total rodents received at laboratory	8,235
Number of suspicious rats	18
Plague rats confirmed	14

Plague rats.

Case No.	Address.	Suspicious.	Diagnosis confirmed.	Treatment of premises.
65	930 Magazine Street	Aug. 24	Aug. 24	Intensive trapping and poisoning. Rat proofing initiated.
66	721 Esplanade Avenue	Aug. 25	Aug. 25	Do.
67-68	218 Canal Street	Aug. 27	Aug. 27	Intensive trapping and poisoning. Fumigation. Rat proofing initiated.
69	1006 Magazine Street	do	do	Intensive trapping and poisoning. Rat proofing initiated.
70	1523 North Miro	Aug. 28	Aug. 28	Do.
71	1006 Magazine Street	do	do	See Case No. 69.
72	930 North Miro	Aug. 23	Aug. 29	Intensive trapping and poisoning. Rat proofing initiated.
73-78	218 Canal Street	Aug. 29	do	See cases 67-68.

Human plague cases.

Suspicious human cases examined	5
Number of human plague cases	2

Case No.	Name and place of infection.	Date suspicious.	Diagnosis confirmed.	Treatment of premises.
21	M. J., 1734 Felicity	Aug. 27	Aug. 29	Fumigated. Rat proofing initiated.
22	E. R., 4415 Carondelet	Aug. 26	Aug. 28	Do.

Necropsies	4
Total rodents trapped to Aug. 29	64,063
Total rodents examined to Aug. 29	58,599
Total human cases to Aug. 29	22
Total rodent cases to Aug. 29	78

WASHINGTON—SEATTLE.

The following reports of plague-eradicative work in Seattle have been received from Surg. Lloyd, of the Public Health Service, in charge of the work:

Week Ended Aug. 15, 1914.

RAT PROOFING.

New buildings inspected	52
Basements concreted, new buildings (12) sq. ft.	10,333
Floors concreted, new buildings (9)...sq. ft.	44,275
Yards concreted, new building (1)....sq. ft.	750
Total concrete laid.....sq. ft.	55,358
Old buildings inspected	3
Premises rat proofed	22
Rat holes screened	46
Doors rat proofed	4
Wire screening used.....sq. ft.	7,500
Buildings razed	5

WATER FRONT.

Vessels inspected and histories recorded	3
Rat guards installed	18
Port sanitary statements issued	58

LABORATORY AND RODENT OPERATIONS.

Dead rodents received	10
Rodents trapped and killed	397
Total	407
Rodents examined for plague infection	339
Rodents proven plague infected	None.
Human bodies examined for plague	None.
Number pounds poison used and distributed	61

CLASSIFICATION OF RODENTS.

Mus rattus	8
Mus alexandrinus	50
Mus norvegicus	308
Mus musculus	41

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

Week Ended Aug. 22, 1914.

RAT PROOFING.

New buildings inspected	63
Basements concreted, new buildings (9) square feet	21,910
Floors concreted, new buildings (19) square feet	63,526
Total concrete laid, new buildings square feet	85,436
New buildings elevated	11
Premises rat proofed	28
Wire screening used.....square feet	650
Buildings razed	5

WATER FRONT.

Vessels inspected and histories recorded	3
Vessels fumigated	1
Sulphur used.....pounds	1,000
Rat guards installed	18
Port sanitary statements issued	54

LABORATORY AND RODENT OPERATIONS.

Dead rodents received	15
Rodents trapped and killed	339
Total	354
Rodents examined for plague infection	288
Rodents proven plague infected	None.
Number pounds poison distributed	13

CLASSIFICATION OF RODENTS.

Mus rattus	10
Mus alexandrinus	64
Mus norvegicus	233
Mus musculus	47

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

PORTO RICO.

The following reports of plague-eradicative work in Porto Rico have been received from the sanitary service of Porto Rico:

The following rodents have been examined during the weeks given. All have been examined and none have been found infected with plague:

Week Ended Aug. 21, 1914.

	Rats.	Mice.	Mongoose.
San Juan	62	35	.....
Puerta de Tierra	14	22	.....
Santurce	263	13	.....
Rio Piedras	4	.....	.....
Ponce	114	29	.....
Total	457	99	.....

Week Ended August 28, 1914.

	Rats.	Mice.	Mongoose.
San Juan	72	25	.....
Puerta de Tierra	25	28	.....
Santurce	187	9	1
Mayaguez	108	23	.....
Aguadilla	84	10	.....
Total	476	95	1

HAWAII.

The following reports of plague-eradicative work in Hawaii have been received from Surg. Trotter, of the United States Public Health Service:

Honolulu.

WEEK ENDED AUG. 8, 1914.

Total rats and mongoose taken	433	Average number of traps set daily	1,085
Rats trapped	414	Cost per rat destroyed ..... cents..	19½
Mongoose trapped	19	Last case rat plague Aiea, 9 miles from Honolulu	Apr. 12, 1910
Examined microscopically	356	Last case human plague Honolulu	July 12, 1910
Classification of rats trapped:		Last case rat plague Pacific Mill, Kukuihaele, Hawaii	Jan. 30, 1914
Mus alexandrinus	169	Last case human plague Honokaa, Hawaii	June 11, 1914
Mus musculus	168		
Mus norvegicus	67		
Mus rattus	10		

WEEK ENDED AUGUST 15, 1914.

Total rats and mongoose taken	393	Average number of traps set daily	1,085
Rats trapped	374	Cost per rat destroyed ..... cents..	21½
Mongoose trapped	10	Last case rat plague Aiea, 9 miles from Honolulu	Apr. 12, 1910
Rats killed by sulphur dioxid	9	Last case human plague Honolulu	July 12, 1910
Examined microscopically	307	Last case rat plague Pacific Mill, Kukuihaele, Hawaii	Jan. 30, 1914
Classification of rats trapped:		Last case human plague Honokaa, Hawaii	June 11, 1914
Mus alexandrinus	161		
Mus musculus	161		
Mus norvegicus	50		
Mus rattus	2		
Classification of rats killed by sulphur dioxid:			
Mus alexandrinus	2		
Mus rattus	7		

Hilo.

WEEK ENDED AUG. 8, 1914.

Number of rats and mongoose taken	2,215
Number of rats trapped	2,181
Number of rats found dead	6
Number of mongoose taken	28
Number of rats and mongoose examined microscopically	2,216
Classification of rats trapped and found dead:	
Mus norvegcus	481
Classification of rats trapped and found dead—Continued.	
Mus alexandrinus	256
Mus rattus	656
Mus musculus	794

Last case of rat plague, Pacific Sugar Mill, January 30, 1914.

Last case of human plague, Honokaa Sugar Co., June 11, 1914.

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.

CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Chicago, Ill	2	2	Muncie, Ind	.....	1
Dayton, Ohio	1	1	New York, N. Y	6	5
Hartford, Conn	1	.....	Philadelphia, Pa	1	.....
Los Angeles, Cal	1	.....	Superior, Wis	.....	1

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2378.

ERYSIPELAS.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich	1	.....	Harrison, N. J	1	.....
Baltimore, Md	.....	2	Los Angeles, Cal	2	.....
Bridgeport, Conn	1	.....	Montclair, N. J	1	.....
Buffalo, N. Y	2	.....	Newark, N. J	.....	1
Chicago, Ill	2	.....	New York, N. Y	.....	2
Cleveland, Ohio	2	.....	Philadelphia, Pa	7	1
Detroit, Mich	.....	1	Sacramento, Cal	.....	1
Duluth, Minn	1	.....	St. Louis, Mo	4	.....

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, p. 2378.

PELLAGRA.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Charleston, S. C	.....	4	Mobile, Ala	.....	1
Concord, N. H	.....	1	Nashville, Tenn	2	.....
Dayton, Ohio	3	3	New Orleans, La	11	3
Galveston, Tex	.....	1	Providence, R. I	1	.....
La Crosse, Wis	.....	1			

PNEUMONIA.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.		1	Lynn, Mass.		2
Baltimore, Md.		8	Manchester, N. H.	2	2
Binghamton, N. Y.	2		Nashville, Tenn.		1
Boston, Mass.		10	Newark, N. J.		2
Bridgeport, Conn.		3	New Orleans, La.		8
Buffalo, N. Y.		3	New York, N. Y.		42
Cambridge, Mass.		3	Norfolk, Va.	1	
Charleston, S. C.		1	North Adams, Mass.		1
Chicago, Ill.	46	28	Philadelphia, Pa.	6	27
Cincinnati, Ohio.		3	Providence, R. I.		2
Cleveland, Ohio.	3	5	Reading, Pa.	2	5
Detroit, Mich.		5	Richmond, Va.		2
Duluth, Minn.	1	1	Rochester, N. Y.		5
Dunkirk, N. Y.	1	1	Sacramento, Cal.		1
Elmira, N. Y.		1	San Diego, Cal.	1	1
Fall River, Mass.	3	3	Saratoga Springs, N. Y.		1
Galveston, Tex.		1	Schenectady, N. Y.	6	
Grand Rapids, Mich.		1	Seattle, Wash.		2
Hartford, Conn.		1	Springfield, Mass.		2
Johnstown, Pa.		2	Superior, Wis.		1
Kalamazoo, Mich.		1	Toledo, Ohio.		2
Kansas City, Mo.	2	4	Trenton, N. J.		3
Lexington, Ky.		1	Wilkes-Barre, Pa.		2
Los Angeles, Cal.	13	8	Wilmington, N. C.		1
Louisville, Ky.		1			

POLIOMYELITIS (INFANTILE PARALYSIS).

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.	2		Haverhill, Mass.	1	
Ann Arbor, Mich.	3		Manchester, N. H.	1	
Binghamton, N. Y.	1		New York, N. Y.	7	1
Charleston, S. C.		1	South Bend, Ind.	1	1
Chicago, Ill.	1		Wilkinsburg, Pa.	1	

RABIES.

Washington—Seattle—Rabies in Animals.

Surg. Lloyd, of the Public Health Service, reported that during the week ended August 29, 1914, 3 cases of rabies in dogs had been reported in Seattle, Wash., making a total of 396 cases of rabies in animals reported since the beginning of the outbreak in September, 1913.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2378.

SMALLPOX.

Miscellaneous State Reports.

Places.	Cases.	Deaths.
Oregon (July 1-31):		
Counties—		
Umatilla	4	
Washington	1	
Total	5	
Utah (July 1-31):		
Counties—		
Box Elder	4	
Cache	7	
Davis	1	
Iron	3	
Salt Lake	9	
Utah	22	
Weber	2	
Total	48	
Texas (July 1-31):		
Counties—		
Bowie	1	
Burnet	4	
Dallas	8	
Hunt	5	
Howard	13	
Johnson	2	
Palo Pinto	2	
Tarrant	3	
Total	38	

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.
Astoria, Oreg	3	
Brownsville, Tex	1	
Butte, Mont	2	
Charleston, S. C	1	
Danville, Ill	1	
Detroit, Mich	3	
Duluth, Minn	3	
Los Angeles, Cal	2	
Lynchburg, Va	1	
Milwaukee, Wis	7	
Muncie, Ind	1	
Racine, Wis	2	
Richmond, Va	2	
Springfield, Ohio	1	
Superior, Wis	1	

TETANUS.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.
Boston, Mass	1	1
Chicago, Ill		1
Cleveland, Ohio	1	
Harrisburg, Pa		1
New Orleans, La		1
New York, N. Y		1
Sacramento, Cal	1	
St. Louis, Mo	1	1

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2378.

TYPHOID FEVER.

City Reports for Week Ended Aug. 22, 1914.

Places.	Cases.	Deaths.
Altoona, Pa	1	
Atlantic City, N. J	2	
Aurora, Ill	3	
Baltimore, Md	44	2
Beaver Falls, Pa	1	
Boston, Mass	6	
Bridgeport, Conn	1	1
Buffalo, N. Y	10	1
Cambridge, Mass	1	
Cambridge, Ohio	1	
Camden, N. J	3	
Charleston, S. C	8	1
Chicago, Ill	30	5
Cincinnati, Ohio	5	1
Cleveland, Ohio	2	1
Coffeyville, Kans	1	1
Columbus, Ohio	14	3
Cumberland, Md	10	1

TYPHOID FEVER—Continued.

City Reports for Week Ended Aug. 22, 1914—Continued.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Danville, Ill.		1	Muncie, Ind.	2	
Detroit, Mich.	30	1	Nashville, Tenn.	30	1
Duluth, Minn.	9		Newark, N. J.	7	
Elmira, N. Y.	2		New Bedford, Mass.	6	
Evansville, Ind.	5		New Orleans, La.	5	
Everett, Mass.	1		Newton, Mass.	1	
Florence, S. C.	5		New York, N. Y.	104	9
Galveston, Tex.	1		Norfolk, Va.	4	
Grand Rapids, Mich.	2		North Adams, Mass.	18	
Harrisburg, Pa.	1		Philadelphia, Pa.	34	2
Hartford, Conn.	6		Portsmouth, Va.	1	
Haverhill, Mass.	3	1	Pottstown, Pa.	1	
Hoboken, N. J.	1		Providence, R. I.	5	
Jersey City, N. J.	1	1	Reading, Pa.	21	
Johnstown, Pa.	1	1	Richmond, Va.	7	
Kansas City, Kans.	2		Roanoke, Va.	3	
Kansas City, Mo.	3	3	Rochester, N. Y.	6	
Kokomo, Ind.	4		Rutland, Vt.	1	
Lancaster, Pa.	2		Sacramento, Cal.	4	2
Little Rock, Ark.	2		St. Louis, Mo.	11	1
Los Angeles, Cal.	3	1	Schenectady, N. Y.	3	
Louisville, Ky.	6	5	Seattle, Wash.	5	
Lynchburg, Va.	3	1	Springfield, Ill.	1	1
Lynn, Mass.	1	1	Springfield, Ohio.	4	
Malden, Mass.	1		Taunton, Mass.	1	
Manchester, N. H.	2		Toledo, Ohio.	14	1
Marinette, Wis.	1		Trenton, N. J.	1	
Melrose, Mass.	1		Waltham, Mass.		1
Milwaukee, Wis.	2	1	Wilkes Barre, Pa.	2	
Moline, Ill.	3	1	Wilmington, N. C.	1	
Montclair, N. J.	1		York, Pa.	1	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Aug. 22, 1914.

Cities.	Population as of July 1, 1914 (estimated by United States Census Bureau)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	579,590	175	15		2		4	1	14	15
Boston, Mass.	733,802	177	29	2	19		13		38	14
Chicago, Ill.	2,393,325	661	88	14	12		22	3	206	75
Cleveland, Ohio.	639,431	176	26	2	5	1	1	2	28	12
Detroit, Mich.	537,650	168	19	4			10	2	21	10
New York, N. Y.	5,333,539	1,381	207	19	124	5	53	3	424	141
Philadelphia, Pa.	1,657,810	470	35	6	16	2	9		108	53
St. Louis, Mo.	734,667	200	31	3	1		16	2	33	20
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.	454,112	136	20	1	7		8		32	7
Cincinnati, Ohio.	402,175	126	14		1		5		23	19
Los Angeles, Cal.	438,914	105	3		6		5		27	6
Milwaukee, Wis.	417,054	98	5				10		15	9
Newark, N. J.	389,106	100	19	1	12		8		32	6
New Orleans, La.	361,221	117	17	4					29	15
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.	204,567	77	5				1		2	4
Jersey City, N. J.	293,921	77	11	1	1		2		20	8
Kansas City, Mo.	281,911	103	4				3	1	1	7
Louisville, Ky.	235,114	93	2				1		17	9
Providence, R. I.	245,090	69	7				5	1	10	5
Rochester, N. Y.	241,518	63	1		4		1			4
Seattle, Wash.	313,029	53			2				24	2

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

City Reports for Week Ended Aug. 22, 1914—Continued.

Cities.	Population as of July 1, 1914 (estimated by United States Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 100,000 to 200,000 inhabitants:										
Albany, N. Y.	102,961	.....	.....	.....	.....	.....	76	1	.....	1
Bridgeport, Conn.	115,289	37	2	.....	2	2	.....	.....	4	1
Cambridge, Mass.	110,357	25	.....	1	.....	.....	.....	.....	1	2
Camden, N. J.	102,465	.....	1	.....	.....	.....	.....	.....	3	.....
Dayton, Ohio.	123,704	41	3	.....	1	.....	4	.....	.....	.....
Fall River, Mass.	125,443	53	1	.....	2	.....	7	.....	.....	.....
Grand Rapids, Mich.	123,227	41	4	.....	.....	.....	1	.....	3	6
Hartford, Conn.	107,038	32	1	.....	1	.....	1	.....	.....	2
Lowell, Mass.	111,004	24	3	.....	5	1	1	.....	5	2
Nashville, Tenn.	114,899	27	1	.....	1	.....	3	.....	6	4
New Bedford, Mass.	111,230	35	.....	.....	.....	.....	1	.....	15	1
Reading, Pa.	103,361	26	.....	.....	1	.....	2	.....	1	.....
Richmond, Va.	134,917	40	2	.....	.....	.....	3	.....	8	6
Springfield, Mass.	100,375	26	.....	.....	.....	.....	.....	.....	.....	3
Tacoma, Wash.	103,418	.....	1	.....	.....	.....	.....	.....	.....	.....
Toledo, Ohio.	184,126	63	4	.....	5	.....	.....	.....	4	8
Trenton, N. J.	106,831	45	3	.....	1	.....	2	.....	5	4
Worcester, Mass.	157,732	48	4	.....	.....	.....	.....	.....	5	.....
From 50,000 to 100,000 inhabitants:										
Altoona, Pa.	56,553	4	3	.....	.....	.....	1	.....	.....	1
Atlantic City, N. J.	53,952	15	2	.....	1	.....	.....	.....	2	.....
Bayonne, N. J.	65,271	.....	1	.....	.....	.....	1	.....	1	.....
Binghamton, N. Y.	52,191	14	2	.....	.....	.....	.....	.....	2	1
Brockton, Mass.	64,043	11	3	.....	1	.....	1	.....	7	2
Charleston, S. C.	60,121	36	2	1	.....	1	.....	.....	.....	1
Duluth, Minn.	89,331	15	3	.....	.....	.....	.....	.....	1	2
Evansville, Ind.	71,284	20	3	.....	1	.....	1	.....	.....	3
Harrisburg, Pa.	69,493	26	2	.....	.....	.....	1	.....	.....	1
Hoboken, N. J.	74,904	.....	2	.....	.....	.....	2	.....	11	2
Johnstown, Pa.	64,042	22	5	.....	.....	.....	.....	.....	3	.....
Kansas City, Kans.	94,271	.....	2	1	.....	.....	1	.....	1	.....
Little Rock, Ark.	53,811	25	1	.....	.....	.....	.....	.....	.....	.....
Lynn, Mass.	98,207	16	5	.....	1	.....	2	.....	3	.....
Manchester, N. H.	75,635	32	2	.....	.....	.....	.....	.....	3	3
Mobile, Ala.	55,573	23	.....	.....	.....	.....	1	.....	2	6
Norfolk, Va.	86,540	.....	.....	.....	.....	.....	.....	.....	3	.....
Passaic, N. J.	66,276	14	2	.....	.....	.....	2	.....	.....	.....
Schenectady, N. Y.	90,503	21	3	.....	3	.....	5	.....	3	.....
South Bend, Ind.	65,114	11	.....	.....	1	.....	.....	.....	.....	1
Springfield, Ill.	57,972	19	.....	.....	1	.....	.....	.....	.....	.....
Springfield, Ohio.	50,058	11	2	.....	.....	.....	1	.....	.....	.....
Wilkes-Barre, Pa.	73,660	25	2	.....	1	.....	1	.....	9	.....
From 25,000 to 50,000 inhabitants:										
Auburn, N. Y.	36,509	12	.....	.....	.....	.....	.....	.....	.....	.....
Aurora, Ill.	33,922	6	.....	.....	.....	.....	.....	.....	.....	.....
Butte, Mont.	41,781	13	.....	.....	1	.....	1	.....	2	1
Chelsea, Mass.	32,452	13	1	.....	.....	.....	.....	.....	.....	.....
Chicopee, Mass.	28,057	12	.....	.....	.....	.....	.....	.....	.....	1
Danville, Ill.	30,847	5	.....	.....	.....	.....	.....	.....	.....	.....
East Orange, N. J.	39,852	.....	.....	.....	.....	.....	.....	.....	1	.....
Elmira, N. Y.	37,816	5	.....	.....	.....	.....	.....	.....	.....	.....
Everett, Mass.	37,381	6	2	.....	1	.....	3	.....	2	.....
Fitchburg Mass.	40,507	11	.....	.....	1	.....	.....	.....	1	.....
Galveston, Tex.	40,289	17	.....	.....	.....	.....	.....	.....	.....	1
Haverhill, Mass.	47,071	9	1	.....	.....	.....	6	.....	2	1
Kalamazoo, Mich.	45,842	17	.....	.....	.....	.....	.....	.....	.....	1
La Crosse, Wis.	31,307	12	1	.....	.....	.....	.....	.....	.....	1
Lancaster, Pa.	49,685	.....	2	.....	.....	.....	.....	.....	1	.....
Lexington, Ky.	38,819	13	1	.....	1	.....	.....	.....	2	2
Lynchburg, Va.	31,830	15	1	.....	.....	.....	.....	.....	1	.....
Malden, Mass.	48,979	10	4	.....	.....	.....	1	1	2	1
Medford, Mass.	25,240	3	.....	.....	.....	.....	.....	.....	.....	.....
Moline, Ill.	26,402	7	.....	.....	.....	.....	1	.....	.....	.....
New Castle, Pa.	39,509	.....	.....	.....	.....	.....	1	.....	.....	.....
Newport, Ky.	31,517	8	2	.....	.....	.....	1	.....	1	1
Newton, Mass.	42,455	4	.....	.....	.....	.....	.....	.....	.....	.....
Niagara Falls, N. Y.	35,127	12	2	.....	.....	.....	.....	.....	.....	.....
Norristown, Pa.	30,265	6	1	.....	.....	.....	.....	.....	.....	2
Orange, N. J.	31,068	7	1	.....	.....	.....	1	.....	3	.....

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

City Reports for Week Ended Aug. 22, 1914—Continued.

Cities.	Population as of July 1, 1914 (estimated by United States Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Coritinued.										
Pittsfield, Mass	36,531	9	1						2	1
Portsmouth, Va	37,569	11								2
Racine, Wis	44,528	7								
Roanoke, Va	40,574	14	6	2					2	1
Sacramento, Cal	62,717	17	1		2				2	
San Diego, Cal	48,900		3				2		4	3
South Omaha, Nebr	26,368	8							1	
Superior, Wis	44,344	9								1
Taunton, Mass	35,631	14					1		2	1
Waltham, Mass	29,688	6	1							
West Hoboken, N. J	40,647		2				1			
Wilmington, N. C	27,781	17	1							1
York, Pa	49,430		3						3	1
Zanesville, Ohio	29,949		1							
Less than 25,000 inhabitants:										
Ann Arbor, Mich	14,948	12			1				5	
Braddock, Pa	20,935						1			
Cambridge, Ohio	12,640	6								
Clinton, Mass	13,075	5								1
Coffeyville, Kans	15,982		1							
Concord, N. H	22,291	9								
Cumberland, Md	23,846	7			1		1		3	1
Dunkirk, N. Y	19,607	7								
Florence, S. C		4								
Galesburg, Ill	23,570	2								
Harrison, N. J	16,160	9					1			
Ketchikan, Alaska									1	
Key West, Fla	21,150	6								1
Kokomo, Ind	19,694	6								2
Marinette, Wis	14,610	5			1					
Massillon, Ohio	14,912	6								2
Melrose, Mass	16,887	5							5	2
Montclair, N. J	24,782	11			1				1	2
Morristown, N. J	13,033	5								
Muncie, Ind	24,969	8								1
Nanticoke, Pa	21,756	8	1							
Newburyport, Mass	16,147	5								1
New London, Conn	20,557	6								
North Adams, Mass	22,019	9								
Northampton, Mass	19,766	5					1			
Palmer, Mass	8,955	2								
Pascagoula, Miss					5					
Plainfield, N. J	22,755	5			2	1			1	
Pottstown, Pa	16,408	3								
Rutland, Vt	14,417	3	1							
Saratoga Springs, N. Y	12,813	9							1	2
Steelton, Pa	15,126	8							1	
Wilkinsburg, Pa	21,701	2	1				1		1	

IN INSULAR POSSESSIONS.

PHILIPPINE ISLANDS.

Cholera—Plague—Manila.

The following information has been received from Asst. Surg. Duffy, of the United States Public Health Service, acting chief quarantine officer for the Philippine Islands: For the week ended July 18, 1914, quarantinable diseases were reported as having occurred in Manila, as follows: Cholera, 14 cases, 13 deaths; plague, 1 case, 1 death.

The reappearance of cholera in Manila reported for the previous week was confined to a few sporadic cases, but this week cholera occurred in a number of widely scattered sections of the city.

One case occurred on a sailing vessel berthed in the river. When the stool examinations of the contacts were completed it was discovered that the American master of the vessel was a cholera carrier.

The bureau of health is taking every possible precaution, and circulars have been issued giving instructions as to the methods to be used for the prevention and cure of the disease, as well as the use of sterilized water and washing of hands before eating.

It is significant that again a Japanese fisherman was among the first few cases of cholera to be found, as has been the case in every cholera outbreak in the past five years.

Rat Campaign.

Manila is to have a "rat day." A simultaneous effort to poison all the rats on the north side of the Pasig River is to be inaugurated by poison being placed in every house in the section on the same day. Work on this plan has been in progress for weeks. Poison relief stations where antidotal measures can be immediately taken have been established and their location published far ahead so that all may know the nearest place to go if accidentally poisoned. Arsenic is the poison to be used. Other foodstuffs are being carefully removed in order that as complete a clean-up as is possible may result by having the rats eager for food.

FOREIGN REPORTS.

BRAZIL.

Plague—Pernambuco.

During the period from July 16 to 31, 1914, 1 fatal case of plague was notified at Pernambuco.

Yellow Fever—Bahia.

On August 9, 1914, 2 cases of yellow fever with 1 death were notified at Bahia.

CHINA.

Plague—Plague-Infected Rats—Hongkong.

During the week ended July 25, 1914, 4 cases of plague with 3 deaths were notified in Hongkong. During the same period 1,895 rats were examined for plague infection. No plague-infected rat was found.

ZANZIBAR.

Plague—Plague-Infected Rats.

During the two weeks ended July 14, 1914, 5 cases of plague with 4 deaths were notified at Zanzibar. During the same period there were examined at Zanzibar for plague infection 2,044 rats, of which number 3 were found to be plague infected.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Sept. 11, 1914.

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

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay	July 19–25	11	6	
Calcutta	July 12–18		1	
Madras	July 19–25	19	14	
Negapatam	July 5–11	3	3	
Indo-China:				
Saigon	June 30–July 13	7	3	
Philippine Islands:				
Manila	July 12–18	14	13	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended Sept. 11, 1914—Continued.

YELLOW FEVER.

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia				Aug. 9: Cases, 2; deaths, 1.

PLAGUE.

Brazil:				
Bahia	Aug. 2-8	1	1	
Pernambuco	July 16-31		1	
British East Africa:				
Mombasa	June 1-30		1	
Ceylon:				
Colombo	July 12-18	7	7	
China:				
Amoy	do			Still present.
Hongkong	July 19-25	4	3	
Egypt				Jan. 1-Aug. 5: Cases, 175; deaths, 92.
Alexandria		5	2	
Port Said	July 21-29	2		
Provinces—				
Garbieh	July 24	1		
Great Britain:				
Liverpool	Aug. 11		1	
India:				
Bombay	July 19-25	16	11	
Calcutta	July 12-18		6	
Moulmine	July 5-11	7	7	
Indo-China:				
Saigon	June 30-July 13	20	4	
Japan:				
Taiwan—				
Kagi	July 19-25	10	7	
Tokyo	Aug. 2-8	1		
Peru:				
Ancachs—				
Casma				Total Feb. 9-Mar. 22; case 4, including 2 cases p. 1319, part 1.
Arequipa—				
Mollendo	June 8-July 5	2		
Lima—				
Lima	do	2		
Surco (Matucana)	do	7		
Piura—				
Catacaos	do	1		
La Huaca	do	1		
Piura	do	5		
Philippine Islands:				
Manila	July 12-25	2	2	
Turkey in Asia:				
Smyrna	July 2	1		
Zanzibar:				
Zanzibar	July 1-14	5	4	

SMALLPOX.

Brazil:				
Bahia	July 26-Aug. 8	5		
Pernambuco	June 16-July 31		27	
Egypt:				
Alexandria	July 23-29	2	1	
Do	Aug. 6-12	5	1	
Cairo	July 29	10	2	
India:				
Bombay	July 19-25	2	1	
Calcutta	July 12-18		14	
Madras	July 19-25	3	2	
Japan:				
Nagasaki	July 27-Aug. 2	1	1	
Spain:				
Almeria	July 1-31		1	
Valencia	Aug. 2-15	15	1	
Switzerland:				
Zurich, canton	July 19-25	1		
Turkey in Europe:				
Saloniki	Aug. 2-8		4	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Sept. 4, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo	June 14–20	1	1	
Uda Pusselawa, district	June 7–13			Present in Kumbalagamuwa and the neighboring tea estates.
China:				
Hankow	July 12–18	1		From up-country districts.
Chaochow fu	July 4			Present.
Canton	Jan. 1–Apr. 30	4		
Hongkong	May 17–23	1	1	
Dutch East Indies:				
Java—				
Batavia	Aug. 28–July 4	1	1	
Moluccas—				
Menado	June 21–27	42	14	
Sunda Islands	June 6–13	44	23	In Bali and Lombok.
India:				
Bassein	Apr. 26–June 20	82	64	
Bombay	May 17–July 11	85	45	
Calcutta	May 10–July 11		235	
Madras	May 31–July 18	57	42	Aug. 17, present.
Moulmine	June 7–13	1	1	
Negapatam	May 14–June 20	17	17	
Rangoon	Apr. 1–May 31	8	7	
Indo-China				Jan. 1–May 10: Cases, 125; deaths, 64. May 21–June 20: Cases, 22.
Battambang	June 11–20	4		
Saigon	June 2–29	23	9	
Persia:				
Anzali	June 15	1		
Philippine Islands:				
Manila	July 4–11	3	2	
Russia:				
Podolia—				
Letichev	July 10	2	2	
Siam:				
Bangkok	Apr. 19–June 13		253	
Straits Settlements:				
Singapore	May 10–July 5	83	74	
Turkey in Europe:				
Adrianople	May 14–19			
Constantinople	July 15	1		

YELLOW FEVER.

Brazil:				
Bahia	May 10–July 25	16	13	
Pernambuco	May 1–15		1	
Ecuador:				
Guayaquil	May 1–31	3	1	
Venezuela:				
Caracas	June 1–30	1	1	
Maracaibo	June 15			Present in light form. No cases since.

PLAGUE.

Brazil:				
Bahia	May 17–July 25	6	6	
Pernambuco	May 1–15		2	
Ceylon:				
Colombo	May 19–July 11	82	78	
China				Jan. 1–Apr. 30, present in Hokschan, Shuntak, Tangsching, and Tungkun. Apr. 3–17, present in Kan-lai and San-hu, 20 miles distant from Pakhoi. June 6, still present in vicinity of Swatow. June 20, improving in the Chaochow and Puning districts.
Amoy	June 20–July 4			Present. July 13, still present, and present in inland villages.
Kulangsu	May 20	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Sept. 4, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Canton	Jan. 1–Apr. 30	378		
Chinchew	May 30–June 6			Present 30 miles north from Amoy.
Fatshan	May 13			Present.
Hongkong	May 10–July 18	894	733	Total, Jan. 4–July 11: Cases, 2,102; deaths, 1,658.
Cuba				Total, Mar. 5–Aug. 14: Cases, 43; deaths, 9.
El Caney	Aug. 4	2		In vicinity.
Santiago				June 30–Aug. 14: Cases, 14; deaths, 3. Including previous reports.
Dutch East Indies:				
Provinces				Total, Apr. 1–May 31: Cases, 2,482; deaths, 2,220.
Kediri	Apr. 1–May 30	472	454	
Madioen	do	173	151	
Pasoeroean	do	1,699	1,486	
Surabaya	do	138	129	
Equador:				
Guayaquil	May 1–June 30	6	3	
Egypt				Total, Jan. 1–Aug. 5: Cases, 175; deaths, 92.
Alexandria	June 2–July 20	21	10	
Port Said	June 9–July 21	17	8	
Provinces—				
Assiout	May 25–June 20	5	1	
Charkieh	July 13	1	1	
Fayoum	May 27–July 5	7	2	
Gizeh	May 27–June 24	6	3	
Menouf	June 17	1		
Minieh	May 23–July 12	10	5	
German East Africa:				
Dar es Salaam	May 2–June 10	7	3	
Muanza	Feb. 21–Mar. 18	7	5	
Great Britain:				
Liverpool	Aug. 8–12	9	2	
Hawaii:				
Paauhau	Aug. 17	1	1	
India				Total, Apr. 27–July 4: Cases, 45,955; deaths, 40,498.
Bassein	Apr. 26–June 20	31	29	
Bombay	May 17–July 18	482	400	
Calcutta	May 10–July 11		140	
Karachi	May 24–July 18	28	27	
Maulmine	Apr. 26–June 20	57	56	
Rangoon	Apr. 1–May 31	597	376	
Indo-China				Total: Jan. 1–Apr. 10: Cases, 1,249; deaths, 1,114. May 11–June 20: Cases, 121.
Cholon	May 11–June 20	17		
Pnum Penh	do	24		
Saigon	May 19–July 20	67	23	
Japan				Total, Jan. 1–May 31: Cases, 39; deaths, 34.
Hodogaya	June 9–July 3	3		Near Yokohama.
O-No district	June 9–15	1		
Taiwan (Formosa)—				
Kagi	May 3–July 19	283	253	
Tokyo	June 22–July 25	13	4	Total, Apr. 18–July 25: Cases, 45.
Yokohama	July 5–Aug. 1	2	3	And vicinity. Total May 23–Aug. 1: Cases, 21; deaths, 18.
Mauritius	Apr. 17–23	2		
Peru:				
Arcachs				No report of deaths received.
Chimbote	Mar. 23–May 2			Present.
Quarhuay (Huaylas)	do			Do.
Samanca	do			Do.
Arequipa—				
Mollendo	Mar. 23–June 7	12		
Cahamarca—				
Contumaza	Mar. 23–May 2	3		
Lambayeque—				
Chiclayo	do	3		
Guadalupe	do	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Sept. 4, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Libertad—				
Huacamarca (Otzuco)	Mar. 23–May 30	.....	.....	Present.
Pichipampa (Otzuco)	Mar. 24–30	4	.....	
Salaverry	Mar. 23–May 2	1	.....	
San Pedro	do	8	.....	From Pacasmayo.
Unigambal (Santiago de Chuco)	do	16	.....	
Trujillo	Mar. 23–June 7	16	.....	
Lima—				
Lima	do	15	.....	
Surco (Matucana)	Mar. 23–May 30	4	.....	July 7, still present
Piura—				
Catacaos	Mar. 23–May 2	3	.....	
Piura	Mar. 23–May 30	7	.....	
Philippine Islands:				
Manila	May 17–30	3	3	May 17, 1 case from s. s. Taisang; from Amoy, May 23, 1 case from s. s. Linan from Amoy, June 12–20, a fatal case from s. s. Linan from Amoy; June 17 a fatal case in the Philippine General Hospital.
Cebu	.....	.....	.....	May 20, 1 case on s. s. Rubi from Hongkong.
Russia:				
Astrakhan government—				
Archanskoje-Tebe	May 25–June 22	8	2	
Bulanai	May 25–June 14	10	10	7 of these cases pneumonic.
Senegal:				
Dakar	May 15	12	.....	May 17–23, 5 deaths daily among natives.
Siam:				
Bangkok	Apr. 19–June 13	.....	9	
Straits Settlements:				
Singapore	May 10–16	2	2	
Turkey in Asia:				
Basra	June 24–July 19	16	8	
Beirut	June 16–July 6	2	.....	
Jaffa	June 5–27	4	3	

SMALLPOX.

Algeria:				
Departments—				
Algiers	Mar. 1–May 31	7	.....	
Constantine	do	7	.....	
Oran	do	57	.....	
Arabia:				
Aden	June 10–16	.....	1	
Australia:				
New South Wales—				
Sydney	.....	.....	.....	Total May 8–July 23: Cases, 154 in the metropolitan area and 45 cases in the country districts.
Western Australia—				
Bunbury quarantine station.	May 5–June 12	8	1	From s. s. Kilchattan, from Bombay, including previous report.
Austria-Hungary:				
Galicia	May 17–23	10	.....	
Upper Austria	do	3	.....	
Belgium:				
Liege	June 1–6	.....	3	
Brazil:				
Bahia	June 1–July 25	9	.....	
Para	May 24–30	.....	1	
Pernambuco	May 1–June 15	.....	27	
Rio de Janeiro	May 10–July 18	790	98	
Canada:				
Manitoba—				
Winnipeg	June 14–July 25	8	.....	
Ontario—				
Niagara Falls	July 15–21	1	.....	
Ottawa	July 26–Aug. 1	1	.....	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Sept. 4, 1914—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Prince Edward Island—				
Charlottetown	July 16–22	1		
Quebec—				
Quebec	July 11–Aug. 8	2		
Canary Islands:				
Tenerife—				
Santa Cruz	June 28–Aug. 1		7	
Ceylon:				
Colombo	May 19–23	1		
Uva district—				
Passara	June 7–13	39	11	Among coolies from India.
China				May 16–23, present in Kaying and increasing in Choa Chow.
Amoy	May 17–June 13			Present.
Canton	Jan. 1–Apr. 30	21		
Chungking	May 23			Endemic.
Dairen	June 7–July 4	2		
Hongkong	May 10–July 18	15	12	Total Jan. 4–May 30: Cases, 93; deaths, 65.
Nanking	May 23			Always prevalent.
Newchwang	June 13			Do.
Pakhoi	Apr. 17			Present, and in San-hu, 20 miles distant.
Shanghai	May 18–July 12	10	13	Deaths among natives.
Tientsin	June 6	1		
Tsingtau	May 19–June 20	19	3	
Dutch East Indies:				
Borneo	May 17–June 27	301	63	In the western part.
Java				In the western part. May 3–July 4: Cases, 1,090; deaths, 202, including Batavia.
Batavia	May 3–July 4	54	21	
Egypt:				
Alexandria	June 4–July 22	12	7	
Cairo	May 21–July 15	160	64	
Port Said	May 21–June 6	4		
France:				
Bordeaux	June 7–July 11		4	
Marseille	May 1–31		2	
Paris	May 24–July 11	23	1	
Germany				May 31–July 11: Cases, 9.
Hamburg	June 7–27	5		
Kehl	May 1–31		1	
Gibraltar	June 8–27	1	1	
Great Britain:				
Leeds	June 6–July 18	4		
Southampton	June 29–July 4	1		
Greece:				
Athens	July 6–12		1	
India:				
Bombay	May 19–July 18	65	41	
Calcutta	May 10–June 27		173	
Karachi	May 24–July 4	10	2	
Madras	May 17–July 18	18	10	
Rangoon	Apr. 1–10	7	1	
Indo-China:				
Saigon	May 12–18	2		
Italy:				
Turin	July 20–26	2		
Japan				Total Jan. 1–May 31: Cases, 238; deaths, 55.
Kobe	June 19–23	1		
Nagasaki	May 18–July 26	54	13	
Taiwan (Formosa)	May 3–July 11	13	6	
Yokohama	June 23–29	1		
Mexico:				
Chihuahua	May 18–Aug. 9		32	
Juarez	Aug. 1	2		
Mazatlan	June 17–30	2	1	
Mexico	Jan. 17–Feb. 21	99	16	
Monterey	June 30–Aug. 16		8	
Tampico	May 11–July 31		70	
Vera Cruz	June 1–July 25	15	6	
Norway:				
Trondhjem	June 1–July 31	12		
Peru:				
Callao	June 22			Decreased.
Lima	....do			Do.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 27 to Sept. 4, 1914—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Portugal:				
Lisbon	June 14-July 25	5		
Russia:				
Batum	Feb. 1-Apr. 30	7		
Moscow	May 10-July 4	33	7	
Odessa	May 10-Aug. 4	6		
Riga	May 31-July 11	12		
St. Petersburg	May 24-July 4	75	19	
Vladivostok	Apr. 22-May 13	8	1	
Warsaw	Feb. 1-Apr. 25	92	44	
Servia:				
Belgrade	May 25-July 19	12	2	
Spain:				
Barcelona	June 14-July 31		28	
Cadiz	May 1-31		5	
Madrid	June 1-30		5	
Valencia	June 7-Aug. 1	32	11	
Switzerland:				
Basel, Canton	May 31-June 20	14		
Grisons, Canton	June 7-13	1		
Turkey in Asia:				
Beirut	June 1-July 18	33	13	
Damascus	Mar. 15-July 11	570	277	
Jerusalem	May 3-June 25	33	2	
Smyrna	May 13-June 13		5	
Trebizond	May 19-June 27			Present.
Turkey in Europe:				
Constantinople	June 14-July 11		3	
Saloniki	May 31-Aug. 1	15	32	June 6: Present in a mild form among 20,000 refugees from Asiatic Turkey, Chio, and Mitylene.
Union of South Africa:				
Pretoria	May 9-23	1		

SANITARY LEGISLATION.

COURT DECISIONS.

WISCONSIN SUPREME COURT.

Marriage—Wisconsin Law Requiring Certificate of Health of Males Before Marriage License is Issued Held Valid.

PETERSON v. WIDULE, 147 N. W. Rep., 966. (June 17, 1914.)

The power of the State to control and regulate by reasonable laws the marriage relation, and to prevent the contracting of marriage by persons afflicted with loathsome or hereditary diseases, which are liable either to be transmitted to the spouse or inherited by the offspring, or both, must on principle be regarded as undeniable.

When the legislature passes a constitutional law that law establishes public policy upon the subjects covered by it, and that policy is not open to question by the courts.

Legislation requiring a certificate of health from males before a marriage license is issued and making no such requirement as to females is not unreasonable nor so discriminatory as to render the law unconstitutional.

Under a law requiring a certificate from a physician that a "person is free from acquired venereal diseases so nearly as can be determined by physical examination and by the application of recognized clinical and laboratory tests of scientific search," the tests referred to are the tests recognized and used by the persons who are to make them, and it is not necessary for the physician to apply the Wassermann test.

Mandamus action. The petitioner applied to the defendant as county clerk for a marriage license, and received a blank form of certificate, such as is required by section 2339*m*, Statutes of Wisconsin. He presented himself to four physicians for examination to determine whether he had a venereal disease, tendering each of them the statutory fee of $3. Each physician refused to make the examination because such fee was insufficient compensation for making the Wassermann test for syphilis, which the physicians considered as necessary to be made before they could make the certificate. The petitioner thereupon renewed his application for a marriage license without a certificate, but was refused, and brought this action to compel the issuance of a license. Return was made to the alternative writ to the effect that the petitioner had not produced the required certificate. Testimony of 10 physicians was taken, and the court made the following findings of fact and conclusions of law:

(1) That in medical science there are three diseases designated under the one head of veneral diseases, viz, syphilis, gonorrhea, and chancroid.

(2) That the term "hereditary" refers to such a disease received by the individual at the time of, or prior to, birth.

(3) That "acquired" is restricted to such a disease starting in the individual after birth.

(4) That "clinical" refers to what may be discovered by the observation of the physician from the body of the individual and without the use of instruments.

(5) That "laboratory tests" are those requiring the use of instruments and certain methods of demonstrating the presence or absence of such diseases.

(6) That among such laboratory tests is the one known as the "Wassermann test;" that it has been known to the medical world about seven years, is a standard, well-recognized, and very efficient test, and a great many of such tests are being made by those familiar with the use thereof; that it will determine, with practical certainty, in from 70 to 90 per cent of the cases tested, the existence of syphilis; and that it is necessary and proper in many cases where there are some clinical evidences.

(7) That a male person over 18 years of age might be possessed of syphilis in a form transmissible to his wife or offspring without such condition being discovered by a "clinical" test.

(8) That in the event last mentioned the Wassermann test is efficient, practical, and necessary in order to determine as nearly as can be the presence or absence of venereal diseases.

(9) That the Wassermann test requires a special laboratory apparatus and equipment.

(10) That there are now, out of the over 3,000 physicians in the State of Wisconsin, not to exceed 25, and among the over 300 in Milwaukee County not to exceed 6, who are equipped and prepared for the Wassermann test.

(11) That the maximum fee of $3 prescribed in the chapter that a physician may charge and receive for such examination and certificate is unreasonably small for the making of the Wassermann test; this finding having been conceded by the counsel for the State and defendant upon the trial.

And as conclusion of law: That chapter 738 of the Laws of 1913, entitled, "An act to create section 2339*m* of the statutes, relating to marriage and venereal diseases," is an unreasonable and material impairment of the inalienable right of fit and proper persons to enter into the marriage state, and that it is in violation of the rights secured by section 1, article 1, and section 18, article 1, of the constitution of the State of Wisconsin and therefore void, and no defense to the defendant in his refusal to grant petitioner a marriage license, and that the petitioner is entitled to the peremptory writ of mandamus, as prayed in the petition, and judgment is ordered accordingly.

From this judgment the county clerk appeals.

* * * * * * *

[The law in question (chap. 738, act Aug. 2, 1913, sec. 2339*m*, Wisconsin Statutes) became effective January 1, 1914, and was published in full in the Public Health Reports December 5, 1913, p. 2665.]

WINSLOW, C. J. (after stating the facts as above). The case presents simply the question whether the so-called eugenics law is constitutional. It was held unconstutional by the trial court because: (1) It is an unreasonable restriction upon the inalienable right of marriage; (2) it impairs the inherent right to enjoy life, liberty, and the pursuit of happiness; (3) it interferes with religious freedom.

Before taking up for discussion the specific objections to the law, some general, fundamental propositions, which are not open to question, may profitably be stated.

The power of the State to control and regulate by reasonable laws the marriage relation, and to prevent the contracting of marriage by persons afflicted with loathsome or hereditary diseases, which are liable either to be transmitted to the spouse or inherited by the offspring, or both, must on principle be regarded as undeniable. To state this proposition is to establish it. Society has a right to protect itself from extinction and its members from a fate worse than death. If authority be needed to support this proposition, reference may be made to Freund on Police Power, section 124, and cases there cited.

When the legislature passes a constitutional law, that law establishes public policy upon the subjects covered by it, and that policy is not open to question by the courts.

The courts must sustain a law unless its unconstitutionality be beyond reasonable doubt. If the law be ambiguous or open to two constructions, that construction which will save it from condemnation and accomplish the legislative purpose is always to be adopted in preference to a construction which makes it unconstitutional.

Niether the legislative idea nor the legislative purpose in the passage of the present law can be a matter of serious doubt. The idea plainly was that the transmission of the so-called venereal diseases by newly married men to their innocent wives was a tremendous evil, and the purpose just as plainly was to remedy that evil so far as possible by preventing the marriage of men who upon examination were found to possess such diseases.

An argument is made that the law is void because the classification is unreasonable, arbitrary, and discriminatory, in that it singles out men about to marry and makes a class of them; there being, as it is argued, no substantial differences which suggest the propriety of different legislative treatment between men who are about to marry and women who are about to marry. Theoretically the argument is strong. Women who marry and transmit a loathsome disease to their husbands do just as much harm as men who transmit such a disease to their wives; if women were, in fact, doing this

thing as frequently or anywhere nearly as frequently as men, the argument could hardly be met. The medical evidence in the case, however, corroborates what we suppose to be common knowledge, namely, that the great majority of women who marry are pure, while a considerable percentage of men have had illicit sexual relations before marriage, and consequently that the number of cases where newly married men transmit a venereal disease to their wives is vastly greater than the number of cases where women transmit the disease to their newly married husbands. Classification is not to be condemned because there may be occasional instances in which it does not fit the situation; it is proper if the great mass of situations to which the law applies justify the formation of a class and the application of some special or different legislative provisions to that class. Classification can rarely be mathematically exact. The question is not whether in some individual instance there is any perceptible distinction, but "whether there are characteristics which in a greater degree persist through the one class than in the other," and which justify the different treatment. (State *v.* Evans, 130 Wis., 381; 110 N. W., 241.) That there are such characteristics in the class of unmarried men is as certainly true as it is discreditable to the male sex.

It follows that legislation directed against males alone for the purpose of preventing the transmission of venereal diseases is clearly within the police power and just as clearly is not discriminatory. The only question to be considered is whether the law which attempts to accomplish the purpose is unreasonable or unduly invades constitutional rights in its methods of enforcement.

In considering this question, it will be profitable in the beginning to determine what diseases the law covers. It will be noticed that the first section requires the prospective husband, within 15 days previous to his marriage, to be examined as to the existence in him of any "venereal disease." The law then makes it unlawful for the county clerk to issue a marriage license to such person if he fails to present a certificate setting forth that he is free from "acquired venereal diseases," and then prescribes the form of such certificate, which form contains the statement that the applicant is free from "all venereal diseases."

This seems quite confusing. According to the medical testimony and the dictionaries, there are three separate diseases (which, however, may coexist) generally known as "venereal diseases," viz, gonorrhea, chancroid (or local contagious ulcers), and syphilis. While some of the physicians say that syphilis is not a venereal disease in the scientific sense, especially when it is inherited or affects parts of the body other than the sexual organs, it seems to be quite well agreed that it is a venereal disease in the generally accepted use of that term, and hence is included within the provisions of the law in question. There is a distinct form of syphilis, however, termed "inherited," which is or may be present in the children of syphilitic parents, and so it is true that there are in fact two well-recognized forms of syphilis—i. e., the acquired and the inherited, the acquired being understood in medicine as that form which "is obtained otherwise than by inheritance or during the process of birth." This distinction throws considerable light on the meaning of the law. The word "acquired" has, it seems, a meaning in medical science. Possibly it is not a technical word within the meaning of subdivision 1 of section 4971, Stats. Wis.; but certainly, when it is deliberately used in a statute which deals with medical subjects, it would seem that it must carry its accepted meaning in medical science. This conclusion becomes more satisfactory when the history of the law is examined. As first introduced in the senate (bill No. 611S), it did not contain the word "acquired," but provided that the applicant must obtain and present to the county clerk a certificate that he is free from venereal diseases. In substance, the first section then provided that an applicant for a marriage license must first be examined as to the existence or nonexistence of any venereal disease, obtain a certificate that such person is free from "venereal diseases as near as," etc., and that the form of the certificate must

contain the words "free from all venereal diseases so nearly as can be determined." The bill received several amendments in the senate, among which was an amendment inserting the word "acquired." It would be idle to argue that this amendment was unimportant or immaterial. It must have had a serious and definite purpose; it unquestionably meant to eliminate from the operation of the act all forms of venereal diseases which were inherited and limit the examination and the certificate to those which were acquired.

The fact that the wording of the certificate was not changed at the same time is unfortunate, but not necessarily fatal to the legislative purpose. When, as here, that purpose is made clear by the history of the bill, confusion and even contradiction in language will not hinder the court from giving effect to that purpose. We deem it clear that the act as passed was intended to cover only acquired venereal diseases as understood in medical science, and that the form of physician's certificate in the act is to be construed as covering only such diseases.

The principal objection made to the act and the objection which the circuit judge found to be fatal is the objection that it requires in every case the use of a very delicate and expensive blood test, known as the Wassermann test, before the certificate required, can be signed. It is claimed, and rightly claimed, under the evidence, that this test is a highly technical test, requiring special training and the use of complex laboratory equipment not possessed by more than 25 practitioners in the State; that no physician could make such a test for the statutory fee of $3 or anywhere near that sum, on account of the time, technical knowledge, and equipment required; and that to require a physician to make the test for that fee would be an unreasonable requirement. All this was substantially conceded by the State in the present case, and the concession seems to have been advisedly made. If the law in fact requires the Wassermann test to be made in case of every applicant for a marriage license, the argument is very strong that it requires the absolutely unreasonable. But does it require that test? The very facts relied on by the petitioner tending to show the technical, delicate, and expensive character of the test, and that the great body of the practitioners of the State can not make it raise a more or less robust doubt as to the legislative intent to require the use of that test. The more difficult and expensive that test is shown to be the more serious becomes the doubt. Now, it must, of course, be assumed that the legislature had general knowledge of the delicacy, difficulty, and expensiveness of the Wassermann test, as well as of the fact that very few of the general practitioners of the State could make it. The bill was very thoroughly debated in both houses, met strenuous opposition, was the subject of numerous amendments, upon some of which disagreements arose between the houses which were only settled by committees of conference, and it seems quite certain that the provisions of the bill must have been well understood. It must be assumed, also, that the legislature had a definite and certain end in view, that they did not intend to place a prohibition on marriage, but intended rather to safeguard it by the use of possible practicable and reasonable means.

With these presumptions in mind, it seems very hard to reach the conclusion that they intended that the Wassermann test should be a prerequisite to the granting of every certificate, for this would mean a practical embargo on marriage. Nor do we think that the language of the act necessarily forces us to this conclusion. The act requires physical examination and "the application of the recognized clinical and laboratory tests of scientific search."

As to the meaning of the terms "clinical and laboratory tests," we adopt the definitions given by one of the physicians who testified for the petitioner. He says:

The term "clinical" is a term which is dependent upon the meaning of the word "clinic." Clinos or clinum in Latin means a bed, and the clinical tests of any disease or those that may be observed by the bedside or when the patient is in the office. Scientific and laboratory tests are tests of anything that may come under the purview or the examination of a scientific man which call for proofs by means of instruments, apparatus, or chemical reactions, which are incapable of imagination or sentiment. All the things

that can be discovered at the bedside or upon the general examination of a patient when none of the tests that are dependent upon the use of instruments, apparatus, or chemical examinations that are incapable of being influenced by imagination or sentiment are one thing and deal entirely with the imagination or opinion of the examiner. Those that are laboratory tests are such as bring out absolutely and unquestionable proofs which are incapable of being influenced by sentiment or imagination.

It seems also that a clinical examination takes into consideration such parts of the history of the case as are credible and not probably lies on the part of the patient, and covers as well the objective symptoms which, as said by one of the physicians, are protean thousands in form. The term "physical examination" explains itself. It includes, of course, a careful examination of the whole body, especially the sexual organs and the joints. As to the laboratory tests, it appears from the evidence of the physicians that in the case of gonorrhea there is a test called the Gram stain, which is universally used and considered practically conclusive, certainly so when the objective symptoms are present. In the case of chancre or the primary stage of syphilis, there is an examination of the discharges from the primary sore for *Treponema pallidum* with the Dorfield illuminator and the several so-called stains; in the secondary and tertiary stages of syphilis there is the Wassermann test, and another called the Luetin test, sometimes called the Noguchi test, which is applied to the skin of patients suspected of syphilis. One physician calls these the only common tests, although another is named as experimentally used to some extent, called the Lange gold chloride test.

It is not claimed in this case that the Luetin test is included within the statutory command, although it seems to be a recognized test. Strict logic would seem to require the administration of the Luetin test if it requires the Wassermann test.

On this question as to whether the words "recognized laboratory tests" include all the tests which are in common use, some help may perhaps be obtained from the legislative history of the bill. As introduced, the bill provided for the appointment by the board of health of special examiners not exceeding 10 in each county (except Milwaukee, where the maximum was fixed at 25). These examiners were to be licensed physicians of good moral character and scientific attainments, at least 30 years of age. Evidently it was contemplated that the examiners, as compared with the great body of the profession, should be experts, and, as the bill at that time provided for an examination covering inherited syphilis as well as acquired, it may be admitted as probable that it was in contemplation of its authors that all the known tests should be applied. The legislature, however, made two radical changes in the bill, both of which seem very significant on this question: First, they took out of its purview inherited syphilis, thus removing a very large field of cases in which the Wassermann test is specially valuable, if not practically indispensible, and removed the feature requiring the appointment of examiners. By this last change the legislature empowered every licensed physician over 30 years of age in the State to make the examination when called upon to do so by a male applicant for marriage. We say this because we must regard every licensed physician as presumptively a person of good moral character and scientific attainments. The board of medical examiners has no authority to license those who do not possess these qualities. (Secs. 1435*b*, 1436*e*, Stats. Wis.)

Now, the legislature did not say "all of the recognized tests," but simply "the recognized tests." Of course, these latter words frequently and perhaps logically mean all, but do they as used in this law? Here is a case where the legislature must be presumed to know that only an occasional medical practitioner can make the Wassermann test, and yet provides for the application of the recognized tests by every practitioner over 30 years of age. When we consider this fact in connection with the other fact that there are recognized laboratory tests, to wit, the stains, which can be made by all physicians with a well-equipped laboratory, it seems quite impossible to believe that it was seriously expected that the Wassermann test was considered a sine qua non.

As has been before said, if the act is capable of two constructions, one of which will condemn it and the other save it from condemnation, we must give it the latter con-

struction. Now we have in this case the following circumstances which are entitled to be considered in arriving at the intention of the legislature in using the words "recognized tests":

First, inherited syphilis is not within the purview of the law; second, all gonorrhea can be absolutely detected by the physical examination and by the laboratory microscopical or Gram stain test, which can be applied by any physician with a well-equipped laboratory; third, chancre or syphilis in its primary stage is easily discernible by physical examination; fourth, syphilis in its secondary stages is very easy of diagnosis by reason of the physical symptoms, the enlargement of glands, eruptions on the skin, and other changes; fifth, syphilis, after the secondary stage has passed, has either accomplished the ruin of the health, so that there is little or no possibility of marriage, or else has been so far cured as to be practically nontransmissible; sixth, the great majority of the cases of venereal disease (estimated by one physician at 80 per cent) are cases of gonorrhea, leaving but 20 per cent for cases of syphilis; seventh, the cases where the Wassermann test is really necessary for the detection of the disease are practically either cases of inherited syphilis or cases in which the disease has been so far controlled that physical manifestations are wanting and there is very small danger of transmission; the Wassermann test can be made absolutely of no avail by the patient himself, either by the so-called salvarsan treatment or by the use of whisky for 24 hours before the blood is taken from the person.

In view of all these facts and in view of the fact that the legislature wished to reach practical and possible results, it seems unreasonable to suppose that they intended to prescribe tests which the great majority of the official examiners were not able to make. We prefer to construe the words "recognized tests" as intended to refer to the tests recognized and used by the people who were to make them. This construction sustains the law, makes it reasonable, accomplishes its evident purpose, provides or a guard to marriage fully as effective in the vast majority of cases as the application of the Wassermann test.

We have not been able to appreciate the force of the contention that the law interferes in any respect with religious liberty. We know of no church which desires its ministers to profane the marriage tie by uniting a man afflicted with a loathsome disease to an innocent woman.

The law provides that in case of refusal of the certificate the law does not provide for a jury trial of the question, but only for a trial before the county judge, and it has been suggested rather than argued that this is a denial of due process of law. We find nothing in the objection. If it be, as we hold, within the police power to prohibit a marriage until the fact of the absence of venereal diseases in the male is ascertained, the power to determine that fact must be vested in some competent body or person, and the exercise of the police power does not wait upon the slow processes of jury trials. It might be argued with much force that a law which should attempt to make the right to marry absolutely and solely dependent on the determination of a single individual, even though a physician and an expert, would be unreasonable. In view of that possibility, doubtless, the provisions of subsection 4 were inserted in the present law, and we perceive no good reason for holding that they do not afford sufficient protection to the applicant. If the State can refuse to permit the diseased to marry, it must, of course, provide a means of ascertaining the fact, and if it provide a means which can reasonably be expected under all ordinary circumstances to ascertain the fact in accordance with truth, that must be sufficient. In our judgment the law before us provides such a means.

It is said that the fee provided by the law is entirely insufficient, even if the Wassermann test be not required. Upon this question there is a difference of opinion among the physicians. We incline to the opinion that the fee is a very meager one; we should not, however, feel justified in holding the law unconstitutional on this ground. The penalties provided by subsection 6 of the law are said to be extreme.

This may be so. We do not feel required to pass on that question in this case. In any event we can not suppose that these penalties are an indivisible portion of the law or form in any sense a compensation for the other clauses.

Judgment reversed and action remanded, with directions to quash the alternative writ.

BARNES, J. (concurring). I concur in the result, but do not agree with all that is said in the opinion.

TIMLIN, J. (concurring). The statute in question (chap. 738, Laws of 1913) requires that upon application for a marriage license the male party to such marriage must, within 15 days prior to the application, be examined by a physician of designated qualifications with reference to the existence or nonexistence of any venereal disease in such male person. The licensing officer is prohibited from issuing a license unless a certificate of such a physician is presented setting forth that this male person is free from acquired venereal disease, so far as can be determined by the recognized clinical and laboratory tests of scientific search. Physicians were called as witnesses in the court below, and some of them testified, in substance, that the recognized laboratory tests of scientific search include what is known as the Wassermann test for syphilis. This test requires a special laboratory equipment, and out of 3,000 physicians in this State not more than 25, and out of 300 physicians in Milwaukee County not more than 6, are equipped or prepared to apply the Wassermann test. That the fee of $3 fixed by statute is unreasonably small for making the Wassermann test, for which the reasonable charge would be about $25. The Wassermann test is described in volume 20, present edition of The Americana, subject, "Syphilis," and the description need not be repeated. It is said to have been in use about seven years, and in the encyclopedia mentioned is somewhat discredited already, and the testimony in this case corroborates such discredit. For it was quite unanimously agreed upon that repeated experiments covering quite a long period of time were necessary, that a negative result did not prove the subject free from syphilis, while a positive result meant that the subject had measles or scarlet fever or tuberculosis or typhoid fever or diphtheria or diabetes or syphilis. Also, that this test may be frustrated and a negative result obtained by a syphilitic, if, preparatory to the test, he load up with alcoholic liquor, salvarsan, or some form of mercurial medication. In the primary and secondary stages of syphilis the diagnosis may be made by inspection of the affected parts. In the third, or tertiary stage, this can not be done, usually; and it is in this latter stage that the Wassermann test fails most frequently.

There are other laboratory tests besides the Wassermann test. These other tests, or some of them, consist of microscopic examination and pigmentation for the purpose of identifying the bacteria found in the discharge from the affected parts. It seems to me that such testimony goes a long way toward proving that the use of this Wassermann test was not within the contemplation of the lawmakers. The statute indicates that they had in mind laboratory tests which would be completed within 15 days, and which would be ordinarily compensated by a fee of $3, and which were understood and practiced by ordinary physicians of good character and standing throughout the State. The rule that statutes should be interpreted with reference to the popular and ordinary understanding of the language employed is a very constant and common-sense rule of law. The legislators probably never heard of the Wassermann test. But they may be presumed to have had the capacity of intelligent persons, the same sort of information, and the same knowledge on this subject. From this viewpoint we can say that they believed the three principal venereal diseases were gonorrhea, syphilis, and chancroid; that these diseases were each of bacterial origin; that the microorganism of each was distinct and capable of identification by microscopic examination and staining; and that these last simple laboratory investigations were the laboratory tests referred to in the statute.

I do not concede that, weighted down with the Wassermann test, the law would be unconstitutional if it were valid without this handicap, but I do think that it can not be held upon any fair interpretation of the statute that the legislature intended that the laboratory test required was one which but few physicians could apply, which required such a long time, and was so uncertain in its results, and which could not be performed for the fee fixed by the statute. There could not, I think, be much doubt of this, were it not for the use of the words "scientific search." It seems to me, however, these words were employed to require something more than a mere physical inspection of the person. The words "recognized laboratory tests" mean, I think, those commonly recognized and those ordinarily practiced, those recognized by common usage, not necessarily including all those known to or recognized by the few intellectuals in advance of their day and of the body of their profession.

Taking in this wide sweep would include those laboratory tests which obtain recognition for a few months or a few years and then are abandoned and forever afterwards strangers to science. "Recognized" here and in this connection means "well known," "accepted," and "established." The law requires us to find the statute constitutional if by any reasonable interpretation it can be made to conform to the constitution and not to search after something which would tend to make the statute invalid. Is the statute thus interpreted constitutional? The learned circuit judge thought that it conflicted with section 1, article 1, and section 18, article 1, of the State constitution. The first is a declaration that all men are born equal, free, and independent, and have certain inherent rights, among them life, liberty, and the pursuit of happiness; the second relates to freedom of worship and liberty of conscience. It is not contended that the State constitution elsewhere, by express interdict, or by necessary implication prohibits the legislation in question. The statute in question, although often alluded to as "The eugenic marriage law," has little relation to that pseudo science called "Eugenics." It is primarily a law to prevent the spread of contagious diseases and regulative of the marriage contract, adding to the requirements of age, lack of relationship within the prohibited degree, license, etc., the further requisite of a certificate of freedom from venereal disease. This is also indicated by the limitation to "acquired," as contradistinguished from "inherited," venereal diseases, and it seems to me the statute calls for this construction. This is a subject well within the regulative power of the legislative branch of government, unless prohibited by the constitution. (Freund, Police Power, sec. 124. In re McLaughlin's Estate, 4 Wash., 570; 30 Pac., 651; 16 L. R. A., 699. Reynolds *v.* U. S., 98 U. S., 145; 25 L. Ed., 244. Gould *v.* Gould, 78 Conn., 242; 61 Atl., 604; 2 L. R. A. (N. S.), 531. Maynard *v.* Hill, 125 U. S., 190; 8 Supp. Ct., 723; 31 L. Ed., 654. Boehmer *v.* Kalk, 144 N. W., 182.)

I have much doubt whether the state or condition called "happiness" in the constitution, or the state, condition, or occupation there described as "the pursuit of happiness," is capable of judicial ascertainment or identification. This process would seem to be necessary before a court could determine whether a given statute impinges against or encroaches upon such state or condition. It is, however, quite unnecessary to determine this question here, for, assuming for argument's sake that the vague generalization quoted does guarantee to the citizen certain rights which the legislature may not by statute take away, still the exercise of all constitutional rights is subject to reasonable regulation in the public interest under the so-called police power of the State. Before the statute in question could be declared invalid on this hypothesis, it must appear that the statute was not at all conducive to the preservation of public health, welfare, or morals, or that it carried regulation to an unreasonable or unnecessary extent and so as to interfere seriously with constitutional rights. It is said by those who have studied the subject that there are no reliable statistics to show the prevalence of venereal disease in civil life. The most contradictory and conflicting estimates may be found. Gonorrhea seems to be about four times as prevalent as syphilis; the latter and chancroid about equally prevalent. There are those who

claim that syphilis is not inherited, but affects the offspring merely because the bacterial organisms causing the disease have their habitation in the genito-urinary organs, and so reach the fœtus and inoculate it by contact, and there are authorities denying this. All, I think, agree that these three venereal diseases are contagious and communicable by contact with the mucous membrane. Gonorrhea is the more readily cured, but all are curable, at least in the early stages of the disease. In bulletins of the Federal department of the census relative to marriage and divorce, these diseases are not expressly noted as a cause of divorce, and, if they are included under some general designation, still they do not seem to figure largely as a cause. In bulletins of the same department entitled "Mortality Statistics," 171 causes of 730,538 deaths in territory preponderatingly urban ascribes only 2,999 to venereal diseases, and of this 1,582 were infants under 1 year and 1,735 children under 5 years of age. (Bull. No. 108, A. D. 1910.)

In volume 5, part 2, pages 324 to 368, "Transactions of the Fifteenth International Congress of Hygiene and Demography," are several papers on this subject in one of which (p. 338) Dr. Lung endeavors to show that venereal diseases are as prevalent in civil life as in the United States Navy. If this is correct, they are very prevalent. Chapin on Municipal Sanitation in the United States contains the statement that these diseases are very prevalent, but the only definite figures given relate to 2,886 examinations in 10 months of 230 prostitutes, which discovered only 42 cases. In the Army and Navy and in cases of applicants for enlistment as soldiers or sailors, superior opportunities for observing and recording cases of this nature exist, and concealment by the afflicted person is next to impossible. Here we find that the Army and Navy of the United States leads the world, having the highest percentage of these three venereal diseases, although the British army and navy is a little ahead of us, and of the rest of the armies of the world, in syphilis. (Norris on Gonorrhea in Women (1913) pp. 137, 138.)

This condition of our Army and Navy is thought by some to be largely due to the greater influence in this country of well-meaning and emotional, but ill-informed, persons, who reject the teachings of experience elsewhere and refuse to recognize the prostitute by compelling her to submit to inspection and regulation. It does not seem probable that this high percentage of venereal disease in the Army and Navy measures the prevalence of such diseases in civil life; but it shows that there is enough in the last-mentioned walks of life to justify legislative action in prevention of its spread. It is also thought by the highest medical authorities that the main source of venereal infection is the prostitute, and that here regulation and prevention may be made most effective.

We are not authorized to set up our judgment on such matters against that of the legislature or do more than measure the statute against the constitution, and, if we find therein no prohibition expressed or necessarily implied against such legislation, the statute must be enforced. For my part I have no sympathy with this statute. I think it tends to discourage marriage rather than to prevent the spread of venereal diseases. All experience goes to show that laws making marriage expensive or difficult or subject to objectionable requirements tend to increase illegitimate sexual intercourse. The latter tends to promiscuousness, hence to the spread of venereal diseases. The notion that wives are infected only by husbands who at the time of marriage had venereal diseases seems very simple. If a man knows that he has a venereal disease, and notwithstanding this desires to be married, he will not submit himself to any honest examination for very obvious reasons. He will go out of the State to be married. If he has such disease and does not know it, he must be quite unsophisticated. If there are cases where a man is so afflicted and does not know it, they must be so rare as to be quite negligible for the purpose of justifying such legislation. So I think the law will reach only those males desiring to marry who have no venereal diseases and therefore do not fear the examination, or those who have so little sense or so little

disease as to be unaware of their affliction. In case a marriage engagement is announced a year or thereabouts before marriage and the prospective groom fails to pass the examination and must either break the engagement or resort to the scandalous or mortifying appeal to the county judge, neither the bride nor her parents are allowed to disclose any matter relating or pertaining to the examination of the applicant for a license to marry. This may be a great damage to the girl, give rise to unworthy suspicion and gossip, and the penalties imposed upon persons making such disclosures are, I think, exorbitant and unreasonable, as are those imposed on the county clerk who shall unlawfully issue a license. But I think this part of the act can be held invalid without affecting the validity of that portion of the act requiring an examination by and a certificate from a licensed physician to the effect that the male person intending to marry is free from all venereal diseases so nearly as can be determined. The form of the certificate itself is a sort of an insult, a Scotch verdict of "not proven"; and the statute in all its parts is, in my opinion, about as silly and obnoxious a piece of legislation as could be devised.

But the ineffectiveness of the law, or its folly, if it be foolish, or the fact that it was passed in a modern spirit of legislating first and investigating afterwards, is quite remote from the question of its constitutionality. The people must learn to hold their legislators responsible for the enactment of laws which, however unwise and absurd, are still within the constitutional power of the legislature. It will be for the benefit of both the people and the legislature to recognize this responsibility and to know that they can not look to the supreme court for relief in every case of an objectionable but constitutional law. So long as the legislature believed there was enough venereal disease in this State to justify the enactment of the statute in question, we can not gainsay it, for that was a matter for the legislature to decide. Assuming the prevalence of venereal disease, its contagious nature, and its communicability by contact, it was within the power of the legislature to enact statutes wholly or partially preventive of the spread of this disease. If the legislature libeled the people of this State by making it to appear that venereal diseases were prevalent here, when in fact they were not, the members of that body must for such error answer to the electors and not to the supreme court. If I concede, as I must, the power to require a marriage license, I must also concede the power to require of the licensee reasonable qualifications, and it can not be said to be unreasonable that he be free from venereal disease.

I can not imagine how this law can be said to interfere with freedom of worship or liberty of conscience. The notion that marriage was a sacrament, not a civil contract creating a status, once vigorously asserted, has long since passed away. A point is made that requiring the prospective husband to submit to the examination without making the prospective wife do so conflicts with the fourteenth article of the United States Constitution, which forbids the States to deny the equal protection of the law. But the men desiring to marry form a very definite class quite germane to the object sought to be accomplished by the statute. And we read in the learned medical treatises that, while the primary source of venereal infection is usually the prostitute, still such diseases are generally brought into the family by the husband rather than by the wife. The legislature was justified in so deciding.

It is probable that in an action by a doctor under 30 years of age but otherwise qualified, or by an applicant for a license who held a certificate from such physician as is last described, that portion of the statute in question which requires the applicant for a marriage license to present to the licensing officer the certificate of a physician "at least 30 years of age" would be held invalid under the rule of Smith *v.* Texas. (233 U. S., 630; 34 Sup. Ct., 681; 58 L. Ed., —.) But the relator is in no position to raise this question, and the last-mentioned part of the act is clearly severable from the remainder and can not be said to be either an inducement to the enactment in question or an essential part thereof without which the legislature would in all probability not have enacted the remainder of the statute. I find no ground for holding that part of the statute here involved unconstitutional.

MARSHALL, J. (dissenting). I can not agree to the decision of this case because:

(1) To marry is a natural right. It is thus guaranteed by the purpose and spirit of the Constitution:

> All men are born equally free and independent, and have certain inherent rights; among these are life, liberty, and the pursuit of happiness; to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed.

(2) Legislative authority, called the police power, to regulate natural rights is necessarily limited to safeguarding those rights. That which conserves is, therefore, constitutional, while that which is so unduly oppressive as to materially impair is unconstitutional. So it is held that those regulations which are promotive of rights are reasonable and constitutional, while those which are not appropriate in kind to conserve, or are so severe as to be unduly oppressive, are unreasonable and unconstitutional.

(3) The marriage right is a proper subject for legislative regulation; but not for legislative destruction or material impairment. Whether the means of regulation are legitimate and whether the degree of restraint is unduly oppressive are judicial questions.

(4) The law in question requires, as a condition of competency to marry, that the male shall be free from any type of specified human infirmities, the proof to be made by scientific tests, which the evidence shows but few are sufficiently expert and have the instrumentalities to apply, and which can not be applied for the fee named in the law, or without such expense as to operate as a serious restraint upon marriage, and the result of which would be liable, in many cases, to take away the right, though there were no acquired infirmity of the particular kind and none of transmissible character—an entire absence of danger as to the wife and none as to descendants—except within mere possibility, so remote as to be infinitesimal, or less than danger from any one of several infirmities which lawmakers would not venture to set up as a prevention of marriage.

(5) It is legitimate to condemn a separable part of an enactment and sustain the rest, where there is reasonable certainty that the legislature would have enacted the latter had it appreciated the invalidity of the former, and where such latter, by itself, forms a complete workable enactment; and where there is ambiguity in an act, and yet it will admit of a reasonable construction which will sustain it, and there are no persuasive circumstances to indicate legislative intention not to include the legitimate idea, that is to be regarded as the proper one; but the court can not properly ascribe a meaning to an enactment which can not reasonably be read out of it, nor one which plainly violates the legislative purpose. To do the latter would be to make law instead of declaring the law as made by the lawgivers.

(6) According to all evidence in this case the enactment in question means one thing and can not reasonably be said to mean anything else, and all concede that, given such meaning, it is unquestionably a destructive interference with the marriage right. There is no legitimate way, in my judgment, of judicially recasting the legislative work in that respect. Rules for construction are not adequate for the situation. If there were less of, in effect, judicially making written law over by weeding out inconsistencies and twisting words out of their natural or obviously designed orbit so as to make them operate sensibly and conservatively instead of destructively, there would be less efforts to make people conform to artificial standards set up by well-meaning theorists, regardless of personal liberty and the very spirit and purpose of our system.

(7) The penal feature of a police regulation, designed to prevent and punish its violation, is such an essential portion thereof as to be inseparable therefrom. Without them the law would be a collection of words without vitality, which a legislature would not, consciously, indulge in; therefore, where such element is so harsh as to

violate the prohibition of cruel or unusual punishments, or so tends to terrorize as to prevent freedom of appeal to the courts for redress or prevention of supposed wrongs, the whole enactment partakes of the unconstitutional character of such element and is void. (Ex parte Young, 209 U. S., 123; 28 Sup. Ct., 441; 52 L. Ed., 714; Bonnett *v.* Vallier, 136 Wis., 193; 116 N. W., 885; 17 L. R. A. (N. S.), 486; 128 Am. St. Rep., 1061.)

(8) The penal clause here seems to be in the class with those found to be fatally unusual and unduly oppressive in the cases above cited. It is conceded, as I understand it, that it is impracticable to satisfy the certificate prescribed by the law; in any event the evidence seems all one way on the subject, and that something less severe as to the examination must be found to be satisfactory; yet, if a county clerk issues a license, except upon the particularly worded certificate, he will be guilty of a felony and liable to confinement in the State prison for the term of five years. So if an intended bridegroom finds himself unable to carry out his promise, or an intended bride finds herself stranded, so to speak, on the shoals of this drastic regulation—though there be no real danger in the contemplated union being consummated—or if the parents of either or any one having knowledge of the facts, though acting from the purest motives and in explanation of the unfortunate dilemma, discloses the reason why the mutual promises can not be carried out, such person will be liable to punishment by confinement in the State prison for five years. The mere statement of the matter seems enough to condemn the act utterly.

(9) There is no reasonable necessity for such a law, as the evidence amply shows. It is competent for any prospective wife to protect herself, or, in most cases, her parents to do it in her behalf, as fully as the legislation was designed to do, and accomplish it by treaty. There is perfect freedom of self-protection by demanding evidence of purity as a condition of marriage. Why should the public step in because of a case of danger now and then, and impose on the great mass of men the burdens of such a law? That it is an interference with a right which goes so far beyond fair conservation as to materially impair, seems plain.

(10) Recapitulating: The act unduly casts suspicion of immorality and criminality of most serious nature upon every male candidate—present, prospective, or possible—for the marriage state. It imposes such an oppressive burden upon all such candidates as to proving competency to enjoy the natural right of marriage, or so takes such right away without justification in many cases and restrains its exercise generally, as to efficiently discourage an institution which is absolutely essential to public welfare and so recognized and protected by the fundamental law. By so oppressively interfering with the constitutional right of marriage as to partially or wholly destroy that right, the tendency will inevitably be to promote immorality and social and racial retrogression. The penal feature is so severe as to destroy freedom of appeal to the law of the land for redress. To so read the law as to take from it any of these infirmities is to go outside the judicial field and make a law.

For the reasons stated, I think it is the duty of the court to condemn the act in question as subvertive of constitutional liberty and right. That the motives of those whose activities resulted in imposing such enactment upon the people of this State were of the purest I do not question; but if all the well-meant suggestions of volunteer social reformers were vitalized by written law, we might have a system worse than anything yet ventured upon, even under the paternalism of nations unfettered by constitutional safeguards, and all our rights would be turned into mere uncertain privileges and practically destroyed. To prevent despotism of that kind is one of the most important functions of constitutional guaranties coupled with an independent judicial agency to enforce them. I think here is a case where enforcement is required. I think to thus meet the situation would consist with the requirements of judicial duty and result in greater care in giving legislative sanction to well-meant suggestions thrust upon attention and appreciation that "the blessings of a free government can

only be maintained by a firm adherence to justice, moderation, temperance, frugality, and virtue, and by frequent recurrence to fundamental principles."

The court's opinion constrains me to add this:

The history of a legislative enactment may be looked to in aid of judicially clearing up its obscurities, but not to justify putting words into or taking words out of it not therein or thereout by reasonable implication; and, in the end, no meaning can properly be ascribed thereto, not fairly found expressed by the words thereof, taken in their reasonable scope—which violates the rules of language or of law—even though there be evidence aliunde the writing that such was the legislative purpose. To overstep this is to make rather than to declare and apply law, forgetting "that the judicial office is jus dicere, et non jus dare."

An act of the legislature regulating civil conduct establishes public policy within the scope of legislative power; but when the enactment contravenes the higher public policy, enshrined in the fundamental law, the latter prevails and the former is not law at all.

The statement "that the police power does not wait upon the slow processes of jury trial" is rather too broad and in my opinion is subject to many important exceptions according to the situations dealt with. Where the subject is a principal constitutional right, like that of marriage, and opportunity for jury interference is so essential for its due conservation to take away or materially impair it without such opportunity, there being no imperative necessity therefor, would be destructively harsh and not due process of law in a constitutional sense, and inconsistent with the spirit of the fundamental law. If there is any imperative necessity why the right of marriage should be liable to confiscation as under the law in question, without opportunity for the protection against injustice afforded by opportunity for some semblance of a common-law hearing, none has been suggested.

I think I as fully appreciate as anyone the importance of social purity and protection of the newly elected mothers of the races to come from contamination and suffering; but there is reason in all things and there is a realm beyond, and between the two stands the constitution. Removal of all responsibility for self-care would eventually result in a weak and degenerate race. Undue regulation of the ordinary affairs and rights tends to produce the very condition they are aimed to prevent, or something worse, and are self-destructive where not unconstitutional.

I have aimed to state my views of the legislation in question in its constitutional aspect with a minimum of discussion of the enactment in detail, preferring to formulate concisely elementary principles, associated with a few observations appropriate to the situation, and trust the reader to apply them to the act and the court's opinion as they will be found in the report of this case. If those principles, briefly illustrated, without the aid of judicial decisions, do not efficiently indict and condemn the enactment, they will show much clearer the grounds for my opinion than lengthy discussion would and will be more likely to be helpful in respect to future legislative efforts.

VINJE, J. I concur in the foregoing dissenting opinion of Mr. Justice Marshall.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

DISTRICT OF COLUMBIA.

Rabies—Muzzling of Dogs Required. (Order of Commissioners Aug. 5, 1914.)

Under the provisions of section 7 of the act of Congress approved June 19, 1878, entitled "An act to create a revenue in the District of Columbia by levying a tax upon all dogs therein, to make such dogs personal property, and for other purposes," the commissioners hereby give notice that every dog in said District shall, for a period of one year from and after the 9th instant, wear a good and substantial muzzle, securely put on, so as to prevent it from biting or snapping; and any dog going at large during said period without such muzzle shall be taken up by the poundmaster and impounded.

Appropriation for Work of Health Department and for Medical Inspection of Schools. (Act of Congress July 21, 1914.)

[The following appropriations are for the fiscal year ending June 30, 1915]:

Health officer, $4,000; assistant health officer, $2,500; chief clerk and deputy health officer, $2,500; clerks—one $1,400, five at $1,200 each, four at $1,000 each, one $729; sanitary inspectors—chief $1,800, eight at $1,200 each, two at $1,000 each, two at $900 each; food inspectors—chief $1,600, five at $1,200 each, six at $1,000 each, five at $900 each; chemist, $2,000; assistant chemist, $1,200; skilled laborer, $600; assistant bacteriologist, $1,200; skilled laborer, $720; messenger and janitor, $600; driver, $600; poundmaster, $1,200; laborers, at not exceeding $50 per month each, $2,000; in all, $64,540.

Not less than 12 of the sanitary and food inspectors above provided for shall be employed in enforcement of milk and pure-food laws and regulations relating thereto and in the inspection of dairies and dairy farms.

For enforcement of the provisions of an act to prevent the spread of contagious diseases in the District of Columbia, approved March 3, 1897, and an act for the prevention of scarlet fever, diphtheria, measles, whooping cough, chicken pox, epidemic cerebrospinal meningitis, and typhoid fever in the District of Columbia, approved February 9, 1907, and an act to provide for registration of all cases of tuberculosis in the District of Columbia, for free examination of sputum in suspected cases, and for preventing the spread of tuberculosis in said District, approved May 13, 1908, under the direction of the health officer of said District, and for the prevention of other communicable diseases, including salaries or compensation for personal services, not exceeding $12,000, when ordered in writing by the commissioners and necessary for the enforcement and execution of said acts, and for the prevention of such other communicable diseases as hereinbefore provided, purchase and maintenance of necessary horses, wagons, and harness, purchase of reference books and medical journals, and maintenance of quarantine station and smallpox hospital, $25,000: *Provided*, That any bacteriologist employed under this appropriation shall not be paid more than $6 per day and may be assigned by the health officer to the bacteriological examination of milk and other dairy products and of the water supplies of dairy farms, and to such other sanitary work as in the judgment of the health officer will promote the public health, whether such examinations be or be not directly related to contagious diseases.

For maintenance of disinfecting service, including salaries or compensation for personal services when ordered in writing by the commissioners and necessary for maintenance of said service, and for purchase and maintenance of necessary horses, wagons, and harness, $6,000.

For enforcement of the provisions of an act to provide for the drainage of lots in the District of Columbia, approved May 19, 1896, and an act to provide for the abatement of nuisances in the District of Columbia by the commissioners, and for other purposes, approved April 14, 1906, $1,500.

For special services in connection with the detection of the adulteration of drugs and of foods, including candy and milk, $100.

Bacteriological laboratory.—For the purchase and installation of new apparatus, $2,000.

For the replacement of apparatus and supplies, $1,000.

For maintaining and keeping in good order, and for the purchase of reference books and scientific periodicals, $300.

In all, $3,300.

For contingent expenses incident to enforcement of an act to regulate the sale of milk in the District of Columbia, and for other purposes, approved March 2,1895; an act relating to the adulteration of foods and drugs in the District of Columbia, approved February 17, 1898; an act to prevent the adulteration of candy in the District of Columbia, approved May 5, 1898; an act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes, approved June 30, 1906, $1,000.

For necessary expenses of inspection of dairy farms, including amounts that may be allowed the health officer, assistant health officer, medical inspector in charge of contagious-disease service, and inspectors assigned to the inspection of dairy farms, for maintenance by each of a horse and vehicle, or motor vehicle, for use in the discharge of his official duties, not to exceed $240 per annum, and allowances for such other inspectors in the service of the health department as the commissioners may determine, of not exceeding $100 per annum for maintenance of a motorcycle each, for use in the discharge of their official duties, and other necessary traveling expenses, $6,000, or so much thereof as may be necessary.

Garfield and Providence Hospitals.—For isolating wards for minor contagious diseases at Garfield Memorial and Providence Hospitals, maintenance, $7,000 and $5,000, respectively, or so much thereof as, in the opinion of the commissioners, may be necessary; in all, $12,000.

For maintenance, including personal services, of the public crematory, $2,000.

For one motor vehicle for the sanitary and food inspection service of the health department, at a cost not exceeding $800, and for the maintenance thereof, $400; in all, $1,200.

For completion of the pound and stables, as follows: For metal folding shutter for the wagon shed, $1,000; painting inside walls, $50; erecting flagpole, $75; screens and awnings, $100; and fire hose, $100; in all, $1,325.

* * * * * * *

Medical inspectors.—Thirteen medical inspectors of public schools, one of whom shall be a woman, two shall be dentists, and four shall be of the colored race, at $500 each; in all, $6,500: *Provided*, That said inspectors shall be appointed by the commissioners only after competitive examination, and shall have had at least three years' experience in the practice of medicine or dentistry in the District of Columbia, and shall perform their duties under the direction of the health officer and according to rules formulated from time to time by him, which shall be subject to the approval of the board of education and the commissioners.

For five graduate nurses, one of whom shall be colored, who shall act as public-school nurses, at $900 each, $4,500.

FLORIDA.

Domestic Animals—Importation of—Certificate of Health Required. (Reg. Bd. of H., July 28, 1914.)

[Effective Sept. 1, 1914.]

SECTION 1. The importation by railroad, boat, in wagon, by express or other common carrier, on hoof or in any other manner, of live stock diseased or exposed to disease into the State of Florida is hereby prohibited; and to determine which fact the following regulations shall be observed by all persons, firms, transportation companies, corporations, express companies and other common carriers, State veterinarians, and all other State officials authorized to inspect and issue certificates of health for live stock.

SEC. 2. Any person, firm, or corporation, or any common carrier wishing to bring or transport into the State of Florida (1) bulls, work oxen, or female cattle over 6 months old, not intended for immediate slaughter, or (2) horses, mules, or asses, or (3) hogs or swine, must procure before shipment a health certificate, in triplicate, from a veterinary inspector of the Bureau of Animal Industry of the United States or from the State veterinarian or the assistant State veterinarian of the State of shipment, or from a licensed veterinarian whose competency, reliability, and official character are certified to in writing by the State health officer or authorities charged with the control of diseases of domestic animals in the State from which such animals are to be transported or moved. The original of said health certificate and of all other certificates, if any, must be attached to the waybill. A duplicate or counterpart of said health certificate and of all other certificates must be sent by the shipper to the veterinarian of the State board of health of Florida, at Jacksonville, Fla., in ample time to reach him not less than two days before the arrival of said animals at the point of destination in the State of Florida. A third counterpart or triplicate of said health certificate and of all other certificates must be sent in like manner and at the same time to the State veterinarian or other competent official or authority of the State in which the shipment originated.

In the case of shipments of bulls, work oxen, or female cattle over 6 months old, not intended for immediate slaughter, all such shipments must also be accompanied by a tuberculin test chart in triplicate, signed by any one of the officers authorized to sign such health certificates, which tuberculin test chart and said health certificate must show that such cattle are free from tuberculosis and all contagious, infectious, and communicable diseases. Said tuberculin test chart must also show that at least three temperatures were taken before the injection of tuberculin, 2 to 3 hours apart, and that five temperatures were taken after injection, 2 hours apart, beginning 10 hours after tuberculin was injected.

In the case of horses, mules, or asses said shipment shall also be accompanied by triplicate mallein test charts, which test charts and health certificate must show that such horses, mules, or asses are free from all contagious, infectious, and communicable diseases, and the test charts must show (if the subcutaneous method was used) that at least three temperatures, 2 or 3 hours apart, were taken before injection, and that five temperatures were taken after injection, 2 hours apart, beginning 10 hours after the mallein was injected. When the ophthalmic method of testing for glanders is employed, the temperature should be taken twice, first at the time of applying the mallein to the eye, and second, when the reaction is being judged.

The tuberculin test chart or mallein test chart, as the shipment may require, must be made out and delivered in triplicate, one copy of which shall accompany the corresponding copy of the health certificate and be sent at the same time and to the same persons as above required in respect to the health certificate.

In the case of hogs and swine the health certificate must show that the swine are free from all contagious, infectious, and communicable diseases, and that they have

been immunized against hog cholera by the Dorset-McBryde-Niles serum not more than 30 days prior to the shipment. If the hogs or swine have been immunized by the "serum—simultaneous method," the certificate must show that they were so immunized at least 30 days prior to shipment.

SEC. 3. That cars, boats, and other vehicles used in the transportation of all live stock into or within the State of Florida shall first be cleaned of all litter, washed, and disinfected with a mixture made with not more than 1½ pounds of lime and one-quarter of a pound of pure carbolic acid to each gallon of water or liquid cresolis compositus (U. S. P.), 6 ounces to every gallon of water.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

BEAUMONT, TEX.

Board of Health—Appointment, Powers, and Duties. (Ord. Aug. 4, 1914.)

SECTION 1. That there be, and is hereby, created a board of health of the city of Beaumont, Tex., to be composed of three regular practicing physicians, citizens of the city, two lay citizens of the city, the city health officer, and the city bacteriologist.

SEC. 2. Members of the said board shall be appointed by the mayor, subject to confirmation by the city council, and shall hold office for a term of two years, or until their successors are elected: *Provided*, That after the passage of this ordinance three members shall be appointed to serve until the third Tuesday in April, 1915, and two members to serve until the third Tuesday in April, 1916. Vacancies occurring in said board shall be filled by the mayor for the unexpired term.

SEC. 3. Said board shall hold at least one regular meeting each month in the city hall, and shall from time to time hold such special meetings as it may deem necessary. Four members shall constitute a quorum, but a less number may adjourn from time to time, but such adjourned meetings are to have the same character as the original meetings would have had had they been held.

Three members at any time may call a special session and compel the attendance of the other members.

SEC. 4. That it shall be the duty of the said board to advise the city council from time to time regarding the sanitary conditions of the city and to make such recommendations as it may deem proper for acts and regulations necessary or expedient for the promotion of health or the suppression of disease; to recommend for adoption suitable measures to prevent the importation of infectious or contagious diseases into the city and to prevent epidemics, and generally to study and recommend to the city council such regulations as may be necessary or suitable to improve public health and suppress disease; and especially it shall be the duty of the said board to study the sanitary conditions of the city and of all groceries, breweries, cellars, factories, tanneries, stables, barns, privies, vaults, cesspools, sewers, wells, butcher shops, bakeries, fruit stands, pigpens, and all other buildings and structures, and to advise the city council thereof and of the regulations necessary or expedient to improve the surroundings thereof. It shall be the duty of the said board to make a report to the city council at its first regular meeting in June and December of each year, in which report shall be given the work of the board since its last report, an outline of the sanitary conditions of the city, and recommendations, if any, for all regulations necessary to improve and better the public health.

SEC. 5. That the said board of health shall have no authority to create any indebtedness against the city unless in each case the same is especially authorized to be done by ordinance passed by the city council.

SEC. 6. The city health officer shall be president and the city bacteriologist secretary of the said board, and at its first regular meeting and each year thereafter, the board shall elect from their number a vice president, who shall hold office one year or until his successor is elected or installed.

SEC. 7. The specific duties of the board of health shall be:

(1) Supervision of the collection and disposal of garbage, rubbish, and trash.

(2) Supervision of communicable and contagious diseases.

(3) Supervision of the water and food supply of the city.

CHESTER, PA.

Board of Health—Organization, Powers, and Duties—Health Officers. (Ord. 37, May 4, 1914.)

SECTION 1. That the department of public safety be, and it is hereby, given jurisdiction and the care, control, and supervision of the public health, and of all matters and things pertaining to health, and of all city officers and employees connected with the same and with the department or board of health; and hereafter all references to health and health matters may be in either the name of the department of public safety, the department of health, or the board of health; and all references to the board of health in existing ordinances and rules and regulations shall be taken and understood to refer to and mean the department of health as herein and hereby established.

SEC. 2. That the present existing board of health be, and the same is hereby, declared to be abolished as of the 18th day of May, A. D. 1914, and the members thereof shall cease to hold office as members on and after that date.

SEC. 3. That the superintendent of public safety shall be the head of the said department of health, and there shall be, and the following offices are hereby, created, namely:

One supervisor of health, to be appointed by council and to hold office for the term of two years.

One clerk and health officer, to be appointed in like manner for a like term.

The terms of office of said supervisor of health and of the said clerk and health officer shall begin on the 18th day of May, 1914, and continue up and until the first Monday of January, 1916, or until their successors are appointed; and on the first Monday of January, 1916, and every two years thereafter, an appointment shall be made to the office of supervisor of health and to the office of clerk and health officer for the term of two years or until their successors are appointed.

The said supervisor of health shall be a physician of good character and reputation, and shall have experience and knowledge in matters pertaining to contagious, infectious, or pestilential diseases, and to health matters, and shall be of good address and have executive ability. The clerk and health officer shall be of good character and reputation, and qualified to keep the accounts of the said department of health, prepare notices, write letters, and attend to abating nuisances. The salary of the supervisor of health shall be at the rate of $600 per annum, payable monthly, and the salary of the clerk and heath officer shall be at the rate of $840 per annum, payable monthly. The supervisor of health shall give a bond to the city for the faithful performance of his office in the sum of $1,000, and the clerk and health officer shall likewise give a bond to the city for the same purpose in the sum of $1,000, with security to be approved by council.

The superintendent of public safety shall have, and he is hereby given, authority to hire such employee or employees from time to time as he may deem necessary, to disinfect houses, buildings, and property, and to guard and to feed persons who are quarantined, which person or persons shall be paid by the day or otherwise, as the superintendent and council may decide and approve.

SEC. 4. That the duties of the supervisor of health shall be and he is hereby authorized to inspect properties real and personal and all places and things whenever in his judgment, or that of the said superintendent of public safety, it is necessary so to do for health purposes, and to go on to property to make an inspection or examination, and for the same purposes to investigate all contagious, infectious, or pestilential diseases or sickness, and all nuisances, and any and all matters and things pertaining to and likely to injuriously affect the public health; and to take such actions, and to pursue such remedies that are or may be provided by law or ordinance to care for, control, and get rid of such diseases, sickness, nuisances, and injurious matters or things, which in his

judgment, and that of the said superintendent of public safety, will effectually accomplish the purpose; to attend to the carrying into effect the various provisions of this ordinance and of present and future ordinances and rules and regulations of the city of Chester and the laws of the State of Pennsylvania relating to health matters and to nuisances. He shall at all times be under the direction and control of the superintendent of public safety, and shall report to him all matters coming under his notice and also what he is doing and contemplates doing in bettering public health conditions.

SEC. 5. That the duties of the clerk and health officer shall be to keep any books, records, and accounts necessary to be kept in the proper conduct of the affairs of the said department of health, and to prepare and serve notices, write letters, and to assist the superintendent of public safety and the supervisor of health in the performance of their duties relating to health matters, and he shall be at all times subject to their direction and control.

SEC. 6. That either the supervisor of health or the clerk and health officer may be removed from office at any time for willful neglect to perform their duties, and in case of a removal a successor shall at once be appointed for the unexpired term of the official removed.

SEC. 7. That all references in ordinances and in the rules and regulations of the city of Chester relating to health and to nuisances and to the health officers, shall be taken to refer to and mean the said supervisor of health, and all references therein to the commissioner of highways shall be taken to refer to and mean the said supervisor of health, and all references therein to the secretary of the board of health shall be taken to refer to and mean the said clerk and health officer.

SEC. 8. The superintendent of public safety or the supervisor of health shall make report to council at each stated meeting thereof held on the first Monday of each month, and oftener if required or if necessary, and also report as to work done by the department of health since the last report and as to the condition of the public health, together with a statement of expenditures, and as to any other matters which may be proper or expedient for council to have information concerning.

SEC. 9. That the necessary expenses for food, lodging, medicine, and extra medical service and all other necessary expenses attendant upon and necessary to effectually and fully carry into effect the provisions of this ordinance, and to properly prevent and control contagious, infectious, or pestilential diseases and the spreading thereof, and the vaccinating in the case of a smallpox epidemic existing or feared, and the quarantining of persons, buildings, and districts in case of smallpox and other contagious, infectious, or pestilential diseases, shall be paid by the city of Chester out of the appropriation to the department of public safety, unless otherwise provided, after such expenditures and expenses have been approved by the said supervisor of health and the other officials of the city as provided by law and ordinance. The superintendent of public safety shall hire all doctors and nurses needed in the time of epidemic or a threatened epidemic of contagious, infectious, or pestilential diseases and in cases of vaccination and quarantining, and to fix their pay, and shall at once report the same to council for approval or disapproval.

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SEC. 51. That the supervisor of health and the clerk and health officer, as well as any and all employees of the department of health, shall be at all times subject to the direction and control of the superintendent of public safety, and together with the said superintendent of public safety shall be subject to the control of council.

Communicable Diseases—Notification of Cases—Quarantine—Placarding—Vaccination—School Attendance. (Ord. 37, May 4, 1914.)

SEC. 10. That persons afflicted with any contagious, infectious, or pestilential diseases shall not come within the limits of the city of Chester and any and all persons within the city afflicted with any contagious, infectious, or pestilential disease may be quarantined and a district or section of the city may be quarantined; and persons

afflicted with smallpox, or liable or subject to be afflicted therewith, may be vaccinated at any time and to any number, and quarantined and kept in one building or in one district, and from moving about until vaccinated or the quarantine is removed, at such times and in such manner as in the judgment of the superintendent of public safety and the supervisor of health it is essential and necessary for the preservation of the public health so to do. Immediately upon the said supervisor of health ordering a general quarantine and a general vaccination, he shall notify the said superintendent thereof and if the expense likely to attend upon the same will exceed the appropriation to the department for contingent health purposes, the said superintendent shall at once cause a meeting of council to be held to consider the matter and to take whatever action may be necessary.

SEC. 11. Upon the receipt of a report from a physician of a case of communicable disease, which under the laws of the Commonwealth, the rules and regulations of the State department of health, or the rules and regulations of the said local department of health, is required to be under quarantine, he shall forthwith place the premises upon which such contagious, infectious, or pestilential disease exists under quarantine together with any person or persons who has or have been exposed thereto, in the manner provided by the laws of the Commonwealth, the rules and regulations of the State department of health, and the rules and regulations of the local department of health, and shall post upon the premises in which said disease may be located a placard upon which shall be printed in conspicuous letters the name of the disease from which the person or persons is or are suffering, with the warning that the said premises are quarantined, and shall so remain until the quarantine is removed by the health authorities, that no person shall be permitted to enter or leave, or take any article from the house under quarantine without written permission from the health authorities, excepting physicians, nurses, or clergymen, and that no person or persons shall deface, cover up, or destroy the placard, and citing the penalty provided by law and by ordinance for violation of the quarantine restrictions.

SEC. 12. It shall be the duty of the supervisor of health upon the receipt of information from any source that a case or cases of quarantinable disease exists on any premises, to go to such premises and make an investigation concerning such report. If it is admitted by the householder that there is a case or cases of quarantinable disease on the premises, he shall immediately placard and quarantine the premises in the manner provided herein and by law. If it is admitted that the disease exists and the house is quarantined, or if it is not admitted, and the supervisor of health has reason to believe that the case of quarantinable disease may exist on the premises, it shall be his duty to take with him on the premises the physician of the local department of health, or some other physician deputized by the local department of health, who shall make an investigation and diagnosis, and if a case of quarantinable or reportable disease is found upon the premises, said physician shall thereupon regularly report the case to the supervisor of health, and if quarantinable and not already placed under quarantine, the supervisor of health shall thereupon immediately quarantine the premises in accordance with the provisions of section 11.

In all cases where quarantine has been established the following rules shall be rigidly observed:

(*a*) No one shall be allowed to enter or leave the premises except the sanitary policeman, the sanitary physician, the physician in charge, and certain members of the family authorized by the sanitary physician to pass in and out under certain definite restrictions.

(*b*) In every instance where it can be done the patient must be placed in an isolated portion of the house as far removed from the other members of the family as possible.

(*c*) All unnecessary articles of clothing, furniture, etc., should be removed from the sick room, and in all cases where exposure to the disease has occurred, should be thoroughly disinfected before being used by other members of the family.

(*d*) All dishes, cutlery, glassware, and other household utensils must be disinfected before being used by unexposed persons.

(*e*) The family will set vessels outside into which the milk or cream is to be poured by the milkman, who must not handle the vessels.

(*f*) Remnants of food and other household garbage and rubbish must be burned and not placed in the general waste.

(*g*) Cats, dogs, and other household pets must be removed from the sick room and either killed or confined in some other part of the premises until danger of conveying contagion has passed.

(*h*) No letters or other mail matter shall be allowed to leave the premises under any circumstances.

(*i*) After recovery, the patient and attendants must bathe carefully in an antiseptic solution and dress in clothing which is free from infection.

(*j*) At the time of the raising of the quarantine the sanitary officers shall fumigate and disinfect such part or parts of the premises as may be considered necessary by the sanitary physician.

SEC. 13. Quarantine restrictions shall be maintained for scarlet fever and smallpox for a period of at least 30 days from the date of onset of the last case on the premises, for chicken pox, diphtheria, measles, German measles, and mumps for a period of at least 21 days from the date of onset of the last case on the premises, and for whooping cough, erysipelas, and all other quarantinable diseases until complete recovery of the last patient afflicted.

SEC. 14. It shall be the duty of the supervisor of health to thoroughly acquaint himself with the provisions of the act of May 14, 1909, the rules and regulations of the State department of health, the ordinances of the city for the protection of the public health, and the rules and regulations of the local department of health, and to perform such other and further duties regarding the quarantining and disinfecting of premises and persons, and the isolation of children from the public and other schools as may be required by the aforesaid laws, regulations, and ordinances. He shall promptly notify the principals, superintendents, teachers, and other persons in charge of the public, private, parochial, Sunday, or other schools of the city of all cases of communicable diseases occurring within the city for which isolation from school is required by law, giving the names of all pupils or other persons suffering from such disease or having been in contact therewith, and further giving notification that such pupils or other persons shall be excluded from school and shall only be readmitted upon certificate signed by the supervisor of health or a physician authorized so to do by the local department of health.

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SEC. 16. Every physician practicing within the limits of this city who shall treat or examine any person suffering from or afflicted with any communicable diseases which under the provisions of section 1 of the act of May 14, 1909, the rules and regulations of the State department of health, or the rules and regulations of the local department of health, is required to be reported to the health authorities, shall forthwith report each and every such case to the local department of health on report cards furnished to them for such purposes, and for any failure to so report shall, upon conviction thereof, be liable to the penalty provided by section 24 of the act of May 14, 1909.

SEC. 17. Every physician practicing within this city who shall have in his charge any case of communicable disease which has been placed under quarantine shall notify the local department of health in writing of the recovery or death of the person afflicted and request that disinfection be performed, provided that such disinfection and request shall conform to the time specified by this ordinance and by the laws of the Commonwealth, the rules and regulations of the State department of health, or the local department of health for the duration of the quarantine period of such disease.

SEC. 18. No physician practicing within the limits of this city shall conceal or in any way aid, abet, or encourage the concealment of any case of quarantinable disease,

or in any way hinder or interfere with the health authorities in the proper performance of their duties.

SEC. 19. No head of a family, boarding house or hotel keeper, or other person shall secrete or otherwise keep on their premises unknown to the health authorities any person suffering from a communicable disease which is required to be quarantined under the laws of this Commonwealth, the rules and regulations of the State department of health, or the regulations of the local department of health.

SEC. 20. No head of a household or other person shall refuse to admit the supervisor of health, health officer, or a physician deputized by the local department of health to their premises at any time, or shall in any way interfere with or hinder any representative of the local department of health in the performance of their duties in making investigation of a suspected case of contagious, infectious, or pestilential disease or of a nuisance, or any other matter which might be a menace to the public health.

SEC. 21. The head of a family or any other person who shall knowingly seclude or hide a case of contagious, infectious, or pestilential disease in order to prevent the same from being quarantined shall be subject to all the fines and penalties hereinafter provided for.

SEC. 22. No person shall, without previous disinfection, give, lend, sell, transmit, or expose any bedding, clothing, rags, carpets, linen, or other articles which have been exposed to infection; but such restriction shall not apply to the transmission of articles with proper precaution for the purpose of having the same disinfected.

SEC. 23. No person shall knowingly let any room, house, or part of a building in which there has been a person suffering from any contagious, infectious, or pestilential disease without having the same and all articles therein disinfected to the satisfaction of the supervisor of health. The keeper of a hotel, boarding house, or apartment house shall be deemed as letting a part of the same to any person who shall be admitted as a guest or visitor or employee into such hotel, boarding house, or apartment house.

SEC. 24. No person suffering from any contagious, infectious, or pestilential disease, nor anyone who has charge of any person so suffering, shall enter any hired vehicle or other public conveyance, or permit anyone in his or her charge who is so suffering to enter such vehicle or conveyance without previously notifying the owner or driver thereof that he, she, or the person in his or her charge is so suffering; and the owner or driver of such vehicle or conveyance shall immediately provide for the disinfection of the same under the direction of the supervisor of health after it has, with the knowledge of such owner or driver, conveyed any such sufferer.

SEC. 25. The supervisor of health may, with the consent of the superintendent of public safety, order any furniture, clothing, bedding, linen, or other property to be destroyed, removed, or disinfected whenever he may deem it necessary for the health of the city so to do.

SEC. 26. It shall be the duty of the principal, superintendent, teachers, or other person in charge of the public, private, parochial, Sunday, or other schools of this city to refuse admission to the schools of any pupil or other person who by reason of the provisions of sections 3, 4, 5, 6, or 7 of the act of May 14, 1909, are excluded from attendance at said schools, and to readmit such pupils or other persons only upon presentation of a certificate such as is provided in section 8 of said act, signed by the supervisor of health or other physician or person duly authorized by the local department of health to sign such certificate.

SEC. 27. It shall be the duty of every principal, superintendent, teacher, or other person having charge of any public, private, parochial, Sunday, or other school who may have reason to suspect that any pupil or other person in attendance at such school may be suffering from a communicable disease for which school exclusion is required to forthwith report each and every such case to the local department of health, and to exclude such pupil or other person from the school pending an examination and report from the health authorities.

SEC. 28. It shall be the duty of all undertakers who shall receive and prepare for burial the bodies of any persons who have died within the limits of this city of any of the diseases set forth in section 17 of the act of May 14, 1909 (P. L., 855), to strictly observe the provisions set forth in sections 17, 18, 19, 20, 21, and 22 of the said act, as well as any further rules and regulations of the State department of health or of the local department of health. The undertaker, or any person acting in such capacity, shall be responsible for any violation of such provisions and shall be subject to the penalties provided in section 24 of said act.

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SEC. 52. That any principal, superintendent, or other person in charge of any school who shall violate the provisions of section 26 of this ordinance shall be subject to the penalty provided by section 24 of the act of May 14, 1909 (P. L., 855); and any principal, superintendent, teacher, or other person in charge of a school who shall violate section 27 of this ordinance shall, upon conviction thereof before the mayor, committing magistrate, or any of the aldermen of the city, be subject to a fine of not more than $20, payable to the treasurer of the city.

Nuisances. (Ord. 37, May 4, 1914.)

SEC. 15. It shall be the duty of the supervisor of health to make frequent sanitary inspections of the streets and alleys and premises in the city, and to report to the local department of health all nuisances detrimental to public health. He shall, also, upon complaint of citizens or property owners or otherwise, make special investigations of alleged nuisances. He shall have served all notices of abatement and perform such other duties regarding the abatement of nuisances as the department of health may direct.

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SEC. 45. No person shall maintain or permit to be maintained on any property owned or occupied by him or her within this city any condition productive of a nuisance detrimental to the public health or which may be so declared by the health authorities, and upon receipt of a notice from the local department of health that such a condition exists on the property owned or occupied by him or her, it shall be his or her duty to abate the nuisance created thereby to the satisfaction of the local department of health within the time limit specified in said notice.

SEC. 46. No person shall place upon any public street or alley of this city any tin cans, broken glass, or other objectionable refuse or organic matter subject to decomposition, either vegetable or animal, or shall allow kitchen waste from any property owned or occupied by him or her to run into any alley or street, or any open gutter along any street or alley, or to accumulate upon the surface of the ground at any place in such manner as to be offensive, or to constitute a menace to health.

SEC. 47. That where a nuisance is not abated after reasonable notice under the circumstances so to do the said superintendent of public safety shall cause the nuisance to be abated in pursuance and by virtue of the provisions of any ordinance or rule and regulation, or act of assembly relating thereto, and in the manner therein provided, or if the ordinance and the law will permit may proceed against the person, firm, company, or corporation, or officers thereof, or their agents or attorneys to recover the penalty provided in such case.

SEC. 48. In case of the prevalence or of reasonable ground to apprehend the prevalence of contagious, infectious, or pestilential diseases in this city, and when in the judgment of the superintendent of public safety the so doing is necessary for the public health, the said superintendent of public safety shall direct the cleansing of houses, cellars, yards, lots, docks, streets, alleys, and such other places as he shall consider requisite or prudent for the preservation of the health of this city or for the mitigation of diseases; and if such directions shall not be observed and fulfilled within the time therein prescribed, the person, firm, company, or corporation, or officers

thereof, or their agents or attorneys shall be liable to a fine and penalty as hereinafter provided.

SEC. 49. That public or private dumps shall not be located or maintained in or near a closely inhabited neighborhood, except by special permission of the superintendent of public safety, and decomposing animal or vegetable matter shall not be left exposed on such premises; such matter must be destroyed by burning or by other approved methods of garbage disposal. The owner or agent of a property will be held responsible for the sanitary condition of premises used as a dumping ground.

SEC. 50. That the city solicitor shall begin and prosecute all actions and prosecutions for violations of this and the other ordinances and rules and regulations of the city, and the laws of the State of Pennsylvania where it is proper for him to do so, relating to health and nuisances, upon the direction of the superintendent of public safety, and the department of health and its officers and employees shall lend their aid to the said city solicitor in performing the duty thus laid upon him.

Slaughterhouses—Sanitary Regulation. (Ord. 37, May 4, 1914.)

SEC. 29. No slaughterhouse wherein cattle, hogs, sheep, or lambs are slaughtered shall be maintained within this city which is so constructed, arranged, equipped, managed, or cared for as to injuriously affect the soundness, healthfulness, or wholesomeness or otherwise render unfit for human food the meats or meat-food products therein prepared, stored, or sold, or that shall be in violation in any way of the act of assembly approved the 25th day of May, 1907.

SEC. 30. Every slaughterhouse shall be furnished with a sufficient supply of running water. The floors shall be paved with asphalt, cement, or other impervious matter in which no leaks shall be permitted to exist, and which floors shall be washed at least once a week with hot water, and shall be from time to time disinfected in such manner as the supervisor of health may direct.

SEC. 31. No blood, manure, offal, or other refuse shall be allowed to accumulate in or around the slaughterhouse or in any place within the city where the same might or does become offensive and a menace to health.

SEC. 32. All slaughterhouses shall be open to inspection at all times by the supervisor of health or other sanitary agent of the local department of health, and any orders or instructions issued by the superintendent of health regarding the same must be promptly observed by the owner or other persons in charge.

Domestic Animals—Keeping of—Disposal of Dead Bodies. (Ord. 37, May 4, 1914.)

SEC. 33. The carcass of any animal which shall have died within the limits of the city shall be removed within 24 hours and properly disposed of by the owner of the animal if the owner be known, or by the owner of the property on which the dead animal is found, or in case the ownership is unknown and the carcass is found on a street, alley, or other public place, it shall be removed by the supervisor of health at the expense of the city. The disposal of all dead animals shall be under the direction of the supervisor of health and in accordance with the laws of the Commonwealth.

SEC. 34. No hogpens shall be constructed or maintained within the limits of this city, and no hogs shall be kept within the limits of the city except temporarily for slaughter, which keeping shall be under the direction of the supervisor of health.

SEC. 35. All coops or other inclosures for the keeping of ducks, geese, chickens, and other poultry shall be not less than 10 feet square and 5 feet high, and shall be at least 15 feet from any dwelling, and shall be cleaned at least once a week, or oftener if necessary.

SEC. 36. Any ducks, geese, chickens, or other poultry running at large in the city shall be subject to confiscation, and their owners or the person having charge of the same shall be liable to prosecution.

Foodstuffs—Protection and Sale. (Ord. 37, May 4, 1914.)

SEC. 37. No person, firm, or corporation who shall conduct any store, shop, stand, or delivery wagon within the limits of this city for the sale of meat, fish, butter, eggs, fruit, vegetables, bread, or any other article of food which is subject to decay, mould, or decomposition, shall have or keep in or about such store, shop, stand, or wagon, any meat, fish, butter, eggs, fruit, vegetables, bread, or other articles of food which is decayed, decomposed, or spoiled, as to render it unwholesome, offensive, or otherwise unfit for human consumption.

SEC. 38. All stores, shops, stands, and wagons from which articles of food are vended or sold must at all times be kept clean and in a sanitary condition, free from offensive odors or any accumulation or decomposed animal or vegetable matter, and shall at all times be open to the inspection of the supervisor of health or other authorized agent of the local department of health.

SEC. 39. No person, firm, or corporation selling meat, fish, fowl, fruit, or vegetables shall expose them on sidewalks or on or outside counters at stores, shops, or on stands, or in wagons, unless they shall be at least 2½ feet from the ground, pavement, or floor, and shall be thoroughly screened and protected from flies and dogs.

SEC. 40. All buildings or rooms in the city occupied as biscuit, bread, pretzel, pie, or cake bakery, or macaroni establishment shall be conducted in strict accordance with the act of assembly of May 27, 1897, entitled "An act to regulate the manufacture of flour and meal food products," and shall be at any reasonable time subject to the inspection of health authorities.

SEC. 41. All vehicles from which any biscuit, bread, pretzel, or other bakeshop product is sold in the city shall be kept in a clean and sanitary condition, and all baskets, boxes, or other receptacles in which any of the aforesaid products are conveyed through the streets shall be closely covered in a way and manner that will protect them from any pollution whatsoever. Said vehicle shall be at all times subject to the inspection of health authorities.

SEC. 42. The owner or owners of each and every meat market within the limits of the city shall connect the same with the public sewers and provide the same with city water, and shall keep the place in a clean and wholesome condition and free from all offensive odors.

SEC. 43. No butcher or other person in his employ shall appear for the purpose of cutting, handling, or vending meat unless he shall be neatly dressed in a white frock or with a white apron and white oversleeves extending over the elbows.

Stables; Location, Construction, and Care—Manure; Care and Disposal. (Ord. 37, May 4, 1914.)

SEC. 44. No owner, tenant, or lessee of any lot or land in the city shall erect or maintain thereon within 20 feet of any public street or of any building used for residential purposes, or bakery or grocery store or butcher shop, any manure pile or pit, or any barn or stable for the keeping of horses, cows, goats, or other cattle, unless such barn or stable shall have water-tight floors and a proper connection with a public sewer; and all barns and stables and yards connected therewith shall be kept in a sanitary condition, and all manure and other refuse therefrom shall be kept, when deemed necessary by the said superintendent of public safety, in water-tight manure pits or boxes for that purpose, and from May 1 to October 1 not more than one wagon load of manure shall be allowed to accumulate at any private stable or two loads at any livery or boarding stable without permission of the supervisor of health.

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