THE FACTS AGAINST
COMPULSORY VACCINATION

By H. B. ANDERSON

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This book has been prepared especially for the busy man or woman to read.

The entire story is contained in the headlines while the proof is given in light face type.

It is not necessary, therefore, to read the light face type except where questions arise regarding the accuracy of any assertion contained in the headlines, in which case the facts are readily available.

This book points out the fallacy of community vaccination, involving compulsory measures, but does not attempt to advise anyone whether he should or should not be vaccinated for his own protection.

The data contained herein is compiled entirely from board of health bulletins, medical journals and other authoritative publications.

It represents findings and concessions of the most outstanding advocates of vaccination. Hence, the data is of a most conservative character which understates, rather than overstates, the actual facts.

Nevertheless, the findings here given, revealing the imposition and enormity of the outrage of the vaccination requirement, are of a most startling character.

No institutions have wider facilities for acquainting themselves with the facts referred to in this book than federal, state and local boards of health. Why then, do they continue the policy of showing frankness in discussing vaccination in technical publications and pursue the policy of assuring the public in the press, on the radio and on the public platform that vaccination is harmless and that it constitutes a sure protection against smallpox?
Health boards know the truth of the facts contained herein. They also know the strength of the political medical machine which is ever striving to prevent information of this kind from reaching the public. But what they apparently fail to take into consideration is that information may be suppressed for a time, but eventually avenues are opened up for bringing the facts to the public.

We appeal to all friends of free speech, to all friends of a free press, and to all friends of medical liberty to assist in acquainting the public with the facts contained in this publication.

Compulsory vaccination as used in this book has reference to making vaccination a requirement by denying education, food, or employment to persons not vaccinated. The exercise of force to compel vaccination would subject the physician or health officer to possible damages for assault upon the body. (See Journal American Medical Association, December 6, 1924, p. 1865). Hence it was not considered necessary to discuss forcible inoculation.

Grateful appreciation is extended by the author to Reverend William Whitehead of Bryn Athyn, Pennsylvania for his invaluable assistance in compiling and assembling the data contained in this publication.

The Reverend Whitehead collaborated with the writer in the early stages of this treatise and the book would have been published under joint authorship except for Mr. Whitehead's absence abroad which necessitated its completion by the writer.

Reverend William Whitehead is Professor of History and Head of the History Department, Academy of the New Church, Bryn Athyn, Pennsylvania.

Note:—All bold face type used in the quotations in this publication are ours.
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This book is dedicated to the late Mr. John Pitcairn of Bryn Athyn, Pennsylvania who was one of the most outstanding opponents of compulsory vaccination in the United States.
"Will a nonimmunized person contract smallpox if exposed to the disease? By no means uniformly. Exposure to smallpox, especially to the milder forms, without contracting the disease frequently occurs and is no definite evidence of immunity. The number of cases of smallpox among the unprotected persons in contact with patients suffering from the disease is very much less than 100 per cent. . . .

"The purpuric, uniformly fatal, form of smallpox is the most difficult to prevent by vaccination, and cases of this form, without a true smallpox eruption, may occur in persons with a fairly good vaccination history ..." Extracts from article by Surgeon J. P. Leake, published in "Public Health Reports," the weekly bulletin of the United States Public Health Service, January 28, 1927.

PART I

The Vaccination Requirement Is Strenuously Opposed by an Enlightened Public Sentiment Within and Without the Medical Profession: It is un-American and is Sponsored by Class Interests Which Would Profit Financially by the Retention of this Legislation.
IN VERY FEW STATES IS VACCINATION COMPULSORY BY LAW AND OF THE STATES WHICH HAVE HAD SUCH A REQUIREMENT ONE AFTER ANOTHER HAVE ENACTED LEGISLATION TO MAKE THIS FORM OF TREATMENT OPTIONAL.

(Note:—Only nine states have laws making this form of treatment a requirement for admission to the public schools: the District of Columbia, Maryland, Massachusetts, New Hampshire, New Mexico, New York (in cities of the first and second classes only), Pennsylvania, Rhode Island and South Carolina. Vaccination of children during infancy is required by law in Kentucky and Maryland. It is optional with local authorities whether or not they shall require vaccination for admission to the public schools in Connecticut, Georgia, New Jersey, North Carolina, Ohio and Oregon. In the absence of legislation specifically authorizing State or local authorities to make vaccination a requirement for admission to the public schools, the state or local boards of health in Arkansas, Kentucky, and a few other states have attempted to require vaccination by means of health board regulations. This action has been upheld by the courts in some states but in most cases the exclusion of unvaccinated children from the public schools, except during times of epidemic, without specific authority from the legislature, has been held illegal. H. B. A.)
"The provisions relative to vaccination in the United States are many and varied. In very few States is this prophylactic measure at all compulsory by law. In some it can be made a provision of state-wide application at the discretion of the State board of health. In others, the majority, its adoption is optional with the local health authorities. Still in others, rules of the State board of health require its practice, and in several, its obligatory enforcement is absolutely forbidden.

"As to the practical enforcement of the existing provisions, no opinion can be expressed. Health authorities of various States admit that, owing to general apathy or lack of funds, vaccination is seldom systematically enforced, except perhaps in the case of school children."


"Compulsory vaccination prohibited.—In four States, Arizona, Minnesota, North Dakota, and Utah, there are statutory provisions against compulsory vaccination.

"The Arizona law provides that no minor child shall be subjected to compulsory vaccination without the consent of the child's parent or guardian. This law, however, has a proviso prohibiting the school attendance in a school district of unvaccinated children when a smallpox epidemic prevails in such district.

"In Minnesota the statute reads, 'no rule of the State board [of health] or of any public board or officer shall at any time compel the vaccination of a child, or shall exclude, except during epidemics of smallpox and when approved by the local board of education, a child from
the public schools for the reason that such child has not been vaccinated.'

"The North Dakota law forbids making any form of vaccination or inoculation a condition precedent for the admission of any person to any public or private school or college, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege, by any person.

"By the Utah" law it is made unlawful for any board of health, board of education, or any other public board to compel the vaccination of any person, or to make vaccination a condition precedent to school attendance.

"Compelling vaccination by physical force.—A provision of the South Dakota statutes makes it unlawful for any board, physician, or person to compel another by the use of physical force to submit to vaccination."

**Arizona Repealed Law by Referendum Vote.**

Prior to the year 1918 Arizona had the following compulsory vaccination law:

"Sec. 28. Each parent or guardian having the care, custody or control of any minor or other person shall cause such minor or other person to be vaccinated.

"Sec. 35. * * * Any person who fails to comply with or violates any of the provisions of this act * * * shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than ten nor more than fifty dollars, or by imprisonment in the county jail not exceeding thirty days, or by both.—(Acts of 1903, ch. 65)."

In 1918 the following law was passed by referendum vote:

"Section 1. Children, compulsory vaccination prohibited; school attendance during smallpox epidemic.—No minor child shall be subjected to compulsory vaccination without the consent of the parent or guardian having the care, custody, or control of such minor: Provided, however, That no minor child shall be permitted to attend
any public school in any school district in the State of Arizona during the period in which a smallpox epidemic may be prevalent in said school district unless said minor child shall have first been vaccinated.

"Sec. 2. Repeal.—That paragraph 4396, chapter 1, title 41, of the Revised Statutes of Arizona, 1913, civil code, be, and the same is hereby, repealed.—(Initiative measure approved by voters November 5, 1918; effective December 5, 1918)."

North Dakota Abolished Law in 1919.

Prior to the year 1919 North Dakota had the following law for the control of smallpox:

"279. Each parent or guardian having the care, custody or control of any minor or other person shall cause such minor or other person to be vaccinated.

"9038. Every person who wilfully violates any provision of the health laws * * * is punishable by imprisonment in a county jail not exceeding one year, or by a fine not exceeding two thousand dollars, or both.—(Revised Codes, 1905)."

The following law abolishing compulsory vaccination in North Dakota was passed by the North Dakota Legislature and approved February 14, 1919:

"Sec. 425al. Vaccination not to be made a condition precedent.—No form of vaccination or inoculation shall hereafter be made a condition precedent, in this State, for the admission to any public or private school or college, of any person, or for the exercise of any right, the performance of any duty, or the enjoyment of any privilege by any person.

"425a2. Repeal.—Section 425 of the Compiled Laws of North Dakota is hereby repealed, as well as are all acts and parts of acts in conflict with the provisions of this act—(1913-1925 Supplement to 1913 Compiled Laws)."

California Repealed Law in 1921.

Two acts were passed by the California legislature before the vaccination law in California was completely
abolished. In 1911 the requirement that children be vaccinated for admission to the public schools was modified in such a manner as to exempt children who presented a signed statement from the parent requesting that the child be permitted to attend school without vaccination.

In 1921 another act was passed which repealed the vaccination requirement altogether. It provides as follows:

"Section 1. Smallpox, control; vaccination rules, adoption.—The control of smallpox shall be under the direction of the State board of health, and no rule or regulation on the subject of vaccination shall be adopted by school or local health authorities. (Section 2 repeals ch. 134, acts of 1911.)—(Acts of 1921, ch. 370)."

Maine Abolished Law in 1921.

The State of Maine had, until the year 1921, a law authorizing superintending school committees to require vaccination for admission to the public schools. It provided as follows:

"Section 35. Superintending school committees shall—VII. Exclude, if they deem it expedient, any person not vaccinated, although otherwise entitled to admission.—(Rev. Stats. 1903, ch. 15)."

In 1921 this law was amended so as to make vaccination optional with parents, regardless of the wishes of the superintending school committees. The law as amended reads as follows:

"Sec. 38 (as amended by ch. 41, acts of 1921). Exclusion of unvaccinated persons from school.—Superintending school committees shall perform the following duties:

V. Exclude, if they deem it expedient, any person not vaccinated, although otherwise entitled to admission, unless a parent or guardian of such person shall present a signed statement that such parent or guardian is opposed to vaccination, in which event such person may only be excluded in the event of an epidemic of smallpox. —(Revised Statutes, 1916, ch. 16)."
Massachusetts Abolished Compulsory Vaccination of Infants in 1908.

Extract from a Communication by Mr. Henry D. Nunn in the Boston, (Mass.) Post, January 22, 1924.

"The first compulsory vaccination law was passed by Massachusetts in 1855. It required that every infant must be vaccinated before reaching the age of two years; that no child should be admitted to any public school unless vaccinated; that all inmates of public institutions must be vaccinated; that the employees of all manufacturing corporations must be vaccinated as a prerequisite to employment and to cap the climax, everyone must be vaccinated every five years. What was the result? In the 20 years following the enactment of this law there were 4221 deaths from smallpox in Massachusetts. The protection afforded by this law did not highly recommend itself to the people, and in time it was pretty much ignored, so that finally in 1908 the infant vaccination requirement was repealed without protest by anybody and without any bad results."

CHICAGO CITY COUNCIL IN 1926 ADOPTED AN ORDINANCE PROHIBITING COMPULSORY VACCINATION.

Copy of ordinance passed by the Chicago City Council January 13, 1926.

"The Board of Health shall pass no rule or regulation which shall compel any person to submit to vaccination, or injection of any virus, or medication, against his will or without his consent, or, in the case of a minor or other person under disability, the consent of his or her parent, guardian, or conservator, and nothing in this ordinance contained, or in any other ordinance heretofore passed and in force in this city, shall be construed to authorize or empower any person or officer to so vaccinate, inject, or medicate, without such consent, or to authorize or empower the said board of health to adopt any rule or regu-
lation requiring or authorizing any such vaccination, injection or medication."

A measure was also passed by referendum vote of the people in Colorado Springs several years ago making vaccination optional in that city.

ENGLAND HAS REPUDIATED COMPULSORY VACCINATION BY THE ACTS OF 1898 AND 1907 PROVIDING FOR A CONSCIENCE CLAUSE.

This Action Came As a Result of the Findings of The Royal Commission on Vaccination in 1898 Which Conducted the Most Exhaustive Investigation That Has Ever Been Made on This Subject.

Extracts from book by C. Killick Milliard, M.D., entitled, "The Vaccination Question In the Light of Modern Experience," 1914, directing attention to the repudiation of compulsory vaccination in England and the findings of the Royal Commission on Vaccination in favor of a modification of the vaccination law.

p. 1. "The Vaccination Question undoubtedly constitutes one of the most remarkable controversies of the age. In many ways it is unique. Beginning in the early days of last century when vaccination was first introduced, it only became a popular question when vaccination was made compulsory in 1853. It attained its most acute phase after the Vaccination Act of 1872, which, passed with the object of securing the more efficient enforcement of the Vaccination Laws by the appointment of Vaccination Officers, may be regarded as representing the high-water mark of compulsion. Since the Vaccination Act of 1898 with the note-worthy Conscience Clause, and still more since the Act of 1907 permitting the father to make a statutory declaration before a Justice of the Peace in place of having to go into Court, real compulsion has been very largely abolished. * * *
p. 27. "The Royal Commission on Vaccination certainly represents by far the most exhaustive inquiry ever held in connection with the subject of vaccination and constitutes a landmark in the history of our subject. It was, indeed, one of the most remarkable inquiries ever held in connection with any subject. Appointed in the year 1889, the Final Report was not published until 1898, seven years later. This delay is not surprising, considering the enormous volume of evidence recorded. The Commissioners held 136 meetings, and examined 187 witnesses. In addition, they caused important investigations to be made for their assistance. The examination of certain individual witnesses occupied several whole days. The total number of questions put and answered was over 18,000. Some idea of the mere bulk of the reports issued is obtained from the fact that the five principal reports, consisting of closely printed matter, together with the eight bulky appendices, weigh altogether over 14 lb. avoirdupois! The Commissioners, under the able chairmanship of Lord Herschell, certainly did their work with commendable thoroughness, and their reports constitute a veritable storehouse of facts relating to vaccination; but, unfortunately, much valuable evidence is virtually buried in this great mass of material. * * * *

p. 38. "Reference 5. The Question of Compulsion.—As regards the important question of compulsion, the Commissioners recommended a modified and much less stringent form of compulsion by recognizing and exempting the 'Conscientious Objector' on certain conditions. Two of those who signed the Majority Report, however, dissented from this concession; but, on the other hand, two other Commissioners joined the Minority Commissioners in objecting to the retention of the principle of compulsion in any form. There were thus two in favor of unrelaxed compulsion; seven in favor of a greatly modified and reduced form of compulsion; and four in favor of compulsion being abandoned altogether.
It would only have required the transfer of three votes, therefore, to have secured a majority in favor of the entire abolition of compulsion." * * *

**HOLLAND HAS SUSPENDED ITS VACCINATION REQUIREMENT BECAUSE OF CASES OF SERIOUS ILLNESS FOLLOWING VACCINATION.**

Extracts from item entitled, "Vaccination In Holland," translated from the Dutch official document suspending vaccination for one year, and published in the "Vaccination Inquirer" April 2nd, 1928.

"Vaccination against smallpox is not compulsory in Holland. By the Infectious Diseases Act, however, it has been laid down as a rule that teachers and pupils are not allowed to enter a school unless they have been vaccinated against smallpox, in a prescribed manner and with lymph prepared in laboratories approved of by the State. * * *

"In 1923 and following years, cases of encephalitis after vaccination have occurred. As in most cases this encephalitis has shown itself 10 to 13 days after vaccination, one has been led to suppose that there must be some connection between vaccination and the divergence of the central nerve system as stated from the diagnosis.

"One could therefore not maintain any longer that vaccination against smallpox has to be considered as entirely harmless, although the danger may be said to be very slight.

"Comparing the possible harm caused by vaccination, the risk of smallpox cases is in this country considered greater, if the indirect compulsion to be vaccinated should be entirely abolished.

"The Government, with a view to the present danger of causing encephalitis after vaccination, for which there are no decisive remedies yet, have thought it expedient to suspend the indirect compulsion for one year."
It is hoped that during that period, by means of official scientific investigations and searches, the cause of the complication may be discovered, so that measures can be taken to prevent it.

"Should this step have no satisfactory result after one year, then it will be for the Government, either to extend the suspension for another year, or if the danger of encephalitis is considered less than a threatened smallpox epidemic, to revert to the old regime.

"In political circles there is a strong current to retain the indirect compulsion of vaccination, even when admitting that some risk is attached to vaccination. After a year the Government will take a decision as to the future. When in some community a case of smallpox is reported, teachers and pupils, who are not vaccinated, are prevented from attending school until all danger of the disease spreading has disappeared.

"At present the work of investigation into the nature of the post-vaccination encephalitis is rigorously pushed on, not only in Holland itself, but also in conjunction with foreign governments, institutions and persons.

"The Hague, February, 1928."

AUSTRALIA HAS REPUDIATED COMPULSORY VACCINATION.

The complete repudiation of compulsory vaccination in Australia and the small number of persons vaccinated is shown by the following extracts from the article in "Public Health Reports," August 14, 1925, page 1691:

"In 1909 compulsory vaccination was in force only in the States of Victoria and Western Australia. In 1911 a 'conscientious objection' clause was inserted in the health act of Western Australia and in that of Victoria in 1919. In South Australia an act to suspend compulsory vaccination was passed in 1917.
"New South Wales has never had any statutory provision for compulsory vaccination, but public vaccinators are appointed and receive a fee for each vaccination performed and reported. In this State, excepting for the years 1913-1917 (period of smallpox outbreak), the vaccinations per 100 births varied from 0.02 to 0.7. In 1913 the proportion was 19.5 and in 1914, it was 12.4.

"Infantile vaccination in Victoria continued up to 1919. From 1909 to 1919 the vaccinations in Victoria varied between 69 and 44 per 100 births; but in 1920, the year in which the 'conscientious objection' clause went into effect, they dropped to 12 and in 1923 to 6.

"The compulsory vaccination provision of the health act of Queensland has never been proclaimed and vaccination has been voluntary. As medical practitioners do not notify vaccinations, no exact data on the proportion of the population vaccinated are available.

"Compulsory vaccination in South Australia practically ended in 1901 by the inclusion of a 'conscientious objection' clause, and was abolished by an act of 1917. The number of vaccinations per 100 births dropped from 14.7 in 1909 to an annual average of 5 for the years 1918-1922. No vaccinations were reported in 1923.

"In 1909 a bill revising the compulsory vaccination act of 1878 failed of passage in Western Australia, in which year it was stated that 'only about 10 per cent. of those born in recent years in Western Australia had been vaccinated.' In the health act of 1911 a 'conscientious objection' clause was adopted.

"In Tasmania, under the vaccination act of 1898, all infants are nominally required to be vaccinated before the age of 12 months unless either (a) a statutory declaration of conscientious objection is made, or (b) a medical certificate of unfitness is received. No information regarding vaccination in recent years is available for Tasmania. No cases of smallpox occurred in Tasmania during the period 1903-1923.
"For practical purposes, it is stated, the Commonwealth, as a whole, has been unprotected by vaccination during the period under study; and at the present time some concern is expressed because of this fact. It is difficult to estimate the proportion of vaccinated persons, even in terms of infantile vaccination, without any consideration of the revaccination necessary to insure immunity. In the first volume of this study it was estimated that in 1910 about 30 per cent of all persons in Australia had been vaccinated, and the best estimate from all figures available places the present proportion at about the same figure."

THE VACCINATION LAW IN GERMANY IS BREAKING DOWN.

Extract from communication in the Journal of the American Medical Association, January 30, 1926, from its Berlin Correspondent.

"Since the introduction of compulsory vaccination by federal enactment back in the seventies of last century, there has been constant agitation in favor of either repealing or modifying the law. Some of the opponents hold that the law is superfluous and useless; others think that vaccination should be compulsory only when an epidemic is threatened. Both parties make use of the plea that they are conscientious objectors, especially since in England conscientious scruples are recognized as an excuse for noncompliance with the law. . . . Professor Grotjahn, who occupies the chair of hygiene at the University of Berlin and who has performed meritorious service, is in favor of the admission of conscientious objections as a valid excuse for failing to comply with the compulsory vaccination law."

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DUTCH SUSPENSION OF VACCINATION HAS EFFECT IN PRUSSIA.

Special to The Christian Science Monitor.

THE HAGUE—The suspension of the legal enforcement of vaccination in Holland, temporarily for one year, is having a marked influence abroad. In Prussia, where this law was just enforced, the state Minister of Public Health recently issued a decree stating that vaccination would for some months not be enforced in territories where cases of encephalitis had appeared.

The reason for this decision, as stated by the Prussian Minister, was that in Holland after vaccination, and apparently as a result of it, this disease had occurred or had taken a more serious form.

The medical editor of De Nieuwe Rotterdamsche Courant, writing on this subject in a recent issue, states that evidently the Prussian Minister had followed the advice of four medical professors who had investigated this matter in Holland. He points to the importance of this decision as taking place in the country where the legal enforcement of vaccination had its most staunch and numerous supporters in the past.—

From the Christian Science Monitor, April 18, 1928.
OPPOSITION TO COMPULSORY VACCINATION IS SO OVERWHELMING THAT AN INCREASING NUMBER OF MEDICAL, PUBLIC HEALTH AND SCHOOL AUTHORITIES ARE FINDING FAULT WITH THE VACCINATION REQUIREMENT.

Declaration by Dr. Wm. F. King, State Commissioner of Health of Indiana in Public Health Bulletin No. 149 issued by the United States Public Health Service, 1925.

p. 53. "I know of nothing that causes more useless antagonism and more difficulty and trouble to the health department than the more or less grand-stand orders issued by health departments requiring the vaccination of school children whenever a few cases of smallpox occur. I have never been able to see wherein a health department is justified in issuing an order requiring the vaccination of school children as a measure to control an outbreak of smallpox when the adult portion of the community is at the same time permitted to go and come as they may please. It seems to me that if a health department is to be consistent it should issue an order applying to every unvaccinated person regardless of age, and not be continually attempting to show an authority over the school children of the community, who, as a rule, are less responsible for the spread of the disease."

Declaration by Dr. John E. Monger, State Health Commissioner of Ohio, in the monthly bulletin of the Indiana State Board of Health, December, 1927.

"We are not German. We are not English. We are Americans, and you simply cannot tell an American that he must do thus and so. If you do, he will not do it just to show you he is an American. The history of compulsory vaccination shows this . . . America has it in spots, and it fails."
Declaration by Dr. Walter N. Dickie, Secretary of the California State Board of Health, as published in the bulletin of the Public School Protective League, Los Angeles, California, May, 1923.

"There is no doubt that many doctors in the medical profession would like a strict compulsory vaccination law for California, but the tendency now is to accept the undeniable rights of the individual to choose for himself and for his children that particular mode of treatment which in his judgment will best promote health and happiness."

Copy of editorial published in the weekly bulletin of the California State Board of Health, January 6, 1923.

"There is apparently some confusion and misunderstanding relative to the present status of smallpox control in California. Smallpox is now controlled under the regulations of the State Board of Health, the same as other communicable diseases. There is no special legislation with regard to smallpox, with the exception of Chapter 370 of the 1921 Statutes, which repeals the old Vaccination Act of 1911, and provides that no rule or regulation on the subject of vaccination shall be adopted by school or local health boards.

"This measure does away with the cumbersome and unpopular Vaccination Act which provided for the exclusion of all unvaccinated persons from attendance upon the school whenever smallpox existed within the school district.

"The complex conditions which arose in connection with this act led to many embarrassing and difficult situations. Under the present law the regulations of the State Board of Health provide a uniform method of regulation and thus the possibilities for confusion and misunderstanding should be eliminated."
Extract from editorial in the California State Journal of Medicine, February 1921, advocating the passage of the bill which resulted in the repeal of the vaccination law in California.

"Senate Bill 408 is an act to repeal the general vaccination act for public and private schools. This act has been the source of confusion and useless expense. It does not seem practical of administration without much friction. The law requires that a child must be vaccinated or present a conscientious objector's card before he or she can be admitted to school. Many children whose parents recognized the efficacy of vaccination presented objector's cards and thereby created false statistics and increased the work and expense of City and State health departments. The establishment of exclusive districts for unvaccinated children created more work and expense. The repeal of the law will in no way interfere with the present powers of health officers."

Declaration by Dr. W. J. Breeding, Director, Division of Health Education, and E. A. Lane, Epidemiologist, Tennessee State Department of Health, in an article published in "Public Health Reports," July 23, 1926.

"Although the percentage of persons vaccinated in Tennessee is extremely low, it is believed that the State law empowering local boards to enact such vaccination measures as may be deemed necessary for the protection of the public is adequate for the time being. A State compulsory vaccination law, unenforceable in rural sections, might stir up such opposition as to hinder other health programs."
Extract from communication by former Commissioner of Education, Andrew S. Draper, to the President of the Board of Education, Olean, New York, January 24, 1912, published in the Ninth Annual Report of the Education Department, State of New York, for the School Year Ending July 31, 1912, in which he pointed out that there was a discrepancy between the law requiring that children receive an education and the law requiring them to be vaccinated, and that it was the duty of the legislature to correct this discrepancy.

"While the health law declares that all children admitted to the schools must be vaccinated, and therefore would exclude children who are not, the Education Law requires that all children of school age shall be required to attend the schools. In other words, there is an inconsistency between the provisions of the health law and those of the Education Law bearing upon this subject. Both of these statutes cannot be strictly enforced. It is a matter of common knowledge and it is within my official knowledge that the health law requiring all children to be vaccinated as a condition to their admission to the schools is not strictly enforced, for the sufficient reason that it is not enforceable in the absence of a real menace to the health of the school; and it is more than doubtful if the Legislature, in an act concerning public health alone, actually intended to limit the inherent American right of attendance upon the free schools to those who would yield that freedom of judgment concerning their physical health or its treatment, which they might have to do if required to be vaccinated. To say the very least, there are natural rights held sacred by our political system which are either not to be invaded at all or only when absolutely necessary to protect society and give safety to the institutions of the country."
Declaration by Dr. William Brady, in a syndicated article published in the Ohio State Journal, Columbus, Ohio, October 21, 1923.

"Although I like this comfortable feeling of being well vaccinated, still I should vote a positive no on any proposition of compulsory vaccination for any group of people or even for all the people. I should vote no on any proposition which, through interlocking ordinances, would make vaccination virtually compulsory—such as the compulsory school attendance law and the law which permits the authorities to exclude children not properly vaccinated. . .

"Compulsory vaccination is an institution which a community, and particularly, the health guardians of the community, should be ashamed to countenance today. It is tantamount to a confession that the community is backward and unenlightened upon the elementary principles of hygiene and sanitation. . .

"Anything resembling compulsory vaccination seems out of joint with the times. I am my brother's keeper only with his consent. Any citizen should have the right to suit his own taste in his choice of religions, healers and health insurance, provided his preference in such matters does not endanger or encroach upon the rights of his neighbors. If vaccination is as efficacious as we believe it to be then those of us who do believe in it are reasonably well protected and therefore we cannot be endangered by those who are not vaccinated."

Declaration by "American Medicine" in an editorial March, 1914,

"The growing opposition to vaccination is a matter of grave concern. This new movement . . . is not the illogical and absurd anti-vaccinationist crusade, but is the conviction on the part of very intelligent men, that it is useless to protect against an infection which they may never encounter. . . . . . This attitude is not confined to
laymen, but is taken by those leading men in the medical profession who postpone vaccination of their own kith and kin until the last moment. Two world renowned men have confessed to us that they have had their children vaccinated only in obedience to public opinion in and out of the profession. The worst of the matter is that the profession as a whole uses exactly the same arguments in advising patients not to take any other prophylactic until the necessity arises—anti-toxin of diphtheria, for instance. Doubtless we could immunize everyone against plague and cholera, but what's the use if plague and cholera never come here? So we hear men saying that there is not one chance in a million of their children being infected with smallpox, but that there is far more chance of a pus infection or tetanus from the vaccine."

THE LONDON, LANCET, ENGLAND'S LEADING MEDICAL JOURNAL, RAISES THE QUESTION OF THE DESIRABILITY OF ABANDONING UNIVERSAL VACCINATION AS A PUBLIC HEALTH MEASURE.


"Failure to control smallpox in the North of England has brought the policy of universal pseudo-compulsory vaccination of infants into further disrepute.

"It is a mistake to suppose that all the opposition is due to lack of imagination or crankiness.

"Vaccination at the age of six months inflicts an infectious disease on the child at a time when its digestive mechanism is being rapidly modified, and many reasonable people, although convinced that vaccination will prevent smallpox, think that the advantages of immunity do not outweigh the disadvantages of its production.
"There is enough sense in the opinion . . . . to make universal and full vaccination of infants (as theoretically enforced by Parliament) impracticable in this country at the present time . . . .

"All that happens is that WHEN AN EPIDEMIC OF SMALLPOX BREAKS OUT THE MEDICAL OFFICER OF HEALTH DOES HIS BEST TO FRIGHTEN THE PUBLIC INTO WHOLESALE VACCINATION, his success depending partly on his personality and partly on whether the disease itself seems dangerous to the people of the district. This is an unsatisfactory way of meeting" smallpox in a civilized community, and it is time that the alternatives were fully discussed.

"The first alternative is to let smallpox take its course, offering vaccination to those who prefer it . . . .

"The second alternative is to modify our methods of vaccinating infants, so that sensible people will have no reason to fear and dislike them . . . .

"The next, or third, alternative is to abandon universal vaccination altogether in favor of the effective treatment of contacts in the face of an epidemic . . . .

"It is likely that even if compulsory vaccination of infants were sacrificed, Parliament would still be unwilling to give power to the Ministry of Health to make vaccination compulsory within 'an infected area.'

"Criticism might be lessened, however, if such vaccination aimed at conferring only brief and temporary immunity, and it is theoretically possible to check the progress of an epidemic by using an antigen producing symptoms so far negligible that popular prejudice would soon fade away. . . . The measure would be reserved for contacts only. For them however, it must be compulsory to be effective.

'It may be that we have not yet achieved sufficient accuracy in vaccine standardization or in measuring individual response to enable us to estimate either the dose or the probable amount and duration of any immunity which might thus be conferred."
"Another difficulty to be faced under the rule of a medical bureaucracy would be that if once any official procedure were established by law it would be a long and difficult process to get any alteration made to suit different circumstances.

"Take, for instance, the case of vaccination against small-pox. Are we adapting ourselves to the marked changes in type of that disease which have developed during the last few years? At present the one endeavour of our medical hierarchy is to get the maximal number of people vaccinated and protected as completely as possible. Let it be granted at once that vaccination does (for a certain number of years) protect against small-pox, the question which arises is whether the present form of small-pox is worth being protected against. Supposing some vaccine were discovered which, for a certain number of years, entirely prevented chicken-pox or mumps, would anyone seriously suggest its universal use? I doubt it, yet both these diseases are responsible for no inconsiderable inconvenience and loss of time during school-life, and for the last ten years chicken-pox has been credited with from 40 to 83 deaths, and mumps with from 14 to 41 deaths annually in England and Wales. Is the present form of small-pox really more serious than chicken-pox? I have no personal acquaintance with it, but so far as I can gather, it very rarely gives rise to pitting and hardly makes those suffering from it feel ill—not so ill as vaccination often does."
"An exceedingly mild form of small-pox has now been epidemic in this country for several years; ought we not seriously to consider whether a disease which causes such slight constitutional disturbance, such an almost inappreciable number of deaths, and so few—if any—after-results, really calls for the elaborate and most expensive system of hospital isolation which we maintain for it, especially as we are told that in some districts it is considered preferable to have a pleasant three weeks in hospital with small-pox than to suffer from vaccination at home. Also, if the disease is really not more serious than chicken-pox, let us treat it accordingly and not try to prevent it by giving another disease which may cause as much, or more, constitutional disturbance, and in some cases as long, or even a longer period of incapacity for work.

"The results of vaccinia are not absolutely negligible and, unfortunately, whilst the number of deaths from small-pox is now certainly much overstated, there is a possibility that those from vaccinia may be understated. Moreover, it is now recognized that in a certain number of cases recently the vaccination of children previously perfectly healthy has been followed by an obscure condition of encephalomyelitis which not uncommonly proves fatal.
PARENTAL RIGHT TO DETERMINE FORM OF TREATMENT FOR CHILDREN IS FUNDAMENTALLY SOUND.

GOVERNOR BAXTER SAYS IT IS FUNDAMENTAL THAT EACH PERSON IS ENTITLED TO CHOOSE HIS OWN TREATMENT.

Extract from inaugural address of former Governor Percival P. Baxter of Maine, January 4, 1923.

"It is fundamental that each person is entitled to choose his own school of medicine or of treatment just as he may choose his politics or religion."

The Proposition That Parents Should Determine the Form of Treatment For Their Children is Laid Down in Numerous State and Federal Laws, of Which the Following Are a Few Examples.

Copy of provision contained in the Federal "Maternity and Infancy Act," approved November 24, 1921.

"Nothing in this Act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose."

Copy of Section 577-c amending the education law in New York State, effective April 17, 1926.

"Whenever affected by the requirements of this article, the teacher, janitor or other person so affected and in the case of a child, the parent or guardian of such child shall have the right to determine the form or manner of treatment or remedial care to be prescribed or applied, but the treatment or remedial care must be in accordance with and as allowed under article eight of the public health law, known as 'The Medical Practice Act.' "

24
Copy of Amendment to the School Law of the State of Indiana.

"Provided that no pupil or minor shall be compelled to submit to medical examination or treatment under authority of this section whose parent or guardian objects to the same. Such objection shall be made by a written and signed statement delivered to the pupil's teacher or to any person who might conduct such examination or treatment in the absence of such objection."

DR. GREEN SAYS TENDENCY TO REGARD MEDICAL PROFESSION AS A DIVINELY AUTHORIZED CLASS IS ERRONEOUS.

Declaration by Dr. Frederick R. Green, former Secretary, Council on Health and Public Instruction, American Medical Association, in an address before the Utah State Medical Association, September 30, 1914, and reprinted by the American Medical Association from North West Medicine, December, 1914 and January, 1915.

"Another error into which we have fallen as a profession is the tendency to regard the medical profession as a divinely authorized class, whose sacred and distinctive function is the protection of the people either with or without their consent. It is difficult to understand on what rational basis such a belief can rest in a scientific profession like ours. The medical profession is recruited from the same class as that which furnishes the lawyers, judges, ministers, teachers and business men of our country. The men who go into medicine are neither wiser, more unselfish, more upright or more infallible in their judgment than those who make up any other class of professional men. Why should we regard ourselves as of superior mold, or why expect our opinions or views to be accepted on any different basis from those of other men of equal intelligence, except in so far as we are able to justify our judgment? Yet too often medical organizations, as well as individual physicians, have
taken the position that they were the courts of last re-
sort; that it was their special function to dictate the
terms of public health legislation, and that it was the
duty of the public to accept their decisions and acquiesce
in their judgment."

Extract from Presidential Address by W. S. Thayer,
M. D. Before the Annual Meeting of the American
Medical Association, June 12, 1928, Published in the
Journal of the American Medical Association, June 16,
1928.

"In the broader matters of public health the public has
the same right, after seeking what advice it will, to take
just what action it chooses. It is our privilege to be in
a position where individually and collectively we are es-
specially qualified to advise the public in these matters.
This privilege implies a heavy responsibility. We must
seek to direct the public toward sane and efficient action.
But we must remember that neither as individuals nor
as an association have we the right to demand that the
public accept our views.

"As an association we are placed in a peculiarly deli-
cate position. Do what we will we shall be accused by
those who disagree with us of selfishness, of attempting
to protect our own personal interests, of using our power
as an organization to oppress others. We must be exceed-
ingly careful to see that such reproaches are wholly un-
justified. We must not expect that we can go our way
without adapting ourselves to circumstances beyond our
immediate control. A well balanced life is one long com-
promise. We must compromise as best we can with ex-
isting conditions while we seek to direct events toward
that which we think the wisest course. We cannot stop
the general tendencies of the day by violence or heated
opposition. The late King Canute was not successful in
controlling the rising tide."
Declaration by the Journal of the American Medical Association in an Editorial, February 15, 1919.

"It is not the function of the medical profession to maintain lobbies or to endeavor to secure public health measures by political methods. The true function of the medical profession is to advise the people, to show them how to protect themselves. The doctor's mission is to be a teacher and not a political manipulator. The responsibility for public health conditions must rest with the people and not with any special class or profession. The sooner these general principles are recognized, the better it will be for the medical profession and for public health advancement."

COMPULSORY VACCINATION IS UNAMERICAN.

Extract from the "Declaration of Independence," made by the Original Thirteen United States of America, on July 4, 1776.

"We hold these truths to be self-evident, that all men are created equal, that they are endowed, by their Creator, with certain inalienable rights, that among these are life, liberty, and the pursuit of happiness. That to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed, that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles, and organizing its powers in such form as to them shall seem most likely to effect their safety and happiness."

Extracts from the Constitution of the United States of America.

"We, the people of the United States, in order to form a more perfect union, establish justice, insure domestic
tranquillity, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this constitution for the United States of America."

Amendments to the Constitution of the United States.

Article I—"Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech or of the press, or the right of the people peaceably to assemble, and to petition the government for a redress of grievances. . . .

Article IV—"The right of the people to be secure in their persons, houses, paper and effects, against unreasonable searches and seizures shall not be violated; and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized. . . .

Article V—"No person shall. . . . be deprived of life, liberty or property, without due process of law; nor shall private property be taken for public use without just compensation. . . .

Article XIII—Section 1—"Neither slavery nor involuntary servitude, except as a punishment for crime, whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction. . . .

Article XIV—Section 1—"All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the state wherein they reside. No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws."
TYPICAL INSTANCES OF ATTEMPTS BY ADVOCATES OF COMPULSORY VACCINATION TO WITHHOLD EDUCATION, EMPLOYMENT OR FOOD FROM PERSONS AS A MEANS OF FORCING THEM TO BE VACCINATED.

Copy of editorial from the St. Louis (Mo.) Star, May 24, 1926.

"Be Vaccinated or Get Fired.

"A new form of compulsory vaccination has come to light in that vaccination has begun of about 1200 employees of the Chicago & Eastern Illinois Railroad, and it is announced that employees who refuse to be vaccinated will be the first laid off when forces are reduced. It is hard to conceive of a big successful corporation taking such a narrow-minded action. Vaccination numbers among its opponents hundreds and thousands of laymen and many doctors of unquestioned standing. It is bad enough for School Boards and other civic agencies to force those that do not believe in vaccination to submit to it, but for a private corporation to take upon itself such duties is incompatible with the American idea of liberty."

"Recommendations" by Dr. C. C. Pierce, Senior Surgeon, U. S. Public Health Service, while investigating an epidemic of smallpox in St. Paul and Minneapolis in 1925, published in the Minneapolis Morning Tribune and Evening Tribune, January 14, 1925.

"(1) That the boards of education of the Twin Cities require all teachers, employees and pupils of the public schools to be vaccinated or exclude them.

"(2) That all employment agencies refuse to register applicants unless vaccinated.

"(3) That all merchants be requested to have all employees vaccinated."
"(4) That all hotels and lodging houses have all employees vaccinated.

"(5) That the Salvation Army, Union City Mission and other shelters and lodging houses refuse to feed or lodge persons not vaccinated.

"(6) That all hospitals refuse to admit visitors not vaccinated.

"(7) That all newspapers be urged to join in a publicity campaign to attain prompt 100 percent vaccination."

Extracts from discussion at a conference of health officers at Lansing, Michigan, December 12, 1923, published in "Public Health," April, 1924 issued by the Michigan Department of Health.

"Dr. Slemons: . . . 'The children in our schools are given slips—you will find one of them in the exhibit, in the auditorium—notifying the parents that the child is not vaccinated. While the slip does not exactly demand vaccination, as you will find upon reading it, most people think that it does and by using it we get a very high percentage of vaccinations because our people have gotten to believe that this is compulsory.'

* * *

'. . . On any slight pretense of exposure we demand vaccination. How far do we go? We go just as far as we can.'

* * *

'By taking advantage of any secondary exposure you will be able to keep 100 per cent of the children in your schools vaccinated. Here is a point that we have found extremely beneficial—we penalize the non-vaccinated person every opportunity we get. I mean by this that any non-vaccinated person exposed to smallpox is looked upon as a potential case of smallpox and that person goes home and stays there for sixteen days, while a direct exposure
when vaccinated gets every consideration, and at the end of a seventy-two hour period goes back to the public. It has a very wholesome effect.'

* * *

"Dr. Godfrey: 'In our city unvaccinated children even though they are not exposed to contagious disease, cannot come to school until they are vaccinated.
'Unvaccinated children are turned over to the school board, and excluded from school and then as soon as the records show that they are not in attendance at school they are arrested for non-attendance. In other words, we get them going and coming.'

* * *

"Dr. Town: 'Penalize the fellow who refuses to co-operate, you will find this is pretty good medicine.
'In Jackson we have not gone into any factory or school and put on a program of vaccination unless pretty definite report of exposure has come in, because when we do go we go the limit, and interpret 'exposure' in its loosest term. We have railroad shops where we vaccinated 1500 men as soon as it was reported that one man had worked five days with an eruption. We interpreted this as wholesale exposure, and secured authority from their Detroit office to do the work. Incidentally, we were very glad to have their regularly employed physician and surgeon handle the vaccinations.'

Extract from syndicated article by Harris Dickson, published in Savannah (Ga.) News, June 14, 1927.

"A drag net, drawn at random through the flooded area, catches queer fish. The Baton Rouge haul recently pulled in eighteen members of a certain small sect who refused to be vaccinated or take the typhoid serum, because, they insisted, it was against their religion. Surgeons attempted to persuade them.

'Do this for your own protection, as well as for the safety of a generous city that shelters you.'
"Not much. Altruistic arguments never touched them."

"'Well,' the Red Cross man was trying not to become a very cross man, 'Does your religion forbid you to eat?"

"Eat? Free rations? Oh, dear, no. Breakfast, dinner and supper constitute Articles One, Two, Three of their creed. They believe in substantial food."

"'Fine!' the Red Cross official snapped, 'From now on your meal tickets are cancelled until you can show your vaccination scars.'"
PHYSICIANS DO NOT WANT COMPULSION FOR THEMSELVES.

Extract from a copyrighted dispatch from Mexico City, to the Observer Dispatch and the Chicago Daily News, published in Utica, N. Y. Dispatch, April 22, 1926, referring to the cancellation by 130 members of the Dallas Chamber of Commerce of their trips to Mexico rather than submit to vaccination.

"Nearly 100 American medical men who were expected in Mexico at the end of April after a conference in Dallas have fared better than the commerce body. Arrangements have been made for allowing them to enter the republic without vaccination."

Copy of an editorial in the "New York Medical Week," June 16, 1923, in which the physician is told that he must "woo" and "court" the germ to find vacation peace.

"A DIRGE TO WORK.

"The decisive onset of warm weather calls a halt to the strenuous activities of colder days for the doctor. It is the signal for rest, and in the delights of fishing tackle and golf ball the medical man can find relief and solace for the harassing memories of the winter's strain.

"It is true that the warm days of summer often bring a heat a little too extreme for comfort but, if we do not bear up well under them, it is a consolation to remember that neither do the microbes. And the nocturnal silence of the telephone lends such harmony to the music of the spheres!

"We might append weighty warnings of the need for care and hygienic vigilance in the pursuit of rustic pleasure, but according to Surgeon-General Cummins' counsels this will never do for the doctor's summer. Following out the official law of paradoxes, it is only by wooing the microbe and courting the germ that the
medico will find vacation peace. What food for contemplation on the dangers of medical life!"

**ORGANIZED REGULAR OR ALLOPATHIC PHYSICIANS AND VACCINE COMPANIES HAVE A COMMERCIAL INTEREST IN MAKING IT APPEAR THAT COMPULSORY VACCINATION IS NECESSARY.**

Medical Society Official Announces that Less than Fifteen Percent are Prospects for Smallpox But One Hundred Percent Are Prospects for Vaccination.

Declaration by Dr. Mather Pfeiffenberger of Alton, Illinois, formerly President of the Illinois State Medical Society, in an address before a joint meeting of the Second Annual Health Officers Conference and the Sangamon County Medical Society, Springfield, December 3, 1926, as reported in "Illinois Health News" for January, 1927.

"Prevention practiced to its utmost will create more work for the physician and not diminish it, for the full-time health officer will be educating his community constantly. There will be more vaccination, more immunizing, more consulting and use of the physician. His services will be increased many fold.

* * * *

"I am informed that epidemic and endemic infections cause only 12% of all deaths and that this percentage is declining very rapidly. Less than 15% of all children would ever get diphtheria even under epidemic conditions, while 100% are prospects for toxin-antitoxin. The percentage who would ever get smallpox, under present time conditions, is even less; but 100% are prospects for vaccination. Scarlet fever will soon come in for its 100% also, as it may for measles, judging from the reports on that disease. Typhoid fever is disappearing, due to sanitation, but vaccination should be used when the individual travels into unknown territory and countries."
THE ECONOMIC SIDE OF IMMUNIZATION OR TREATMENT

At a recent meeting of physicians the suggestion was made that if various immunization programs sponsored by various public health agencies were carried to their logical conclusion it would have the effect of curtailing the amount of medical practice available to physicians. In this connection there are several well established facts to be kept in mind.

No immunization program yet proposed in Michigan has been made sufficiently complete to reduce the sickness or death rate of the state as a whole. Local immunization in towns, schools or institutions have been the direct cause of the total absence of smallpox and diphtheria in these restricted areas. The county medical societies of four counties sponsored the immunization of all the school children of their respective counties. The result was a reduction of one-half the diphtheria deaths. In spite of the years of demonstration of the effectiveness of vaccine virus, over 500 cases of smallpox occur annually in this state; it is plain to see that the complete elimination of any of these diseases from this state is not an end near at hand.

The making of people immune to disease is the field of the private practitioner of medicine. Only in cases of indigency, emergency or for the demonstration of its value to the public is it sound policy for public health departments to do this work. Therefore, when this desirable state of immunity is conferred upon people it will be the direct result of the services of their own physicians.

Let us see, then, what the cold figures concerning this type of practice show.

In this state there are 100,000 people born annually. They are practically all susceptible to diphtheria from the moment they are born. They are highly susceptible from the age of six months until they are immunized. If these infants were all immunized, and for this service the physicians received from $5.00 to $10.00 per case, the net income would be from $500,000 to $1,000,000. Michigan has 5,000 cases of diphtheria annually. If the physicians received for their services, exclusive of all other costs, an average of $50,000 per case the income from this source would be $250,000. The increase in physicians income from diphtheria would be from one-quarter to three-quarters of a million dollars, if we would immunize all children against this disease soon after they are six months of age, instead of waiting until they are stricken with the disease and then treating them.

Some maternity hospitals are vaccinating with vaccine virus all babies born in their institutions. Babies under ten days old very seldom have any general reaction and the immunity usually lasts for the whole lifetime of the individual. It is estimated that one-third of all births in this state occur in hospitals. If all hospitals were to establish this rule as part of their regular procedure, it would mean an addition of 30,000 immunized people in the state each year and an additional income of at least $60,000 to the physicians or hospitals.

When the 100,000 people born every year in Michigan are vaccinated against smallpox at birth, the income to the physicians would approximate $200,000. The 500 cases of smallpox that occur every year, treated at an average of $50.00 per case, bring physicians $25,000. Thus the physicians, by adopting the practice of vaccination at birth, would increase their income by nearly $200,000.

We have taken diphtheria and smallpox as examples of the economic advantage of immunization, but the same conditions apply to other diseases and to other public health measures.

With persistent educational work by the physicians and the Michigan Department of Healthy these immunization programs will succeed in reducing the number of these preventable diseases and increasing the earning of the physicians who actively sponsor this modern type of practice.

SUMMER RESORTS

Summer restarts, and their proper sanitary supervision, have come to be a topic of perennial interest to everyone concerned with the public health. The increasing tendency to migrate during the warm weather—and the modern facility of mi-
Mr. Draper Says in Many Cases Physicians Become Interested in Enforcement of Law Because of the Fees.

Declaration by Andrew S. Draper, former Commissioner of Education, in his fifth annual report of the New York State Education Department, for the year ending July 31, 1908.

"In many cases physicians become interested in the strict enforcement of the law because of the fees resulting therefrom. In some school districts a physician is appointed by the trustees and the entire expense of vaccinating the children is borne by the district. In many others, parents are requested to have their children vaccinated and a physician is appointed who vaccinates those children only whose parents do not provide for their vaccination. In any event all the children are vaccinated and provision is made for prompt payment for such service. In the more populous districts the medical fees resulting from vaccination are an important item. It is not claimed that physicians as a rule are governed in this matter by a mercenary motive. On the contrary in the great majority of cases their action in urging vaccination emanates from their professional knowledge of the subject and their desire to render a distinct service to the people of the community in which they live. However, this mercenary motive has been the controlling factor in a sufficient number of cases which have come to the attention of this Department to justify the above assertion."

Copy of a Washington dispatch published in the New York Evening World, October 31, 1924, announcing adoption of fee schedule for vaccination, ranging from two to twenty-five dollars per person.

"Washington, Oct. 31—A scale of minimum and maximum fees for almost every ill a physician or surgeon is ever called upon to treat has been fixed by the Medical Society of the District of Columbia.
"Minimum fees range from $2.00 for a minor office consultation or a word of advice over the telephone to $300 for certain major operations. Maximum fees for similar service range from $10 to $5,000.

"An example is the fee for a smallpox vaccination, where a minimum of $2, and a maximum of $25.00 is fixed. General visits range from $3 to $25, and the removal of an appendix may cost from $100 to $5,000."

[Note:—It is significant to note that the above schedule fixing a minimum fee of $2.00 and a maximum fee of $25.00 was adopted during the latter part of the year 1924 and in the early part of the following year an extensive vaccination campaign was carried on in Washington, D. C. for the alleged prevention of smallpox.—H. B. A.]

Dr. Rankin Tells Physicians to Think of the Business the Physicians Receive in Keeping Up the Vaccination Work.

Declaration by Dr. W. S. Rankin while Secretary of the North Carolina State Board of Health, as reported in the Journal of the American Medical Association, November 4, 1922.

"Last year we inoculated 70,000 persons against typhoid fever, and 1,000 children between 6 and 12 years of age against diphtheria. The county commissioner paid the local practitioners 25 cents for each complete inoculation and that was $20,000 which went to the profession last year which otherwise would not have been received.

"The work of the medical profession with the state board of health does not stop when that $20,000 is paid. It goes on. In the dispensaries which were conducted in Union County, N. C, with 35,000 people, the physicians vaccinated 10,000 people in a campaign of five weeks. That was $2,500 paid to twenty physicians—only $125 each, but think of the effect on the business of the profession in keeping up that work. It goes on."
Extract from editorial in the Boston Medical and Surgical Journal, September 17, 1925, in which it takes the position that vaccinations and inoculations are necessary for the young physician to have a practice that will be considered successful.

"The young physician who believes that his life work will consist in a daily round of house to house visits, watching the course of typhoid fever, of pneumonia and of inoperable cancer, is making a grave mistake. If he is to keep abreast of the times and enjoy a practice that will be considered successful his duties will consist of vaccinations and inoculations, periodic health examinations and advice as to hygiene, diet and the maintenance of health."


I feel that it would be out of place to attempt to discuss preventive medicine from a monetary standpoint, for physicians as a rule have never been considered a mercenary profession. Otherwise they never would have, as in the past, fallen in line so readily and given their cooperation toward preventive medicine that has had such wonderful results in the past quarter of a century. If, however, this thought should ever enter the mind of any physician, stop and consider what it would mean to you, if the present health propaganda and the prevention of preventable diseases should be universally adopted—annual physical examinations, vaccination against smallpox, diphtheria and I think in the near future, scarlet fever and measles. Would it not appear to you that the revenue from this source would far exceed the remuneration received from the comparatively few diseases treated that would naturally occur in the families of your clientele? And besides it would be much more satisfactory.
INTRODUCTION OF BIOLOGIC PRODUCTS HAS INCREASED THE DANGER OF COMMERCIALIZED THERAPEUTICS.


"The danger of commercialized therapeutics has been enormously increased by the introduction of biologic products. These substances offer a rich field for the commercially minded, first, because of the remarkable results which seem to have followed the use of certain products of this type; second, because the field is new and the mode of action of these substances not readily understood and, third—and most important—because, by the very nature of the problems involved, few physicians are well informed concerning them."

Item from the Journal of the American Medical Association, February 18, 1905.

"The Downfall of Therapeutics.—The following editorial from American Medicine shows clearly the present status of therapeutics and materia medica: 'Before the development of the natural sciences placed medicine as an art among the applied sciences, therapeutics was the most important branch of medical study and practice. Among the medical sects the same observation holds true at the present time. During the last half century medical progress, however, the pursuit of exact medical knowledge, has led students chiefly into surgery, diagnosis, pathology and bacteriology. Definite knowledge of the intimate reactions of the metabolic processes of our bodies with foreign agents introduced as drugs is just coming into sight with the growth of the new science of pharmacology, and so necessarily therapeutics at present lags behind. All of which is new to no one who sees, and is introduced simply to draw attention to an unfortunate practical result of this state of affairs. For some years progress in materia medica and thera-
peutics has seemed almost to lie in the hands of lay manufacturers. With their new compounds and their disguised old ones, the drug makers have kept the materia medica expanding at an alarming rate. This condition is by no means wholly to be deplored, as the pharmaceutists have contributed much to the comfort of physician and patient. However, the tremendous preponderance of commercialism in recent therapeutic progress has brought with it some ill conditions. Money-making attracts the unscrupulous, and the medical profession has difficulty in separating the wheat from the tares. Any good new laboratory product of therapeutic value is immediately imitated or attacked. There develops intense feeling between foreign and domestic manufacturers, and all the while the poor doctor, as the bone of contention, is overwhelmed with "literature" and "medical journals" (sic) and agents. Contradictions multiply until mercury and quinin appear to be about the only agents of whose qualities the physician may feel reasonably sure! The prize—the patronage of the profession—being of great commercial value, many subterfuges are employed by some to enable them to share in it. Official positions in medical bodies at times are sought, and at other times are appropriated by not too nice strategy. Medical journals are subsidized and new ones are published. A number of makers pay a regular stipend secretly to complaisant doctors here and there over the country, who, in return, are expected to read "useful" papers and at every possible turn to uphold the wares of the benefactor. Thus it comes that therapeutics has reached its present low estate. Scientific physicians give their time to diagnosis and pathology, and limit themselves to simplest measures of treatment. Others make a diagnosis and then choose the remedy that the maker says is best for that condition. Many among us who love the study of means to alleviate suffering have endeavored faithfully to recreate professional interest in
pure therapeutics, but the combat with intrenched wealth and monopoly is an unequal one in the face of general professional lethargy. But hope is not to be abandoned.'"

**TWO HEALTH BOARDS ARE OFFICIALLY ENGAGED IN THE BUSINESS OF MANUFACTURING, CREATING A DEMAND FOR AND SELLING VACCINES AND SERUMS.**

Extract from "Public Health Reports," May 29, 1925, giving a list of the products which the Bureau of Laboratories of the New York City Department of Health in 1925 was licensed to sell.

"Diphtheria antitoxin; tetanus antitoxin; antimenin-gococcic serum; antipneumococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); tuberculin old; and bacterial vaccines made from gonococcus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test."

[Note:—The cash receipts of the New York City Department of Health from its "Sales of Virus" in 1924 amounted to $16,051.98 and its receipts from "Sales of Antitoxin" amounted to $53,277.41, making a total of $69,329.39, as brought out in the Annual Report of the New York City Department of Health for the year 1924. —H. B. A.]

Extract from article in "Public Health Reports," May 29, 1925, giving a list of the products which the Massachusetts Department of Health in 1925 was licensed to sell.

"Diphtheria antitoxin; antimeningococcus serum; antipneumococcus serum; vaccine virus; bacterial vaccines made from paratyphoid bacillus A, paratyphoid bacillus B, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test."
MEDICAL POLITICS STANDS IN THE WAY OF AN IMPARTIAL CONSIDERATION OF VACCINATION LAWS.

Extract from address by Dr. W. A. Evans, formerly Commissioner of Health of Chicago, published in the Journal of the American Medical Association, September 16, 1911.

"As I see it, the wise thing for the medical profession to do is to get right into and man every great health movement; man health departments, tuberculosis societies, child and infant welfare societies, housing societies, etc. The future of the profession depends on keeping matters so that when the public mind thinks of these things, it automatically thinks of physicians, and not of sociologists or sanitary engineers. The profession cannot afford to have these places occupied by others than medical men."

Copy of resolution adopted by the staff of the North Carolina State Board of Health, and published in The Survey, New York, September 15, 1922.

"It is a fundamental purpose of this staff to seek to enlarge and deepen the interest of the medical profession in public health work to the end that the profession in all public matters may assume the initiative and have the chief credit for whatever there is of achievement in disease prevention and health promotion."

Dr. Woodward Tells How He Succeeded in Lining Up the President of the Massachusetts Senate.

Declaration by Dr. Samuel B. Woodward in a Paper Published in the Boston Medical and Surgical Journal, September 15, 1921.

"The so-called vaccination bills are, in common with most health bills, referred to the Committee on Public
Health, and the composition of this Committee is of the utmost importance, for the legislature is naturally prone to follow its recommendations. It is, therefore, important to get in touch with the President of the Senate and the Speaker of the House, in whose hands the appointments to this, as to every committee lie, and this, during my three years as your President, I always did, finding understanding and cooperation in my endeavor to have men with medically sane minds, the majority appointees. The reason for this cooperation was not, however, always a desire for the improvement of health conditions in the Commonwealth.

"In 1919, a gentleman who afterwards became rather conspicuous as a candidate for State Treasurer, on account of the similarity of his name with that of the present occupant of the office, was the ranking Senator on the Committee of Public Health. Unsuccessful efforts had been made by your legislative committee to prevent his re-election. He was a pronounced anti-vaccinationist and anti all good health measures, yet courtesy would have made him chairman of his committee. The President of the Senate, however, told me that he would appoint as chairman, any Senator endorsed by the physicians of the State, and he kept his word.

"My successor in office, Dr. Worcester, was much chagrined a year later when he failed to obtain what he desired from the same gentlemen, and may be interested to know why I may have succeeded while he failed. The Senator in question was connected with a Boston bank. I am connected with a bank in Worcester and went to him provided with a letter of introduction from the President of one of the largest banks in Boston.

"Country banks maintain deposits in city banks, and some two months after our interview, the President of the Massachusetts Senate appeared in Worcester and suggested that I should use his bank as my bank of deposit."
"I believe Dr. Worcester is not a banker. It may be unnecessary to say that no change in financial arrangements was made by me. "But there are members of the legislature who are greatly interested in public health and who give, or at any rate gave me, good advice and abundant cooperation. It may be, and probably is, invidious to mention names in this connection, but if one wishes to find a legislator who from the time of his first election has consistently and always supported your legislative committee, he need not wander far from the chair of the present speaker of the house of representatives."

Declaration by Dr. Moore of Cadillac, Michigan in a Discussion of Medical Legislation, Published in the Journal of the Michigan State Medical Society, June 1928, p. 428.

"I think it is within the power of every physician to make a friend of his Senator and Representative. It is done in business, and it is done socially. Get him out and take him on a fishing trip or a hunting trip, or get him into a poker game. Get under his skin. Don't let him know what you are doing when you are talking to him, but get him so full of it that he is just all for you."

"I think it is a good suggestion for every physician and County Secretary to take home to the local societies to cultivate the acquaintance of the Senators and Representatives and then your problems will be solved. You have to do it on the banks of a stream or in a hunting camp or in a club room or a noonday luncheon club or some such place as that where you can get right next to the fellow."
Extracts from an article by John B. Hawes, 2nd, M. D., published in the Boston Medical and Surgical Journal, October 7, 1920, giving a summary of the replies to a questionnaire he had sent to the Secretaries of the State Medical Societies.

"New York: The State Medical Society has a legislative committee which for many years has been very efficient. It does not limit itself to attending hearings, but acts by personal interviews with the legislators. The New York County Medical Society also has a legislative committee, acting in unison with the State Society. For several years, the President of the State Society has taken an active hand in the legislative work. New York has adopted the principle of personal interviews and influence with the Legislature. They also ascertain who is the family or personal physician of each Legislator.

"North Carolina: The committee, however, selects one doctor in each county who can be called upon to confer with, write or wire his representative or senator in the General Assembly. There are 100 counties, and the Association has been able to turn in a telegram to the senators and representatives in the General Assembly from more than 75 per cent of these counties on a given morning. This has been of distinct influence.

* * * *

"Pennsylvania: The President of the Society has a desk in the Department of Public Health at the State House. He is in harmony with this department. He is closely affiliated with the medical members of the House and Senate, and attends committee meetings, not as a lobbyist, but simply as an advisor. He lets it be understood that he represents 11,500 physicians in Pennsylvania. The results depend largely upon the personality of the president of the society. Pennsylvania is to be congratulated in having as the president of its State Medical Society a man who can devote so much time and who is able to exert so much influence as is apparently the case here."
FACTS SHOWING THAT ORGANIZED MEDICINE HAS THE MACHINERY FOR POPULARIZING VACCINATION REGARDLESS OF ITS MERITS OR DEMERITS.

Declaration by Dr. William H. Park, Director of Laboratories, New York City Department of Health, at a Federal Hearing on a bill to regulate the Sale of Viruses, March 24, 1924.

"I remember meeting a physician who was, I thought, doing some very disreputable things, and I asked him why he did it, and he said it was the economic urge that caused him to do it. The economic urge does change our opinions, and we all know the advertising of a business is very apt to be an art in itself, and the advertiser may have very little knowledge of the thing.

"I remember some time ago I was asked to make a vaccine for a certain party, years ago, and I told him I did not have the facilities. He said:

"I don't care at all whether you have the facilities or not, because I can advertise the sale of the product, and even if you give me stone dust, if you will put your name on it, I can sell it."

Extract from editorial in New York State Journal of Medicine, June 1, 1928.

"The task of educating the people along medical lines would be hopeless if it had been done entirely by physicians; but fortunately the medical profession has the aid of the departments of health, the public schools, and lay organizations to such an extent that health education is invoked as justifying organized sports and the promotion of artificial beauty and comeliness.

* * * *

"The essential element in public health and popular health education is publicity, especially through the news-
papers. Physicians formerly avoided publicity, and even made their codes of ethics demand its suppression, because it was used by quacks for their personal gain. The physicians now recognize two kinds of publicity: 1, that of the individual doctors, and 2, that of the scientific movements which the doctors represent.

"The medical society is a collection of individual doctors, one of whom writes and speaks for all the others. It is the individual doctors rather than the organizations that speak or write.

"Lay organizations engaged in public health work are not subject to the strict code of ethics of the medical profession, but they depend on wide publicity for their very existence. They must show results in order to hold the support of the people who patronize them and the money givers who support them. They must transmute information of their activities into emotion and action on the part of their followers. They live by means of publicity of their aims and actions."


"The Bureau of Health and Public Instruction is reaching a tremendous public through radio lectures, health talks and direct correspondence. Much of its effort during the past year has been devoted to the promotion of periodic physical examination. Of special significance is its cooperation with the National Education Association in bringing health education directly to children in the schools. The great philosopher Leibnitz said that he could change the nature of the world if permitted to educate the children for two years."
"Arousing favorable public opinion toward the scientific work of the doctors is the peculiar field of lay health organizations.

"The practice of public health and civic medicine requires a combination of three conditions:

"1. Scientific knowledge made available by a few research workers.

"2. Physicians ready to apply the knowledge.

"3. People ready to receive it.

"A movement in public health starts from a center of discovery and spreads through a community in ever-widening waves. The center is usually a research laboratory where the discoveries, such as toxin-antitoxin and insulin are developed. As the waves advance they diminish in intensity. While the research worker is familiar with all the phases of the subject, the family physician needs to be familiar with only the application of the product or method; while the layman needs to know only that it exists, and is valuable as a health measure and is available at the office of physicians.

"The speed of propagation of waves of medical knowledge from a center is usually in direct proportion to the need of a community. Physicians apply a preventive measure according to the demand which the people make for it. A case of smallpox, for example, speeds up the distribution of knowledge of vaccination, and a desire for its application as a preventive measure; but the demand for the procedure often changes to opposition when the epidemic passes by.

"The function of a lay organization is to create a demand for public health where none has previously existed. It seeks to transform knowledge into strong desire and finally into action."
EXTORTION BY TERRORISM

How the Milwaukee Health Board Caused City to Become Panic-Stricken in Order to Promote a Dangerous and Questionable Vaccine.

Health Official Tells How He Used Fright and Pressure to Have People Vaccinated.

Declaration by Dr. John P. Koehler, Commissioner of Health of Milwaukee, Wisconsin, in an article in The Wisconsin Medical Journal, November, 1925.

"Since people cannot be vaccinated against their will, the biggest job of a health department has always been, and always will be, to persuade the unprotected people to get vaccinated. **This we attempted to do in three ways: first, by education; second, by fright; and third, by pressure.**

"We dislike very much to mention fright and pressure, yet they accomplish more than education, because they work faster than education, which is normally a slow process.

"During the months of March and April we tried education, and vaccinated only 62,000. **During May we made use of fright and pressure, and vaccinated 223,000 people.**

"Our educational program consisted of warnings in the daily papers, smallpox posters on the streets, in stores and factories, special smallpox bulletins for all large places of employment, and special letters to all large employers from the health department and the association of commerce, calling their attention to a threatening smallpox epidemic. The radio was also made use of in this work.

"As the conditions grew worse, we felt justified in using stronger measures. **We had some good pictures taken of patients suffering from the confluent type of**
smallpox, and had posters, showing these pictures, distributed all over the city. The moving picture theaters cooperated at this time by issuing warnings on the screen.

"The newspapers published daily the names and addresses of people dying from smallpox. A second letter was sent to all factories, stores, and other places of business, informing them of a rapidly approaching smallpox epidemic, and advising them to have their employees vaccinated immediately, and thereby prevent a serious financial loss to the city, which might occur if a real epidemic developed.

"At this time the department was vaccinating thousands of people daily, but there were still too many who could neither be educated nor frightened into vaccination. Cases and deaths each amounted to a considerable number, and we now felt justified in using all of the power a health officer has, and if that was not enough, to get more.

"We sent out a third letter to all employers requesting them to have all of their employees vaccinated and at the same time informing them that if a smallpox case developed in their place of employment in the future we would consider their place of business a menace to the health of the community and very likely place the entire establishment under quarantine until it could be cleaned up and made safe for the public. Putting this responsibility on the employer drove in thousands of anti-vaccinationists who could better afford to get vaccinated than lose their jobs. All employers co-operated very bravely with this last request, although in a few instances it was necessary to lay off old, reliable and valuable employees."
PART II

There is no relation between the vaccination requirement and the presence or absence of smallpox.
THE UNITED STATES PUBLIC HEALTH SERVICE CONCEDES THAT UNVACCINATED PERSONS MAY BE EXPOSED TO SMALLPOX WITHOUT CONTRACTING IT AND THAT SMALLPOX OF A FATAL CHARACTER MAY OCCUR IN PERSONS WITH A FAIRLY GOOD VACCINATION HISTORY.


"Will a nonimmunized person contract smallpox if exposed to the disease? By no means uniformly. Exposure to smallpox, especially to the milder forms, without contracting the disease frequently occurs and is no definite evidence of immunity. The number of cases of smallpox among the unprotected persons in contact with patients suffering from the disease is very much less than 100 per cent. . . .

"Though smallpox is unquestionably many times more frequent in the unvaccinated than in those who have had even a single vaccination, it is believed that neither the vaccination history nor the presence of scars should be given diagnostic weight. The unreliability of such a criterion is especially evident in virulent outbreaks of the disease. . . .

"The purpuric, uniformly fatal, form of smallpox is the most difficult to prevent by vaccination, and cases of this form, without a true smallpox eruption, may occur in persons with a fairly good vaccination history. . . .

"The mildness of the form of smallpox commonest at present is one reason for endeavoring to make preventive vaccination as harmless and as mild as possible. . . .

"Cases, and even fatalities, occur in every severe epidemic among persons who were vaccinated in good time but with vaccine found, too late, to be of insufficient potency; such cases and fatalities also occur among persons thought to be protected by successful vaccination performed years previously."
ORGANIZED PHYSICIANS IN ENGLAND WERE JUST AS SURE THAT THE INOCULATION OF PEOPLE WITH SMALLPOX WAS A GOOD THING AS THEY NOW ARE THAT VACCINATION IS NECESSARY, BUT SMALLPOX INOCULATION RESULTED IN ACTUALLY SPREADING THE DISEASE AND WAS MADE A PENAL OFFENCE IN ENGLAND IN 1840.

Extract from the Minority Report by Dr. W. J. Collins and Mr. J. Allanson Picton, of the Royal Commission on Vaccination, August, 1896 Calling Attention to a Resolution Passed by the Royal College of Physicians of London in 1754 Defending Smallpox Inoculation.

"In 1746 an inoculation hospital was started in London, and in most of the large provincial towns the new practice was encouraged by the clergy, as well as the leading medical practitioners, 'and in 1754 the Royal College of Physicians of London pronounced its authoritative sanction of what was no longer a speculative novelty.' The resolution of the college was: 'The College, having been informed that false reports concerning the success of inoculation in England have been published in foreign countries, think proper to declare their sentiments in the following manner, viz: That the arguments which at the commencement of this practice were urged against it have been refuted by experience; that it is now held by the English in greater esteem, and practiced among them more extensively than ever it was before; and that the College thinks it to be highly salutary to the human race.' From this date to the end of the century inoculation was widely diffused, though to varying degrees, in different districts; the practice doubtless paved the way for the later acceptance of vaccination. The latter came to replace the former method, and by the Act of 1840, sec. 8, the practice of inoculation became a penal offence.
"Inoculation is still practiced in India, in many places, and in association with religious observances, in honor of Sitla, the goddess of smallpox."

Extract from book entitled "Smallpox and Vaccination" by Benjamin White, Ph.D., Director of the Division of Biologic Laboratories, Department of Public Health of Massachusetts, in Which He States that Inoculated Persons Frequently Served to Spread the Disease to Others, p. 28. "Inoculation, or variolation, consisted in transferring matter from a true smallpox pustule to the abraded skin of the person to be protected. This procedure usually produced a mild form of the disease, which, anticipated and controlled, was preferable to a fortuitous and virulent attack, but it had serious disadvantages. Infections other than smallpox were transmitted along with the variolous matter. Further, the induced disease was true smallpox, and, therefore, inoculated persons frequently served to spread the disease to others. Then, too, the infection sometimes ran a typical and fatal course."

Extract from Article by Dr. J. H. Dempster in the Journal of the Michigan State Medical Society, July, 1926. "The method of prevention of smallpox that prevailed up to Jenner's time was that of 'inoculation,' the effects of which were often as bad as the disease itself. The procedure consisted in producing in the person an artificial attack of smallpox, and seeing the patient safely through the infection. Several doctors became noted for their skill in inoculation and the operation became a sort of specialty with them. The operation of inoculation was attended by risks through the danger of introducing other infective agents into the system. The only advantage of this old method of prevention consisted in the fact that the patient could select the time and place when he wished to have smallpox, but there was no guarantee that the induced disease might prove less dangerous than that accidentally acquired."
Jenner, the so-called discoverer of vaccination, was just as sure that a single vaccination would protect for life as organized medicine today is that vaccination affords temporary protection against smallpox.

Extract from the Minority Report by Dr. W. J. Collins and Mr. J. Allanson Picton, of the Royal Commission on Vaccination, Calling Attention to the Persistence of Edward Jenner in maintaining that a Single Vaccination Offered Protection Against Smallpox For Life:

"Jenner's first writing on the cowpox was a communication intended for the Royal Society in 1797, the original of which, it would appear, exists in manuscript in the library of the Royal College of Surgeons. The communication was not printed in the Philosophical Transactions, but was returned to Jenner, and, with additions, was published in 1798 as 'An inquiry into the causes and effects of the Variolae Vacciniae.' The original paper asserted that 'matter of various kinds when absorbed into the system may produce effects in some degree similar; but what renders the cowpox virus so extremely singular is, that the person who has been thus affected is for ever after secure from the infection of the smallpox; neither exposure to the variolous effluvia nor the insertion of the matter into the skin producing this malady.'

* * * *

"Cases in which smallpox had occurred after cowpox had frequently been pressed upon Jenner's attention (Gregory's 'Eruptive Fevers,' p. 208), and in his third publication in 1801 Jenner thus alludes to these objectors: 'Some there are who suppose the security from smallpox obtained through the cowpox will be of a temporary nature only. This supposition is refuted, not only by analogy with respect to the habits of diseases
of a similar nature, but by incontrovertible facts, which appear in great number against it.' . . . In his petition to the House of Commons he states that he had discovered that 'the cowpox admits of being inoculated on the human frame with the most perfect ease and safety, and is attended with the singularly beneficial effect of rendering through life the persons so inoculated perfectly secure from the infection of the smallpox.' (Baron. 1., 490).

SMALLPOX HAS GONE THE WAY OF CHOLERA AND OTHER FILTH DISEASES BEFORE THE ONWARD MARCH OF SANITATION AND IMPROVED LIVING CONDITIONS.

Extracts from Book Entitled "The Vaccination Question" by Dr. C. Killick Millard, Medical Officer of Health for Leicester, England, Issued in 1914, Directing Attention to the Decline in Smallpox Along With the Plague, Cholera and Typhus.

p. viii. Preface. "For forty years, corresponding roughly with the advent of the 'sanitary era,' smallpox has gradually but steadily been leaving this country [England]. For the past ten years the disease has ceased to have any appreciable effect upon our mortality statistics. For most of that period it has been entirely absent except for a few isolated outbreaks here and there. It is reasonable to believe that with the perfecting and more general adoption of modern methods of control and with improved sanitation (using the term in its widest sense) smallpox will be as completely banished from this country as has been the case with plague, cholera, or typhus fever. Accompanying this decline in smallpox there has been a notable diminution during the past decade in the amount of infantile vaccination. This fall-
ing off in vaccination is steadily increasing and is becoming very widespread.

* * * *

p. 185. "Undoubtedly, many have a genuine fear that if smallpox once succeeded in obtaining a foothold in an unvaccinated community it would spread 'with a rapidity of which we have in recent times had no experience.' I realize that any one who suggests that this view is unduly alarmist incurs a certain measure of responsibility, and I believe that this reflection has hitherto deterred those who might otherwise have been inclined to express a more sanguine view. Personally, having been Medical Officer of Health for thirteen years in a town which, for practical purposes, may be regarded as unvaccinated; living and moving, as I do, amongst a child population 90 per cent of which is unvaccinated, I feel unable to subscribe to this pessimistic view. I believe that the sanitary condition of the country has been so greatly improved, and alternative measures for dealing with smallpox have been so highly evolved, that we shall never revert to the state of things which existed in the days before vaccination was discovered."

Extracts from Article by Dr. C. V. Craster, Health Officer, Newark, N. J. In the American Journal of Public Health, May, 1925, Contrasting The Insanitary Conditions of the 19th Century With the Present High Standards of Living.

"The onset of the industrial era in Europe, and in America too, changed to an immense degree the general living conditions of the populations. As a result of economic demands for factory labor and also the lure of better wages, a continuous drift of population took place from the rural districts to the towns.

"This would not have been important as a national change had the cities been able to absorb and accommodate the vast army of employed. As it was, the cities were without sufficient dwellings and such as they had
were without a water supply, without sewerage, without even an available or clean food supply to provide for the new citizens. These conditions brought about in the vast majority of city dwellings in America and abroad during the middle of the nineteenth century overcrowding, indescribable filth and generally a miserable living standard among the families of the poor. Disease and every kind of infection ran riot, finding ideal conditions in the foul homes and in the emaciated and undernourished bodies of unfortunate victims.

"Speaking of the living conditions in the tenement buildings of the City of London in the 19th century Simon said: 'There are some places where the mortality is yet high, where in fact the cloud of death is always hanging, where the vitality of the people is seriously sapped and where disease makes an easy conquest. It is not enough that these places are the continuous haunts of such endemic maladies as phthisis, fever, and other putrid classes, but often they become seats of stronger pestilences.'

"A parallel to this situation existed at the same time in the City of New York, where in 1864, according to the City Inspector, 6,000 families comprising 18,000 individuals were living in underground cellars. . . .

"It was evident that although routine enforcement of such old established methods as isolation and quarantine were administration methods of some value in the control of epidemics, they would in the end be useless as mere gestures unless there was possible an improvement in the actual living conditions of the people. The demand for reform brought about the great national efforts to insure a good water supply for cities and the provision of adequate sewerage and refuse collection systems, as well as a general improvement in the type of city dwelling used by the worker.
"The greater number of epidemic diseases which swept over enormous continental areas were strictly diseases where possibilities of spread were directly questions of environment. This class would include smallpox, yellow fever, dysentery, typhoid fever, bubonic plague, cholera, malaria, typhus fever, meningitis and tuberculosis. All of these with the exception of tuberculosis have ceased to be widely prevalent except in countries where famine, destitution and filth exist as a result of war or economic revolution."

SMALLPOX IS ONLY ONE OF SEVERAL DISEASES WHICH HAVE SHOWN A SUBSTANTIAL REDUCTION.

The Following is a Photographic Copy of Chart by Statistician's Department, The Prudential Insurance Company of America, Showing Comparative Reduction in Mortality from Scarlet Fever, Diphtheria and Croup, Whooping Cough and Measles.

Comparative Reduction in Mortality from Measles

<table>
<thead>
<tr>
<th>Disease</th>
<th>1863–1872</th>
<th>1903–1912</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scarlet Fever</td>
<td>52.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Diphtheria and Croup</td>
<td>31.6</td>
<td>10.4</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>52.1</td>
<td>48.8</td>
</tr>
<tr>
<td>Measles</td>
<td>49.1</td>
<td>34.7</td>
</tr>
</tbody>
</table>

Comparative Reduction in Mortality from Measles

Massachusetts, 1863–1872 and 1903–1912

Deaths per 1000 Population, Ages under 70
THERE HAS BEEN NO INCREASE IN SMALL-POX FOLLOWING REPEAL OF VACCINATION REQUIREMENT IN MAINE AND A NUMBER OF OTHER STATES.

MAINE
Table Showing the Number of Cases and Fatalities from Smallpox in Maine Before and After the Year 1921 When the Law Authorizing Superintending School Committees to Exclude Unvaccinated Children Was Virtually Repealed by Passage of "Conscience Clause."

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>256</td>
<td>0</td>
</tr>
<tr>
<td>1921</td>
<td>96</td>
<td>0</td>
</tr>
<tr>
<td>1922</td>
<td>85</td>
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<tr>
<td>1923</td>
<td>118</td>
<td>2</td>
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<tr>
<td>1924</td>
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<td>0</td>
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<tr>
<td>1925</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1926</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>1927</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

MASSACHUSETTS
Extract from Communication by the Late Mr. Henry D. Nunn, in the Boston, Mass. Post, January 22, 1924 Directing Attention to the Repeal of the Vaccination Requirement of Infants in 1908. (It still requires vaccination for admission to Public Schools).

"The first compulsory vaccination law was passed by Massachusetts in 1855. It required that every infant must be vaccinated before reaching the age of two years; that no child should be admitted to any public school unless vaccinated; that all inmates of public institutions must be vaccinated; that the employes of all manufacturing corporations must be vaccinated as a prerequisite to employment and to cap the climax, everyone must be vaccinated every five years. What was the result? In the
20 years following the enactment of this law there were 4221 deaths from smallpox in Massachusetts. The protection afforded by this law did not highly recommend itself to the people, and in time it was pretty much ignored, so that finally in 1908 the infant vaccination requirement was repealed without protest by anybody and without any bad results."

**ARIZONA**

Table Showing Number of Cases and Deaths from Smallpox in Arizona Following Repeal of Vaccination Requirement by Referendum Vote in December, 1918.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>69</td>
<td>0</td>
</tr>
<tr>
<td>1920</td>
<td>172</td>
<td>5</td>
</tr>
<tr>
<td>1921</td>
<td>192</td>
<td>4</td>
</tr>
<tr>
<td>1922</td>
<td>468</td>
<td>134</td>
</tr>
<tr>
<td>1923</td>
<td>100</td>
<td>26</td>
</tr>
<tr>
<td>1924</td>
<td>160</td>
<td>20</td>
</tr>
<tr>
<td>1925</td>
<td>117</td>
<td>1</td>
</tr>
<tr>
<td>1926</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>1927</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

**NORTH DAKOTA**

Table Showing Number of Cases and Fatalities From Smallpox in North Dakota Since 1919 When the Law to Require the Vaccination of Minors Was Repealed.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>533</td>
<td>0</td>
</tr>
<tr>
<td>1921</td>
<td>1777</td>
<td>2</td>
</tr>
<tr>
<td>1922</td>
<td>657</td>
<td>2</td>
</tr>
<tr>
<td>1923</td>
<td>444</td>
<td>2</td>
</tr>
<tr>
<td>1924</td>
<td>575</td>
<td>1</td>
</tr>
<tr>
<td>1925</td>
<td>204</td>
<td>7</td>
</tr>
<tr>
<td>1926</td>
<td>276</td>
<td>0</td>
</tr>
<tr>
<td>1927</td>
<td>208</td>
<td>0</td>
</tr>
</tbody>
</table>
CALIFORNIA

Table Showing Number of Cases and Fatalities from Smallpox in California Since 1921 when the Vaccination Law Was Entirely Repealed.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>5581</td>
<td>21</td>
</tr>
<tr>
<td>1922</td>
<td>2129</td>
<td>20</td>
</tr>
<tr>
<td>1923</td>
<td>2025</td>
<td>1</td>
</tr>
<tr>
<td>1924</td>
<td>9445</td>
<td>56</td>
</tr>
<tr>
<td>1925</td>
<td>4921</td>
<td>58</td>
</tr>
<tr>
<td>1926</td>
<td>2794</td>
<td>236</td>
</tr>
<tr>
<td>1927</td>
<td>984</td>
<td>5</td>
</tr>
</tbody>
</table>

IN ENGLAND SMALLPOX MORTALITY HAS GREATLY DECLINED FOLLOWING VIRTUAL REPEAL OF VACCINATION REQUIREMENT BY PASSAGE OF ACTS OF 1898 AND 1907 PROVIDING FOR A "CONSCIENCE CLAUSE" AS SHOWN BY THE FOLLOWING TABLES. NO OTHER COUNTRY HAS GIVEN VACCINATION SO GOOD A TRYOUT AS ENGLAND. HERE ARE THE FACTS.

ENGLAND AND WALES

Percentage of Births Vaccinated and Number of Smallpox Deaths Registered.

<table>
<thead>
<tr>
<th>Year</th>
<th>1872-1881</th>
<th>1882-1891</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent of Births Vaccinated</td>
<td>Smallpox Deaths</td>
</tr>
<tr>
<td>1872</td>
<td>85.0</td>
<td>19,022</td>
</tr>
<tr>
<td>1873</td>
<td>85.2</td>
<td>2,303</td>
</tr>
<tr>
<td>1874</td>
<td>85.05</td>
<td>2,084</td>
</tr>
<tr>
<td>1875</td>
<td>84.9</td>
<td>849</td>
</tr>
<tr>
<td>1876</td>
<td>86.0</td>
<td>2,408</td>
</tr>
<tr>
<td>1877</td>
<td>86.3</td>
<td>4,278</td>
</tr>
<tr>
<td>1878</td>
<td>85.3</td>
<td>1,856</td>
</tr>
<tr>
<td>1879</td>
<td>86.0</td>
<td>536</td>
</tr>
<tr>
<td>Year</td>
<td>Vaccinated</td>
<td>Smallpox Deaths</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1892</td>
<td>74.5</td>
<td>431</td>
</tr>
<tr>
<td>1893</td>
<td>72.3</td>
<td>1,457</td>
</tr>
<tr>
<td>1894</td>
<td>70.4</td>
<td>820</td>
</tr>
<tr>
<td>1895</td>
<td>67.8</td>
<td>223</td>
</tr>
<tr>
<td>1896</td>
<td>66.0</td>
<td>541</td>
</tr>
<tr>
<td>1897</td>
<td>62.4</td>
<td>25</td>
</tr>
<tr>
<td>1898</td>
<td>61.0</td>
<td>253</td>
</tr>
<tr>
<td>1899</td>
<td>66.4</td>
<td>174</td>
</tr>
<tr>
<td>1900</td>
<td>68.7</td>
<td>85</td>
</tr>
<tr>
<td>1901</td>
<td>71.4</td>
<td>356</td>
</tr>
</tbody>
</table>

| Totals | 4,365       | 923             |

Average per annum

<table>
<thead>
<tr>
<th>Year</th>
<th>Vaccinated</th>
<th>Smallpox Deaths</th>
<th>Year</th>
<th>Vaccinated</th>
<th>Smallpox Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1912</td>
<td>50.1</td>
<td></td>
<td>1912</td>
<td>50.1</td>
<td></td>
</tr>
<tr>
<td>1913</td>
<td>46.5</td>
<td></td>
<td>1913</td>
<td>46.5</td>
<td></td>
</tr>
<tr>
<td>1914</td>
<td>44.6</td>
<td></td>
<td>1914</td>
<td>44.6</td>
<td></td>
</tr>
<tr>
<td>1915</td>
<td>45.5</td>
<td></td>
<td>1915</td>
<td>45.5</td>
<td></td>
</tr>
<tr>
<td>1916</td>
<td>44.7</td>
<td></td>
<td>1916</td>
<td>44.7</td>
<td></td>
</tr>
<tr>
<td>1917</td>
<td>43.3</td>
<td></td>
<td>1917</td>
<td>43.3</td>
<td></td>
</tr>
<tr>
<td>1918</td>
<td>41.5</td>
<td></td>
<td>1918</td>
<td>41.5</td>
<td></td>
</tr>
<tr>
<td>1919</td>
<td>40.6</td>
<td></td>
<td>1919</td>
<td>40.6</td>
<td></td>
</tr>
<tr>
<td>1920</td>
<td>39.5</td>
<td></td>
<td>1920</td>
<td>39.5</td>
<td></td>
</tr>
</tbody>
</table>

Average per annum
Commenting on the above statistics, the "National Anti-Vaccination League," of London, England, remarks:—

"So in the 10 years 1872-1881 when an average of 85.5% of the births were vaccinated, we had an average of 3,708 Smallpox Deaths every year. In 1882-1891, when an average of 82.1% of the births were vaccinated, we had an average of 923 Smallpox Deaths every year. In 1892-1901, when the vaccinations had declined to an average of 67.9% of the births, the Smallpox Deaths dropped to an average of 436 per annum. In 1902-1911, when the average number of vaccinations was 67.6% of the births, the Smallpox deaths averaged 395 per annum, but in 1912-1921, when the vaccinations had dropped to 43.4% of the births, there was an average of only 12 Smallpox Deaths per annum.

"How can any person who claims to understand statistics and to have a logical brain declare that it is vaccination that has stamped out Smallpox, in the face of the above official figures?"

(Note:—A discussion of the alleged increase in cases in England during recent years is given on pages 73-79).

SMALLPOX RECORD OF UNITED STATES WHERE VACCINATION IS OPTIONAL FOR MOST PART COMPARES FAVORABLY WITH THAT OF ITALY, JAPAN AND THE PHILIPPINES, EACH OF WHICH MAKE VACCINATION AND REVACCINATION COMPULSORY.

UNITED STATES
p. 28. "It has been many years since smallpox was the
cause of high mortality, and data are now presented only to show how few deaths have been due to this disease in recent years."

Table Showing the Number of Fatalities from Smallpox in the United States During the Years 1902 to 1927 Inclusive.

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1902</td>
<td>2111</td>
</tr>
<tr>
<td>1903</td>
<td>1382</td>
</tr>
<tr>
<td>1904</td>
<td>709</td>
</tr>
<tr>
<td>1905</td>
<td>308</td>
</tr>
<tr>
<td>1906</td>
<td>95</td>
</tr>
<tr>
<td>1907</td>
<td>74</td>
</tr>
<tr>
<td>1908</td>
<td>92</td>
</tr>
<tr>
<td>1909</td>
<td>79</td>
</tr>
<tr>
<td>1910</td>
<td>202</td>
</tr>
<tr>
<td>1911</td>
<td>130</td>
</tr>
<tr>
<td>1912</td>
<td>165</td>
</tr>
<tr>
<td>1913</td>
<td>125</td>
</tr>
<tr>
<td>1914</td>
<td>212</td>
</tr>
<tr>
<td>1915</td>
<td>169</td>
</tr>
<tr>
<td>1916</td>
<td>114</td>
</tr>
<tr>
<td>1917</td>
<td>204</td>
</tr>
<tr>
<td>1918</td>
<td>339</td>
</tr>
<tr>
<td>1919</td>
<td>358</td>
</tr>
<tr>
<td>1920</td>
<td>508</td>
</tr>
<tr>
<td>1921</td>
<td>641</td>
</tr>
<tr>
<td>1922</td>
<td>628</td>
</tr>
<tr>
<td>1923</td>
<td>170</td>
</tr>
<tr>
<td>1924</td>
<td>900</td>
</tr>
<tr>
<td>1925</td>
<td>709</td>
</tr>
<tr>
<td>1926</td>
<td>377</td>
</tr>
<tr>
<td>1927 (40 States)</td>
<td>138</td>
</tr>
</tbody>
</table>

(The number of fatalities from smallpox fades into insignificance when it is realized that the total number of fatalities from all diseases in the United States amount
to more than a million per year and the number of persons killed by automobiles amount to approximately sixteen thousand per year.)

JAPAN

Extracts from an Article by S. Kitasato, M.D., Director, Institute for Research in Infectious Diseases, Tokyo, Japan, Published in the Journal of the American Medical Association, March 25, 1911, Directing Attention to Outbreaks of Smallpox in Japan and its Vigorous Vaccination Laws.

"One of the greatest epidemics of smallpox during the past forty years broke out in 1885 and lasted three years, with 125,315 cases and 31,960 deaths. The epidemic began to decline in 1888. It reappeared in 1892 and again lasted three years. During this second outbreak 88,095 cases were recorded, of which 23,603 patients died. The third outbreak extended over two years, 1896-1897, with 52,650 cases and 15,664 deaths. During the next ten years, a few cases were imported from China every now and then, without any ensuing serious outbreak. Since 1900, the cases in the whole empire were remarkably few, until in 1907, when the disease reappeared at Kobe. This caused an uncommonly severe epidemic, which spread all through the empire. It began to die out in the spring of 1908. During this fourth epidemic 19,101 cases and 6,273 deaths were reported. This outbreak, however, completely subsided by July of the same year, without any trace left.

* * *

"In 1874 the first vaccination law was enacted, and in 1876 the regulations for the prevention of smallpox were promulgated, which provided for compulsory vaccination. In 1885 a revised law concerning vaccination was enacted. It comprised all the data included in the former two regulations. It provided that every baby should be vaccinated within the first year of its age, and revaccinated every five or seven years. The violation of this
regulation was punished with a fine not less than 5 and not exceeding 50 sen (or approximately from 2 1/2 to 25 cents in U. S. currency). It was in the same year, just after the enactment of these regulations, that the great epidemic broke out which is mentioned above. This regulation remained unchanged during twenty-four years; a new revision took effect in the year 1909. This new law provides that each new-born baby shall be vaccinated within ninety days after birth and before June of the next year. Revaccination shall be made at the tenth year from birth (including the year in which the child was born). If either the primary or the secondary vaccination is unsuccessful, the child shall be revaccinated before December of the next year."

ITALY

Copy of Communication by the Citizens Medical Reference Bureau Addressed to Dr. Hugh S. Cumming, Surgeon General of the United States Public Health Service, May 25, 1927, Directing Attention to a Severe Epidemic of Smallpox in Italy Where Vaccination and Revaccination Are Compulsory.

"We fail to find a comprehensive discussion of the disastrous epidemic of smallpox in Italy in any of the issues of 'Public Health Reports' or in any of the annual reports issued by your Department.

"We find that in 1912 there was an average mortality from smallpox in Italy of 9.5 per 100,000 persons. In 1918 there was a mortality of 2.6 per 100,000; in 1919 it rose to 45.4; in 1920 it was 30.3 and in 1921 it was 3.7 per 100,000 persons. This means that in Italy in 1919 there were 18,213 fatalities from smallpox as compared to only 358 fatalities in the United States, and in 1920 there were 12,155 fatalities in Italy as compared to only 508 fatalities in the United States.

"In view of the fact that the mortality from smallpox in the United States has been less than one per 100,000..."
persons during each year for the past 20 years or more, and in view of the fact that the bulletins issued by the League of Nations, publications issued by health boards throughout the country, and publications issued by the various medical societies have done so much to picture the United States as being a smallpox plague center, when the very reverse is true, it is disappointing to say the least that your Department which is so closely in touch with the statistics throughout the world has failed to bring out the facts with regard to smallpox in Italy.

"I am sure you will agree that the record of the United States, which for the most part does not make vaccination compulsory, is very remarkable when compared with the record of Italy where the laws provide for compulsory vaccination of all infants below one year of age, and for the revaccination of children before they reach the age of 12 years. The brief reference to smallpox in Italy in your 1920 annual report does not reveal either the actual number of fatalities or cases of smallpox in Italy.

"Will you kindly advise if you contemplate issuing a report in the near future dealing with the epidemics of smallpox in vaccinated and revaccinated Italy?"

(Note:—Over a year has elapsed since the above communication was forwarded to the United States Public Health Service, and more than seven years have elapsed since the disastrous smallpox epidemic in Italy, and yet no medical or public health journal in the United States, to our knowledge, has yet published a comprehensive discussion of the facts about this epidemic in Italy. H. B. A.)
PHILIPPINE ISLANDS
Disastrous Epidemic of Smallpox in the Philippine Islands in 1918 and 1919 Where Vaccination and Revaccination Are Compulsory.

Table Showing Number of Vaccinations and the Number of Fatalities From Smallpox During the Ten Years, 1911-1920.

(The total population of the Philippine Islands is only approximately ten million persons.)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Vaccinations</th>
<th>No. of Deaths From Smallpox</th>
</tr>
</thead>
<tbody>
<tr>
<td>1911</td>
<td>1,472,749</td>
<td>1,192</td>
</tr>
<tr>
<td>1912</td>
<td>1,216,080</td>
<td>567</td>
</tr>
<tr>
<td>1913</td>
<td>1,524,169</td>
<td>903</td>
</tr>
<tr>
<td>1914</td>
<td>1,635,857</td>
<td>438</td>
</tr>
<tr>
<td>1915</td>
<td>1,265,107</td>
<td>273</td>
</tr>
<tr>
<td>1916</td>
<td>839,363</td>
<td>554</td>
</tr>
<tr>
<td>1917</td>
<td>817,170</td>
<td>403</td>
</tr>
<tr>
<td>1918</td>
<td>3,877,969</td>
<td>16,447</td>
</tr>
<tr>
<td>1919</td>
<td>7,976,528</td>
<td>47,368</td>
</tr>
<tr>
<td>1920</td>
<td>3,811,897</td>
<td>7,194</td>
</tr>
<tr>
<td>Total of 10 years</td>
<td>24,436,889</td>
<td>75,339</td>
</tr>
</tbody>
</table>

Extracts from Communication by the Philippine Health Service to the Citizens Medical Reference Bureau, September 25, 1922, denying the charge raised in the United States as an explanation for the large number of fatalities from smallpox in the Philippines that vaccination measures were in the hands of inefficient Filipino management.

"We admit that our sanitary inspectors have not been infallible; yet, our consciences are clear that since we had assumed the full responsibility of the health administration, our sanitary personnel have been performing their duties to the best of their ability."
"Regarding the question of general administration, any scientific man would admit that three or four years observation is not enough to justify a criticism of success or failure. Experiments either technical or administrative, require a considerable length of time to prove certain definite conclusions and results. And even at present, statistical facts indicate that, under similar existing conditions and circumstances, the American and Filipino Health Administrations in the Islands, as far as the restraint of smallpox is concerned, show no great discrepancy. In fact, it should be recalled that way back in 1911, 1912 and 1913, i. e., during the American Health Administration, there have been similar outbreaks of smallpox, particularly in Southern Islands and among the non-Christian population of Mindanao and Sulu. It should not also be lost sight of that, from the beginning of health administration in the Islands, the personnel of the vaccinating parties who have been partly, if not in toto, instrumental in checking such epidemics, have all been Filipinos."

Extracts from the Report of the Chief of the Division of Sanitation, City of Manila, in the Annual Report of the Philippine Health Service for 1920, in Which the Excuse is Offered That the Hundreds of Thousands of Yearly Vaccinations in Manila Proved a Failure Because Infants Under One Year of Age Had Been Allowed to Escape Compulsory Vaccination.

"From the time in which the smallpox was practically eradicated in the city of Manila to the year 1918 (about 9 years) in which the epidemic reappeared certainly in one of its severest forms, hundred after hundred of thousands of people were yearly vaccinated and revaccinated with the most unfortunate result that the 1918 epidemic looks prima facie as a flagrant failure of the classic immunization towards future epidemics.

"Obviously, the epidemic moment called for a revision of the classic methods of vaccination, and it was through
a painstaking study and consideration of our records as compared with the situation that the fact was plainly disclosed that our hundred of thousands of yearly vaccinations were nothing but a fruitless attempt since a very important group of such population was overlooked and in fact unwisely spared in the immunization scheme. Through a combination of circumstances among which had gained undue prominence the country-wide fear of accepting antivariolic vaccination for children of less than six months to one year age, there was thus formed an aggregate numerous group of unprotected people, too hardly, if at all possible, to trace and identify after months or years have elapsed since first seen when nearly new-born. Just on the occasion of the 1918 epidemic, cases were on records of children of 40 to 43 days of age who contracted, and certainly died from, virulent (confluent) smallpox. It was then the moment for a general alarm, and rush orders were accordingly issued for the 'immediate compulsory vaccination of all children from not less than 30 days age on, or earlier, if the children's family so desire."

UNVACCINATED AUSTRALIA FREE FROM SMALLPOX.

Extract from Service Publication Number 29, Issued by the Australia Department of Health, 1925, Stating That for Practical Purposes Australia is Unvaccinated. P. 109. "Consideration of the extent to which vaccination has been carried out in the several States during this period indicates that for practical purposes the Australian community is, as a whole, unprotected by vaccination. It is difficult to assess the proportion of vaccinated persons in the community, even in terms of infantile vaccination, without any consideration of the revaccinations necessary to ensure a more complete immunity. In the previous volume, page 132, an approxi-
mate estimation was given that, in 1910, some 30 per cent, of all persons in Australia had been vaccinated."

Table Showing Number of Cases and Fatalities from Smallpox in Australia During the Fifteen Year Period 1909-1923.

<table>
<thead>
<tr>
<th></th>
<th>Deaths from Smallpox.</th>
<th>Cases of Smallpox</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>4</td>
<td>2400</td>
</tr>
<tr>
<td>Victoria</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Queensland</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>South Australia</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Western Australia</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Tasmania</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(In 3 of these cases smallpox was only a contributing cause.)

The Extremely Mild Character of the So-called Cases of Smallpox in Australia During the Fifteen Year Period 1909-1923 May be Gained from the Following Extracts from Service Publication Number 29 Issued by the Australia Department of Health, 1925, Referring to the Onset of the Epidemic Among Employees in a Factory in Sydney, Australia.

"The precedent illness, in all the cases, appeared to have been of a very mild type, and while some of the girls had stayed away from business for a few days, some had not considered it necessary to do so at all. Not more than two of the girls affected had consulted a medical practitioner, and in those cases they stated they had been told that there was nothing much the matter. Further inquiries elicited that the first case had occurred on or about 25th April, at which date a girl, E. D., aged 22, had been attacked by 'influenza.' Three days later she developed a 'pimply' rash on the face. She had been absent from work for a week, and had returned to duty feeling well before the eruption appeared,"
THE CASE REPORTS OF ALLEGED SMALL-POX IN THE UNITED STATES AND ENGLAND, ABOUT WHICH ADVOCATES OF COMPULSION ARE SEEKING TO CREATE SO MUCH ALARM, ARE THE RESULT OF A PRACTICE IN THESE COUNTRIES OF REPORTING A VARIETY OF MILD COMPLAINTS AS ACTUAL CASES OF SMALLPOX WHEREAS IN OTHER COUNTRIES THEY WOULD BE DESIGNATED AS "ALAS-TRIM," "CUBAN ITCH," "CHICKENPOX" OR UNDER SOME OTHER NAME.

Extract from Annual Report of the United States Public Health Service for the Fiscal Year 1924, Referring to Smallpox as Being Much Better Reported Here Than in Other Countries.

p. 5. "Reports of 149,550 cases [of smallpox] with 22,346 deaths were received during the year. The fact that more than one-fifth of the cases reported occurred in the United States should not be taken to mean that this disease is more prevalent here than anywhere else, but that it is much better reported in the United States than in most other countries."

Table Showing Number of Alleged Cases of Smallpox in the United States by Years from 1919 to 1927, Inclusive.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>56,332</td>
</tr>
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<td>1920</td>
<td>96,684</td>
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<td>1921</td>
<td>102,787</td>
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<td>1922</td>
<td>32,800</td>
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<td>1923</td>
<td>29,968</td>
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<td>1924</td>
<td>51,429</td>
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<td>1925</td>
<td>39,639</td>
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<td>1926</td>
<td>30,450</td>
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<tr>
<td>1927</td>
<td>32,102 (40 States and D. of C.)</td>
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Extracts from London Letter to the Journal of the American Medical Association, Published in the Journal, June 30, 1928, Showing the Alarm Being Created There Over an Alleged Increase of "A Mild Form of Smallpox."

"The report of the smallpox and vaccination committee of the League of Nations draws attention to the remarkable decrease in smallpox in European countries during recent years. To this England and Wales offer the sole exception, owing to the increasing prevalence of a mild form of smallpox, from which, however, the mortality is almost negligible . . . . The alarming increase in smallpox in England was emphasized by Major G. S. Parkinson of the army medical corps, in an address at the public health conference recently held in London. He gave the following figures: 1918, 63 cases; 1921, 336; 1927, more than 9,000."

United States Public Health Service in "Public Health Reports," December 9, 1921 Recommended Reporting Cases of So-called "Cuban Itch," "Philippine Itch," "Alastrim," etc. as Actual Cases of Smallpox, as shown by the Following Extracts.

"It should be borne in mind that while alastrim, from a scientific viewpoint, may possibly be a separate disease entity, it has all the public health aspects of smallpox and, in the present state of our knowledge of its exact classification, should always be reported and combated as smallpox.

"Synonyms. Varioloid-varicella, amaas, Kaffir milk-pox, Sanaga smallpox, West Indian modified smallpox, pseudo smallpox, weisse pocken.

* * *

"It is probable that the so-called 'Cuban Itch' and 'Philippine Itch' observed after the War with Spain, the mild form of smallpox prevalent in America, and alastrim are identical."
Doctors Unable to Distinguish Between So-called "Smallpox" and "Poison-Ivy" as Brought Out in the Following Extracts from an Editorial in the New York Times, July 1, 1926.

"This Smallpox Was Poison Ivy.—From Peekskill comes the report that the smallpox 'scare' recently reported at the National Guard camp was due to a number of serious cases of ivy poisoning. The doctors must have been able to distinguish between the effects of poison ivy and incipient smallpox, but the story is another indication that the poison ivy season is already at its height."


"One of the most notable features of the smallpox which has been more or less prevalent in the United States for at least ten years is its extreme mildness and the small number of deaths which it has caused. In 1909 the combined states from which complete reports were received had 19,534 cases with 92 deaths, which was a mortality rate of 0.471 for each 100 cases. In 1910 the rate was considerably higher, but still remarkably low when compared with the rates reported from other countries.

* * *

"That the community is protected by vaccination may be true for certain localities, but that the protection thus afforded is general can hardly be maintained. Japan as a nation is probably as well or better protected by vaccination than is the United States, and yet in 1907-1903 there was an outbreak of smallpox in Japan in which 19,101 cases were reported with 6,273 deaths. Vaccination did not there modify the type of the disease to that found in America. * * * *
"If the non-virulence of the disease in this country is due to protection by vaccination it would be expected that the mild cases would be found only in those so protected. This may be assumed from the limited information available not to be the case. Records of the vaccination history of all patients would undoubtedly add much to our knowledge of the subject.

"That the type of the disease as seen in the United States is due to the protective value of vaccination is shown not to be true for certain localities in which outbreaks of the virulent form of the disease have been reported. These outbreaks have occurred at widely separated points extending from Virginia and South Carolina in 1909 to Michigan, Oklahoma, Texas and Oregon in 1910. . . ."

Extracts from Service Publication Number 29, Issued by the Department of Health of Australia, 1925 Stating That There is a Division of Opinion Among Health Authorities as to Whether the Mild Type of So-called Smallpox Is or Is Not A Distinct Disease.

p. 20. "The striking feature of the world course of smallpox, during the period under review, has been the epidemic extension in many countries of an exceptionally benign form of the disease. Throughout the historical records that relate to smallpox, there has been noted by such observers as Rhazes, van Swieten, Sydenham, and Jenner, the occasional appearance of a form of smallpox so mild that fatal results were rarely heard of, and the eruption was only occasionally confluent. Since 1898, however, particular attention has been focussed on the continuance of a benign type of the disease in many countries and on its spread to, and extension and endemic establishment in, other countries. Naturally, in each outbreak of this type of disease there has been considerable diversity of opinion as regards diagnosis when the disease first appeared. The specific identity of the disease in each outbreak in its relationship to typical variola has
been freely questioned, and the nomenclature adopted has resulted in a new and confused nosology—'alastrim,' 'amaas,' 'varioloid,' 'variola-varicella/ 'para-variola,' and 'mild smallpox' as distinct from 'variola vera,' 'classical' or 'Asiatic smallpox.' With the continuance of the mild type or types of disease, and the accumulation of clinical, epidemiological and laboratory records, there have developed two schools of opinion which have been called by Professor Jorge the 'unicists' and 'dualists'—the unicists desire to see in alastrim merely an expression of variola; the dualists persist in believing it a species sui generis, autonomous and independent."


"Smallpox. During the 10 years 1914-24, much information was gained about this affection. The conviction is growing that there are different strains of the disease, one of which is naturally mild and the other severe. Should this dualistic view obtain a permanent foothold many peculiarities of the disease may be explained. A severe type of disease may, of course, have its virulence modified and appear alternately in mild or severe form; but there may be a mild form which is never severe under any circumstances. This appears to be the case with the alastrim of the West Indies, which is believed to be the same as the mild smallpox of western Africa, from which it was originally derived. The latter has long been regarded as distinct from the severe smallpox of eastern Africa. The severity of the latter, as of other virulent strains of the disease in the tropics, makes it difficult to control by vaccination, to which must be added the great difficulty of obtaining fresh virus, and the difficulty of enforcing vaccination decrees in primitive communities."
"That vaccinia is derived from smallpox by animal passage we know. That varicella is another offshoot from smallpox is highly probable. That the mild type of smallpox sometimes called alastrim, or amaas, is another cleavage seems clear. That the two strains are closely related is shown by complement fixation tests, by animal inoculation, and by the immunity against both produced by vaccinia. Nevertheless the two types differ clinically in a marked degree and to some extent in immunity relations and in animal reactions.

"The history of the appearance and dispersion of the mild type of smallpox shows that it is not to be explained by changes in the host caused by vaccination, or otherwise. It is not possible that it is due to climate or any telluric, or cosmic, or mystic epidemic influence. The theory that the disease is mild because the smallpox germ has parted company with a virulent streptococcus seems highly improbable. The simple and wholly adequate theory is that in Florida or in Africa the smallpox germ some thirty years ago, suddenly underwent a change, or mutation, just as many other species of plants and animals, high and low, are constantly doing."

Extract from Lecture by Dr. Charles V. Chapin, Superintendent of Health, Providence, R. I., Extracts from Which Were Published in "Public Health Reports," December 24, 1926.

Extract from an Article Published in The Canadian Medical Association Journal, April, 1928.

"The history of medicine teaches us that most infectious diseases gradually change their character from one generation to another. The terrible plagues of the Middle Ages are in many cases unrecognizable from descriptions which have come down to us. Diseases regarded at one time as almost inevitably fatal become comparatively benign, while others become progressively more virulent. The factors concerned in this change are
largely unknown; whether it is due to a change in the customs and habits of mankind, to a gradual immunization of the population, or to an alteration in the exciting organism is uncertain.

**FALLACY OF STATISTICS COMPARING SMALLPOX CASES AMONG THE VACCINATED AND UNVACCINATED.**

(Note: As long as medical text books and medical journals continue to advise physicians and students to regard a recent vaccination as a sign that any disease having the appearance of smallpox is probably some other disease, the voluminous statistics compiled by health boards comparing the number of cases of smallpox among the vaccinated and the unvaccinated are worthless. The following citations are given to show that it is the accepted practice among physicians to practically rule out smallpox as a possibility whenever the patient has been recently vaccinated:)

**Extract from Article Entitled "Smallpox—Its Differential Diagnosis," by Archibald L. Hoyne, M.D., Read Before the Northwest Branch, Chicago Medical Society, and Published in the Illinois Medical Journal, June, 1923.**

"In examining a case of suspected smallpox, close observation is of the utmost importance. If the patient shows evidence of a typical vaccination scar of comparatively recent date, variola may be almost absolutely ruled out."

In a book entitled "Modern Medicine," by William Osier, M.D, Volume 1, p. 853, William T. Councilman, M.D., refers to the differential diagnosis of chickenpox and smallpox and mentions the following as the first differential point.

"The vaccinal condition of the patient."
HOW VACCINATION STATISTICS ARE MADE

(1) Health Departments tell physicians to look for the vaccination soar as of first consideration in deciding whether a case is or is not smallpox, as in reproduction given below.

(2) Then when the statistics are compiled these same Health Departments announce to the world No Smallpox Among the Persons Successfully Vaccinated!

From The Journal of the Michigan State Medical Society.

MARCH, 1927

SMALLPOX

The smallpox situation in the state, while not alarming, is a matter of concern. December 1926, brought a return to school spreading the infection wherever it went. The following points are important aids in the diagnosis of smallpox:

The absence of any history of having had smallpox or a successful vaccination within the past five years.

The occurrence of the eruption in one area, all lesions having the same appearance at any given time. There may be covered with 5 or 10 pustules over the body that were not
THE MISUSE OF STATISTICS.

An illustration of how statistics are being used by vaccinationists to make it appear that compulsory vaccination is necessary and that vaccine virus is not to blame for the fatalities following vaccination is illustrated by an article by W. W. Keen, M.D., entitled, "Smallpox—A National Disgrace," published in "The American Review of Reviews," February, 1927.

In parallel columns below we give extracts from the article by Dr. Keen and facts which he omitted to mention and which would have shown the fallacy of the conclusions which he sought to bring before his readers:

**Statements by Dr. Keen.**

"Surgeon-General Cumming, head of the Public Health Service, in his report for June 30, 1925 stated that the increase in the number of cases of smallpox in the previous calendar year was 75 per cent., and of deaths from smallpox was 628 per cent., over the year 1923!"

**Facts Omitted in Article by Dr. Keen.**

Dr. Keen does not explain that what appears to the reader unfamiliar with smallpox statistics as an alarming increase in fatalities of 628 per cent was simply the usual fluctuation that takes place from one year to the next between one hundred to less than a thousand fatalities.

He does not mention that this is a remarkably low death rate, so low in fact, that the United States Census Bureau in its 1917 report of "Mortality Statistics" declares that smallpox data is now given "only to show how few deaths have
Statements By Dr. Keen (Cont.)

"Approximately one-fifth of all the cases in the world in 1923-24 occurred in the United States. India with its 319,000,000 people headed the list; then came the United States with 55,538 cases.

Facts Omitted By Dr. Keen (Cont.)

been due to this disease in recent years."

Also Dr. Keen does not mention to what extent these fatalities were due mainly or in part to other diseases from which the patient had been ill.

Dr. Keen does not inform his readers that the United States Public Health Service in "Public Health Reports," December 9, 1921, recommended reporting all cases of "Cuban itch," "Philippine itch," alastrim, and a long list of complaints diagnosed in other countries under a variety of names as smallpox.

He does not tell his readers that because of lack of uniformity in diagnosis a record of thirty or fifty thousand cases may mean nothing more than that number of cases of chickenpox, nor does he mention as stated in the Annual Report of the U. S. Public Health Service, 1924, that the number of cases in this country should not be taken to mean that the disease is more prevalent here than
"Smallpox not only kills many of its victims, but with very few exceptions all who escape death are horribly disfigured by the pockmarking or 'pitting' of the face, and a considerable percentage are also blinded. Smallpox is especially a disease of childhood. The pockmarking and blinding are therefore for life.

"The 'Statistics of Notifiable Diseases' for 114 countries, issued by the Health Organization of the League of Nations, for 1925, shows that in the United States for the seven years from 1919 to 1925, inclusive, there were reported anywhere else, but that it is much better reported in the United States than in most other countries.

Dr. Keen does not mention as brought out in an article entitled "Alastrim" in "Public Health Reports," December 9, 1921 that "It is probable that the so-called 'Cuban-itch' and 'Philippine itch' observed after the War with Spain, the mild form of smallpox prevalent in America, and alastrim are identical."

Also when Dr. Keen tries to make it appear that 350,000 persons have been pock-marked and some blinded for life his statement is shown to be fallacious by the description of the mild smallpox found in the United States in the article in "Public Health Reports" above referred to wherein it is brought out that "the skin is smooth, with scarcely a trace of pitting or scarring" and that "Usually the progress of the disease is uneventful, without complications or sequelae." It also brings out that "Throughout its
Statements By Dr. Keen (Cont.)

409,649 cases of smallpox. The number of deaths is not given. Though the epidemic has usually been mild, and therefore the number of deaths probably not large, yet certainly more than 350,000 persons have been pock-marked and some blinded for life."

"In the seventeenth century Bernouilli estimated that in Europe alone 60,000,000 people died of smallpox."

"The Franco-Prussian War, 1870-1871: In the German army, 4,835 cases of smallpox developed, with 276 deaths. In the French army, much smaller than the German, there were 125,000 cases and 23,470 deaths—i. e. in the French army there were 26 times as many cases and 86 times as many deaths as in the German army. (How serious was the loss of military efficiency of the French army, through the neglect of vaccination?) The reason for this impressive difference in these two

Facts Omitted By Dr. Keen (Cont.)

course the disease is exceedingly mild, and except for the pains of onset and maturation, the patient experiences relatively little discomfort. There is no delirium, and patients are not really very ill and retain their appetites."

The estimate of fatalities from smallpox in the seventeenth century may have been exaggerated a hundred times. However, in giving out this estimate Dr. Keen says nothing about the insanitary conditions in the seventeenth century.

The statistics used by Dr. Keen with reference to the Franco-Prussian war were used by the London Lancet, one of the leading medical magazines of the world, in its issue June 1, 1901 but in its issue June 8, 1901 it published a communication by Alexander Paul directing attention to the fallacy of the statistics used and appended thereto the following foot-note:

"The figures escaped our
Statements By Dr. Keen (Cont.)

armies is that vaccination was widely practiced in Germany though it was not enforced by law until 1874, when it was made compulsory."

* * * *

"After the Great War, from 1919-1921, there were about 300 cases of smallpox annually in England and Wales. In 1923 the number rose to 2,485, and in 1924 to 3,765. During 1925 there was a further increase to 5,365 cases... Today there is great concern in England on account of the increasing smallpox."

* * * *

"In 1918 (in the Philippine Islands) Death began to reap his harvest, and by 1921 there had been 130,264 cases and 74,369 deaths from smallpox—the most terrible epidemic in modern times. Coincident with the new administration of General Wood, in 1921, vaccination was again thoroughly reestablished, and by 1923 the scourge of smallpox was ended."

Facts Omitted By Dr. Keen (Cont.)

attention. We regret to have published them as their falsity has been established."

Now after the lapse of twenty-six years the same erroneous statistics appear in the article by Dr. Keen.

Dr. Keen fails to mention that in England the average number of fatalities from smallpox during the past fifteen years has been less than fifty per year.

Also Dr. Keen fails to contrast the remarkable record in England where vaccination has been made optional and where the majority of the population is unvaccinated with the record of Italy where vaccination and revaccination is compulsory.

In Italy there were 18,213 fatalities from smallpox in 1919, 12,155 fatalities in 1920 and 1,484 fatalities from smallpox in 1921.

Official reports from the Philippine Health Service show that a general vaccination of the population was carried out during the years 1905 and 1910. Also
In California, from 1919 to 1924, there were 26,651 cases of smallpox. In Massachusetts, by contrast, there were in the same years only 126 cases.

The very short, upper line represents 688 deaths from smallpox in the four
during the ten years from 1911 to 1920, there were 24,436,889 vaccinations performed.

The Philippine Health Service in a communication addressed to the Citizens Medical Reference Bureau, dated Manila, September 25, 1922, said: "We admit that our sanitary inspectors have not been infallible; yet our consciences are clear that since we had assumed the full responsibility of the health administration, our sanitary personnel have been performing their duties to the best of their ability."

The epidemic had come and gone before General Wood had reached the Islands as shown by the fact that the number of fatalities had dropped from 47,368 in 1919 to 7,194 in 1920.

Dr. Keen does not mention the fact that there are a number of eastern states such as Maine and Vermont, where vaccination is not made a requirement, where geographical condi-
Statements By Dr. Keen (Cont.)

states of New York, New Jersey, Connecticut and Maryland, which enforce vaccination laws. The long line represents 9137 deaths—thirteen times as many—in the two states of Washington and Oregon, which have only one-fourth the population of the four states in the first group.

Facts Omitted By Dr. Keen (Cont.)

Dr. Keen fails to mention that Oregon has the same kind of law making it optional with local authorities whether or not they shall require vaccination as Connecticut and New Jersey. New York only requires it in cities of the first and second classes. Hence, the comparison is not based upon a group having one kind of law and another group having a different law. Maryland is the only one out of the six states mentioned which makes vaccination a requirement throughout the state.

"What the Detroit Health Department Found After the 1924 Epidemic."

"(Of those successfully vaccinated within five years, not one contracted smallpox.)"

* * * *

Dr. Keen fails to mention that the Michigan Department of Health recommends that "The absence of any history of having had smallpox or a successful vaccination within the past five years" be regarded by
Statements By Dr. Keen (Cont.)

"Since 1902 the manufacture of vaccine lymph has been under Government control. Every lot of vaccine is tested before any can be sold. There have been 41 cases of lockjaw in many millions of vaccinations. The most thorough examination in each case has shown that the germ of lockjaw did not exist in the vaccine lymph."

Facts Omitted By Dr. Keen (Cont.)

Dr. Keen does not mention the fact as brought out by Dr. M. J. Eosenau in the Journal of the American Medical Association, January 22, 1910 that "It would be ideal if the government could guarantee the purity and potency of each package, but to do so would require more than supervision—it would almost mean government ownership."

Dr. Keen simply leaves the reader to infer that the government does guarantee the purity of the vaccine.

Also Dr. Keen makes no mention of the many articles like that contained in
Statements By Dr. Keen (Cont.)

Facts Omitted By Dr. Keen (Cont.)

the Journal of Infectious Diseases, November, 1927 that the utmost care and the best scientific supervision does not preclude the chance of serious consequence due to contaminating bacteria and that the tetanus organism is an opportunist in any wound and that tetanus following vaccination is always to be feared.

(Note:—On the strength of such misleading and erroneous use of statistics as that referred to above Dr. Keen draws the conclusion that "The experience of centuries and the common sense of every community should insist on universal vaccination." The article by Dr. Keen is typical of the nation-wide propaganda in favor of compulsory vaccination appearing in newspapers and popular magazines, which for the most part these newspapers and magazines allow to go uncorrected. H. B. A.)

HOW STATISTICS MAY BE INTERPRETED TO MEAN ANYTHING THE ADVOCATES OF VACCINES WANT THEM TO MEAN.


"THE INCONGRUITIES OF HEALTH STATISTICS"

"Dr Dequidt, formerly head of the Service central du controle in the ministry of public health but who is now the manager of an independent special journal, the Mouvement sanitaire, writes that health statistics as at present published are not fully reliable. While the law
of 1902 demands that the exact causes of deaths be registered, the number of deaths from 'unknown causes' immediately increased. From 1911 to 1921, between 5 and 6 per cent of the deaths were declared to be due to unknown causes. In 1925, the percentage increased to 26.7. However, in about fifteen departments of France the percentage is above 50, and in the department of la Corrèze it is nearly 70. Such figures render the statistics of these departments practically useless. In a department adjacent to Paris, the mortality from pulmonary tuberculosis has fallen in five years from fifteen to ten per 10,000 inhabitants, which amounts to a decrease of 83 per cent from the general average for France. But, at the same time, the number of deaths, in that same department, from unknown causes has increased from 5 per cent to 40 per cent. The question is, How many deaths from tuberculosis may be included in that figure? One of the most important services that the Office national d'hygiène sociale, recently created, will render will be the establishment of uniform statistics in the departments of France. At the present time, statistics may be made to say anything that one wants them to say."

Extract from Article in the Statistical Bulletin of the Metropolitan Life Insurance Company, September, 1928:

A certain statistical office was making a study of the effect of the great influenza pandemic of 1918 upon the mortality from puerperal conditions in the United States and in England and Wales. In the former the figures show a rise from 6.6 deaths from puerperal causes, per 1,000 live births, in 1917, to 9.2 in 1918; in the latter, there actually appeared to have been a slight decline, namely, from 3.9 in 1917 to 3.8 in 1918. On the face of these figures, the investigator would have to conclude that while influenza was the cause of a big increase in the mortality of pregnant and parturient women in the United States, such was not the case in England. What
actually happened was that in the United States all deaths, in which the return showed both influenza and any puerperal cause, were charged to the latter, whereas in England they were charged to the former.

THE MENACE OF WHOLESALE SERUMIZATION.

As the United States Public Health Service Advocates Seventeen Visits to the Physician's Office for Inoculations as an Alleged Temporary Protection Against Four Diseases, Would a Hundred Visits and a Hundred Inoculations Be Necessary for Protection Against All the Contagious Diseases When Vaccines or Serums for All of Them Have Been Discovered and How Often Would These Hundred Inoculations Have to Be Repeated; How Would Anyone Know When the So-called Immunity Had Disappeared, and Would Any Human Being Be Able to Submit to Such Experimentation and Survive? These Are Questions Which Should Be Given Serious Consideration Before Making Vaccination a Requirement. Copy of Communication by J. P. Leake, M.D., U. S. Public Health Service, Published in the Journal of the American Medical Association, January 28, 1928, giving a schedule of seventeen visits to the doctor's office for inoculations as an alleged temporary protection against four diseases.

"AN IMMUNIZATION PROGRAM"

"To the Editor:—The problem offered by the query from Pennsylvania (The Journal, January 7, p. 51) relative to immunization of nurses is an interesting one in practical immunology, and in part, at least, is not infrequently presented to the physician. Carrying out the same general order as that given in The Journal, and with the same number of visits to the physician (seventeen), the following scheme would serve to give the most
favorable days for observation and for reading the various reactions:

"Day zero: Schick test on the right upper arm and control on the left upper arm, using the flexor surface 2 inches above the fold of the elbow.

"Day 2: (Two days later): Smallpox vaccination on the left upper arm over the insertion of the deltoid muscle (not on the leg).

"Day 3: Dick test on the right forearm, control on the left forearm, using the flexor surfaces at the junctures of the upper and middle thirds.

"Day 4: Reading and recording of measurements of the reactions to the Dick and Schick tests and smallpox vaccination. If the Dick test is positive, the first dose for scarlet fever immunization is given in the upper part of the right arm.

"Day 11: Reading and recording the reaction to smallpox vaccination; also recording the date of the maximum diameter or redness as observed by the person vaccinated. The second dose for scarlet fever immunization is given in the upper part of the right arm.

"Day 18: Third dose for scarlet fever immunization in the upper part of the right arm.

"Day 25: Fourth dose for scarlet fever immunization, in the upper part of the right arm. By this time, if the insertion was small and the area kept dry, the smallpox vaccination site should be entirely healed and the crust off, even with primary vaccinia.

"Day 28: First dose of typhoid vaccine, in the upper part of the left arm, below the site of the smallpox vaccination.

"Day 32: Last scarlet fever dose, in the upper part of the right arm.

"Day 35: Second dose, typhoid vaccine, in the upper part of the left arm.

"Day 39: First dose of diphtheria immunization (if the Schick test was positive) in the upper part of the right arm.
"Day 42: Last dose of typhoid vaccine, in the upper part of the left arm.

"Day 46: Second dose of diphtheria immunization, in the upper part of the right arm.

"Day 52: Second Dick test and control, in the right and left forearms.

"Day 53: Reading and recording of the Dick test. Last dose of diphtheria immunization, in the upper part of the right arm.

"Seven months after the first Schick test, the second Schick is given. It is read four days later.

"In case this course of treatment is judged to be overstrenuous, and some of the immunizations are accordingly omitted, the succeeding dates would be advanced. Of the different immunizations, that against smallpox is the most efficacious and should under no circumstances be omitted for nurses entering training. Purpuric variola can easily enter the wards of hospitals undiagnosed, and has given rise to fatalities in the nursing corps more frequently than appears in the literature. By allowing adequate observation of the reactions, opportunity should also be given the vaccinating physician to see that his smallpox vaccine is of full potency; i.e., giving vaccinoid (four to seven day maximum) in at least 50 per cent of those vaccinated over ten years before, and a reaction of immunity (one to three day maximum) or typical vaccinia (eight to fourteen day maximum) in all the remainder. A small series of successful primary vaccinations, though commonly so taken, is not sufficient evidence of full potency of a vaccine if reactions of immunity are to be observed.

"J. P. Leake, M.D., Washington, D. C.
"Surgeon, U. S. Public Health Service."
SERUM CRAZE HAS NOW REACHED THE STAGE WHERE PERSONS ARE BEING INOCULATED WITH PREPARATIONS RANGING FROM EXTRACTS OF NEWSPAPERS TO DANDRUFF, BLONDE AND BRUNETTE HAIR AND HOUSE DUST.

Copy of an Article by Maximilian A. Ramirez and Fred Wise in the Medical Journal and Record, June 6, 1928.

"Interesting Cases of Protein Sensitization

"Cases Reported by Dr. Ramirez

"Case I.—A boy, aged fourteen, gave a history of recurrent attacks of asthma for the past five years. He was free of symptoms during the interval between attacks and was also free during most of the winter months. Symptoms had been more marked from spring to late autumn. His mother had hay fever when a child, but had not had any symptoms during the past few years. One uncle had asthma and hay fever.

"Careful investigation revealed the fact that this boy's symptoms came on whenever he went to a farm in the country, and that during his visit at the farm he invariably slept in the same bed with an uncle (not the uncle having asthma). Thorough testing with a large variety of epidermal, food, and pollen extracts, gave a negative result in every case. However, a strongly positive reaction was obtained by testing with an extract of dandruff obtained from the uncle with whom this boy slept at the farm. It is interesting to note that extracts of hair gave only a very small reaction.

"This patient's symptoms completely disappeared by having him avoid close contact with this uncle. He had only had one or two slight attacks of asthma during the past year associated with an acute bronchitis.

"Case II.—The patient, a female, aged forty-six, complained of attacks of severe sneezing and itching of the
eyes every morning, lasting for fifteen or twenty minutes. There was no difficulty in breathing and there were no symptoms of asthma or hay fever at any other time.

"Investigation revealed that this patient had breakfast in bed every morning, after which she read the morning paper, and that invariably the attacks of sneezing would come on immediately upon opening the newspaper. An extract of newspaper was prepared for me by the Arlington Chemical Company of Yonkers, N. Y., and tests by both the scratch and intradermal methods gave a strongly positive reaction. This patient's symptoms completely disappeared upon removing exposure to newspaper at that time.

"It was interesting to note that reading at other times of the day would cause a slight attack, but not the severe symptoms that were produced during early morning exposure. This patient was given a long series of treatments against extracts of newspaper, and was sufficiently protected so that she could read the paper in the morning as was her usual custom. Protection lasted for about six months and then symptoms started returning and she is now receiving another series of inoculations.

"In arriving at the conclusion that newspaper or printer's ink was the cause of this patient's symptoms, we must add that symptoms could be produced and stopped by allowing morning contact and eliminating morning contact with the newspaper. Some extract was prepared of the paper before it had gone to press and also of printer's ink. Skin tests with these two separate extracts were both negative.

"Sufficient work has not been done on this type of sensitization to justify particular comment other than the report of an extremely interesting clinical history. I have recently been told of two other cases of sensitization to newspaper, therefore, it seems worth while calling this type of sensitization to general notice.
"Case Reported by Dr. Wise and Dr. Ramirez

"Case.—A. R., male, aged thirty-six, complained of periodical swelling of the face lasting from one to two days, simulating the appearance of angioneurotic edema. Local treatments with lotions and X-ray were of no avail. Thorough testing with various proteins and investigation along sensitization lines proved beyond peradventure of a doubt that this patient was hypersensitive to brunette human hair. Skin test with an extract of brunette hair gave a strongly positive reaction. A skin test with blonde human hair proved negative. It was possible to show that if this man avoided contact with brunettes, he was free of symptoms and his symptoms returned upon exposure to brunette hair, particularly, to one person. We have been unable to attempt immunization with extract of brunette hair in this case as the patient had refused further treatment."
Photographic Reproduction of Article in the Journal of the American Medical Association, November 7, 1925, Recommending the Preparation by Physicians of Products for Inoculation Prepared from House Dust, Street Dust, Glue, etc.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL’S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

HORSE DUNG ALLERGEN-SQUIBB, HOUSE DUST ALLERGEN-SQUIBB, LE PAGE'S GLUE ALLERGEN-SQUIBB AND STREET DUST ALLERGEN-SQUIBB NOT ACCEPTABLE FOR N. N. R.

Report of the Council on Pharmacy and Chemistry

The Council has authorized publication of the following report. W. A. PUCKNER, Secretary.

Among the allergic protein preparations of E. R. Squibb & Sons, offered as a means of determining specific hypersensitivity, are the following: Horse Dung Allergen-Squibb, Stated to be the protein from the dung of the horse; House Dust Allergen-Squibb, stated to be the protein from ordinary house dust; Le Page's Glue Allergen-Squibb, the protein isolated from "Le Page's Glue"; Street Dust Allergen-Squibb, stated to be the protein from ordinary street dust.

The composition of house dust varies with the contents of different houses and with their location; therefore the protein obtained from house dust must vary widely. Similarly, the composition of street dust is dependent on the material that goes to make up the dust on streets in different localities. Le Page's Glue is a product of unstandardized composition; hence there is no guarantee the protein isolated from Le Page's glue is uniform. As the composition of horse dung, house dust, glue and street dust is indefinite, it is irrational to test the hypersensitivity of a patient by means of a stock preparation; instead, an extract should be prepared, from material which is likely to correspond with that to which the patient is sensitive.

In consideration of their indefinite composition, the Council finds Horse Dung Allergen-Squibb, House Dust Allergen-Squibb, Le Page's Glue Allergen-Squibb, and Street Dust Allergen-Squibb unacceptable for New and Nonofficial Remedies.
PART III

The Vaccination Requirement, Involving as It Does, Wholesale Inoculation of the Population or an Important Part Thereof, Constitutes A More Serious Menace to Public Health Than Smallpox.

"With the greatest care . . . certain risks are present, and so it is unwise for the physician to force the operation upon those who are unwilling, or to give assurances of absolute harmlessness."

MORE THAN 10,000 SOLDIERS WERE MADE SICK BY VACCINATION.

The Report of the Surgeon General of the Army, 1919, Vol. 1, p. XXXVIII, gives the number of Admissions to Hospitals during the year 1918 on account of vaccinia, the disease caused by vaccination, as 10,830.

The Report of the Surgeon General of the Army, 1918 gives the number of Admissions to Hospitals during the year 1917 on account of vaccinia and typhoid vaccination combined as 19,608.
ARTICLES IN MEDICAL JOURNALS REFER TO LOCKJAW (OR TETANUS) FOLLOWING VACCINATION AS ALWAYS TO BE FEARED AND AN EVER PRESENT POSSIBILITY.

Extract from Article by Stanley Thomas, from the Laboratory of Bacteriology, Lehigh University, Bethlehem, Pennsylvania, Published in the Journal of Infectious Diseases, November, 1927.

"The dangers involved in its use [vaccine virus], however, cannot be denied. Its preparation, while conducted with the utmost care and under the best scientific supervision does not preclude the chance of serious consequence due to contaminating bacteria. The staphylococcus present in the ordinary commercial vaccine virus (in spite of the glycerol and phenol preservative) may not be in itself pathogenic but by aiding anaerobic conditions it certainly can, and does, prepare a favorable field for the growth and toxin development of the tetanus bacillus. Although not in the vaccine itself, this organism is an opportunist in any wound, and tetanus following vaccination is always to be feared.

* * *

"Recently it has been observed in Holland, Switzerland and elsewhere that the incidence of poliomyelitis and encephalitis apparently increased following vaccination against smallpox. In the light of Levaditi's work showing the similarity between the virus of vaccinia and that of encephalitis and as some doubt as to the safety of the neuro-vaccine has been suggested by Camus, Brunet and others, considerable skepticism would probably have to be overcome by its users. Proof of the safety of any product rests with its proponents. In the recent past syphilis has received considerable attention as a possible congener of vaccination. Papers by Winkler, Kolb, Krapelin and Plant, and others have controverted this theory and the same line of arguments may be used in
defence of neurovaccine if it should prove to be an efficacious prophylactic against smallpox."


"Among the excuses that are offered against compulsory vaccination is the alleged occurrence of postvaccination tetanus. True, tetanus has been transmitted by infected vaccine. However, extensive tests at the Hygienic Laboratory of the U. S. Public Health Service have failed to demonstrate the presence of the organism in modern commercial vaccine. The tetanus bacillus was detected more than a decade ago on 'bone point' scarifiers by McCoy and Bengtson; and this organism has also been found on bunion pads that were used as vaccination dressings. The examination of other commercial dressings, of needles, of capillary tubes, and of mild antiseptics occasionally used on vaccination lesions has failed to reveal the presence of B. tetani. Consequently the government experts conclude that the occasional cases of postvaccination tetanus which are not explainable on the basis of the two positive observations mentioned must be due to the presence of the specific organism at the local site at the time of vaccination, or to its subsequent introduction.

"The ever present possibility of accidental contamination because of the ubiquity of the tetanus bacillus calls for continued vigilance."


"Tragic events, especially if preventable in any degree, which jeopardize a procedure of such vast importance, should receive most earnest attention. Tetanus following vaccination is an event of just this character. All available evidence, both clinical and experimental, justifies the belief that infections of this kind are not due to the vaccine virus per se, but occur subsequently, and are
attributable to later contaminations of the vaccination wound. In all justice, however, it must be admitted that experience also teaches, despite all contrary evidence, that vaccination wounds, at least in children of certain ages, are unduly prone to such infections. The reasons are not apparent."


p. 149. "The next step, after cleansing the patient, was the investigation of the virus. It was found that bacteria of many sorts were present constantly. The attempt was then made to decrease the number, and experiments showed that mixing the virus with concentrated glycerine and keeping it in the refrigerator for two or three months caused a great reduction. The spores that might be present, however, were not affected, while the activity of the virus was impaired considerably. This method of preparation, nevertheless, is what is commonly employed today; infections are not numerous, but the percentage of 'takes' may not be as great."

BIBLIOGRAPHY OP ARTICLES IN MEDICAL AND PUBLIC HEALTH JOURNALS REFERRING TO CASES OF LOCKJAW (OR TETANUS) FOLLOWING VACCINATION.

Armstrong, Charles: Tetanus Following Vaccination Against Smallpox and Its Prevention, "Public Health Reports" December 16, 1927. (Refers to 98 cases of tetanus following vaccination "over a period of several years.")

Armstrong, Charles: Tetanus Following the Use of Bunion Pads as a Vaccination Dressing, "Public Health Reports" June 26, 1925. (Refers to 11 cases of tetanus following vaccination, of which 9 cases were fatal).

collected 95 cases, practically all American. Sixty-three occurred in 1901, a majority of which could be traced to one source of supply, in which R. W. Wilson demonstrated the tetanus bacillus. Most of the cases occurred about Philadelphia. Since that date very few cases have been reported. The occurrence of this complication emphasizes the necessity of the most scrupulous care in the preparation of the virus, as the tetanus bacillus is almost constantly present in the intestines of cattle."


Photographic extract from a page advertisement published in numerous medical and public health journals including the following: American Medicine, August, 1927; Medical Review of Reviews, August, 1927; American Journal of Public Health, September, 1927; Medical Journal and Record, August 17, 1927; The Journal Lancet, August 15, 1927 and September 1, 1927; The Canadian Medical Association Journal, September, 1927, and The Journal of the American Osteopathic Association, September, 1927.

Vaccination complications yield to this treatment

WHERE the vesicles inflame and deep excavated ulcers result.

The bad arm does not manifest until after "the take," so that the antiseptic
SPECIFIC CASES OF FATALITIES FOLLOWING VACCINATION. THE FOLLOWING NEWS ITEMS ARE TYPICAL OF THE CLIPPINGS RECEIVED EACH YEAR PRIOR TO THE OPENING OF THE SCHOOLS. HEALTH BOARDS IN THE UNITED STATES ARE NOT REQUIRED TO MAKE PUBLIC THE ACTUAL NUMBER OF SUCH CASES WHICH OCCUR. HENCE, WHILE ONE NEWS ITEM MAY OVER-EMPHASIZE THE PART PLAYED BY VACCINATION THE MAJORITY OF CASES WOULD NOT BE REPORTED AT ALL,

News Item from the Scranton (Pa.) Times, September 25, 1928.

CHILD DIES FROM LOCKJAW FOLLOWING VACCINATION

Wilkes-Barre, Sept. 25 (AP).—Mary Woytkwycz, six, died at a local hospital last night of lockjaw. The little girl started to school on Sept. 4 and was vaccinated by a physician. Infection followed and on Friday her jaws locked. Several hundred thousand units of tetanus antitoxin serum were used in efforts to save the child.

News Item from the Washington (Pa.) Observer, September 26, 1928.

VACCINATION TETANUS FATAL TO 2 CHILDREN.

York, Sept. 25.—Lockjaw, said to have developed from vaccination, today caused the second death of a child in York county in the last 36 hours.

Fairy Crone, 6, of York, died today, while Clair Drawbaugh, 7, of Dover, near here died late Sunday.

Both children had recently entered school and were vaccinated in compliance with the law. Tetanus set in suddenly in both cases and the children were in serious condition when physicians were called.

It was said no investigation is planned.
Marked Photographic Reprint of Extracts From Death Certificate of Dorothy Schmoyer, Allentown, Pa., Who Died July 27, 1927 As a Result of Vaccination Preparatory to Attending School.

MEDICAL CERTIFICATE OF DEATH

I HEREBY CERTIFY, That I attended deceased from July 21, 1927 to July 27, 1927, and that death occurred on July 27, 1927. The Cause of death was: "Tetanus".

CONTRIBUTORY

Vaccination
News Item from the Philadelphia Record, July 28, 1927.

Allentown, Pa. July 27—Dorothy, 5-year-old daughter of David Schmoyer, of Alburtis, died in the Allentown Hospital today of tetanus. She was admitted yesterday and, although surgeons made every effort to save the child's life, their efforts were in vain. The little girl was vaccinated several days ago, preparatory to attending school in the fall.

(Note:—The death certificate of Dorothy Schmoyer specifically mentions Vaccination as a contributory cause of death. H. B. A.)

News Item from the Scranton Republican (Pa.), October 5, 1927.

Wilkes-Barre, Pa. Oct. 4. (AP).—Frank Shukowski, [Franciszek Szumowski] aged 7, of Georgetown, a suburb, died at a hospital tonight of lockjaw. The boy was indirectly a victim of a vaccination. He was vaccinated three weeks ago to enable him to go to school. Last week in playing with other boys, the scab was knocked off and the wound became infected and tetanus set in.

(Note:—The death certificate of Franciszek Szumowski gives Tetanus as the cause of death. No contributory cause is mentioned. H. B. A.)

News Item from the Philadelphia Record (Pa.), November 3, 1927.

Death Follows Vaccination. Special to "the Record." Allentown, Pa. Nov. 2.—Margaret, 6-year-old daughter of John Montgomery, died today at the Allentown Hospital of lockjaw.

(Note:—The cause of death of Margaret Montgomery as stated in the death certificate was "Tetanus—Contributory—Vaccination Against Smallpox."—H. B. A.)

News Item from the Newburgh, N. Y. News, July 7, 1926.

Peekskill, July 7—Geraldine Creamer, aged 4 years, daughter of John and Mary Quinn Creamer, died in Peekskill Hospital from lockjaw. The girl had been vaccinated on June 20 and it is believed that the lockjaw
germs entered the body through a vaccination wound while she was playing in the garden soil in the rear of her home, 611 John Street.

List of Fatalities Following Vaccination Contained in a Review of "Pittsburgh's Vaccination Scourge of 1924" Embodying the Results of a Special Investigation Undertaken by the "Pittsburgh Health Club."

Arthur Santoro, age five years, 1509 Belasco Avenue, (Beechview), Pittsburgh, Pa., vaccinated at school October 1, 1924, died October 17, 1924.

Blanche Jarmalowski, age ten months, 2741 Mulberry Street, Pittsburgh, Pa., vaccinated July 14, 1924, died July 31, 1924.

Minnie A. Hill, 1000 Greenfield Avenue, Pittsburgh, Pa., vaccinated at the Court House Clinic, July 23, 1924, died August 8, 1924.

Agnes Bik, age two years and five months, 955 Herron Avenue, Pittsburgh, Pa., vaccinated about June 25, 1924, at Montefiore Hospital, died August 24, 1924.

Helen Schamming, age seven years, Grant Street (Wall) Pittsburgh, Pa., vaccinated about July 15, 1924, died August 16, 1924.

Antoinette Oleniacz, age one year and six months, 5112 Carnegie Avenue, Pittsburgh, Pa., vaccinated July 10, 1924, died July 28, 1924.

Hilda Fleishauer, age twelve years, 1564 Westmoreland Street, Pittsburgh, Pa., revaccinated July 9, 1924, died August 5, 1924.

Mary Florence McGovern, age three years and eight months, 529 North Euclid Avenue, Pittsburgh, Pa., vaccinated July 21, 1924, at Lincoln School, died August 23, 1924.

Ten months-old son, Victor, of Mrs. Robert Kozlowski, 3114 Brereton Avenue, Pittsburgh, Pa., died July 22, 1924.

Alice Welsh, age nineteen years, 2411 Westmar Street, North Side Pittsburgh, Pa., vaccinated July 8, 1924, died July 14, 1924.
HEALTH OFFICIAL ADMITS THREE PROBABLE AND A FOURTH POSSIBLE FATAL INFECTION IN PITTSBURGH FOLLOWING VACCINATION.

Extract from Article Entitled "The 1924 Smallpox and Vaccination Situation in the City of Pittsburgh" by R. G. Burns, M.D., Superintendent Bureau of Infectious Diseases and T. F. Moore, M.D., School Physician, Published in the Pittsburgh Medical Bulletin, Issued by the Allegheny County Medical Society, August 8, 1925:

"With so many vaccinations being performed on people living and working in places where the sanitary conditions are far from good, and who have practically no knowledge of personal hygiene, it is to be noted that very few serious and fatal secondary infections happened; three probable and a fourth possible case of this kind did occur. Rumors of all kinds came into the Department of Public Health with claims of very many deaths due to vaccination, and in all cases a thorough investigation was made by a physician, and, except as stated, these rumors were found to be false."

Extract from a Pamphlet Entitled "Vaccination Results in New York State in 1914 Being a Study of Forty-nine Cases With Portraits and Certain Conclusions," by James A. Loyster, Cazenovia, N. Y., in Memory of His Son Lewis Freeborn Loyster Who Died September 21, 1914, as a Sequence of Vaccination.

p. 36-37. "As a result of the investigation of over fifty vaccination disasters and the almost constant study of vaccination literature for several months, it seems that the following conclusions are warranted and should be frankly stated:

"(1) Vaccination has been the cause, directly or indirectly, of the death of at least fifty children in New York state in 1914. The record herewith printed gives only
the cases occurring in rural or suburban districts. Neither the time nor means were at hand to make a canvass of the cities. While only 27 fatalities are here recorded, some of which are not clearly proven, it is believed that were the figures from the cities obtainable possible errors in the list would be more than offset and enough reported to swell the total to the number given.

"(2) In addition to the deaths an appalling trail of illness has followed vaccination. It has been entirely beyond the scope of this publication to print even a partial record of these cases.

"(3) The cost in illness and destruction of child life is entirely out of proportion to the amount of protection against smallpox that is attained or needed. There were but three deaths from smallpox in the entire state, including Greater New York, in 1914. In one rural district twenty miles in diameter, where four children died from vaccination, there has not been a single case of smallpox within the memory of any person now living."

SAYS DEATHS FROM VACCINATION OUTNUMBER THOSE FROM SMALLPOX.


p. 22. "It cannot be denied that vaccination causes, in the aggregate, very considerable injury to health, most of it only temporary, but some permanent. It is true that the deaths certified as due to vaccination are less numerous now than they used to be, but some deaths still occur every year. . . . During the last decade the deaths from vaccinia have several times outnumbered those from smallpox, whilst if we have regard to the amount of ill-health caused by the two diseases (and putting aside for the moment the question of the alleged effect of vaccination in lessening smallpox) it looks as
If vaccinia were becoming, so far as the community is concerned, the more serious disease of the two . . . . "

**DISCLOSURES OF SERIOUS ILLNESS AND FATALITIES RESULTING FROM VACCINATION CONTAINED IN THE REPORTS OF TWO OFFICIAL INVESTIGATIONS JUST ISSUED.**

Report of Committee on Vaccination in England Compares the Dangers from Vaccination to Dangers from Smallpox.

Extracts from Report of the Committee on Vaccination Presented by the Minister of Health to Parliament by Command of His Majesty, July, 1928.

p. 87.

'If London be excluded, the prevailing type of smallpox in England and Wales has been mild since the beginning of the century. Witnesses have appeared before the Committee who have held that there are now two distinct types of smallpox—the mild and the severe. The Committee are not in a position to determine whether or not these types constitute separate entities, or are merely variations of one disease, or if the mild type and the severe may become transformed the one into the other. Whether or not these forms of smallpox are simply variants or are separate entities, there is universal agreement that recent successful vaccination protects against both. **Witnesses affirmed that the bodily disturbance and discomfort produced by the vaccination of an adult is as great, if not greater, than the disturbance and discomfort produced by an attack of smallpox of the mild type.**

"The deaths from smallpox and from vaccinia as given in the Registrar-General's Returns during the last 10 years have been as follows:—
<table>
<thead>
<tr>
<th>Year</th>
<th>Smallpox</th>
<th>Vaccinia</th>
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<tbody>
<tr>
<td>1926</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>1925</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>1924</td>
<td>13</td>
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<tr>
<td>1923</td>
<td>7</td>
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<td>1922</td>
<td>27</td>
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<td>1921</td>
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<td>1920</td>
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<td>1919</td>
<td>28</td>
<td>1</td>
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<tr>
<td>1918</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1917</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

"It is also true, as hereinafter recorded, that 93 cases of post-vaccinal nervous disease with 51 deaths have been reported in this country between November, 1922, and the end of September, 1927, during which period approximately 2,000,000 vaccinations and revaccinations were performed at the cost of the rates; that 124 cases with 38 deaths have been reported from Holland between 1923 and August, 1927, and that a few similar cases have been reported in other countries. Nine English cases and one Dutch were under one year of age."

**LEAGUE OF NATIONS FINDS THAT ENCEPHALITIS FOLLOWING VACCINATION HAS BECOME A PROBLEM OF ITSELF.**


"5 The post-vaccinal encephalitis with which we are dealing has become a problem of itself mainly in consequence of the events of the last few years in the Netherlands and England and Wales. In each of these countries the cases which have occurred have been sufficiently
numerous and similar to require them to be considered collectively. Their occurrence has led to the realization that a new, or at least a previously unsuspected or unrecognized, risk attaches to the practice of vaccination. This risk, when taken at its maximum value, is only minute in proportion to the vast numbers of normal vaccinations to which the cases of post-vaccinal encephalitis correspond, and it is easy to exaggerate its importance. Nevertheless, it is one whose existence, in these two countries at any rate, has to be recognised, and its meaning considered. In fact, it has in the Netherlands been considered of sufficient gravity to cause the temporary suspension of the administrative measures by which the vaccination of children is secured, while in England the subject has already received the attention of two expert Committees appointed by the Ministry of Health, the second of which (the Rolleston Committee) has now presented a comprehensive report, embodying the information and conclusions arrived at by the first or Andrewes Committee, whose work was described to this Commission in 1926.

"6. In the Netherlands, 139 cases of disease of the central nervous system following vaccination were described during 1923 to 1927, of which 41 died. In England and Wales, taking the arbitrary periods dealt with respectively by the Andrewes and Rolleston Committees, 62 cases with 36 deaths occurred between November 14th, 1922, and November 1st, 1923, while a further group of 40 cases occurred between January 1st, 1926, and September 30th, 1927. Of these 40 cases, however, 15 were excluded by the Rolleston Committee on account of their doubtful nature, leaving for consideration 25 cases, of which 12 died, in the second period. The two combined, on this basis, gave a total of 87, of which 48 were fatal, for England and Wales during the two periods under investigation by these Committees.
"17. Conclusions: The facts and considerations which have been before the Smallpox and Vaccination Commission at its present session seem to permit the following conclusions:

"(a) The foremost of these is the rarity of cases of post-vaccinal encephalitis, even in the countries specially affected, by contrast with the number of vaccinations. We are in fact concerned with a minimal proportion of them.

"(b) Apparently the matter is not one in which mere coincidence between vaccination and encephalitis can be invoked; in other words, we are not dealing with a merely fortuitous occurrence.

"(c) In our present state of knowledge we must conclude that post-vaccinal encephalitis is a different disease from encephalitis lethargica. The conditions under which post-vaccinal encephalitis has manifested itself in the Netherlands and in England and Wales tend to show that children between 3 and 13 years of age are particularly susceptible, whilst infancy and adult ages are almost wholly exempt. All observations point to the conclusion that the appearance of encephalitis is not connected either with particular strains of lymph or with particular accidents of lymph preparation.

"(d) Passing to the aetiologico-pathological side of the problem, it would appear in our present state of knowledge that the virus of vaccinia of itself cannot be considered responsible for the supervention of encephalitis. Rather it has to be supposed that some unknown factor exists—perhaps bacterial or a filter-passing virus, or a latent virus—which, by means of a reciprocal reaction, determines the occurrence of the accidents in question."
NEW AND STARTLING DANGERS.—RECENT REPORTS OF CASES OF ENCEPHALITIS FOLLOWING VACCINATION.

Extract from Report of J. A. Putto, M.D., of the Netherlands in the International Health Year Book, 1925, Issued by the Health Organization of the League of Nations.

p. 354. "Post-vaccinal Encephalitis. As in 1924, a certain number of cases of post-vaccinal encephalitis were registered in 1925. Dr. van Bouwdijk Bastiaanse was the first to draw attention to the existence of this disease in the Netherlands. He submitted the results of his investigation to the Department of Public Health. He was then instructed, together with Dr. Terburgh, the Inspector-General of Public Health, and Dr. Bijl, the head of the Bacteriological Section of the Central Public Health Laboratory, to undertake an exhaustive enquiry, the results of which were discussed at the Conference held early in January, 1926 at The Hague, under the chairmanship of Professor Ricardo Jorge. On the advice of Dr. van Bouwdijk Bastiaanse, the English methods were adopted in 1926, and Professor Aldershoff, M.D., Director of the State Serological Institute, prepared a serum for use in cases of post-vaccinal encephalitis."


"Beginning some time in 1925, physicians in Holland, Germany and Switzerland reported to the proper health authorities that scattered cases of cerebral disease had developed during the first week after vaccination, and that contaminated lymph could not be accused. The total number was not large, not over fifty, and was scattered over a very wide area. . . . Little chance was given for a study of the disease. Medical societies and health
boards began an investigation in the affected localities, and, pending reports, orders were issued to dilute the lymph considerably more than usual and to refrain, for the time being, from vaccinating all ailing and delicate children.

"Thus far, no reports on these cases seem to have been made in the countries but in April, 1926, the attention of the ministry of health of Great Britain was called to the subject. Although no cases had been reported for that country, an investigation of past records was ordered. The report of this investigation is found in the Lancet for September 4. All deaths following vaccination were subjected to inquiry for years back. It was found that during the past 14 years 7 such cases had come to light in Great Britain. These are reported in full in the British Journal of Experimental Pathology for October. . . . A crucial point was the possibility that this affection may complicate smallpox; in such case there is the greater likelihood of it as a result of vaccination. . . .

"For the past ten years, lethargic encephalitis, or 'Sleeping sickness,' has appeared in most of the countries of the world, and is practically a new disease. This, in the opinion of many, indicates a lowered resistance of the brain tissues to certain infections. If the brain of civilized man is becoming more vulnerable in this respect, it may throw a little light on these cases."


"Postvaccinal Encephalitis"

"The publication of the reports of several cases in which encephalitis is alleged to have been the result of smallpox vaccination has aroused considerable interest. The statistics of 1924 and 1925 make reference to thirty-five cases, fifteen of which resulted fatally. It should be
emphasized that these thirty-five cases developed out of a total of more than 250,000 vaccinations, which makes the percentage of cases very small indeed. Nevertheless, the observations prove that vaccination is not absolutely without danger and furnish arguments to those who oppose making it obligatory. Dr. Terburgh, the general inspector of public health, has addressed a circular to the medical profession requesting that information be sent to him in regard to any untoward consequences of smallpox vaccination be they never so slight, in order that statistics may be secured that will be valuable in connection with this question which is of great importance for social medicine."


"In the Section of Pathology and Bacteriology, Professor McIntosh called attention to the fact that clinical accounts of smallpox contain frequent references to the appearance of symptoms which suggest involvement of the nervous system. In recent years a new type of encephalitis had been observed in relation to vaccination. Professor Turnbull had noticed the occurrence of this particular type so long ago as 1912. Altogether, some hundreds of similar cases had now been reported in Europe. Postvaccinal encephalitis bore a constant relation to vaccination, as regards both time and place. The condition manifested itself on the average from ten to fourteen days after vaccination as headache, delirium paresis, and ultimately coma and death in fatal cases. Some doubt had existed whether or not the condition was vaccinal in origin. Professor McIntosh thought that the vaccine virus was the causal agent, and presented a body of evidence in favor of this view."
MEDICAL AUTHORITIES CONCEDE THAT VACCINATION MAY LIGHT UP OR TRANSMIT VARIOUS DISEASES.


p. 403. "Certain things ought to be said about vaccination, because questions are often raised as to the dangers of the process, and as to the degree of protection which it gives. In the first place, the reason that the antivaccinationists' propaganda gets so much power is that people are afraid of having some disease put into their blood. I suppose the disease that they are afraid of is syphilis. I do not know of any well-authenticated case where a person has had a syphilitic lesion on the site of a vaccination, but one cannot deny the possibility of such a lesion provided vaccination were done with criminal carelessness. The other thing that bothers people is the fact that vaccination sores get septic, sometimes when the vaccination is clumsily done, and sometimes when it is correctly done. We need not necessarily blame the doctor because the patient has a bad arm. In spite of all precautions, if the patient is in bad condition, any break in the skin may become septic."

Extract from Article by H. E. Hasseltine, Published in "Public Health Reports," the Weekly Bulletin of the United States Public Health Service, January 5, 1923:

"After observing this small series of cases, one cannot escape the conviction that vaccinia had something to do with the appearance of the leprous manifestations in the successfully vaccinated cases. This phenomenon may also explain some of the opinions held by the older Hawaiian laity, that in many cases vaccination was the cause, or at least the exciting cause, of leprosy. During the days of arm-to-arm vaccination the possibility of the spread of leprosy by this procedure must be admitted. It is more probable, however, that the vaccination served to bring to light latent or unrecognized leprosy."
"Generalized Vaccinia.—It is not uncommon to see vesicles in the vicinity of the primary sore. Less common is a true generalized pustular rash, developing in different parts of the body, often beginning about the wrists and on the back. The secondary pocks may continue to make their appearance for five or six weeks after vaccination. In children the disease may prove fatal. They may be most abundant on the vaccinated limb, and occur usually about the eighth to the tenth day.

"(c) Complications.—In unhealthy subjects, or as a result of uncleanness, or sometimes injury, the vesicles inflame and deep excavated ulcers result. Sloughing and deep cellulitis may follow. In debilitated children there may be a purpuric rash with this. Acland thus arranges the dates at which the possible eruptions and complications may be looked for:

"1. During the first three days: Erythema, urticaria; vesicular and bullous eruptions; invaccinated erysipelas.
"2. After the third day and until the pock reaches maturity; Urticaria; lichen urticatus, erythema multiforme; accidental erysipelas.
"3. About the end of the first week: Generalized vaccinia; impetigo; vaccinal ulceration; glandular abscess; septic infections; gangrene."
Declaration by the late Senator Dolliver, of Iowa, in the United States Senate, February 25, 1909.

"The Department of Agriculture in its effort to suppress the foot-and-mouth disease traced that disease to virus imported into the United States by our manufacturing chemists and sold to our people. The investigations revealed that this virus, used upon calves in the District of Columbia, communicated the foot-and-mouth disease to them. The investigations also showed that these diseases are almost universal in the countries of Europe, in Asia, Japan, the Philippine Islands, and in practically all the countries from which we import our medical viruses, including the vaccine for smallpox and kindred diseases."


"(1) The recent outbreak of foot-and-mouth disease in this country started from some calves used to propagate vaccine virus.

(2) The vaccine virus used on these calves has been proved to contain the infection of foot-and-mouth disease.

(3) The outbreaks of foot-and-mouth disease in 1902-3 probably had a similar origin.

(4) It is probable that the foot-and-mouth infection got into the vaccine virus in some foreign country where the disease prevailed, and was introduced into the United
States through the importation of this contaminated vaccine.

"(5) The symbiosis between the infections of vaccinia and foot-and-mouth disease is especially interesting. Animals vaccinated with the mixed virus, as a rule, show only the lesions of one of these diseases, namely, vaccinia; nevertheless the infectious principle of foot-and-mouth disease remains in the vaccinal eruption."


p. 15. "Foot-and-mouth disease is primarily and principally a disease of cattle; secondarily and casually, a disease of man. . . . It is doubtful whether the disease can be transmitted to man by cutaneous or subcutaneous inoculation, though it is probable that the infection may be communicated if the virus directly enters the blood through wounds of any kind.... The symptoms in man resemble those observed in animals."

HOW VACCINE VIRUS IS PREPARED
METHOD USED IN ENGLAND

Extract from "Epidemiology and Public Health," Volume 1, 1922, by Dr. Victor C. Vaughan, former President of the American Medical Association.

p. 199. "At the present time the bovine virus is used in most countries. However, Shera, writing in 1918, gives the following method for the preparation of vaccine employed in England.

"Female calves from two to four months old are taken. They are sometimes tested with tuberculin and always kept under observation for a few days, then clipped and thoroughly cleansed. The belly is completely shaved and
prepared as for operation. About 100 small scarifications are now made under strict asepsis. Slight bleeding occurs, which is mopped up. The virus, which is obtained from a human case and preserved on sterile bone "slips," is inoculated on each area. The lesions are allowed to dry. Sterile gauze then covers the lesions. The animals are kept clean, excreta being promptly removed. The animal must not kick itself. Within 48 hours a reaction occurs, and the animal is killed after six days. Strict asepsis, as for operation, is observed. The field of papules is cleansed and curetted. After curettage serum exudes. "Slips" are charged with this, and the pulpy exudate is made up thus:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percentage</th>
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<tr>
<td>Glycerin</td>
<td>50%</td>
</tr>
<tr>
<td>Water</td>
<td>49%</td>
</tr>
<tr>
<td>Phenol</td>
<td>1%</td>
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"The glycerin pulp is left standing three to four weeks, as it is always infected with bacteria. At the end of this time these should have undergone dissolution. The pulp is then triturated and put up in capillary tubes. The vaccine is tested bacteriologically and not put up till sterile. Also it is tested for tetanus and its potency estimated by the type of vesicle it produces.'"

**METHOD RECOMMENDED BY DR. PARK.**

Extract from "Epidemiology and Public Health," Volume 1, 1922, by Dr. Victor C. Vaughan, former President of the American Medical Association.

p. 199. "According to Park, the most reliable seed Virus is what he calls the human-calf-rabbit virus. Crusts from healthy children are collected on the nineteenth day after vaccination and worked into an emulsion with sterile water. With this material an area of about six inches square on the prepared abdomen of a calf is inocu-
olated, while the remainder is planted with the ordinary-vaccine. The virus from the limited space is separately-collected and after being glycerinated is diluted with 12-1/2 parts of a normal salt solution and planted on the properly prepared, shaved skin of the backs of rabbits. The pulp from the rabbit vaccination is used for vaccinating calves. Usually within 24 hours after vaccination the scratches become pink, within another day slightly raised and papular, and within from four to six days typical vaccinia vesicles are developed. In removing the material the scarified surface is washed with warm water and soap and then thoroughly with sterile water. The crusts are carefully picked off with sterile forceps and the contents of the vesicles removed with a curette. The mass of material thus obtained is placed in sterile beakers or tubes and treated with a mixture of water, glycerin, and carbolic acid, as given above in the English formula. According to Park, one calf should yield about ten grams of pulp—enough to vaccinate about 1,500 people. The efficiency of the virus is determined by inoculation on the shaved backs of rabbits. Dilutions of the virus, 1 to 10 and 1 to 100, are made, and a proper virus should produce vesicles on the rabbit in a dilution of 1 to 500 at least. The number of bacteria in the glycerinated preparation can be determined by the plate method. Usually, practically all bacteria disappear from the glycerinated preparation within a month. However, in all instances white mice should be inoculated in order to prove the absence of the tetanus bacillus."
NO PHYSICIAN OR HEALTH OFFICER CAN BE ABSOLUTELY CERTAIN THAT ANY BATCH OF VACCINE VIRUS IS FREE FROM IMPURITIES.


p. 249. "The government does not guarantee that each vaccine point or each package of antitoxin will produce its full therapeutic effect and be free from all danger. This would be impracticable with the extent and variety of the business in biologic products now carried on in this country and abroad. It would be ideal if the government could guarantee the purity and potency of each package, but to do so would require more than supervision—it would almost mean government ownership."

Copy of item entitled "Bacteria in Vaccine" published in the Encyclopedia Americana, Volume 27, stating that all vaccine virus contains many varieties of bacteria, some of these may be pathogenic, but the majority are harmless.

"The many investigations made of the bacteria found in both the humanized and bovine virus are almost conclusive that they are in no wise connected with the specific cause of vaccinia. All vaccine virus contains many varieties of bacteria, some of these may be pathogenic, but the majority are harmless. Their origin may be from several sources from an antecedent virus, from the skin, from the alimentary tract of the vaccinated animal and from external contamination. Bovine virus usually
contains the pus organisms, the staphylococcus aureus and albus, the streptococcus and in rare instances the tetanus bacillus. A vaccine virus may contain a great number of bacteria and yet be harmless; on the other hand only a few of the pathogenic varieties, and may cause serious consequences. As a rule the number of bacteria may be taken as an index of impurity resulting either from a faulty preparation, or not subjected long enough to the action of the glycerine. Any treatment to which the vaccine tissues are subjected, with a view to freeing it from the extraneous bacteria, influences its potency to a more or less degree. If glycerine be added, the number will gradually diminish. So in order to obtain the best results it usually follows that there arrives a time when such virus is free of bacteria, or nearly so, and when its potency is very little impaired. The Japanese have discovered that vaccine virus to which glycerine has been added, can be made to withstand considerable quantities of pure carbolic acid and in such strength as to kill the extraneous bacteria, and to do so without materially impairing its potency. Further, the vaccine virus can be produced bacteria free in certain animals, such as the male rabbit and calves, as has been suggested by Noguchi, but as yet this is in the experimental stage.

"The preservation of the virus in a highly potent state is all important, it is quite sensitive to heat; the hot weather of the summer months causes it to deteriorate rapidly. Low temperatures on the other hand preserve it, and particularly is this so if the temperature is below the freezing point. Elgin of this country was first to discover this fact, which was confirmed by Green of England. Vaccine virus when subjected to very low temperatures and maintained, thus with but little variation will remain potent for months, even as much as two years."
Declaration by Dr. William Brady, in a syndicated article in the Ohio State Journal, Columbus, Ohio, October 21, 1923.

"No one knows what vaccinia is, whether a 'take' gives the subject cowpox or a modified form of smallpox. No one knows whether cowpox is a distinct disease or smallpox modified by passing through the animal. Nobody has discovered the germ or organism, which we believe causes smallpox. Nobody has isolated a specific germ or organism from the virus employed for vaccination. No one can be absolutely certain that the virus employed for vaccination will not convey to the subject vaccinated some accidental infection as well as vaccinia."
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