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No. 9.

PREVENTION OF MALARIA.

SUGGESTIONS ON HOW TO SCREEN THE HOME TO KEEP OUT EFFECTIVELY THE MOSQUITOES WHICH SPREAD THE DISEASE.

By R. H. VON EZDORF, Surgeon, United States Public Health Service.

The season is approaching when people are considering the screening of their homes against mosquitoes and flies.¹ Too often are details omitted, and the result of screening is found to be ineffective, or, in fact, often useless, so that the house is made a trap for mosquitoes rather than mosquito-proof.

A few suggestions on screening will be given and discussed under the following heads:

Material: Size of mesh; preservation; cost.

Screening of doors and windows: Precautions to be taken.

Screening of other openings.

Where mosquitoes enter.

Care of screens and repairs.

Economic value of screening; an example.

Material.

Wire netting is made of iron wire, painted black; of galvanized steel wire; and of copper or bronze. It may be bought in rolls containing a strip of netting 100 feet in length and 24, 26, 28, 30, 32, 36, or 40 inches in width. This netting is also graded according to the size of its mesh, and is known as 12, 14, 16, and 18 mesh, which means that there are 12, 14, 16, or 18 strands of wire to the linear inch in either direction. This can be determined by taking an inch rule, placing it on the netting and counting the strands to each inch, the number of strands corresponding with the grade, namely, 16 strands for a 16 mesh, etc.

The black iron wire netting is usually of a 12 or 14 mesh and is not to be recommended for the purposes under consideration.

¹ It is to be borne constantly in mind that frequently the breeding of mosquitoes in and around a community can be so controlled that screening against mosquitoes will be unnecessary. The need for screening against flies, of course, still remains where they are present.

The best size mesh for all purposes is the 18 mesh. A 16 mesh is quite efficient, and, if carefully painted, will practically be equal to an 18 mesh, the paint also serving as a preservative.

Even copper or bronze wire should be treated with some varnish or paint, as it is likely to oxidize and corrode when exposed in a damp climate, particularly near the seashore.

In painting wire screening the paint should be lightly daubed on the wire so that it will not run and fill up the openings.

Wire netting is usually sold at prices per 100 square feet. The approximate retail prices of the different kinds are here given:

	Per 100 square feet.
12-mesh black iron wire netting.....	\$1. 25
14-mesh black iron wire netting.....	1. 80
16-mesh galvanized steel wire netting.....	2. 50
18-mesh galvanized steel wire netting.....	2. 90
16-mesh bronze wire netting.....	5. 25
18-mesh bronze wire netting.....	6. 00

The cost of a roll can therefore be easily calculated—for example, a roll of galvanized steel wire, 16 mesh, 100 feet long, 36 inches wide, contains 300 square feet, and at \$2.50 per 100 square feet will cost \$7.50.

Screening of Doors and Windows.

Doors.—All doors should be made to open outward, should have a good spring, and should be well constructed.

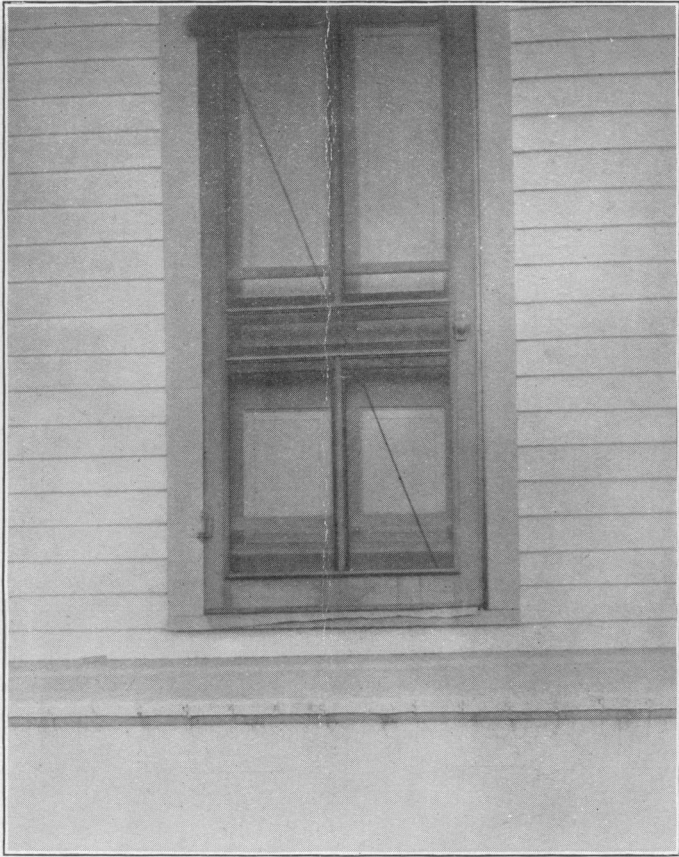
Where mosquitoes are in great abundance, the construction of a screened vestibule with two entrance doors often becomes necessary.

The defects most commonly observed in screen doors are that they do not fit, and that they are made of very thin and unseasoned wood frames and of coarse (12 mesh) wire netting.

There are on the market ready-made door and window screens made of three-fourths inch wood framing and finished with 12 and 14 mesh wire. These are, to say the least, very poor investments, and within a few weeks after use are often next to useless for the purpose intended.

To be of proper construction, a doorframe should be made of cypress or other seasoned wood 1 inch to 1½ inches thick, well braced and painted. The wire should be of 16 or 18 mesh. The lower panel should be covered on the inner side with a one-fourth inch mesh wire guard to protect the screening. If this is not provided, two or three strips of wood 1 inch wide, set 3 inches apart, should be nailed across the lower panel and two or three such strips of wood placed over the lower portion of the top panel. This provision is made for the protection of the screening in pushing the door open.

It is not an unusual experience in certain climates to have doors, even the best, to swell or warp, so that they will not close, and after



SCREEN DOOR CLOSED; CANVAS ON LOWER END OF DOOR.

planing them so that they will close the wood will shrink in warm weather, leaving a crack one-half inch or more, where mosquitoes might enter:

An easy fitting door, fully one-fourth inch clear all around the edge, is best, and to make it mosquito proof it will be necessary only to tack a strip of light canvas 1 inch wide around the top and one side of the door facing on the outer side (not on the screen door), so that when the door closes this canvas will take up all the lost or extra space. To the lower edge, on the outer side of the door, a strip of canvas may be tacked to cover any opening existing. This measure is not ornamental, but it is effective.

Some use strips of wood nailed to the inner side of the door jambs against which the door strikes. This is usually satisfactory, but doors will warp lengthwise, so that the top and bottom will not strike such facing strips, and thus leave spaces at the top and bottom. The canvas strips suggested have been found to be more generally satisfactory to meet this defect.

The door should, of course, have a spring which will keep it closed firmly.

Windows.—A window is probably the most common place of entrance for mosquitoes. Windows are frequently screened with a view to easy removal of the screen and for the easy opening and closing of shutters. For this reason the telescoping and adjustable screens are most commonly used and sold. This type of screen is made of wood or angle-iron material for the frames and furnished with 12 or 14 mesh iron wire. At best, these screens are not effective, as mosquitoes will work their way between the lapping ends. The halfway or half-window sliding screens provided with guides, well made, are efficient but costly. When using this type, the window must be kept wide open so that the sash will fit close to the frame of the screen.

The most efficient method of screening a window is to screen the entire opening. A well-fitting screen frame which is screwed into place so that it can be removed at the end of the season is probably the best.

Another method, less expensive than that of constructing a frame, is to cover the window with wire netting tacked to the window facing, and cover the edges with narrow strips of wood, nailed down to keep the wire netting flat against the woodwork and hold it firmly in place. Cotton mosquito netting, which will serve for a period of time and possibly for the entire season, provided care is taken with it, might be used in this way.

Where shutters or outer blinds are also used, a tight-fitting frame may be employed, with the lower end of the frame material arranged with a trapdoor covered with canvas, or the frame may be made to

extend within 4 to 6 inches of the sill and the remainder closed in with a board on hinges, or heavy canvas covering.

Screening of Other Openings.

Other places to be absolutely screened are the fireplaces, openings into chimneys for stove pipes, drain holes, ice-box drips through floors, and the like.

The chimneys above the fireplaces must not merely be stuffed with newspapers and sacking, but should be absolutely closed with cotton material or netting.

The complaint is often made that a great deal of money is spent in screening a house and that it has proved useless, and, upon questioning or examining such a place, we find that the occupant has failed to tightly screen the fireplaces, not knowing that mosquitoes will enter through the chimney.

The fireplaces should therefore be completely sealed. If there is a metal cover, or fire board, used to close the fireplace during the summer, then this should have the openings along the edges completely closed by pasting paper over them, or adhesive plaster might be used.

A piece of unbleached sheeting or heavy paper may be used to close the opening. This is to be tacked into place and laths are to be used to hold the edges firm. The paper might be pasted.

If the fireplace is constructed of iron, brick, tile, stone, or other material not permitting the use of nails or tacks, adhesive plaster 2 inches wide may be employed, one-half of the width being used to hold the edge of the cotton material, the other half to fasten it in place. The hearth is usually of stone or brick, so that adhesive plaster will be serviceable in any case.

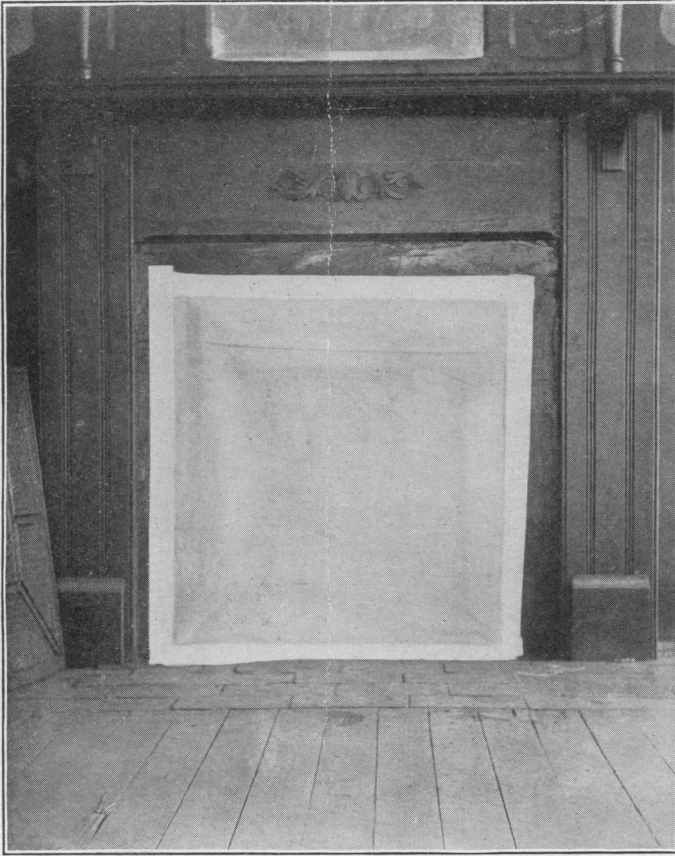
If the porches are screened, the holes at the bottom for draining off water should also be screened. Every precaution must be taken to close all openings securely. If the house is not of tight construction, it may require papering of the interior of the rooms.

Where Mosquitoes Enter.

Mosquitoes will enter a house in search of blood (only the female mosquito bites, not the male), as this food stimulates and accelerates ovulation, that is, the laying of eggs.

Mosquitoes usually find entrance through defective screens, such as those of 12 or 14 mesh wire; corroded or torn wire screens; the sides of poorly fitting screen doors and window screens. They enter through chimneys, drain holes, and in fact any opening which is of sufficient size.

Anopheles, or malaria-bearing mosquitoes, in particular, have the faculty of searching for and finding such defects. Anopheles mos-



FIREPLACE PROPERLY SEALED AGAINST MOSQUITOES, COVERED WITH UNBLEACHED MUSLIN AND FIXED INTO PLACE BY ADHESIVE PLASTER

quitoes, it should be remembered, usually take their flight at night—that is, as soon as dusk or twilight comes on—so that it is generally reckoned that their flight is during the hours between sunset and sunrise. These mosquitoes are attracted to houses by light. Other mosquitoes are frequently attracted in the same way. Anopheles mosquitoes do not content themselves on finding when they first alight that the entrance to a house is closed to them by screens, but seek to find any opening by which they can enter. It is therefore important that every accessible opening into a house which might permit the entrance of mosquitoes be carefully closed.

It is very generally accepted that the Anopheles, or malaria-bearing mosquitoes, do not fly high and therefore do not enter rooms on the second or third floors of a house; but it has also been found that these mosquitoes will fly over the tops of houses and, when attracted by the reflected light from chimneys, will enter by that way through the fireplaces into the house.

Care of Screens.

Many persons upon opening a screen door will push against the wire netting or use the foot against the wire netting on the lower panel. As a result, the screen will soon become torn from its fastenings. The measures for protecting the netting have already been given.

Cheap material, such as black iron wire, will soon corrode, and holes will appear before the season is half over. It is not unusual to see people carefully close a screen door that has holes in the wire large enough to push the hand through. And again, people will carefully trim the torn wire so as to have a neat and clean cut edge, leaving an opening, and yet expect protection.

In repairing torn wire screening, a small piece of wire netting cut to size should be placed over the torn opening and fixed into place by sewing or lacing with a strand of the wire.

Economic Value of Screening.

The protection against the bite of the mosquito protects against the spread of malaria and contributes to comfort.

One example of the good effect of screening, and the economic value derived therefrom, is the history of a family at Scott, Ark., cited by Dr. Henry Thibault, which is here given:

This family, comprising nine members, gave a history of having suffered attacks of malarial fevers every season during three years. The medical attendance cost on an average of \$175 per year. Under direction of Dr. Henry Thibault, the attending physician, measures against the breeding of mosquitoes in and about the home, and for the screening of all windows, doors, and open hallways, were adopted. After this was done the family lived in the house for four years, and the bills for medical attendance averaged only \$15 to \$20 per year.

It was estimated that the cost of screening the house in this instance was \$40.

The Cost of Screening a Cottage.

The following is given as an example of the cost of material for effectually screening a house, using 16-mesh galvanized wire netting, which will cost \$2.50 per 100 square feet. The cost of labor is not included in this estimate.

The windows are to be screened by tacking the wire netting directly on the window facing with half-round material over the edges, giving it a neat finish.

Size of windows.

10 windows, each 6 feet 8 inches high, 2 feet 10 inches wide.

4 windows, each 5 feet high, 2 feet 10 inches wide.

The 10 windows 6 feet 8 inches high would each require a piece of netting 3 feet wide and 7 feet long, and the 4 windows 5 feet high pieces 3 feet wide and 5 feet 6 inches long.

	Square feet.	
10 windows 7 by 3 feet would therefore require.....	210	
4 windows 5½ by 3 feet would require.....	66	
Total.....	276	
Total cost screening for windows, at \$2.50 per 100 square feet.....		\$6.90
2 doors, estimated to cost \$3 each.....		6.00
Half-round material, 400 feet, for 14 windows.....		2.00
Tacks, 25 cents; nails, 50 cents.....		.75
If frames for windows are made, wood framing material, 400 linear feet, ¾ inch thick and 2 inches wide, would cost.....		5.30
Estimated cost of screws.....		.50
Total.....		21.45

If the screen frames are to be hung on hinges, there would be an additional cost for 14 pairs of hinges.

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during January, 1914, to other State or provincial health departments.

By the Division of Epidemiology of the Minnesota State Board of Health.

Disease.	Notified at—	Referred to health authority of—	Why referred.
Smallpox.....	St. Paul, Ramsey County.	Havre, Hill County, Mont.....	Taken ill en route from Havre.
Typhoid fever..	Rochester, Olmsted County.	Flaxcombe, Saskatchewan.....	Infected in harvest at Flaxcombe.
	Glencoe, McLeod County.	American Falls, Power County, Idaho.	Infected in harvest at American Falls.
	South St. Paul, Dakota County.	Gary, Lake County, Ind.....	Infected in Gary.
	Minneapolis, Hennepin County.	Outlook, Sheridan County, Mont....	Infected at railroad camp at Outlook.
	.....do.....	Plentywood, Sheridan County, Mont.	Infected at railroad camp at Plentywood.
	.....do.....	Ambrose, Divide County, N. Dak...	Infected on railroad work at Ambrose.
	.....do.....	Hankinson, Richwood County, N. Dak.	Taken ill at Hankinson.
	Benson, Swift County.	Rugby, Pierce County, and Leeds, Benson County, N. Dak.	Visited in Rugby and Leeds twenty-fourth to sixteenth day before first symptoms.
	Rochester, Olmsted County.	Balfour, McHenry County, N. Dak..	Infected at home in Balfour.
Scarlet fever....	St. Paul, Ramsey County.	Osceola, Polk County, Wis.....	Taken home to Osceola.
Tuberculosis....	Minneapolis, Hennepin County.	Wilcox, Saskatchewan.....	A resident of Wilcox.

SMALLPOX.

Indiana—Evansville.

Surg. Oakley, of the Public Health Service, reported by telegraph that during the week ended February 21, 1914, 17 cases of smallpox had been notified in Evansville, Ind.

Maine—Portland.

The 15 cases of smallpox reported by Surg. McIntosh February 4, 1914, and credited in the Public Health Reports of February 13, 1914, on page 412, to Louisville, Ky., were notified in and should have been credited to Portland, Me.

SMALLPOX—Continued.

New York—Niagara Falls.

Acting Asst. Surg. Bingham, of the Public Health Service, reported by telegraph that during the week ended February 21, 1914, 25 cases of smallpox had been notified in Niagara Falls, N. Y.

State Reports for January, 1914.

Places.	New cases reported during month.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
California:						
Alameda County—						
Oakland.....	1				1	
Butte County.....	2		2			
Fresno County.....	1			1		
Coalinga.....	1					1
Imperial County.....	2			2		
Kern County.....	1		1			
Bakersfield.....	1				1	
Kings County.....	1				1	
Lemoore.....	4					4
Lake County.....	2					2
Lakeport.....	10				10	
Los Angeles County—						
Los Angeles.....	11			2	9	
Monrovia.....	3				3	
Marin County.....	1					1
Nevada County—						
Nevada City.....	2				1	1
Orange County—						
Santa Ana.....	1					1
Placer County.....	1				1	
Auburn.....	1				1	
Sacramento County—						
Sacramento.....	2				2	
San Bernardino County	1					1
Redlands.....	1					1
San Diego County—						
National City.....	1					1
San Diego.....	2				2	
San Francisco County—						
San Francisco.....	12			1	4	7
San Joaquin County—						
Stockton.....	2				2	
Santa Clara County.....	14			1	1	12
San Jose.....	11					11
Santa Cruz County.....	4				1	3
Boulder Creek.....	2			1		1
Santa Cruz.....	16				11	5
Shasta County.....	1				1	
Sonoma County.....	1			1		
Sutter County.....	1					1
Tulare County—						
Porterville.....	3				3	
Total.....	120		3	9	55	53
Maryland, exclusive of Baltimore city:						
Allegany County—						
Western Port.....	1				1	
Michigan:						
Alger County—						
Rock River Township.....	2			2		
Benzie County—						
Benzonia.....	1					1
Berrien County—						
Benton Township.....	2				2	
Coloma.....	1					1
Branch County—						
Quincy.....	2			2		
Coldwater.....	4				3	

SMALLPOX—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Michigan—Continued.						
Calhoun County—						
Battle Creek.....	3					3
Marshall.....	1				1	
Chippewa County—						
Sault Ste. Marie.....	10				10	
Clinton County—						
St. Johns.....	1				1	
Eaton County—						
Benton Township.....	1					1
Bellevue.....	3				3	
Genesee County—						
Flint.....	2				2	
Grand Traverse County—						
Blair Township.....	8				8	
Whitewater Township.....	28			3	25	
Huron County—						
Dwight Township.....	3				3	
Hume Township.....	6				3	3
Port Austin Township.....	4				4	
Ingham County—						
Delhi Township.....	1				1	
Meridian Township.....	1				1	
Lansing.....	4				2	2
Ionia County—						
Ionia.....	1				1	
Isabella County—						
Mount Pleasant.....	1				1	
Jackson County—						
Sandstone Township.....	1					1
Kalamazoo County—						
Kalamazoo.....	1				1	
Lapeer County—						
Attica Township.....	1					1
Macomb County—						
Clinton Township.....	2				2	
Harrison Township.....	5					5
Lake Township.....	23				17	6
Marquette County—						
Michigamme Township.....	1			1		
Ishpeming.....	2					2
Marquette.....	2					2
Menominee County—						
Menominee.....	2					2
Monroe County—						
Erie Township.....	1				1	
Exeter Township.....	4				2	2
London Township.....	4			2	1	1
Oceana County—						
Ferry Township.....	5				3	2
Osceola County—						
Richmond Township.....	1				1	
Reed City.....	1					1
Ottawa County—						
Grand Haven.....	1					1
St. Clair County—						
Marine City.....	1				1	
St. Joseph County—						
Park Township.....	2					2
Sanilac County—						
Wheatland Township.....	1		1			
Schoolcraft County—						
Doyle Township.....	1					1
Hiawatha Township.....	1		1			
Manistique.....	7				7	
Van Buren County—						
Waverly Township.....	2				2	
Washtenaw County—						
Saline Township.....	5				5	

SMALLPOX—Continued.

State Reports for January, 1914—Continued.

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Michigan—Continued.						
Wayne County—						
Huron Township.....	1				1	
Hamtramck.....	3			3		
Highland Park.....	1		1			
Detroit.....	66			66		
Wyandotte.....	1			1		
Total.....	239		2	12	184	
Minnesota:						
Aitkin County—						
Libby Township.....	1			1		
Logan Township.....	4			4		
McGregor.....	2			2		
Waukenabo Township.....	4				4	
Beltrami County—						
Bemidji.....	1				1	
Kelliher.....	2			1	1	
Spooner.....	2			1	1	
Blue Earth County—						
Mankato.....	3		1	2		
Vernon Center.....	7			7		
Cass County—						
Cass Lake.....	1				1	
Pillager.....	1				1	
Cottonwood County—						
Ann Township.....	2			2		
Highwater Township.....	2				2	
Lakeside Township.....	1				1	
Storden Township.....	8			5	3	
Dakota County—						
Burnsville Township.....	1			1		
Dodge County—						
Dodge Center.....	1				1	
Kasson.....	4		3	1		
Douglas County—						
Alexandria.....	8		1	7		
Faribault County—						
Blue Earth.....	1			1		
Fillmore County—						
Beaver Township.....	1			1		
Bloomfield Township.....	2			2		
Forestville Township.....	1			1		
York Township.....	2			2		
Hennepin County—						
Minneapolis.....	11			11		
Jackson County—						
Jackson.....	1				1	
Kandiyohi County—						
Penock.....	1			1		
Lincoln County—						
Marble Township.....	2			2		
Lyon County—						
Tracy.....	1			1		
McLeod County—						
Bergen Township.....	1			1		
Marshall County—						
Alma Township.....	5		1	3	1	
Argyle.....	1		1			
New Solum Township.....	13			10	3	
Stephen.....	4			3	1	
Viking Township.....	1			1		
Martin County—						
Ceylon.....	7		2	1	4	
Lake Belt Township.....	1			1		
Mille Lacs County—						
Greenbush Township.....	1			1		
Mower County—						
Austin.....	1				1	
Nobles County—						
Grand Prairie Township.....	1				1	

SMALLPOX—Continued.

State Reports for January, 1914—Continued.

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Minnesota—Continued.						
Olmsted County—						
Pleasant Grove Township.....	3				3	
Rochester.....	17			1	16	
Rochester Township.....	1				1	
Pennington County—						
North Township.....	1					1
St. Hilaire.....	20			1	19	
Thief River Falls.....	3				3	
Polk County—						
Eden Township.....	4				4	
Parnell Township.....	1				1	
Ramsey County—						
St. Paul.....	4				3	1
Redwood County—						
Walnut Grove.....	1				1	
Rice County—						
Faribault.....	4				4	
Northfield.....	1			1		
Rock County—						
Kanaranzi Township.....	2					2
St. Louis County—						
Chisholm.....	2				1	1
Duluth.....	24			3	21	
Ely.....	1		1			
Eveleth.....	2				2	
Fayal Township.....	4				4	
Owen Township.....	2				2	
Virginia.....	4				2	2
Sibley County—						
Arlington Township.....	1				1	
Swift County—						
Appleton.....	1				1	
Wadena County—						
Orton Township.....	15				15	
Sebeka.....	1				1	
Shell River Township.....	1					1
Wright County—						
Albion Township.....	1				1	
Delano.....	2			1		1
Middleville Township.....	8				8	
Rockford.....	1				1	
Rockford Township.....	1				1	
Waverly.....	1					1
Total.....	248		4	15	19	34
Ohio:						
Allen County.....	59				6	53
Athens County.....	8				4	4
Brown County.....	5					5
Butler County—						
Hamilton.....	1				1	
Carroll County.....	4				4	
Champaign County.....	1					1
Cuyahoga County—						
Cleveland.....	2				2	
Defiance County.....	8					8
Delaware County.....	13				6	7
Eric County.....	1					1
Franklin County.....	56				53	3
Fulton County.....	25				22	3
Gallia County.....	71				13	58
Hamilton County.....	4			1	2	1
Hancock County—						
Findlay.....	1				1	
Hardin County.....	2				2	
Henry County.....	26			2	9	15
Hocking County.....	13				13	
Holmes County.....	1					1
Jackson County.....	84					84

SMALLPOX—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Ohio—Continued.						
Jefferson County.....	6					6
Lawrence County.....	5				5	
Logan County—						
Bellefontaine.....	1				1	
Lucas County.....	143		3		121	19
Madison.....	5					5
Marion County.....	47				25	22
Meigs County.....	89		3		67	19
Montgomery County—						
Dayton.....	7				7	
Morgan County.....	1					1
Muskingum County.....	9		1	1	5	2
Ottawa County.....	25				19	6
Paulding County.....	10					10
Pickaway County—						
Circleville.....	1				1	
Putnam County.....	25			2	1	22
Ross County.....	15					15
Sandusky County.....	1					1
Scioto County.....	1					1
Seneca County.....	14			1	3	10
Stark County.....	7					7
Summit County.....	12				1	11
Union County.....	1					1
Van Wert County.....	8				3	5
Washington County.....	6				5	1
Williams County.....	4					4
Wood County.....	22				10	12
Total.....	850		1	13	412	424
Wisconsin:						
Adams County.....	4					4
Ashland County.....	17		1	5	9	2
Barron County.....	6				5	1
Burnette County.....	3				3	
Chippewa County.....	2				2	
Columbia County.....	4			1	2	1
Dane County.....	38				1	37
Door County.....	3			3		
Douglas County.....	21					21
Dunn County.....	3			2		1
Grant County.....	23		1	5	5	12
Green County.....	1					1
Jefferson County.....	4			2	2	
Kenosha County.....	6				5	1
Kewaunee County.....	27		10	4	13	
La Crosse County.....	17		8		9	
Langlade County.....	2		1		1	
Lincoln County.....	19			18	1	
Manitowoc County.....	6				6	
Marinette County.....	5				4	1
Marquette County.....	5				5	
Milwaukee County.....	247					247
Monroe County.....	2					2
Oconto County.....	10				10	
Outagamie County.....	24				7	17
Pierce County.....	7			1	4	2
Racine County.....	1					1
Rock County.....	39			1	15	23
St. Croix County.....	2			1		1
Sauk County.....	3			3		
Walworth County.....	14			6	4	4
Washington County.....	3				3	
Waukesha County.....	5				4	1
Wood County.....	7		1	1	5	
Total.....	580		22	53	125	380

SMALLPOX—Continued.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Kansas (Jan. 1-31):			Iowa—Continued.		
Counties—			Counties—continued.		
Clay.....	1		Jasper.....	41	
Cloud.....	1		Johnson.....	2	
Douglas.....	4		Keokuk.....	8	
Harper.....	2		Lee.....	1	
McPherson.....	2		Linn.....	5	
Miami.....	1		Madison.....	16	
Mitchell.....	6		Marion.....	15	
Montgomery.....	1		Monona.....	3	
Ness.....	1		O'Brien.....	33	
Riley.....	5		Page.....	2	
Sedgwick.....	4		Polk.....	171	
Sherman.....	3		Pottawattamie.....	1	
Sumner.....	2		Poweshiek.....	1	
Thomas.....	1		Ringgold.....	13	
Washington.....	2		Scott.....	3	
Total.....	36		Sioux.....	2	
			Story.....	6	
			Warren.....	2	
Indiana (Dec. 1-31):¹			Washington.....		
Counties—			Wayne.....		
Bartholomew.....	1		Webster.....		
Miami.....	6		Woodbury.....		
			Total.....	537	1
Indiana (Jan. 1-31):			Montana (Jan. 1-31):		
Counties—			Counties—		
Benton.....	20		Beaverhead.....	2	
Blackford.....	2		Broadwater.....	1	
Boone.....	1		Cascade.....	7	
Carroll.....	2		Chouteau.....	5	
Cass.....	1		Custer.....	5	
Clark.....	3		Dawson.....	2	
Clay.....	5		Deer Lodge.....	1	
Clinton.....	4		Fergus.....	38	1
Dubois.....	2		Flathead.....	1	
Elkhart.....	1	1	Gallatin.....	2	
Floyd.....	9		Hill.....	2	
Gibson.....	3		Jefferson.....	3	
Grant.....	3		Lewis and Clark.....	24	
Harrison.....	1		Meagher.....	5	
Hendricks.....	1		Missoula.....	1	
Jennings.....	1		Powell.....	1	
Madison.....	1		Ravalli.....	1	
Marion.....	84		Sanders.....	1	
Martin.....	2		Silver Bow.....	64	
Orange.....	3		Yellowstone.....	10	
Spencer.....	2		Total.....	176	1
Steuben.....	12				
St. Joseph.....	1		New Jersey (Jan. 1-Dec. 31)²		
Tippecanoe.....	2		South Carolina (Jan. 1-31):		
Vanderburgh.....	68		Counties—		
Washington.....	2		Abbeville.....	6	
Wayne.....	1		Anderson.....	1	
Total.....	234	1	Charleston.....	1	
			Chester.....	3	
Iowa (Jan. 1-31):			Clarendon.....	23	
Counties—			Darlington.....	2	
Allamakee.....	5		Dillon.....	1	
Appanoose.....	1		Florence.....	4	
Benton.....	33		Georgetown.....	3	
Blackhawk.....	1		Greenville.....	15	
Boone.....	42		Greenwood.....	1	
Buena Vista.....	1		Hampton.....	2	
Carroll.....	8		Laurens.....	1	
Cass.....	1		Newberry.....	75	
Clarke.....	20		Orangeburg.....	30	
Clay.....	5	1	Richland.....	1	
Crawford.....	3		Spartanburg.....	5	
Dallas.....	2		Sumter.....	5	
Davis.....	4		Union.....	1	
Dickinson.....	10		Williamsburg.....	3	
Dubuque.....	16		York.....	6	
Emmet.....	1		Total.....	188	
Fremont.....	8				
Guthrie.....	3				
Hamilton.....	7				
Hardin.....	7				
Humboldt.....	3				

¹ Supplement.² No case.

SMALLPOX—Continued.

Miscellaneous State Reports—Continued.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Washington (Jan. 1-31): Counties—			Washington—Continued. Counties—Continued.		
Asotin.....	1		Pend Oreille.....	6	
Columbia.....	3		Pierce.....	2	
Cowlitz.....	7		Skamania.....	2	
Garfield.....	4		Snohomish.....	1	
King.....	24		Spokane.....	31	
Kitsap.....	1		Walla Walla.....	22	
Kittitas.....	1		Yakima.....	3	
Klickitat.....	10		Total.....	123	
Okanogan.....	5				

City Reports for Week Ended Feb. 7, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
A Ittoona, Pa.....	1		Marinette, Wis.....	1	
Austin, Tex.....	1		Milwaukee, Wis.....	31	
Baltimore, Md.....	12		Muncie, Ind.....	2	
Butte, Mont.....	15		Muscatine, Iowa.....	2	
Chicago, Ill.....	3		Nashville, Tenn.....	22	
Cincinnati, Ohio.....	4		New Orleans, La.....	1	
Cleveland, Ohio.....	1		Niagara Falls, N. Y.....	39	
Coffeyville, Kans.....	2		Portland, Me.....	4	
Columbus, Ohio.....	13		Portsmouth, Va.....	4	
Dayton, Ohio.....	1		Richmond, Va.....	13	
Detroit, Mich.....	7		Rockford, Ill.....	4	
Evansville, Ind.....	13		St. Joseph, Mo.....	2	
Kansas City, Kans.....	25		San Francisco, Cal.....	3	
La Crosse, Wis.....	6		Spokane, Wash.....	4	
Lexington, Ky.....	31		Superior, Wis.....	5	
Little Rock, Ark.....	2		Toledo, Ohio.....	34	
Los Angeles, Cal.....	1		Washington, D. C.....	2	
Lynchburg, Va.....	1		Zanesville, Ohio.....	2	

TYPHOID FEVER.

State Reports for January, 1914.

Places.	New cases reported during month.	Places.	New cases reported during month.
California:		California—Continued.	
Alameda County—		San Bernardino County—	
Alameda.....	1	Ontario.....	1
Oakland.....	8	San Francisco County—	33
Berkeley.....	1	San Francisco.....	1
Piedmont.....	1	Stanislaus County.....	
Colusa County—		Tehama County—	
Colusa.....	1	Corning.....	1
Fresno County—		Total.....	161
Sanger.....	1	Hawaii:	
Imperial County.....	2	Hawaii—	
Calexico.....	1	Hamakua district.....	2
Los Angeles County.....	3	North Hilo district.....	1
Los Angeles.....	14	North Kohala district.....	2
Pasadena.....	5	Puna district.....	3
Napa County—		Mauī—	
Napa.....	1	Puunene and Kihei districts... ..	2
Merced County.....	2	Oahu—	
Merced.....	1	Ewa district.....	1
Riverside County—		Honolulu.....	5
Corona.....	1	Total.....	16
Sacramento County.....	2		
Sacramento.....	79		
San Diego County—			
San Diego.....	1		

TYPHOID FEVER—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Places.	New cases reported during month.
Indiana:		Maryland, exclusive of Baltimore city—Continued.	
Adams County.....	1	Calvert County.....	
Carroll County.....	2	Willows.....	1
Cass County.....	22	Caroline County—	
Clark County.....	7	Federalsburg.....	1
Clay County.....	1	Carroll County—	
Dearborn County.....	2	Hampstead.....	1
Elkhart County.....	2	Cecil County—	
Fayette County.....	3	Elkton.....	1
Greene County.....	1	Charles County—	
Huntington County.....	1	McConchie.....	1
Jefferson County.....	5	La Plata.....	3
Johnson County.....	2	Dorchester County—	
Knox County.....	3	Cambridge.....	1
Kosciusko County.....	11	Fishing Creek.....	2
Lagrange County.....	11	Hills Point.....	1
Lake County.....	18	Hoopersville.....	2
Lawrence County.....	2	Vienna.....	2
Madison County.....	2	Madison.....	1
Marion County.....	7	Cambridge R. F. D.....	1
Marshall County.....	1	Frederick County—	
Monroe County.....	1	Frederick.....	1
Montgomery County.....	1	Garrett County—	
Morgan County.....	1	Oakland.....	1
Orange County.....	1	Harford County—	
Perry County.....	2	Perryman.....	3
Pike County.....	2	Darlington.....	3
Pulaski County.....	3	Aberdeen R. F. D.....	2
Putnam County.....	4	Howard County—	
Ripley County.....	3	Ellicott City.....	3
Rush County.....	1	Kent County—	
Scott County.....	1	Rock Hall.....	3
St. Joseph County.....	2	Kennedyville R. F. D.....	2
Sullivan County.....	2	Montgomery County—	
Tippecanoe County.....	7	Rockville.....	1
Union County.....	1	Prince Georges County—	
Vanderburg County.....	1	Mount Rainier.....	1
Vermilion County.....	2	Croome.....	1
Vigo County.....	2	Queen Annes County—	
Wabash County.....	5	Queenstown.....	2
Wayne County.....	6	Starr.....	1
Total.....	142	Somerset County—	
Kansas:		Dames Quarter.....	5
Cheyenne County.....	2	Crisfield.....	1
Clay County.....	2	Asbury district.....	1
Jefferson County.....	2	Westover.....	1
Norton County.....	2	Upper Fairmount.....	1
Phillips County.....	1	St. Marys County—	
Riley County.....	1	Maddox.....	1
Sumner County.....	3	Talbot County—	
Total.....	13	Trappe.....	1
Maryland, exclusive of Baltimore city:		Washington County—	
Allegany County—		Hancock.....	1
Allegany Hospital.....	1	Highfield.....	1
Twigtown.....	2	Wicomico County—	
Cumberland.....	1	Nanticoke.....	1
Lonaconing.....	3	Delmar.....	1
Westernport.....	9	Powellville.....	1
Frostburg.....	1	Salisbury.....	2
Barton.....	1	Worcester County—	
Hoffman.....	1	Snow Hill.....	1
Anne Arundel County—		Pocomoke City.....	1
Friendship.....	1	Whaleyville.....	1
Churchton.....	6	Total.....	98
Nutwell.....	2	Michigan:	
Waterbury.....	1	Alpena County—	
Baltimore County—		Alperia.....	18
Catonsville.....	1	Antrim County—	
Woodberry.....	1	Banks Township.....	1
Highlandtown.....	1	Calhoun County—	
Fowlesburg.....	1	Marshal.....	1
Govans.....	1	Charlevoix County—	
Mount Washington.....	1	Boyne Valley Township.....	1
		Chippewa County—	
		Sault Ste. Marie.....	1

TYPHOID FEVER—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Places.	New cases reported during month.
Michigan—Continued.		Minnesota—Continued.	
Eaton County—		Carlton County—	
Bellevue Township.....	1	Cloquet.....	1
Bozanna Township.....	1	Chisago County—	
Eaton Rapids.....	1	Wyoming.....	1
Genesee County—		Clay County—	
Flint.....	1	Flowing Township.....	2
Gratiot County—		Cottonwood County—	
Bethany Township.....	1	Windom.....	2
Hillsdale County—		Crow Wing County—	
Woodbridge Township.....	1	Brainerd.....	2
Huron County—		Crosby.....	6
Dwight Township.....	1	Dakota County—	
Ingham County—		Rosemount.....	1
Lansing.....	1	Dodge County—	
Mason.....	1	Dodge Center.....	1
Iosco County—		Freeborn County—	
Burleigh Township.....	1	Albert Lea.....	1
Iron County—		Pickere Lake Township.....	1
Crystal Falls Township.....	1	Goodhue County—	
Crystal Falls.....	2	Red Wing.....	1
Isabella County—		Hennepin County—	
Isabella Township.....	1	Dayton Township.....	1
Jackson County—		Minneapolis.....	1
Jackson.....	1	Kanabec County—	
Kalamazoo County—		Ogilvie.....	1
Comstock Township.....	1	Koochiching County—	
Kalamazoo.....	4	International Falls.....	3
Kent County—		Lake County—	
Walker Township.....	1	Two Harbors.....	1
Grand Rapids.....	14	Lyon County—	
Lenawee County—		Cottonwood.....	1
Dover Township.....	1	McLeod County—	
Marquette County—		Penn Township.....	1
Negaunee.....	1	Marshall County—	
Menominee County—		Argyle.....	1
Menominee.....	1	Oslo.....	1
Monroe County—		Martin County—	
Exeter Township.....	1	Fairmont.....	1
Lasalle Township.....	1	Morrison County—	
Monroe.....	1	Little Falls.....	2
Montcalm County—		Nicollet County—	
Day Township.....	1	Courtland Township.....	2
Winfield Township.....	2	Nobles County—	
Oakland County—		Adrian.....	1
West Bloomfield Township.....	1	Olmsted County—	
Oceana County—		Rochester.....	1
Eldridge Township.....	1	Otter Tail County—	
Ottawa County—		Homestead Township.....	1
Holland Township.....	1	Polk County—	
Saginaw County—		Crookston.....	1
Albee Township.....	1	Ramsey County—	
Saginaw.....	7	St. Paul.....	7
St. Clair County—		Red Lake County—	
Ira Township.....	1	Red Lake Falls.....	1
Fort Huron.....	2	Renville County—	
Shiawassee County—		Fairfax.....	1
Vernon.....	1	Rice County—	
Tuscola County—		Northfield.....	1
Novesta Township.....	1	Roseau County—	
Van Buren County—		Warroad.....	1
Porter Township.....	1	St. Louis County—	
Wayne County—		Biwabik.....	1
Hamtramck Township.....	2	Duluth.....	3
Detroit.....	18	Ely.....	2
Wyandotte.....	10	Fall Lake.....	2
Total.....	113	Virginia.....	2
Minnesota:		Scott County—	
Becker County—		Belle Plaine Borough.....	2
Burlington Township.....	1	Stearns County—	
Beltrami County—		St. Cloud.....	1
Red Lake Indian Reservation.....	2	Steele County—	
Blue Earth County—		Owatonna.....	1
Good Thunder.....	1	Swift County—	
Brown County—		Appleton.....	1
New Ulm.....	30	Wadena County—	
		Wadena Township.....	1

TYPHOID FEVER—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Places.	New cases reported during month.
Minnesota—Continued.		Ohio—Continued.	
Washington County—		Williams County.....	2
St. Paul Park.....	1	Wood County.....	9
Watowan County—		Total.....	296
Butterfield.....	1		
Total.....	102	South Carolina:	
Ohio:		Aiken County.....	1
Adams County.....	2	Anderson County.....	1
Allen County—		Bamberg County.....	1
Lima.....	1	Clarendon County.....	10
Ashland County.....	4	Cherokee County.....	2
Auglaize County.....	2	Chester County.....	2
Belmont County.....	3	Chesterfield County.....	3
Brown County.....	1	Colleton County.....	1
Butler County—		Dillon County.....	1
Middletown.....	1	Edgefield County.....	7
Carroll County.....	1	Florence County.....	1
Clark County.....	3	Greenville County.....	3
Clermont County.....	1	Horry County.....	1
Columbiana County.....	3	Jasper County.....	1
Coshocton County.....	2	Marlboro County.....	1
Crawford County.....	1	Orangeburg County.....	5
Cuyahoga County.....	22	Pickens County.....	3
Darke County.....	1	Richland County.....	2
Defiance County.....	1	Saluda County.....	2
Erie County—		Spartanburg County.....	4
Sandusky.....	3	Sumter County.....	1
Franklin County.....	9	York County.....	3
Gallia County.....	1	Total.....	56
Greene County.....	1		
Hamilton County—		Vermont:	
Cincinnati.....	7	Addison County.....	4
Hancock County.....	2	Chittenden County.....	2
Harrison County.....	2	Franklin County.....	4
Huron County.....	2	Rutland County.....	1
Jackson County.....	3	Windham County.....	8
Jefferson County—		Total.....	19
Staubenville.....	2		
Lake County.....	4	Washington:	
Lawrence County.....	2	Chehalis County.....	1
Licking County.....	9	Chelan County.....	1
Logan County.....	11	Clallam County.....	1
Lorain County.....	7	Columbia County.....	1
Lucas County.....	15	King County.....	1
Mahoning County.....	12	Seattle.....	7
Marion County.....	2	Kitsap County.....	1
Medina County.....	2	Kittitas County.....	1
Mercer County.....	2	Lewis County.....	37
Miami County.....	5	Snohomish County—	
Montgomery County.....	2	Everett.....	2
Morrow County.....	3	Spokane County—	
Muskingum County.....	31	Spokane.....	2
Ottawa County.....	1	Thurston County.....	2
Paulding County.....	1	Walla Walla County.....	1
Perry County.....	6	Whatcom County—	
Pickaway County—		Bellingham.....	1
Circleville.....	14	Total.....	59
Portage County.....	1		
Putnam County.....	1	Wisconsin:	
Ross County.....	1	Ashland County.....	2
Sandusky County.....	2	Barron County.....	1
Scioto County.....	36	Bayfield County.....	1
Summit County—		Brown County.....	2
Akron.....	3	Columbia County.....	1
Trumbull County—		Dane County.....	1
Niles.....	1	Dunn County.....	1
Tuscarawas County.....	9	Fond du Lac County.....	3
Stark County.....	2	Green Lake County.....	3
Union County.....	1	Juneau County.....	1
Van Wert County—		Kenosha County.....	5
Van Wert.....	5	Manitowoc County.....	1
Vinton County.....	1		
Washington County.....	2		

TYPHOID FEVER—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Places.	New cases reported during month.
Wisconsin—Continued.		Wisconsin—Continued.	
Marathon County.....	4	Waukesha County.....	1
Marinette County.....	2	Washara County.....	2
Milwaukee County.....	8	Wood County.....	1
Racine County.....	1	Total.....	45
Sheboygan County.....	2		
Vernon County.....	2		

City Reports for Week Ended Feb. 7, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1		Johnstown, Pa.....		1
Ann Arbor, Mich.....	1		Kansas City, Kans.....	1	
Baltimore, Md.....	6	3	Lancaster, Pa.....	1	
Beaver Falls, Pa.....	1		Los Angeles, Cal.....	2	
Boston, Mass.....	12	6	Lynchburg, Va.....	2	
Bridgeport, Conn.....	1		Malden, Mass.....	1	
Cambridge, Ohio.....	1		Nashville, Tenn.....		2
Camden, N. J.....	3		Oakland, Cal.....	2	
Chicago, Ill.....	26		Philadelphia, Pa.....	9	4
Cincinnati, Ohio.....	3		Portland, Me.....	1	
Cleveland, Ohio.....		1	Pottstown, Pa.....	1	
Columbus, Ohio.....	1		Providence, R. I.....	1	
Corning, N. Y.....	3		Reading, Pa.....	3	
Cumberland, Md.....	1		San Diego, Cal.....	1	2
Dayton, Ohio.....	2		Spokane, Wash.....	1	
Evansville, Ind.....	2		Steelton, Pa.....	1	
Fall River, Mass.....	2		Washington, D. C.....	7	1
Hartford, Conn.....		1	York, Pa.....	1	

CEREBROSPINAL MENINGITIS.

State Reports for January, 1914.

Places.	New cases reported during month.	Places.	New cases reported during month.
California:		Ohio—Continued.	
Alameda County—		Hamilton County—	
Berkeley.....	1	Cincinnati.....	2
Fresno County—		Norwood.....	1
Fresno.....	1	Lucas County.....	1
Marin County—		Montgomery County.....	3
Mill Valley.....	1	Putnam County.....	1
San Francisco County—		Summit County.....	5
San Francisco.....	2	Warren County.....	1
Tulare County—		Total.....	20
Porterville.....	1		
Total.....	6	South Carolina:	
Indiana:		Cherokee County.....	1
Fayette County.....	1	Pickens County.....	1
Iowa:		Total.....	2
Story County.....	1	Washington:	
Ohio:		Jefferson County.....	1
Adams County.....	1	King County.....	1
Cuyahoga County—		Whatcom County.....	1
Cleveland.....	4	Pend Orelle County.....	1
Franklin County—		Total.....	4
Columbus.....	1		

CEREBROSPINAL MENINGITIS—Continued.

State Reports for January, 1914—Continued.

Places.	New cases reported during month.	Places.	New cases reported during month.
Wisconsin:		Wisconsin—Continued.	
Ashland County.....	1	Marinette County.....	2
Barron County.....	1	Milwaukee County.....	1
Brown County.....	1	Rock County.....	1
Douglas County.....	1	Sheboygan County.....	1
Iron County.....	1	Trempealeau County.....	2
La Crosse County.....	1	Total.....	15
Marathon County.....	2		

City Reports for Week Ended Feb. 7, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1		Milwaukee, Wis.....	1	
Buffalo, N. Y.....	2	1	New Bedford, Mass.....	1	
Butte, Mont.....		1	Newburyport, Mass.....		1
Chicago, Ill.....	2	2	New Orleans, La.....	2	
Cincinnati, Ohio.....	1		Niagara Falls, N. Y.....		1
Cleveland, Ohio.....	1		Providence, R. I.....		1
Dayton, Ohio.....		1	Richmond, Va.....		1
Los Angeles, Cal.....	3	3	San Francisco, Cal.....	1	
Lowell, Mass.....	2	2	Worcester, Mass.....	1	

POLIOMYELITIS (INFANTILE PARALYSIS).

During the week ended February 7, 1914, poliomyelitis was notified by cities as follows: Boston, Mass., 1 case; Dayton, Ohio, 1 death; Kalamazoo, Mich., 1 case; Los Angeles, Cal., 1 case with 1 death; Schenectady, N. Y., 1 case.

State Reports for January, 1914.

Places.	New cases reported during month.	Places.	New cases reported during month.
California:		Ohio:	
Humboldt County—		Cuyahoga County—	
Eureka.....	1	Cleveland.....	2
Ferndale.....	1	Franklin County—	
Los Angeles County—		Columbus.....	1
Los Angeles.....	1	Montgomery County—	
Sonoma County—		Dayton.....	1
Cloverdale.....	1	Morgan County.....	1
Total.....	4	Portage County.....	1
Indiana:		Putnam County.....	3
Lake County.....	2	Tuscarawas County.....	1
Marion County.....	1	Williams County.....	1
St. Joseph County.....	1	Total.....	11
Total.....	4	South Carolina:	
Iowa:		Saluda County.....	2
Ringgold County.....	2	Wisconsin:	
Minnesota:		Dodge County.....	1
Koochiching County—		Kewaunee County.....	1
Dinner Creek Township.....	2	Total.....	2

ERYSIPELAS.

City Reports for Week Ended Feb. 7, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Austin, Tex.....		1	Kalamazoo, Mich.....	2	
Binghampton, N. Y.....	3		Los Angeles, Cal.....	1	
Boston, Mass.....		3	Milwaukee, Wis.....	6	1
Bridgeport, Conn.....	1		Norristown, Pa.....	1	
Buffalo, N. Y.....	3	2	Philadelphia, Pa.....	28	4
Chicago, Ill.....	15	3	Pittsburgh, Pa.....	4	
Cleveland, Ohio.....	5		Reading, Pa.....	2	
Concord, N. H.....		1	St. Joseph, Mo.....	1	1
Erie, Pa.....	3		San Francisco, Cal.....	2	
Harrisburg, Pa.....	1	1	Schenectady, N. Y.....	1	
Hartford, Conn.....	1		Steeltown, Pa.....	1	
Jersey City, N. J.....		1	Yonkers, N. Y.....	2	

PELLAGRA.

During the week ended February 7, 1914, pellagra was notified by cities as follows: Nashville, Tenn., 1 death; New Orleans, La., 1 death; Richmond, Va., 1 case; St. Joseph, Mo., 1 death.

PLAGUE.

California—Squirrels Collected and Examined.

During the week ended January 31, 1914, 11 ground squirrels from Alameda County, Cal., were examined for plague infection. No plague-infected squirrel was found.

Rats Collected and Examined.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Oakland.....	Jan. 31, 1914	13	619	522	
Berkeley.....	do.....	2	125	78	
San Francisco.....	do.....	10	1,585	1,584	
Washington:					
City—					
Seattle.....	do.....		1,376	1,089	2

PNEUMONIA.

City Reports for Week Ended Feb. 7, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.....	5		New Castle, Pa.....	1	
Auburn, N. Y.....	1	1	Newport, Ky.....	1	1
Binghamton, N. Y.....	8	3	Norristown, Pa.....	1	
Braddock, Pa.....	2		Pasadena, Cal.....	1	1
Chicago, Ill.....	188	142	Philadelphia, Pa.....	55	86
Cleveland, Ohio.....	39	15	Pittsburgh, Pa.....	17	40
Dunkirk, N. Y.....	1		Reading, Pa.....	2	3
Erie, Pa.....	2		San Diego, Cal.....	1	1
Harrisburg, Pa.....	1	1	San Francisco, Cal.....	16	12
Kalamazoo, Mich.....	1		Schenectady, N. Y.....	12	4
Los Angeles, Cal.....	13	6	South Bethlehem, Pa.....	3	1
Muscatine, Iowa.....	1		Spokane, Wash.....	1	1

RABIES.**California—Berkeley and Oakland—Rabies in Animals.**

Surg. Long, of the Public Health Service, reported by telegraph that during the week ended February 21, 1914, rabies in dogs had been notified as follows: Berkeley 1 case, Oakland 2 cases.

Washington—Seattle—Rabies in Animals.

Surg. Lloyd, of the Public Health Service, reported by telegraph that during the week ended February 21, 1914, 3 cases of rabies in dogs had been notified in Seattle, Wash.

TETANUS.

During the week ended February 7, 1914, tetanus was notified by cities as follows: Baltimore, Md., 1 death; Cleveland, Ohio, 1 case with 1 death; Passaic, N. J., 1 death; Pittsburgh, Pa., 1 case with 1 death.

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.**State Reports for January, 1914.**

	Scarlet fever.	Measles.	Diphtheria.
California.....	238	109	202
Hawaii.....	1	1	14
Indiana.....	602	706	400
Iowa.....	141	.....	92
Kansas.....	18	12	25
Maryland, exclusive of Baltimore City.....	193	468	104
Michigan.....	359	1,216	504
Minnesota.....	808	180	504
Ohio.....	875	1,325	1,110
South Carolina.....	21	665	58
Vermont.....	41	34	21
Washington.....	92	719	55
Wisconsin.....	400	521	337

City Reports for Week Ended Feb. 7, 1914.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	558,485	232	54	1	10	18	33	30		
Boston, Mass.....	670,585	233	61	1	67	81	3	55	24	
Chicago, Ill.....	2,185,283	744	170	22	57	2	127	4	223	77
Cleveland, Ohio.....	560,663	156	64	3	20	1	23	2	27	6
Philadelphia, Pa.....	1,549,008	566	52	14	206	.....	90	5	121	58
Pittsburgh, Pa.....	533,905	196	20	2	23	1	128	2	30	20
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.....	423,715	164	38	1	20	.....	14	.....	13	.....
Cincinnati, Ohio.....	364,463	121	45	2	5	.....	19	1	13	19
Detroit, Mich.....	465,766	.....	44	4	.....	.....	19	2	.....	.....
Los Angeles, Cal.....	319,198	123	12	.....	2	.....	16	.....	67	25
Milwaukee, Wis.....	373,857	100	14	3	80	.....	40	3	19	14
New Orleans, La.....	339,075	147	26	1	27	.....	3	1	27	21
San Francisco, Cal.....	416,912	151	11	.....	32	.....	5	.....	33	27
Washington, D. C.....	331,069	115	14	.....	108	.....	21	.....	22	12

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

City Reports for Week Ended Feb. 7, 1914—Continued.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 200,000 to 300,000 inhabitants:										
Jersey City, N. J.....	267,779	80		2				1		
Providence, R. I.....	224,326		11	1	9	1	20			
From 100,000 to 200,000 inhabitants:										
Bridgeport, Conn.....	102,054	35	5		31	1	3	1	10	2
Cambridge, Mass.....	104,839	26	8	1	10	1	11	1	5	3
Columbus, Ohio.....	181,548	57	8		21		8			7
Dayton, Ohio.....	116,577	44	13		49		4			6
Fall River, Mass.....	119,295	47	3		2		16		14	6
Lowell, Mass.....	106,294	37	3		8		4	1	3	3
Nashville, Tenn.....	110,364	30	2		4		4		4	5
Oakland, Cal.....	150,174	37					4		7	3
Richmond, Va.....	127,628	54	4		2		10		4	4
Spokane, Wash.....	104,402		1		35		1		2	2
Toledo, Ohio.....	168,497	52	3	1	5		5		1	6
Worcester, Mass.....	145,986	58	5	2	14		12		5	3
From 50,000 to 100,000 inhabitants:										
Altoona, Pa.....	52,127	8	2				2			
Bayonne, N. J.....	55,545		2		3				3	
Camden, N. J.....	94,538		3		1		3		7	
Erie, Pa.....	66,525	31	20		4		7		5	
Evansville, Ind.....	69,847	18	7							2
Harrisburg, Pa.....	64,186	21	11	1	1		2			1
Hartford, Conn.....	98,915	35	8		8		5		3	1
Hoboken, N. J.....	70,324	23	1		5		1		16	
Johnstown, Pa.....	55,482	20	11	1	6		5			1
Kansas City, Kans.....	82,531		4				2		3	
Lynn, Mass.....	89,336	16	7		2		11		6	1
New Bedford, Mass.....	96,652	30	4	1	3		26	4	6	1
Passaic, N. J.....	54,773	27			12		3		1	2
Pawtucket, R. I.....	51,622						2			
Portland, Me.....	58,571	21	4				1			1
Reading, Pa.....	96,071	32	7	2	2		11		2	1
St. Joseph, Mo.....	77,403	25			1			1	1	1
Schenectady, N. Y.....	72,826	17	1		2		14		1	6
South Bend, Ind.....	53,684	10	3							1
Springfield, Mass.....	88,926	24	3		3		1		4	
Tronton, N. J.....	96,815	51	3		1	1	1		10	1
Yonkers, N. Y.....	79,803	15	6	2	65		11		8	7
From 25,000 to 50,000 inhabitants:										
Atlantic City, N. J.....	46,150	7	1				2		1	
Auburn, N. Y.....	34,668	13			3		4			
Aurora, Ill.....	29,807	8					2			2
Austin, Tex.....	29,860	19	1				1			2
Binghamton, N. Y.....	48,443	15	1		32		2	1	2	1
Brookline, Mass.....	27,792	5	1		9		3			
Butte, Mont.....	39,165	23			4		1		3	3
Chicopee, Mass.....	25,401	4	1	1			2			
Danville, Ill.....	27,871	8	6							1
Fitchburg, Mass.....	37,826	8			1		5		3	1
Haverhill, Mass.....	44,115	20					1		2	2
Kalamazoo, Mich.....	39,437	12			25		2			1
La Crosse, Wis.....	30,417	8	1							
Lancaster, Pa.....	47,227		3		2		2		1	
Lexington, Ky.....	35,099	10			1		2			2
Little Rock, Ark.....	45,941		1		44		3		3	
Lynchburg, Va.....	29,494	10	1		3		1	1	2	1
Malden, Mass.....	44,404	10	2		2		7		1	1
Newcastle, Pa.....	36,280		2				3			
Newport, Ky.....	30,309	10	2				2		2	2
Newport, R. I.....	27,149	6								
Newton, Mass.....	39,806	9	5	1	5		8		1	
Niagara Falls, N. Y.....	30,445	12	1				3			1
Norristown, Pa.....	27,875	6	2	2	2		4		3	1
Orange, N. J.....	29,636	11	2		19		3		5	1
Passadena, Cal.....	30,291	8							4	4
Pittsfield, Mass.....	32,121	14	3	1			2		2	2
Portsmouth, Va.....	33,190	12	4						1	
Racine, Wis.....	34,002	10					21			1
Rockford, Ill.....	45,401	22	3	1	5		2			1

FOREIGN REPORTS.

CHINA.

Plague—Examination of Rats—Hongkong.

During the week ended January 10, 1914, 7 cases of plague with 5 deaths were notified in Hongkong.

During the same period 2,308 rats were examined at Hongkong for plague infection. No plague-infected rat was found.

GREECE.

Smallpox—Piræus.

Eleven cases of smallpox with 5 deaths were notified at the port of Piræus from January 18 to 27, 1914.

ITALY.

Quarantine Against Certain Ports Suspended.

Quarantine measures enforced at Italian ports against cholera have been suspended as follows: January 20, 1914, measures against Kavalla, Turkey in Europe, and the island of Salamina, Greece; January 26, 1914, measures against all Black Sea ports in the Province of Kherson.

TURKEY IN ASIA.

Plague—Jiddah.

A case of plague was notified February 2, 1914, at Jiddah.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Feb. 27, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombia.....	Jan. 4-10.....	1	1	
Dutch East Indies:				
Java—				
Surabaya.....	Dec. 27-Jan. 3.....	17	10	
India:				
Bombay.....	Jan. 4-17.....	1	1	
Calcutta.....	Jan. 4-10.....		30	
Madras.....	do.....	1	1	
Siam:				
Bangkok.....	Nov. 30-Dec. 29.....		40	
Straits Settlements:				
Singapore.....	Jan. 4-10.....	1	1	
Turkey in Asia:				
Trebizond.....	Jan. 18-24.....	1	2	Among the military.
Turkey in Europe:				
Constantinople.....	Jan. 26-Feb. 1.....	4	2	

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

Reports Received During Week Ended Feb. 27, 1914—Continued.

PLAGUE.

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Pernambuco.....	Dec. 16-31.....		1	
Do.....	Jan. 1-15.....		1	
Ecuador:				
Duran.....	Dec. 1-31.....	1		Supplement.
Indo-China:				
Saigon.....	July 6-12.....	1		
India:				
Bombay.....	Feb. 4-17.....	26	24	
Karachi.....	Feb. 11-17.....	26	24	
Siam:				
Bangkok.....	Nov. 30-Dec. 27.....		3	
Turkey in Asia:				
Jiddah.....	Feb. 2.....	1		

SMALLPOX.

Brazil:				
Bahia.....	Jan. 11-24.....	4		
Para.....	do.....		6	
Pernambuco.....	Dec. 16-Jan. 15.....		21	
Rio de Janeiro.....	Jan. 4-24.....	138	23	
Canada:				
Montreal.....	Feb. 7-14.....	3		
Ottawa.....	do.....	2		
Toronto.....	Feb. 1-7.....	1		
China:				
Hankow.....	Jan. 11-17.....	2		
Shanghai.....	Jan. 12-18.....	1	4	Deaths among natives.
Dutch East Indies:				
Java.....	Dec. 27-Jan. 10.....	24	14	In the interior.
Egypt:				
Alexandria.....	Jan. 15-28.....	6	3	
France:				
Paris.....	Jan. 18-31.....	2		
Greece:				
Piræus.....	Jan. 18-27.....	10	5	
India:				
Bombay.....	Jan. 4-17.....	12	7	
Calcutta.....	Jan. 4-10.....		7	
Karachi.....	Feb. 11-17.....	2		
Madras.....	Jan. 4-17.....	6		
Mexico:				
Aguascalientes.....	Feb. 2-8.....		7	
Chihuahua.....	Jan. 26-Feb. 1.....		1	
Durango.....	Apr. 1-May 31.....		77	
Guadalajara.....	Jan. 1-31.....	37	20	
Mexico.....	Nov. 16-29.....	16	5	
Vera Cruz.....	Feb. 1-7.....	1	2	
Norway:				
Trondhjem.....	Jan. 1-31.....	4		
Russia:				
Odessa.....	Dec. 28-Jan. 10.....	1	1	
St. Petersburg.....	Dec. 27-Jan. 3.....	2		
Warsaw.....	Oct. 26-Nov. 15.....	19	12	
Servia:				
Belgrade.....	Jan. 4-10.....	11	2	
Spain:				
Barcelona.....	Jan. 18-31.....		18	
Valencia.....	Dec. 28-Jan. 31.....	3		
Turkey in Asia:				
Adana.....	Jan. 18-24.....	1		
Jaffa.....	Jan. 11-24.....	6	1	
Mersina.....	do.....	1		
Smyrna.....	Dec. 14-Jan. 17.....		68	
Tarsus.....	Jan. 18-24.....	1		
Tripoli.....	Jan. 25-31.....	16		
Turkey in Europe:				
Saloniki.....	Jan. 18-31.....		16	

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

Reports Received from Dec. 27, 1913, to Feb. 20, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Bosnia-Herzegovina—				
Brod.....	Nov. 13-18.....	2		
Kostjica.....	do.....	1		
Novigrad.....	Oct. 28-Nov. 5.....	1		
Sjekocac.....	Nov. 6.....	1		
Travnik, district.....	Dec. 10-16.....	6		
Vranduk.....	Nov. 20.....	1		
Zenica.....	Oct. 28-Nov. 19.....	9	2	
Croatia-Slavonia—				
Pozanga.....	Nov. 18-Dec. 1.....	2		
Syrmien—				
Adasevci.....	do.....	6	2	
Semlin.....	do.....	1	1	
Vitrovica—				
Dobrovic.....	do.....	2	2	
Hungary.....				
Bacs-Bodrog, district.....	Nov. 9-Dec. 29.....	52	31	
Jasz-Nagy-Kun-Szolnok—				
Szolnok.....	Nov. 9-15.....	2	2	
Maramaros.....	Nov. 30-Dec. 6.....	1	1	
Pest Pilis—				
Soroksar.....	Nov. 9-22.....	2	1	
Szaboles—				
Nyiregyhasa.....	Nov. 9-15.....	1	1	
Temes—				
Varasliget.....	do.....		1	
Torontal.....	Nov. 9-Dec. 13.....	27	19	
Ung—				
Jasza.....	Nov. 9-15.....	1	1	
Ceylon:				
Colombo.....	Nov. 9-Jan. 3.....	31	17	
China:				
Hongkong.....	Nov. 9-Dec. 20.....	4		
Dutch East Indies:				
Java—				
Batavia and Tanjong Priok.....	Nov. 9-Dec. 27.....	45	34	
Samarang.....	Nov. 30-Dec. 20.....	30	15	
India:				
Bombay.....	Nov. 10-Dec. 27.....	14	6	
Calcutta.....	Nov. 9-Jan. 3.....		387	
Madras.....	Nov. 16-Dec. 20.....	3	2	
Rangoon.....	Nov. 1-30.....	3	2	
Philippine Islands:				
Manila.....	Nov. 9-Jan. 3.....	44	34	Total, Aug. 23-Jan. 3: Cases 161, deaths 110. Third quarter, 1913: Cases 14, deaths 6.
Provinces.....				
Bulacan—				
Bulacan.....	Dec. 14-20.....			Present in vicinity.
Meycauyan.....	do.....			Present.
Capiz.....				
Banga.....	Dec. 17-20.....			Total, Dec. 17-23: Cases 26, deaths 18.
Calivo.....	do.....			Present.
New Washington.....	do.....			One death daily.
Cavite—				
Santa Cruz.....	Nov. 13-19.....			Do.
Cebu—				
Cebu.....	do.....			Do.
Opon.....	Nov. 19.....	1		On Mactan Island.
Pampanga.....				
	Dec. 27.....			Present in Guagua, Macabebe, San Fernando, and other places.
Pangasinan.....				
	Dec. 19-29.....			Present in Dagupan, Lingayen, San Carlos and Urdaneta.
Rizal—				
Las Pinas.....	do.....	1		Present.
Pasig.....	Nov. 19.....			Total, Nov. 14 to Dec. 7: Cases 18; deaths, 15.
Roumania.....				

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

Reports Received from Dec. 27, 1913, to Feb. 20, 1914—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Bessarabia—				
Ismail	Oct. 26-Nov. 8	6	1	
Ekaterinoslav	do	1	1	
Kherson	do	6	9	
Taurida—				
Dneiper district	do	1	2	
Servia				Nov. 10-24, 8 cases with 2 deaths in the districts Podrigne and Pojarevatz.
Siam:				
Bangkok	Nov. 2-29		38	
Straits Settlements:				
Singapore	Nov. 2-Dec. 20	18	16	
Turkey in Asia:				
Aivali	Jan. 10-23	9	6	
Beirut	Dec. 23	2	1	From among troops on the s. s. Bahr Amer from Rodosto.
Smyrna	Dec. 16-Jan. 8	11	4	
Trebizond	Dec. 9-Jan. 17	21	14	Dec. 9-16, 6 cases among troops from s. s. Guldjemat. Jan. 17, 1 case in the city.
Turkey in Europe:				
Constantinople	Nov. 25-Jan. 25	137	52	Total, Aug. 2, 1913, to Jan. 25, 1914: Cases, 211; deaths, 92.
Dardanelles	Jan. 9-20	10	9	
Gallipoli	Jan. 1-3	2	2	
Pera	Jan. 3-10	5	1	
Rodosto	Dec. 21-Jan. 9	22	1	

YELLOW FEVER.

Brazil:				
Bahia	Nov. 23-Jan. 24	5	6	
Ceara	Nov. 1-30		2	
Ecuador:				
Guayaquil	Nov. 1-Dec. 31	9	6	
Milagro	do	2	1	
Naranjito	do	3	2	
Mexico:				
Merida	Dec. 10-11	1	1	From Campeche.
Do	Jan. 4-10	1	1	Do.
Southern Nigeria:				
Lagos	Oct. 20-28	3	1	Among Europeans from a vessel. Including previous report.
Togo:				
Lome	Sept. 12	1		
Trinidad:				
Brighton	Dec. 30	1		Total Nov. 22-Dec. 30: Cases, 10; deaths, 3, including previous reports.

PLAGUE.

Australia:				
Thursday Island Quarantine station.	May 21	5		Pestis minor from s. s. Taynan from Hongkong to Townville.
Azores:				
Terceira—				
Angra-Heroismo	Dec. 21		1	
Brazil:				
Bahia	Nov. 23-Jan. 10	19	7	
Rio de Janeiro	Nov. 16-22	1	1	
British East Africa:				
Kisumu	Sept. 12-Oct. 13	2	2	
Mombasa	Sept. 12-Dec. 15	31	16	
Nairobi	Sept. 12-Nov. 15	3	3	
Chile:				
Iquique	Nov. 9-Jan. 4	15	6	
China:				
Hongkong	Nov. 2-Jan. 3	34	32	
Shanghai	Oct. 1-7	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 27, 1913, to Feb. 20, 1914—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Provinces—				
Kediri	Nov. 1-30	307	268	
Madioen	do.	89	81	
Malang	do.	820	770	
Surabaya	do.	60	64	
Ecuador:				
Babahoyo	do.	1		
Duran	Dec. 1-31	1		
Guayaquil	Nov. 1-Dec. 31	349	157	
Manta	Dec. 1-31	8		
Milagro	Nov. 1-Dec. 31	2	1	
Naranjito	do.	3	1	
Yaguachi	Nov. 1-30	2	2	
Egypt.....				Jan. 1-Dec. 24, 1913: Cases, 654; deaths, 304. Jan. 1-15: Cases, 6; deaths, 4.
Provinces—				
Assiout	Jan. 5	1	1	
Assouan	Dec. 10	1		
Do	Jan. 5	1	1	
Garbieh	Dec. 11	1		
Do	Jan. 15	4	2	
Minieh	Dec. 9-24	3	1	
Do	Jan. 8	1	1	
India.....				Total Jan. 1, 1913-Jan. 3, 1914: Cases, 238,198; deaths, 198,875.
Bombay	Nov. 9-Dec. 20	20	16	
Calcutta	Nov. 2-Dec. 13		11	
Karachi	Nov. 9-Jan. 3	98	95	
Madras	Nov. 16-Dec. 20	4	2	
Rangoon	Oct. 26-Nov. 30	26	25	
Indo-China.....				Total Jan. 1-Nov. 20: Cases, 3,665; deaths, 3,465.
Saigon	Nov. 11-Dec. 29	9		
Japan.....				Total Jan. 1-Nov. 30: Cases, 26; deaths, 20.
Kobe	Dec. 1-7	1		
Yokohama	Jan. 4-10	1		Total Sept. 19-Jan. 10: Cases, 22; deaths, 17.
Mauritius.....	Oct. 26-Dec. 11	60	43	Total Jan. 1-Nov. 27: Cases, 273; deaths, 163.
Morocco:				
Casablanca	Jan. 7	1	1	
El-Araish (Larache).....	Sept. 17	1		Among the military.
New Caledonia:				
Bourail	Sept. 1-Oct. 14	8	2	In a school of the tribe of the Azaren.
Peru:				
Ancachs—				
Casma	Dec. 1-Jan. 18			Present.
Nepena	do.			Do.
Arequipa—				
Mollendo	do.	6		
Lambayeque—				
Chiclayo	do.	41		
Ferrenaje	do.	13		
Guadalupe	do.			Present.
Libertad—				
San Pedro	do.	28		
Trujillo	do.	41		
Lima	do.	6		Jan. 21: 21 cases in the lazaretto.
Lima	do.	28		
Pisco	do.	2		
Monsefu	do.	2		
Piura	do.			
Catacaos	do.	10		
Piura	do.	9		
Philippine Islands:				
Manila	Nov. 23-29	1	1	Third quarter, 1913: Cases, 2; deaths, 1.
Russia:				
Ural, territory				Total Oct. 20-Nov. 10: Cases, 212; deaths, 170; and 2 fatal cases from Issum Tube.
Djakisabevsk district—				
Djumarta	Nov. 9-10	5	1	
Djantayu	Nov. 8-10	2	2	
Kizilu	Nov. 8	1	1	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 27, 1913, to Feb. 20, 1914—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Russia—Continued.				
Ural territory—Continued.				
Djakisabevsk district—Continued.				
Fourteenth village	Nov. 7-9	6		
Sarbas	Nov. 8-10	13	7	
Kaziljar district	Nov. 5-10	39	24	In Assaukurt, Baitchurek, Biskuduk, and Djamankuduk.
Lbistchensky district—				
Issum Tube	Oct. 20-Nov. 10	138	127	
Kaimikov	Nov. 4-10	6	6	
Siam:				
Bangkok	Nov. 2-29		1	
Turkey in Asia:				
Beirut	Dec. 10-23	2	2	

SMALLPOX.

Algeria:				
Departments—				
Algiers	Sept. 1-Oct. 31	2		
Constantine	Oct. 1-31	9		
Oran	Sept. 1-Oct. 31	84		
Arabia:				
Aden	Nov. 25-Dec. 15	5	4	
Maskat	Nov. 30-Dec. 6	10		Dec. 20, present.
Matarah	Dec. 23-Jan. 10	9		Nov. 30, present.
Argentina:				
Buenos Aires	Nov. 1-30		1	
Australia:				
New South Wales.				
Sydney	Dec. 6-20	8		Total, July 1-Dec. 20: Cases, 1,058. July 1-Dec. 20: Cases, 1,017.
Arabia:				
Matarah	Jan. 10			Present.
Austria-Hungary:				
Lower Austria—				
Vienna	Jan. 4-10	1		
Tyrol and Vorarlberg	Nov. 23-Jan. 10	5		
Upper Austria	Dec. 14-Jan. 3	18		
Brazil:				
Bahia	Nov. 23-Jan. 3	16		
Para	Dec. 1-Jan. 10	23	26	
Pernambuco	Nov. 1-Dec. 15		49	
Rio de Janeiro	Nov. 9-Jan. 3	167	28	
Canada:				
Ontario—				
Hamilton	Jan. 1-31	9		
Ottawa	Dec. 7-20	3		
Toronto	Dec. 7-Jan. 10	3		
Quebec—				
Montreal	Dec. 7-Jan. 31	35		
Ottawa	Dec. 28-Jan. 31	9		
Quebec	Jan. 24-31	1		
Ceylon:				
Colombo	Nov. 30-Dec. 6	1		
China:				
Amoy	Dec. 14-Jan. 10			Present.
Antung	Jan. 4-11	4		
Dairen	Dec. 7-27	1	1	
Hankow	Nov. 2-Jan. 3	9	1	
Hongkong	Dec. 14-20	1		
Shanghai	Dec. 8-Jan. 11	5		
Tientsin	Nov. 9-15		1	
Ting Chow	Jan. 5			Epidemic, 130 miles from Amoy.
Tong An	Dec. 27			Present, 20 miles from Amoy.
Dutch East Indies:				
Java.				
Batavia	Nov. 9-Dec. 27	51	13	Dec. 13, 16 cases with 6 deaths in the interior.
Surabaya	Oct. 28-Nov. 8	3		
Egypt:				
Alexandria	Nov. 26-Jan. 14	12	6	
Cairo	Nov. 19-Jan. 7	79	28	
Port Said	Dec. 3-9		1	
France:				
Marseille	Nov. 1-Dec. 31		72	
Nice	Nov. 1-30	1		
Paris	Nov. 23-Dec. 27	11		
St. Etienne	Nov. 16-30	8	3	

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

Reports Received from Dec. 27, 1913, to Feb. 20, 1914—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Germany.....				Dec. 7-Jan. 11: Cases, 6.
Hamburg.....	Dec. 11-25.....	4		
Gibraltar.....	Dec. 1-28.....	3		
Great Britain:				
London.....	Jan. 18-24.....	1		
Nottingham.....	Dec. 21-27.....	28		
Greece:				
Achaia and Elis, Province.....	Jan. 29.....			Present.
India:				
Bombay.....	Nov. 23-Jan. 3.....	18	10	
Calcutta.....	Nov. 2-Dec. 27.....		12	
Karachi.....	do.....	4	1	
Madras.....	Nov. 2-Dec. 13.....	11	4	
Indo-China:				
Saigon.....	Nov. 11-24.....	1	1	
Italy:				
Leghorn.....	Dec. 21-27.....	1		
Turin.....	Dec. 22-28.....	1		
Japan:				
Tokyo.....	Nov. 1-30.....	1		
Yokohama.....	Jan. 6-12.....	1	1	
Mauritius.....	Oct. 2-25.....	60	4	
Mexico:				
Acapulco.....	Dec. 6.....		1	
Aguascalientes.....	Dec. 1-Feb. 1.....		36	
Chihuahua.....	Dec. 29-Jan. 25.....		9	
Guadalajara.....	Jan. 11-24.....	12	6	
Imuris.....	Dec. 29-Jan. 4.....	5		
Llano.....	Jan. 17.....	8		
Mexico.....	Oct. 26-Nov. 15.....	15	10	
Monterey.....	Nov. 17-Jan. 4.....		4	
San Luis Potosi.....	Nov. 2-29.....	2		
Tampico.....	Dec. 24-Jan. 20.....	100	21	
Vera Cruz.....	Dec. 6-Jan. 10.....	8	2	
New Zealand.....				Apr. 8, 1913 to Jan. 7, 1914: Cases, 2,000 including report, p. 2863, vol. 28.
Norway:				
Trondhjem.....	Nov. 1-Dec. 31.....	10		
Peru:				
Callao.....	Jan. 26.....			Still epidemic.
Lima.....	do.....			Do.
Philippine Islands:				
Manila.....				Third quarter 1913: Cases, 15.
Portugal:				
Lisbon.....	Nov. 16-Jan. 24.....	11		
Russia:				
Moscow.....	Dec. 14-27.....	2	2	
Odessa.....	Nov. 16-Jan. 10.....	4	2	
St. Petersburg.....	Nov. 23-Dec. 27.....	35	5	
Warsaw.....	Oct. 5-18.....	7	4	
Servia:				
Belgrade.....	Nov. 7-Jan. 5.....	13	5	
Spain:				
Almeria.....	Nov. 1-Dec. 31.....		7	
Barcelona.....	Nov. 30-Jan. 17.....		31	
Madrid.....	Nov. 1-Dec. 31.....		58	
Seville.....	Nov. 1-30.....		1	
Valencia.....	Dec. 1-27.....	3		
Straits Settlements:				
Penang.....	Nov. 2-Dec. 6.....	13	1	
Singapore.....	Nov. 2-22.....	2		
Switzerland:				
Canton—				
Basel.....	Nov. 23-Jan. 17.....	45		
Genoa.....	Nov. 23-29.....	3	1	
Turkey in Asia:				
Adana.....	Jan. 10.....	1		Dec. 28, epidemic.
Beirut.....	Nov. 23-Jan. 17.....	192	85	
Jaffa.....	Dec. 6-27.....	12		
Mersina.....	Jan. 4-10.....	1		
Smyrna.....	Nov. 16-Dec. 13.....		85	
Tarsus.....	Dec. 28-Jan. 10.....			Still present.
Trebizond.....	Jan. 11-24.....			Present.
Turkey in Europe:				
Constantinople.....	Nov. 20-Jan. 24.....		11	
Saloniki.....	Dec. 1-Jan. 17.....		59	

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

CALIFORNIA.

Cold Storage—Regulation of. (Reg. Bd. of H., Dec. 6, 1913.)

REGULATION 1. That certain act entitled "An act relating to cold storage, the regulation of refrigerating warehouses, the disposition or sale of food kept or served therein, and defining the duties of the State board of health in relation thereto," approved June 13, 1913,¹ for the purpose of these regulations shall be known and may be referred to as "The California cold storage act."

REG. 2. The term "public cold storage warehouse or refrigerating warehouse" will be held to mean any establishment which offers to or does accept or receive for storage for a compensation any article of food, as defined by the California cold storage act, from one or more persons, firms, or corporations, besides the owner, and which employs refrigerating machinery or ice for the purpose of refrigeration in which such foods are stored at a temperature of 40° F. or below.

REG. 3. Articles of food intended for cold storage shall, when they are offered for or placed in cold storage, be inclosed in boxes, barrels, crates, or other packages sufficiently strong to protect them from injury, unless the articles are of such a character that it is impracticable to pack them in containers.

REG. 4. SECTION 1. When articles of food contained in packages are placed in cold storage, each package shall be legibly marked in black, purple, or red ink as follows: "Received" followed by the day, months, and year when such articles were received in storage.

Whenever tags are used on which to mark dates, they must be so securely fastened to the article to which they are affixed that they can not become detached.

SEC. 2. When articles of food not contained in packages are placed in cold storage, they must have, securely fastened to them, tags or labels in accordance with section 1 of this regulation.

When it is found to be impracticable to mark each individual article, said article may be stored in stacks or piles, and an appropriate tag attached to them indicating the date on which they were received in cold storage.

SEC. 3. All letters or figures required by these regulations must be in plain type not less than three-eighths of an inch in height.

SEC. 4. The word "Received" may be written "Rec'd," and figures separated by hyphens may be used to indicate dates and will be regarded as sufficient date if following the word "Rec'd." The last two figures indicating the year when such foods were placed in storage may be used, e. g.: "Received September 1, 1912," may be written: "Rec'd 9-1-12," or "Delivered September 1, 1913," may be written: "Del'd 9-1-13."

REG. 5. Articles of food already held in cold storage September 1, 1913, shall be legibly marked whenever possible with date of receipt. When it is not possible to ascertain the exact date of receipt, the approximate date should be legibly marked in accordance with regulation 4.

¹ Public Health Reports Oct. 31, 1913, p. 2335.

REG. 6. When articles of food have been kept in cold storage for 12 calendar months report of such fact shall be made to the State board of health by the persons having custody of such articles, and such articles shall not be removed from cold storage by the owners until they have been inspected by the agents of the State board of health, and released by order of the board. Requests should therefore be made at least two weeks before the statutory time limit for storage has expired.

REG. 7. For the purpose of facilitating the removal of articles of food from cold storage at the expiration of the statutory period of 12 calendar months, persons operating cold-storage warehouses shall, at least 15 days before such 12 months have elapsed, notify the owners of all articles of food stored by them of the date when such articles will have been in storage 12 months.

REG. 8. Requests for permission to store food for a longer period than 12 calendar months must be made by the owners thereof to the State board of health, upon blanks which will be furnished by the board upon application.

REG. 9. Articles of food, except eggs and butter, which are held at low temperatures for temporary protection only, for periods less than 30 days, will not, for the purposes of the California cold-storage act, be regarded as being held in cold storage, but such articles shall be kept separate from articles intended for cold storage, and be appropriately marked with date of original entry.

REG. 10. The sign "These are cold-stored goods," required by section 9, California cold-storage act, shall be plainly printed in black letters in type at least 2 inches high, upon a white background, no other lettering to appear on, or to be attached to, this sign.

REG. 11. In every case where articles of food shall be ordered or purchased by persons by telephone, telegraph, through the United States mails, and in every other case where the buyer is not personally present at the place of sale, the seller shall attach to such articles of food and deliver to the buyer thereof a statement bearing the printed words, in type at least 2 inches high, "These are cold-stored goods," or in lieu thereof may write, print, or stamp on the bill accompanying the delivery of such goods, and opposite the cold-storage articles of food on such bill, the words "These are cold-stored goods."

REG. 12. When articles of food held in cold storage are removed from the packages in which they were contained and placed in other packages, the date of original entry into cold storage of such articles shall be placed upon the containers into which they have been transferred; and if articles of food which were placed in cold storage on different dates are packed in the same container, the date of storage of the article longest stored shall be placed upon the container to which such articles have been transferred.

REG. 13. Any article of food which has, while in storage, deteriorated in any way, so as to render it unfit for food, must either be destroyed or isolated and plainly marked "Not for food" in black letters not less than three-eighths of an inch in height on a white background. A careful record of the disposition of such article or articles of food shall be kept by the party or parties operating the refrigerating warehouse, which record shall form part of the regular quarterly report to the State board of health.

REG. 14. Any article of food not intended for use as food, shall be plainly marked by the owner when deposited in cold storage with a stamp or label reading as follows: "Not for food," followed by the day, month, and year when such article was received in storage. The letters and figures on the stamp or label shall be not less than three-eighths of an inch in height and plainly indicated in accordance with regulation 4.

REG. 15. Shell eggs are to be reported in terms of cases and dozens, all other articles to be reported as by package or weight or numerical count, and in so far as the same is practicable, by both package and weight.

REG. 16. The floors, halls, walls, ceilings, furniture, receptacles, implements, and machinery of every cold-storage or refrigerating warehouse shall be kept in a clean, healthful, and sanitary conditions and, for the purpose of the California cold-storage act, unclean, unhealthful, or insanitary conditions, shall be deemed to exist if the food stored is not securely protected from flies, dust, dirt, insects, and from all foreign or injurious contamination.

REG. 17. No employer shall knowingly require, permit, or suffer any person to work, nor shall any person work, in a cold-storage or refrigerating warehouse who is affected with any infectious or contagious disease.

REG. 18. Toilet rooms shall be separate and apart from the rooms in which food is stored; cuspidors for the use of employees must be washed daily with disinfectant solution.

REG. 19. These regulations shall become effective immediately after the date of their adoption by the California State Board of Health without any further notice, and shall remain operative until revoked or amended by said board. They may be revoked, amended, or added to, at any time and from time to time, without previous notice, by said board of health, at any meeting thereof.

HAWAII.

Quarantine—Discharge from. (Res. Bd. of H., Nov. 17, 1913.)

No person who has been quarantined for Asiatic cholera, diphtheria, leprosy, plague, scarlet fever, scarlatina, tetanus, typhus fever, variola, varioloid, yellow fever, or any other contagious or infectious disease, where on account of the surroundings and for the protection of the public health it has been necessary to establish a quarantine, shall be discharged therefrom except upon a written order of the board of health or its duly authorized agent.

Swill and Other Offensive Matter—Care and Transportation in the District of Honolulu. (Reg. Bd. of H., Aug. 14, 1913.)

SECTION 1. No person shall permit or have any offensive swill or other liquid substance on his premises or grounds, to the prejudice of life or health, whether for use in any trade or otherwise.

SEC. 2. No person or persons shall collect any offal or swill, decayed meat, fish, or any animal or vegetable matter, nor transport the same through any street, highway, or public place, except in water-tight securely covered containers from which no odor can escape and which will prevent spilling or leakage.

SEC. 3. All carts and vehicles for carrying swill, offal, or other nauseous or offensive substances, boxes, tubs, and receptacles in which any nauseous or offensive substances may be, or may be carried, shall be strong and tight and impervious to flies, and the sides shall be so high above the load or contents that no part of such contents or load shall fall, leak, or spill therefrom; and either the vehicle or vessel carried by it shall be so covered as to be inoffensive; and all such material shall be loaded or removed in a sanitary manner. Vehicles used for the conveyance of swill, offal, or other nauseous or offensive substances shall not be used at any time for the transportation or conveyance of any meat, fish, vegetable, or other foodstuffs which are to be utilized for human consumption at any time or under any circumstances.

SEC. 4. No person shall remove, transfer, convey, or transport any swill through or upon any of the public streets, public rights of way, public parks, or public places in the district of Honolulu between the hour of 9 in the morning and the hour of 5 in the evening of any day or between the hour of 9 in the evening of any day and the hour of 5 in the morning of the next day.

Swine—Keeping of in the District of Honolulu. (Reg. Bd. of H., Aug. 14, 1913.

SECTION 1. No person or corporation shall keep or allow to be kept upon premises in his or its possession within the district of Honolulu any swine without first securing a written permit from the board of health. Such permit shall expire on the 1st day of July annually and be subject to the conditions thereof.

SEC. 2. The owner, lessee, tenant, or occupant of any stall, stable, or apartment in which swine are kept or of any place in which manure, stable refuse, or any liquid discharge of such animals shall collect or accumulate shall cause such manure, stable refuse, or liquid to be promptly and properly removed therefrom, and shall at all times keep, or cause to be kept, such stall, stable, or apartment, and the drains, yard, and appurtenances thereof, in a clean and sanitary condition, so that no offensive odor shall be allowed to escape therefrom.

SEC. 3. Floors, assorting boards, feeding troughs, gutters, and leaders shall be made of suitable solid hardwood planks, concrete, or other impervious material, so laid that they may be flushed with water and with proper grades and channels to carry off all drainage. False or loose boards are forbidden unless laid on concrete or other impervious material and of such size that the same may be readily removed.

SEC. 4. Dung pits, refuse bins, swill boilers, and other like appurtenances shall be fly proof and of such construction that no odor shall escape therefrom.

SEC. 5. It shall be unlawful to feed hogs any uncooked slaughterhouse offal or the uncooked flesh of dead animals.

SEC. 6. No person or persons shall collect or keep any hog or hogs in any pen or otherwise confine any hog or hogs within the district of Honolulu, so that the same shall become noisome or offensive to other persons residing in the neighborhood.

INDIANA.**School Buildings—Construction and Sanitary Regulation. (Reg. Bd. of H., Dec. 17, 1913.)**

1. *Site.*—Schoolhouse sites shall be convenient of approach from the public road or street. An elevation shall be obtained, if possible, but if the site must necessarily be low or even level surface drainage and subsoil drainage, and filling if needed, shall be provided.

(a) *Surroundings.*—The site shall not be nearer than 500 feet to any of the following conditions, to wit: Swampy ground, body of stagnant water, cemetery, slaughterhouse, fertilizer-reduction plant, any business or manufacturing establishment which engenders noxious odors or vapors, or anything which pollutes the surrounding atmosphere, as gases, smoke, or dust, or any place of industry where disturbing noises prevail.

(b) *Area.*—No school site shall have an area less than 1 acre, and, wherever possible, shall have an area of 2 acres or more. The school playground shall have an area of at least 30 square feet for each pupil. The playground shall be well drained, well graveled, free from depressions in which water can stand, and shall be equipped with such apparatus as will encourage and afford wholesome exercise and recreation. For the purpose of inculcating a love of the beautiful and imparting practical knowledge concerning the growth and care of plant life, that part of all school grounds not occupied by buildings and playground should be laid out according to an approved plan in lawn and garden with shrubs and shade trees.

2. *School building.*—No school building shall be constructed more than two stories above the basement.

(a) *Basement.*—In every building in which the lower or basement floor is below the surface of the ground surrounding such building, and is used in part or as a whole for

heating and ventilating apparatus, such lower floor shall be considered the basement story of such building.

(b) *Size of classrooms.*—No classroom shall exceed 24 feet in width. The ceiling shall be not less than 12 feet nor more than 14 feet in height. Wood ceilings shall not be used. Where metal ceilings are used, they shall be of a plain stamped panel design, with profile not greater than seven-eighths inch and with accurate joints securely nailed at every nailing point. Metal ceilings shall be put upon wood strips or sheathing of not less than seven-eighths inch thickness, with insulating paper of not less than one-fourth inch thickness between the joists and such strips or sheathing. The metal cove and cornice shall be of plain design and shall be securely nailed to cornice block or ground of wood at intervals not greater than 4 feet. The cornice block or ground shall be securely fastened to the side wall and ceiling. The lower part of such metal cornice shall be connected to the side wall by means of wooden ground or mold in such way as to give a smooth finish and prevent the collection and retention of dust and dirt. Metal ceilings shall be painted a neutral color with flat coat paint and with particular attention given to filling of joints. Wall paper shall not be used in any school building.

(c) *Corridors and doorways.*—Main corridors, passageways, hallways, and exit doorways shall be equivalent in width to at least 24 inches for each 100, or fractional part thereof, of seating capacity of such portions of the building as will be required to use the same for exit. No corridor, passageway, or hallway, shall be less than 5 feet in width, and no doorway shall be less than 3 feet in width except where two or more doors, each 2 feet 8 inches or more in width, are grouped together.

(d) *Floors.*—The floors of toilet rooms, basement rooms not used for class purposes, and inclosures for plumbing fixtures and steam fittings within the building shall be of nonabsorbent waterproof material with nonabsorbent waterproof base not less than 6 inches high, and nonabsorbent waterproof sanitary cove. Wherever possible, the floors of laboratory rooms, domestic-science rooms, and corridors, shall be of nonabsorbent waterproof material, with nonabsorbent waterproof base not less than 6 inches high, and nonabsorbent waterproof sanitary cove. Cement floors shall be constructed with a mixture of iron compound or other equally efficient material, or shall be covered with cement enamel in order to render such floors waterproof and dust proof. Mattings or other floor coverings shall not be used in any part of the school building except in superintendent's or principal's office, rest rooms, libraries, and teachers' rooms, or upon inclines when same are used in the building.

(e) *Plastering.*—The plastering at all angles, in all corners and at all windows and door jambs, shall be so rounded and coved as to prevent the collection and retention of dust.

(f) *Equipment rooms.*—Furnace, boiler, and storage rooms shall be of fireproof construction. No storage room closet shall be placed under any stairway. No boiler, furnace, heater, or heating coils shall be located directly beneath any entrance, exit, corridor, or stairway. The ceiling floor immediately above all furnaces, boilers, or heaters, shall be of fireproof construction, and in old buildings shall be rendered and maintained fireproof.

(g) *Entrance and exit doors.*—Entrance and exit doors shall be equipped with automatic opening device and with hardware of such kind as to be always unlockable from within. Revolving doors shall not be used. All doors shall open outward, and where double doors or storm houses are provided, the outer doors shall be devoid of fastenings but shall be held in place by spring hinges. All entrance and exit doors shall be unlocked at all times when school is in session.

(h) *Interior wood finish.*—All interior wood finish shall be as small as possible, and shall be so constructed and finished as to minimize or prevent the collection and retention of dust and dirt.

(i) *Location.*—No outside wall of any school building shall be nearer than 5 feet to any lot line of adjoining property.

(j) *Roof*.—The roof of all school buildings shall be constructed of slate or other equally efficient waterproof, noncombustible material.

3. *Lighting*.—No window sash shall have more than four lights and the tops of all windows shall be square. Whenever the proximity of other buildings or a portion of the same building interferes with the proper lighting of a classroom, the light shall be properly projected and diffused by the use of prism glass. When artificial lighting by means of electricity or gas is used, the lights shall be near the ceiling, and the light shall be properly projected and diffused by either indirect or semi-indirect system of lighting. In case of electricity being used for light, all wiring shall be installed in iron conduit and all wires, fittings, materials, and construction work shall conform to the rules and requirements of the National Electrical Code, as recommended by the National Fire Protection Association for such class of wiring. Any system of artificial lighting aside from electricity as provided above shall be approved by the Indiana State fire marshal.

4. *Heating and ventilation*.—Heating and ventilating systems of all kinds shall take fresh air from outside the school building, evenly diffuse the same throughout each schoolroom during school session, and withdraw foul air from said schoolroom at a minimum rate of 1,800 cubic feet per hour for each 225 cubic feet of said schoolroom space, regardless of outside atmospheric conditions.

(a) *Test*.—The State board of health will test the efficiency of ventilating systems in school buildings as follows: With jacketed heaters and gravity systems, the anemometer test shall be made over the foul-air vents in classrooms. With plenum systems, the anemometer test shall be made over the fresh-air inlet of the fresh-air room and the fresh-air inlet in classrooms. With a double system of mechanical ventilation, the anemometer test shall be made at the fresh-air intake and at the foul-air vents in classrooms. In every test five readings shall be taken, one near each corner and one at the center of the air opening to be tested. A deduction of 5 per cent shall be made for a grill or register in the air opening. All tests shall be based upon the seating capacity of classrooms at 225 cubic feet of space per pupil. Before such test shall be made by the State board of health, the heating and ventilating contractor shall be given notice of the time when such test is to be made. The State board of health will make such tests upon the written request of trustees, school boards, boards of school commissioners, county, city, or State superintendents, or upon petition of ten or more patrons of the school.

5. *Stoves and heaters*.—In small buildings where furnace or steam heat with fresh air from outside the building is impracticable, stoves or floor furnaces of suitable size and construction surrounded by heat-proof metal jacket with open top, with fresh-air intake from outside the building and foul-air flue shall be installed. The heater shall be of sufficient capacity to secure and maintain a uniform temperature of 70° F. in zero weather.

6. *Jacket*.—The jacket shall be made of heavy galvanized iron, black iron, or other material equally durable, and shall be lined with sheet asbestos. There shall be an inner jacket of tin or other metal equally efficient with air space of not less than three-fourths inch between the jackets. The jacket shall stand not less than 3 inches from the stove or floor furnace, and may extend either to the tray, floor shield, or other foundation upon which the heater rests, or the lower 12 inches of the jacket may be open. If the jacket extends to the floor shield, the lower 12 inches of the jacket may have sliding or hinged doors to open and permit of recirculation of air when necessary to heat the room quickly. The fresh-air duct shall be provided with damper with operating device in plain view and easily accessible from inside the room.

7. *Dimensions of flues, fresh-air ducts, and vent pipes in jacketed heaters*.—(a) Following is a table giving the size of flue, fresh-air duct, and vent pipe to be used in a system having the same flue for smoke and foul air:

Table I.

	Contents of room in cubical feet.		
	8,000 and less.	8,000 to 12,000	12,000 to 16,000
Cross-sectional area of chimney not less than, square inches.....	144	256	400
Diameter of vent pipe not less than.....inches.....	12	16	20
Free area of foul-air vent not less than.....square inches.....	144	256	400
Cross-sectional area of fresh air duct not less than, square inches.....	144	256	400

(b) Dimensions of flues, foul-air flues and fresh-air ducts to be used in connection with a system having separate flues for smoke and foul air.

Table II.

	Contents of room in cubical feet.		
	8,000 or less.	8,000 to 12,000	12,000 to 16,000
	<i>Square inches.</i>	<i>Square inches.</i>	<i>Square inches.</i>
Cross-sectional area of smoke flue not less than.....	64	96	144
Cross-sectional area of vent flue not less than.....	189	525	651
Free area of foul-air vent not less than.....	189	525	651
Cross-sectional area of fresh-air duct not less than.....	144	256	400

Where an old building contains a flue vent larger than that required for new buildings, the vent opening may be reduced to the minimum area required for new buildings.

8. *Smoke pipe.*—No smoke-pipe connection between the heater and the smoke flue shall be more than 5 feet long, measuring horizontally. No metal tile or other smoke pipe shall extend through the walls, ceiling, or roof in any manner, except as prescribed in these rules.

9. *Chimney and ventilating flue.*—Each room in which a jacketed heater is installed shall be provided with a masonry stack, either with single flue for smoke and foul air, or with separate flues for the same. Double-flue chimneys shall not be used unless the same are entirely within the building with no wall exposed to the outside. Double-flue chimneys shall be built of masonry with one compartment for smoke and one for ventilation, with the dividing wall not more than 4 inches thick, and with the inside of all walls plumb, true, and finished to a smooth finish.

(a) *Metal stacks.*—In lieu of a dividing wall, a metal stack of not less than No. 16 gauge, noncorroding metal, or stack of glazed tile of not less than 1 inch thickness may be constructed within the masonry chimney. Such stack may be used for smoke, shall rest on the foundation of the chimney for support, shall be held in place by metal side braces, and the smoke shall enter such stack at the usual smoke-pipe height.

(b) *Mixing chamber.*—Where the same flue is used for both smoke and foul air, a suitable drum or mixing chamber shall be used for bringing the smoke and foul air together, in order to insure proper draft in both foul-air flue or pipe, and in smoke pipe. In no case shall the cross-sectional area of the mixing chamber or of the space surrounding the smoke pipe in the drum, be less than the cross-sectional area of the flue. The foul air may be taken out through a metal pipe extending from within 6 inches of the floor and connected with the smoke pipe through the drum before entering the flue, or may be taken directly through register or registers in the base of the flue.

(c) *Register.*—The bottom of register faces shall be at the floor level, and the free area of the register, after deducting 5 per cent for grill, shall equal the cross-sectional area of the flue. Where the chimney projects into the room, registers may be placed

on two sides in order to reduce the height of the registers. Clean outs, accessible from the room, shall be provided for all flues and drums. A suitable damper with operating device in plain view and easily accessible from the room shall be provided so that vent flues can be shut off when not in use.

(d) Wherever possible, the heater and chimney shall be located at the same end of the room as the entrance door. In buildings of more than one room, when the same flue is used for both smoke and foul air, each room shall be provided with a separate chimney. When separate compartments for smoke and foul air are used, each room shall be provided with separate vent flue, but the same smoke flue may be used to accommodate not more than two rooms, and such flue shall have a cross-sectional area of not less than 144 square inches.

10. *Systems permissible in portable buildings or in old buildings about to be abandoned.*—A system with a metal smoke pipe placed within a metal vent flue extending above the highest point of the roof may be permitted in portable buildings, and in old one-story buildings when said old building is to be used for a period of not more than two years after such system is installed. The smoke pipe used in such system shall be of extra heavy material; the elbow inside the vent flue shall be of cast iron; the smoke pipe shall be supported from the vent flue by steel supports placed at intervals of not more than 3 feet; the vent flue shall be provided with an asbestos-lined collar, with at least 1 inch air space between the collar and vent flue where the same passes through the roof or ceiling, and shall be properly flashed and made water-tight. Complete plans and specifications covering such system shall be submitted to and approved by the State board of health before the same is installed.

11. *Portable buildings.*—Portable frame buildings, not larger than 28 by 36 feet and not more than one story in height, may be erected, provided the plans and location for such temporary building shall be approved by the State board of health, and provided such temporary building shall not be maintained on any one lot or block for a longer period than two years.

12. *Plenum and gravity systems of ventilation.*—Where plenum systems of ventilation are used, the warm-air flues shall have a cross-sectional area of not less than 10 square inches for each occupant of the room, based on the seating capacity of the room. The vent flues shall have a cross-sectional area of not less than 10 square inches for each occupant of the room, based on the seating capacity of the room.

Where gravity systems of ventilation are used, the warm-air flues and vent flues shall each have a cross-sectional area of not less than 16 square inches for each occupant of the room, based on the seating capacity of the room.

(a) *Location of flues.*—In school buildings or more than one room with plenum or gravity ventilation the warm-air flues and vent flues shall be on or in the inside walls of the building, and the warm-air inlets and the foul-air vents shall be on the same side of the room. Warm-air inlets shall be located not less than 5 feet from the floor. Wire screens of No. 8 gauge wire with 1½-inch mesh may be used to cover the warm-air inlets, except in rooms of such size and shape as to require the air to be deflected, in which case diffusers may be used. Foul-air vents shall be at the floor level, shall have a free area of not less than the cross-sectional area of the flue, and shall be clear of all obstructions. Grills or registers shall not be used in foul-air vents except with jacketed heaters. A chain damper, or other approved device, in plain view and easily accessible from inside the room shall be used to close the vent when not in use. The damper shall be kept open at all times when school is in session. The floor and baseboard shall be carried into the bottom of vent flue, and that part of the flue exposed to view shall be plastered and finished the same as the walls of the room.

13. *Reheated air.*—No vitiated air shall be reheated except as provided under jacketed heaters and floor furnaces, or except where an air washing system has been installed, and such system of rewashing and reheating air has been approved by the State board of health.

14. *Foot warmers.*—So-called foot warmers, if used, shall be placed in the walls of the main corridors at the floor level. No warm-air register or pedestal register shall be placed in the floor in any school building.

15. *Air supply.*—(a) In gravity or plenum systems of ventilation, except where wall openings directly into schoolrooms are used, the air supply shall be taken from outside the building through a window or windows into a room in the basement especially constructed for this purpose, with tight-fitting door, impervious and smooth walls, floor, and ceiling, to be known as the fresh-air room. The window or windows in the outer wall of the fresh-air room shall have a free area not less than the combined cross-sectional area of all the warm-air supply ducts, and shall be covered with a substantial wire screen of not more than one-half inch mesh, and shall be kept free from obstruction. This fresh-air room shall be kept clean and free from obstruction at all times. In no case shall basement air be permitted to enter the air supply.

(b) In gravity systems where wall openings directly [sic] into the rooms are used, the fresh-air supply shall be from outside the building, and the combined free cross-sectional area of fresh-air intakes shall be not less than the cross-sectional area of foul-air flue. Such fresh-air intakes shall be free from obstruction and shall be provided with an approved damper with operating device in plain view and easily accessible from inside the room. The damper shall be kept open at all times when school is in session. The outside openings of such fresh-air intakes shall be covered with substantial wire screen of not more than one-half inch mesh and shall be provided with a suitable hood or elbow to protect from rain or snow.

(c) With jacketed heaters the fresh-air supply shall be from outside the building, and the fresh-air duct shall be provided with an approved damper with operating device in plain view and easily accessible from inside the room.

(d) No fresh-air opening or foul-air vent in connection with any system of ventilation shall be closed at any time when school is in session.

(e) No part of the machinery, shafting, or pulley arrangement, of heating and ventilating apparatus, or waterworks system, shall be connected to the joist or flooring above.

(f) All flues shall start upon substantial foundation at the ground, shall extend through the attic and above the highest point of the roof, and, when necessary, shall be equipped with proper cowls to prevent down draft. Flues shall be built the same size the entire height, and all inside walls shall be plumb, true, and finished to a smooth finish. The outside walls of all chimneys shall be not less than 8 inches thick.

16. *Cloakrooms and wardrobes.*—Where cloakrooms or wardrobes are not separated from classrooms, or are separated only by skeleton doors, they shall be considered as part of the classroom, and the foul air vent shall be placed in the cloakroom or wardrobe. Where cloakrooms or wardrobes are separated from classrooms, they shall be separately heated and ventilated the same as classrooms. Where suitable cloakrooms can not be provided, sanitary steel lockers may be placed in the corridors or classrooms, provided that such lockers will not in any way become an obstruction to the free passageway of the corridor.

17. *Ventilation in laboratory and domestic-science rooms.*—Gas plates, gas stoves, and burners used in domestic science or laboratory work shall be provided with suitable ventilating hoods connected with a vertical vent flue. This flue shall be separate from any other vent flue and the updraft in such flue shall be positive at all times.

18. *Temperature regulation.*—Whenever practical, temperature regulation shall be used. Whatever system of ventilation is used, the windows in all schoolrooms shall be opened whenever practical at recess periods and before the opening of the afternoon school session in order to thoroughly change the air of the rooms.

19. *Basement air.*—In every stairway leading from the first floor to the basement there shall be a swinging door with spring hinges to prevent basement air from entering the classrooms and corridors above, except where basement rooms are finished. have close-fitting doors, and are properly warmed and ventilated.

20. *Water supply.*—Open or dug wells, or springs, shall not be used. No well shall be within 100 feet of any privy, cesspool, or other known possible source of contamination. The water supply of every school shall be tested by the State board of health from sample submitted by the school trustee, school board, or the local health officer, whenever, in the opinion of the local health officer, such test shall be necessary, or whenever the State board of health shall require such test.

(a) *Drinking fountains.*—Where pressure water supply is available, sanitary drinking fountains shall be installed. Such drinking fountains shall be of the bubbling stream type and shall have vitreous china cup with two or more port holes so the user must drink from the bubbling stream. The construction of the sanitary head shall be such that when the finger is placed over the nozzle the water passes to the waste through the ports provided for that purpose.

21. *Lavatories.*—Every schoolhouse shall be provided with substantial enameled-iron sinks or washbasins, soap, and sanitary paper or individual towels. Common or roller towels shall not be used. Lavatories shall be of cast iron porcelain enameled, or vitreous china. Where wall trap lavatory with back is used, it must be all in one piece. All traps shall be cast brass with cleanout with ground joints on sewer side of fixture.

22. *Floor drains.*—In all school buildings where a sewer outlet is practicable, the toilet rooms, washrooms, boiler and furnace rooms shall be provided with floor drains connected with such sewer outlet. These floor drains shall be conveniently located with the floor sloping to the drain from all parts of the room. Whenever domestic science rooms and laboratories have waterproof floors, and sewer outlet is practicable, these rooms shall also be provided with floor drains as above. In boys' toilet rooms the urinal trough may be used as the floor drain.

23. *Toilets*—(a) *Flush toilets.*—Where a sewer system or pressure water supply is available or practicable, water-closets to the number of one seat for each 15 females, or fractional part thereof, and one seat for each 25 males, or fractional part thereof, and one urinal stall for each 15 males, or fractional part thereof, shall be installed. In estimating the number of closets to be installed, the occupants shall be divided as follows: 40 per cent males and 60 per cent females. Where the syphon type of closet is used, it shall be provided with seat-action flush with working parts of sufficient strength to withstand rough usage. Closets having any working parts of valve or any metal parts inside of bowl shall not be used. All receptacles used for water-closets and urinals, except as otherwise provided in these rules, shall be vitrified earthenware, hard natural stone, glass, or cast iron porcelain enameled on the inside. If cast iron is used, it shall be enameled or painted on the outside with at least three coats of nonabsorbent and noncorrosive paint.

(b) *Latrines.*—Where latrines are used, they shall be provided with cast-iron automatic dumping tanks to hold not less than 10 gallons of water and arranged so the closets will be flushed at intervals of not longer than 15 minutes. The entire volume of water shall be delivered at once at one end of the range, passing through the entire length of the same, and discharging at the other end through the sewer trap. The bottom of the latrine shall have a depression under the center of each seat at least 1½ inches deep to retain water at all times.

(c) *Ventilation of toilets.*—There shall be a ventilating opening back of each individual water-closet bowl and each seat of the latrine of not less than 10 square inches free area, and each urinal stall shall have a ventilating opening both top and bottom of not less than 8 square inches free area. These toilet ventilating openings shall be connected to a vertical brick vent flue extending above the highest point of the roof. The updraft in this flue shall be positive at all times and shall be maintained either by aspiration or by use of an exhaust fan. If aspiration is used, the cross-sectional area of this toilet vent flue shall be not less than 360 square inches. If an exhaust fan is used, the cross-sectional area of this toilet vent flue shall be equal to

the combined area of the toilet ventilating openings connected with such flue. Whenever proper ventilation of the toilet room is not provided by means of the closet system installed, the toilet room shall be properly ventilated by means of a separate vent flue.

(d) *Equipment of toilets.*—All closets shall be equipped with wooden seat top lids. All urinals shall be constructed of materials impervious to moisture and that will not corrode, and shall be divided into stalls not less than 16 inches nor more than 20 inches in width. Long hopper water-closets and similar appliances shall not hereafter be installed in any school building. When toilets are located in the basement, they shall be separated as to sexes by solid, sound-proof wall and shall be approached by separate stairways and separate passageways. Boys' toilets shall be clearly marked "Boys' toilet" and girls' toilets shall be clearly marked "Girls' toilet."

24. *Indoor crematory closet.*—Whenever a sewer system or pressure water supply is not available or practicable, an indoor crematory sanitary closet system may be provided with the same number of seats and urinal stalls as specified for water-closets. If an indoor crematory sanitary closet is used, the vault of same shall be constructed of brick with cement floor, properly drained. The vault heater, gratings, floors, and stools shall be made of cast iron. The urinals shall be constructed of enameled iron, vitrified earthenware, slate, marble or glass, and shall have a ventilating opening both at top and bottom of not less than 8 square inches free area. The seat shall be made either of wood or aluminum, and if wood seats are used the underside of the same shall be lined with metal. The lids of the seats shall be provided with a self-closing device. Such closets shall be connected to a vent flue or stack with a free cross-sectional area of not less than 60 square inches for each closet seat and each stall of urinal, to which stack shall be connected a stack heater. Fire must be kept in both the stack heater and the vault heater at all times when school is in session, in order to maintain a positive updraft in the stack and to destroy the contents of the vault.

25. *Dry closets.*—So-called dry closets shall not hereafter be used in any school building.

26. *Outdoor sanitary closets.*—If an outdoor sanitary closet system is used, the vault receptacle and floor of such closet shall be of cement construction. Dry loamy earth, wood ashes, sifted coal ashes, or slaked lime shall be thrown in the vault receptacle at least once each day when school is in session, and the contents of the vault shall be removed at least twice in each school year. All outdoor closets shall be kept effectually screened and protected against flies. The interior walls of such closets shall be sided with corrugated metal sheathing, painted a drab color, and sanded while the paint is still wet. In the boys' closet a urinal of metal, cement, or other nonabsorbent materials with stalls shall be constructed and made to discharge through a proper drain into the soil away from the closet and not nearer than 100 feet to any source of water supply.

27. *Seating.*—Class and study rooms shall have aisles on all wall sides. In primary rooms center aisles shall be not less than 17 inches wide, with wall aisles not less than 28 inches wide. In grade rooms center aisles shall be not less than 18 inches wide, with wall aisles not less than 30 inches wide. In high-school rooms center aisles shall be not less than 20 inches wide, with wall aisles not less than 36 inches wide. All groups of seats shall be so arranged as to have an aisle on either side.

28. *Stairways.*—Stairways shall be equivalent in width to at least 18 inches for each 100 of seating capacity, classrooms and assembly rooms included. No stairway shall be less than 5 feet in width in clear except where the more than two stairways lead down from any floor, in which case stairways 4 feet in width in the clear may be counted in the total width of stairs required. Stairways shall be constructed with straight runs, changes in direction being made by landing, the width of which shall be not less than the width of the stairs. Stairways shall be constructed with uni-

form rise and tread. The riser shall be not more than 6½ inches and the tread not less than 11 inches, which dimensions shall be from tread to tread and from riser to riser. No door shall open immediately upon a stairway, but a landing at least the width of the door shall be provided between such door and stairway. To overcome any difference in floor levels requiring less than three risers, gradients shall be employed with not more than 1 inch rise in each 12 inches of run. Stairways, corridors, and all passageways leading to exits shall be kept free from obstruction at all times and shall not be used for storage or any other purpose except ingress and egress, except as herein provided for sanitary lockers. The walls connecting entrance and exit doorways to stairways shall extend directly from the edge of doorway to stairway with a slight curve instead of an angle and corner.

29. *Inclines.*—Whenever possible, and especially in large school buildings, the stairway should be superseded by the incline. "In practice we make the three-foot child take the same steps as the six-foot man. This is both unjust and unwise. The incline permits the short and the tall, the weak and the strong, to take such steps as best suit the individual pupil." The incline is more serviceable, safer, and better in every way than the stairway.

30. *Foundation.*—Foundations shall not be laid on filled or made ground or on any soil containing a mixture of organic matter.

31. *Humidity of air.*—Whenever practicable a system of air washing shall be installed in connection with plenum and gravity systems of ventilation in order that the air may be properly humidified before being introduced into the schoolroom. Where the air supply is direct to the schoolroom, through wall openings, each radiator shall be provided with a pan or receptacle to hold not less than 1 gallon, and so placed as to be constantly warmed and in plain view. Water shall be kept in such receptacle at all times when school is in session and the heating system is in use. Jacketed heaters and floor furnaces shall be provided with a pan or receptacle to hold not less than 3 gallons, and so placed as to be constantly warmed and in plain view. Water shall be kept in such receptacles at all times when school is in session and the heater is in use.

32. *Cleaning and sweeping.*—Whenever practicable, vacuum cleaning equipment shall be installed in school buildings. Dry sweeping and dusting is prohibited, and no sweeping shall be permitted in corridors, schoolrooms, or stairways while school is in session. Floor oil, some form of dust-down or sawdust treated with oil should be used on floors before sweeping.

33. *Directions for management.*—Whenever a system of heating and ventilation is installed, the heating contractor shall furnish full and complete printed instructions for the proper management and care of such system to the superintendent, principal, or teacher of the school, and shall in addition post a copy of such instructions in a prominent place in the boiler or furnace room for the instruction of the janitor.

34. *Power.*—Where an electric motor is installed for power purposes the wiring shall be installed in iron conduit and the wiring, fittings, materials, and construction work shall conform to the rules and requirements of the National Electrical Code. Where gasoline engines are installed for power purposes they must be located in a room of fireproof construction and must have the muffler or exhaust pot located at least 50 feet from the outside wall of the building, and the installation of such gasoline engine must conform to the rules and regulations of the State fire marshal. The storage of inflammable liquids for gasoline engines must conform to the rules and regulations of the State fire marshal for the use, handling, and storage of inflammable liquids.

35. *Heating.*—The heating apparatus and appliances not otherwise provided for in these rules must conform to the rules and regulations of the State fire marshal.

36. *Fire protection.*—On each floor, including basement, there shall be placed at least one 3-gallon chemical fire extinguisher at a readily accessible point. In large

buildings where the area of each floor exceeds 6,000 square feet there shall be placed on each floor a 3-gallon chemical extinguisher for each 3,000 square feet of floor area. In cities having fire departments provided with a central fire alarm system, there shall be installed in a readily accessible place on the first floor of each school building a fire alarm box connected directly with fire headquarters. This box shall be supplied with a key protected by a glass door.

37. Stereopticons and motion picture machines when installed must conform to the rules and regulations of the State fire marshal.

38. Architects shall furnish heating and ventilating contractors full and detailed plans of all parts of the building in any way connected with the installation of heating and ventilating apparatus. Architects, sanitary engineers and heating and ventilating engineers shall certify by affidavit indorsed on all plans and specifications submitted, that such plans and specifications comply with the Indiana sanitary school-house law, and with the rules of the Indiana State Board of Health.

EQUIPMENT AND MAINTENANCE OF SCHOOL HACKS.

1. The term school hack as used herein shall include all wagons, hacks and other vehicles of any kind whatsoever, used for public transportation of pupils to and from school.

2. School hacks shall be substantially built, painted throughout, well lighted, warmed and ventilated, clean and sanitary, kept in good repair and shall be operated and maintained with strict regard to the influence of such school hacks upon the health, morals and safety of the pupils thus transported.

3. All school hacks shall be swept and dusted thoroughly at least once each day, and in addition shall be specially cleaned and disinfected before being put in use at the beginning of school, and again at the time of Christmas vacation. Such special cleaning shall consist of first sweeping and dusting the interior, then scrubbing the floor, washing the windows and all interior wood work, including the seats, and then disinfecting the interior according to the rules of the State board of health.

4. The number of pupils to be transported in any school hack shall be limited to the normal seating capacity as provided in the construction of such hack. Every pupil must be provided with a comfortable seat without crowding.

5. All school hacks shall be so constructed and arranged that the pupils shall be in plain view of the driver.

6. Proper foot rests shall be provided for the use of smaller pupils when the seats are too high to allow the feet to rest comfortably on the floor.

7. No person shall be employed as driver of a school hack who is not able-bodied, not of normal mind, or who is addicted to the use of intoxicants or habit-forming drugs, or who has tuberculosis, or syphilis, or other communicable disease, or who is uncleanly in person or clothing, or immoral in habit. The use of tobacco or alcohol in any form in or on a school hack by pupils or driver is prohibited.

8. Both school trustees and the drivers of school hacks shall be held responsible for the sanitary maintenance of such hacks and for the moral behavior of pupils while occupants of such hacks.

Morbidity Reports—Quarantine. (Reg. Bd. of H., Dec. 17, 1913.)

Rule 10 of the rules of the Indiana State Board of Health duly passed as appear in the minutes of the board shall be amended to read as follows, to wit:

RULE 10. *Infectious diseases.*—The infectious and contagious diseases which shall be immediately reported to the health officer having jurisdiction and which shall be quarantined are hereby declared to be: Yellow fever, smallpox, cholera, diphtheria, membranous croup, scarlet fever, measles, epidemic poliomyelitis, cerebrospinal fever, typhus fever, bubonic plague, leprosy, pulmonary consumption, typhoid fever,

chicken pox, whooping cough, trachoma, syphilis, and gonorrhea: *Provided*, Pulmonary consumption, typhoid fever, syphilis, and gonorrhea shall not be quarantined, as they are to be reported for record and statistical purposes only, and chicken pox, whooping cough, measles, and trachoma shall be carded to warn the public, absolute quarantine not being required: *And provided further*, When a case of trachoma is under approved treatment, as it would not then be transferable, said case shall not then be carded, and shall not be excluded from school.

SOUTH DAKOTA.

Slaughterhouses—Sanitary Regulation. (Reg. Bd. of H., July 25, 1913.)

112. Every person owning, leasing, or occupying any place, room, or building wherein cattle, sheep, swine, or poultry (except poultry not exposed for sale) are killed or dressed, or any market, public or private, shall cause such place, room, building, or market to at all times be kept thoroughly cleansed and purified, and all offal, blood, fat, garbage, manure, or other unwholesome or offensive refuse shall be removed therefrom at least once in every 24 hours if used continuously, or, if used occasionally, within 24 hours after using; and the floors of such building or premises shall have an impermeable floor, made of cement or tile laid in cement, brick, or other nonabsorbent material, which can be flushed and washed clean with water, and which shall be approved by the State board of health. No blood pit, dung pit, offal pit, or privy well shall remain or be constructed within any such place, room, or building; nor shall any swine be kept or fed within 150 feet of the slaughterhouse. Doors and windows must be screened to exclude flies, and side walls painted or whitewashed.

113. Slaughterhouses are required to be kept in a sanitary condition, and unsanitary conditions shall be deemed to exist whenever and wherever any one or more of the following conditions appear or are found, to wit: If the slaughterhouse is dilapidated and in a state of decay; if the floors or side walls are soaked with decaying blood or other decaying matter; if cobwebs or other evidences of filth or neglect are present; if the drainage of the slaughterhouse yard is not efficient; if maggots or filthy pools or hog wallows exist in the slaughterhouse yard or under the slaughterhouse; if storage hides kept in slaughterhouses are in pools of filth, or infested with maggots, or giving out vile odors; if the water supply used in connection with the cleansing is not pure and unpolluted, or if odors or putrefaction exists therein; if bones or refuse are not burned or buried; if dead animals are being fed; if carcasses are transported from place to place when not covered with clean white cloth, or if kept in unclean, bad smelling ice boxes, refrigerators, or storage rooms.

114. If the floors of such killing places are found to be in an unsanitary condition by the inspector or health officer, he may require such floors to be constructed of cement, or tile laid in cement, or brick, so as to prevent the blood, foul liquid, or washings from being absorbed. All new slaughterhouses shall be constructed with cement floor and killing beds.

115. All slaughterhouses must be inspected by the health officer at least once a year.

Offensive Trades—Permit Required. (Reg. Bd. of H., July 25, 1913.)

116. No tannery, slaughterhouse, butcher shop, creamery, feeding yards for stock, livery or boarding stable, rendering establishment, or other offensive trade or business, shall be located in any city, village, or township in South Dakota without first having secured a permit for such location from the local board of health. Such permit shall designate the place where such trade or business may be carried on.

Creamery Waste—Disposal of. (Reg. Bd. of H., July 25, 1913.)

117. Creamery waste or washings must not be discharged upon the surface of the ground, or upon low places where it will remain during the process of decomposition, or into a slough, pond, lake, or other body of stagnant or standing water.

Bodies of Dead Animals—Disposal of. (Reg. Bd. of H., July 25, 1913.)

118. No carcass of any dead animal shall be left unburied in the State of South Dakota, nor shall it be thrown into any lake, stream, pond, well, or any other body of water.

119. Any such carcass shall be buried by the owner so that it will be covered by at least 3 feet of earth.

120. Burial shall be made within 24 hours after death, and in all cases of death from a communicable disease the body shall be thoroughly enveloped in quicklime.

121. At all municipal dumping grounds where carcasses are disposed of, provision must be made for their immediate burial.

122. In lieu of the foregoing the dead bodies of animals may be burned.

Foodstuffs—Protection of. (Reg. Bd. of H., July 25, 1913.)

123. Prepared foodstuffs, such as bakers' goods, confectionery, shelled nuts, etc.; dried fruits, such as dates, figs, peaches, apricots, etc.; cereal products, such as tapioca, breakfast foods, noodles, etc.; pickled products, such as pickles, chili sauce, chow-chow, etc.; fruit products such as apple butter, jellies, jams, etc., meat products, such as dried, salted, or smoked fish, veal loaf, pickled pigs' feet, mince meat, chipped beef, boiled ham, or other food prepared for eating or subject to attack of worms or flies, and all fresh meats, whether in large or small cuts, chopped meats, sausage, liver, hearts, and all other edible meats, shall not be displayed for sale unless protected from flies, dust, dirt, and all other foreign or injurious contamination by suitable coverings of glass, wood, or metal.

Barbers and Barber Shops—Sanitary Regulation. (Reg. Bd. of H., July 25, 1913.)

124. The owner of any barber shop shall equip said shop and keep said shop equipped with running hot and cold water, and with all such appliances, furnishing, and materials as may be necessary to enable persons employed in or about said shop to comply with the requirements of this regulation, and shall keep said shop, furniture, tools, and appliances and equipment used therein at all times in a cleanly condition.

125. No owner or manager of a barber shop shall knowingly permit any person suffering from a communicable skin disease or from a venereal disease to act as a barber in said shop.

126. No person who to his own knowledge is suffering from a communicable disease or venereal disease shall act as a barber.

127. Every owner of a barber shop shall cause all combs, hair brushes, hair dusters, and analogous articles to be washed thoroughly at frequent intervals and to be kept clean at all times, and shall cause all mugs, shaving brushes, razors, scissors, clippers, and tweezers to be sterilized by immersion in boiling water after every separate use thereof.

128. No barber shall use for the service of any customer a comb, hair brush, hair duster, or any analogous article that is not thoroughly clean, nor any mug, shaving brush, razor, shears, scissors, clippers, or tweezers that are not thoroughly clean or that have not been sterilized since last used.

129. No barber shall use for the service of any customer any towel or wash cloth that has not been boiled and laundered since last used.

130. Every barber shall cleanse his hands thoroughly immediately before serving each customer.

131. No barber shall, to stop the flow of blood, use alum or other material, unless the same be used as a powder and applied on a clean towel.

132. No barber shall use a powder puff or sponge for or in the service of a customer. For shaving barbers shall use a separate lather for each customer.

133. No barber shall permit any person to use the headrest of any barber's chair under his control unless the headrest is covered with a towel that has been washed since last being used, or by a clean new paper.

134. No barber shall shave any person when the surface to be shaved is inflamed or broken out or contains pus, unless such person be provided with a cup and shaving brush for his individual use.

135. No person shall use a barber shop as a dormitory, nor shall any owner of said barber shop permit said shop to be so used.

136. The owner of every barber shop shall keep a copy of these rules, to be furnished by the board of health, posted in said shop for the guidance and information of persons working or employed therein.

137. Any barber or owner violating any of the provisions of this regulation shall be guilty of a misdemeanor.

Annual Sanitary Inspection of Cities and Villages. (Reg. Bd. of H., July 25, 1913.)

138. The health officer in each city and village in the State of South Dakota shall make a thorough sanitary inspection of his municipality in the month of May, and present written report of such inspection, together with his recommendations, to the council on or before the 1st day of June of the year in which the inspection is made. The health officer shall send a copy of this report to the State board of health before July 1 of the same year. Other sanitary inspection shall be made during each year, if deemed necessary.

139. Preceding the regular May sanitary inspection the health officer in each city and village shall publish in a local paper or by means of bills posted in two or more conspicuous places an order for the citizens to thoroughly clean all yards, vaults, cesspools, and all sheds or barns containing manure on or before a given date. If upon inspection this general order is found not to be carried out, then like individual notices shall be served.

Embalming—Burial. (Reg. Bd. of H., July 25, 1913.)

140. *Embalmers.*—Every funeral director or embalmer who wishes to qualify as competent to prepare a body for burial or transportation shall comply with the following requirements: He shall make application to the State board of embalmers for a license. Such application shall contain the name of the applicant in full, age, and place of residence. It shall be indorsed by a licensed embalmer and two registered physicians of good repute as to the applicant's general standing.

The examination shall consist of:

(a) A written examination of not less than 50 questions upon the following subjects:

	Questions.
Anatomy of the principal organs of the body.....	10
The cavities of the human body.....	5
Arterial and venous system.....	10
The blood and discolorations.....	5
Arterial and cavity embalming.....	16
Bacteria and disinfection.....	6
Transportation rules.....	4

The applicant must attain a proficiency of 75 per cent on the entire examination.

141. The remains of the dead must be prepared for burial or shipment by a licensed embalmer.

142. Railroad officials and employees throughout the State of South Dakota must not receive for shipment the remains of any dead person unless the same have been prepared by a licensed embalmer.

143. *Embalming fluids.*—In the shipment of the dead in South Dakota not less than 8 parts by weight of embalming fluid to 150 parts of body weight shall be used for arterial embalming. In addition, in any case of contagious, infectious, or communicable disease, the body shall be washed and all orifices plugged with an absorbent material saturated with a formaldehyde solution, and not less than 8 parts by

weight of embalming fluid to 150 parts of body weight shall be equally distributed by injection, one-half in the thorax and one-half in the abdominal cavity. In case of cancer all exposed surfaces shall be firmly bandaged with a dressing of absorbent material saturated with the same embalming fluid. Eroded surfaces and discharged sinuses shall be bandaged and dressed as directed for cancer.

144. All embalming fluids sold or used in South Dakota must contain formaldehyde gas in the proportion of 5 per cent by weight of the gas in every 100 parts by volume of the fluid, and must not contain any ingredients that interfere with the germicidal action of the formaldehyde. Such embalming fluids must not contain chloral, nor shall they contain arsenic, mercury, zinc, or other mineral poisons.

145. A list of ingredients in every embalming fluid sold or used in South Dakota must be on file in the office of the State board of health.

146. *Disposal of the dead.*—Only licensed embalmers shall be permitted to take charge of the remains of one who has died of smallpox, scarlet fever, diphtheria, or other dangerous communicable disease. Such remains must be properly disinfected and inclosed in a tightly sealed coffin, which shall not thereafter be opened. The funeral of such person shall be strictly private, and in the removal of the remains for burial or other purposes only such a vehicle shall be employed as is authorized by the local health officer.

147. The dead body of any human being must not remain unburied for a period longer than four days unless the same is to be shipped, in which event shipment must begin within this time. When death is due to any of the diseases specified in regulation 143, the body must not remain unburied for more than 24 hours unless prepared for shipment as provided for under the transportation regulations.

148. No embalming fluid containing arsenic or mercury shall be used in South Dakota in the embalming of dead human bodies for burial.

149. All shipping permits issued in South Dakota for the transportation of the remains of the dead must be signed by a licensed embalmer. A firm name must not be used in the signing of such permit unless all members of the firm are licensed embalmers.

150. The shipment of the dead must be governed by the transportation regulations printed on the shipping blanks furnished by the State board of embalmers.

Physicians—Examination—License to Practice Medicine. (Reg. Bd. of H., July 25, 1913.)

151. *State medical examinations.*—No person shall be issued a license to practice medicine in the State of South Dakota unless he shall have made application to the State board of health through the secretary thereof upon such form and in such manner as shall be adopted and prescribed by said board and shall have obtained from said board and possess in full force and virtue a valid license to do so. Reciprocity may be permitted.

152. Each applicant for license must make an affidavit setting forth his age, place of residence, preliminary education, time and place of each course of medical lectures, and date of graduation. Blank forms can be obtained from the secretary. The affidavit must be corroborated by the exhibition of his diploma. He must also furnish a certificate of good moral character signed by two reputable physicians who are personally acquainted with him, or if he has been in practice for one year, he must furnish a certificate signed by the president and secretary of the local medical society. He must also furnish with his application an unmounted photograph of himself taken within the preceding year, on the back of which shall appear an affidavit to the effect that the picture is a true likeness of himself. This photograph shall remain the property of the board.

153. A fee of \$20 must accompany each application. No portion of this fee is returned in case of failure.

154. All applicants for examination to practice medicine in this State who matriculated in a medical school subsequent to August 1, 1911, must as a prerequisite thereto present satisfactory evidence to said board of preliminary education consisting of an accredited four years' high-school course and in addition two years in college of liberal arts or its equivalent.

155. All applicants for examination for license to practice medicine in this State who matriculated subsequent to 1908 and prior to August 1, 1911, must present satisfactory evidence of a four years' course in an accredited high school and in addition one year in a college of liberal arts or its equivalent.

156. Each applicant if he graduated after January 1, 1905, or completed his course of lectures after January 1, 1905, must show proof that he has attended four full courses of lectures of at least eight months each year at a recognized medical school.

157. Each applicant if he graduated prior to January 1, 1905, must show proof of having attended three full courses of at least six months (no two courses being in the same year), each at a recognized medical college.

158. Regular examinations will begin at 9 a. m. on the second Tuesday in January and July of each year at such place as the board may designate. Examinations shall be both written and oral and shall include the following subjects: Anatomy, histology and embryology, physiology, chemistry, pathology, therapeutics, practice of medicine, surgery, obstetrics, gynecology, diseases of eye, ear, nose, and throat, bacteriology, medical jurisprudence, skin and genito-urinary, hygiene and sanitation, and practical laboratory work in chemistry, urinalysis, pathology, bacteriology, and such other branches as the board may deem advisable.

159. Candidates are not permitted to communicate with each other in any manner whatever during the examination, to consult notes or books, or use any dishonest or unfair means of securing or imparting information. Any candidate who disregards this rule will be debarred from further examination.

160. All candidates will be required to appear in person before the board for identification, and at the same time he must present his diploma for verification.

161. The examination is written in the English language. If any candidate is unable to write the English language he will be allowed to write in his native language, provided he pays the cost of translation.

162. A general average of 75 per cent must be obtained in order to secure a license.

163. Each applicant is known by his number, which is arranged as follows: Envelopes are numbered and each contains a blank bearing the corresponding number, on which the applicant writes his name and address. The complete blank is returned to the envelope and the envelope is sealed by him.

164. Each applicant will place upon his answer papers the number given him, the year of his graduation, and the subject upon which he is writing. No other marks of identification must appear; if so, said paper will be discarded and no credit given for answers thereon.

165. All applications for license, together with fee for same, must be in the hands of the superintendent on or before the 1st day of July or January. No applicant need appear for examination who has not fulfilled this requirement.

166. Any applicant who appears at the examination hall under the influence of alcohol will not be examined.

167. A permit to practice in this State before a license is issued will under no circumstances be granted.

Reciprocity.—As a basis for establishing reciprocal relations with other States the State board of health adopts qualification No. 1 as outlined by the American Confederation of Reciprocating, Examining, and Licensing Medical Boards, viz:

168. *Qualification No. 1.*—That a certificate of registration showing that an examination has been made by the proper board of any State, on which an average grade of not less than 75 per cent was awarded, the holder thereof having been at the time

of said examination a legal possessor of a diploma from a medical school in good standing in the State where reciprocal registration was sought may be accepted in lieu of examination as evidence of qualification. Provided that in case the scope of said examination was less than that prescribed by the States in which registration is sought, the applicant may be required to submit to a supplemental examination by the board thereof, in such subjects as have not been covered. And provided further, that the applicant shall have been reputably engaged in the practice of medicine in the State from which he seeks reciprocity for at least one year subsequent to receiving the license upon which registration is sought in this State.

169. A physician or surgeon duly authorized to practice medicine or surgery in another State, who wishes to remove from such State and reside and practice his profession in this State, and who seeks reciprocal indorsement from this board under qualification No. 1.

(a) Shall make an application on a form prescribed by this board and pay a fee of \$20.

(b) Present a certificate or license issued after examination by the medical board of such State.

(c) Appear in person before the board for identification with properly certified photograph not later than the first day of the regular examination.

(d) Must have been engaged in the practice of his profession in the State from which he seeks reciprocal indorsement at least one year.

(f) The blank form prescribed and furnished him by this board must be properly completed in every respect and returned to the superintendent on or before the first day of the month preceding the regular examination.

(g) Reciprocates coming from States which do not require the practical examination in laboratory work and the clinical and oral examinations must take them as supplementary before this board.

(h) Applications for reciprocal indorsements can not be acted upon except at regular meetings.

(i) Graduates of 1905 and thereafter must have a minimum entrance requirement of graduation from an accredited high school or its equivalent.

(j) Graduates of 1912 and thereafter must have the preliminary requirements as previously outlined.

170. No medical college who accepts or graduates students without meeting the requirements relating to the preliminary education as a prerequisite to medical education will be considered in good standing by this board. All medical schools are requested to advise their students of the educational requirements of this State. Copies of medical practice act and rules and regulations regarding examination of candidates for license to practice medicine in this State may be had by addressing the superintendent of this board.