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BULLETIN OF THE NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

J. W. JONES, M. D., <i>President</i> , Tarboro.	S. H. LYLE, M. D., Franklin.
R. H. LEWIS, M. D., Raleigh.	W. D. HILLIARD, M. D., Asheville.
JOHN McDONALD, M. D., Washington.	PROF. W. G. SIMMONS, Wake Forest.
R. L. PAYNE, M. D., Lexington.	ARTHUR WINSLOW, C. E., Raleigh.
THOMAS F. WOOD, M. D., <i>Secretary and Treasurer</i> , Wilmington.	

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VOL. I. APRIL, 1886. No. 1.

In setting forth the duties of the North Carolina Board of Health, the law requires (sect. 2). "that the North Carolina Board of Health shall take cognizance of the health interests of the citizens of the State; shall make sanitary investigations and inquiries in respect to the people, employing experts when necessary; shall investigate the causes of diseases dangerous to the public health, especially epidemics; the sources of mortality; the effects of locutions, employments and conditions upon the public health. They shall gather such information upon all these matters, for distribution among the people, with the especial purpose of informing them about preventable diseases. They shall be the medical advisers of the State, and are herein specially provided for, and shall advise the government in regard to the location, sanitary construction and management of all public institutions upon application of the proper authorities, and shall direct the attention of the State to such sanitary matters as in their judgment affect the industry, prosperity, health and lives of the citizens of the State."

That the provisions of this section may be more fully carried out, the Board begins with this month the publication of a monthly bulletin, as a medium of communication for the county boards of health with each other, and as a means of keeping the people of each county informed of the existence, in other parts of the State, of diseases dangerous to the public health. That this may be done thoroughly, it is necessary to have the coöperation of the profession throughout the State. Let those counties which have not yet organized local boards of health, do so at once, and elect a superintendent of health. Then let the physicians of the county report to him at the end of each month the nature of the diseases occurring in his practice during the month. In this way the superintendent will be able to make his reports to the Secretary of the State Board more full and prompt.

The main work of the past year has been that of organizing and getting the counties drawn up in line of battle to meet and repel our people's deadliest foe—epidemic. Thus far forty-three counties have formed local

boards of health with accessions constantly coming in. The Legislature has placed \$2,000 at the disposal of the Board, to be used in the event of an epidemic outbreak dangerous to the public health. This sum can be used only through the Governor; and that it may be applied efficaciously, it is necessary that the State Board should be kept constantly informed of the nature of diseases existing throughout the State, and this information can be had in no other way than through the practicing physicians in the State.

The State Board have undertaken the publication of this bulletin, with the hope that we will receive the assistance of the State profession, and trust we will not be disappointed.

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Summary of Reports from County Superintendents for March.

Buncombe—Dr. W. L. Hilliard reports three cases typhoid fever with acute bronchitis, pneumonia and rheumatism prevailing in city of Asheville and different portions of the county. He reports the jail as a new building, the sanitary condition of which is excellent. New buildings are being built for the poor.

Burke—Dr. J. L. Laxton, Morganton, Superintendent. No report.

Columbus—Dr. I. Jackson, Whiteville, reports one case of whooping-cough, also an epidemic of cholera among hogs. He says: "The sanitary condition of the county is the best I ever knew in the twenty-four years I have lived and practiced here." There are only four prisoners confined in jail, and they were sent from Wilmington, the jail in the latter place having been destroyed by fire. The jail has not sufficient heating arrangements for as cold weather as was experienced the last winter. The poor-house buildings are inadequate, but will be replaced soon by buildings on the most improved plan. The sanitary condition of both is good.

Cleveland—Dr. J. C. Gidney, Shelby, reports whooping-cough and measles as prevail-

ing in some parts of the county. The food and water served are good, but he makes no report on the space allotted each inmate, or on the number giving evidence of successful vaccination, or the number who can read and write.

Cumberland—Dr. W. C. McDuffie, Fayetteville, reports measles, whooping-cough and scarlatina. He says, on the principle of "an ounce of prevention being worth a pound of cure," they are at work getting sewers and ditches in good order for the summer. All the inmates of jail and poor-house are in good condition, being furnished with good mattresses and clean blankets, and made to keep themselves and quarters clean. The asylum for paupers is now complete, with an improved "heater" put in last fall.

Catawba—Dr. George H. West, Newton, reports 28 cases of scarlatina, 13 of diphtheria, and 8 of typhoid fever, with pneumonia and catarrhal fever prevailing in Newton and vicinity. At a recent meeting of the County Board of Health, a sanitary committee of three was appointed for each village in the county for work during the summer. Of over twenty physicians in the county, he has received reports from only four.

Chatham—Dr. John M. Manning, Pittsboro, reports one case of measles. Bronchitis and some few cases of pneumonia have prevailed. Very little sickness of any kind, and the sanitary condition of the county, as far as he has been able to learn, is good. The sanitary condition of jail and poor-house is good. The heating arrangement of the former was defective during the very cold weather. Effort has been made to have it remedied.

Cherokee—Dr. J. F. Abernathy, Murphy, reports one case typhoid fever, an epidemic of cholera among hogs and chickens. He reports cases of erysipelas in the western portions of the county.

Durham—Dr. A. G. Carr, Durham, reports 1 case diphtheria, 2 or 3 of whooping-cough, and some roseola. Sanitary condition is fair. There are sixteen prisoners confined in the work-house, which is overcrowded, but is be-

ing rapidly enlarged, and then accommodations will be ample.

Davidson—Dr. R. L. Payne, Jr., Lexington, reports 12 cases scarlatina, 11 of diphtheria, 1 of typhoid fever, 1 of pernicious malarial fever. Epidemic whooping-cough and rōtheln prevailing in several portions of the county, but he has heard of no deaths from either. Besides the above, the general health of the county is good. There were probably sixty more cases of pneumonia occurring in March than in February. The sanitary condition of the public buildings is excellent. He complains of the lack of cooperation on the part of the physicians of the county, only six having reported to him.

Edgecombe—Dr. Julian M. Baker, Tarboro, Superintendent. No report.

Franklin—Dr. E. S. Foster, Louisburg, reports the county as "remarkably healthy. Less sickness from what I can learn than has been the case for many years. Louisburg was once a sickly place. Now we think it a fine location for a sanitarium. The condition of public buildings is good. Am doing all I can to improve their sanitary condition. Shall revaccinate all inmates of public buildings as soon as I can get the vaccine."

Forsyth—Dr. D. M. Dalton, Winston, makes no report on health of the county, but reports jail in a very bad condition—bad sewerage, poorly ventilated, and overcrowded. Action is being taken to build a new one, and nothing short of that will begin to answer.

Greene—Dr. W. C. Galloway, Snow Hill, reports one case scarlatina. Sanitary condition of county tolerably fair.

Guilford—Dr. W. P. Beall, Greensboro, reports no cases of contagious diseases having occurred during the month. He says he is trying to interest county physicians in making reports, and hopes to make a fuller report next month. He reports poor-house in good condition, but jail overcrowded, each prisoner having only 200 cubic feet of space. This is owing to session of Federal Court being held

now, and the number of prisoners will be reduced this month.

Gaston—Dr. E. B. Holland, Dallas, makes no report on prevailing diseases. He says "few of our best farmers have an eye to the sanitary condition of their homes. The jail is a failure for want of ventilation and means for warming prisoners in winter, and further, thin brick walls through which prisoners make their escape from time to time."

Henderson—Dr. J. L. Egerton, Hendersonville, reports 2 cases measles and 3 typhoid fever.

Iredell—Dr. M. W. Hill, Statesville, reports very little sickness in county. Isolated cases of pneumonia have occurred at different points, and whooping-cough has gone over the county pretty generally. There is but little sickness in jail, but thinks its construction and division not good, viewed from a sanitary standpoint.

Jones—Dr. Rom. A. Whitaker, Trenton, makes no report on health of county. He has been able to arouse but little interest among the county physicians as yet, but hopes they will assist him to make fuller reports in the future.

Johnston—Dr. J. G. Rose, Smithfield, reports "several cases of whooping-cough" with pneumonia prevailing in most portions of county. General health of county good.

Lincoln—Dr. J. M. Lawing, Lincolnton, reports several cases of measles and an epidemic of rabies among dogs. Several persons have been bitten by dogs supposed to be mad, but as yet he has not heard that hydrophobia has been developed in any of them.

Lenoir—Dr. F. M. Rountree, Kinston, reports 1 case diphtheria, 5 typhoid fever, and 1 hemorrhagic malarial fever. The sanitary condition of county good. Public buildings are in good condition and well kept.

Macon—Dr. J. M. Lyle, Franklin, reports no disease dangerous to the public health as having occurred. He writes: "I have lived here continuously for over 30 years, and at no time have I seen the health of the county better." The sanitary condition of public buildings is good and needs no improvement.

McDowell—Dr. J. H. Gilkey, Marion, reports the sanitary condition of county good, with no disease of a dangerous nature existing. The condition of public buildings is fair, and efforts are being made to improve it.

Madison—Dr. J. K. Hardwicke, Marshall, makes no report on the general health of the county. Reports the jail and poor-house as being in good sanitary condition.

Northampton—Dr. V. S. McNider, Jackson, Superintendent. No report.

New Hanover—Dr. F. W. Potter, Wilmington, reports a few cases measles, many of whooping-cough, two of scarlatina, and three of diphtheria. There has been but little sickness in the country. In the city of Wilmington pneumonia has prevailed in the suburban, and catarrhal fever in the damper and lower portions. Whooping-cough prevalent but not fatal. Poor-house is in good condition. On account of a probable increase in the number of inmates, it was thought best to enlarge it, but no steps have been yet taken in that direction. The jail was burned on the night of the 25th of March. No move has been made towards rebuilding.

Onslow—Dr. W. J. Montford, Ward's Mill, reports the health of the county as being as good as he ever knew it, no disease of a dangerous nature having occurred. The jail, however, is in bad condition, and he sees no prospect of having it improved soon. The condition of the poor-house is good.

Pender—Dr. W. T. Ennett, Burgaw, reports four cases of typhoid, and two of hemorrhagic malarial fever, with several cases of diphtheria and of pernicious malarial fever, and an epidemic of whooping-cough. Malarial fever has prevailed in the low, marshy portions. He has found that the month of March has been peculiar in its tendency to "epidemic catarrhal fever," and in nearly every case quinine has been the "sheet anchor" in its treatment. There is no jail or poor-house in the county, prisoners having been confined in Wilmington. The erection of a poor-house will be begun the first of May next.

Pitt—Dr. J. T. Sledge, Greenville, Superintendent. No report.

Richmond—Dr. J. M. Stancill, Rockingham, reports a few cases of whooping-cough. The sanitary condition of that part of the county is good. The condition of public buildings is good.

Robeson—Dr. R. F. Lewis, Lumberton, reports no diseases of a dangerous nature as having occurred. Public buildings are in fair condition, and improvement intended.

Rutherford—Dr. E. B. Harris, Rutherfordton, reports measles prevailing in the northern and eastern portions of county. The sanitary condition of county is very good indeed.

Rowan—Dr. J. J. Summerell, Salisbury, reports diphtheria prevailing in western portions, and whooping-cough in Salisbury and surrounding country. The latter is of mild form, he having heard of only one death from it. Many of the negroes in the jail and also at the poor-house have syphilis. The increase of that disease among that race is appalling. Three of the four sent to the penitentiary after last court had this loathsome disease. The condition of jail is better than during the winter, but some arrangement is needed whereby the drainage pipes can be flushed every day or two. This has been promised by the commissioners, but not yet done. There has been an epidemic of pneumonia at one of the livery stables in Salisbury with several deaths.

Sampson—Dr. J. A. Stevens, Clinton, reports an epidemic of cholera among hogs, but makes no report on the general health of county. A new poor-house capable of accommodating forty-eight paupers has just been completed and enclosed by a barbed wire fence eight feet high. He makes no report on the space allotted prisoners and the number which can read, etc.

Tyrrell—Dr. Ab. Alexander, Columbia, reports 6 cases of measles, 3 of diphtheria, and 7 of typhoid fever. The sanitary condition of Gum Neck and South Fork townships is very poor, of the other townships better. Will soon build a new jail to replace the one burned.

Union—Dr. W. C. Ramsay, Monroe, reports catarrh and pneumonia prevailing. There has occurred no contagious disease of a dangerous nature.

Vance—Dr. John C. Jacobs, Henderson, reports three cases scarlatina and general sanitary condition of county good. There is no jail, house of correction or poor-house in the county, but they will probably be built this year.

Wayne—Dr. Jas. Spicer, Goldsboro, reports six cases of whooping-cough, and sanitary condition of county good. The condition of the jail is shameful beyond excuse. There are twenty-four prisoners confined in it, and in the day time when they have the run of both cells and corridors aggregating 2366 cubic feet, they have only 98 cubic feet to the person, while at night when they are confined

in the four cells aggregating 1456 cubic feet, each one has only 61 cubic feet of space.

Warren—Dr. P. J. Macon, Warrenton, reports no contagious diseases as having occurred. There has been a good deal of dengue. The general health of the county good.

Wake—Dr. Jas. McKee, Raleigh, Superintendent. No report.

Watauga—Dr. W. B. Councill, Boone, reports measles prevailing in the western portions of county. Sanitary condition of county good. The county authorities will begin a new jail this year, the present one being badly situated and unhealthy, and there being no way to improve its condition. The poor-house is in good condition.

Wilson—Dr. A. D. Moore, Wilson, reports no contagious diseases. General sanitary condition good.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*.....								
Alexander*.....								
Alleghany*.....								
Anson*.....								
Ashie*.....								
Beaufort*.....								
Bertie*.....								
Bladen*.....								
Brunswick*.....								
Buncombe.....	16	1,237	16	11	20		20	15
Burke†.....								
Cabarrus*.....								
Caldwell*.....								
Camden*.....								
Carteret*.....								
Caswell*.....								
Catawba.....	3	1,600	1	3	20	300	8	12
Chatham.....	2	7,810	1	1	38	770	10	7
Cherokee.....	1		0	0	3		1	0
Chowan*.....								
Clay*.....								
Cleveland.....	9				31			
Columbus.....	4	4,158		3	7	620		0
Craven*.....								
Cumberland.....	3	1,000	3	3	16	800	9	6
Currituck*.....								
Dare*.....								
Davidson.....	4	2,735		1	19	700		3
Davie*.....								
Duplin*.....								
Durham.....	8	1,262			9	(ample)		
Edgecombe†.....								
Forsyth.....	23	325	23	10	16	904	15	4

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender†								
Perquimans*								
Person*								
Pitt†								
Polk*								
Randolph*								
Richmond	11	877	4	6	10	1,650	1	1
Robeson	6	6,912?			9	7,200?		
Rockingham*								
Rowan	10	450			23	(ample.)		
Rutherford	1	3,600		1	22	1,300		7
Sampson	5				15			
Stanly*								
Stokes*								
Surry*								
Swain*								
Transylvania*								
Tyrrell					4	1,100	0	1
Union	18		0		12			
Vance†								
Wake†								
Warren	1	960			12	1,100		
Washington*								
Watauga	0	0	0	0	8	300	0	0
Wayne	24	61			4	1,650		1
Wilke*								
Wilson	4				23			
Yadkin*								
Yancey*								
Totals	279		82	66	484		98	73

* Have no Superintendent of Health. † Superintendent sent in no report. ‡ Have no Jail or Poor-House.

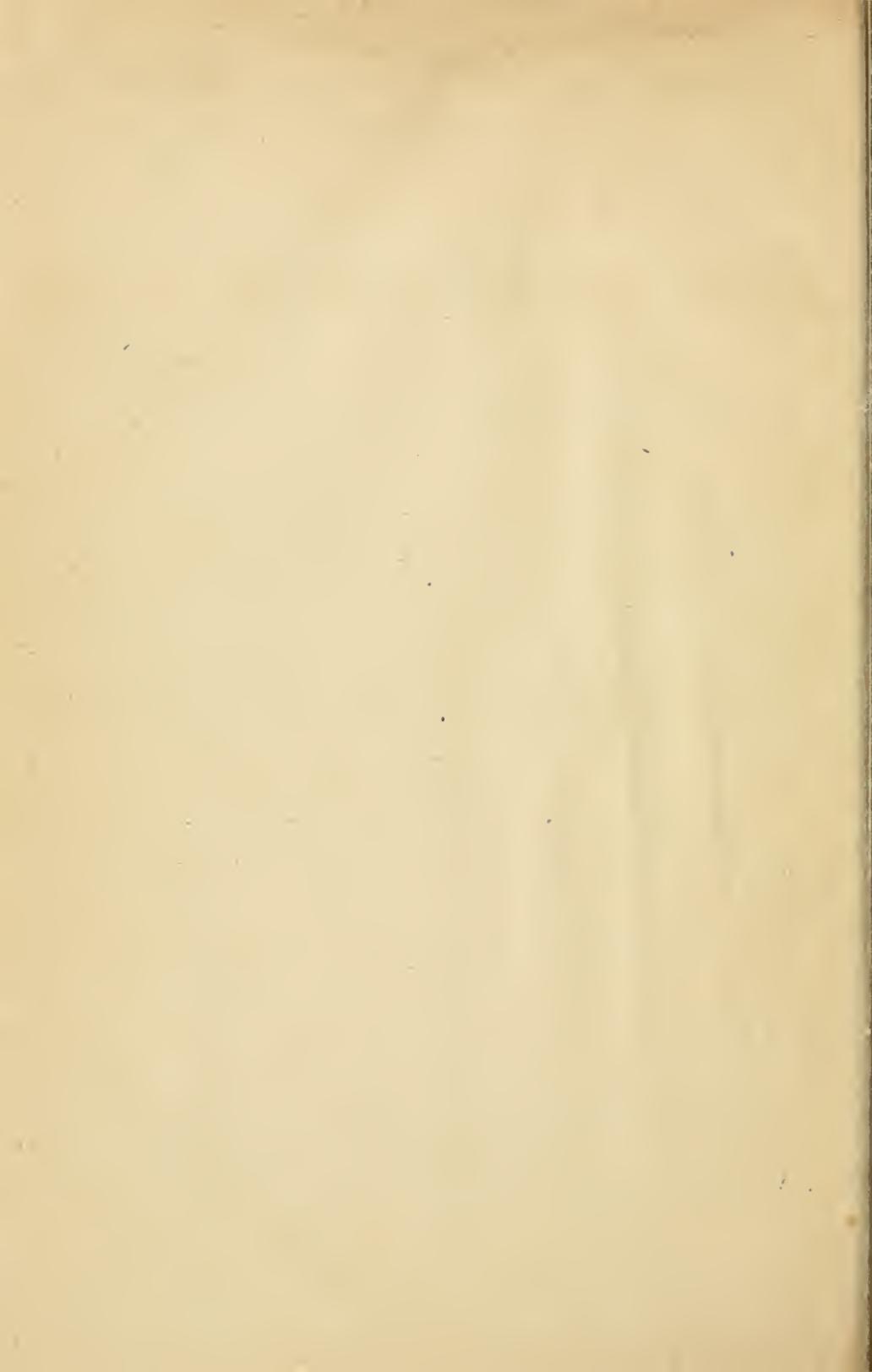
Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.					On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches.)	Prevailing wind.
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.				
Smithville.....	50.4	69.0	30	27.2	3	41.8	.....	25.5	24	5.4	20	13	11	7	11	5.46	W.
Hatteras.....																		
Knoxville (Tenn.)	47.6	75.8	*a	23.3	11	52.5	17.8	37.5	24	2.2	30	5	14	12	14	11.15	W.	
Charlotte.....	48.5	76.0	25	24.4	11	51.0	20.0	33.9	24	6.4	29	9	13	9	11	6.39	S. W.	
Fort Macon.....	49.3	64.4	*b	29.5	3	34.9	.....	21.6	24	4.1	27	13	11	7	11	4.64	S. W.
Lynchburg (Va.)..	45.6	77.8	25	22.9	5	54.9	18.2	34.6	.....	4.3	.....	7	15	9	11	5.76	N. W.
Wake Forest.....	49.3	79.1	25	25.4	11	53.7	.....	.....	.....	.....	.....	.....	.....	9	.....	4.22	W.
Kitty Hawk.....	46.6	73.0	19	27.3	3	45.7	15.3	29.7	25	5.7	7	14	10	7	9	4.90	S. W.	
Wilmington.....	52.5	78.1	25	28.8	*c	49.3	20.0	36.2	25	8.9	27	12	14	5	11	5.60	S. W.	
Average.....	48.7	74.1		26.1		48.1	18.3	31.3		5.3		10	13	8	11	6.02	S. W.	

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	29.990	30.297	24	29.471	13	.826
Hatteras.....						
Knoxville, (Tenn.).....	30.022	30.343	2	29.439	20	.904
Charlotte.....	30.001	30.302	24	29.479	20	.823
Fort Macon.....	29.988	30.230	24	29.553	13	.677
Lynchburg, (Va.).....	29.975	30.454	28	29.396	21	1.058
Wake Forest.....	30.122	30.475	28	29.632	21	.843
Kitty Hawk.....	29.986	30.372	28	29.383	13	.989
Wilmington.....	30.000	30.304	24	29.454	13	.850
Average.....	30.011	30.372		29.476		.871

*a—17 and 19. *b—30 and 31. *c—1 and 3.



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VOL. I.

MAY, 1886.

No. 2.

Summary of Reports from County Superintendents.

Buncombe—Dr. W. L. Hilliard, Asheville, reports one case of diphtheria, with acute bronchitis and pneumonia, prevailing in city and different portions of the county. Sanitary condition of county, as far as known, fairly good. Sanitary condition of public buildings is very good. In the building recently erected for the poor, there are fourteen rooms of the following dimensions, to-wit: each room is twelve feet long, twelve feet wide and ten feet pitch, and is intended to be occupied by two persons. All necessary out-buildings in addition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Catawba—Dr. George H. West, Newton, reports five cases whooping-cough, four of scarlatina, two of diphtheria, and one of typhoid fever, with rheumatism and pneumonia prevalent in Newton and vicinity. There has been no work done on the streets of Newton and Hickory for sanitary purposes. It is impossi-

sible to get half of the physicians to send in reports.

Chatham—Dr. John M. Manning, Pittsboro, writes: "Roseola and whooping-cough have prevailed to some extent in various portions of county. Judging from the little sickness, the sanitary condition of county must be good." The jail is a new building and in good condition. He has recommended to the Board of Commissioners the advisability of surrounding the jail with a fence that the prisoners may be allowed exercise in the open air.

Cherokee—Dr. A. F. Abernathy, Murphy, reports an epidemic of cholera among hogs. The streets in Murphy are being put in condition to facilitate drainage.

Cleveland—Dr. J. C. Gidney, Shelby, reports measles and whooping-cough prevailing in all portions of the county. The sanitary condition of public buildings is good. No report on the number of inmates of jail and poor-house which can read and write.

Columbus—Dr. I. Jackson, Whiteville, reports one case typhoid fever. No contagious

disease has prevailed in county. The sanitary condition is the best he has seen it in twenty years. The sanitary condition of public buildings is good. New poor-house to be built soon.

Cumberland—Dr. W. C. McDuffie, Fayetteville, reports twenty cases of measles, four of typhoid fever, and about one hundred of whooping-cough. The sanitary condition is good throughout county, and all necessary work in town is being pushed before hot weather. The poor-house and jail are in excellent condition.

Davidson—Dr. R. L. Payne, Jr., Lexington, reports twenty cases whooping-cough, seven scarlatina, eight diphtheria, four typhoid fever, and twenty r6thelu. Sanitary condition of public buildings good.

Durham—Dr. A. G. Carr, Durham, makes no report on the general health of the county. He reports the jail as too crowded, but Court on the 20th will reduce the number. House of correction very much over-crowded, but new buildings are being erected, which will remedy the evil. He reports the number of inmates in the different places of confinement who can read and write and who give evidence of successful vaccination as "unknown." It should be known and reported.

Edgecombe—Dr. Julian M. Baker, Tarboro, reports no contagious diseases occurring in county during the month.

Forsyth—Dr. D. N. Dalton, Winston, reports quite a number of cases of whooping-cough. The health of county generally has been remarkably good for past month. The jail is much in need of more and better air. The other buildings are in good condition.

Franklin—Dr. E. S. Foster, Louisburg, reports one case of typhoid fever, and the sanitary condition of county, as far as he can learn, very good. The sanitary condition of jail and poor-house is also good.

Gaston—Dr. E. B. Holland, Dallas, reports two cases measles and six of pernicious malarial fever. The sanitary condition of county fair. In regard to jail and poor-house, he says: "No improvement, very defective jail."

Greene—Dr. W. C. Galloway, Snow Hill, reports two cases diphtheria and one hemorrhagic malarial fever. General sanitary condition of county pretty fair.

Guilford—Dr. W. P. Beall, Greensboro, says he can get no reports from the county physicians, but has heard of very little sickness, except catarrhal troubles. The town is very healthy now. The sanitary condition of jail is good. It is over-crowded, but this is owing to the number of Federal prisoners confined there, and is only temporary. Poor-house in fair condition. No report on the number of inmates which can read and write, &c.

Henderson—Dr. J. L. Egerton, Hendersonville, reports two cases measles and one diphtheria. The sanitary condition of county and town is good. Sanitary condition of public buildings is pretty good. No improvement is being made.

Iredell—Dr. M. W. Hill, Statesville, reports very little sickness in the county. Whooping-cough has gone over the county pretty generally. There has been some scarlatina, but to what extent he is not informed. The public buildings are in pretty fair condition. There is nothing being done now to improve them. No definite report as to the number of inmates which can read and write, and the number giving evidence of successful vaccination.

Johnston—Dr. J. G. Rose, Smithfield, reports one hundred cases whooping-cough, thirty of typhoid fever, and five of hemorrhagic malarial fever. Whooping-cough and roseola have prevailed all over the county. He reports also an epidemic of cholera among domestic animals. The health of the county is in the main good. He is pleased to say that the condition of the jail has been much improved during April, but will need a good deal more work. The poor-house is in good condition.

Jones—Dr. Rom. A. Whitaker, Trenton, reports four cases of scarlatina.

Lenoir—Dr. F. M. Rountree, Kinston, reports the sanitary condition of county as good,

no diseases of a dangerous character having occurred.

Lincoln—Dr. J. M. Lawing, Lincoln, makes no report on the health or sanitary condition of county.

Macon—Dr. J. M. Lyle, Franklin, reports the sanitary condition of county and public buildings good.

Madison—Dr. J. K. Hardwicke, Marshall, makes no report on the diseases prevailing in the county. He says the sanitary condition of public buildings is good.

McDowell—Dr. J. H. Gilkey, Marion, reports five cases of measles and six of typhoid fever, and general sanitary condition of county good. The sanitary condition of public buildings is good, but efforts are being made at further improvements.

New Hanover—Dr. F. W. Potter, Wilmington, reports twenty cases of German fever (röthelu), forty of whooping-cough, two of diphtheria, two of typhoid fever, two of pernicious malarial fever, and one of hemorrhagic malarial fever. Erysipelas, whooping-cough and measles have prevailed in most parts of the city and county. There has been a greater number of cases of these three diseases than in many years past. He reports also an epidemic of hog-cholera. An effort has been made by the physicians of the County Board of Health and many other citizens to have the jail about to be built, to take the place of the one burned in February last, placed on a dry healthy site, as the old site was damp and necessarily unhealthy. The poor-house is to be enlarged to meet increasing demands. There are six prisoners confined in house of correction, each having eight hundred cubic feet of space. Four give evidence of successful vaccination, and four can read and write.

Northampton—Dr. V. S. McNider, Jackson. No report.

Onslow—Dr. W. J. Montford, Ward's Mill, says the sanitary condition of the county was never better. No contagious diseases have occurred. There has been, however, an epidemic of cholera among domestic animals. The condition of poor-house is good, but the

jail is in bad condition. He can do but little towards improvement in the present financial condition of the county. Makes no report on the number of prisoners and paupers who can read and write, &c.

Pender—Dr. W. T. Ennett, Burgaw. No report received.

Pitt—Dr. J. T. Sledge, Greenville, reports "a good many cases of whooping-cough" and a few cases each of dysentery, pneumonia and intermittent fever. The general sanitary condition of county is good. The jail is well ventilated, being built of brick, with iron cages constructed of iron bars crossed, in which prisoners are confined at night.

Richmond—Dr. J. M. Stausill, Rockingham, reports a few cases whooping-cough. General sanitary condition of county good. The sanitary condition of public buildings is good.

Robeson—Dr. R. F. Lewis, Lumberton, reports eight cases diphtheria, with sanitary condition of county good. Public buildings in a fair condition. Makes no report on the number of inmates of jail and poor-house who can read and write, &c.

Rowan—Dr. J. J. Summerell, Salisbury, reports one case of diphtheria, and whooping-cough prevailing in nearly every portion of county. The health of the county is good, and in the town of Salisbury especially so. The condition of jail is better than formerly, but there is yet room for improvement. He has called the attention of the commissioners to the need of sick-rooms or hospital at the poor-house, and they have promised to prepare such a building in the near future.

Rutherford—Dr. E. B. Harriss, Rutherfordton, reports forty cases of measles occurring in different parts of the county. He makes no report on the sanitary condition of public buildings, nor on the number of inmates who can read and write, and who give evidence of successful vaccination.

Sampson—Dr. J. A. Stevens, Clinton, reports three cases typhoid fever. He reports also an epidemic of hog-cholera. The jail has been thoroughly cleansed, and its sanitary condition is excellent. The poor-house is all

that can be wished for and is fast becoming a county pride. There are two prisoners confined in house of correction.

Tyrell—Dr. Ab. Alexander, Columbia, reports three cases of diphtheria, and five of typhoid fever. The sanitary condition of county and public buildings is good.

Union—Dr. W. C. Ramsay, Monroe, reports no contagious diseases and the county remarkably healthy.

Vance—Dr. John C. Jacobs, Henderson, reports two cases of typhoid fever and general sanitary condition of county good. No jail or poor-house in the county.

Wake—Dr. Jas. McKee, Raleigh. No report received.

Warren—Dr. P. J. Macon, Warrenton, reports three cases typhoid fever. The sanitary condition of county is better than known for years. The public buildings are kept in first-class order. He says it is impossible to make good reports, as the physicians do not help at all. He is having blanks struck off for them to fill out each month.

Watauga—Dr. W. B. Councill, Boone, reports ten cases measles, forty whooping-cough and two of typhoid fever. An epidemic of lung fever has prevailed among horses and mules to a limited extent. Five or six have died. The sanitary condition of county is very good. Have no swamps or low lands, and being a mountainous country, it is well drained naturally. The jail is not in a healthy condition and is very old and dilapidated, but is well kept. The poor-houses are new and in fine sanitary condition.

Wayne—Dr. James Spicer, Goldsboro, reports diarrhoea as having prevailed to some extent.

Wilson—Dr. A. D. Moore, Wilson. No report received.

The Attorney-General of Indiana has submitted a reply to the question of the State Board of Health, can a physician be required to report to the Secretary of the Board of Health all the births and deaths which may occur under his supervision? He says such a duty is made obligatory by law within fifteen days after births and deaths.—*The Sanitary News*.

County Jails.

Judge Joel Branham, of the Rome (Ga.) Circuit, in a recent conversation with a reporter of the *Atlanta Journal*, and copied in the *Atlanta Medical and Surgical Journal*, thus expressed himself on the condition of the county jails in Georgia:

"A great many of the county jails in Georgia are a disgrace to our civilization. They are built with no reference whatever to the comfort of those who may be compelled to occupy them, while from a sanitary point of view, they are often hardly fit to be occupied by animals, let alone human beings. With few exceptions, they are not furnished with the means of ventilation, and the bad air which the prisoners are compelled to breathe often breeds diseases. Then again many of them have no provision for being warmed in cold weather, and much suffering has resulted from this cause during the past winter. The law does not seek to punish a man by freezing him, or depriving him of good atmosphere. For this reason I have made it a point to charge the grand juries, wherever I have held court, to carefully investigate the jails, and see that they are furnished with proper heating apparatus and the means of ventilation. There should certainly be some State supervision over all prisoners, both county and municipal. I have long advocated the appointment of an inspector of such prisons, with plenary powers to enforce all laws pertaining to them."

The words spoken here of the jails in Georgia by one of the ablest circuit judges of that State, might well have been said of the jails in North Carolina. By reference to the BULLETIN for April, it may readily be seen how large a majority of the jails in the State are reported in an unsanitary condition, and on turning to the "Report on Jails and Poor-houses," it will appear evident that the jails of this State also are "often hardly fit to be occupied by animals, let alone human beings."

We would especially call the attention of the Board of County Commissioners of Wayne

county to the condition of the jail at Goldsboro. This jail contains two corridors aggregating 910 cubic feet, and four cells of 364 cubic feet each, making a total of 2366 cubic feet in the whole jail. As "700 cubic feet of respirable air per man, suitably renewed, is as little as will guarantee the health of each inmate," it will be seen that these cells are only about half the size they should be to be occupied by *one person*, yet the Superintendent of Health of that county reports the horrible condition of *twenty-five* prisoners being crowded into this prison, which is hardly large enough for four, and which the *Wilmington Star*, in an editorial criticising the horrors of the situation there, likens to the "Black Hole of Calcutta"! Nor is this only a temporary condition of things, the reports for the past four months showing not less than *twenty-three* prisoners confined there at any time.

Did all the Superintendents do their duty and report fully and accurately on the condition of their county jails, we have no doubt that other and as horrible conditions would be unveiled. Let the judges of the circuit courts follow the example set by Judge Branham, and lay especial stress on that part of their charge to the grand juries which relates to the inspection of public buildings for the confinement of prisoners and paupers, and let the visits of inspection by both grand jury and Superintendents of Health be made unexpectedly to the keepers of these institutions, that they may be taken unawares and not have time to put their premises in a temporarily good condition which will mislead the inspectors.

Summer, and the indications are for a hot one, is almost upon us, and something should and will be done to make the number of prisoners confined, and the cubic space allotted them, more proportionate; for if the county authorities do not increase the space, disease and death will most assuredly reduce the number of inmates. No right-thinking man will hesitate which is the more desirable alternative, even from an economic standpoint, and certainly the spirit of humanity and christian civilization should have some influence in this important matter.

A Word to the County Superintendents of Health.

During the month of March, a new form for monthly reports was sent to each Superintendent, with circular letter asking them to use this new form in the future. As some reports continue to come in on the old blanks, we again ask them to destroy the old blanks, and if they have not received any of the new form, let the Secretary know it, and he will send some immediately.

Concerning the report on public buildings, some Superintendents make no report at all, and some only a partial report. In a few instances, a diagram of the jail, with its cubic space, has been sent to the Secretary some months back; and the Superintendent, instead of giving each month the space in cubic feet allotted to each inmate of jail and poor-house, contents himself with stating the number of inmates in each, and referring the Secretary to the diagram sent, that he may figure it out himself. They should remember that these reports are filed away, and if the Secretary had to look back over the reports from each county for nine or ten months to find the report containing this measurement, it would be an endless task. Each Superintendent should take the measurement of the jail and poor-house, and house of correction when there is one in his county, and keep it in his office where he can refer to it. In this way he could very easily fill out his report as it should be.

A good many Superintendents make no report on the number of inmates giving evidence of successful vaccination, and the number which can read and write. There can be no excuse for this except a failure on the part of the Superintendent to do his duty. He may not be able to make perfect reports on the diseases occurring in the county on account of the non-co-operation of the county profession, but the report on public buildings comes within his individual work, and he should not neglect it.

Lead-Poisoning by Household Utensils.

The German Parliament has now under consideration a bill that is intended to regulate the employment of lead in the manufacture of cooking and other domestic utensils, and so to diminish the risk of poisoning by that metal. The provisions of this measure forbid the use of vessels containing more than ten per cent. of lead in their composition for the above purposes. No alloy with over one per cent. may be used in coating iron articles used in cookery. Solder may consist of lead to one tenth of its amount, but no more. Enamels into which lead enters are treated with equal stringency. The effect of this bill, if it be passed, will be to obliterate the legal existence of pewter and of soft solder as at present made, since these alloys contain from one-half to one-fourth their weight of lead. —*Eng. and Mining Journal*, March 27th, 1886.

Mistakes in School Architecture.

The *Sanitary News* of March 27th contains an article under the above heading from which the following notes are taken. Members of the County Boards of Health and others who have at heart the good health of the children of the State will do well to give these suggestions their attention.

The school building should never be more than two stories and basement high. The ceiling of an ordinary school-room should be from thirteen to fourteen feet high. The lighting of the room should be ample, the window space never less than one fourth of the floor space. Lighting from two sides should be from left and rear, but never left and right. The walls are best of some delicate tint. The old-time white wall is irritating to the eye. A hard surface which can be easily washed is to be recommended. The room should be about thirty-two feet long and about twenty-six feet wide. Forty pupils are enough for one room, and never should the number exceed fifty. The floor should be of hard, polished wood which absorbs little, and is easily cleaned. The above proportions would give each pupil at least twenty square feet of floor space and three hundred cubic feet of air space. The ventilation should be perfect. It should be near the floor. Each pupil should be supplied with 2,000 cubic feet per hour, and certainly not less than 1,500. With a large number of pupils in one room, this can only be effected by some mechanical means—best by a central ventilating shaft heated by the smoke-stack and connected with the rooms by flues. Earth or dry closets should be used, thoroughly deodorized and frequently emptied.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	15		15	10	20		20	15
Burke†								
Cabarrus*								
Caldwell*								
Camden*								
Carteret*								
Caswell*								
Catawba	4	1,825	1		18	400	5	
Chatham	2	7,810	1	1	37	792	10	
Cherokee	2		1	1	3		0	1
Chowan*								
Clay*								
Cleveland	6	912			27	714		
Columbus	3	5,544		3	6	729		
Craven*								
Cumberland	5	1,000	5	0	20	1,000	12	13
Currituck*								
Dare*								
Davidson	4	2,735		1	19	720		3
Davie*								
Duplin*								
Durham	13	777			9			
Edgecombe	28	245		1	32	2,475		1
Forsyth	23	325	23	8	16	904	6	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender†								
Perquimans*								
Person*								
Pitt.....	7	300	4	1	18	400		
Polk*								
Randolph*								
Richmond.....	9	1,068	3	4	10	765	2	1
Robeson.....	8	6,912			9	7,200		
Rockingham*								
Rowan.....	15	467	3	2	21			5
Rutherford.....	3	2,280			22	1,178		
Sampson.....	4				17			
Stanly*								
Stokes*								
Surry*								
Swain*								
Transylvania*								
Tyrrell.....	0	0	0	0	5	1,100	0	1
Union.....	5				15			
Vance†								
Wake†								
Warren.....	4	1,250		1	12	2,000		2
Washington*								
Watanga.....	1		0	0	8		8	0
Wayne.....	25	61			3	1,625		
Wilkes*								
Wilson†								
Yadkin*								
Vancey*								
Totals.....	280		65	45	508		99	82

*Have no Superintendent of Health. †Superintendent made no report. ‡Have no jail or poor-house.

Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.			On which rain fell, including hail, snow and sleet.
Smithville.....	60.9	75.7	27	38.2	8	37.5	.....	21.5	23	6.1	5	13	12	5	9	3.10	N. E.
Hatteras*.....																	
Knoxville(Tenn.)	59.1	84.2	24	29.3	8	54.9	19.6	34.4	9	4.6	7	7	10	13	13	5.30	W.
Charlotte.....	59.7	86.6	24	32.5	8	54.1	21.9	32.7	23	6.3	29	6	16	8	12	3.88	S. W.
Fort Macon*.....																	
Lynchburg (Va.)	57.1	88.6	24	31.0	9	57.6	22.6	37.1	19	3.8	5	.....	20	10	12	4.82	N. E.
Wake Forest.....	60.1	87.9	24	31.9	8	56.0										3.28	N. E.
Kitty Hawk.....	54.2	84.3	24	39.3	9	45.0	12.3	29.9	3	3.9	30	13	11	6	8	5.00	N. E.
Wilmington†.....	62.1	86.7	27	39.4	9	47.3	19.1	30.2	23	9.3	5	11	13	5	8	3.26	S. W.
Average.....	59.0	84.9		34.5		50.3	19.1	30.9		5.7		10	14	8	10	4.77	N. E.

*No report.

†Report for 29 days.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	30.031	30.356	9	29.496	29	.860
Hatteras.....						
Knoxville, (Tenn.).....	30.055	30.319	9	29.666	29	.649
Charlotte.....	30.052	30.347	9	29.579	5	.768
Fort Macon.....						
Lynchburg, (Va.).....	30.066	30.416	17	29.444	6	.972
Wake Forest.....	30.193	30.461	18	29.824	30	.637
Kitty Hawk.....	30.080	30.426	12	29.479	6	.947
Wilmington.....	30.050	30.370	9	29.542	29	.828
Average.....	30.075	30.385		29.576		.794

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J. W. JONES, M. D., *President*, Tarboro.
R. H. LEWIS, M. D., Raleigh.
JOHN McDONALD, M. D., Washington.
R. L. PAYNE, M. D., Lexington.

S. H. LYLE, M. D., Franklin.
W. D. HILLIARD, M. D., Asheville.
PROF. W. G. SIMMONS, Wake Forest.
ARTHUR WINSLOW, C. E., Raleigh.

THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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Meat.

The *Sanitarian* for May, in an editorial on this subject, says:

The selection of food is always important, but in cholera times especially, and particularly with regard to meats, it behooves all who do the marketing to be on the scent, sight, feel, and taste with regard to the first condition of wholesomeness.

The cooking of meats, with very few exceptions, is an essential condition of wholesomeness. But no matter how excellent this art, it should never be allowed to obscure or deceive the senses. Some "underdone" meats are more savory, but they are not more wholesome, while in some cases they involve danger; for thorough cooking destroys certain parasites which may have escaped discovery in the selection of the meat, which survive in meats underdone. Good meat has but little odor, and this is not disagreeable; whereas, the meat of diseased animals; or that which has been kept too long, smells faint and ca-

daverous, and sometimes has the odor of medicine, especially when it is fresh cut, and soaked for an hour or two in hot water.

Good meat is neither of a pale pinkish color, nor of a deep purplish tint; the former is indicative of disease, and the latter is a sign that the animal has died from natural causes, or has been affected with some disease; whereas meat that is sound and of a well-fed animal has a marbled appearance from the deposition of intercellular fat; to the feel, it is firm and somewhat elastic, and does not moisten the fingers; and the internal fat—that which lines the ribs and covers the kidneys—is hard, suety and dry. On the contrary, diseased meat is soft and watery, with no elasticity; and the fat often looks like jelly or sodden parchment, and is sometimes so moist—especially after it has been kept a day or two—that water runs from it, and then it is technically "wet," a pretty sure sign that it is bad. Under the microscope the fibre of good meat is well defined and free from infusorial animalcules, while that of diseased

meat is soaked and tumid, the fibres indistinct and wide apart, and more or less filled with minute organisms. The signs of parasitic diseases, however, are not always well marked, although the measles or cysticercus of the pig, and the distoma or fluke of the liver of the sheep, when present, are easily discovered. On the other hand, the measles-like cysticerci of veal and beef, and the trichinæ of pork and ham, are less easily detected; but meat affected with trichinæ may generally be suspected by its darker hue and excessive moisture, and especially from its being infiltrated with bloody serum.

In cooking, good meat shrinks but little and does not lose much weight; the juice is always slightly acid, and contains an excess of phosphate and potash salts. But bad meat shrivels up, boils to pieces, or "breaks down," in consequence of an excess of serum and gelatinous substance. Diseased meat is always more or less likely to disagree with those who eat it, and it is a mistake to suppose that cooking is always a corrective, or destroys the poisonous quality. While trichinæ and other parasites may be and are destroyed by sufficient cooking, the meat is still unwholesome, liable to cause cholera morbus and other derangements, though not liable to communicate the parasitic disease. The flesh of animals which have died of pleuro-pneumonia and other febrile diseases is also dangerous, the opinion of some veterinarians and most butchers to the contrary notwithstanding.

Organize.

In a letter from a member of the State Senate, thanking us for a complimentary copy of the BULLETIN, and expressing his wish for the future prosperity and increased means of usefulness of the Board of Health, is the following paragraph:

"I regret to see that the malarial counties of the State—especially those which, here, we call the trans-Albemarle—take so little interest in the work. Can't you stir them up?"

We are glad to see evidences of interest in our work, and hope that the readers of the BULLETIN may all see the importance of this work, and will demand the protection vouchsafed them by the last Legislature when it enacted the law—"There shall be an auxiliary board of health in each county in the State."

See the improved condition of things already in those counties which have taken advantage of this law, as shown by the reports of the county superintendents where the sanitary condition and health of the county is pronounced better than for many years past. The law does not require that every physician in the county shall be present at a meeting in order to organize a local board. One physician, who has complied with the laws of the State (and there can surely be found one who has the interest of his people at heart), together with the mayor of the county town, the chairman of the county commissioners and the town or county surveyor can constitute a county board of health, and elect a superintendent of health. Let, then, those counties, which have no local board of health, proceed to organize at once; it will not do to delay too long, for, as may be seen in another column, the terrible experiences of the last two or three years in the East are apt to be repeated this year, and the plague is reported already nearer than it has yet been to our own, hitherto, favored country. Government, in anticipation of the danger which will threaten us, has organized the revenue cutters into a coast patrol to guard us against vessels from infected ports; but we must be on our guard to blot out any case which may escape their vigilance.

At the recent annual meeting of the North Carolina Board of Health, held in New Bern, Dr. R. H. Lewis read before the conjoint session with the North Carolina Medical Society a paper on "Care of the Eyes and Ears in Children," which will soon be published in pamphlet form for distribution among the people of the State.

Summary of Reports from County Superintendents of Health for May, 1886.

Buncombe—Dr. W. L. Hilliard, Asheville. Acute bronchitis, measles, whooping-cough and r othelu have prevailed in city and different portions of county. Sanitary condition of county fairly good. Recent heavy rains have had quite a cleansing and salutary effect. Public buildings, especially jail and almshouse, in good condition.

Burke—Dr. J. L. Laxton, Morganton, reports four cases of measles and three of typhoid fever. Dysentery and diarrh ea have prevailed slightly. Has not been able to get the doctors to attend a meeting of the county board, and has had a report from only one. Jail and poor-house are in good condition— inmates well-fed, rooms clean and comfortable and well-ventilated.

Catauba—Dr. George H. West, Newton, reports fifteen cases measles, three whooping-cough and eleven typhoid fever. Bronchitis, dysentery and diarrh ea in Newton and vicinity. Three deaths from diarrh ea. The commissioners will either repair the present wooden building for poor-house, or will build a brick one this summer.

Chatham—Dr. John M. Manning, Pittsboro. No contagious diseases of any kind have prevailed. The sanitary condition of county was never better, and the small amount of sickness is unprecedented.

Cherokee—Dr. J. F. Abernathy, Murphy, reports no contagious diseases. The sanitary condition of county the best known for thirty years. There are no improvements going on except the destruction of the ailantus trees.

Cleveland—Dr. J. C. Gidney, Shelby. Measles and whooping-cough have prevailed. Sanitary condition of county good. Lacks the co-operation of the county physicians. The jail and poor-house are well-kept. Reports one death from dysentery and two from whooping-cough.

Columbus—Dr. Isaac Jackson, Whiteville, reports an epidemic of diarrh ea in many por-

tions of the county. There was never a healthier time in the county than now. Public buildings in good sanitary condition. No sickness among the inmates. Poor-house will soon be removed and a better and more commodious one erected.

Cumberland—W. C. McDuffie, Fayetteville, reports fifteen cases measles, thirty whooping-cough, four scarlatina and four typhoid fever, and bowel diseases in almost all portions. Very good sanitary regulations throughout county and public buildings in excellent condition.

Davidson—Dr. R. L. Payne, Jr., Lexington, reports one hundred cases whooping-cough, two scarlatina, five diphtheria and three typhoid fever. R othelu and whooping-cough have prevailed in nearly all portions of county. Apart from above-mentioned epidemic diseases (which, as far as he could learn, have not been fatal), the health of the county is good. Sanitary condition of jail and poor-house is good.

Durham—Dr. A. G. Carr, Durham. Dysentery has prevailed in county, town and surrounding country. In the town of Durham they are now doing their spring "cleaning up." He has been inspecting the town with a sanitary policeman, and thinks its condition will compare favorably with any place in the State. Public buildings in good sanitary condition. New building going up for better accommodations. There are thirteen prisoners in "house of correction."

Edgecombe—Dr. Julian M. Baker, Tarboro. No report.

Forsyth—Dr. D. N. Dalton, Winston, reports a good many cases whooping-cough, with a few complicated deaths. Sanitary condition of county good. No report the past month from a single physician. Work has been begun on a new jail.

Franklin—Dr. E. S. Foster, Louisburg. Whooping-cough has prevailed in different portions of county. The sanitary condition of county is good. Physicians will not co-operate. His efforts to get them to report have

been futile, but he will continue them. Public buildings in good condition.

Gaston—Dr. E. B. Holland, Dallas. Dysentery and malarial fever have prevailed to some extent. There has been an epidemic of cholera among fowls. Sanitary condition fair, both as regards county and public buildings.

Greene—Dr. W. C. Galloway, Snow Hill. Dysentery has prevailed throughout the county. Several truly malignant cases and some deaths. Sanitary condition of county pretty fair. The condition of public buildings is good. Efforts are being made to have poor-house removed to a more eligible location, and if this can be done, three neat and comfortable houses will be erected, which will be plastered and painted, and be constructed with a general view to health, convenience, etc.

Guilford—Dr. W. P. Beall, Greensboro. Measles and dysentery have been prevalent throughout the county. Physicians fail to report, but has heard of no serious sickness. County commissioners have agreed to fit up sick wards in poor-house and furnish a trained nurse as soon as one can be secured.

Henderson—J. L. Egerton, Hendersonville, reports general sanitary condition of county excellent. No diseases of a dangerous character have occurred. Every one looks to keeping his premises clean, and the county doctors keep a sharp eye after them. Both jail and poor-house are in good condition—neat and clean.

Iredell—Dr. M. W. Hill, Statesville, reports measles, whooping-cough, scarlatina, dysentery and diarrhoea in his county. The sanitary condition of poor-house is good. That of jail is not so good and cannot be unless some change in construction be made.

Johnston—Dr. J. G. Rose, Smithfield, reports dysentery in almost all portions of county. The health of county is for the most part good. Condition of public buildings moderately good. No improvements are being attempted except in cleaning the jail.

Jones—Dr. Rom. A. Whitaker, Trenton. Dysenteric troubles have prevailed through-

out the county. Sanitary condition very good. No serious sickness except one case pneumonia. The jail is one of the best in the State and kept in excellent condition. The buildings for the poor are not so good, but are fair.

Lenoir—Dr. F. M. Rountree, Kinston, reports sanitary condition of county very good, no contagious diseases having occurred. The condition of jail is very good, and the prisoners healthy.

Lincoln—Dr. J. M. Lawing, Lincolnton. Dysentery and cholera morbus have prevailed.

Macon—Dr. J. W. Lyle, Franklin, reports general sanitary condition good. No report on contagious diseases or public buildings.

Madison—James K. Hardwicke, Marshall. The general sanitary condition of county good. Fewer diseases than usual. No contagious diseases have occurred. Condition of public buildings good.

McDowell—Dr. J. H. Gilkey, Marion, reports four cases measles, one typhoid fever. General sanitary condition of county unusually good. That of public buildings is good and efforts at improvement are being made.

New Hanover—Dr. F. W. Potter, Wilmington, reports one case each of typhoid, pernicious malarial and hemorrhagic malarial fever and a great many of whooping-cough and German measles (röthelu). Sanitary condition of county good. One of the buildings connected with poor-house is being renovated and covered with tin. Estimates are being received for building a new jail. There are six prisoners confined in house of correction.

Northampton—Dr. V. S. McNider, Jackson. No report.

Onslow—Dr. W. J. Montford, Ward's Mill. Health of county continues excellent. No contagious diseases have occurred during May. There has been an epidemic of cholera among hogs. The condition of poor-house is good; of jail bad.

Pender—Dr. W. T. Ennett, Burgaw, reports fifty cases röthelu, fifty or more whooping-cough, four diphtheria, five hemorrhagic ma-

larial fever. Malarial fever has prevailed in the lowlands along river. There is great room for improvement in the sanitary condition of county and the commissioners promise every improvement necessary. The poor-house has just been opened. The building was not originally intended for this purpose, but is very comfortable and in a healthy and beautiful location.

Pitt—Dr. J. T. Sledge, Greenville. Several cases of whooping-cough have occurred, Dysentery has prevailed to a considerable extent. There has been an epidemic of hog cholera. Sanitary condition of poor-house is good. That of jail is not, owing to the disposition of excrementitious matter around the jail, in spite of efforts to stop it.

Richmond—Dr. J. M. Stansill, Rockingham. The sanitary condition of this section of the county is good. There has been a number of cases of dysentery of a mild type and a few cases of whooping-cough. The public buildings are in good sanitary condition.

Robeson—Dr. R. F. Lewis, Lumberton. Sanitary condition of county good, no contagious diseases having occurred, save a few cases of whooping-cough. Public buildings are in good condition.

Rowan—Dr. J. J. Summerell, Salisbury. There has been good health in most of the county, except along the river, where pneumonia has been prevalent. Many cases of whooping-cough and some of typhoid fever have occurred, and bowel complaints among children are beginning to appear. The jail and poor-house are fairly kept and are now in good condition.

Rutherford—Dr. E. B. Harris, Rutherfordton, reports no contagious diseases in his own practice, and has had no report from other physicians. The county is in pretty good sanitary condition, also the public buildings.

Sampson—Dr. Jas. A. Stevens, Clinton, says: "The health of our people has been unusu-

ally good this month. Malarial fevers, diarrhoea and dysentery have been the prevailing diseases during May. The jail and poor-house are in good condition. There are two prisoners confined in house of correction."

Tyrrell—Dr. Ab. Alexander, Columbia, reports twelve cases measles and six typhoid fever. The sanitary condition of county is improving. We have very little sickness. The county commissioners are having a new jail erected.

Union—Dr. W. C. Ramsay, Monroe. No contagious diseases have occurred. Diarrhoea in a mild form has prevailed to a slight extent.

Vance—Dr. John C. Jacobs, Henderson, reports one case of typhoid fever. He says the "sanitary condition of the county is good, as evidenced by the health of the people, there having been only six deaths during the month of May."

Wake—Dr. Jas. McKee, Raleigh. No report.

Warren—Dr. P. J. Macon, Warrenton, reports "a few cases of typhoid fever." Diarrhoea, dysentery and malaria have prevailed throughout the county. The jail and poor-house are first-class—disinfected often—plenty of space, and never crowded.

Watauga—Dr. W. B. Council, Boone. Ten cases of measles, fifty of whooping-cough and one typhoid fever have occurred. The county is in good sanitary condition, and there is very little sickness of any kind. The poor-house in good condition, but need a new jail and hope to get the county authorities to build one this year.

Wayne—Dr. James Spicer, Goldsboro, reports no contagious diseases as having occurred in May. Diarrhoea and dysentery have prevailed. Thinks in a few months the condition of jail will be improved.

Wilson—Dr. A. D. Moore, Wilson. No report.

Municipal Sanitation.

It is the duty of town authorities to protect the citizens not only from the attacks of lawless and predatory individuals, but also from the ravages of disease-breeding nuisances. And further, it is not enough for the town to wait until the existence of such nuisance has shown itself through its injurious effects and then proceed to its removal, but action should be preventive and not merely curative. In the exercise of authority in such matters individual and municipal rights are apparently very often conflicting. Thus the individual may hold that he has a perfect right to retain and make use of a leaking and filthy cess-pool which is remote from any but his own well and which is not recognized as a nuisance by neighbors. But it is an undoubted fact that with certain character of soil and of water flow, filthy and disease-breeding fluids will be transported from such a center much farther than the ordinary individual would imagine and will contaminate water without the fact being detected by the taste. Also, the occupant of the house is not the sole user of the water of his own well. His servants, his neighbors, his very guests, may become innocent victims of his blind disregard of consequences. Further, what is allowed one must be allowed all, and the inevitable consequence is a town riddled with cess-pools and a soil saturated with filth. And so with other details of sanitation.

But in many connections the authority of the town in insisting upon sanitary precautions is undisputed. Thus with regard to the drinking water, plumbing, drainage and ventilation of hotels and other public buildings and resorts, it should have perfect right and power to dictate. It is clearly its duty to locate and build public wells or other means of water supply with every regard to public health and the same with relation to public disposal of sewage.

It is the custom, frequently, in small towns which have no sewerage system, for individ-

uals to lay short lines of pipe to carry sewage from a single house or from a number of houses to some adjoining small stream. No such work should be allowed in any town without plans of the work having first been submitted to the proper authorities. And these plans should contain full information as to location, materials to be used, method of construction and point of outlet, which should all be approved by the town before the work is allowed to be begun, and the town should further see that the plans are carried out. It is highly desirable that small towns which are not at the time prepared to introduce a sewerage system, but which contemplate having one ultimately, should have a plan of sewerage prepared, so that any such private lines of pipe as may be laid be made to conform to the general ultimate plan and need not be disturbed at a later date.

A. W.

Owing to an increased subscription list, the last issue of the BULLETIN fell short and a few who were receiving complimentary copies did not receive the May number. This will not occur again, however, and new subscribers will not be able to get back numbers, but their subscription will begin from the date it is received.

As the BULLETIN is published for the information and instruction of the people, it should be in every family in the State, and the price (50 cents a year) is so small as to put it within the reach of all. Let those who now receive it show it to their friends and induce them to subscribe, and in that way, by increasing our printing fund, we will be able to give more room to those things which would interest the people, and so the BULLETIN will grow in usefulness.

The New Orleans Auxiliary Sanitary Association is doing good work in flushing the streets and gutters with river-water, which, besides carrying away filth, reduces temperature. In consequence of the sanitary precautions of this Association the health of the city is steadily rising in the scale, and the death-rate has been correspondingly reduced.—*Medical Times.*

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	30	542	15	24	30	672	20	15
Burket								
Cabarrus*								
Caldwell*								
Camden*								
Carteret*								
Caswell*								
Catawba	1	4,800	0	1	20	300	8	12
Chatham	3	5,206	2	2	41	714	12	14
Cherokee	2				3			
Chowan*								
Clay*								
Cleveland	4	688	0		28	1,368	0	
Columbus	5	3,325		3	7	729		0
Craven*								
Cumberland	3	1,000	2	1	20	800	16	6
Currituck*								
Dare*								
Davidson	7	1,563			18	720		
Davie*								
Duplin*								
Durham	7	1,143			17			
Edgecombe†								
Forsyth	5	1,497	5	2	14	Ample.	4	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					5		0	2
Perquimans*								
Person*								
Pitt†.....								
Polk*								
Randolph*								
Richmond.....	11	877	4	6	10	1,650	1	1
Robeson.....	6	1,150			10	720		
Rockingham*								
Rowan.....	2				20			
Rutherford.....	3	2,280			24	1,080	9	8
Sampson.....	2	3,722	0	1	12	548	4	2
Stanly*.....								
Stokes*								
Surry*.....								
Swain*								
Transylvania*								
Tyrrell.....	0	0	0	0	3	3,300	0	1
Union.....	6				15			
Vance‡.....								
Wake†.....								
Warren.....	10	1,058		0	11	3,012		1
Washington*.....								
Watauga.....	1				8			
Wayne.....	15	97			3	1,650		
Wilkes.....								
Wilson.....								
Yadkin.....								
Yancey.....								
Totals.....	215		44	56	483		137	80

*Have no Superintendent of Health. †Superintendent made no report. ‡Have no jail or poor-house.

Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.					Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		Total rainfall, including hail, snow and sleet (in inches).
Smithville.....	70.2	84.0	15	45.1	2	38.9	.....	25.1	3	5.1	17	18	10	3	11	1.46	S. W.
Hatteras*.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knoxville(Tenn.)	66.8	88.5	13	43.7	3	44.8	20.6	32.7	9	5.3	7	7	20	4	14	4.92	W.
Charlotte.....	68.3	92.0	13	45.0	1	47.0	21.5	30.4	*a	6.1	18	6	18	7	9	11.04	S. W.
Fort Macon.....	68.1	78.8	28	47.4	2	31.4	.....	20.8	3	5.2	31	14	13	4	10	2.33	S. W.
Lynchburg (Va.)	65.6	91.1	13	45.2	*b	45.9	21.3	36.5	.....	6.2	.....	7	18	6	16	6.74	N. W.
Wake Forest.....	68.0	91.0	13	45.2	26	45.8	.....	.....	.....	.....	.....	.....	.....	.....	12	3.87	S. W.
Kitty Hawk.....	63.9	84.9	24	45.0	2	39.9	15.2	27.6	4	5.0	*c	10	15	6	10	7.27	S. W.
Wilmington.....	70.2	93.8	13	47.2	2	46.6	18.5	27.9	15	10.7	20	11	16	4	10	1.18	S. W.
Average.....	67.6	88.0	.....	45.5	.....	42.5	19.4	28.7	.....	6.2	.....	10	16	5	12	4.85	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	29.938	30.264	8	29.602	1	.662
Hatteras*.....	.....	.....	.....	.....	.....	.....
Knoxville, (Tenn.).....	29.972	30.220	17	29.600	7	.620
Charlotte.....	29.951	30.254	17	29.578	7	.676
Fort Macon.....	29.946	30.289	18	29.504	1	.785
Lynchburg, (Va.).....	29.992	30.289	18	29.548	7	.741
Wake Forest.....	30.063	30.404	18	29.705	7	.699
Kitty Hawk.....	29.946	30.368	18	29.477	1	.891
Wilmington.....	29.957	30.278	18	29.606	1	.672
Average.....	29.971	30.296	.....	29.578	.....	.718

*No report.
 *a 3 and 27.
 *b 17 and 26.
 *c 3 and 17.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

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THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. I.

JULY, 1886.

No. 4.

Summary of Reports from County Superintendents of Health for June, 1886.

Buncombe—Dr. W. L. Hilliard, Asheville. Twenty cases of whooping-cough and two of pernicious malarial fever, with diarrhoea and dysentery prevailing in city and different portions of county. Sanitary condition of county fairly good. We have continued wet weather, unfavorable to health and farming interests. Sanitary condition of jail and poor-house is especially good. An appropriation of \$100,000.00 has been recently made for supplying the city with water, lights, drainage, etc.

Burke—Dr. J. L. Laxton, Morganton. Five cases measles and one typhoid fever. Dysentery is prevalent in the eastern portion of county with several deaths, but can get no definite information, having had a report from only *one* physician in the county. The jail and poor-house are well ventilated, and the prisoners supplied with good water and food in sufficient quantity.

Cabarrus—Dr. Robert S. Young, Concord. Dysentery, diarrhoea and malaria to a slight extent have prevailed. Twelve cases typhoid fever and an epidemic (300 cases) of whooping-cough have occurred. The condition of jail has been extremely bad, but, since we are provided with a magnificent system of water-works, it will be greatly improved. Our commissioners have erected at the poor-house a nice hospital building, consisting of four large and well ventilated rooms. Only the sick are ever sent to this hospital, which is not only a great convenience to me but a blessing to the poor. Let me beg all the Superintendents of Health of sister counties to insist upon the erection of a suitable building for hospital purposes at their poor-house or some other point.

Catawba—Dr. George H. West, Newton. Twenty-eight cases typhoid fever with dysentery and diarrhoea prevailing in Newton and vicinity. There has been some work done on streets and the condition of the town is good. Reports from four physicians show over 200

cases of dysentery but of a mild type, the mortality being small. The commissioners are having the jail repaired and put in good condition.

Chatham—Dr. Jno. M. Manning, Pittsboro. No contagious diseases have occurred. Dysentery, diarrhoea and malarial diseases have prevailed in many portions of county. The sanitary condition of county is not as good as heretofore owing to the continuous rain. The public buildings are in good condition.

Cherokee—Dr. J. F. Abernathy, Murphy. There has been an epidemic of rubeola and a few cases of pneumonia among children. With these exceptions the health of our people is very good. The space in poor-house is not sufficient for the number of inmates (5), but an effort will be made at the meeting of the commissioners to have an addition built.

Cleveland—Dr. J. C. Gidney, Shelby. Measles, whooping-cough and dysentery in a mild form have prevailed all through the county.

Columbus—Dr. I. Jackson, Whiteville. The sanitary condition of county was never better. An occasional case of malarial fever and some cases of diarrhoea are reported, but no deaths. The jail and poor-house are in good sanitary condition and a new poor-house will be built in the near future.

Cumberland—Dr. W. C. McDuffie, Fayetteville. Six cases of measles, twelve of whooping-cough and six of typhoid fever have been reported; and an epidemic of hog cholera and meningitis among cattle. Sanitary condition of county would be excellent, but that many heavy rains have filled up ditches, etc., to a great extent. No sickness caused yet. Public buildings in good condition.

Davidson—Dr. R. L. Payne, jr., Lexington. Fifty cases of whooping-cough, six typhoid fever and five pernicious malarial fever have occurred. Whooping-cough and dysentery have prevailed in nearly all portions. Apart from this the health of county has been good. I have just succeeded in instituting a sanitary police of county town, which is suppressing many nuisances. The condition of public

buildings is good. An effort is being made (with promise of success) to secure a nurse for the poor-house and to give a more varied dietary. The present diet (fat bacon, flour and coffee) is unsuited for the majority of these broken down subjects.

Durham—Dr. A. G. Carr, Durham. One case of scarlatina and several of German measles have occurred. Dysentery has prevailed throughout the county, but is now subsiding. We are always on the watch for filth, lack of drainage, etc. When our system of water-works is completed, we will be able to have better drainage.

Edgecombe—Dr. Julian M. Baker, Tarboro. Sanitary condition of county good—no cases of contagious diseases to report. There has been an epidemic of cholera among chickens and hogs.

Forsyth—Dr. D. N. Dalton, Winston. Several cases of whooping-cough have prevailed. Pertussis with dysentery and bowel troubles seem to have prevailed throughout county; but *not one* physician has reported. Sanitary condition of poor-house is good. Jail is rapidly approaching completion.

Franklin—Dr. E. S. Foster, Louisburg. One case each of pernicious and hemorrhagic malarial fever has been reported. No epidemic has prevailed. There have been several cases of pneumonia of a mild type—an unusual thing. No reports from county physicians. Sanitary condition of public buildings is very good.

Gaston—Dr. E. B. Holland, Dallas. Two cases of pernicious malarial fever have occurred. Dysentery and malarial fever have prevailed. Sanitary condition of county and public buildings is fair. No improvements.

Greene—Dr. W. C. Galloway, Snow Hill. Epidemic dysentery, truly malignant in some cases, has prevailed throughout county. We are endeavoring to have poor-house moved to a better location and constructed on a better and more healthy plan.

Guilford—No report received.

Henderson—Dr. J. L. Egerton, Hendersonville. The sanitary condition of county is reasonably "fair," no contagious diseases having occurred. Condition of public buildings is "fair."

Iredell—Dr. M. W. Hill, Statesville. Twenty cases of whooping-cough and one of typhoid fever have been reported. Dysentery has prevailed to some extent. Condition of poor-house is good—that of jail not so good owing to unscientific construction, but there is little or no sickness among the inmates.

Johnston—Dr. J. G. Rose, Smithfield. Two cases hemorrhagic, four of pernicious malarial, ten typhoid fever and seventy-five of measles have been reported. Dysentery and whooping-cough prevailed in almost all parts of county. Condition of county is good except in those portions affected by malaria. The sanitary condition of jail has been much improved since last report and is now perfect. Prisoners all healthy. Poor-house is in good condition and well kept.

Jones—Dr. Rom. A. Whitaker, Trenton. Sanitary condition of county is good, only one case typhoid fever being reported. I learn that whooping-cough has prevailed in the lower part of county, but to what extent I cannot state, as I have had no report from that section.

Lenoir—Dr. F. M. Rountree, Kinston. Two cases pernicious malarial fever have been reported. Sanitary condition of county is good. We have some defective drainage in the town, but it is being repaired as fast as the limited resources of the town will permit. Condition of jail is good—no sick this month.

Lincoln—Dr. J. M. Lawing, Lincolnton. Several cases of measles have been reported. Much damage has been done this month by overflows caused by the continuous heavy rains. Probably one-half the wheat crop is destroyed. The public buildings in this county do not present an attractive appearance. The poor-house is a small wooden structure built on a very cheap plan.

Madison—Dr. Jas. K. Hardwicke, Marshall.

The sanitary condition of county is better than it has been for same period in ten years. There has been reported only one case typhoid fever. Condition of jail and poor-house is good.

McDowell—Dr. J. H. Gilkey, Marion. Twenty cases measles and one typhoid fever have been reported. There is considerable sickness in the county caused by the incessant rains and eating unhealthy fruits and vegetables. We had an epidemic of rōthelu immediately preceding the regular measles. Sanitary condition of public buildings is good and we shall try and keep it so.

New Hanover—Dr. F. W. Potter, Wilmington. One case of rhemorrhagic malarial, two of typhoid fever, two of diphtheria and many of whooping-cough and measles have been reported. Sanitary condition fair. A general epidemic of whooping-cough of a most violent and fatal character has prevailed, but is now subsiding. Poor-house and house of correction are in good sanitary condition. The contract for building a new jail on the site of the old one has been awarded.

Northampton—Dr. V. S. McNider, Jackson. There has been one case of diphtheria and much dysentery generally throughout the county. In the Roanoke river valley much malarial fever has occurred, caused, doubtless, by the heavy freshets covering rank vegetation, and subsiding, and leaving the residue to rot in the hot sun. Poor-house in good condition and the inmates comparatively healthy.

Onslow—Dr. Wm. Montford, Ward's Mill. Health of county good. No contagious diseases have occurred. There has been an epidemic of cholera among hogs. Poor-house in good condition. Jail in bad condition. The prisoners are now all sick, owing to the damp, and I may say *wet*, condition of jail.

Pender—Dr. W. T. Ennett, Burgaw. Six cases of typhoid fever and a few of pernicious malarial fever and whooping-cough have been reported. Sanitary condition of county not as good as it should be, owing to the extreme

wet weather. Have had as high as four inches of water fall in twenty-four hours. The poor-house is in good condition and is being improved by the commissioners in every possible way.

Pitt—Dr. J. T. Sledge, Greenville. No contagious diseases have occurred. Sanitary condition of county good. Dysentery is still prevailing to a certain extent. Public buildings in good sanitary condition.

Richmond—Dr. J. M. Stansill, Rockingham. One case typhoid fever in Rockingham. Dysentery of a severe type has prevailed in this section. Some deaths have resulted. Typhoid fever is reported in Laurinburg but I have had no reports from physicians in that section. Public buildings in good sanitary condition.

Robeson—Dr. R. F. Lewis, Lumberton. One case of typhoid fever and some whooping-cough have been reported. There has been an epidemic of cholera among swine in most parts of county. Sanitary condition of county fair. Hardly a day has passed during the month without a heavy rain fall. The streams are all overflowed. Public buildings in good condition.

Rowan—Dr. J. J. Summerell, Salisbury. Bowel complaint and whooping-cough have prevailed in nearly all portions. Heavy rains, high water and constant humidity of the atmosphere operate against the sanitary condition of the county. Intermittent fevers have begun rather earlier than usual. Dysentery, in some cases fatal, has appeared in some neighborhoods.

Rutherford—Dr. E. B. Harris, Rutherfordton. Five cases measles and fifteen dysentery have occurred. Murrain has prevailed in western portion of county. Sanitary condition good. Sixteen days of rain. Condition of public buildings very good indeed.

Sampson—Dr. J. A. Stevens, Clinton. The sanitary condition of county is not very good. Malarial fevers are quite common, and a few cases of typhoid. Dysentery and diarrhœa prevail throughout the county and whooping-

cough in upper portions. Condition of public buildings good. For the first time in twenty years there are no prisoners confined in county jail.

Tyrrrell—Dr. Ab. Alexander, Columbia. No report.

Union—Dr. W. C. Ramsay, Monroe. Diarrhœa and dysentery have prevailed to some extent. No contagious diseases have occurred.

Vance—Dr. John C. Jacobs, Henderson. Two cases scarlatina have occurred. No epidemic of any kind.

Wake—Dr. James McKee, Raleigh. No report.

Warren—Dr. P. J. Macon, Warrenton. Three cases of typhoid fever reported. Dysentery and entero-colitis have prevailed, with very fatal results in some sections. I attribute the cause to fruit, vegetables and so much rain, with hot days and cool nights. The condition of public buildings is good—construction perfect.

Watauga—Dr. W. B. Councill, Boone. Whooping-cough of a very mild form has prevailed in some parts of county—no deaths. Sanitary condition of county is good. That of poor-house is good. Of jail, not good: and no effort has been made to improve the old or build a new one.

Wayne—Dr. Jas. Spicer, Goldsboro. Sanitary condition of county good. No contagious diseases have occurred. Dysentery has prevailed in all portions of county. Condition of public buildings good, except jail.

Wilson—Dr. A. D. Moore, Wilson. No report.

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The Average Well-Water.

It is a common belief that when a well is dug pure spring water, oozing from the ground, is obtained; that is true in the case of artesian wells, but, although possible, is rarely the case in ordinary surface wells, and under this name are embraced all wells not more than fifty feet deep. The water obtained from these wells is merely the water which

has fallen on the surface of the ground in rains, and has percolated the soil and becomes collected in this excavation. It is called ground-water. Even granting that some of the water may be spring water, some of it must be the result of drainage, and the amount of this will depend upon the rain-fall and the character of the soil. A moment's reflection will show that wells must act as drains to the surrounding soil. Just as a wet field may be dried by digging one or more trenches, into which the soil may drain and be carried away, so when a deep trench or well is dug the water from the surrounding soil will necessarily tend to drain into it. This is not only a matter of reasoning but a matter of experience. The following case is reported: "In consequence of the escape of the contents of a barrel of petroleum or benzine, which had been buried in an orchard, a circuit of wells 60 feet below and 250 or 300 yards distant became so affected that the occupiers of fifteen houses, containing eighty-two inhabitants, were for ten days unable to use the water for cooking or drinking." When wells are first dug in rural districts, the water is pure and may remain so for a long time. Fortunately the soil possesses some power of purification, and although the water may receive polluting matter on the surface of the ground, some of this matter is detained mechanically by filtration, and other portions may be decomposed and taken up by growing plants and trees. But this power of the soil is limited. When the sources of pollution are constant and numerous, as in cities, from privies, cess-pools, slop-water, offal and the manure of domestic animals, and sometimes from leaky and imperfect sewers and drains, the soil becomes "filth sodden," and the filth is carried deeper and deeper, until finally it appears in our drinking water. Sanitary literature is full of instances of the outbreaks of epidemics of diarrhœas, typhoid fever and cholera, which have been traced to the drinking of well-water thus polluted; and even though the city may go through one or more years without such

epidemics, it is not a pleasant thought for the inhabitants to indulge in: that they are drinking the drainage of their privies and cess-pools, and yet they must realize the idea that their wells are and must be drains for the surrounding grounds with all its contents that are capable of solution in water. Science cannot tell us that a given water is charged with the poison of a definite disease, but it can tell us that it has received the products of decaying matter from animal sources, and experience has shown, again and again, that such water is dangerous to health.—*Dr. E. J. Marsh in the Sanitary Monitor.*

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Fine for Delinquency in sending in Monthly Reports.

Section eight of the act relating to the Board of Health requires County Superintendents of Health to make reports to the Secretary of the State Board by the 10th of each month, for the month preceding, and a failure to do this "shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health.

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Sanitary Engineering.

This is the third edition of this valuable little work edited by Professor William Cain, C. E., former member of the North Carolina Board of Health. It has been considerably enlarged and treats in an interesting and intelligible manner of drainage, ventilation, water supply, sewerage, etc. It is intended as a guide for small cities, towns and families wishing to improve their sanitary condition, and we can recommend it as meeting in a concise and very practical way the object for which it was written. It can be had, free of cost, on application to the Secretary of the State Board of Health at Wilmington.

The Great Question of the Day.

The late Dr. Samuel D. Gross, the father of American surgery, used the following words in an address delivered at the dedication of the McDowell monument:

"Young men of America, listen to the voice of one who has grown old in his profession, and will probably never address you again, as he utters a parting word of advice.

"The great question of the day is not this operation or that, not ovariectomy or lithotomy, or a hip-joint amputation, which have reflected so much glory upon American medicine, but preventive medicine, the hygiene of our persons, our dwellings, our streets; in a word, our surroundings, whatever or wherever they may be, whether in city, town, hamlet, or country, and the establishment of efficient town and State boards of health, through whose agency we shall be more able to prevent the origin and fatal effects of what are known as the zymotic or preventable diseases which carry so much woe and sorrow into our families, and often sweep like hurricanes over the earth, destroying millions of human lives in an incredibly short time.

"The day has arrived when the people must be roused to a deeper and more earnest sense of the people's welfare, and suitable measures adopted for the protection as well as for the better development of their physical, moral and intellectual powers. This is the great problem of the day, the question which

you, as the representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow-citizens; the question which, above and beyond all others, should engage your most serious thoughts and elicit your earnest co-operation.

"When this great object shall be obtained; when man shall be able to prevent disease, and to reach, with little or no suffering, his three-score years and ten, so graphically described by the Psalmist, then, and not until then, will the world be a paradise."—*Scientific American*.

Many millions of dollars are annually lost to the country by disease and death occurring which could have been prevented; for this reason this question should be held to be of the greatest practical importance, not only by the medical fraternity, but by the political economist and legislator. Thousands of dollars are spent year after year for the amelioration of disease after it has attacked the patient. If a small proportion were properly expended in carrying out preventive measures, the result would be of great benefit to the poorer classes.—*Extract from Dr. W. H. Newell's Prize Essay in the Sanitary Monitor*.

Cabarrus county has organized a Board of Health, and the Superintendent of Health, Dr. Robt. S. Young, of Concord, sends in a full report this month. We hope others, at present having no local board, may soon follow suit.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	25	650	18	20	26	775	20	18
Burke	3				9			
Cabarrus	4	1,256	0	4	13	1,665	4	6
Caldwell*								
Camden*								
Carteret*								
Caswell*								
Catawba	2	2,400	1	0	20	350	8	12
Chatham	2	7,810	1		42	714	30	
Cherokee	2				5			
Chowan*								
Clay*								
Cleveland	5	3,856	0	2	27	714		
Columbus	6	2,772		5	6	729		0
Craven*								
Cumberland	6	800	2	3	18	800	12	6
Currituck*								
Dare*								
Davidson	7	1,563		2	20	720		5
Davie*								
Duplin*								
Durham	6	1,683	1	1	13		3	3
Edgecombe	9	763		2	19	4,168		1
Forsyth	5	1,497	5	2	14		4	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					8		0	4
Perquimans*.....								
Person*.....								
Pitt.....	7	500			18	300		
Polk*.....								
Randolph*.....								
Richmond.....	7	1,378	3	4	10	1,650	1	1
Robeson.....	5	1,200		2	10	720		0
Rockingham*.....								
Rowan.....	5		1	2	20			
Rutherford.....	6	1,140			24	1,080	9	8
Sampson.....	0	0	0	0	20	1,319		4
Stanly*.....								
Stokes*.....								
Surry*.....								
Swain*.....								
Transylvania*.....								
Tyrrell†.....								
Union†.....								
Vance†.....								
Wake†.....								
Warren.....	10	1,058			12	2,750		
Washington*.....								
Watauga.....	0	0	0	0	9		0	0
Wayne.....	23	63	10	9	5	1,650	2	1
Wilkes*.....								
Wilson†.....								
Yadkin*.....								
Yancey*.....								
Totals.....	210		65	82	483		147	94

*No County Board of Health. †Supt. sent in no report on public buildings. ‡No jail or poor-house in county.

Meteorological Report.

STATIONS.	TEMPERATURE.											NO. DAYS.					
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Smithville.....	76.0	86.6	17	59.0	20	27.6	.....	17.8	18	6.9	21	7	16	7	15	3.68	S. W.
Hatteras*.....																	
Knoxville(Tenn.)	71.5	91.2	12	55.0	19	36.2	16.5	27.2	12	9.4	14	4	12	14	17	4.62	S. W.
Charlotte	72.1	89.7	13	56.6	5	33.1	18.0	25.9	26	9.0	6	5	11	14	18	11.04	S. W.
Fort Macon*																	
Lynchburg (Va.)	70.5	88.3	13	52.4	5	35.9	16.9	24.7	.....	8.1	.....	4	13	13	18	8.48	N. E.
Wake Forest*.....																	
Kitty Hawk*																	
Wilmington	75.3	92.2	11	56.3	20	35.9	15.8	25.9	.....	6.6	.....	5	13	12	16	8.81	S. W.
Chapel Hill	75.3	93.0	17	53.0	20	40.0	19.3	30.0	12	.....	.....	9	10	11	12	6.22	W. S. W.
Average.....	73.5	90.1		55.4		34.8	17.3	25.2		8.0		6	12	12	16	7.14	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	29.947	30.155	20	29.711	18	.444
Hatteras*.....						
Knoxville, (Tenn.).....	29.969	30.111	26	29.757	22	.354
Charlotte	29.958	30.168	20	29.705	17	.463
Fort Macon*.....						
Lynchburg, (Va.).....	29.955	30.218	20	29.639	17	.579
Wake Forest*.....						
Kitty Hawk*.....						
Wilmington.....	29.967	30.188	20	29.732	18	.456
Chapel Hill.....	29.955	30.207	20	29.689	17	.518
Average.....	29.958	30.175		29.705		.469

*No report.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

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VOL. I.

AUGUST, 1886.

No. 5.

Summary of Reports from County Superintendents of Health for July, 1886.

Buncombe—Dr. W. L. Hilliard, Asheville. The sanitary condition of county is pretty good. Three cases of typhoid fever have occurred and cholera-morbus, diarrhœa, dysentery and whooping-cough have prevailed over county generally. The return of fair weather has brightened the prospect for good crops and cheered the heart of the farmer. Public buildings are all in very good sanitary condition. A large number of workmen are daily employed in repairing and cleaning streets. We expect soon to have quite a respectable looking and smelling little city.

Burke—Dr. J. L. Laxton, Morganton. Six cases of measles have occurred. There has been an epidemic of hog cholera in several localities. The sanitary condition of jail and poor-house is good. Only one physician (Dr. Moran) reports to me.

Cabarrus—Dr. R. S. Young, Concord. Ten cases of typhoid fever have occurred. Whooping-cough has prevailed throughout the county. It would be impossible to give the number of

cases. It is of a light form, however, none having, as yet, proved fatal. Jail is now supplied with water from water-works, and is in good sanitary condition. Not one physician has reported to me for last month.

Catawba—Dr. George H. West, Newton. Four cases of diphtheria, thirty-nine of typhoid, and two of pernicious malarial fever have occurred. Dysentery and typhoid fever have prevailed throughout county. There has been and still is going on, work on the streets of Newton, repairing damage caused by recent heavy rains. The sanitary condition of town is good, better than it has ever been, thanks to an efficient sanitary committee, who inspect back lots and privies every two weeks. There is less sickness in Newton than I ever knew. The jail is in splendid condition. The sewerage is nearly completed, the walls have all been calcimined, all wood work painted, and new floors laid. There has not been a case of continued sickness in jail this year.

Chatham—Dr. John M. Manning, Pittsboro. Dysentery, typho-malarial and intermittent fever have prevailed in many portions of

county. There has been an epidemic of cholera among domestic animals. The sanitary condition of county needs improvement. That of public buildings is very good.

Cherokee—Dr. J. F. Abernathy, Murphy. The sanitary condition of county is not good. Flux made its appearance in this county last month. There have occurred about sixty cases, with six deaths, mostly children. Twelve cases of pneumonia, with no deaths, have been reported. Extreme heat and heavy rains have prevailed. There has been an epidemic of quinsy among hogs and gaps among poultry.

Cleveland—Dr. J. C. Gidney, Shelby. A few cases of measles and one of typhoid fever have occurred. Whooping-cough is subsiding.

Columbus—Dr. I. Jackson, Whiteville. No disease of a dangerous nature has occurred except one of typhoid fever. The sanitary condition of county is better than it has been for years at this season. Public buildings are in good sanitary condition.

Cumberland—Dr. W. C. McDuffie, Fayetteville. There have occurred about one hundred cases of whooping-cough and perhaps forty of typhoid fever. Little or no fatality. There has been an epidemic of hog cholera. We have as good or better sanitary surroundings than ever before, especially in town. The unprecedented rain-fall in June and July affected the rural districts (where drainage was deficient) more seriously than it did the town. The public buildings are in excellent condition. The grand jury was very complimentary in their report on poor-house, but found fault with two cells of jail because they had not been recently whitewashed, &c.

Davidson—Dr. R. L. Payne, Jr., Lexington. There have occurred eleven cases scarlatina, ten diphtheria, fifteen typhoid fever, and five pernicious malarial fever. Whooping-cough has prevailed in all portions of county, about 150 cases having been reported. Malaria is unusually rife. There has been an epidemic of cholera among poultry. The food served the inmates of poor-house is unsuitable.

Durham—Dr. A. G. Carr, Durham. Some whooping-cough and typhoid fever have oc-

curred. Typho-malarial fever has prevailed in many portions of county. The county is in good sanitary condition. Think there is comparatively little sickness. The condition of public buildings is fair. The mayor has issued a circular calling on every one to clean up lots and remove filth. Work-house hands are hired out to neighboring farmers, so I do not know whether they are vaccinated or whether they can read or write.

Edgecombe—Dr. Julian M. Baker, Tarboro. No report.

Forsyth—Dr. D. N. Dalton, Winston. There has been an epidemic of whooping-cough throughout the county, and a number of cases of typhoid fever has occurred. The sanitary condition of county is good. A new sanitary police has been created, and we hope to be benefited much thereby. The sanitary condition of public buildings is pretty good.

Franklin—Dr. E. S. Foster, Louisburg. No contagious diseases have occurred. As far as I can learn, the health of county has been exceptionally good. The sanitary condition of jail and poor-house first-rate.

Gaston—Dr. E. B. Holland, Dallas. Malarial fever has prevailed to some extent. The sanitary condition of county is fair. The condition of public buildings has not been improved. That of jail is bad.

Greene—Dr. W. C. Galloway, Snow Hill. Three cases of whooping-cough and four of pernicious malarial fever have been reported. Dysentery has prevailed generally in county. General sanitary condition of county tolerably good. Our town has been put in first-rate order. Remittent fever has been unusually prevalent in my own section. Some cases pernicious. Public buildings are well kept and in good order generally.

Guilford—Dr. Ed. Lindsay, Greensboro. No report.

Henderson—Dr. J. L. Egerton, Hendersonville. No contagious diseases have occurred. Sanitary condition of public buildings good.

Iredell—Dr. M. W. Hill, Statesville. I have heard of a few cases of typhoid fever, and there has been some whooping-cough and

scarlatina in the country. The poor-house and surroundings are clean and well kept. No sickness. The sanitary condition of jail is not so good. Not so well constructed or kept. Still there is no sickness.

Johnston—Dr. J. G. Rose, Smithfield. Sanitary condition of county good. Twenty-five cases of whooping-cough and ten typhoid fever reported.

Jones—Dr. R. A. Whitaker, Trenton. Ten cases of whooping-cough and one pernicious malarial fever have occurred. The sanitary condition of county is not so good as last month. Have had a good many cases of malarial troubles, especially along the river. Whooping-cough has prevailed in lower part of county.

Lenoir—Dr. F. M. Rountree, Kinston. Thirteen cases of whooping-cough, two hemorrhagic malarial, three pernicious malarial, and five typhoid fever have occurred. There has been an epidemic of cholera among hogs and poultry. The county is in good sanitary condition. The condition of jail is as good as we can get it. No case of disease was reported to me in July. The town is now very healthy, and the commissioners are still at work on the sewers.

Lincoln—Dr. J. M. Lawing, Lincolnton. Four cases of typhoid fever and some measles have been reported. There has been but little sickness in the county during the month of July. The town of Lincolnton is in good sanitary condition, the streets are clean and present a nice appearance, and for many reasons, I can recommend it to health-seekers. Public buildings are in good sanitary condition, but could be improved in construction, but no efforts are being made in this direction.

Macon—Dr. J. M. Lyle, Franklin. Three cases of measles and one of typhoid fever have occurred. The sanitary condition of county was never better. The death rate for past eight months is lower than ever known to the oldest inhabitant. Public buildings in good sanitary condition.

Madison—Dr. J. K. Hardwicke, Marshall. Cholera-morbus has prevailed in some portions

of county, one death resulting. Weather cool, healthful and pleasant. One case of typhoid fever reported. Public buildings in good sanitary condition.

McDowell—Dr. J. H. Gilkey, Marion. Twenty cases of measles reported. Diarrhea and dysentery have prevailed in many portions. The epidemic of dysentery has been very hard to control, and a number of cases have proved fatal. Sanitary condition of jail good; of poor-house bad on account of the old and dilapidated buildings, which it is impossible to keep clean and healthful. Efforts will be made to get new and better houses constructed for the poor.

New Hanover—Dr. F. W. Potter, Wilming-ton. Four cases whooping-cough, seven scarlatina, two typhoid and eight pernicious malarial fever reported. I learn of no special epidemic from heavy rains, as was feared. A few cases of diarrhoea have occurred. Sanitary condition of public buildings good.

Northampton—Dr. V. S. McNider, Jackson. No report.

Onslow—Dr. W. J. Montford, Ward's Mill. Health of county continues good. Some whooping-cough and some sickness of a bilious remittent character have occurred. Jail in bad condition; poor-house in good.

Pender—Dr. W. T. Ennett, Burgaw. Twenty-seven cases whooping-cough, three typhoid fever and thirty-six pernicious malarial fever reported. Malarial fevers have prevailed in eastern sections of county. Since the recent heavy rains, the condition of county in swampy sections was alarming for a few days, but ponds have been drained and the last rains have washed them out, so I think the health of county will be better. The temporary poor-house is kept as neat and clean as possible.

Pitt—Dr. J. T. Sledge, Greenville. No report.

Richmond—Dr. J. M. Stansill, Rockingham. Seven cases of typhoid fever have occurred. The health of the county is moderately good, very little sickness in the country. The sanitary condition of jail is good; that of poor-

house not so good, having had three cases of typho-malarial fever among the inmates during the month—all improving.

Robeson—Dr. R. F. Lewis, Lumberton. Some whooping-cough has occurred. The county is in fair sanitary condition; some sections need draining. Public buildings in good sanitary condition.

Rowan—Dr. J. J. Summerell, Salisbury. Whooping-cough and typhoid fever have prevailed in many portions of county, with some deaths from the latter. The health of Salisbury has been good. The sanitary condition of jail is good, but were there more prisoners, the present means of flushing the sewers would prove inadequate in dry weather. The commissioners still talk and do nothing. The commissioners have made a start toward making a better place for the sick at the poor-house.

Rutherford—Dr. E. B. Harris, Rutherfordton. Sanitary condition of county very good. A few cases of measles have occurred. Public buildings in very good sanitary condition.

Sampson—Dr. J. A. Stevens, Clinton. Three cases diphtheria and some whooping-cough and typhoid fever have occurred. These three cases of diphtheria occurred in one family in western part of county. Malarial and typhoid fever are common; whooping-cough is of a severe form, and with summer diarrhoea, is causing a great mortality among children. The general health of county is not good, that of town is good. Public buildings are in good sanitary condition.

Tyrrell—Dr. Ab. Alexander, Columbia. Twenty-one cases of measles and two of typhoid fever have occurred. The sanitary condition of county is better than it has been for six or eight years. The heavy rains all over the county have ruined the crops. Our poor-house is well kept.

Union—Dr. W. C. Ramsay, Monroe. Two cases of typhoid fever have occurred. Generally speaking, Union county is independent of art for good drainage. The soil is slaty, the surface rolling, and creeks and branches run closely between the hills, with but little

bottom land. The sanitary condition of poor-house is excellent, but the jail is badly constructed for health. Prisoners' rooms are all on third floor and close together, to economize space. *Vaccination has not been practiced here since the war.*

Vance—Dr. John C. Jacobs, Henderson. There have occurred about fifty cases of whooping-cough. The health of the county is good. Little sickness except old and chronic cases, and some bowel troubles caused by the advent of melons, fruit, etc.

Wake—Dr. James McKee, Raleigh. No report.

Warren—One case of typhoid fever and of pernicious malarial fever have occurred, the latter being contracted south. Intermittent and remittent fevers and enteric affections have prevailed in all portions. There has been an epidemic of cholera among poultry. Also, an endemic of dysentery in a small section of Shocco township—cause unknown—and a few cases of meningitis among children, some cholera-infantum, enterocolitis, etc. The mortality among the colored population is great, owing to bad hygiene. Condition of public buildings is good. They are thoroughly cleansed and disinfected daily. Town has been thoroughly policed, the streets freed from grass and weeds, and back lots attended to.

Watauga—Dr. W. B. Conncil, Boone. Three cases typhoid fever have occurred. Flux (fifty or more cases) has prevailed in different sections of county for the past month. Sanitary condition of poor-house good. That of jail bad, with no efforts at improvement.

Wayne—Dr. Jas. Spicer, Goldsboro. Sanitary condition of county good, with no contagious diseases to report.

Wilson—Dr. A. D. Moore, Wilson. No report.

Ventilation of Cellars.

A great mistake is sometimes made in ventilating cellars and milk-houses. The object of ventilation is to keep cellars cool and dry, but this object often fails being accomplished by a common mistake, and instead, the cellar

is made both warm and damp. A cool place should never be ventilated unless the air admitted is cooler than the air within, or is at least as cool as that, or a very little warmer. The warmer the air, the more moisture it holds in suspension. Necessarily, the cooler the air, the more this moisture is condensed and precipitated. When a cool cellar is aired on a warm day, the entering air being in motion appears cool, but as it fills the cellar, the cooler air with which it becomes mixed chills it, the moisture is condensed, and dew is deposited on the cold walls, and may often be seen running down them in streams. Then the cellar is damp, and soon becomes moldy. To avoid this the windows should only be opened at night, and late, the last thing before retiring. There is no need to fear that the night air is unhealthful—it is as pure as the air of midday, and is really drier. The cool air enters the apartment during the night, and circulates through it. The windows should be closed before sunrise in the morning, and kept closed and shaded through the day. If the air of the cellar is damp, it may be thoroughly dried by placing in it a peck of fresh lime in an open box. A peck of lime will absorb about seven pounds, or more than three quarts of water, and in this way a cellar or milk room may soon be dried, even the hottest weather.—*Scientific American—Sanitary News.*

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Fine for Delinquency in sending in Monthly Reports.

Section eight of the act relating to the Board of Health requires County Superintendents of Health to make reports to the Secretary of the State Board by the 10th of each month, for the month preceding, and a failure to do this "shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

Unnoticed Dangers.

Far too many houses, both in city and country, are positively dangerous. Many city houses stand on made land, or at least that which was formerly swampy. The foundation walls, when there are any—for houses often stand on posts alone—are built of solid masonry, but with no cement either outside or in. Such walls are porous and soak up water nearly as rapidly as a sponge. Then it slowly trickles down the inside, emitting malaria, forming a fine soil in which all manner of fungoid growths flourish. The rooms over such places are first-class disease breeders, and every home should be frequently examined to see that this source of danger does not exist.

Then drain-pipes often leak in the cellar and basement. This adds to the danger to the rooms above. The two fiends, stagnant water from the sewers and the water filtering slowly in through the walls, work in concert to sap the life of the little ones, and to fit them to yield to the first disease.

The walls of the rooms themselves, in far too many houses, are disease breeders. A neat and tasty paper upon the wall makes a room inviting, and adds to the home comfort. But, unfortunately, even when the paper is made free from poison, and good paper can be so made, the paste with which it is attached is just the home for the minute organisms which produce certain diseases. This is bad enough where there is only a single layer of paper; but when, as is often the case, several layers of paper and paste are spread upon the same wall, outside of one another, the danger is multiplied many times. Such walls are really masses of festering filth. The best wall is, undoubtedly, the plain plastered wall.

All cases like these demand caution. Those who are responsible for the homes cannot be too careful. The health, often the life, of loved ones, children particularly, depends upon rigid exclusion of all these lurking places of disease and breeders of death. Beauty should be, and is, consistent with perfect safety in the home.—*Le Roy F. Griffin, in the Chicago Current—Building.*

Scarlet Fever from Cow's Milk.

A contagious malady among cows is reported by Dr. James Cameron, in the *London Lancet*, to be prevailing in certain sections of England. The exact nature of this disease is not well understood, but it has been observed that at the time of its greatest prevalence the milk produced by them disseminated scarlet fever. The disease is said not to be a new one; it has been known among farmers as a contagious malady under the name of "sore teats," "blistered teats," etc., but its relation to scarlet fever has not heretofore been recognized. It appears that a newly purchased cow suffering from the disease communicated it to a herd of one hundred cows, and that coincidentally with its spread among the cows, scarlet fever began to appear among those persons who were consumers of the milk from this dairy. Dr. Cameron observed that newly calved cows are more susceptible to the disease, and that the virus is easily communicated to healthy cows by direct inoculation of the teats through the medium of the milker's hands. The disease is described as continuing from four to six weeks, beginning with a short initiatory, a dry hacking cough, sore throat in the severer cases, discharges from the nostrils and eyes, an eruption on the skin round the eyes and hindquarters, and vesicles on the teats and udder easily broken by the milker's hand. The milk from such cows is described as beingropy, after it has stood for five or six hours.

—*Sanitary Monitor*.

Dr. John H. Ranch, Secretary of the Illinois State Board of Health, gives, in the *Sanitary News*, a review of Asiatic cholera abroad. The disease is reported in Brittany, in and near Treboul, and in Venice, and to have extended to several important inland towns. For the week ending May 12th, 52 fresh cases and 18 deaths were reported in the town and province of Brindisi. The disease has extended about seventy miles up the Adriatic coast to the port town of Bari, where 61 cases and 21 deaths were reported on May 9th and

10th. For the same week there were reported at Venice, 63 cases and 25 deaths, and for the week ending May 18th, 28 deaths; and at Bari, 79 cases with 32 deaths.

The latest reliable intelligence from Europe indicates that cholera is still confined to Italy, the fatal cases occurring between May 1st and June 7th, numbering 266.

"From the foregoing, it will be seen that the disease is gradually spreading, and is prevalent in various parts of the kingdom, and its maintained persistence in one or two places at the two extremes of the peninsula, must still be regarded as giving ample grounds for anxiety for the future.

"For the last two weeks no intelligence has been received in this country concerning the cholera in Italy. Since the report was written, the increase of cases and deaths in and near Brindisi has been announced, also that four points in Austro-Hungary had been affected. This may be due to a diminution in the outbreaks, owing to measures taken to prevent its spread; or to the fear that the imposition of quarantine measures will prevent travelers from visiting certain parts of Italy as usual. The latter might be an inducement to prevent, as far as possible, the publication of the real situation. Should, however, the disease remain under control a month longer (July) as well as it apparently has thus far, but little apprehension need be felt of its finding a lodgment on this continent during the present season, though it would still be unsafe to discontinue the precautionary measures now being prosecuted. In fact there is danger to this country as long as there is a case of cholera on the continent of Europe."

We notice a paragraph in a State paper warning people against the use of galvanized iron pails, it stating that the zinc coating is readily acted upon, forming a poisonous oxide of zinc. The zinc, as stated, is dissolved by the water, forming soluble and insoluble compounds, but that they are injurious to health is much disputed, and it is generally believed by authorities that zinc lined pipes or pails may be safely used.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	14	1,161	12	8	26	775	20	18
Burke	4				10			
Cabarrus	4	1,256	0	2	12	1,665	4	8
Caldwell*								
Camden*								
Carteret*								
Caswell*								
Catawba	0	0	0	0	15	450	12	10
Chatham	3	1,800			39	750	10	
Cherokee	3	1,458			6	900		
Chowan*								
Clay*								
Cleveland	8	684		4	27	714		4
Columbus	5	3,326		3	5	872		
Craven*								
Cumberland	7	800	3	3	15	1,000	10	6
Currituck*								
Dare*								
Davidson	7	1,563		3	18	720		5
Davie*								
Duplin*								
Durham	7	1,445			8	850	1	2
Edgecombe†								
Forsyth	5	1,407	5	3	18		6	5

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					11		4	2
Perquimans*								
Person*								
Pitt†.....								
Polk*.....								
Randolph*.....								
Richmond.....	6	1,378	2	3	10	1,650	1	1
Robeson.....	6	1,152			10	720		
Rockingham*.....								
Rowan.....	5		0	2	19			
Rutherford.....	8	855			24	1,080		
Sampson.....	1	7,444			18	1,450		
Stanly*.....								
Stokes*.....								
Surry*.....								
Swain*.....								
Transylvania*.....								
Tyrrell.....	0	0	0	0	3	3,500		
Union.....	5	2,100		5	14	3,500		
Vance‡.....								
Wake‡.....								
Warren.....	5	2,113			12	2,511		
Washington*.....								
Watauga.....	0	0	0	0	8			
Wayne.....	25	61			3	1,650		
Wilkes.....								
Wilson.....								
Yadkin.....								
Yancey.....								
Totals.....	204		37	63	457		118	92

*Has no Superintendent. †No report received. ‡No jail in county.

Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.					Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		Total rainfall, including hail, snow and sleet (in inches).
Smithville.....	79.5	89.0	28	67.4	24	21.6	.....	18.1	20	7.7	15	10	14	7	15	11.99	S. W.
Hatteras*.....																	
Knoxville(Tenn.)	74.5	94.4	29	57.2	16	37.2	19.6	26.1	19	9.1	1	8	16	7	12	6.25	N. E.
Charlotte.....	76.3	93.7	28	59.9	2	33.8	20.6	25.6	18	7.8	1	8	15	8	15	8.05	N. E.
Fort Macon*.....																	
Lynchburg (Va.)	74.6	94.6	30	60.6	1	34.0	20.5	27.0	.....	3.9	.....	11	15	5	16	3.31	S.
<i>Wake Forest</i>	76.9	98.5	30	62.0	17	36.5	22.3	29.0	23	5.0	1	18	9	4	11	7.48	W.
Kitty Hawk.....	7.60	91.0	10	65.8	16	25.2	10.1	15.9	.....	4.5	.....	12	15	4	11	2.69	S. W.
Wilmington.....	78.6	94.5	28	66.0	15	28.5	16.2	22.3	20	9.9	14	8	15	8	17	21.12	S. W.
Chapel Hill.....																	
Average.....	76.3	93.7		62.7		31.0	18.2	23.4		6.8		10	14	7	14	8.70	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	29.924	30.144	6	29.749	19	.395
Hatteras*.....						
Knoxville, (Tenn.).....	29.956	30.117	5	29.760	14	.357
Charlotte.....	29.936	30.155	6	29.753	15	.402
Fort Macon*.....						
Lynchburg, (Va.).....	29.928	30.179	6	29.696	21	.483
<i>Wake Forest</i>	29.979	30.164		29.771		.393
Kitty Hawk.....	29.957	30.178	6	29.750	21	.428
Wilmington.....	29.937	30.150	6	29.760	20	.390
Chapel Hill.....						
Average.....	29.945	30.155		29.748		.407

*No report received.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

J. W. JONES, M. D., *President*, Tarboro.
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 R. L. PAYNE, M. D., Lexington.

S. H. LYLE, M. D., Franklin.
 W. D. HILLIARD, M. D., Asheville.
 PROF. W. G. SIMMONS, Wake Forest.
 ARTHUR WINSLOW, C. E., Raleigh.

THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

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VOL. I.

SEPTEMBER, 1886.

No. 6.

Summary of Reports from County Superintendents of Health for August, 1886.

Buncombe—Dr. W. L. Hilliard, Asheville. Diarrhœa, dysentery and typhoid fever have prevailed in city and throughout the whole county. The sanitary condition of county is good. That of public buildings is good. The city authorities are busy repairing and widening old, and opening new streets.

Burke—Dr. J. L. Laxton, Morganton. Seven cases of measles and four of typhoid fever have occurred with some dysentery and diarrhœa and one each of bronchitis, rheumatism and intermittent fever. Three of the cases of typhoid were contracted elsewhere. The condition of public buildings is good—inmates well and well provided for.

Cabarrus—Dr. Robt. S. Young, Concord. It is impossible to give an idea of the number of cases of whooping-cough and typhoid fever, as no reports have been received for the past month, but these diseases are very prevalent. Large numbers of persons are down with both diseases. The epidemic of typhoid is of re-

cent origin, and no fatal cases of either disease have been heard of by me. The sanitary condition of public buildings is good.

Catawba—Dr. Geo. H. West, Newton. Seven cases whooping-cough, three diphtheria and eleven typhoid fever have occurred. No work has been done on streets of town this month. The work on the jail has been completed and it is now in good sanitary condition.

Chatham—Dr. Jno. M. Manning, Pittsboro. Malarial fevers have prevailed in nearly all portions of county. One death is reported from typhoid fever. The sanitary condition of public buildings is good.

Cherokee—Dr. J. F. Abernethy, Murphy. Flux, cholera morbus and dysentery have prevailed in this county for the past two months. Flux was reported in Clay and adjoining counties a month prior to its advent here. It has been confined, in my opinion, to those subsisting largely on vegetables and who live in damp houses. The condition of public buildings is good.

Cleveland—Dr. J. C. Gidney, Shelby. Two cases typhoid fever have occurred. Sanitary

condition of county good. Jail is in fair sanitary condition but needs repairs. That of poor-house excellent. Considerable work is being done on the streets of Shelby, and the town is consequently healthy.

Columbus—Dr. I. Jackson, Whiteville. Two cases of typhoid reported. An epidemic of hog cholera has prevailed, and staggers among horses and mules. Of the latter, some thirty or forty have died. From the heavy rains of June and July we expected much malarial fever, but it has not yet put in an appearance, the health of county being very good compared with previous years. Public buildings in good condition.

Cumberland—Dr. W. C. McDuffie, Fayetteville. Twenty cases of whooping-cough and eight typhoid are reported. The sanitary condition of county is good. Much less sickness during August than for same month last year. Condition of public buildings is good—plenty of room, free ventilation and good heaters in jail and poor-house. Repairs going on at the latter place.

Davidson—Dr. R. L. Payne, Jr., Lexington. Thirty-five cases of whooping-cough, ten of scarlatina, three diphtheria, six typhoid, and one pernicious malarial fever have occurred. Malaria is unusually rife. The epidemic of whooping-cough is becoming less severe and extended. There is reason to believe the epidemic of scarlatina is spreading, but reports this month are very imperfect. Condition of public buildings is good. During the month a paper on village hygiene was published in county paper with apparent good effect. The people seem awakening to a proper appreciation of sanitary questions in a most gratifying way.

Durham—Dr. A. G. Carr, Durham. Whooping-cough and dysentery have prevailed, with some typhoid fever. The sanitary condition of county is as good as could be expected. I make one visit at least monthly seeing to the condition of things and making recommendations. Our Mayor is always on the lookout for filth and adopts any suggestions I may

make. From time to time he issues circulars calling on the people to clean up their premises, and it is done. Work on streets goes on at all times.

Edgecombe—Dr. Julian M. Baker, Tarboro. Typhoid and malarial fevers have prevailed in some portions of county. Sanitary condition good.

Forsyth—Dr. D. N. Dalton, Winston. Sanitary condition of county good. No contagious diseases reported. Condition of poor-house ordinarily good. Old jail will soon be vacated for the new.

Franklin—Dr. E. S. Foster, Louisburg. There have occurred three cases of typhoid and one of hemorrhagic malarial fever. The county is in very good sanitary condition. Malarial fevers of a mild type are more prevalent than during the summer. Condition of public buildings good.

Gaston—Dr. E. B. Holland, Dallas. Dysentery, typhoid and malarial fevers have prevailed. Sanitary condition of county and public buildings is fair. No improvements going on.

Greene—Dr. W. C. Galloway, Snow Hill. Whooping-cough, diphtheria, typhoid and pernicious malarial fever have occurred.

Guilford—Dr. E. Lindsay, Greensboro, reports whooping-cough, diphtheria and typhoid fever. No epidemic except a lack of interest in board of health matters among the doctors in the county.

Henderson—No report.

Iredell—Dr. M. W. Hill, Statesville. Typhoid fever and whooping-cough have occurred. There is very little sickness in the county—some intermittent, remittent and typho-malarial fever. The condition of poor-house is good, but of jail not so good, though there has been some improvement since last report.

Johnston—Dr. J. G. Rose, Smithfield, reports twelve cases whooping-cough, three pernicious malarial and twenty typhoid fever with six deaths from the last named. The sanitary condition of county is good, that of

public buildings as nearly perfect as it is possible to make it.

Jones—Dr. R. A. Whitaker, Trenton. No report.

Lenoir—Dr. F. M. Rountree, Kinston, reports a few cases of whooping-cough, diphtheria, typhoid and pernicious malarial fever with remittent and intermittent fever very prevalent in some portions of county. The farmers are paying more attention than ever before to draining their lands, and, as a consequence, there is less malarial fever than usual. The jail is in good condition and well kept.

Lincoln—Dr. J. M. Lowing, Lincolnton. Health of county excellent. Only a few cases of malarial fever reported. The Mayor issued a circular notifying the people that a health officer would visit every place on or before September 1st, and every ten days thereafter, and any filthy hog-pens, privies or other things causing offensive smells would be reported and the offender prosecuted. No sickness, except chronic cases, in jail or poor-house.

Macon—Dr. J. M. Lyle, Franklin. Four cases diphtheria and six typhoid have occurred. The health of county is fairly good, with no serious diseases prevailing.

Madison—Dr. J. K. Hardwicke, Marshall. Four cases scarlatina. Sanitary condition of county and public buildings good.

McDowell—Dr. J. H. Gilkey, Marion. Measles, diphtheria, typhoid fever and dysentery have occurred. The sanitary condition of jail is good, of poor-house bad, on account of dilapidated buildings which it is impossible to keep in a healthful condition.

New Hanover—Dr. F. W. Potter, Wilmington. Measles, whooping-cough, scarlatina, typhoid and pernicious malarial fever have occurred. Sanitary condition of county good. That of poor-house and house of correction good. Work on new jail is being pushed.

Northampton—Dr. V. S. McNider, Jackson. No report.

Onslow—Dr. W. J. Montford, Ward's Mill. Whooping-cough and malarial fever have occurred to some extent. The health of county is as good as I ever knew it—better than at this time last year. Condition of poor-house fair; of jail, poor.

Pender—Dr. W. T. Ennett, Burgaw. Typhoid fever and whooping-cough have occurred—the latter subsiding. Bilious and malarial fevers have prevailed in low, swampy lands. Sanitary condition of county is good, also of public buildings.

Pitt—Dr. J. T. Sledge, Greenville. No contagious diseases reported. An epidemic of hog cholera has prevailed. Sanitary condition of public buildings good, of county, fair. A few cases of typhoid and several of intermittent fever have occurred.

Richmond—Dr. J. M. Stansill, Rockingham. The health of county is good. There is no sickness of any kind except four cases of malarial fever. Public buildings in good sanitary condition.

Robeson—Dr. R. F. Lewis, Lumberton. Diphtheria has occurred to some extent. County and public buildings are in fair sanitary condition.

Rowan—Dr. J. J. Summerell, Salisbury. Typhoid and malarial fevers have prevailed—malarial fevers along the creeks and river courses as usual at this season, and typhoid in many places, but not as an epidemic—a case here and there—some fatal, and without any ascertained cause or contagion. At the poor-house work has been begun on a new building, and the contract for repairing the old ones has been awarded. The commissioners are urged by the grand jury to build a small but convenient hospital there to make superintendent's work easier and more efficient.

Rutherford—Dr. E. B. Harris, Rutherfordton. No report.

Sampson—Dr. John A. Stevens, Clinton. The general health of county is fairly good. Whooping-cough is very prevalent. A good many cases of malarial fevers, bowel diseases

among children, and a few cases of typhoid constitute the principal sickness. Poor-house in good sanitary condition. Jail should be improved. Being urged by me, the commissioners have promised to provide a place at poor-house for the insane until they can be removed to the asylum.

Tyrrell—Dr. Ab. Alexander, Columbia. Measles, diphtheria, typhoid, pernicious malarial and hemorrhagic malarial fevers have occurred. Many hogs have died this month from cholera. Sanitary condition of poor-house is good.

Union—Dr. W. C. Ramsay, Monroe. Sanitary condition of county generally good. We have had a few cases of diphtheria, typhoid and intermittent fever. Condition of poor-house is good; of jail, not good. No further efforts at improvement yet.

Vance—Dr. John C. Jacobs, Henderson. Sanitary condition of county good. There is more interest being taken in sanitary matters.

Wake—Dr. Jas. McKee, Raleigh. Health of county good. Eleven cases of whooping-cough reported. All physicians have been furnished with postal-card blanks on which to report to me, and I will probably have fuller reports next month. Public buildings in good order. The 65 prisoners in house of correction have each 108 cubic feet of space.

Warren—Dr. P. J. Macon, Warrenton. The health of town has been splendid, only a few chills, and they very amenable to treatment. Remittent and intermittent fevers have prevailed generally on the flats. A few cases of typhoid and two of pernicious malarial fever have occurred. Condition of public buildings good.

Watauga—Dr. W. B. Council, Boone, reports twenty cases measles, fifty whooping-cough and six typhoid. Hemorrhage of bowels or flux has prevailed in county to an alarming extent, with about fifty deaths, mostly small children; only one adult having died from the disease that I know of. Poor-house is in good condition, jail bad, and no steps toward improvement or rebuilding have been taken.

Wayne—Dr. Jas. Spicer, Goldsboro. Sanitary condition of county and public buildings good.

Wilson—Dr. A. D. Moore, Wilson. No report.

Yancey—Dr. W. P. Whittington, Burnsville. Board of health just organized. Report will come in next month.

The Pennsylvania Board of Health in investigating "Three Simultaneous Epidemics of Typhoid Fever," found the first caused by the unsanitary condition of the village, it being "situated in a kind of basin, the middle being swampy ground, with but one sewer, the privies neglected, and the wells exposed to pollution from them." In the second instance, the disease seems to have been caused by the pollution of the Monongahela river, from which south Pittsburgh gets its water supply, "by several bone-boiling establishments above the city. The third epidemic was among the employés of the Glasco Iron Co. and "the source of this outbreak was unquestionably a well in the company's yard, on which, in consequence of its supposed superior purity, all the neighborhood depended for its drinking water." An analysis of the water from this well showed it to be rich in ammonia, and the fact was clearly demonstrated that all of those who were seized with the epidemic had drunk of the water from this well, while none of those who had used water from other sources exclusively, were attacked.

Those persons doubtful of the wholesomeness of their drinking water, by applying to the Secretary of the State Board of Health, through the superintendent of health of their county, can obtain a permit for the analysis of their water by the State Chemist. Instructions for preparing and sending samples of water for analysis are printed on the permit.

Persons sending samples of water to be analyzed will receive from the Chemist the result of the analysis, and they are requested to send a copy of this result to the Secretary for the use and information of the Board.

Damp Cellars.

The importance of having dry cellars cannot be too strongly urged upon the people. We recently visited an afflicted family at Phoenix Park (near Pottsville, Pa.), where five members of the family were sick with a typhoid disease, and two had died, making seven cases in all. We made a very thorough examination of this house, had the drinking water analyzed, and were forced by exclusion to the conclusion that the sickness in this case was caused by a damp cellar.

A stream from a worked-out mine kept the locality marshy and the cellar wet. To obviate this a drain had been run from the cellar to a neighboring creek. This drain had been stopped and some inches of water had accumulated in the cellar. Had this family known that dynamite was in the cellar, they would not have slept easily until it was removed; but with this insidious foe to life and health they ate and slept contentedly until the favorite child, a boy of eleven, was taken ill and died. Then, suspecting the damp cellar, the drain was cleaned out; but it was too late, the mischief was done, the family was infected, and all of the children had the disease. As I looked at the bereaved and saddened mother, I could but pity her want of knowledge that had brought such affliction. *The doctor could not cure, but the parents could have prevented.* Do not live over a damp cellar for one hour.—*The Annals of Hygiene.*



Yancey county sends in, this month, notice of the organization of a board of health, with Dr. W. P. Whittington, of Burnsville, as superintendent of health.

Let the good work go on, and let the eastern counties, which have been rather slow to take hold, come to the front, and show their willingness, which we know they have, to aid in keeping out preventable diseases from the State and promoting the health of their citizens.

Influence of Sewerage and Water Supply on the Death-rate in Cities.

At this period when so many of the towns of this and other Southern States are contemplating the introduction of systems of sewerage and water supply, and when, therefore, the advantages which are to be derived are earnestly considered and discussed, a paper bearing the above title, which was read by Mr. Erwin F. Smith at the Sanitary Convention held at Ypsilanti, Michigan, June 30th and July 1st, 1885, deserves to be carefully studied.

Space will not permit the full review of this paper which its value and the importance of the subject treated deserve.

The general propositions which he concludes to be clearly deducible from the data at his disposal are the following:

1. Typhoid fever and cholera decrease in proportion as a city is well sewered.
2. There is no direct relation between diphtheria and sewers.
3. The general death-rate falls after the sewerage of a city, and, other things being equal, never again reaches the maximum of its anti-sewered condition.
4. The cost of building and maintaining sanitary works is inconsiderable in comparison with the direct pecuniary loss, by sickness and death, which their absence entails.

These results Mr. Smith deduces from statistics of numerous cities and towns both in this country and abroad, and these statistics and their analysis occupy over eighty octavo pages. The statistics from Frankfort are particularly striking. In 1870 when only 49 water-closets were in use, the typhoid mortality was 5.9. From that time to 1874 the number of closets increased to over 7,000, but the mortality showed no decrease, but in 1874, in fact, made a rapid jump to 11.3. From that date, however, the rate diminished steadily and in 1879 with about 20,000 closets in use, the mortality had reached 2.2 and in 1884 was reduced to 1.2.

Studying the subject by groups of cities in European countries, he finds the highest typhoid mortality in the least perfectly sewered countries; and in turn, from groups to individual cities he finds the highest mortality in those in which the greatest carelessness prevails as to the disposal of the night soil.

With regard to cholera, he deduces the following general propositions:

1. Unsewered cities suffer severely; sewered cities escape, or suffer chiefly in the unsewered districts;

2. A pure and abundant water supply is a great safeguard;

3. Cesspools, privy pits and stagnant drains are sources of great danger;

4. Localities subject to typhoid fever are the ones likely to be visited by cholera;

5. The cholera-scourged cities of one epidemic are usually those of the next epidemic, unless, meantime, there has been marked sanitary improvement.

In relation to diphtheria, he argues and maintains that "there is no direct relation between sewers and diphtheria."

The following table is taken *verbatim* from this paper as a general illustration of the influence of sewers upon the annual death-rate of cities. As Mr. Smith states, it cannot, by itself, be used as a conclusive argument in favor of sewers, but is of interest in connection with the argument already advanced.

Mean Annual Death-rate in Sewered and Unsewered Cities in Recent Years.

UNSEWERED CITIES.		
City.	Period included.	Rate per 1000 living.
New Orleans,	20 years, 1865-'84,	33.4
Baltimore,	15 " 1870-'84,	25.3
Charleston, S. C.,	5 " 1880-'84,	34.6
Mexico,	2 " 1876-'78,	52.0
Madrid,	1881,	37.0
Marseilles,	5 " 1880-'84,	31.0
Naples,	7 " 1878-'84,	32.8
Turin,	20 " 1865-'84,	27.2
Palermo	7 " 1878-'84,	24.5
Budapest,	10 " 1870-'79,	42.7
Moscow,	2 " 1879-'80,	39.9
Riga,	13 " 1870-'82,	28.8
St. Petersburg,	Recent years,	40.0
Pekin,	" "	50.0
Cairo,	" "	37.0
Average.....		35.8

SEWERED CITIES.

City.	Period included.	Rate per 1000 living.
London,	20 years, 1865-'84,	22.7
20 large English cities,	10 " 1869-'78,	24.9
Glasgow,	10 " 1871-'80,	28.1
Edinburgh,	Average of 5 years between 1874 and '84,	20.9
Brussels,	10 years, 1875-'84,	26.3
Berlin,	15 " 1870-'84,	30.5
Breslan,	10 " 1875-'84,	31.7
Hamburg,	10 " "	25.0
Dantzic,	10 " "	23.9
Frankfort,	20 " 1865-'84,	20.4
Munich,	10 " 1875-'84,	33.7
New York,	20 " 1865-'84,	28.0
Brooklyn,	15 " 1870-'84,	24.1
Boston,	20 " 1865-'84,	23.9
Chicago,	20 " "	21.5
Average.....		26.0

In future numbers of the BULLETIN further extracts from this very valuable article will be given. A. W.

♦♦♦♦♦

Fine for Delinquency in sending in Monthly Reports.

Section eight of the act relating to the Board of Health requires County Superintendents of Health to make reports to the Secretary of the State Board by the 10th of each month, for the month preceding, and a failure to do this "shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

So large are the possibilities for evil which may result from the use of milk taken from animals improperly fed, either through design or carelessness, that it is not too much to ask that all public dairy farms should be placed under sanitary supervision, and that the food and quarters of all cattle, whose milk is offered for sale, should be regularly inspected by officials appointed for the purpose. —*Scientific American.*

In the July number of the BULLETIN, in the meteorological report, the report credited to Wake Forest should be credited to Chapel Hill. There was no report from the former station, Prof. W. G. Simmons, the voluntary observer, being absent during the month of July.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*.....								
Alexander*.....								
Alleghany*.....								
Anson*.....								
Ashe*.....								
Beaufort*.....								
Bertie*.....								
Bladen*.....								
Brunswick*.....								
Buncombe.....	9	1,807	9	5	23	707	18	15
Burke.....	5				10			
Cabarrus.....	4	1,256	0	1	13	1,665	4	7
Caldwell*.....								
Camden*.....								
Carteret*.....								
Caswell*.....								
Catawba.....	0	0	0	0	13	460	11	9
Chatham.....	4	3,905	1	1	30	976	10	
Cherokee.....	2	2,100	1	1	5	1,000		
Chowan*.....								
Clay*.....								
Cleveland.....	10	547		4	27	714		3
Columbus.....	3	5,526		2	5	874		0
Craven*.....								
Cumberland.....	6	800	4	3	14	1,000	10	6
Currituck*.....								
Dare*.....								
Davidson.....	7	1,563		3	23	720		5
Davie*.....								
Duplin*.....								
Durham¶.....	14	900	2	1	10	800	2	0
Edgecombe.....	9	763		2	19	4,168		1
Forsyth.....	7	1,070	0	4	14		0	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					8		8	2
Perquimans*								
Person*								
Pitt.....	6	500			19	300		
Polk*								
Randolph*								
Richmond.....	5	1,608	2	5	10	1,650	1	1
Robeson.....	21	329			9	600		
Rockingham*								
Rowan.....	7	1,200	5	2	17		9	5
Rutherford†								
Sampson.....	4				19		6	4
Stanly*								
Stokes*								
Surry*								
Swain*								
Transylvania*								
Tyrrell.....					3	1,100	0	
Union.....	5	2,000	0	5	14	3,000		
Vance‡								
Wake.....	16	1,691			63			
Warren.....	9	1,176			13	2,317		
Washington*								
Watanga.....	0	0	0	0	9		5	0
Wayne.....	28	78			3	1,650		
Wilkes*								
Wilson†								
Yadkin*								
Yancey.....								
Totals.....	278		46	67	520		128	79

*Has no Superintendent of Health. †No report. ‡No jail or poor-house. ¶Includes house of correction with jail.

Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.					Total rainfall, including hail, snow and sleet, (in inches).	Prevailing wind.
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		
Smithville.....	77.4	87.0	17	58.8	22	28.2	.....	20.8	22	5.5	6	6	13	12	16	3.36	S. W.
Hatteras....	75.5	84.3	1	65.5	4	18.8	8.7	12.3	.....	4.0	.....	6	7	18	19	9.74	S. W.
Knoxville(Tenn.)	74.8	93.2	17	58.2	18	35.0	19.2	26.2	17	7.2	5	8	16	7	13	5.17	N. E.
Charlotte.....	75.1	92.8	17	56.4	21	36.4	19.9	25.6	12	10.8	10	2	17	12	15	6.34	S. W.
Fort Macon.....	76.5	86.5	23	64.9	22	21.6	8.9	19.4	.....	5.0	.....	4	17	10	17	7.08	S. W.
Lynchburg (Va.)	73.8	91.8	27	57.3	21	34.5	18.6	25.6	.....	11.2	.....	6	16	9	14	4.29	{ S. E. & E.
Chapel Hill.....	75.9	96.0	a	55.0	23	41.0	20.0	32.0	23	11.0	10	8	11	12	11	9.91	W.
Kitty Hawk.....	74.9	90.5	17	65.6	3	24.9	9.1	19.7	.....	2.6	.....	6	15	10	17	7.34	N. E.
Wilmington.....	77.0	92.8	12	60.2	22	32.6	15.0	21.9	25	7.0	6	7	14	10	17	4.30	S. W.
Average.....	75.6	90.5	.....	60.2		30.3	14.9	22.6		7.2		6	14	11	15	6.39	S. W.

a 14 and 25.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	29.963	30.239	10	29.732	31	.507
Hatteras.....	29.981	30.320	9	29.620	24	.700
Knoxville, (Tenn.).....	30.008	30.242	10	29.767	23	.475
Charlotte.....	29.988	30.257	9	29.683	30	.574
Fort Macon.....	29.967	30.282	9	29.599	24	.683
Lynchburg, (Va.).....	29.986	30.314	9	29.685	30	.629
Chapel Hill.....	29.967	30.272	9	29.741	2	.531
Kitty Hawk.....	29.980	30.316	9	29.628	24	.688
Wilmington.....	29.969	30.246	9	29.720	2	.526
Average.....	29.979	30.276		29.686		.590

130
100
100

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

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Entered at the post-office at Wilmington, N. C., as second class mail matter.

VOL. I.

OCTOBER, 1886.

No. 7.

Summary of Reports from County Superintendents for September, 1886.

Buncombe—Dr. W. L. Hilliard, Asheville. Ten cases of measles and twelve typhoid fever. These and dysentery have prevailed in city. Sanitary condition of county and public buildings good.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. Seventy-nine cases whooping-cough, fourteen typhoid fever and four pernicious malarial fever. We have never had such a visitation of malarial troubles as at this time. Our druggists tell me that their sales of quinia during the last month have exceeded by far that of any other season within their memory. The public buildings are in good condition.

Catawba—Dr. Geo. H. West, Newton. Two cases of diphtheria and seven of typhoid fever. Catarrhal fever has prevailed in Newton and vicinity. There has been no sanitary work done during September. The town is in good condition, also public buildings.

Chatham—Dr. Jno. M. Manning, Pittsboro. One case of capillary bronchitis. There is more sickness than usual. Typhoid and malarial fevers have prevailed in all portions of county. The cholera epidemic among hogs has abated. The sanitary condition of public buildings good.

Cherokee—Dr. J. F. Abernathy, Murphy. One case of whooping-cough, fifteen of diphtheria and twenty-nine of typhoid fever have been reported. Flux has disappeared—typhoid is slowly abating. Diphtheria has just entered our homes with appalling symptoms. The health of our people generally is, I think, improving. Public buildings in good condition except jail which needs new, dry floors and a water closet. No efforts have been made towards improving its condition.

Cleveland—Dr. J. C. Gidney, Shelby. Two cases of typhoid fever only reported. The health of county is better than for many years.

Columbus—Dr. I. Jackson, Whiteville. Some cases of whooping-cough, diphtheria and typhoid fever have occurred. There has been

an epidemic of hog cholera. The sanitary condition of county and public buildings is good.

Cumberland—Dr. W. C. McDuffie, Fayetteville. There has been reported about thirty-five cases of whooping-cough, ten scarlatina, twenty-five diphtheria, six typhoid fever, and intermittent fever has prevailed in nearly all portions of county. The sanitary condition of county is good, and in only a very few instances have local causes of disease been known to exist. All public buildings are in excellent condition—roomy, clean, and well prepared to give comfort during the approaching winter.

Davidson—Dr. R. L. Payne, Jr., Lexington, reports seventeen cases of whooping-cough, forty-two of scarlatina, thirteen diphtheria, twenty-nine typhoid and fifteen pernicious malarial fever. Scarlatina has prevailed in southern districts. The epidemic of whooping-cough has lasted ten months but has almost subsided. Public buildings in good condition.

Durham—Dr. A. G. Carr, Durham. A few cases of measles and several of whooping-cough and typhoid have occurred. Continued fever and typho-malarial have prevailed in many portions of the county. These "continued fevers" are of a remittent type and continuous also. Quinine will not cure it or abridge its duration. It is not typhoid—then what is it? It generally lasts two or three weeks. It is milder now than at first and less protracted. Improvements are going on at poor-house and work-house. In poor-house there is a nice large room for each two persons, affording ample space.

Edgecombe—Dr. J. M. Baker, Tarboro. No report on contagious diseases. County in good sanitary condition.

Forsyth—Dr. D. N. Dalton, Winston. The sanitary condition of county is good. Less sickness than in any preceding month this year. A few cases of typhoid fever have occurred. Jail is in bad condition, but will soon remove to new one. Poor-house is not excellent. The food given inmates of poor-house is not good for such persons, though plenty.

Franklin—Dr. E. S. Foster, Louisburg. No epidemic has occurred, only four cases of typhoid fever being reported. The sanitary condition of county and public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. Diphtheria and malarial fever have prevailed in our county. The sanitary condition of county is fair, as is that of public buildings. No improvements have been made.

Greene—Dr. W. C. Galloway, Snow Hill. There have occurred five cases diphtheria and one typhoid fever; also a number of cases of violent sporadic dysentery and malarial fever of a remittent type as prevalent as I have ever known it, and, in many cases, very severe. Condition of public buildings is fair. Contract for new poor-house has been awarded and work will begin in a week or two.

Guilford—Dr. Ed. Lindsay, Greensboro. A few cases of whooping-cough and many of diphtheria have occurred. Typhoid fever has prevailed to a limited extent. The first two prevailed principally in rural portions of the county. As to the sanitary condition of county the small mill streams are foul, and mild malarial diseases are very numerous. Public buildings are kept clean and neat. Jail and poor-house are scoured and limed once a week. No sickness in either during September.

Henderson—Dr. J. L. Egerton, Hendersonville. Three cases of typhoid have occurred and whooping-cough has prevailed in some parts of county. Sanitary condition of county and public buildings good.

Iredell—Dr. M. W. Hill, Statesville. One case of typhoid and some scarlatina and pernicious malarial fever. There is very little sickness in the county, the sanitary condition of which, as also of public buildings, is very good. Improvements have been made in the condition of jail since last report.

Johnston—Dr. J. G. Rose, Smithfield. There have been twenty cases of typhoid fever reported. Sanitary condition of county for most part good. That of public buildings is perfect.

Jones—Dr. R. A. Whitaker, Trenton. There

has been considerable sickness during the month, some of it quite malignant. Nine cases of typhoid have been reported, and malarial troubles have prevailed generally. The public buildings are well attended to and are in good condition.

Lenoir—Dr. F. M. Rountree, Kinston. Two cases diphtheria, one typhoid, and one hemorrhagic malarial fever have occurred. There has been considerable malarial, bilious and intermittent fever owing to excessive rains. The town is in good condition, the commissioners keeping at work. Cholera is prevailing extensively among the hogs and chickens in this section, and many horses have died of staggers during the summer and fall.

Lincoln—Dr. J. M. Lowing, Lincolnton. A few cases of fever of malarial origin have occurred. No sickness in jail or poor-house of acute nature. General sanitary condition of county good.

Macon—Dr. J. M. Lyle, Franklin. Four cases of typhoid reported. Diphtheria has prevailed in southern part of county, fourteen cases being reported. Sanitary condition of county is fairly good, also of public buildings.

Madison—Dr. J. K. Hardwicke, Marshall. Six cases scarlatina, four diphtheria, two typhoid, and one pernicious malarial fever. The days have been extremely warm, followed by cool nights, causing more sickness than usual. Have had no rain in six weeks. Poor-house is in good condition. Jail is not sufficiently ventilated for the number confined there. The number of inmates will probably be reduced at the November term of the Superior Court.

McDowell—Dr. J. H. Gilkey, Marion. Twenty-five cases of measles and six typhoid have occurred. Measles and dysentery prevailed extensively during September. There has been an epidemic of distemper among cattle and hogs. The sanitary condition of jail is good, of poor-house bad, but a lot has been bought and arrangements made for building new houses for the poor.

New Hanover—Dr. F. W. Potter, Wilmington. No report.

Northampton—Dr. V. S. McNider, Jackson.

Very much malarial fever and chills prevailing almost universally. Some few cases typhoid fever and an epidemic of rothelu have occurred in a large portion of the county. Sanitary condition of poor-house good, not so of jail.

Onslow—Dr. Wm. Montford, Ward's Mill. Chills and fevers have prevailed. One case typhoid reported. The health of county has been better than usual except in the lower portions on tide-water. Jail is in bad condition, poor-house good.

Pender—Dr. W. T. Ennett, Burgaw. There has been reported twenty-seven cases of whooping-cough, eighteen of diphtheria, nine typhoid, and eight pernicious malarial fever. It is remarkably healthy except on swamps where it is clear of water, and the mud exposed to the action of the sun. There we have malarial fevers of the severest type. The dry winds have also caused some pneumonia. I think my suggestion for an improvement in the poor-house arrangement will soon be adopted.

Pitt—Dr. J. T. Sledge, Greenville. No report.

Richmond—Dr. J. M. Stansill, Rockingham. One case of diphtheria reported. The sanitary condition of this portion of the county is good. There has been a few cases of a mild form of malarial fever near Rockingham. Public buildings are in good sanitary condition.

Robeson—Dr. R. F. Lewis, Whiteville. Some diphtheria and typhoid fever have occurred. Also an epidemic of cholera among domestic animals. Sanitary condition of the county is fair. Work is done on streets of town when necessary.

Rowan—Dr. J. J. Summerell, Salisbury. Whooping-cough, scarlatina, typhoid and malarial fevers have prevailed in different parts of county. The health of Salisbury has been very good for September. Some efforts have been made to remove trash wood and logs from the creeks to give a more rapid current, but this work was begun too late to effect much good this year. Jail is in fair condi-

tion, poor-house good. Considerable work has been done on the latter this fall, a new two-story brick building with four rooms having been added, one of which is reserved for the sick exclusively.

Rutherford—Dr. E. B. Holland, Rutherfordton. The sanitary condition of county splendid and no cause for disease. Public buildings all in fine order.

Sampson—Dr. J. A. Stevens, Clinton. The general health of county is fairly good, malarial fevers and whooping-cough being the principal sickness. There has been an epidemic of hog cholera, and "staggers" has killed a great many horses. The sanitary condition of poor-house is very good, that of jail not so good. We have just organized a county Medical Society, and I hope to give better reports in future.

Tyrell—Dr. Ab. Alexander, Columbia. There have occurred eight cases measles, one diphtheria, one typhoid, two pernicious, and three hemorrhagic malarial fever. Have had a new jail built.

Union—Dr. W. C. Ramsay, Monroe. The county is in the very best sanitary condition. The people are remarkably healthy, there being no epidemic of any kind, only some few sporadic cases of ordinary disease. The poor-house is in excellent condition, but the jail is not.

Vance—We regret very much to learn of the death of Dr. John C. Jacobs, who has for more than a year past taken a great interest in the work of the Board of Health in his county, acting as superintendent of health and sending in satisfactory reports each month, and, we understand, without remuneration from the county. Dr. J. H. Tucker has kindly consented to act until Dr. Jacobs' successor is elected, and the following report is made by him: One case of measles, thirty-four of whooping-cough, eight scarlatina, two diphtheria, seven typhoid and one pernicious malarial fever have occurred. The sanitary condition of county is good; the public health is good and there has been but little sickness of a serious character. Mild remittent fever has

prevailed in portions of county. No jail or poor-house in the county, prisoners being confined in the jails of other counties and paupers cared for in private quarters.

Wake—Dr. James McKee, Raleigh. Two cases of diphtheria and two of typhoid fever have occurred. The health of county is good. This report is only partial, as only one physician reported the number and nature of infectious diseases in his practice. Public buildings in good condition. Have suggested and urged upon the grand jury the necessity of having a system of heating the jail and courthouse that will uniformly distribute heat.

Warren—Dr. P. J. Macon, Warrenton. No report.

Watauga—Dr. W. B. Councill, Boone. There have occurred ten cases of measles, twenty of whooping-cough, two of diphtheria, and four of typhoid fever. There is no sickness of any moment at this time, the prevailing diseases having about subsided.

Wayne—Dr. James Spicer, Goldsboro. No report.

Wilson—Dr. A. D. Moore, Wilson. The sanitary condition of county has never, in my recollection, been better. The town is kept clean and well drained and healthy. Poor-house and jail in good condition.

Yancey—Dr. W. P. Whittington, Burnsville. One case of typhoid fever has occurred. With the exception of an epidemic of dysentery in the eastern part, the health of county has been very good. There has been an epidemic of hog cholera. The general condition of jail is good, but might be improved by cleaning up the filth accumulated during the summer. Our poor are all in the care of private individuals, mostly relatives.

The difference in the death rate of the two races in Wilmington for September was remarkable—12 whites, 41 colored. The population is 8,000 whites, 12,000 colored. There was only one white death that could be attributed to the climate—death from a congestive chill, and yet September is one of the sickliest months from malarial causes.—*The Morning Star*.

To Distinguish Oleomargarine from Butter.

J. Hoostler recommends the following procedure: A piece of oleomargarine the size of a hazelnut is placed in a test tube and the end made air tight. Into another test tube a like quantity of butter is treated the same way. When both test tubes are held in the hand, the oleomargarine soon liquifies, forming a clear solution, whilst butter requires double the time for solution, and when dissolved is not so clear as the oleomargarine solution. When the tube is filled one third full with ether, the oleomargarine is easily dissolved, and does not produce any turbidity or precipitate on the addition of alcohol. Butter when treated in like manner yields a precipitate.—*American Druggist.*

Dangerous Lemonade.

A style of lemon-squeezer has been recently sold quite extensively, which is made of galvanized iron, or iron covered with a coating of zinc. A word of caution should be given against the use of such articles, as the citric acid of the lemon will readily dissolve the zinc, forming unwholesome and poisonous salts. Lemon squeezers should be made of either plain iron or wood, or, better, like some we have observed, where the surfaces brought into contact with the fruit are of glass or porcelain. Zinc is a metal which is readily attacked by the weakest acids and no article of food or drink should ever be allowed to come in contact with it.—*American Druggist.*

Finding it impossible in the present state of things to gather mortuary statistics from the different counties which are nearly enough correct to be of any value, the State Board have decided to publish monthly the mortality report of several of the larger towns in different sections of the State. To that end the Secretary of the Board has written to the superintendents of health in Wilmington, Raleigh, Asheville, Fayetteville, and Goldsboro, and to the mayors of Charlotte and New Bern (there being no local board of health in

the last two places) asking that statistics be furnished. There has been received no reply from New Bern or Goldsboro. The mayor of Charlotte has shown much interest and would have sent report for September but for the sickness of the superintendent of cemeteries. Reports from the first four towns have been received and are as follows:

CAUSE OF DEATH.	Wilmington.		Raleigh.		Asheville.		Fayetteville.		Total by diseases.
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	
Aneurism.....	1	1	1	1	1	1	1	1	1
Apoplexy.....	1	1	1	1	1	1	1	1	1
Asthma.....	1	1	1	1	1	1	1	1	1
Cholera infantum.....	1	3	1	1	1	1	1	1	7
Chill, congestive.....	1	3	1	1	1	1	1	1	5
Consumption.....	1	1	1	1	1	1	1	1	7
Congestion of lungs.....	1	1	1	1	1	1	1	1	4
Convulsions.....	1	1	1	1	1	1	1	1	1
Croup, membranous.....	1	1	1	1	1	1	1	1	1
Debility.....	1	1	1	1	1	1	1	1	1
Diphtheria.....	1	1	1	1	1	1	1	1	5
Dropsy.....	1	1	1	1	1	1	1	1	1
Dropsy of heart.....	1	1	1	1	1	1	1	1	1
Dysentery.....	1	1	1	1	1	1	1	1	1
Epilepsy.....	1	1	1	1	1	1	1	1	1
Fever, bilious.....	1	1	1	1	1	1	1	1	1
Fever, congestive.....	1	1	1	1	1	1	1	1	1
Fever, hemorrhagic malarial.....	1	1	1	1	1	1	1	1	1
Fever, malarial.....	1	1	1	1	1	1	1	1	7
Fever, puerperal.....	1	1	1	1	1	1	1	1	1
Fever, typhoid.....	1	1	1	1	1	1	1	1	1
Gangrene.....	1	1	1	1	1	1	1	1	1
Hemiplegia.....	1	1	1	1	1	1	1	1	1
Meningitis.....	1	1	1	1	1	1	1	1	1
Marasmus.....	1	1	1	1	1	1	1	1	1
Inflammation of liver.....	1	1	1	1	1	1	1	1	1
Old age.....	1	1	1	1	1	1	1	1	1
Organic lesions.....	1	1	1	1	1	1	1	1	1
Paralysis.....	1	1	1	1	1	1	1	1	1
Peritonitis, puerperal.....	1	1	1	1	1	1	1	1	1
Pneumonia.....	1	1	1	1	1	1	1	1	1
Rupture of bladder.....	1	1	1	1	1	1	1	1	1
Scrofula.....	1	1	1	1	1	1	1	1	1
Syphilis.....	1	1	1	1	1	1	1	1	1
Stillborn.....	1	1	1	1	1	1	1	1	1
Unknown.....	1	1	1	1	1	1	1	1	1
Uremia.....	1	1	1	1	1	1	1	1	1
Whooping-cough.....	1	1	1	1	1	1	1	1	1
Total in races.....	12	40	8	15	7	1	8	2	93
Total in towns.....	52	23	8	10					

Duration of the Infectiousness of Small Pox, Scarlatina, Diphtheria, Measles and Mumps.

At the last meeting of the British Medical Association, Mr. Vacher, Health Officer

of Birkenhead, read an interesting paper on this subject. Basing his conclusions upon 10 years' experience in the Birkenhead Fever Hospital and elsewhere, he gives them as follows:

TABLE SHOWING BEGINNING AND END OF INFECTIOUSNESS OF THE DISEASES NAMED.		SMALL POX.	SCARLA- TINA.	DIPH- THERIA.	MEASLES.	MUMPS.
Time from inception to first pre- cursory sign.		12 days.	3 days.	3 days.	10 days.	14 days.
		14 days.	4 days.	5 days.	14 days.	18 days.
Time from inception to com- mencement of eruption, of glan- dular swelling in mumps, and sore throat in diphtheria.		Mean 5 or 6 wks.	Mean, 5 weeks.	Mean, 3½ wks.	Mean, 4 weeks.	Max., 5½ wks.
		Max. 15 or 16 wks.	Max. 10 weeks.		Max., 8 weeks.	
Time from inception till infec- tiousness ceases.						

Ailantus Tree and its Enemies.

The newspapers and sanitary and medical journals have begun a crusade on the ailantus tree, some claiming it to be a deadly poison. This tree has had its ups and downs since it was introduced into this country as a desirable shade tree under the name of "trees of heaven." Long experience with it has caused the public to pronounce against it as a desirable shade tree when elms, oaks, limes, pride of China, and other trees will grow as easily. It is so easily propagated by seed and off-shoots that it soon runs riot in the streets, its roots penetrating wells and uplifting sidewalks. The pistillate and staminate flowers are borne on different trees. The staminate flowers exhale an unpleasant odor in sultry weather, but no part of the tree is poisonous, and the worst that can be said of the odor of the flowers is that they are offensive to the nostrils of most persons. The tree is of rapid growth, is a good drainer of the soil, and its leaves exale oxygen with as true a function as the more desirable oaks and elms. Therefore in condemning the ailantus let it not be on the unproven ground of poisonous properties, but because in comparison with other tree it is not so desirable.

In one point of view not connected with hygiene particularly, it is a most valuable tree. It will grow in a very poor soil. In treeless, barren districts this tree can be utilized by planting on the borders of enclosed areas, to afford protection for more desirable trees within. Furthermore the ailantus is free from insects, and furnishes very good cabinet wood.—*North Carolina Medical Journal.*

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	9	1,807			22	739		
Burke†								
Cabarrus	4	1,256			13	1,665		
Caldwell*								
Camden*								
Carteret*								
Caswell*								
Catawba	0	0	0	0	13	460	11	9
Chatham	6	2,603	1	1	30	9,762	10	6
Cherokee	4	1,050	2	2	6	812	1	1
Chowan*								
Clay*								
Cleveland	15	364		4	27	714		7
Columbus	2	8,317		1	5	874		0
Craven*								
Cumberland	6	1,000	4	4	15	900	11	6
Currituck*								
Dare*								
Davidson	5	2,188		2	18	720		4
Davie*								
Duplin*								
Durham	25	561			6			
Edgecombe	10	686			20	3,960		
Forsyth	8	936	6	4	18		10	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					9		3	3
Perquimans*								
Person*								
Pitt†								
Polk*								
Randolph*								
Richmond.....	6	1,608	2	5	10	1,650	1	1
Robeson.....	5	1,382			9	800		
Rockingham*								
Rowan.....	7				17			
Rutherford.....	6	1,160			24	1,080		
Sampson.....	6				11			
Stanly*								
Stokes*								
Surry*.....								
Swain*.....								
Transylvania*								
Tyrrell.....	1	9,000	0		3	1,100	0	
Union.....	4	2,800			14	3,000		5
Vance‡								
Wake.....	251	1,503			55			
Warren†.....								
Washington*								
Watauga.....	0	0	0	0	9		5	0
Wayne †.....								
Wilkes*.....								
Wilson.....	5				22			
Yadkin*.....								
Yancey.....	1	500		1				
Totals.....	262		31	42	474		81	59

‡Includes 33 in house of correction, each having 182 cubic feet of space. †No jail or poor-house in county. No report received. *No County Board of Health. †Includes prisoners in house of correction.

Meteorological Report.

STATIONS.	TEMPERATURE.											NO. DAYS.			Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.			On which rain fell, including hail, snow and sleet.
Smithville.....	75.3	86.1	15.	57.3	30	28.8	14.0	19.2	4	8.1	13	13	12	5	8	.52	N. E.
Hatteras....	74.6	83.5	*a	64.0	23	19.5	9.8	16.0	.....	6.0	.....	16	10	4	4	4.11	N. E.
Knoxville(Tenn.)	71.1	90.1	18	52.0	30	38.1	20.7	29.9	.....	6.6	.....	12	11	7	12	1.88	N. E.
Charlotte.....	72.4	90.8	11	53.3	3	37.5	20.3	27.1	28	11.6	8	9	13	8	7	.68	N. E.
Fort Macon	74.8	84.5	18	63.4	30	21.1	9.8	14.4	29	5.7	21	12	13	5	8	1.70	N. E.
Lynchburg (Va.)	69.5	90.7	10	50.0	14	40.7	19.7	28.9	.....	4.9	.....	11	11	8	9	1.74	{ N. E. & S.
Wake Forest.....	71.9	93.4	11	52.5	21	40.9	.....	.....	.....	.....	.....	.....	.....	.....	10	4.80	N. E.
Kitty Hawk	72.8	86.1	27	66.2	21	19.9	7.5	15.6	.....	2.0	.....	11	12	7	4	1.92	N. E.
Wilmington	74.9	91.2	11	58.3	30	32.9	18.1	24.6	29	9.3	13	12	14	4	7	1.34	N. E.
Average.....	73.0	88.5		57.2		31.0	15.0	21.9		6.8		12	12	6	8	2.10	N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	30.084	30.260	2	29.841	12	.419
Hatteras.....	30.111	30.311	2	29.830	12	.481
Knoxville, (Tenn.).....	30.121	30.328	2	29.880	30	.448
Charlotte	30.119	30.349	2	29.799	12	.550
Fort Macon.....	30.094	30.279	2	29.842	12	.437
Lynchburg, (Va.).....	30.130	30.404	*b	29.756	12	.648
Wake Forest.....	30.258	30.490	2	29.925	12	.565
Kitty Hawk.....	30.117	30.323	2	29.810	12	.513
Wilmington.....	30.092	30.278	2	29.842	29	.436
Average.....	30.127	30.336		29.836		.500

*a 11 and 12. *b 2 and 3.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

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VOL. I.

NOVEMBER, 1886.

No. 8.

Summary of Reports from County Superintendents for October, 1886.

[The mark * denotes that the person reporting is not a superintendent, but a voluntary reporter.]

Buncombe—Dr. W. L. Hilliard, Asheville. Acute bronchitis, whooping-cough and typhoid fever have prevailed in city to a limited extent. The jail and poor-house are in excellent sanitary condition, and most of the inmates healthy.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. Robert S. Young, Concord. Health of county is better than it has been for a long time. Public buildings are in good sanitary condition.

Canden—Dr. F. W. Ritter*, Shiloh. Two cases of diphtheria, five of typhoid, two of pernicious malarial, and ten hemorrhagic fever have occurred. We have had a very wet summer and dry autumn. The jail is in good condition. The poor-house is a new building, commodious, well ventilated and the inmates well fed.

Catawba—Dr. George H. West, Newton. It is "distressingly healthy," only four cases of diphtheria, six of typhoid and two of pernicious malarial fever being reported. The jail is in good condition. No inmates.

Chatham—Dr. Jno. M. Manning, Pittsboro. Typhoid has prevailed to some extent in the southern portion of county, and tonsillitis over county generally. The sanitary condition of county is good. That of public buildings is good also. They are kept clean and lime is generously used.

Cherokee—Dr. J. F. Abernathy, Murphy. Whooping-cough with rubeola prevailed in Murphy. The general health of county is better than it has been in many months. An epidemic of hog cholera is killing all affected. The water supply of the poor-house is not sufficient. The spring has dried up and the branch from which water is obtained flows very feebly and drains a large bog before it is used.

Cleveland—Dr. J. C. Gidney, Shelby. Sanitary condition of county is good. Only two cases of typhoid reported. The jail is not

sufficiently heated, and some of the rooms in poor-house are uncomfortable in winter.

Columbus—Dr. I. Jackson, Whiteville. The sanitary condition of county generally has been excellent. I have been here for 24 years, and have never known so little malarial fever which usually prevails during the summer and autumn. Public buildings also in good condition.

Cumberland—Dr. W. C. McDuffie, Fayetteville. Twelve cases whooping-cough, six scarlatina, three diphtheria and two typhoid fever are all I have to report, except an epidemic of hog cholera. County and public buildings in good sanitary condition.

Davidson—Dr. R. L. Payne, Jr., Lexington. Scarlatina has prevailed in southern part of county. A good deal of malaria in the early part of month, and in the latter a few bad cases of dysentery (a very rare disease here except in early summer) have occurred. There is also more pneumonia than I have ever known at this season. Public buildings in good sanitary condition. The food served inmates of poor-house is unsuitable.

Durham—Dr. A. G. Carr, Durham. Many cases of continued fever have occurred. Have heard of two cases of diphtheria and four of typhoid fever. In the so-called typhoid fever there is no characteristic typhoid fever range of temperature. There is also some catarrhal fever. Public buildings are in good condition.

Edgecombe—Dr. J. M. Baker, Tarboro. No epidemic diseases reported. Hog cholera has prevailed to some extent.

Forsyth—Dr. D. N. Dalton, Winston. Sanitary condition of county is good. No epidemic diseases reported. Public buildings also in good condition.

Franklin—Dr. E. S. Foster, Louisburg. The health of county is good except that malarial fevers prevail to a slight extent. No reports from county physicians. The sanitary condition of public buildings is good.

Gaston—Dr. E. B. Holland, Dallas. Malarial fever, dysentery and whooping-cough have prevailed. The sanitary condition of county and public buildings is fair.

Greene—Dr. W. C. Galloway, Snow Hill. Sanitary condition of county good. Two cases typhoid and three of hemorrhagic malarial fever reported. Remittent fever has been quite prevalent, some cases very severe—fever continuing for 30 and 35 days—quinine in large doses, apparently powerless to cut them short. Poor-house and jail are kept clean and otherwise well attended to.

Guilford—Dr. Ed. Lindsay, Greensboro. No report.

Iredell—Dr. M. W. Hill, Statesville. No report.

Johnston—Dr. J. G. Rose, Smithfield. The sanitary condition of county is good. There is some malaria, diphtheria and typhoid fever, there having been reported ten of diphtheria and twelve of typhoid. The condition of public buildings is nearly perfect.

Jones—Dr. Rom. A. Whitaker, Trenton. The health of county has greatly improved during the last month. The frosts are fast doing away with malarial troubles. One case of diphtheria and five of typhoid fever reported. Some repairs have been made at poor-house which will make the inmates comfortable during the cold weather. Formerly the water supply was some distance off, but a well furnishing excellent water has been dug near by.

Lenoir—Dr. F. M. Rountree, Kinston. Six cases whooping-cough and two of typhoid fever reported. Sanitary condition of county is good. Farmers seem to take more interest in draining their land than formerly. Jail is in good condition.

Lincoln—Dr. J. M. Lowing, Lincolnton. Catarrhal bronchitis has prevailed during the month; also whooping-cough and malaria. There have been two deaths from typhoid fever. The sanitary condition of public buildings is good, but the buildings themselves could and should be improved.

Macon—Dr. J. M. Lyle, Franklin. The sanitary condition of county is much better than a few years ago. Our people have more care about sewerage, hog-pens, etc., now, and there is much less typhoid fever, only four

cases being reported, and four cases of diphtheria.

Madison—Dr. J. K. Hardwicke, Marshall. The weather is clear, frosty and pleasant, and there is no serious sickness. Public buildings in good sanitary condition at present.

McDowell—Dr. J. H. Gilkey, Marion. The sanitary condition of county is now very good, only twelve cases of measles and six of dysentery having occurred. The jail is in good condition and that of poor-house is being improved.

Montgomery—Dr. W. A. Simmons,* Troy. The health of the county has been good, but a carbunculoid inflammation appears to be endemic. Fevers of malarial origin have prevailed. There is an epidemic of hog cholera. Public buildings in good condition at present.

New Hanover—Dr. F. W. Potter, Wilmington. There have been reported six cases of whooping-cough, seven of scarlatina, two of diphtheria, and two of typhoid fever. The health of county generally has been good. Hog cholera has occurred in some portions. The new jail will be completed in about a month and shows a vast improvement over the old one. Other public buildings in good condition.

Northampton—Dr. V. S. McNider, Jackson. Health of county good. Some few cases of hemorrhagic malarial fever. The sanitary condition of poor-house is good. The same cannot be said of jail.

Onslow—Dr. W. J. Montford, Ward's Mill. A good deal of sickness of a malarial type, complicated with inflammation of the glands of the neck tending to suppuration, is reported from upper portion county. Apart from this and some whooping-cough the county is healthy. *Our jail is still in bad condition.* Poor-house good.

Pender—Dr. W. T. Ennett, Burgaw. Ten cases diphtheria, twenty whooping-cough, ten typhoid, thirty pernicious and ten hemorrhagic malarial fever reported. Regular malarial fever has prevailed for the last thirty days more than the remainder of the year—cause, I think, excessive dry weather. The

poor-house is in bad condition. The house bought for the purpose is occupied by the keeper alone, the paupers being confined to huts.

Pitt—Dr. J. T. Sledge, Greenville. The general sanitary condition of county is fairly good. A good deal of malaria has occurred and a few cases of dysentery and typhoid fever. There is an epidemic of hog cholera, and I have heard of two cases of staggers among horses. Jail and poor-house in good condition.

Richmond—Dr. J. M. Stansill, Rockingham. The sanitary condition of county and public buildings is good. There have been reported eight cases whooping-cough, three scarlatina, and one of diphtheria.

Robeson—Dr. R. F. Lewis, Lumberton. Sanitary condition of county good. Very little sickness of any kind. Condition of public buildings fair. Improvements suggested.

Rowan—Dr. J. J. Summerell, Salisbury. It has been unusually healthy. Dry weather has prevailed and the malarial diseases along the creeks greatly abated. Public buildings in fair condition. A new two-story brick building at poor-house has just been completed and the old ones enlarged and made more comfortable. Much work has been done in clearing logs and brush from streams. Another such fall with the same amount of work on creeks will put the bottom lands in first-rate condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. Three cases of diphtheria, five of typhoid and one hemorrhagic malarial fever have occurred. There seems to be no tendency with these diseases to spread. While the typhoid fever is quite severe, the diphtheria is light. Public buildings in good condition.

Sampson—Dr. J. A. Stevens, Clinton. Sanitary condition of county is good. The diseases most common are malarial and typhoid fevers and whooping-cough. There is an epidemic of sore throat which some call diphtheria. If so, it is a very light form. Public buildings in good condition.

Stanly—Dr. R. Anderson,* Albemarle. Our streams have had running water all the year. Springs and wells afford an abundant supply of excellent water. The entire county has been very healthy. But little sickness of a serious character, viz., four cases scarlatina, two diphtheria and five typhoid fever. Public buildings in good condition. Jail is well ventilated, the quarters for paupers ample and reasonably well furnished. Policing good.

Swain—Dr. R. L. Davis,* Charleston. The county is in good sanitary condition at present. Five cases of diphtheria and ten typhoid fever to report. The jail is in a very unsanitary condition. It is built in a low place and is not well kept. There is some talk of building a new one. The present one has two cells, one of which, called the dungeon, is as dark as midnight, with but little ventilation, and the other not much better, and very filthy. We have no poor-house, the keeping of the paupers being given to the lowest bidder.

Tyrrell—Dr. Ab. Alexander, Columbia. Besides measles there has been but little sickness in county. Twenty-one cases measles, two diphtheria, three typhoid fever, one pernicious and three hemorrhagic malarial fever. Public buildings in good condition.

Union—Dr. W. C. Ramsay, Monroe. The general health of county for October was good. Heard of two cases diphtheria in the northern part, both resulting fatally. Condition of jail remains bad—no improvements. That of poor-house good.

Vance—Dr. J. H. Tucker,* Henderson. Sanitary condition of county good. Have learned of the following cases—twenty-two whooping-cough, three scarlatina, one diphtheria, two typhoid and one hemorrhagic malarial fever. Mild intermittent and remittent fevers have prevailed.

Wake—Dr. J. McKee, Raleigh. No report.

Warren—Dr. P. J. Macon, Warreton. Sanitary condition of county has been improved since last report. Malaria and diphtheritic pharyngitis have been the prevailing diseases. There is very little sickness in jail or poor-house.

Watauga—Dr. W. B. Council, Boone. Measles and whooping-cough have prevailed—twenty-five cases of the former and ten of the latter. Sanitary condition of county generally is good. That of jail is bad.

Wayne—Dr. Jas. Spicer, Goldsboro. No report.

Wilson—Dr. A. D. Moore, Wilson. The sanitary condition of town and county has never in my recollection been so good. Only a few cases of sporadic dysentery. Jail and poor-house in good sanitary condition.

Yancey—Dr. W. P. Whittington, Burnsville. Dysentery has prevailed, but general health of county has improved. Condition of jail is also better than last month.

◆◆◆

Poisoned Beef.

It must be remembered the causes producing sickness from eating dried beef are entirely different from those producing sickness from eating the so-called "measly pork," or pork affected with trichina spiralis.

The poison existing in the dried beef belongs to that class of cadaveric alkaloids known as ptomaines which is a poisonous alkaloid formed in the meat through a process of putrefaction, which no amount of cooking or ordinary heat will destroy, while that in "measly pork" is only the living embryo of the tape-worm, and can easily be killed and made perfectly harmless, or at least to a great extent harmless, by cooking thoroughly.

On the other hand, "measly pork," ate raw or only partially cooked, will develop into a tape-worm in the person eating it.

There has recently been discovered a similar disease which exists in beef, to that of "measly pork" producing, when ate raw, similar results in the human economy.

The trichina spiralis, which is so frequently found in pork, is still another parasite differing entirely in its nature and habits from the tape-worm parasite, and can also be destroyed by cooking the meat thoroughly, but which when not destroyed and taken into the human system soon multiplies throughout the entire

muscular system producing disease and very often death. [A number of specimens of diseased meats were exhibited with the microscope.]

Dried beef having these poisonous alkaloids usually is found containing great numbers of micro-organisms, yet our best authorities do not consider these the direct cause of the disease as is readily shown by the simple experiment of cooking meat with these in, which has not any of the ptomaines, and eating it which has been found harmless, but meat with or without these micro-organisms in, but containing these cadaveric alkaloids, is still found poisonous whether cooked or not cooked.

It has also been very clearly demonstrated that these alkaloids, when extracted by chemical process and given to the lower animals or man, produce the same general symptoms, produced in persons who ate of the meat containing the same particular poison in its crude form.

The question naturally arises, how does it come we have these cases of poisoning occurring now, which years ago was never heard of?

The question is easily answered. Years ago the patent quick process of curing meat was unknown. The meat was given plenty of time to cool off after it was killed and lose its animal heat, before it was salted or placed in the curing brine.

Pure salt was used, or a brine of salt and nitrate of potash and brown sugar, familiarly known as a "sweet pickle" in which the meat was kept for a month or six weeks until every particle and fiber of the meat was thoroughly saturated with this preserving liquid, after which it was taken out and thoroughly dried and smoked, which usually occupied from a month to six weeks longer, thus giving plenty of time for the pyroligneous acid, which is given off freely in the smoke of an ordinary wood fire, and especially that of hickory wood, to penetrate the meat and act its part in the curative process of the meat, which is no small part I can assure you, and which gives to all smoked meat that pleasant taste and peculiar odor.

Thus you will observe the old fashioned "country method," as it is sometimes called, of curing meat, required from two to three months to complete it in all of its details, but if properly conducted the meat was thoroughly cured, and was, if not diseased when killed, "sweet" and healthy meat that would harm

no one to use in proper quantities, and would keep for months without spoiling.

On the other hand, the meat of to-day is largely supplied in our cities from "packing houses," whose managers adopt the quickest method possible, to put their meat on the market after it is slaughtered. Instead of the old fashioned process being used which required months, they have adopted a new process which enables them to put their meat on the market in almost as many days.

Animals are hardly given time to die after they are taken in hand by the butcher: but a few minutes are allowed for the dressing process, and no time for cooling further than that required for the dressing and cutting into suitable pieces, when it is injected with a preserving liquid, which is actually squirted into the muscular fiber in different places in each piece owing to the size, when the meat is ready for a little smoke to give it the appearance of cured meat, and it is then ready for sacking and placing on the market, all of which only occupies a few days.

It only requires a day or two with the proper kind of a building and fire, to smoke the meat brown, and as that is all they desire, as the pyroligneous acid has already been injected into it in a chemical form with their "preserving liquid," they thus save a great amount of time in this, as well as avoiding the loss of time in the old salting process.

It is in this class of meat these poisonous ptomaines are most liable to form, for the reason that sufficient time is not given, and proper care taken, to thoroughly cure the meat, and if ever so free from decomposition when sent out, if not sold and eaten promptly, it is liable, especially in warm weather, to undergo a degree of decomposition forming these cadaveric alkaloids and become injurious, or if not, it soon becomes sour and thus favors the formation of these poisons, and besides is generally filled with great quantities of micro-organisms, which are ever ready to seek a nidus in poorly cured meat, but which may or may not be injurious to the human system.

Another class of meat in which these poisonous alkaloids are liable to form, is refuse meat that is left in the shops, until it has become tainted, when it is put through a curing process, and either dried or sold as corned beef, or cooked and sold as canned beef.

In this case, these alkaloids may form be-

fore it is subjected to the curing process at all, and when once formed no amount of cooking will remove them, or they may, as in the former case, form after it has passed through this process.

No meat is fit for use, on general principles, that responds to the acid test, or, in other words, is sour; which can be easily tested by wetting the meat and applying litmus blue, which will turn red if sour; especially is meat that is supposed to be cured, unfit for use that responds to the acid test with litmus paper.

Cadaveric alkaloids are much more to be dreaded, in one sense, than either the trichina or cysticereus, for the latter can be rendered harmless by thorough cooking, while the former is unchanged; although the parasites are to be dreaded more if once entered into the human economy than the ptomaines as a general rule, yet they are so much more easily destroyed, that their virulency is very greatly lessened.

Do not flatter yourself by dealers telling you that their meat is or has been all inspected, and is therefore safe and free from poison. No expert can tell, by looking at a piece of meat with ever so much care, or even by testing it with litmus paper, that it is free from poisonous alkaloids: the outside may be free from them, while the center may contain them, which can only be told by cutting it open and applying the litmus test, and then it cannot always be told, without eating it, or applying a chemical test or microscopical examination.

The fact of it being sacked or not has nothing to do with protecting it from these alkaloids, or of increasing them; all the benefit derived from sacking is to prevent it from getting so dirty, and avoid getting it fly-blown in the summer.

The abominable dirty habit of chipping dried beef, as it is done in our groceries, is to be detested. If you will take any piece of dried beef or meat of any kind, and if you can't detect the mould on it with the naked eye, you can detect a perfect forest of this fungus with a microscope of very low power, together with dirt and filth of all kinds. Yet our average groceryman will throw a piece of meat into the chipper and without cutting the outside off at all, which ought to be done every time, he "chips" away at it—dirt, mould and meat—until it is done, while the average dried-beef eater munches it down, dirt and all, just as received from his grocer, in ignorant innocence of its filthy condition, while his poor stomach is forced to contend with a

mass of filth which the owner would scarcely deign to have on his shoes.—*Extract from a paper on "Poisoned Beef, Cheese and Ice-cream," by R. Harvey Reed, M. D., Secretary Ohio State Sanitary Association.*

Mortuary.

Below are the statistics from four of the larger towns of the State. Have had no reports yet from Goldsboro or New Bern, nor from Greensboro or Winston, to which letters were written last month. Why will they not send them?

DISEASES.	Wilmington.		Charlotte.		Asheville.		Fayetteville.	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Accident—Drowning	1	0	0	0	0	0	0	0
" Scald.....	0	0	1	0	0	0	0	0
" Railroad.....	0	0	0	0	0	0	1	0
Bowels—Obstruction.....	1	0	1	0	0	0	0	0
" Affection.....	0	0	1	0	0	0	0	0
Cancer—of stomach.....	1	0	0	0	0	0	0	0
" of bowels.....	0	0	0	0	0	0	0	0
" 	0	0	1	0	0	0	0	0
Cholera infantum.....	0	0	0	0	0	0	0	0
Convulsions.....	0	0	1	1	0	0	0	0
Consumption.....	4	5	1	4	3	0	0	0
Croup.....	1	0	0	0	0	0	0	0
Debility.....	1	0	1	0	0	0	0	0
Diphtheria.....	0	0	0	0	0	0	1	0
Dropsy.....	3	0	0	0	0	0	0	0
Dysentery.....	0	0	2	0	1	0	0	0
Fever—Congestive.....	1	0	0	0	0	0	0	0
" Hemorrhagic.....	1	0	0	0	0	0	0	0
" Malarial.....	0	0	6	0	0	0	0	0
" Remittent.....	0	0	0	0	0	0	0	0
" Scarlet.....	0	0	1	0	0	0	0	0
Gastritis.....	1	0	0	0	0	0	0	0
Heart, disease of.....	0	0	0	0	0	0	1	1
Inanition.....	1	0	0	0	0	0	0	0
Jaundice.....	1	0	0	0	0	0	0	0
Kidneys, Bright's disease of.....	0	0	0	0	0	0	1	0
Marasmus.....	1	0	0	0	1	0	0	0
Meningitis—spinal.....	0	0	3	0	0	0	0	0
Mitral disease.....	0	0	0	2	0	0	0	0
Old age.....	0	0	0	0	1	0	1	1
Paralysis.....	1	1	0	0	1	0	0	0
Peritonitis.....	0	0	0	0	1	0	0	0
Pneumonia.....	0	0	0	2	0	0	0	0
Prostatitis.....	1	0	0	0	0	0	0	0
Still-born.....	0	0	3	0	0	0	0	0
Tonsillitis.....	1	0	0	0	0	0	0	0
Unknown.....	2	0	0	0	0	0	0	0
Whooping-cough.....	0	0	0	1	1	0	0	0
Totals by races.....	18	39	7	14	8	2	4	3
Totals by towns.....	57	21	10	7				

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	11	1,478	8	7	22	916	17	15
Burke†								
Cabarrus	2	1,256			16	1,665		
Caldwell*								
Camden	0	0	0	0	6			0
Carteret*								
Caswell*								
Catawba	0	0	0	0	16	386	10	8
Chatham	2	7,810			30	976		
Cherokee	1	8,743			5		1	
Chowan*								
Clay*								
Cleveland	12	456		4	29	665		7
Columbus	2	8,316		1	6	729		0
Craven*								
Cumberland	7	1,000	4	2	14	800	8	6
Currituck*								
Dare*								
Davidson	11	995		3	18	720		5
Davie*								
Duplin*								
Durham‡	2	5,000			7	1,000		
Edgecombe	14	490		2	23	3,443		3
Forsyth	4	1,500	4	0	14		8	3

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					8		8	1
Perquimans*.....								
Person*								
Pitt	7				22			
Polk*								
Randolph*.....								
Richmond.....	11	878	3	4	12	1,650	2	3
Robeson.....	10	691			9	800		
Roekingham*.....								
Rowan.....	7				20			
Rutherford.....	6	1,140			26	997		
Sampson	6				14			
Stanly.....	7	750	0	3	8	1,000	0	0
Stokes*								
Surry*.....								
Swain	1							
Transylvania*.....								
Tyrrell.....	0	0	0	0	4	1,160		0
Union.....	5	2,200		2	14	3,000		5
Vance†.....								
Wake†								
Warren.....	7	1,512			13	2,312		
Washington*.....								
Watanga.....	0	0	0	0	8			5
Wayne †.....								
Wilkes*.....								
Wilson.....	13							
Yadkin*.....								
Yancey	1			1	0	0	0	0
Totals.....	202		35	50	472		99	91

*No County Board of Health. †No report received. ‡No jail or poor-house in county. ¶12 prisoners in house of correction. a Refers to house of correction.

Meteorological Report.

STATIONS.	TEMPERATURE.											NO. DAYS.				Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	(greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.		Total rainfall, including hail, snow and sleet (in inches).
Smithville.....	63.5	82.8	15	35.9	30	46.9	19.5	28.7	.....	11.2	.....	20	8	3	3	1.16	N.
Hatteras....	65.3	79.1	14	48.5	30	30.6	11.5	18.4	.....	7.4	.....	15	12	4	8	.98	N.
*Knoxville, Tenn.....																	
Charlotte.....	60.4	84.5	13	36.6	30	47.9	25.9	35.6	4	15.7	26	22	7	2	1	.34	N. E.
Fort Macon.....	64.8	80.9	15	42.2	30	38.7	12.4	20.1	31	7.9	27	21	9	1	3	.60	N. E.
Lynchburg, Va.....	56.1	85.5	12	33.7	17	51.8	27.3	40.4	.....	5.7	.....	19	10	2	4	1.01	E.
Wake Forest.....	60.3	85.4	13	35.6	30	49.8	.....	.....	.....	.....	.....	.....	.....	2		2.36	N. E.
Kitty Hawk.....	63.9	77.8	15	44.5	30	33.3	9.0	17.2	.....	2.2	.....	15	14	2	a1	a.02	N. E.
Wilmington.....	64.0	87.1	13	38.4	30	48.7	23.2	28.9	12	16.0	27	19	10	2	5	.48	N. E.
Chapel Hill.....	58.6	89.0	13	35.0	29	54.0	25.7	38.0	b	18.0	c	23	6	2	2	1.47	W.
Average.....	61.9	83.6		38.9		44.6	19.3	28.4		10.5		19	10	2	3	.94	N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville.....	30.137	30.373	17	29.872	28	.501
Hatteras.....	30.150	30.444	17	29.863	28	.581
*Knoxville, Tenn.....						
Charlotte.....	30.183	30.464	17	29.846	14	.618
Fort Macon.....	30.139	30.400	17	29.863	28	.537
Lynchburg, Va.....	30.184	30.507	17	29.832	14	.675
Wake Forest.....	30.316	30.566	19	30.035	14	.531
Kitty Hawk.....	30.157	30.451	17	29.851	28	.600
Wilmington.....	30.144	30.404	17	29.868	28	.536
Average.....	30.176	30.451		29.879		.572

* No report received. a Fog deposit. b 8th, 11th and 13th. c 27th and 29th.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

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 ARTHUR WINSLOW, C. E., Raleigh.

THOMAS F. WOOD, M. D., *Secretary and Treasurer*, Wilmington.

Entered at the post-office at Wilmington, N. C., as second class mail matter.

VOL. I.

DECEMBER, 1886.

No. 9.

Summary of Reports from County Superintendents of Health for November, 1886.

(The mark * denotes that the reporter is a voluntary correspondent).

Buncombe—Dr. W. L. Hilliard, Asheville. Whooping-cough, pneumonia and typhoid fever have prevailed in the county. Public buildings in good condition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. L. Young, Concord. Sixty-three cases of whooping-cough and eight of typhoid fever have been reported. Health of county unusually fine. Condition of public buildings is good.

Camden—Dr. F. W. Ritter,* Shiloh. The cold snap, with a plenty of ice and snow, has given a quietus to intermittent and remittent fevers. No report from upper end of county, but in this section it is healthy. The public buildings are in good condition.

Catawba—Dr. George H. West, Newton. Pneumonia has prevailed in town and vicinity. Jail and poor-house are in good condition. No work done on streets the past month.

Chatham—Dr. John M. Manning, Pittsboro. Very little sickness. Condition of county and public buildings is good.

Cherokee—Dr. J. F. Abernathy, Murphy. Rubella, mumps and diphtheria have prevailed in this county. A few cases of whooping-cough and typhoid fever have been reported. The diphtheria is of light form, but few cases proving fatal. The condition of public buildings is good, especially during winter. Poor-house has no means for the isolation of contagious diseases, but means have been appropriated to supply this deficiency.

Cleveland—Dr. J. C. Gidney, Shelby. A few cases of diphtheria and typhoid fever have occurred. The jail is not sufficiently warmed. Some of the cottages at poor-house are not as comfortable as they should be. The inmates are well fed and plenty of good fuel furnished.

Columbus—Dr. I. Jackson, Whiteville. No epidemic has occurred in any part of county. The sanitary condition of county is good. It has been singularly free from epidemics the whole year. One or two scattering cases of diphtheria and pernicious malarial fever have come to my knowledge the past month. The

condition of public buildings is good, and the inmates of jail and poor-house properly looked after and made comfortable.

Cumberland—Dr. W. C. McDuffie, Fayetteville. No epidemic has occurred. Some measles, whooping-cough and typhoid fever have occurred. Our county is in as good or better sanitary condition than it has been in since the establishment of the Board of Health. Jail and poor-house are in excellent condition—all in good repair and comfortable.

Davidson—Dr. R. L. Payne, Jr., Lexington. No epidemic has occurred. Scattering cases of whooping-cough, diphtheria and typhoid fever have been reported. Sanitary condition of county is good, also of public buildings. Have at last succeeded in getting the dietary at poor-house improved. Formerly it was exclusively the fattest western bacon and heavy wheat bread, with a little coffee without sugar for both sick and well. They now get less fat and starch and more lean meat and sugar.

Durham—Dr. A. G. Carr, Durham. Typhoid fever and whooping-cough have occurred. There have been several cases of "protracted" throat affections. All the public buildings are in good sanitary condition.

Edgecombe—Dr. J. M. Baker, Tarboro. No epidemic has occurred. Three cases of hemorrhagic malarial fever have been reported. Sanitary condition of county good, that of public buildings is excellent.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Extraordinarily healthy! Only one case of hemorrhagic malarial fever reported in contagious diseases. The sanitary condition of public buildings is good, and steps have been taken for necessary improvements.

Gaston—Dr. E. B. Holland, Dallas. Malarial fever, pneumonia and whooping-cough have prevailed. The sanitary condition of county and public buildings is fair.

Greene—Dr. W. C. Galloway, Snow Hill. Two cases each of diphtheria and hemorrhagic malarial fever have occurred. Frost is rapidly driving out intermittent and remittent fe-

vers. Work was commenced three weeks since on a new poor-house, which is situated in a very eligible and healthy locality near town, on a tract of eighty acres purchased for the purpose. The work will probably be finished in a month. There will be three buildings, one for the keeper, one for whites and one for negroes, and they will be constructed with a view to health, comfort and convenience.

Guilford—Dr. Ed. Lindsay, Greensboro. The county is in good sanitary condition, no serious cases of sickness (except chronic) having occurred. Public buildings are also in good condition.

Henderson—Dr. J. L. Egerton, Hendersonville, resigned. No report.

Iredell—Dr. M. W. Hill, Statesville. No report.

Johnston—Dr. J. G. Rose, Smithfield. Typhoid fever has prevailed, and there has been some diphtheria reported. The sanitary condition of county is very good, as also of jail and poor-house.

Jones—Dr. R. A. Whitaker, Trenton. The health of county was never better. No sickness of any note, only one case of typhoid fever reported. Public buildings are in a sanitary condition.

Lenoir—Dr. F. M. Rountree, Kinston. An epidemic of hog cholera has prevailed. Public buildings in good condition.

Lincoln—Dr. J. M. Lawing, Lincolnton. Bronchial and rheumatic affections have prevailed. Measles, whooping-cough and typhoid fever have occurred to some extent. Sanitary condition of public buildings is good. Rooms at poor-house are too small for the accommodation of the inmates, and the bedding is not sufficient in very cold weather.

McDowell—Dr. J. H. Gilkey, Marion. Measles and diphtheria have prevailed in some portions. The county is in good sanitary condition, but little sickness having occurred during the month. Poor-house and jail are in unusually good condition.

Macon—Dr. J. M. Lyle, Franklin. A few cases of pneumonia and pleurisy have occurred. Also two cases of measles and four

of diphtheria. Sanitary condition of county in the main good.

Madison—Dr. Jas. K. Hardwicke, Marshall. County is in good sanitary condition, public buildings the same.

Montgomery—Dr. W. A. Simmons,* Troy. Catarrhal affections prevailed toward the latter part of month. This, with a little malarial trouble, is all I have to report.

New Hanover—Dr. F. W. Potter, Wilmington. Three cases scarlatina, two typhoid fever, and one hemorrhagic malarial fever, have occurred. Beside these and the prevalence of bowel troubles of a mild type in some portions, the city and county have been quite healthy. New jail will be ready for occupancy about the 1st of January. It is a handsome building, of brick with iron rafters and iron and cement floors, and so arranged that prisoners cannot converse with persons on the outside.

Northampton—Dr. V. S. McNider, Jackson. Very little sickness in the county. Hear of two cases of malarial hemorrhagic fever.

Onslow—Dr. W. J. Montford, Ward's Mill. The sanitary condition of county has greatly improved since last month. A few cases of whooping-cough have occurred. There has been an epidemic of hog cholera. Poor-house is in good condition, jail bad.

Pender—Dr. W. T. Ennett, Burgaw. Pneumonia and rheumatism have prevailed in some portions. The county generally is in fair sanitary condition, but some little villages are in bad condition. The poor-house is far from being suitable, but is intended to be used only temporarily. Two cases of typhoid fever and forty-five of whooping-cough have been reported.

Person—Dr. C. E. Bradsher,* Roxboro. The sanitary condition of southern part of county is very good. In the northern part there have occurred several cases of malarial and typho-malarial fever, owing to swamps. Public buildings are in a tolerably good sanitary condition which is gradually improving. We have two prisoners in jail and sixteen inmates of the poor-house.

Pitt—Dr. J. T. Sledge, Greenville. No report.

Polk—Dr. G. H. Cox,* Tryon City. The general sanitary condition of county is good. Twenty cases of whooping-cough and an epidemic of hog cholera reported. The condition of public buildings is not so good as it should be, but hope for an improvement in the near future.

Richmond—Dr. J. M. Stansill, Rockingham. Whooping-cough, six cases, and one case each of scarlatina and typhoid fever have been reported. The health of this portion of county has been good—very little sickness. Public buildings in good sanitary condition.

Robeson—Dr. R. F. Lewis, Lumberton. Scarcely any sickness has occurred in this section of the county. Sanitary condition of county excellent. Jail is insufficiently heated. Improvements recommended.

Rowan—Dr. J. J. Summerell, Salisbury. The county is in good sanitary condition. One case of scarlatina and two of diphtheria. All three cases recovered. While the condition of public buildings is not all that is desired, yet it is much improved and the commissioners seem disposed to make improvements when in their judgment it is necessary.

Rutherford—Dr. E. B. Harris, Rutherfordton. Two cases diphtheria, five typhoid fever and one hemorrhagic malarial fever have occurred. The general health of county is good. Less sickness than any month past. Public buildings also in good condition.

Sampson—Dr. J. A. Stevens, Clinton. The general health of county is good. A few cases pneumonia with some typhoid and malarial fevers have occurred. Whooping-cough has been severe and has not yet exhausted all the material. Our board of magistrates have agreed to establish a "house of correction" at an early day. Poor-house and jail are in good condition. Have not had a death or a case of serious sickness in these institutions for more than four months.

Stanly—Dr. R. Anderson,* Albemarle. The general health of county is excellent. One case of diphtheria and two typhoid fever re-

ported. Public buildings are in good repair and well kept. The inmates are well cared for.

Swain—Dr. R. L. Davis,* Charleston. The sanitary condition of county has been tolerably good during the past month. Very little sickness except colds. One case of typhoid fever was reported. Condition of public buildings is bad, and no steps are being taken towards improving it.

Tyrrell—Dr. Ab. Alexander, Columbia. The sanitary condition of county is good. One case of diphtheria is reported. Public buildings in good condition.

Union—Dr. W. C. Ramsay, Monroe. The health of county has been excellent during November. But few cases of sickness and none of any note. Sanitary condition of poor-house is good—of jail, bad. No efforts at improvement.

Vance—Dr. J. H. Tucker,* Henderson. Sanitary condition of town and county good, and health of general public, in consequence, is excellent. Eight cases of whooping-cough, one typhoid fever and a few cases bronchial catarrh and pneumonia have occurred. Our county is still without poor-house or jail.

Wake—Dr. James McKee, Raleigh. The health of county is good, and the city is remarkably exempt from diseases dangerous to public health. One case scarlatina, two diphtheria and two typhoid fever have been reported. Public buildings all in good condition. I deem it essential to comfort and health that another and better system of more uniformly heating the court-house and jail and the entire Capitol building be substituted for the present one.

Warren—Dr. P. J. Macon, Warrenton. No report.

Watauga—Dr. W. B. Council, Boone. No report.

Wayne—Dr. James Spicer, Goldsboro. The sanitary condition of county is good. Eight cases of whooping-cough have occurred. The sanitary condition of our jail will be better in a short time, as steps are now being taken to improve it.

Wilson—Dr. A. D. Moore, Wilson. County continues very healthy from every section heard from. We are endeavoring to organize a county society. Public buildings are in good sanitary condition.

Yancey—Dr. W. P. Whittington, Burnsville. The general sanitary condition of county is good. With the exception of such diseases as are caused by the great and sudden changes in temperature, the health of the county has been pretty good. There has been an epidemic of a mild skin disease resembling roseola and röhelu, about which doctors differ. Public buildings in good condition.

◆◆◆
Neglect of Reasonable Precaution against Small Pox.

Information from the principals of thirteen schools in the city of Wilmington, the four graded schools being counted as one, gives the following facts in regard to the number of children in attendance and the number which have been vaccinated, as set forth in the accompanying table of statistics. There may be one or two small private schools, both white and colored, of which we could not learn, and which would increase the number in attendance by fifty or sixty.

Table of Statistics of Schools in Wilmington, N. C., as to number of children in attendance and the number which have been vaccinated.

	Total number in school.	Total number vaccinated.	Total number unvaccinated.	In public schools.		In private or pay schools.		Per cent vaccinated.		
				Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	In public schools.	In private schools.	In all schools.
White.	1166	736	430	275	287	461	143	48.9	76.3	63.1
Color'd	1031	191	840	191	840			18.5		18.5
Totals.	2197	927	1270	466	1127	461	143	28.9	76.3	42.2

This reveals a remarkable state of things in a city where vaccination has been performed regardless of expense and trouble nearly every year. That the proportion of colored children vaccinated is so small is easily accounted for by the prejudice they have against it, there being a belief amongst them that vaccination causes small pox. But with the whites, we are satisfied that the main cause is pure neglect. We are more confident in making this last assertion, on looking over the list of names of pupils vaccinated and unvaccinated furnished us from the Tileston school. We notice in that list the names of children in their teens, belonging to families of intelligence, but who had never been vaccinated.

Here now, we see in this exhibit the risk that all towns run, in neglecting the best known precaution which medical science has discovered. Compulsory vaccination is out of the question, except that compulsion which fear from the actual presence of small pox might cause; although we have no doubt that compulsory vaccination could be instituted in time of public danger, upon precisely the same principle which allows the fire department, in time of a great conflagration, to blow up an uninjured house in order to save others.

It is the duty of the Board of Health to point out these dangers—it is the duty of those entrusted with the execution of the laws of health of States to see that vaccination is performed thoroughly, yearly.

The Contamination of Wells.

The *Annals of Hygiene* (October, 1886) gives an illustration showing why the well-water in cities is unfit to drink. The drawing gives below ground a sectional view of well, cess-pool and drains. The drains have leaky joints, and the sewage escaping from them is seen percolating through the soil and making its way through the crevices of the brick curb of the well and then running down into the water. Above ground three women are at the pump—one of them with a glass to her lips “taking back into her body that

which but a short time before she had discarded as excrementitious.”

“*For the remedy.*—Let us remember that a well will drain an area with a diameter equal to twice its depth. Therefore a well twelve feet deep will drain an area the diameter of which is twenty-four feet, that is to say, it will drain the surrounding soil for twelve feet in every direction. Obviously, then, the privy should be more than the depth of the well away from it, and more than this again, if it is proposed to place it on a *higher* level, which, however, should never be done. The well should be lined inside *thoroughly* with mortar, so that percolation cannot occur between the crevices of the bricks, and it should be well covered, so that *surface* drainage cannot get into it, for you want to drink water that has come into the well from the bottom, after it has been purified by filtration through the earth. Thus, then, these are the precautions to be observed in locating and building your well in the country. How about the city? *Well-water* in the city should never be used; the sources of contamination are too numerous and too hidden to be avoided.”

◆◆◆

Let us Hear from You.

Letters have been written to physicians in each county in the State having no local board of health, asking their co-operation by sending to the Secretary of the State Board, each month, a report of the prevailing diseases in their respective counties. We have received letters, expressing their willingness to help us from Drs. E. F. Ashe, Anson county; F. W. Ritter, Camden county; W. A. Simmons, Montgomery county; G. H. Cox, Polk county; C. E. Bradsher, Person county; R. Anderson, Stanly county; R. L. Davis, Swain county; D. H. Fanner, Transylvania county; and D. B. McNeill, Brunswick county. We hope the other gentlemen to whom these letters were sent will soon be heard from, and if they *cannot*, we can hardly think they *will not*, make these reports, that they will try to enlist the aid of some physician, or other person who may be capable, who can do it. *Let us hear from you.*

Mortality.

Below are the statistics from five of the larger towns of the State. Have had no reports yet from Goldsboro or New Bern, nor from Greensboro or Winston. Will they not send them?

CAUSE OF DEATH.	Wilmington.		Raleigh.		Charlotte.		Asheville.		Fayetteville.		Total by diseases.
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	
Apoplexy.....	1	...	...	...	...	...	...	...	...	...	1
Brain, congestion of.....	1	...	...	...	...	...	...	...	...	...	1
“ Fever.....	...	1	...	...	...	...	...	...	...	...	1
Burn.....	...	...	1	...	...	...	...	...	...	...	1
Bladder, inflammation of.....	...	...	1	...	...	...	...	...	...	...	1
Bowels, perforation of.....	1	...	...	...	...	...	...	...	...	...	1
Cholera infantum.....	1	...	...	...	...	...	...	...	...	...	1
Consumption.....	1	7	1	3	1	7	1	...	...	...	21
Convulsions.....	...	...	...	...	...	...	1	...	...	...	1
Cyanosis.....	1	...	...	...	...	...	...	...	...	...	1
Croup.....	...	...	...	...	...	...	...	...	...	...	2
Diphtheria.....	...	1	...	...	...	...	...	...	...	...	1
Debility.....	2	...	...	...	...	...	...	...	...	...	2
Dropsy.....	1	...	...	...	...	...	...	...	...	...	1
Dysentery.....	1	...	...	...	...	...	...	...	...	...	1
Enterocolitis.....	...	1	...	...	...	...	...	...	...	...	1
Fever—Bilious.....	...	...	...	...	...	...	...	...	...	...	1
“ Typhoid.....	4	1	...	...	...	...	...	...	...	...	5
“ Typho-malarial.....	1	1	...	...	...	...	...	...	...	...	2
“ Remittent.....	1	...	...	...	...	...	...	...	...	...	1
Gastritis, chronic.....	1	...	...	...	...	...	...	...	...	...	1
Heart, disease of.....	1	...	1	...	1	...	...	...	...	...	3
Hepatitis, interstitial.....	1	...	...	...	...	...	...	...	...	...	1
Hydrocephalus.....	1	...	...	...	...	...	...	...	...	...	1
Inanition.....	...	...	...	1	...	...	...	...	...	...	1
Intersusception.....	...	...	...	1	...	...	...	...	...	...	1
Jaundice.....	1	...	...	...	...	...	...	...	...	...	1
Kidneys, Bright's dis'e.....	...	1	...	...	...	...	...	...	...	...	1
Kidneys, congestion of.....	...	1	...	...	1	...	...	...	...	...	1
Lungs—Congestion of.....	...	...	...	...	...	1	...	1	...	...	2
“ Cirrhosis of.....	1	...	...	...	...	...	...	...	...	...	1
Meningitis, cerebro-spi-nal.....	...	2	...	...	...	...	...	...	...	...	2
Old age.....	1	1	...	...	...	1	...	...	...	...	3
Phthisis.....	1	...	...	...	...	...	...	...	...	...	1
Pneumonia.....	2	...	...	2	...	2	...	...	...	...	6
Premature.....	...	1	...	...	...	...	...	...	...	...	1
Paralysis.....	...	...	1	1	...	...	...	...	...	...	2
Spina bifida.....	...	1	...	...	...	...	...	...	...	...	1
Still-born.....	...	3	...	...	...	...	...	...	...	...	5
Stenosis.....	1	...	...	...	...	...	...	...	...	...	1
Syphilis.....	1	...	...	...	...	...	...	...	...	...	1
Septicæmia.....	1	...	...	...	...	...	...	...	...	...	1
Teething and cold.....	...	2	...	...	...	...	...	...	...	...	2
Testanus.....	1	1	...	...	...	...	...	...	...	...	2
Whooping-cough.....	...	...	...	...	...	...	...	...	...	...	2
Totals by towns.....	15	29	8	11	5	11	4	4	3	1	91
Totals by towns.....	44	19	16	8	4	4					

Fine for Delinquency in sending in Monthly Reports.

Section eight of the act relating to the Board of Health requires County Superintendents of Health to make reports to the Secretary of the State Board by the 10th of each month, for the month preceding, and a failure to do this “shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health.”

There has recently been published in Massachusetts a “Manual for the Use of Boards of Health of Massachusetts” by the State Board of Health. This manual contains the statistics relating to the public health and the decisions of the Supreme Court of Massachusetts relating to the same, which last are now sufficiently numerous and cover enough points to form a very valuable addition to the work. While bearing particularly upon the practice of sanitation in Massachusetts, this manual is nevertheless a most instructive collection of the results of legislation based on long experience in one of our most densely populated States, and, as such, should be studied by all who are interested in sanitary jurisprudence. It is instructive for defining the powers which should be given health boards. Theoretically, such boards should have great power; but in most cases it is not possible at first to give to a health board such powers and responsibilities as it should possess, because public opinion will not sustain sanitation. It is necessary to convince the people by actual experience that the board may be relied upon to deal fairly and justly with the many conflicting interests which come before it. Full powers can be given a board of health only in a community which has been educated as to their utility and in which individuals and corporations, knowing the direction and extent of the probable enforcement of regulations for the prevention of nuisance and the protection of public health, make their arrangements accordingly.—From Sanitary Engineer, December 18th, 1886.

Report on Jails and Poor-houses by Counties.

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ashe*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick*								
Buncombe	18	903			20	1,008		
Burke†								
Cabarrus	0	0	0	0	14	1,665	8	11
Caldwell*								
Camden					6			0
Carteret*								
Caswell*								
Catawba	10	428	3	6	18	856	10	8
Chatham	1	15,000	1		20	9,760	10	
Cherokee	3	1,000			6	650		
Chowan*								
Clay*								
Cleveland	9	608		3	30	642		4
Columbus	2	8,316		1	6	729		0
Craven*								
Cumberland	6	800	4	4	18	800	13	6
Currituck*								
Dare*								
Davidson	13	542		1	16	720		5
Davie*								
Duplin*								
Durham	13	436	3	4	5	1,600		1
Edgecombe	13	428		4	22	3,600		1
Forsyth†								

a Ten of these are in house of correction.

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Franklin.....	3	1,600	0	0	13	900	3	1
Gaston.....	7	1,087	1	3	13	2,589	2	4
Gates*.....								
Graham*.....								
Granville*.....								
Greene.....	2	1,000	2	1	6	1,800	4	2
Guilford.....	b72				0			
Halifax*.....								
Harnett*.....								
Haywood*.....								
Henderson†.....								
Hertford*.....								
Hyde*.....								
Iredell†.....								
Jackson*.....								
Johnston.....	10	237	5	5	9	736	2	1
Jones.....	2	3,150	0	1	5	784	3	0
Lenoir.....	4	235	0	4				
Lineoln.....	5	1,542			14	741		
McDowell.....	6	400	2	4	10	450	2	3
Macon.....	5	960	2	3	0			
Madison.....	0				6	2,100	0	0
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....					12	500		
Moore*.....								
Nash*.....								
New Hanover.....	c6	600	4		22	600	15	
Northampton†.....								
Onslow.....	3	2,000	0	1	5	2,000	0	1
Orange*.....								
Paullico*.....								

b Of these 34 are in house of correction. c Refers to house of correction.

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (in cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					8		5	1
Perquimans*.....								
Person*.....								
Pitt†.....								
Polk.....	2	533	1	2	4	1,153		
Randolph*.....								
Richmond.....	11	878	3	4	12	1,650	2	3
Robeson.....	10	680			9	800		
Rockingham*.....								
Rowan.....	7		5	3	27		12	5
Rutherford.....	5	1,368			27	960		
Sampson.....	2	3,722			14	1,884	5	3
Stanly.....	3		0	1	7		0	0
Stokes*.....								
Surry*.....								
Swain†.....								
Transylvania*.....								
Tyrrell.....	0				4		0	0
Union.....	5	2,000		2	15	3,000		5
Vance‡.....								
Wake.....	47d							
Warren†.....								
Washington*.....								
Watauga†.....								
Wayne.....	24	10		10	5	825		1
Wilkes*.....								
Wilson.....	10				22			
Yadkin*.....								
Yancey.....	1			1				
Totals.....	340		36	68	460		96	66

*No County Board of Health. †No report received. ‡No jail or poor-house in county. dThis includes 26 prisoners in house of correction, each having 187 cubic feet of air space.

Meteorological Report.

STATIONS.	TEMPERATURE.								NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.			
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.			Fair.	Cloudy.	On which rain fell, including hail, snow and sleet.
*Smithville.....																	
Hatteras....	55.9	74.6	25	35.5	14	39.1	14.3	30.5	5.4			17	10	3	8	1.56	N. W.
Knoxville, Tenn ...	46.0	72.5	23	23.7	7	48.8	20.7	34.6	7.2			10	10	10	11	7.21	S. W.
Charlotte.....	50.5	74.0	a	27.5	14	46.5	22.8	35.7	1	9.2	22	11	12	7	11	2.88	S. W.
Fort Macon.....	55.2	78.9	18	31.0	14	47.9	17.2	30.1	13	6.3	30				4	1.17	N. W.
Lynchburg, Va.....	45.9	73.3	3	24.1	9	49.2	20.8	34.4	3.5			9	15	6	9	4.49	S. W.
Wake Forest.....	51.2	74.9	23	22.4	9	52.5									9	2.11	W.
*Kitty Hawk.....																	
Wilmington.....	55.3	77.4	2	29.7	14	47.7	24.2	33.6	2	15.0	22	15	12	3	4	.19	S. W.
Chapel Hill.....	49.1	77.0	b	23.0	9	54.0	24.8	36.0	2	6.0	22	15	5	10	5	2.79	W.
Average.....	51.1	75.3		27.1		48.2	20.7	33.5	7.5			13	10	7	8	2.80	S. W. TO N. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
*Smithville.....						
Hatteras.....	30.095	30.380	16	29.703	25	.677
Knoxville, Tenn.....	30.133	30.459	27	29.631	23	.828
Charlotte.....	30.093	30.395	16	29.660	25	.735
Fort Macon.....	30.105	30.354	26	29.701	25	.653
Lynchburg, Va.....	30.062	30.473	16	29.606	18	.867
Wake Forest.....	30.236	30.526	26	29.877	12	.649
*Kitty Hawk.....						
Wilmington.....	30.105	30.361	26	29.747	30	.614
Chapel Hill.....	30.155	30.434	30	29.722	30	.712
Average.....	30.123	30.423		29.706		.717

* No report received. a 1st and 3d. b 2d and 23d.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTIONS FIFTY CENTS A YEAR.

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Entered at the post-office at Wilmington, N. C., as second class mail matter.

VOL. I.

JANUARY, 1887.

No. 10.

Summary of Reports of County Superintendents and Correspondents for month of December, 1886.

[The mark * denotes that the reporter is a voluntary correspondent.]

Buncombe—Dr. W. L. Hilliard, Asheville. Acute bronchitis, pneumonia, measles and typhoid fever have prevailed. The sanitary condition of all public buildings is excellent.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. Robert S. Young, Concord. No epidemic of any kind has occurred nor diseases of a dangerous nature. Our jail is not heated at all. It has a hot-air furnace which is utterly worthless. Sewerage of jail is exceedingly bad.

Camden—Dr. F. W. Ritter,* Shiloh. I hear of no epidemics and very little sickness.

Catawba—Dr. George H. West, Newton. Pneumonia has prevailed in Newton and vicinity. There have been reported thirty-five cases whooping-cough, five scarlatina and three diphtheria. Sanitary condition of town and vicinity is good. The jail has been re-

cently repaired, and everything is in good condition. The buildings at poor-house are old, but the commissioners will build new ones this year.

Chatham—Dr. Jno. M. Manning, Pittsboro. Bronchitis has prevailed in all parts of county. Sanitary condition of county and public buildings good.

Cherokee—Dr. J. F. Abernathy, Murphy. No epidemic disease among adults during month. Colds and whooping-cough principally among children. The presence of an insane man in the jail renders it impossible to keep it as clean as it should be. The poor-house is very good but insufficiently ventilated.

Cleveland—Dr. J. C. Gidney, Shelby. No contagious or epidemic diseases have occurred. Sanitary condition of county very good. Improvements are contemplated for jail, and estimates and plans made for improvements at poor-house.

Columbus—Dr. I. Jackson, Whiteville. No epidemic has occurred. There has been some whooping-cough and one case of typhoid fever. The sanitary condition of county has

been first-class. The health of our village has been superb, the municipal authorities contributing largely to it by opening drains in every direction. The jail is in fine sanitary condition. We hope to have a poor-house built soon near the village which will be provided with all improvements which will add to comfort and health.

Cumberland—Dr. W. C. McDuffie, Fayetteville. No report.

Davidson—Dr. R. L. Payne, Jr., Lexington. No epidemic has prevailed. One case of measles, twenty-five of whooping-cough, ten of diphtheria and three of typhoid fever have been reported. Sanitary condition of county is good. There are no local causes of disease existent, except those producing malaria, and I am succeeding in draining much unhealthy swamp and pond land. Sanitary condition of public buildings good. I have at last succeeded in improving the dietary at poor-house, and also in providing a nurse for the sick. A year ago they had almost no attention.

Duplin—Dr. James W. Blount,* Kenansville. There has been an epidemic of whooping-cough in nearly all portions of county. The general sanitary condition of county is good. There is very little sickness. During the fall months we had many cases of intermittent, bilious and continued fevers, easily controlled by treatment. Condition of public buildings good, except jail, which is deficient in sewerage. This, however, we hope to improve soon.

Durham—Dr. N. M. Johnson, Durham. No epidemic has prevailed in the county. Public buildings in good sanitary condition.

Edgecombe—Dr. J. M. Baker, Tarboro. No epidemic or contagious diseases reported for December. Sanitary condition of public buildings good. Effort has been made towards repairs at jail.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. No epidemic has prevailed. Two cases of hæmorrhagic malarial fever reported. Public

buildings in good condition. I shall attempt to have necessary repairs made.

Gaston—Dr. E. B. Holland, Dallas. The county is in fair sanitary condition. Pneumonia and malarial fever have prevailed. Our jail is very defective and badly located in the central part of town. The brick walls are thin and insecure. There is but little means for heating and almost none for ventilation. It is not in the power of the keeper to treat persons humanely with such an entire failure in regard to construction. The poor-house is in good condition and the paupers comfortable.

Greene—Dr. W. C. Galloway, Snow Hill. Condition of county good. No epidemic or contagious diseases reported. Poor-house nearly completed. Jail is in good condition, but could be improved in regard to light and ventilation.

Guilford—Dr. Ed. Lindsay, Greensboro. There is very little sickness reported except old chronic cases. Public buildings in good condition. No diseases resulting from unsanitary surroundings have occurred during the past year.

Henderson—Dr. J. L. Egerton, Hendersonville. Resigned. No notice of his successor being appointed.

Iredell—Dr. M. W. Hill, Statesville. No report.

Johnston—Dr. J. G. Rose, Smithfield. The sanitary condition of county is very good. Very little sickness of any kind. Condition of public buildings is as good as can be made. [Air space in jail is far too little].

Jones—Dr. Rom. A. Whitaker, Trenton. The health of county was never better. Sickness has almost entirely disappeared, with the exception of colds. The jail is in almost perfect sanitary condition. The buildings at poor-house are in good condition, except that for colored people, which is too open.

Lenoir—Dr. F. M. Ronntree, Kinston. The sanitary condition of county is improving. Farmers are taking more interest in draining their lands, which has caused very considerable difference in the health of those sections.

Only three cases of whooping-cough and three of typhoid fever have been reported. There has been an epidemic of hog cholera. The sanitary condition of jail is good. Not a severe case of fever this year in this institution.

Lincoln—Dr. J. M. Lawing, Lincolnton. Diphtheria, measles and whooping-cough have been reported. The buildings at poor-house answer but poorly the purpose for which they are intended. They are too small and frail. The jail is an old brick structure and is in moderately good condition.

McDowell—J. H. Gilkey, Marion. An epidemic of measles has prevailed in some portions of county. The sanitary condition of county during December has been unusually good. But little sickness except measles. Jail and poor-house are in good condition. The commissioners have recently bought a tract of land and built a new poor-house, and the inmates are in better condition than for many years.

Macon—Dr. J. M. Lyle, Franklin. A good deal of pneumonia has been reported; also nine cases of measles and one of diphtheria. County and public buildings are in good condition.

Madison—Dr. Jas. K. Hardwicke, Marshall. The county is in good sanitary condition. No contagious diseases. The condition of poor-house is good. Jail is not sufficiently supplied with water-closets, nor is the cage large enough for the number of prisoners sometimes confined.

Montgomery—Dr. W. A. Simmons,* Troy. December has been unusually healthy, only slight catarrhal diseases occurring. Jail and poor-house in good condition.

New Hanover—Dr. F. W. Potter, Wilmington. No epidemic has prevailed. The sanitary condition of county is good, only two cases whooping-cough, two scarlatina, four diphtheria and two typhoid fever having been reported. New jail is about completed. The poor-house has been thoroughly repaired and whitewashed. The commissioners will cover

all the buildings with tin as soon as practicable.

Northampton—Dr. V. S. McNider, Jackson. No report.

Onslow—Dr. W. J. Montford, Ward's Mill. The health of county has been very good. Whooping-cough has occurred to a slight extent. Jail has been burnt. Poor-house is in good condition.

Pender—Dr. W. T. Ennett, Burgaw. Chills and fevers have prevailed in some portions of county. The sanitary condition of county is good. As little sickness exists as was ever known here. The building used as a poor-house is entirely unsuited for that purpose, and the sooner a suitable one is provided the better it will be for the poor.

Pitt—Dr. J. T. Sledge, Greenville. No report.

Richmond—Dr. J. M. Stansill, Rockingham. The health of this section of the county has been good. Very little sickness of any kind. The sanitary condition of public buildings is good, except jail for confinement of lunatics at the poor-house, which I hope I can have improved.

Robeson—Dr. R. F. Lewis, Lumberton. Sanitary condition of county is very good. No contagious diseases. The jail is imperfectly heated, and oft-repeated asking has brought only promises to have it remedied. Meanwhile, the prisoners suffer. Poor-house is hardly comfortable during cold weather.

Rowan—Dr. J. J. Summerell, Salisbury. The health of county is good. I have heard of a few cases of pneumonia and other light lung diseases. Coldest weather in December, 17° F. Jail and poor-house in good condition. Our city has made a contract for water-works, which will render it possible to keep sewers at jail in better condition.

Rutherford—Dr. E. B. Harris, Rutherfordton. Pneumonia has prevailed in western portions. The sanitary condition of county is remarkably good. Nothing exists which is dangerous to health. The public buildings are all in good condition.

Sampson—Dr. Jas. A. Stevens, Clinton. The general health of county is good. Some whooping-cough, typhoid and malarial fevers have occurred. Pneumonia is the most prevalent disease. The sanitary condition of public buildings is good.

Stanly—Dr. R. Anderson,* Albemarle. The general health of the county for the year just ending has been excellent. Our springs, wells and streams have furnished an abundant supply of good water. We are free from any local causes of disease. All our public buildings have been recently repaired and improved.

Swain—Dr. R. L. Davis,* Charleston. The sanitary condition of county is better than it has been for some time. Eight cases of typhoid fever have been reported. The sanitary condition of jail is very bad. There are no water-closets, but, instead, there is a hole in the floor, the fecal matter collecting on the ground below and being removed not more than once a year.

Transylvania—Dr. D. N. Farmer,* Brevard. Three cases diphtheria and six typhoid fever have been reported, with scattering cases of bronchial affections, diarrhœa and rheumatism. Public buildings in excellent condition.

Tyrrell—Dr. Ab. Alexander, Columbia. The county is in very good sanitary condition. There is very little sickness, only one case of diphtheria being reported. Jail and poor-house in good condition. Jail is new.

Union—Dr. W. C. Ramsay, Monroe. Mild cases of bronchitis, with an occasional case of pneumonia, have been reported; otherwise, the health of county is good. The condition of poor-house is good; not so of jail. A new court-house is being built, after which a new jail is contemplated.

Vance—Dr. J. H. Tucker,* Henderson. A few cases of pneumonia and winter catarrhs have occurred. Fifteen cases of whooping-cough reported. County in good sanitary condition.

Wake—Dr. James McKee, Raleigh. No report.

Warren—Dr. P. J. Macon, Warrenton. A few cases of pneumonia and some chills have occurred. The health of the county was never better. Jail and poor-house are in good condition, the former having been recently cleaned after being neglected some time, and new mattresses provided.

Watauga—Dr. W. B. Councill, Boone. The health of the county was never better. Ten cases of measles and twenty of whooping-cough about all I have to report. Poor-house is in good condition, jail in bad.

Wayne—Dr. Jas. Spicer, Goldsboro. No report.

Wilson—Dr. A. D. Moore, Wilson. No report.

Yancey—Dr. W. P. Whittington, Burnsville. Whooping-cough with considerable influenza and bronchitis has prevailed in all portions of county. Pneumonia has diminished somewhat. Sanitary condition of jail good, but bedding could be made more comfortable.

Water Impurities--Some Simple Tests.

Test for hard or soft water.—Dissolve a small quantity of good soap in alcohol. Let a few drops fall into a glass of water. If it turns milky, it is hard; if not, it is soft.

Test for earthy matters or alkali.—Take litmus paper dipped in vinegar (which turns it red), and if, on immersion, the paper returns to its true shade, the water does not contain earthy matter or alkali. If a few drops of syrup be added to a water containing an earthy matter, it will turn green.

Test for carbonic acid.—Take equal parts of water and clear lime-water. If combined or free carbonic acid is present, a precipitate is seen, to which, if a few drops of muriatic acid be added, an effervescence commences.

Test for magnesia.—Boil the water to a twentieth part of its weight, and then drop a few grains of neutral carbonate of ammonia into a glass of it, and a few drops of phosphate of soda. If magnesia be present, it will fall to the bottom.

Test for iron.—Boil a little nut-gall and add to the water. If it turns gray or slate, black iron is present. 2. Dissolve a little prussiate of potash, and, if iron is present, it will turn blue.

Test for lime.—Into a glass of the water put a little oxalic acid and blow upon it; if it gets milky, lime is present.

Test for acid.—Take a piece of litmus paper. If it turns red, there must be acid. If it precipitates on adding lime-water, it is carbonic acid. If a blue sugar-paper is turned red, it is a mineral acid.—*The Sanitarian.*

Danger in Ice.

In an article on "The Number of Bacteria in Ice" in the *American Journal of Pharmacy* for December, 1886, the author concludes that "the common 'raw' ice, till lately almost exclusively used, on account of the large number of bacteria, capable of development, which it contains, should not be taken with food, in drinks, or for medicinal purposes. It should never be used in the treatment of wounds. In these connections, artificial ice, made from distilled water, should be employed. The use of raw ice in contact with food, which is afterwards to be cooked, is permissible, but artificial ice is to be preferred. Raw ice may be freely used where it does not come into direct contact with food."

Fine for Delinquency in sending in Monthly Reports.

Section eight of the act relating to the Board of Health requires County Superintendents of Health to make reports to the Secretary of the State Board by the 10th of each month, for the month preceding, and a failure to do this "shall subject the delinquent to a fine of one dollar for each day of delinquency, and this amount shall be deducted from the salary of the superintendent by the board of county commissioners, on authenticated statement of such delinquency by the Secretary of the State Board of Health."

Mortality Report for December, 1886.

CAUSE OF DEATH.	Wilmington.		Charlotte.		Fayetteville.		Asheville.		Total.	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Asthma.....	1	...	...	...	...	...	...	...	1	12
Brain, disease of.....	...	...	1	1	1	...	...	...	...	...
Bright's Disease.....	...	1	...	...	...	...	...	...	...	1
Cancer.....	2	...	1	...	...	1	...	...	3	1
Catarrh, intestinal.....	1	...	...	...	...	...	...	...	1	...
Croup.....	...	1	1	...	...	...	...	...	1	1
Cholera infantum.....	1	...	...	...	...	...	...	...	1	...
Cholera morbus.....	...	...	...	...	...	...	...	...	...	1
Consumption.....	1	6	2	1	2	...	3	1	8	8
Diphtheria.....	...	1	1	...	...	...	...	...	1	1
Dropsy.....	...	2	...	...	...	...	...	...	...	12
Dysentery.....	1	...	...	...	...	1	...	...	1	1
Fever, Congestive.....	...	1	...	...	...	...	...	...	...	1
" Malarial.....	1	...	...	...	...	...	...	...	1	...
" Typhoid.....	...	...	...	...	...	...	1	...	1	1
Heart disease.....	1	2	...	1	...	...	...	...	1	3
Inanition.....	...	...	1	...	...	...	...	...	1	...
Lung affection.....	...	1	...	1	...	...	...	...	...	2
Marasmus.....	...	1	...	...	...	...	...	...	...	1
Old age.....	1	...	1	...	1	...	...	...	3	...
Paralysis.....	1	1	1	1	1	...	...	...	3	12
Pneumonia.....	...	2	...	2	2	2	2	1	4	4
Rubeola.....	...	...	...	...	...	...	...	1	1	1
Still-born.....	1	4	...	...	...	...	...	...	...	4
Syphilis.....	...	1	...	...	...	...	...	...	...	1
Tabes mesenterica.....	...	...	...	...	2	...	...	...	2	...
Tetanus.....	...	2	...	...	...	...	...	...	...	2
Unknown.....	...	...	2	...	...	...	...	...	...	12
Suicide.....	...	...	...	...	...	...	1	...	1	...
Injury.....	1	...	...	...	...	...	...	...	1	...
	13	26	9	10	9	4	6	4	37	44
Totals by towns.....	39	...	19	...	13	...	10	...	81	...

Wilmington—Population, white, 8,000; colored, 12,000; total, 20,000. Annual death-rate per 1,000, white, 19.5; colored, 26.0; total, 23.4.

Charlotte—Population, white, 6,000; colored, 5,000; total, 11,000. Annual death-rate per 1,000, white, 18.0; colored, 24.0; total, 20.7.

Fayetteville—Population, white, 2,500; colored, 1,800; total, 4,300. Annual death-rate per 1,000, white, 43.2; colored, 26.7; total, 36.3.

Asheville—Population, white, 4,500; colored, 1,500; total, 6,000. Annual death-rate per 1,000, white, 16.0; colored, 32.0; total, 20.0.

Effects of Overshading.

Houses overshadowed are not healthful, and too many trees near sleeping and living-rooms exercise a very injurious influence. A soil loaded with roots and densely shaded is unfit for man to live upon constantly, and is certainly no place for a permanent house. The air entering the bed-rooms and living-rooms from such surroundings is chilly and dead,

and is not at all nutritious as it should be. Such an atmosphere cannot bring health, but is, on the contrary, very apt to be productive of sickness, and even death, especially among children and invalids. Trees preventing the incoming of God's sunshine into our homes should be speedily cut down and carried away, and then the soil would be allowed some chance to dry, or rather one might truly say, "to breathe." The earth, to be healthy, needs, just as our bodies need, contact with the warm, dry air, and the life-giving rays of the sun. As man pales, sickens and dies without the blessing of the sunshine, so, too, the earth dies and becomes unfit for even the feet of man. The importance of healthy soil about our homes must be more carefully considered in studying the laws of health.—*Extract from article by Dr. Parker in Sanitarian for October, 1885.*

◆◆◆
Tea.

The quantity of tea exported from producing countries last year, according to recent statistical estimates, was 350,000,000 pounds. And of this amount the British race is not only by great odds the largest consumer, but is fast becoming, if it is not indeed already, the largest producer in the world. In Great Britain the consumption is now 4.90 lbs. per head, while the 3,000,000 of the Australian colonies, New Zealand, and Tasmania, taken together, use over 7½ lbs. per head. The more Australia is peopled, therefore, the better for tea-growers. Even in Canada and Newfoundland the consumption is equal to 4½ lbs. per head, against only 1.30 lbs. in the United States. Of continental countries, Holland alone consumes over one pound of tea per head, the figure being 1.05, while Russia, with all that we have heard of her constant tea-drinking, uses only 0.61 per head. In the Cape Colony and Natal they are not yet much ahead of Russia, and as for other countries of any importance in the world, the figures go down from 0.76 lb. per head in Denmark, to 1-100th of a pound per head in chocolate-loving Spain! * * * *

That the excessive use of tea is a common cause of ill-health, and sometimes the foundation of serious disease, will hardly be questioned by any good medical observer. With regard to the amount which may be said to constitute an excess, it is measurable only by its effects.

Tea is a stimulant, exhilarating to the nervous system, and therefore frequently useful in nervous exhaustion, if not abused. Like other stimulants, it at first accelerates the circulation, quickens the pulse, and, to the exhausted, imparts a feeling of general comfort, exhilaration and wakefulness. But these effects, even in those who have need of it, are shortly followed by reaction. The feeling of exhaustion returns, and, if it has been taken in excess, not unfrequently with interest. The heart's action is enfeebled by persistency, though more rapid, amounting to palpitation; and the feeling of exhaustion is increased to general depression and torpor. A sinking sensation at the pit of the stomach, flatulency, feebleness of muscular power and unsteadiness, lowness of spirits and mental despondency, are also common effects. Again and again, it may be, these symptoms in their incipency are relieved, and in turn aggravated by repeated or increased portions. They may greatly vary in different individuals, but they are the common effects of the excessive use of tea, *theine*, the organic alkaloid of tea. *Theine* is sometimes used as a medicine, but always cautiously, for it is potent, and when carried too far, like the tea which contains it, is permanently injurious.

Besides *theine*, tea contains tannin, which is astringent in its effects, and a common cause of constipation. In many persons tea, on this account, gives rise to attacks of a continued indigestion, biliousness, and dyspepsia, necessitating the frequent resort to aperient medicines or "medicinal" food, to counteract the tendency of tea to cause constipation, but promotion of disease.

Any quantity of tea followed by the effects described is in excess and injurious to health; and many persons there are who cannot take any at all without injurious results. They should not be mistaken for the effects of adulterants.—A. N. Bell, M. D., Editor, in *The Sanitarian for October, 1886.*

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Franklin.....	6	800	2	1	12	1,000	12	1
Gaston.....	7	1,086	1	3	12	2,800	2	3
Gates*								
Graham*.....								
Granville*.....								
Greene.....	3	1,000	1	2	6	1,800	5	2
Guilford.....	20				34			
Halifax*.....								
Harnett*.....								
Haywood*.....								
Henderson†.....								
Hertford*.....								
Hyde*.....								
Iredell†.....								
Jackson*.....								
Johnston.....	13	210	7	3	16	722	1	1
Jones.....	2	3,150	1	0	4	980	3	0
Lenoir.....	6	392	0	3				
Lincoln.....	5	1,502			14	740		
McDowell.....	6	425	3	4	11	450	5	3
Macon.....	5	700	2	2				
Madison.....	5	593	0	2	6	2,100	0	1
Martin*.....								
Mecklenburg*.....								
Mitchell*.....								
Montgomery.....	0				12	400		
Moore*.....								
Nash*.....								
New Hanover.....	15		10	5	31	600	19	12
Northampton†.....								
Onslow.....					8	1,250	0	1
Orange*.....								
Pamlico*.....								

a In city prison at Wilmington.

Report on Jails and Poor-houses by Counties.—(CONTINUED.)

COUNTIES.	JAIL.				POOR-HOUSE.			
	Number prisoners confined.	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each, (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender.....					7	1,220	3	1
Perquimans*								
Person*								
Pitt†.....								
Polk*								
Randolph*								
Richmond.....	15	643	5	5	12	1,650	2	3
Robeson.....	12	576	8	4	8	600	4	1
Rockingham*.....								
Rowan.....	6	1,200	2	4	30	400	8	10
Rutherford.....	5	1,368	0	1	24	1,080	9	8
Sampson.....	3	2,481	0	2	10	2,638	4	1
Stanly.....	3	1,000	0	2	7	1,000	0	0
Stokes*								
Surry*.....								
Swain.....	2	550	0	2				
Transylvania.....	0	0	0	0	0	0	0	0
Tyrrell.....	1	11,000	0	0	3	3,000	0	0
Union.....	6	2,000	2	5	16	3,000	1	3
Vance‡.....								
Wake‡.....								
Warren.....	8	705	0	4	11	2,054	0	2
Washington*.....								
Watauga.....					8			0
Wayne‡.....								
Wilkes*.....								
Wilson‡.....								
Yadkin*.....								
Vancey.....	2			1				
Totals.....	228		52	79	491		123	112

*Has no County Board of Health. †Superintendent sent no report. ‡Has no jail or poor-house.

Meteorological Report.

STATIONS.	TEMPERATURE.										NO. DAYS.				Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.	
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.			On which rain fell, including hail, snow and sleet.
Smithville*		?	?									7	3				
Hatteras.....	45.1	68.5	1	27.4	16	41.1	15.6	26.8	.....	5.7	.....	9	15	7	11	5.96	N.
Knoxville, Tenn. ...	34.9	57.7	24	6.4	7	51.3	16.3	29.9	.....	4.7	.....	9	15	7	16	5.34	N. E.
Charlotte.....	39.0	61.9	23	17.5	16	44.4	15.8	28.6	27	3.8	31	7	14	10	15	6.26	N. E.
Fort Macon.....	45.2	64.6	1	24.8	3	39.8	15.3	27.0	16	7.5	5	9	10	12	12	3.67	S. W.
Lynchburg, Va.....	33.1	56.0	27	15.0	3	41.0	16.9	36.1	.....	2.0	.....	6	11	14	14	2.81	N. W.
Wake Forest.....	38.6	59.4	23	12.9	17	46.5	.....	.....	.....	.....	.....	.....	.....	.....	15	3.63	S. W.
Kitty Hawk*.....	42.5	66.3	24	21.3	3	45.0	14.1	27.2	.....	4.3	.....	7	18	6	13	3.89	N. E.
Wilmington.....	45.3	69.2	1	22.2	3	47.0	19.5	32.6	22	5.0	6	12	8	11	12	4.02	N. E.
Chapel Hill.....	36.7	64.0	24	15.0	a	49.0	19.5	38.0	8	8.0	4	10	7	14	10	4.13	W.
Average.....	40.5	63.5		17.5		45.0	16.6	30.8		5.1		9	12	10	13	4.41	N. E.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville*.....						
Hatteras.....	30.116	30.499	17	29.518	15	.981
Knoxville, Tenn.....	30.178	30.456	10	29.671	15	.785
Charlotte.....	30.129	30.430	10	29.555	.....	.875
Fort Macon.....	30.127	30.508	17	29.561	15	.947
Lynchburg, Va.....	30.136	30.528	4	29.540	15	.988
Wake Forest.....	30.292	30.583	4	29.713	15	.870
Kitty Hawk*.....	30.118	30.471	4	29.522	15	.956
Wilmington.....	30.114	30.465	17	29.589	15	.876
Chapel Hill.....	30.196	30.525	10	29.611	15	.914
Average.....	30.156	30.496		29.587		.909

* No report. a 8th and 17th.

BULLETIN

OF THE

NORTH CAROLINA BOARD OF HEALTH.

Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTION FIFTY CENTS A YEAR

J. W. JONES, M. D., <i>President</i> , Tarboro.	S. H. LYLE, M. D., Franklin.
R. H. LEWIS, M. D., Raleigh.	W. D. HILLIARD, M. D., Asheville.
JOHN McDONALD, M. D., Washington.	PROF. W. G. SIMMONS, Wake Forest.
R. L. PAYNE, M. D., Lexington.	ARTHUR WINSLOW, C. E., Raleigh.
THOMAS F. WOOD, M. D., <i>Secretary and Treasurer</i> , Wilmington.	

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VOL. I.

FEBRUARY, 1887.

NO. II.

Typhoid Fever from one Drink.

M. Dujardin Beaumetz, in a recent communication to the Paris Academy, gives the case of a family who took a house for the season at a fashionable resort. They were warned not to drink the well water as it was supposed to be impure. They drank mineral water exclusively, until the last day, when, in the hurry of packing, they neglected to send for mineral water and concluded to try the well water. Ten drank of it, and six have since died; four who had previously had typhoid fever were made sick but recovered. A microscopic examination of the well water revealed the presence of the bacillus supposed to be the cause of typhoid fever. *The South-Western Medical Gazette.*

Lead-Poisoning.

For many years past a local medical health-officer in Pennsylvania, Dr. D. Campbell, has had occasion to attend many severe cases of lead-poisoning, about the months of August,

September and October. Examinations of the various articles of diet, as well as cooking utensils, failed to show the source of the poisoning. A few weeks ago, however, in one of seven severe simultaneous cases, he learned that one of the patients "had drunk some home-made rhubarb wine." The woman, after telling how careful she was in having the rhubarb clean, said, "besides, the vessel was a beautifully clean, glazed earthenware pan, in which she steeped it for a fortnight or three weeks to ferment." Here Dr. Campbell saw the solution of the problem which had been so long puzzling him. The glaze on these earthenware vessels contains as much as sixty per cent. of white or red lead, and during the process of fermentation, the acids of the rhubarb, or of any other fruits used, with the acetic acid generated, act on the glaze, dissolve the lead and form acetate, or sugar of lead, which is a powerful irritant poison when taken even in small doses for any length of time. Doubtless, wooden vessels would be quite as convenient for these domestic brewings, while they would be free from the risk of lead poisoning.—*Medical News.*

Compliments to Prof. Wm. Cain.

Amongst the many publications which have been issued on the subject of Sanitary Engineering we can commend the one by Mr. William Cain, C. E., 90 pages, as a thoroughly reliable and practicable one. It is issued by the "North Carolina Board of Health," Raleigh, N. C. [Wilmington, N. C.] *Trübner's American, European and Oriental Literary Record, London.*

Protection of the Purity of Inland Waters.

The *Boston Medical and Surgical Journal*, in an article on the above subject, says: "Sanitarians have long been impressed with the importance of protecting the purity of inland waters which furnish, or are likely to furnish, sources of domestic water supplies, and manufacturers have been equally impressed with the difficulties attending such protection. In direct ratio to the density of the population, and the availability of the water courses for manufacturing purposes, are the importance and the difficulty of protection increased."

These two factors have become developed to such an extent in Massachusetts that that commonwealth has established an act "to protect the purity of inland waters." The execution of this act is intrusted to the State Board of Health, their principal duties as contained therein being summed up as follows:

(1) To have the general care and oversight of inland waters.

(2) To have the custody of maps, plans, etc., made for this purpose.

(3) To recommend legislation and suitable plans for systems of main sewers.

(4) To cause examinations of the waters of ponds and streams to be made.

(5) To recommend measures to prevent the pollution of waters.

(6) To conduct experiments in the purification of drainage.

(7) To conduct experiments on the disposal of manufacturing refuse.

(8) To consult with and advise the authori-

ties of cities and towns, or with others, with reference to water-supply and drainage.

(9) To consult with and advise manufacturers with reference to the disposal of manufacturing refuse.

(10) To bring to the notice of the Attorney General all omissions to comply with existing laws.

The act further provides that authorities of cities and towns, and all others intending to introduce systems of water-supply or sewerage, shall submit to the Board outlines of their proposed plans or schemes in relation to these subjects, and that manufacturers intending to engage in any business, drainage or refuse, from which may tend to cause the pollution of any inland waters, shall also give notice to the Board of their intentions.

"The Board are of the opinion that the interests of the public require that, for one year at least, chemical and, when necessary, biological examinations should be made once a month of all waters supplied for domestic purposes, by water-boards, water-commissioners and water-companies within the State; and that thereafter such examinations should be made at intervals not exceeding six months."

Early Recognition of Cholera.

Dr. E. O. Shakespeare, who some months ago was appointed by the United States Government to go abroad and investigate the subject of *Cholera*, recently in a lecture before the college of physicians of Philadelphia, is reported as having made the following statement, which every medical man, but especially every officer of health, should bear in mind, and be prepared upon the shortest notice to intelligently apply the test suggested, should occasion arise. He said:

"Although the proof of the statement that the *Comma-bacillus* is the active and efficient cause of *Cholera Asiatica* was not entirely satisfactory to his mind, the lecturer felt no hesitation in declaring that Koch had conferred an inestimable boon upon the race by placing in the hands of every practitioner an infallible means of diagnosis of this disease from *Cholera*

Morbus and other diseases resembling *Cholera*. He expressed the opinion that a health officer or physician who, in the presence of suspected cases and before the prevalence of the malady as an epidemic, should fail to employ this means of deciding whether or not the disease is genuine cholera, would be guilty of criminal negligence."—Bulletin State Board of Health of Tennessee.

Summary of Reports from County Superintendents and Correspondents for January, 1887.

[The mark * designates voluntary correspondents.]

Brunswick—Dr. D. B. McNeill,* Shallotte. There has been comparatively little sickness the past month, and no contagious diseases. The poorhouse is a cheap, unceiled wooden structure, and is rather poorly managed. Think it will be sold soon and a comfortable house built.

Buncombe—Dr. W. L. Hilliard, Asheville. Acute bronchitis, pneumonia and measles have prevailed. Four cases typhoid and ten of whooping-cough reported. The public buildings and county generally are in good sanitary condition.

Burke—Dr. J. L. Laxton, Morganton. No report.

Cabarrus—Dr. R. S. Young, Concord. With the exception of four cases of typhoid fever and twenty-seven of pneumonia, the latter unusually severe and exceedingly fatal, our people are enjoying good health. A new furnace has been placed in the jail.

Camden—Dr. F. W. Ritter,* Shiloh. No report.

Catawba—Dr. Geo. H. West, Newton. No report.

Chatham—Dr. H. C. Jackson, Pittsboro. The county is in good sanitary condition. But little sickness has occurred. The jail and poorhouse are in pretty good condition.

Cherokee—Dr. J. F. Abernathy, Murphy. An epidemic of whooping-cough has prevailed. Besides this there is less sickness than at any time in many years. Public buildings in good condition.

Cleveland—Dr. J. C. Gidney, Shelby. The county is in excellent health. Never knew it better. Jail and poorhouse are well kept.

Columbus—Dr. Isaac Jackson, Whiteville. An epidemic of influenza has prevailed in some parts of county. Have never known it so healthy before. Jail and poorhouse in first-class condition—regularly and properly disinfected.

Cumberland—Dr. W. C. McDuffie, Fayetteville. Pneumonia has prevailed in almost all parts of the county. Eight cases whooping-cough and four of diphtheria have occurred. There has been an epidemic of hog cholera. Public buildings in excellent condition.

Davidson—Dr. R. L. Payne, Jr., Lexington. An unusual amount of pneumonia has prevailed, chiefly in those sections where malaria had been most rife during warm weather. In many of these cases the febrile phenomena resembled remittent fever very closely, while all the physical and other symptoms were perfectly characteristic of pneumonia. Nine cases of measles, thirteen of whooping-cough, and five of diphtheria have been reported. Public buildings in good condition.

Duplin—Dr. Jas. W. Blount, Kenansville. Whooping cough has prevailed in some parts of the county. There has been an epidemic of hog cholera of a very fatal character. The sewerage of jail is very deficient.

Durham—Dr. N. M. Johnson, Durham. Three or four cases of diphtheria have occurred. Beside this the health of county has been unusually good. Public buildings in good condition.

Edgecombe—Dr. Julian M. Baker, Tarboro. No report.

Forsyth—Dr. D. N. Dalton, Winston. No report.

Franklin—Dr. E. S. Foster, Louisburg. Sanitary condition of county very good. Very little sickness. Public buildings in good condition.

Gaston—Dr. E. B. Holland, Dallas. Pneumonia is the prevailing disease. County and public buildings in fair sanitary condition.

Greene—Dr. W. C. Galloway, Snow Hill. General sanitary condition of county good. Very little sickness. Some cases of catarrhal ophthalmia and pharyngitis. Jail and poor-house in fine condition.

Guilford—Dr. Ed. Lindsay, Greensboro. No report.

Haywood—Dr. H. L. McFadgen,* Waynesville. I have been waiting to have some sickness to report. Will wait no longer. Our town and county are distressingly health. Jail in good condition.

Henderson—No report.

Iredell—Dr. M. W. Hill, Statesville. Measles, whooping cough, scarlatina and typhoid fever. Have had more typhoid fever in the county, chiefly the southern part, than for a number of years. The poorhouse is in good condition, but the jail is not. The condition of the latter has been reported by the grand jury.

Johnston—Dr. J. G. Rose, Smithfield. The general health of county is very good. Never knew it better. Some malarial fever. There has been an epidemic of hog cholera. The condition of public buildings is as perfect as can well be made.

Jones—Dr. R. A. Whitaker, Trenton. The health of county is very good. One case of hemorrhagic malarial fever. There has been an epidemic of hog cholera.

Lenoir—Dr. F. M. Rountree, Kinston. No epidemic or contagious diseases to report.

Lincoln—Dr. J. M. Lawing, Lincolnton. There has been an epidemic of measles in eastern part of county. Public buildings in moderately good condition. The care of paupers is given to the lowest bidder, and the present keeper receives only \$3.75 per month for each inmate, which is inadequate to secure the necessary comforts in this institution.

McDowell—Dr. J. H. Gilkey, Marion. An epidemic of measles has prevailed in many portions of county. Some rheumatism and bronchial catarrh have occurred. Jail and poor-house are good condition.

Macon—Dr. J. M. Lyle, Franklin. The county is in very good sanitary condition.

About forty cases of measles and six of diphtheria have occurred.

Madison—Dr. J. K. Hardwicke, Marshall. Sanitary condition of county and public buildings is very good. There have been reported ten cases measles, fourteen whooping-cough and two of diphtheria.

Montgomery—Dr. W. A. Simmons,* Troy. Catarrhal diseases have prevailed. A few cases of measles have occurred. The health of county, notwithstanding a cold and wet season, was never better in my recollection.

New Hanover—Dr. F. W. Potter, Wilmington. The county is in a fair sanitary condition. Catarrhal fever has prevailed to some extent. Three cases of scarlatina and two each of measles, diphtheria and typhoid fever have occurred. The poorhouse and house of correction are kept clean and thoroughly white-washed.

Northampton—Dr. H. W. Lewis, Jackson. Bronchitis and pneumonia have prevailed. The health of county is good. Winter diseases less fatal than usual. The county is very poorly prepared in case of small-pox, not one in fifty of those born since 1868 being vaccinated. There has been an epidemic of hog and chicken cholera. The sanitary condition of jail and poorhouse is not good, but efforts are being made to improve both. Our commissioners have determined to erect a hospital at the poorhouse, which will much improve that institution.

Onslow—Dr. W. J. Montford, Ward's Mill. No report.

Pender—Dr. W. T. Ennett, Burgaw. No report.

Person—Dr. C. E. Bradsher,* Roxboro. Pneumonia and rheumatism have prevailed to a considerable extent. The sanitary condition of county is good; also of public buildings.

Richmond—Dr. J. M. Stansill, Rockingham. There is very little sickness. Six cases of whooping cough reported. Public buildings in good sanitary condition.

Robeson—Dr. R. F. Lewis, Lumberton. Bilious pneumonia has prevailed in some portions of county. Efforts are being made to

have jail and poorhouse repaired and improved. They are in only a tolerably good condition now.

Rowin—Dr. J. J. Summerell, Salisbury. Measles in a mild form have prevailed throughout the county. Some pneumonia and typhoid fever have occurred. The health of Salisbury has been remarkable. Out of a population of 2,400 whites and 1,600 blacks only three deaths (all colored) have occurred during the month—ages: 10 months, 1 year and 14 years. Public buildings in good sanitary condition. Improvements contemplated.

Rutherford—Dr. E. B. Harris, Rutherfordton. Quite a number of cases of cholera infantum, very fatal among the negro children, and a few cases of flux have occurred.

Sampson—Dr. John A. Stevens, Clinton. The general health of county is good. The prevailing diseases are pneumonia, whooping-cough and sore throat. Public buildings in good condition.

Stanly—Dr. R. Anderson,* Albemarle. Whooping-cough prevailed in western part of county. Have had some catarrhal fever. Public buildings in good condition.

Swain—Dr. R. L. Davis,* Charleston. Not much sickness except a few cases of pneumonia. One case of measles and five whooping-cough reported. The sanitary condition of jail is *very bad*.

Transylvania—Dr. D. H. Farmer,* Breward. Measles have prevailed in many parts of county. One case typhoid fever has occurred. There has been an epidemic of hog cholera.

Tyrrell—Dr. Ab. Alexander, Columbia. No epidemic or contagious diseases reported. Public buildings in good sanitary condition.

Union—Dr. W. C. Ramsay, Monroe. Measles and whooping-cough have prevailed in many parts of the county. A few cases of scarlatina and typhoid fever have occurred. There is some pneumonia and pulmonary diseases from cold quite common. Jail is in bad condition.

Vance—Dr. J. H. Tucker,* Henderson. Three cases of diphtheria and a few cases of measles and whooping-cough have occurred. Also some pneumonia and pleurisy.

Wake—Dr. James McKee, Raleigh. No report.

Warren—Dr. P. J. Macon, Warrenton. A few cases of pneumonia, dysentery and chills have occurred. The sanitary condition of county is most excellent. Public buildings are in most excellent condition.

Washington—Dr. W. H. Ward,* Plymouth. Four cases of diphtheria reported. Also in a slight degree dysentery, pneumonia and rheumatism. There is some hog cholera in the county though not epidemic. Jail is in only fair condition. County unable to do anything.

Watauga—Dr. W. B. Council, Boone. No sickness during the month except colds. There were about twenty-five births during January in this county. There is an epidemic of hog cholera in some districts. Jail is in bad condition and no efforts are being made either to improve this or build a new one.

Wayne—Dr. Jas. Spicer, Goldsboro. No report.

Wilson—Dr. A. D. Moore, Wilson. No report.

Yancey—Dr. W. P. Whittington, Burnsville. No report.

Condition of Jails and Poorhouses for January, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance*								
Alexander*								
Alleghany*								
Anson*								
Ash*								
Beaufort*								
Bertie*								
Bladen*								
Brunswick	0	0	0	0	8			2
Buncombe.	12	1,355	8	7	26	775	26	20
Burke†								
Cabarrus.	4	1,256	0	1	19	1,665	6	10
Caldwell*								
Camden†								
Carteret*								
Caswell*								
Catawba†								
Chatham	2		2	1	30			7
Cherokee	2	1,500			4	1,100		1
Chowan*								
Clay*								
Cleveland	12	456		4	32	602		6
Columbus	6	2,772		2	6	729		0
Craven*								
Cumberland	5	800	2	4	20	890	12	8
Currituck*								
Dare								
Davidson	4	2,735	0	0	16	720	5	5
Davie*								
Duplin	2	750			8			
Durham	11	1,000	3	7	17	700	3	6
Edgecombe†								
Forsyth†								

(a) Includes 10 in house of correction.

Condition of Jails and Poorhouses for January, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number which can read and write.
Franklin.....	2	2,500	0	0	11	1,000	0	1
Gaston.....	7	1,085	0	3	11	3,060	3	4
Gates*.....								
Graham*.....								
Granville*.....								
Greene.....	3	1,900	2	1	6	1,800	4	2
Guilford†.....								
Halifa *.....								
Harnett*.....								
Haywood*.....								
Henderson†.....								
Hertford*.....								
Hyde*.....								
I. C. C.....								
Jackso *.....								
Johnston.....	12	225	3	3	17	700	1	1
Jones.....	4	1,575	3	1	4	490	3	0
Lenoir.....	8	392	0	1				
Lincoln.....	5	691			15	1,512		
McDowell.....	7	550	3	1	12	600	1	3
Macon.....	3	1,300	0	2				
Madison.....	1	2,900	0	0	6	2,100	0	0
Martin*.....								
Mecklenburg*.....								
Mitchell*.....								
Montgomery.....					12	500		
Moores.....								
Nash*.....								
New Hanover.....	11	600	7	4	14	600	28	12
Northampton.....	2	1,000	2	2	35	465	0	8
Onslow†.....								
Orange*.....								
Pamlico*.....								

(a) Includes 9 inch house of correction.

Condition of Jails and Poorhouses for January, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each (In cubic feet)	Number having evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each (In cubic feet)	Number having evidence of successful vaccination.	Number which can read and write.
Pasquotank*								
Pender†								
Perquimans*								
Person.....	0				22	630	0	6
Pitt‡								
Polk†								
Randolph*								
Richmond*	5	1,900	1	3	12	1,650	2	3
Robeson.....	20	315			8	80		
Rockingham*								
Rowan.....	4	1,775	0	0	33	1,105		
Rutherford.....	7	980			24	1,080		
Sampson.....	2				11			
Stanly.....	3	800	0	1	7	80	0	0
Stokes*								
Surry*								
Swain.....	1			1				
Transylvania.....	0	0	0	0	0	0	0	0
Tyrone.....	1	1,100			3	1,100		
Union.....	7	1,500	0	3	13	3,000	0	5
Van ce†								
Wake†								
Warren.....		1,050			11	2,500		2
Washington.....	5	750	0	2	5	950	2	1
Watauga.....	1				8		0	0
Wayne†								
Wilkes*								
Wilson†								
Yadkin†								
Yancey†								
Totals.....	181		36	57	513		99	113

*Has no Superintendent of Health. †Superintendent has not reported. ‡Has no jail or poorhouse.

Mortuary Report for January, 1887.

CAUSES OF DEATH.	Wilmington.		Charlotte.		Asheville.		Fayetteville.		Total.	
	W.	C.	W.	C.	W.	C.	W.	C.	W.	C.
Accident.....		1	1	1					1	2
Apoplexy.....				1						1
Brain, congestion of.....		1								1
Brain, softness of.....						1				1
Bronchitis, acute.....						3				3
Consumption.....	3	4		2	4		1	1	8	7
Convulsions.....		1								1
Cholera Infantum.....			1						1	
Debility.....		2								2
Dropsy.....		4								4
Dysentery.....		1	1						1	1
Fever, congestive.....		2								2
Gastro-enteritis.....					1				1	
Heart, disease of.....	1	3					1		2	3
Lungs, congestion of.....	1								1	
Meningetis, spinal.....		1		1						2
Measles.....					2	2			2	2
Old age.....							1		1	
Paralysis.....		1		1						2
Pneumonia.....	3	3	2	1	1	2	2	1	8	7
Pyæmia.....	1								1	
Still born.....	2	2							2	2
Spasm.....				1						1
Teething.....		1								1
Tetanus, traumatic.....		1								1
Womb, rupture of.....		1								1
Total by towns.....	11	29	5	8	8	8	5	2	29	47

	Population.			Annual Death Rate per 1,000.		
	White.	Colored.	Total.	White.	Colored.	Total.
Wilmington.....	8,000	13,000	21,000	16.5	26.8	22.9
Charlotte.....	6,000	5,900	11,900	10.0	19.2	14.2
Asheville.....	4,500	1,500	6,000	21.3	64.0	32.0
Fayetteville.....	2,500	1,800	4,300	24.0	13.3	19.5

Meteorological Report for January, 1887.

STATIONS.	TEMPERATURE.								NO DAYS.								
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet	Total rainfall, including hail, snow and sleet (in inches).	Prevailing wind.
Smithville*.....																	
Hatteras	41.7	65.6	23	19.8	19	45.8	15.3	28.3	.....	5.9	.....	11	11	9	5	6.09	N.
Knoxville, Tenn.....	37.5	68.8	31	5.4	3	63.4	20.7	36.5	.....	7.1	.....	13	14	4	10	3.99	S. W.
Charlotte.....	38.2	68.9	31	8.2	4	60.7	17.8	28.1	19	4.9	5	9	17	5	12	2.39	S. W.
Fort Macon*.....																	
Lynchburg, Va.....	35.4	65.4	23	6.1	4	59.3	18.4	29.0	.....	6.8	.....	13	9	9	11	2.64	S. W.
Wake Forest.....	39.8	71.1	23	7.0	11	64.0	.....	.....	.....	.....	.....	.....	.....	9	3.01	S. W.	
Kitty Hawk.....	41.0	69.7	22	14.8	19	54.9	.....	38.1	5	4.4	1	.....	.....	8	2.55	S. W.	
Wilmington.....	44.2	73.0	22	14.6	19	58.4	19.3	34.6	28	6.8	c	11	14	6	13	3.30	S. W.
Chapel Hill.....	39.1	72.0	a	8.0	b	64.0	17.6	37.0	16	4.0	5	17	5	9	6	2.81	S. W.
Average.....	40.0	69.3	.....	10.5	.....	58.8	18.2	33.2	.....	5.7	.....	12	12	7	12	3.35	S. W.

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville*.....						
Hatteras.....	30.124	30.591	27	29.636	1	.955
Knoxville, (Tenn.).....	30.137	30.609	3	29.531	13	1.078
Charlotte.....	30.113	30.696	4	29.701	1	.905
Fort Macon*.....						
Lynchburg, (Va.).....	30.079	30.646	4	29.620	14	1.026
Wake Forest.....	30.250	30.739	27	29.786	5	.953
Kitty Hawk.....						
Wilmington.....	30.121	30.578	27	29.677	1	.911
Chapel Hill.....	30.187	30.636	27	29.681	17	.955
Average.....	30.144	30.629	.....	29.662	.....	.909

a—21st and 23rd. b—4th, 11th and 19th. c—6th and 8th. *No report received.

BULLETIN

OF THE

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Published Monthly at the Office of the Secretary of the Board, at Wilmington, N. C.

SUBSCRIPTION FIFTY CENTS A YEAR

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JOHN McDONALD, M. D.,Washington.	PROF. W. G. SIMMONS,Wake Forest.
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VOL. I.

MARCH, 1887.

NO. 12.

The Board of Health Law.

The following act amendatory of this law was passed by the last General Assembly. The construction of the same by the Attorney General is appended :

AN ACT TO AMEND CHAPTER 237, SECTION 7.
OF THE LAWS OF 1885, IN REGARD TO ELECT-
ING COUNTY SUPERINTENDENTS OF HEALTH.

The General Assembly of North Carolina do enact :

SECTION 1. That chapter 237, section 7, of the laws of 1885, be amended by striking out "the first Monday in January" and inserting "the first Monday in September."

SEC. 2. This act shall take effect from its ratification.

In the General Assembly read three times, and ratified this the 7th day of March, A. D. 1887.

OPINION OF THE ATTORNEY-GENERAL.

The next elections for County Superintendent of Health should be held on the first Monday in September preceding the expiration of current term, and the Superintendent then chosen will enter upon his duties at the expiration of said current term, and hold for two years from *the date of his election.*

The Value of Sanitary Inspection.

A communication in *The Nation* gives the result of the house-to-house inspection in the city of Chicago under the direction of the State Board of Health of Illinois.

The population in 1881 was 540,000; in 1886, 704,000, an increase of 164,000.

The number of deaths in 1881 was 13,874; in 1886, 13,699; *decrease* 175.

The death rate in 1881 was 25.69; in 1886, 19.43; *decrease* 6.26.

This shows an actual saving in the year 1886 of over 4,000 lives. The correspondent says : "although Chicago is too young to have the rookeries, and consequent mortality of some older cities, there is no way of accounting for the remarkable decrease in the death rate, unless it be ascribed to the work of the Board of Health. Not only have the lives of over four thousand a year been saved, but the homes, and consequently the health, of tens of thousands of others have been improved, doctors' bills saved, and decent modes of living made possible. Similar results will follow similar work elsewhere."

THE regular annual meeting of the North Carolina Board of Health will be held in Charlotte on the 14th of April, being the second day of the session of the Medical Society of the State of North Carolina. With this meeting the terms of Drs. R. L. Payne and Richard H. Lewis expire, the vacancies to be filled by vote of the conjoint session. The terms also of Dr. Sam'l H. Lyle, Prof. W. G. Simmons and Civil Engineer Arthur Winslow expire, these vacancies being filled by appointment of the Governor. There will be also an election for President of the Board.

The Legality of Proxy Votes in the Election of Superintendents of Health.

In reply to an inquiry on the above subject, the Attorney General says: "I think the general rule is, that one cannot vote by proxy unless the act creating the organization in which the vote is authorized clearly provides for such vote; and I do not find any such power conferred in the statute creating County Boards of Health."

A report having gone out in the papers that there was an outbreak of an eruptive disease in the neighborhood of Hickory, which was supposed to be small pox, a letter was written to Dr. R. B. Baker, of that place, in reply to which he writes as follows: "I received your letter yesterday and would have answered then but waited to find out more. I heard two weeks ago that there was chicken pox prevailing in the corner of Burke and Catawba counties, and that they had measles. Some few died from neglect, as they employ either no physician or some one to conjure. There is no small pox anywhere and no epidemic. We have a full shower of measles, but of a mild type. Most patients need nothing but care."

The following letter was also received from Dr. Geo. H. West, Superintendent of Health of Catawba county:

NEWTON, N. C., March 21st, 1887.

THOS. F. WOOD, M. D., *Wilmington, N. C.*
My Dear Sir:—Yours of 17th to hand, and in reply would say there is no truth in the

report that smallpox was prevailing in this county in the vicinity of Hickory. There is an epidemic of measles throughout the county, and a few cases of scarlet fever, but one of a very mild type, in fact the lightest I ever saw. Rest assured if any disease dangerous to the health of the community should arise, I will notify you at once.

Yours truly,

GEO. H. WEST, M. D.

Mortuary Report for February, 1887.

CAUSE OF DEATH.	Wilmington.		Charlotte.		Asheville.		Fayetteville.		Total.	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Brain, congestion of.....	1	..	..	..	..	..	..	..	1	..
Bronchitis, capillary.....	..	..	..	..	..	..	..	..	..	..
Consumption.....	1	..	4	3	1	1	2	..	4	8
Cholera Infantum.....	..	..	1	..	..	..	..	..	1	..
Convulsions.....	..	..	1	1	..	..	1	..	2	1
Debility.....	..	2	..	..	..	..	1	..	1	2
Dropsy.....	..	1	..	..	..	..	..	..	1	..
Dysentery.....	..	..	1	..	..	..	..	..	1	..
Fever, typho-malarial.....	1	..	..	..	..	..	..	..	1	..
Fever, typhoid.....	1	1	..	1	..	..	..	..	2	1
Heart disease.....	1	1	..	..	..	..	..	..	1	1
Inanition.....	..	..	2	..	..	..	..	..	2	2
Jaundice, obstructive.....	1	..	..	..	..	..	..	..	1	..
Liver cirrhosis.....	1	..	..	..	..	..	..	..	1	..
Laryngismus stridulus.....	..	..	..	..	1	..	..	..	1	..
Lungs, congestion of.....	..	1	..	..	..	..	..	..	1	..
Measles.....	..	..	1	1	4	5	..	..	5	6
Meningitis, cerebro spin'l.....	1	1	..	..	..	..	..	..	1	1
Old age.....	..	2	..	..	..	..	..	..	2	..
Pneumonia.....	1	2	2	1	..	..	..	..	3	3
Pneumonia, typhoid.....	1	..	..	..	..	..	..	..	1	..
Rheumatism.....	..	..	..	1	..	..	..	..	1	..
Still born.....	..	3	..	..	..	..	..	..	3	..
Spasm.....	..	..	1	..	..	..	..	..	1	..
Tetanus.....	1	..	..	..	..	..	..	..	1	..
Tabes mesentericus.....	1	..	..	..	..	..	..	..	1	..
Whooping cough.....	..	..	..	..	2	..	..	..	2	..
Accident.....	1	..	..	..	..	..	..	..	1	..
Total by towns.....	419	812	11	11	3	2	26	44	..	..
	23	20	22	5	70	..	..	..	..	..

TOWNS.	Population.			Annual Death Rate per 1,000.		
	W.	Col.	Total	W.	Col.	Total
Wilmington...	8,000	12,000	20,000	6.0	19.0	13.8
Charlotte.....	6,000	5,000	11,000	16.0	28.8	21.7
Asheville.....	4,500	1,500	6,000	29.3	88.0	44.0
Fayetteville...	2,500	1,800	4,300	14.4	13.3	13.9

Summary of Reports of County Superintendents and Correspondents for month of February, 1887.

[The mark * denotes that the reporter is a voluntary correspondent.]

Brunswick—Dr. D. B. McNeill,* Shallotte. Comparatively little sickness. No contagious diseases.

Buncombe—Dr. W. L. Hilliard, Asheville. Measles, whooping cough and pneumonia have prevailed throughout county generally. A large force is at work, preparing the streets for the water-works, which are nearing completion. We will soon have an abundant supply of water from the Swananoa. Jail and poor-house in excellent condition.

Burke—J. L. Laxton, Morganton. No report.

Cabarrus—Dr. Robt. S. Young, Concord. Measles, whooping cough and typhoid fever have occurred. County and public buildings in good condition.

Camden—Dr. F. W. Ritter.* Removed.

Catawba—Dr. George H. West, Newton. Measles, pneumonia and bronchitis in Newton and vicinity.

Chatham—Dr. H. C. Jackson, Pittsboro. Pneumonia and influenza in different parts of the county, and one case of measles. Two cases of erysipelas were also reported. Improvements will be made at the poor-house before another winter.

Cherokee—Dr. J. F. Abernathy, Murphy. Measles and whooping cough have prevailed.

Cleveland—Dr. J. C. Gidney, Shelby. Measles and typhoid fever have occurred slightly. Public buildings in good condition.

Columbus—Dr. Isaac Jackson, Whiteville. An epidemic of influenza and roseola has prevailed in some parts of the county. There has been an epidemic of hog cholera. We hope to have a new poor-house built during the summer with all the latest improvements.

Cumberland—Dr. Jas. A. Hodges, Fayetteville. The health of county for the past month has been exceptionally good. While there have

been present the necessary conditions to produce lung troubles, etc., it has been a noticeable fact that the nervous system has been attacked instead, and recoveries from these acute attacks of cold, etc., unusually slow. There has been an epidemic of chicken pox during the month.

Davidson—Dr. R. L. Payne, Jr., Lexington. An epidemic of measles and whooping cough and diphtheria, to a greater or less extent has occurred. More pneumonia in the county than for a number of years past.

Duplin—Dr. Jas. W. Blount,* Kenansville. Measles and whooping cough and a few cases of pneumonia have been reported. Sanitary condition of county and public buildings is good. Hope to have sewerage improved soon.

Durham—Dr. N. M. Johnson, Durham. Measles and whooping cough have prevailed in the town of Durham. Condition of county not so good as in January. The sewerage from jail is a little defective, but will be remedied before hot weather.

Edgecombe—Dr. J. M. Baker, Tarboro. County and public buildings in good sanitary condition.

Forsyth—Dr. D. N. Dalton, Winston. The sanitary condition of county is very good. Better than for many months previous. That of public buildings also good. We can now boast of one of the best ventilated and equipped jails in the State.

Franklin—E. S. Foster, Louisburg. Whooping cough prevailed in some portions and one case of diphtheria reported. County and public buildings in good condition.

Gaston—Dr. E. B. Holland, Dallas. Measles and catarrhal fevers have prevailed throughout county generally. There has been an epidemic of hog cholera.

Greene—Dr. W. C. Galloway, Snow Hill. An epidemic of whooping cough has prevailed in upper part of county. Paupers removed to new poor-house 24th of February. Quarters for whites and colored are large, well ventilated, plastered, painted, neat and clean. Capacity without crowding for twelve of each race. Jail in good condition.

Guilford—Dr. Ed. Lindsay, Greensboro. A few cases of whooping cough have occurred. For the first two months of 1887 the number of cases of acute diseases has been unusually small. The county seems to be in fine sanitary condition. Grand jury for March Court report sanitary condition of jail and poor-house excellent. No complaint from prisoners or paupers. A new furnace has been put in jail.

Haywood—Dr. H. L. McFadgen, Waynesville. The health of town and county is very good. No sickness except a few cases of measles. Jail is in good sanitary condition.

Henderson—Dr. L. L. Johnson, Mills River. Measles have prevailed in all parts of the county, fifty-eight cases being reported. Will be prepared to report on the condition of jail and poor-house next month.

Hyde—Dr. Edward Clark, *Middleton. The sanitary condition of county is fair; but if our people would pay more attention to clearing up rubbish around the lots and roadsides, their health would improve. No contagious diseases. There has been an epidemic of hog cholera. Jail and poor-house are well kept.

Iredell—Dr. M. W. Hill, Statesville. The whole county is full of measles. There are cases of pneumonia, bronchitis, etc. Whooping cough has prevailed to some extent. The poor-house is in good condition. There has been some improvement in that of the jail, but there is still room for more.

Johnston—Dr. J. G. Rose, Smithfield. Measles, whooping cough, typhoid fever and several cases of pneumonia and malarial fever have been reported. Public buildings in good condition. An epidemic of hog and chicken cholera reported.

Jones—Dr. R. A. Whitaker, Trenton. County in good sanitary condition. Very little sickness except old chronic cases. There has been reported one case each of typhoid and hæmorrhagic malarial fever. Jail and poor-house in good condition.

Lenoir—Dr. F. M. Rountree, Kinston. Sanitary condition of county and jail good. No contagious diseases.

Lincoln—Dr. J. M. Lawing, Lincolnton.

During the month there have occurred many cases of bronchitis of a severe type. In some parts of county, measles and whooping cough have prevailed to a considerable extent. There have occurred deaths from measles and pneumonia. Condition of public buildings moderately good.

McDowell—Dr. J. H. Gilkey, Marion. Measles have prevailed in many portions of the county with an occasional case of whooping cough, also a few cases of pneumonia and bronchitis, but the general health of people is good. Public buildings in good sanitary condition.

Macon—Dr. J. M. Lyle, Marion. An unusual number of cases of measles have occurred during the month. Aside from this, there has been but little sickness.

Madison—Dr. J. K. Hardwicke, Marshall. Measles and whooping cough have prevailed to a considerable extent in the county, with one death from the combined effects of both. There is too little space in the cage of the jail.

Montgomery—Dr. W. A. Simmons, Troy. Measles and catarrhal diseases have prevailed. The measles have been of a mild type. There has been an epidemic of distemper among horses of a severe form. Two deaths reported.

New Hanover—Dr. F. W. Potter, Wilmington. Scarlet fever has prevailed, principally in central portions of the county. A few cases of measles, diphtheria and typhoid fever have occurred. The new jail, just completed, is a brick building and is in most excellent condition. It is thoroughly and freely ventilated, walls of hard finish, iron bar cells, well painted and varnished; rooms 9 feet pitch, cells 6½ by 9—526 cubic feet. A large bath tub is placed in the corridor to each set of three cells. Poorhouse in excellent sanitary condition. In reply to your letter asking what I have done to prevent the spread of scarlet fever, would say that I have been doing all in my power, by visiting principals and teachers of schools and cautioning them to keep all sick or complaining children at home, and allow none from families where the disease exists, or from families near by such families, to enter their schools

without the written certificate of a physician, stating that all proper precautions, in way of fumigating, etc., had been taken, and that these children, having undergone proper quarantining at home, were no longer dangerous to others.

Northampton—Dr. Henry W. Lewis, Jackson. Bronchitis and pneumonia have prevailed in this and other portions of the county. One or two cases of diphtheria and hemorrhagic malarial fever have been reported. Jail has been overhauled and thoroughly disinfected, while the poorhouse is being gradually improved.

Onslow—Dr. W. J. Montford, Ward's Mill. No report since December.

Pender—Dr. W. T. Ennett, Burgaw. Malarial and bilious fevers have prevailed in wet, marshy portions. A great many cases of whooping cough have been reported. I cannot say the sanitary condition of the county is as it should be. It is a hard matter to change the confirmed opinions of some people, but perhaps the next generation will see the necessity of sanitary work. No suitable house for paupers yet.

Person—Dr. C. E. Bradsher,* Roxboro. The health of county for the past month has been good. No contagious diseases.

Pitt—Dr. J. T. Sledge, Greenville. Very little sickness the past month. No contagious diseases.

Richmond—Dr. J. M. Stansill, Rockingham. There is very little sickness of any kind. A few cases of whooping cough are reported.

Robeson—Dr. R. F. Lewis, Lumberton. No contagious diseases for the month. Repairs on all public buildings contemplated.

Rowan—Dr. J. J. Summerell, Salisbury. The health of county has been remarkably good. Measles in a mild form have prevailed in all parts of county.

Rutherford—Dr. E. B. Holland, Rutherfordton. Measles and whooping cough have prevailed to some extent. Condition of public buildings remarkably good.

Sampson—Dr. J. A. Stevens, Clinton. No report.

Stanly—Dr. R. Anderson,* Albemarle. Some pneumonia and measles, but little sickness of any kind. Jail and poorhouse in good condition.

Swain—Dr. R. L. Davis,* Charleston. Measles, whooping cough and typhoid fever and a few cases of pneumonia reported. Sanitary condition of jail is better than it has been. Steps are now being taken to improve it and build a new one.

Transylvania—Dr. D. H. Farmer,* Brevard. Measles and pernicious malarial fever have occurred. With this exception, the health of our county continues good. Measles are almost epidemic, but I have heard of no deaths from the disease.

Tyrrell—Dr. Ab. Alexander, Columbia. Whooping cough and an epidemic of influenza are our diseases.

Union—Dr. W. C. Ramsay, Monroe. Measles generally, and whooping cough to a slight extent, have prevailed in different parts of the county. Beside these there is very little sickness. Jail still in bad condition and no efforts at improvement.

Vance—Dr. J. H. Tucker,* Henderson. Measles and whooping-cough have prevailed in Henderson and Vance county. There have also occurred a few cases of pneumonia and diphtheria. The per centage of all winter diseases has been smaller than for previous years.

Wake—Dr. James McKee, Raleigh. No report since November, 1886.

Warren—Dr. P. J. Macon, Warrenton. Bronchitis, pneumonia and chills have prevailed throughout the county. Sanitary condition of county good with the exception of a few ponds, which could be drained at a very small cost, and this I will try to have done. Poorhouse will soon be washed with a zinc preparation inside, as is the yearly custom. Paupers are kept supplied with extra suits of clothing and kept clean.

Washington—Dr. W. H. Ward,* Plymouth. In different portions of the county there is

prevailing general epidemics of measles, chicken-pox, whooping-cough and scarlatina. No other sickness. Poorhouse in fair condition. Jail ordinary.

Watauga—Dr. W. B. Council, Boone. Measles have prevailed in different parts. One case of typhoid fever reported. Poorhouse in good condition. Jail bad.

Wayne—Dr. Jas. Spicer, Goldsboro. No report since November, 1886.

Wilson—Dr. A. D. Moore, Wilson. No report since November, 1886.

Yancey—Dr. W. P. Whittington, Burnsville. Measles and whooping-cough have prevailed in several portions of the county. Health of county not so good as last month. Our jail needs covering.

Prolongation of Human Life.

The last report of the Registrar-General in England furnishes fresh evidence of the steady progress which is making in the prolongation of human life, especially through the influence of the sanitary measures adopted during the last thirty years. The death-rate for 1886 was 19.3 per thousand of the population, which was lower than that recorded in any previous year since the registration system was started in 1837, with the two exceptions of 19 in 1885 and 18.9 in 1881. The mean annual death-rate for the six years since 1880 did not exceed 19.3, which was 2.1 below the mean rate between 1870 and 1880. This means that 339,000 persons in England and Wales were alive at the end of those six years who would have been dead if the rate of mortality which prevailed between 1870 and 1880 had been maintained. The reduction is largely accounted for by the falling-off in the deaths from the principal zymotic or filth diseases, which have sunk from an annual rate of 4.15 per thousand between 1860 and 1870, to, 3.40 between 1870 and 1880, and only 2.43 since 1880. The proportion of infant mortality has also been perceptibly diminished, falling from an average of 149 per 1,000 births during the ten years preceding 1880 to 141 in the six years since then.

The birth-rate itself last year was only 32.4, which is lower than in any previous year since 1848, and the natural increase of population by the excess of births over deaths accordingly shows a decline from 375,922 in 1884 and 731,520 in 1885 to 366,138 in 1886.—*The Nation*.

Simple Test for Wall-Paper.

A simple and easily applied test for wall-papers has been devised by Mr. F. F. Grenstedt. No apparatus is needed beyond an ordinary gas-jet, which is turned down to quite a pinpoint, until the flame is wholly blue; when this has been done, a strip of the paper suspected to contain arsenic is cut one-sixteenth of an inch wide, and an inch or two long. Directly the edge of this paper is brought into contact with the outer edge of the gas flame a gray coloration, due to arsenic, will be seen in the flame (test No. 1). The paper is burned a little, and the fumes that are given off will be found to have a strong, garlic-like odor, due to the vapor of arsenic acid (test No. 2). Take the paper away from the flame and look at the charred end—the carbon will be colored a bronze red; this is a copper reduced by the carbon (test No. 3); being now away from the flame in a fine state of division, the copper is slightly oxidized by the air, and on placing the charred end a second time, not too far into the flame, the flame will now be colored green by copper (test No. 4). By this simple means it is possible to form an opinion, without apparatus and without leaving the room, as to whether any wall-paper contains arsenic, for copper arseniate is commonly used in preparing wall-papers. Tests 1 and 2 would be yielded by any paper containing arsenic in considerable quantities.—*British Medical Journal*.

THERE are a few copies of the Biennial Report of the North Carolina Board of Health remaining undistributed at this office, which will be mailed to any one applying therefor, and who has not already received a copy.

Condition of Jails and Poorhouses for February, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number who can read and write.	Number inmates in	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number who can read and write.
Alamance.....								
Alexander.....								
Alleghany.....								
Anson.....								
Ashe.....								
Beaufort.....								
Bertie.....								
Bladen.....								
Brunswick.....	0				7			2
Buncombe.....	8	2,083	8	5	26	775	26	20
Burke†.....								
Cabarrus.....	4	1,256	0	0	19	1,665	6	6
Caldwell.....								
Camden†.....								
Carteret.....								
Caswell.....								
Catawba.....	3	1,618	0	0	19	1,813	4	8
Chatham.....	1	15,000	0	0	30	320	0	7
Cherokee.....	1	3,852			4	882		
Chowan.....								
Clay.....								
Cleveland.....	18	304	0	6	34	567	0	7
Columbus.....	5	3,326	0	1	6	729	0	0
Craven.....								
Cumberland.†.....	5	800	2	4	20	800	12	8
Currituck.....								
Dare.....								
Davidson.....	4	2,735	0	0	16	720	0	5
Davie.....								
Duplin.....	1	1,000	0		9			
Durham.....	15	750	3	10	a 20	1,000	3	7
Edgecombe.....	8	858	0	2	25	3,168	0	2
Forsyth.....	13	1,069	10	4	17		12	3

(a) Includes 11 in house of correction.

Condition of Jails and Poorhouses for February, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet.)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number which can read and write.
Franklin.....	7	700	0	3	13	850	13	1
Gaston.....	16	475	3	5	11	3,060	3	3
Gates.....								
Graham.....								
Granville.....								
Greene.....	3	1,000	1	3	6	1,800	5	2
Guilford.....	25				38			
Halifax.....								
Harnett.....								
Haywood†.....								
Henderson.....	4				6			
Hertford.....								
Hydef.....								
Iredell.....	15	748			16	693		
Jackson.....								
Johnston.....	1	11,000	0	1	15	782	1	1
Jones.....	4	1,575	3	1	4	980	3	0
Lenoir.....	6	235						
Lincoln.....	10	771			14	740		
McDowell.....	4	500	2	2	12	600	4	4
Macon.....	4	1,200	2	4				
Madison.....	5	593	0		6	2,100	0	
Martin.....								
Mecklenburg.....								
Mitchell.....								
Montgomery.....					12			
Moore.....								
Nash.....								
New Hanover.....	17	525	12	15	a 41	600	27	25
Northampton.....	2	1,000	2	2	36	465	0	8
Onslow.....								
Orange.....								
Pamlico.....								

(a) Includes 7 in house of correction.

Condition of Jails and Poorhouses for February, 1887.

COUNTIES.	JAIL.				POORHOUSE.			
	Number prisoners confined.	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number which can read and write.	Number inmates in	Space allotted each. (In cubic feet)	Number giving evidence of successful vaccination.	Number which can read and write.
Pasquotank.....								
Pender.....					7			1
Perquimans.....								
Person.....					20	693	2	5
Pitt†.....								
Polk.....								
Randolph.....								
Richmond.....	3	3,215	0	0	13	1,522	6	3
Robeson.....	9	768			8	900		
Rockingham.....								
Rowan.....	3	2,450	0	0	33	1,200		
Rutherford.....	7	980			24	1,080		
Sampson†.....								
Stanly†.....								
Stokes.....								
Surry.....								
Swain.....	2	559		1				
Transylvania.....	0	0	0	0				
Tyrrell.....	1	1,100			3	1,100		
Union.....	5	2,000	0	3	15	3,000	0	5
Vance†.....								
Wake†.....								
Warren.....	3	1,460	0	0	13	1,676	0	2
Washington.....	4	950	0	0	5	1,200	2	2
Watauga.....	3				8			
Wayne†.....								
Wilkes.....								
Wilson†.....								
Yadkin.....								
Yancey.....	1							
Totals.....	215		46	68	611		117	129

Meteorological Report for February, 1887.

STATIONS.	TEMPERATURE.										NO. DAYS.					Prevailing wind.
	Mean Monthly.	Highest.	Date.	Lowest.	Date.	Range.	Mean daily range.	Greatest daily range.	Date.	Least daily range.	Date.	Clear.	Fair.	Cloudy.	On which rain fell, including hail, snow and sleet		Total rainfall, including hail, snow and sleet (in inches).
Smithville*																
Hatteras*																
Knoxville, Tenn	49.6	72.8	10	21.6	27	51.2	17.4	26.8	7.0	5	11	12	16	6.67	S. W.	
Charlotte.....	48.9	70.8	11	25.7	13	45.1	17.4	27.5	5.3	3	12	13	16	4.81	S. W.	
Fort Macon*																
Lynchburg, Va	43.7	72.2	11	20.0	14	52.2	18.7	29.1	5.5	2	12	14	11	3.51	S. W.	
Wake Forest.....	49.2	74.7	1	20.2	14	54.5							12	4.39	S. W.	
Kitty Hawk.....	50.6	75.4	11	29.1	28	46.2	34.5	12	5.9	1			10	4.08	N. E.	
Wilmington	54.7	75.0	9	27.2	14	47.8	19.1	31.3	7.1	23	8	11	9	1.61	S. W.	
Chapel Hill.....	48.1	79.0	1	22.0	14	57.0	20.8	36.0	6.0	21	8	3	17	4.62	S. W.	
Average.....	49.3	74.3		23.7		50.7	18.7	30.9	6.1	5	10	13	13	4.24	S. W.	

Barometer.

STATIONS.	MEAN.	HIGHEST.	DATE.	LOWEST.	DATE.	RANGE.
Smithville*						
Hatteras*						
Knoxville, (Tenn.).....	30.212	30.617	5	29.544	18	1.073
Charlotte.....	30.226	30.756	5	29.307	18	1.149
Fort Macon*.....						
Lynchburg, (Va.).....	30.218	30.823	5	29.496	11	1.327
Wake Forest.....	30.380	30.916	5	29.785	11	1.131
Kitty Hawk.....						
Wilmington.....	30.224	30.689	13	29.740	26	.949
Chapel Hill.....	30.323	30.853	5	29.726	18	1.127
Average.....	30.272	30.776		29.650		1.126

*No report.



